2010-04-01


Dorothy Stewart
Dublin Institute of Technology

Follow this and additional works at: http://arrow.dit.ie/builtdoc
Part of the Urban, Community and Regional Planning Commons

Recommended Citation

This Theses, Ph.D is brought to you for free and open access by the Built Environment at ARROW@DIT. It has been accepted for inclusion in Doctoral by an authorized administrator of ARROW@DIT. For more information, please contact yvonne.desmond@dit.ie, arrow.admin@dit.ie, brian.widdis@dit.ie.

This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 License
Dublin Institute of Technology
School of Real Estate and Construction Economics
Faculty of Built Environment

‘SMART GROWTH’: FROM RHETORIC TO REALITY
IN IRISH URBAN PLANNING 1997-2007

Dorothy Stewart, BSc, MSc

Submitted for PhD award April 2010

Vol. 1 of 1

Supervisors: Dr Lorcan Sirr and Professor Brian Norton
ABSTRACT

This research examines ‘Smart Growth’, a planning and governance concept with an alternative philosophical and methodological approach towards urban planning. The concept calls for greater integration between the economic, environmental and social aspects of planning and development. The principles of smart growth must be viewed as long-term objectives that take into account the well being of both present and future generations. Current planning policy and strategy in Ireland implicitly if not explicitly supports the concept of smart growth. The principal research question asks: Within the context of Irish planning policy and strategy: how can Ireland move from rhetoric to reality in the delivery of more smart growth development? Allied to this is how the long-term goals of smart growth can be reconciled with the short-term political goals of present-day systems of governance.

The main aims of the research were to gain a clear understanding of the forces of influence in planning and development processes, how those processes have evolved over time, the important role of theory and how globalisation has shaped an increasingly complex and uncertain society. A multi-method approach was adopted to include quantitative and qualitative data. Key outcomes from the research include: (i) urban development scenarios for the Greater Dublin Area (GDA) in 2025, (ii) an Irish smart growth toolkit to facilitate the implementation of policy and strategy and (iii) a candidate list of indicators to monitor, track and evaluate progress towards more sustainable urban development.

Evidence indicates that policy and strategy supports the principles of smart growth as a means to more even and environmentally responsible development, more so in theory than in practice. The need for a GDA regional authority which emerged as a theme throughout the study has been mooted at government level but not realised. This thesis demonstrates that sustainable solutions are possible. In addition, evidence presented suggests that there now exists sophisticated planning legislation that can be used as the
vehicle to effect implementation of policy and strategy in Ireland now and in the future alongside governance structures that are more conducive to participatory democracy.

Key words: Smart growth, economy, governance, urban planning, futures methods.
DECLARATION

I certify that this thesis which I now submit for examination for the award of PhD is entirely my own work and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my own work.

This thesis was prepared in accordance with the regulations for postgraduate study by research of the Dublin Institute of Technology and has not been submitted in whole or in part for an award in any other institute or University.

The work reported on in this thesis conforms to the principles and requirements of the institute’s guidelines for ethics in research.

The institute has permission to keep, to lend or to copy the thesis in whole or in part, on condition that any such use of the material of the thesis be duly acknowledged.

Signature __________________________________________ Date ____________

Candidate
Preface: Recent developments in Ireland

This research commenced in October 2002 and examines Ireland during a particular period in time – the ‘Celtic Tiger’ era from 1997 through to 2007. The Economic and Social Research Institute in 2009 stated that it is hard to overstate what a difficult year 2009 has been for the Irish economy and it is expected that the economy will contract by 10% on a GNP basis this year, or 7.25% in GDP terms. This follows a contraction of around 3% in 2008, in both GNP and GDP terms. At the end of 2007, the rate of unemployment in Ireland was 4.6% and at the end of 2009 it is 12.5% (ESRI, 2009). In a world of constant change at a local and regional level, there is a need (i) to adapt and evolve to the needs of society and (ii) for good planning and good governance. Although economic circumstances have changed in Ireland since 2007, there nonetheless remains a need for finding ways to develop in a sustainable manner.

Although economic growth has slowed down, the legacy of socio-economic and environmental challenges has not disappeared. The current economic slow-down is viewed as an opportunity to be more resource-conscious and, by innovation, to create more with less. It could be argued that the need to develop in a sustainable manner is independent of whether the economy is in growth, decline or stagnation. A paradox exists in that during times of economic slow-down there exists opportunities to grow in a more sustainable manner, whilst times of economic growth implies more people, and more people implies more consumption of food, more transport, more housing, more waste generation and increased pressure on services such as water and utilities.

The crucial attribute now required is vitality to embrace change, as nothing stays the same. The formidable challenge is to always seek to achieve sustainable development whilst economy and society is in a constant state of flux.
ACKNOWLEDGEMENTS

I would like to express my gratitude to Dr Ann Quinn who encouraged me to undertake research in the Futures Academy in the Dublin Institute of Technology. I would like to offer my thanks to the Dublin Institute of Technology for the financial support that facilitated the research. It is an honour for me to have met and worked with Professor John Ratcliffe, Brian Hughes and Phil Murray from the Futures Academy.

I would like to thank my lead supervisor Dr Lorcan Sirr who inspired and challenged me to hone and cultivate my thinking in many ways. Dr Sirr provided much needed constructive criticism and guidance to bring the work to a higher level. I would like to offer my deepest gratitude to Professor Brian Norton for his invaluable and constructive criticism and for his belief in my ability to bring the thesis to completion; words cannot express how much Professor Norton’s input has meant. I would like to express my deep gratitude to Emma Sherry who undertook the laborious task of proof reading the thesis in a most professional and thoughtful manner.

I am indebted to and blessed by my friends and colleagues whose unending, support, faith and belief in me inspired me to never give up. I want to thank Aodhan McFadden, Bill Murphy, Brendan Noonan, Dr Ela Krawczyk, Eithne Delaney, June Edwards, Julie Hartnett, Dr Helen Farrell, Ita and Connie Martin, Kieran Connolly, Dr Kirk Shanks, Dr Kirsten Foy, Lenka Mulligan, Lorcan McDermot, Linda Byrne, Linda McKeown, Martin Somers, Ronan Hogan, Patrick Sheils, Pauline McGinn, Peter Cahalane, Dr Ruth Kelly, Dr Sarah McCormack, Tadhg O’Mahony and Veronica O’Connor.

Finally, I would like to thank my beloved parents Margaret and Brian, who inspire me to tread lightly on this world, all my family members and Harry.
## LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>APA</td>
<td>American Planning Association</td>
</tr>
<tr>
<td>BMW</td>
<td>Border Midlands West</td>
</tr>
<tr>
<td>CDBs</td>
<td>City/County Development Board</td>
</tr>
<tr>
<td>CSO</td>
<td>Central Statistics Office</td>
</tr>
<tr>
<td>DoEHLG</td>
<td>Department of Environment Heritage and Local Government</td>
</tr>
<tr>
<td>DTI</td>
<td>Dublin Transport Initiative</td>
</tr>
<tr>
<td>DTO</td>
<td>Dublin Transportation Office</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>ESDP</td>
<td>European Spatial Development Perspective</td>
</tr>
<tr>
<td>ESRI</td>
<td>Economic and Social Research Institute</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>GDA</td>
<td>Greater Dublin Area</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>IAVI</td>
<td>Institute of Auctioneers and Valuers in Ireland</td>
</tr>
<tr>
<td>ICLEI</td>
<td>International Council for Local Environmental Initiatives</td>
</tr>
<tr>
<td>IFSC</td>
<td>International Financial Services Sector</td>
</tr>
<tr>
<td>ISEW</td>
<td>Index of Sustainable Economic Welfare</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>LA</td>
<td>Local Authority</td>
</tr>
<tr>
<td>LA21</td>
<td>Local Agenda 21</td>
</tr>
<tr>
<td>LAP</td>
<td>Local Area Plan</td>
</tr>
<tr>
<td>MITR</td>
<td>Mortgage Interest Tax Relief</td>
</tr>
<tr>
<td>NDP</td>
<td>National Development Plan</td>
</tr>
<tr>
<td>NESC</td>
<td>National Economic and Social Council</td>
</tr>
<tr>
<td>NGOs</td>
<td>Non Governmental Organisations</td>
</tr>
<tr>
<td>NIMBY</td>
<td>Not in my back yard</td>
</tr>
<tr>
<td>NSS</td>
<td>National Spatial Strategy</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>PDs</td>
<td>Progressive Democrats</td>
</tr>
<tr>
<td>QUANGO</td>
<td>Quasi Autonomous Non-Governmental Organisation</td>
</tr>
<tr>
<td>RICS</td>
<td>Royal Institute of Chartered Surveyors</td>
</tr>
<tr>
<td>RoI</td>
<td>Republic of Ireland</td>
</tr>
<tr>
<td>RPG</td>
<td>Regional Planning Guidelines</td>
</tr>
<tr>
<td>SCU</td>
<td>Statistical Consulting Unit</td>
</tr>
<tr>
<td>SGN</td>
<td>Smart Growth Network</td>
</tr>
<tr>
<td>SPCs</td>
<td>Strategic Policy Committees</td>
</tr>
<tr>
<td>SPGGDA</td>
<td>Strategic Planning Guidelines for the Greater Dublin Area</td>
</tr>
<tr>
<td>TOD</td>
<td>Transit-oriented design</td>
</tr>
<tr>
<td>UGB</td>
<td>Urban Growth Boundary</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>ULI</td>
<td>Urban Land Institute</td>
</tr>
<tr>
<td>UNCED</td>
<td>United Nation Conference on Environment and Development</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>WSSD</td>
<td>World Sustainable Development Summit</td>
</tr>
<tr>
<td>WWII</td>
<td>World War II</td>
</tr>
<tr>
<td>PPPs</td>
<td>Public Private Partnership</td>
</tr>
<tr>
<td>RAND</td>
<td>Research and Development Unit</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

Abstract .............................................................................................................................. i
Declaration ....................................................................................................................... iii
Recent Developments ....................................................................................................... iv
Acknowledgements ......................................................................................................... v
list of Abbreviations ......................................................................................................... vi
Table of Contents .............................................................................................................. viii
List of Figures .................................................................................................................... xv
List of Tables ..................................................................................................................... xvii

## Chapter 1 – Introduction: Background and Context of Study ......................... 1

1.1 Background and context of study ............................................................................. 1
1.2 The Concept of Sustainable Development ............................................................. 4
1.3 Spatial Organisation: Compact City versus Network City Model ......................... 7
1.4 Background Context for Ireland .............................................................................. 13
1.5 The Greater Dublin Area: City-State of the 21st Century? ..................................... 17
1.6 Research Questions ................................................................................................. 22
   1.6.1 Research Objectives ....................................................................................... 25
1.7 Research Methodology-Synopsis ............................................................................. 27
1.8 Thesis Chapters Overview ....................................................................................... 28

## Chapter 2 – The Planning Structure in Ireland: An Overview ....................... 33

2.1 Introduction .............................................................................................................. 33
2.2 Planning in Ireland: Significant Developments ..................................................... 34
2.3 Politics and Planning ............................................................................................... 43
   2.3.1 Neo-Liberalism: Implications for politics and planning in Ireland ................. 54
2.4 Planning at Local Level in Ireland ......................................................................... 56
   2.4.1 Public Participation in the planning process ................................................. 61
2.5 The Planning System in Ireland: An Overview ...................................................... 67
   2.5.1 The Development Plan ................................................................................. 67
## Table of Contents

2.5.2 Zoning: A Mechanism to Achieve Uniformity in Land-use Planning? ............70
2.5.3 Setting the Boundaries: Development Control ................................................73
2.5.4 Enforcement ..................................................................................................76

2.6 Regional Approaches to Planning in Ireland ....................................................78

2.7 Regional Planning and the Greater Dublin Area .................................................80
2.7.1 The Strategic Planning Guidelines for the Greater Dublin Area 1999 ..........83
2.7.2 The Revised Strategic Planning Guidelines 2002 ...........................................86

2.8 National Strategic Policy Developments: Significance for Planning in Ireland ...88
2.8.1 The National Development Plan .....................................................................89
2.8.2 The National Spatial Strategy .........................................................................91
2.8.2.1 NSS: Status on Implementation .................................................................98
2.8.3 Transport 21 ..................................................................................................102

2.9 Strengths and Weaknesses: A Critical Evaluation of the Planning Structure in Ireland ...............................................................................................................................................104

2.10 Synthesis .........................................................................................................108

Chapter 3 – The Concept of Smart Growth: an Alternative to Traditional Land Development? .................................................................................................................................110

3.1 Introduction .......................................................................................................110
3.2 Smart Growth: Theory and Practice .................................................................111
3.2.1 Key Principles of Smart Growth ..................................................................115
3.2.2 Evolution of the concept: influence from the past .......................................117
3.2.3 Social Theory of Smart Growth ..................................................................121
3.2.4 Smart Growth: An Opposing View ..............................................................124
3.3 Smart Growth Techniques ................................................................................128
3.3.1 Smart Growth Regulatory/Financial Initiatives ............................................129
3.4 Suburbanisation, Low-density Development, Urban sprawl: One Pattern of Development .................................................................................................................................134
3.4.1 Urban Sprawl: A Global Phenomenon with a Global Reach in Advanced Capitalist States ..........................................................................................................................137
3.4.2 Evolution of Urban Sprawl in the US ..............................................................144
3.5 Urban Development: The Irish Experience ......................................................... 146
  3.5.1 Decentralised development: the GDA experience ........................................ 147
  3.5.2 Policy development in Ireland and the housing crisis ................................. 151
3.6 Smart Growth within an Irish Context? ............................................................. 154
3.7 Synthesis ............................................................................................................ 159

Chapter 4: Methodology.......................................................................................... 163
  4.1 Introduction ....................................................................................................... 163
  4.2 The Research Process ....................................................................................... 164
    4.2.1 Primary and Secondary Data ..................................................................... 167
  4.3 Theory of Research Design ............................................................................. 167
    4.3.1 Quantitative and Qualitative Research Methods ....................................... 168
    4.3.2 Theory of Action Research ....................................................................... 172
    4.3.3 Triangulation and Crystallisation .............................................................. 173
  4.4 Comprehensive Survey as a Method of Data Collection ............................... 174
    4.4.1 Ethical Considerations in Survey Design ................................................ 175
    4.4.2 Sampling Methods .................................................................................... 177
    4.4.3 Sampling Error ......................................................................................... 180
    4.4.4 Pilot Test .................................................................................................. 180
    4.4.5 Ranking of Importance in Survey Design ................................................. 181
  4.5 Futures Methods and Techniques as a Method to Collect Data ...................... 182
    4.5.1 Horizon Scanning and Prospective through Scenarios ............................. 184
    4.5.2 Focus Groups and Futures Workshops as a Means to Collect Data .......... 190
    4.5.3 Strategic Conversations as a Means to Collect Data ................................... 191
  4.6 Design of this Research .................................................................................. 192
  4.7 Methods Adopted for this Research ............................................................... 193
    4.7.1 A Multi-method Approach ...................................................................... 194
  4.8 Method 1: Comprehensive Survey .................................................................. 196
    4.8.1 Sampling Method Employed .................................................................... 196
    4.8.2 Sampling Limitations and Significance for this Research ......................... 199
    4.8.3 Pilot Test of Smart Growth Survey ............................................................ 200
## Table of Contents

4.8.4 Smart Growth Survey February 2005 .......................................................... 201
4.8.5 Maximising Survey Response Rate ............................................................ 204
4.9 Method 2: Smart Growth Futures Workshops .................................................. 205
4.9.1 Smart Growth Futures Workshops Participants ......................................... 206
4.10 Method 3: Eight Strategic Conversations Conducted - 2005 ............................. 207
4.10.1 The Strategic Conversation Process ........................................................ 208
4.10.2 Profile of Strategic Conversation Interviewees .......................................... 209
4.11 Methods of Data Analysis and Presentation .................................................... 210
4.11.1 Analysis of Quantitative Data .................................................................... 211
4.11.2 Analysis of the qualitative data ................................................................. 213
4.11.3 Potential Sources of Error in Research Methods ........................................ 214
4.12 Synthesis ....................................................................................................... 215

### Chapter 5: Smart Growth Survey- Findings .................................................... 217

5.1 Introduction ..................................................................................................... 217
5.1.1 Sources of Error in Smart Growth Survey: Limitations Encountered .......... 217
5.1.2 Normality of Data ....................................................................................... 218
5.2 Steps Taken to Process Data from Smart Growth Survey ................................ 221
5.2.1 Response Rate of Smart Growth Survey .................................................... 221
5.3 Preliminary Data Findings of Smart Growth Survey ........................................ 221
5.3.1 Section 1: Profile of Survey Respondents: Questions A, B, C...................... 222
5.3.2 Section 1: Questions D to L – Findings and Analysis .................................. 224
5.3.3 Section 2: Findings from Questions 1 to 9 .................................................... 230
5.3.4 Section 3: Findings from Questions 10 to 29 .............................................. 239
5.4 Significance Tests ............................................................................................ 259
5.4.1 Significant tests findings Section 1 of survey .............................................. 259
5.4.2 Significant Tests Findings - Section 2 of Survey .......................................... 266
5.4.3 Significance Tests Findings: Section 3: Questions 10 to 27 ......................... 269
5.5 Synthesis ....................................................................................................... 271
Chapter 6: Futures Methods: Findings ................................................................. 273

6.1 Introduction ........................................................................................................ 273

6.1.1 Sources of Error from Futures Methods Adopted: Limitations Encountered 273

6.2 Smart Growth Futures Workshops: Workshop 1: Critique Phase .................... 274

6.2.1 Global and EU Issues and Trends Driving Change ...................................... 277

6.2.2 Greater Dublin Area Issues and Trends Driving Change ............................ 278

6.3 Smart Growth Futures Workshops: Workshop 2: Brainstorm ........................... 278

6.4 Smart Growth Futures Workshops: Workshop 3: The Fantasy Phase ............... 281

6.5 Smart Growth Futures Workshops: Workshop 4: Implementation Phase ......... 286

6.6 Key Outputs from Smart Growth Futures Workshops ..................................... 289

6.6.1 Scenario One: Utopia .................................................................................... 290

6.6.2 Scenario Two: Allotment and Garden City GDA ........................................ 291

6.6.3 Scenario Three: Winner Takes All ............................................................... 292

6.6.4 Irish Smart Growth Toolkit ........................................................................... 293

6.6.5 Candidate List of Sustainability Indicators ................................................... 298

6.7 Findings from Strategic Conversations ............................................................ 302

6.7.1 Summary of Strategic Conversations ........................................................... 304

6.7.1.1 Councillor Responses ............................................................................. 304

6.7.1.2 Manager of Nationwide Transport Association Responses ...................... 305

6.7.1.3 Planners Responses ............................................................................... 305

6.7.1.4 Property Developers Responses ............................................................ 306

6.7.1.5 Managing Director of Architecture Firm Responses ............................. 306

6.7.1.6 Manager of State Development Agency Responses .............................. 307

6.7.2 Strategic conversations key findings ............................................................. 307

6.7.2.1 Governance ............................................................................................ 307

6.7.2.2 Economy ............................................................................................... 309

6.7.2.3 Environment ........................................................................................... 310

6.7.2.4 Society .................................................................................................. 311

6.8 Synthesis .......................................................................................................... 312
### Table of Contents

**Chapter 7: Discussion** ........................................................................................................ 314

7.1 *Introduction* ..................................................................................................................... 314

7.2 *Synthesis of Multi-strategy Methods* .................................................................................. 316

7.3 *Discussion of Combined Findings* ...................................................................................... 317

7.3.1 Economic Growth as key driver of change ................................................................. 318

7.3.2 A Preference for Low-Density Development: Preserving the ‘Rural Idyll’.. 321

7.3.3 Support for Smart Growth in the Abstract?................................................................. 325

7.4 *Emerging themes from synthesis of research methods* .................................................. 331

7.4.1 Need for GDA Regional Authority ................................................................................. 331

7.4.2 Policy and Strategy: Rhetoric to Reality ......................................................................... 333

7.4.3 Political Obstacles to Planning and Development Process ........................................... 335

7.4.4 Futures Methods in the Future of Urban Planning? ...................................................... 337

7.4.5 Transport as a Recurring Theme ................................................................................ 339

7.4.6 Climate Change ............................................................................................................ 342

7.4.7 The key role of Property Developers ...................................................................... 344

7.4.8 Community Participation in the Planning Process ...................................................... 347

7.5 *Implications and Significance of Results* ......................................................................... 349

7.5.1 Irish Planning Policy ................................................................................................. 350

7.5.2 The Future of the GDA............................................................................................... 351

7.5.3 Sustainable Development in Ireland.......................................................................... 352

7.6 *Synthesis* ......................................................................................................................... 353

**Chapter 8: Conclusions and Recommendations** .......................................................... 355

8.1 *Introduction* ..................................................................................................................... 355

8.2 *Summary* ........................................................................................................................... 355

8.3 *Setting the Conclusions in the Context of the Role of Theory* ...................................... 358

8.4 *Overarching Thesis Conclusions* ................................................................................... 359

8.4.1 Planning policy and strategy in Ireland is more holistic and integrated.............. 360

8.4.2 Governance represents a fundamental element of sustainable urban development .................................................................................................................. 361

8.4.3 Economy is a Key Driver ........................................................................................... 363
Table of Contents

8.4.4 Transport is a Key Driver.................................................................364
8.4.5 A Property-Led Market Existed from 1997 to 2007 ....................365
8.4.6 Negative ‘Celtic Tiger’.................................................................365

8.5 Implications of Thesis Conclusions..................................................366

8.6 Recommendations............................................................................369
8.6.1 ‘Lead by Example’ Governance..................................................369
8.6.2 GDA Regional Authority .............................................................370
8.6.3 Facilitate Public Participation.......................................................371
8.6.4 Address Market Failures...............................................................372
8.6.5 The Smart Use of Incentives and Disincentives.............................375
8.6.6 Public-Private Partnership.............................................................377
8.6.7 Wind Tunnel Test Policy and Strategy..........................................378
8.6.8 Quantify some Less Tangible Issues............................................380

8.7 Smart Growth: The Planning Solution for Ireland?.........................382

8.8 Thesis Contribution........................................................................384

8.9 Final Thoughts and Future Research..............................................385

Bibliography.........................................................................................387

Appendices..........................................................................................406

Appendix 1 Copy of Smart Growth Survey February 2005..................406
Appendix 2 Significance Tests Results..................................................415
Appendix 3 SG Futures Workshops participant list................................423
Appendix 4 Global and EU Issues and Trends from Workshop 1.............424
Appendix 5 GDA Issues and Trends from Workshop 1..........................426
Appendix 6 GDA Issues and Trends Ranked.........................................439
Appendix 7 Scenario Narratives.............................................................430
Appendix 8 Completed Feedback Form from SG Futures Workshops.....445
Appendix 9 Quotes from Strategic Conversation Interviewees..........447

List of papers published by Dorothy Stewart, Faculty of Built Environment, Dublin Institute of Technology, Bolton Street, Dublin 1..............................453
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1.1</td>
<td>Greater Dublin Area 1914</td>
<td>18</td>
</tr>
<tr>
<td>Figure 1.2</td>
<td>Greater Dublin Area 2006</td>
<td>19</td>
</tr>
<tr>
<td>Figure 1.3</td>
<td>Urban/rural population in Ireland, 1926 and 2006</td>
<td>23</td>
</tr>
<tr>
<td>Figure 2.1</td>
<td>The functions of the Irish Planning System</td>
<td>35</td>
</tr>
<tr>
<td>Figure 2.2</td>
<td>National Spatial Strategy Gateways and Hubs</td>
<td>95</td>
</tr>
<tr>
<td>Figure 3.1</td>
<td>Conceptual Framework of Smart Growth</td>
<td>113</td>
</tr>
<tr>
<td>Figure 4.1</td>
<td>Non-Probability Sampling Strategies</td>
<td>179</td>
</tr>
<tr>
<td>Figure 4.2</td>
<td>Scenario Planning Process</td>
<td>188</td>
</tr>
<tr>
<td>Figure 4.2a</td>
<td>Scenario Planning Process Adapted by the Author</td>
<td>189</td>
</tr>
<tr>
<td>Figure 4.3</td>
<td>Flow chart of Research Methodology</td>
<td>193</td>
</tr>
<tr>
<td>Figure 5.1</td>
<td>Question a): Age Group of Survey Respondents</td>
<td>223</td>
</tr>
<tr>
<td>Figure 5.2</td>
<td>Question b): Qualification levels of Survey Respondents</td>
<td>223</td>
</tr>
<tr>
<td>Figure 5.3</td>
<td>Current and Ideal type of dwelling</td>
<td>227</td>
</tr>
<tr>
<td>Figure 5.4</td>
<td>I would chose to live in a mixed-use development</td>
<td>228</td>
</tr>
<tr>
<td>Figure 5.5</td>
<td>Actual and Ideal mode of transport to work</td>
<td>228</td>
</tr>
<tr>
<td>Figure 5.6</td>
<td>Congestion Charge to enter Dublin City Centre</td>
<td>229</td>
</tr>
<tr>
<td>Figure 5.7</td>
<td>Choice of where to live to have a better quality of life</td>
<td>232</td>
</tr>
<tr>
<td>Figure 5.8</td>
<td>Opinions on low-density peripheral growth in the GDA ‘1’</td>
<td>233</td>
</tr>
<tr>
<td>Figure 5.9</td>
<td>Opinions on low-density peripheral growth in the GDA ‘2’</td>
<td>234</td>
</tr>
<tr>
<td>Figure 5.10</td>
<td>Opinions on low-density peripheral growth in the GDA ‘3’</td>
<td>235</td>
</tr>
<tr>
<td>Figure 5.11</td>
<td>High-density in central urban developments</td>
<td>236</td>
</tr>
<tr>
<td>Figure 5.12</td>
<td>CPO by state of privately-owned land</td>
<td>237</td>
</tr>
<tr>
<td>Figure 5.13</td>
<td>There is a strong sense of community spirit in Irish society</td>
<td>240</td>
</tr>
<tr>
<td>Figure 5.14</td>
<td>Mixed-Use design would enhance community spirit</td>
<td>241</td>
</tr>
<tr>
<td>Figure 5.15</td>
<td>Structures in place to facilitate public participation</td>
<td>242</td>
</tr>
<tr>
<td>Figure 5.16</td>
<td>Public understanding of the planning process in Ireland</td>
<td>243</td>
</tr>
<tr>
<td>Figure 5.17</td>
<td>Local objection too frequently impedes mixed-use design</td>
<td>244</td>
</tr>
<tr>
<td>Figure 5.18</td>
<td>Irish tradition and culture favours low-density development</td>
<td>245</td>
</tr>
<tr>
<td>Figure 5.19</td>
<td>‘Brownfield’ sites should be developed before ‘Greenfield’ sites</td>
<td>246</td>
</tr>
</tbody>
</table>
Table of Contents

Figure 5.20 Development should only occur where transit routes are located ..........247
Figure 5.21 New communities are developed in a pedestrian friendly manner ..........248
Figure 5.22 Entry to Dublin city centre should be restricted by registration number . 249
Figure 5.23 Zoning is an impediment to mixed-use land-use ..................................250
Figure 5.24 Councillors Decisions regarding the zoning or rezoning of land ..........251
Figure 5.25 Current government spatial planning support for Smart Growth ..........252
Figure 5.26 The National Spatial Strategy is being fully implemented to date ..........253
Figure 5.27 The State does not adopt a regional approach in the GDA .................254
Figure 5.28 There is a need to decouple politics from planning .........................255
Figure 5.29 Property developers should pay ‘impact fees’ ....................................256
Figure 5.30 Strategic planning techniques- scenario planning ...............................257
Figure 5.31 Section 1, Question G .................................................................260
Figure 5.32 Section 1 Question G .................................................................260
Figure 5.33 Section 1, Question G .................................................................261
Figure 5.34 Section 1 Question G .................................................................261
Figure 5.35 Section 1, Question H .................................................................262
Figure 5.36 Section 1 Question I .................................................................262
Figure 5.37 Section 1 Question K .................................................................263
Figure 5.38 Section 1 Question I .................................................................263
Figure 5.39 Section 1 Question K .................................................................264
Figure 5.40 Section 1 Question J .................................................................265
Figure 5.41 Section 1 Question J .................................................................265
Figure 5.42 Section 1, Question J .................................................................266
Figure 5.43 Section 1 Question J .................................................................266
Figure 5.44 Section 2, Question 6 .................................................................268
Figure 5.45 Section 2, Question 6 .................................................................268
Figure 5.46 Section 2, Question 6 .................................................................268
Figure 5.47 Section 2, Question 6 .................................................................269
Figure 6.1 Issue and Trends Category Quadrants .............................................280
Figure 6.2 Dimensions of Uncertainty ............................................................285
Figure 6.3 Scenarios: Utopia, Allotment Garden City GDA and Winner Takes All ....289
LIST OF TABLES

Table 2.1 Political orientations in social theory ................................................................. 56
Table 2.2 Roles of Planning Authority and Public in Irish Planning ................................. 66
Table 2.3 Timetable for preparation of Guidelines ............................................................ 82
Table 3.1 Smart Growth Principles ................................................................................. 115
Table 3.2 Population increases in GDA ................................................................. 150
Table 4.1 Respondent type and quantity surveyed ....................................................... 198
Table 4.2 Strategies conversation interviewees .............................................................. 210
Table 4.3 Techniques for organising data for analysis ................................................ 212
Table 4.4 Data Analysis ............................................................................................... 212
Table 5.1 Survey Respondents’ County of Residence .................................................. 225
Table 5.2 Survey Respondents’ County of Employment .............................................. 226
Table 5.3 Factors that influence the purchase of a dwelling ........................................ 230
Table 5.4 Growth-related issues of importance to survey respondents ...................... 231
Table 5.5 Rated issues in locality ................................................................................ 237
Table 5.6 Importance in influencing planning decisions in Ireland .............................. 238
Table 5.7 Factors that drive current development patterns ........................................... 239
Table 5.8 Smart Growth within an Irish context ........................................................... 258
Table 5.9 Chi-Squared significance tests: Section 3: Questions 10-27 ......................... 270
Table 6.1 Scenario One: Utopia characteristics ............................................................ 290
Table 6.2 Allotment Garden City GDA characteristics ................................................ 291
Table 6.3 Scenario three: ‘Winner Takes All’ characteristics ....................................... 292
Table 6.4 Irish Smart Growth Toolkit ........................................................................... 295
Table 6.5 Candidate list of Indicators ......................................................................... 301
Table 7.1 Legend for Figures and Tables ..................................................................... 325
Table 7.2 Legend for Figures and Tables ..................................................................... 330
Table 7.3 Legend for Figures and Tables ..................................................................... 333
Table 7.4 Legend for Figures and Tables ..................................................................... 335
Table 7.5 Legend for Figures and Tables ..................................................................... 337
Table 7.6 Legend for Figures and Tables ................................................................. 339
Table 7.7 Legend for Figures and Tables ................................................................. 341
Table 7.8 Legend for Figures and Tables ................................................................. 344
Table 7.9 Legend for Figures and Tables ................................................................. 347
Table 7.10 Legend for Figure and Tables ................................................................. 349
Table 8.1 Research recommendations link with Smart Growth principles ........ 381
Table 8.2 Smart Growth principles for Ireland ....................................................... 383
CHAPTER 1 – INTRODUCTION:

BACKGROUND AND CONTEXT OF STUDY

1.1 Background and context of study

The forces of influence for planning and development in modern advanced capitalist societies are set within the context of sustainable development, a concept with more than three hundred definitions, the most well known is “Development that meets the need of the present without compromising the ability of future generations to meet their own needs” (Bruntland, 1987:8). The concept proposes development based on consumption and production patterns that do not degrade natural resources, that protect the environment, promote equitable sharing of well-being for all and alleviate poverty (Connelly, 2007). Two decades after the Bruntland Commission report Our Common Future emphasised the urgency of sustainable development, environmental degradation continues to threaten human well-being, endangering health, physical security, social cohesion and the ability to meet material needs (UNEP, 2007).

Urbanisation occurs when the rural character of a town is replaced gradually by housing and industrial developments with an increase in the proportion of people living in urban, or developed, areas compared to rural areas. This pattern of development is characterised by large-scale rural-urban migration and radial expansion of urban built-up areas (Byrne, 2003). Urbanisation is a global phenomenon affecting all countries and displaying many universal attributes (Bannon, 1991). However, the particular nature, spatial forms and social consequences of each specific urbanisation process reflect the
unique historical legacies and current conditions prevailing in a country or region. These conditions include the individual nation’s size, population, geography and cultural heritage, as well as its economy, socio-political attitudes and institutional structures. There is a general recognition that the 21st century will be the century of cities; cities are moving centre stage with both the commercial and cultural world increasingly characterised by cities rather than by countries (Florida, 2005). It is in cities that the future quality of people’s lives will be determined (Hall and Pfeiffer, 2000). The World Bank has posed the question: Is this a Problem or Opportunity? (World Bank, 2003); that is, does the current development paradigm of increased urbanisation represent a problem or an opportunity in social, economic and environmental terms?

This is the main question confronting the world’s urban planning experts as they grapple with a population shift from 47% urban in the year 2000 to more than 60% urban by 2030 (Ibid.). Such sustained rapid urban growth gives rise to serious forces of change: social, demographic, economic, environmental, technological and governmental, at a global scale.

In 2006, 75% of the European population lived in urban areas while still enjoying access to natural or semi-natural landscapes. Nonetheless, European cities were more compact in the mid 1950s than they are today and urban sprawl is now a common phenomenon throughout Europe (EEA, 2006). Though cities differ significantly, they usually share one particular common ambition in the context of sustainable urban
development: that of enhancing their economic competitiveness while at the same time reducing both social exclusion and environmental degradation. Cities of all sizes, locations and conditions in facing this dilemma share the need to develop new processes of decision-making to reconcile their quandary. In achieving such city sustainability there will be difficult trade-offs to negotiate and probably a new economic framework to construct (Ratcliffe, 2003).

The sprawling nature of Europe’s cities has major impacts that are evident in increased energy, land and soil consumption. These impacts threaten both the natural and rural environments, raising gas emissions that cause climate change and elevated air and noise pollution levels that often exceed the agreed human safety limits. The sprawling city’s major and severe environmental, social and economic impacts affect not only the city and its region but also the surrounding rural areas (EEA, 2006 and IPCC AR4, 2007).

Section 1.5 outlines the research questions addressed by this research. The principal research question addressed is: Within the context of Irish planning policy and strategy, how can Ireland move from rhetoric to reality in the delivery of more smart growth development? The Greater Dublin Area (GDA) of Dublin, Kildare, Meath and Wicklow as the main engine of growth in Ireland and home to 39% of the entire population represents a significant part of the study and is discussed in section 1.5. Whilst this study critically evaluates the concept of smart growth, it does not suggest that the concept offers the entire solution to effectively deal with current socio-economic and
environmental challenges. Instead the research provides an understanding of what the concept of smart growth potentially has to offer within an Irish context, and recommendations of what needs to be done to achieve this.

A possible solution to effect implementation of current policy and strategy, and one proposed in this research, is to tailor strategic smart growth ‘best practice’ tool kits that have been developed elsewhere to the Irish situation. The ultimate intention is to create an ‘Irish smart growth toolkit’. The tools created represent smart growth principles to aid implementation of policy and strategy in the Irish context and may be used by a range of land-use stakeholders as a means of achieving more sustainable land-use. For example, local authorities might adopt tools relating to more creative land-use zoning. Fiscal tools such as incentives for more brownfield and infill development may be of concern to public and private developers. Tools to facilitate greater public participation may be of more relevance to community stakeholders and local authorities, but may also be of great importance in developments where the project is being financed by a private investor.

1.2 The Concept of Sustainable Development

The industrial revolution of the 19th century transformed fundamentally production and consumption patterns for all societies involved. New technologies facilitated goods to be produced at a rate never witnessed before. Mass production led to mass consumption. People moved from the private small production centres of their own homes into the public sphere of the factory (Stewart, 2003). This metamorphosis had far reaching consequences from a social, economic and environmental perspective. In order to
sustain the industrial revolution, vast quantities of resources, energy and manpower were required. The inputs of resources were matched with outputs in the form of goods, but also in the form of waste that needed to be disposed of. Economic growth accelerated, as did population growth and the demand for evermore resources to meet the insatiable appetites of advanced capitalist societies (Ibid.).

In the 1970s, questions were being asked by those concerned about the earth’s carrying capacity in an environment that was dominated by vast resources being extracted from the earth and large amounts of waste products being put back into the earth in the form of air and water pollution (Carson, 1965; Lovins, 1977). The energy required for the production and manufacturing process came from coal and wood, again extracted from the earth’s resource bank. Another cause for concern was the growth in the use of nuclear energy. Could the earth replenish its stocks of resources naturally at a rate that would not endanger the earth’s ecosystem and ultimate survival? These issues were highlighted in the report ‘Limits to Growth’ (1972) presented to the Club of Rome\(^1\).

‘Limits to Growth’ shocked the world and forever changed the global agenda by demonstrating that unchecked growth on our finite planet was leading the earth towards ecological ‘overshoot’ and pending disaster (Meadows et al., 2004). The environment was placed at the forefront of the political agenda amid fears of a global catastrophe; for example, Fisher and Black (1995) discussed the fears and dangers of nuclear radiation. Redclift (1984) wrote about the need for a global political response to avert the environmental crisis, and the concept of sustainable development was born. Ratcliffe

\(^1\) The Club of Rome had a mission to act as a global catalyst of change free of any political, ideological or business interests.
and Stubbs (1996) suggest that sustainable development has evolved as a reaction to the
environmental degradation of the latter half of the 20th century, associated with the
depletion of non-renewable resources (fossil fuels, minerals, aggregates), erosion of the
ozone layer, pollution, and the warming of the earth’s atmosphere from carbon dioxide
production. During this period many societies witnessed a decline in the quality of
urban life, and consideration began to be given to societies seeking alternative
development patterns that would not compromise economic development.

According to Adams (1990), the historical thinking about sustainable development is
closely linked to the history of environmental concern and people’s attitudes to nature.
Concerns over biodiversity and species extinction were high on the agenda. The basis
for these concerns was founded on the belief that there would be a continual increase in
the world’s population in tandem with further industrialisation. It follows that the
original concerns that formed the foundation of the concept of sustainable development
were deeply rooted in nature conservation and preservation.

The main launching pad for the concept of sustainable development was the World
Common Future’. The WCED report of 1987 was followed by the United Nations
Conference on Environment and Development (UNCED) 1992, held in Rio de Janeiro,
Brazil. This conference set the stage for Agenda 21, a blueprint for sustainable
development into the 21st century discussed in section 2.4 of Chapter 2. Sustainable
development broadly defined as the process of continuously striving for dynamic
balance between: using and protecting the physical and natural environment and its resources; creating equitable and viable economic systems with an ethical basis; and acknowledging and guiding social and cultural systems and values towards greater equity, responsibility and human well-being (Ratcliffe, 2003).

Although the origins of sustainable development may be founded on concerns about environmental issues, there is evidence to suggest that the concept has widened its remit and become holistic in nature. From the 1990 ‘Green Paper on the Urban Environment’ to the adoption of the ‘Strategy for Sustainable Development’ in June 2001, the European Union reaffirmed that sustainability lies among the Communities’ policy priorities. The issues included in the Strategy were not solely environmental ones such as climate change and conservation of natural resources, but also public health, poverty and social exclusion, the implications of an ageing population, traffic congestion and the gap between rich and poor regions (Tregoning et al., 2002). The World Summit on Sustainable Development (WSSD), held in Johannesburg in 2002 as a ten year follow up on the 1992 UNCED Summit, is discussed in section 2.4. of Chapter 2. Sustainable development has been a fundamental objective of the European Union (EU) since 1997 (Connelly, 2007), enshrined through Article 2 of the Treaty of Amsterdam 1997. It is supposed to underpin all EU policies and actions as an overarching principle.

1.3 Spatial Organisation: Compact City versus Network City Model

Traditionally, two models of development have dominated planning, namely a decentrist and centrist approach (Jenks et al., 1995). The ‘compact city’ resides under
the pennon of centrist theory espoused by Jane Jacobs, and the ‘network city’ resides under the pennon of decentrist theory and the ‘garden city’ concept proposed by Ebenezer Howard. According to Ward (1994), the imperative of sustainable development was being actively incorporated in planning urban futures from the 1980s, most notably in the European Commission's Green Paper on the Urban Environment (1990). This included the highly controversial prescription of a ‘compact city’, running counter to the traditional garden city indicative of British urban planning policies. Breheny (1992), Blowers (1993) and Burton (2000) suggest that the ‘compact city’ concept in general is taken to mean a relatively high-density, mixed-use city based on an efficient public transport system and physical dimensions that encourage walking and cycling.

The compact city is being promoted in the UK and throughout Europe as a component of the strategy formed to tackle the socio-economic and environmental challenges associated with unsustainable development (Jenks et al. 1995 and Burton, 2000). The rationale for its implementation relies heavily on a set of strategic benefits, which are said to be the outcome of more compact urban forms. Benefits of the compact city include: conservation of countryside; less need to travel by car; reduced fuel emissions; better support for public transport, walking and cycling; better access to services and facilities; more efficient utility and infrastructure provision; and revitalisation and regeneration of inner urban areas. It could be argued that these advantages contribute to sustainable development objectives in its broadest sense, enabling social and economic sustainability as well as embracing environmental concerns. Nonetheless, although on
occasion there may be a desire to develop inner city urban areas, market realities of people’s desire not to live in the inner city must always be acknowledged.

In Chicago, US, while the federal budget substantially favours the central city in per capita spending, Persky and Kurban (2003) found this ‘pro-city’ bias has had relatively little effect in slowing the decentralisation of the metropolitan population. Sceptics have put forward a range of counter arguments to the compact city model, in particular given that the re-use of urban land might lead to a lack of urban green space, air pollution and an overcrowded environment. Guy and Marvin (2000) suggest a tendency to focus on the lead role of planning in developing a blueprint of the compact city and pay rather less attention to the social, economic and technical processes involved in shaping the feasibility of the concept. It is important to note that one of the main problems in advancing the debate is a lack of empirical evidence to support either claims or counter claims (Burton, 2000). Thomas and Cousins (1996:12) question the compact city in light of current economic trends, environmental objectives, aspirations to quality of life and political realities, and conclude that the compact city is “unsuccessful, undesirable and unworkable”. Gordon and Richardson (1997) state that a final problem in discussions of the compact city is the pejorative use of the term ‘urban sprawl’. It conjures up connotations of the general meaning of ‘sprawl’ as an un-aesthetic, lazy and undisciplined form of body expression.

The compact city in order to be successful must be economically viable, must be friendly to the environment and must enhance quality of life (Jenks et al. 1995). The
modern urban structure is a complex and diverse environment. It follows that it is difficult to quantify the merits attributable to the compact city model. The key caution is that the compact city, when divorced from social underpinnings, could result in social exclusion, where the core may become a compact city within a doughnut of decay (Ibid.).

In contrast to the compact city model, the low-density ‘network city’ is characterised by a system of economic and social networks independent of urban physical and administrative boundaries. According to Fishman (2002), by the 1920s an interrelated technology of decentralisation had begun to emerge, inexorably loosening the ties that once bound the urban functions of society to tightly defined cores. Ward (1994) and Castells (1996) associate the paradigm shift from Fordist mass production to post-Fordist lean specialisation, and flexible modes of production as one explanation for decentralisation and a restructuring of capitalism. Cities are developing into extensive webs of interaction, supported by fast transport and real-time communication networks. This evolution involves considering flows rather than zones, accessibility rather than proximity and stresses the increasingly borderless nature of contemporary cities. The revolution in information processing and telecommunications is accelerating the growth and dispersion of both economic activities and population, possibly moving towards the point where “geography is irrelevant” (Gordon and Richardson, 1997). It follows that the most competitive regions are those that are connected via virtual infrastructure facilitated by broadband technology.
The network city model is founded upon the relationship between urban size and function and whether or not there exists an optimal city size, a change in which would result in diseconomies of scale. The theory states that indivisibility and the synergy base of economies of scale in cities apply up to a certain urban size, after which diseconomies of scale apply due to congestion effects that decrease the average revenues of an urban location (Capello and Camagni, 2000). Moles et al. (2002) suggest that the most important theoretical novelty provided by the network city paradigm is the breaking of the link between urban size and urban function imposed by Central Place Theory, attributed to Christaller (1966). General theory on spatial and urban economics and Christallerian logic including Central Place Theory are based generally on the convention that settlement size and hierarchy is pyramidal in structure. Such tradition holds that the size of a settlement mirrors its hinterland and that ‘basic’ export activity determines the ‘non-basic’ domestic economy in recognisable ratios. In contrast, the network city exists of an intraurban equilibrium that can be reached through interurban system relationships. The urban policy aims of the network city are the achievement of cost benefit equilibrium through specialisation policies and/or network integration. According to Castells (1996), it is increasingly impossible for organisations, be they large corporations or small businesses, to survive if they are not part of a network.

When compared to the compact city model it is evident that the network city model is less hierarchical and less bureaucratic. Furthermore, Castells suggests that the network city results from the convergence of three independent processes, including: the information technology (IT) revolution; the restructuring of capitalism and statism in
the 1980s aimed at superseding their contradictions; and the cultural social movements of the 1960s and their 1970s aftermath, for example, feminism and ecologism.

The network city is at the heart of the concept of the polynuclear urban region (PUR) that has attracted growing interest in many European nations and regions. According to Turok and Bailey (2004), part of the stimulus has come from the European Spatial Development Perspective (EDSP) (1999) linked concerns for promoting regional competitiveness, cohesion and sustainability. Key themes include encouraging increased co-operation to develop complementary relationships and connections between cities and regions, and fostering greater co-ordination between economic, land use and transport policies within regions. The network city model results in a reduction in face-to-face communication. Duany et al. (2002:49) contend that “not only is a society healthier when its diverse members are in daily contact with one another, it is also more convenient”. Furthermore, Ewing (1997) states that there is a texture and subtlety to face-to-face exchanges that cannot be reproduced electronically. Universal access and distribution of the necessary infrastructure required for advanced communications must also be considered.

As with the compact city model, there is a distinct lack of critical analysis and empirical evidence to back up the claims or counter claims that relate to the advantages identified by advocates of the network city model. This view suggests that neither the compact nor the network city model provides a single solution to current spatial organisation.
1.4 Background Context for Ireland

In recent decades the Irish economy has been transformed from being agrarian and traditional manufacturing-based to one increasingly based on hi-tech and internationally traded services sectors. Ireland enjoyed the status of a ‘first world economy’ and experienced economic growth rates that averaged 8% per year between 1994 and 2001 with more modest growth rates between 4% and 6% from 2001 to 2007 (CSO, 2007). In 2005, the services sector in Ireland accounted for 66% of employment, industry for 28% and agriculture for 6% (ESRI, 2007).

The phrase 'Celtic Tiger' was coined by an American Investment bank, Morgan Stanley, in a report on the 31st August 1994. Within three years the term 'Celtic Tiger' was commonly used to describe Ireland’s phenomenal growth rate, which at times exceeded that of such East Asian 'tiger' economies as South Korea and Taiwan (Dudley-Edwards and Hourican, 2005). While undoubtedly Ireland in general terms changed for the better during the Celtic Tiger, the benefits were accompanied by a range of socio-economic, environmental and political problems. Business-friendly government, market-driven policies, low corporate and income taxation, low state spending on services, and widespread use of public-private partnerships facilitated Ireland to become one of the most neo-liberal countries in the world (Kitchin and Bartley, 2007). Although many would regard the past decade as a period when economic and social elements have combined in a virtuous cycle, there is a lingering question as to the extent to which we have improved lives now we are economically ‘better off’ (Ruane, 2007).
Prior to the economic recession that began in 2007, a drive through rural Ireland, past the endless ‘ribbon-developments’ of new housing, gave the impression that, like the cities, the rural economy was thriving. It is true that at this time there was wealth in the countryside, but this was new and often mobile wealth. New-build housing at this time predominantly accommodated commuters who were unable to afford to live nearer to their place of work or those who sought a certain lifestyle. In other cases, it constituted second homes for those that had prospered during the Celtic Tiger era and had disposable income to invest (Kitchin and Bartley, 2007).

It is important to note socio-economic and environmental problems are not simply being ignored by the Irish government, policy makers and citizens. Although the main thrust of Irish policy since the late 1950s has been towards promoting economic growth, substantial efforts to address other issues such as social equality and environmental sustainability have moved to the forefront of policy formulation and action in recent years, as is evident in the objectives of current policy and strategy discussed in Chapter 2. In many ways, the challenge for policy makers and implementers has been to try and work out how to address outstanding and problematic issues whilst not implementing interventions that might slow the economy and bring the good times to an end (Ibid.).

Economic growth in Ireland since the early 1990s brought many benefits, and to curtail that growth could have resulted in a reversal of fortunes and a return to the austere conditions of the 1980s, but nonetheless indelibly marked in the memories of many. The state in Ireland, in an attempt to maintain economic growth during the Celtic Tiger, may
have been reluctant to intervene. It is contended that the economic slow-down and the rapid change that has ensued since 2007 demonstrates that the fortunes of regions throughout an increasingly globalised world are inextricably linked and interrelated.

The global trend of increased urbanisation is also evident now in a once predominately rural Ireland and specifically the Greater Dublin Area (GDA), the subject area of this thesis. Allied to this are population increases both natural and from in-migration in place of a history of out-migration, changes in agricultural practices and reform of local government functions. Furthermore, changes in household formation, an increase in the number and type of dwellings and changes in tenure type have accompanied the demographic changes in Ireland. In the past decade Ireland has also witnessed a reduction in interest rates attributable to the European Monetary Union (EMU). It must be noted, however, that there has been an EU-wide increase in interest rates from 2007 to date.

Whilst Ireland benefited enormously from sustained economic growth over the previous years, from the mid-1990s through to 2007, there are a number of undesirable characteristics to the Celtic Tiger. Economic, environmental and social transformations in certain parts of Ireland have precipitated many challenges including: traffic congestion, urban sprawl, access to education, social exclusion, environmental degradation and a perceived lack of affordable housing. McDonough, in McDonald and Nix (2005), states that Ireland is locking itself into a car-dependent road/rail investment
imbalance. As Leyden states, “Car-oriented sprawl will ruin the social fabric of your
nation” (Leyden, 2001).

One third of Ireland's total housing stock was built between 1997 and 2007 to meet
unprecedented levels of demand generated by population and economic growth, as well
as changing patterns in migration and household formation (McDonald, 2005). However, a third of all new homes built in Ireland since the late 1990s are out of reach
of basic services such as shops, schools and sports facilities, except by car. This
potentially has serious long-term socio-economic and environmental implications. Huge
damage has been done to Irish society in the past decade that will not be undone for
many decades. The damage has been caused by the relatively unmanaged way in which
so many tens of thousands of small, often badly built housing units have been
constructed in the Dublin region during the past ten years (Keena, 2005). With
projections that the total number of homes in 2020 could be double the number recorded
in 1992, a countryside already blighted by haphazard housing will be compromised if
the proportion of one-offs continues to increase (McDonald, 2005).

Currently in Ireland, energy import dependency is 92% and compares with an average
EU figure of 65%. Energy-related carbon dioxide emissions during 2005 were 53%
higher than 1990 levels, the highest level since 2001. In addition, electricity
consumption grew by 5.6%, electricity imports increased by 30%, and peat
consumption increased by 35% (SEI, 2005). Transport energy growth was 8.2%, almost
3% above economic growth. Climate change is among the greatest challenges of our
time. The debate is no longer about whether climate change is happening; we now know that it is. The Stern Economic Review (2006) demonstrates the impact and socio-economic and environmental implications of unmanaged economic and demographic growth. The 2007 fourth review report by the Intergovernmental Panel on Climate Change (IPCC) reinforces our understanding of the scale of action required (Ahern, 2007). Section 1.5 presents the GDA as the main engine of economic growth in Ireland.

1.5 The Greater Dublin Area: City-State of the 21st Century?

In Ireland, the GDA as a gateway to the EU and an English-speaking nation, acts as a platform to the EU and beyond for the US. In 2007, with a population of 1.67 million people, the umbrella of the GDA covers the counties of Kildare, Meath and Wicklow. In 1914 the area of land identified as the GDA was considerably smaller and stretched from Howth to Dalkey and inland from Glasnevin and Ashtown to Dundrum (McManus, 2002).
Figure 1.1 Greater Dublin Area 1914 (Ordnance Survey Ireland, 2010)

Figure 1.1 outlines the GDA in 1914. When viewed alongside Figure 1.2 it is evident that the land coverage of the GDA in 2006 is demonstrably larger and continues to grow.
The GDA in 2008, as a larger, more diverse, and continually expanding region and home to 39.2% of the entire population of the state (CSO, 2006), presents more complex challenges for all actors within the planning and development process. Census 2006 shows that the fastest growing counties in Leinster in 2006 were Fingal with an increase of 22.1% on 2002, Meath with an increase of 21.4%, Kildare with an increase
of 13.5% and Wicklow showing an increase of 10.2% on 2002 (Ibid.). In addition to this is the projected increase to 2.2 million people within the GDA by 2021, an increase of 500,000 on current figures (Ibid.). The GDA is cited as worse case scenario and an example given by the EEA to other European countries of how not to plan (EEA, 2006). It has been argued that the statistics relating to actual development of the GDA belie national policy aspirations, as evident in the National Development Plans, and indicate that without coercive legislation and innovative measures, the current unsustainable expansion of Dublin and many other large towns and cities will continue (Williams, 2003).

In 2006 Dublin accounted for 47% of GDP of the entire state (OECD, 2006). A continuation in the growth of the GDA has resulted in an increase in the demand for housing and employment. This added consumption pressure has socio-economic and environmental implications. Research conducted by Hughes (2002) outlines Dublin’s pivotal role and the capital’s increasing sphere of influence. Hughes (2003) argues that, as a Global City and a potential ‘City State’, Dublin cannot, and should not, be treated just like any other region of the state, or indeed of Ireland as a whole. Hughes proposes that in order to maintain competitiveness on a global scale the reality of Dublin and the GDA’s position must be recognised and accepted, a view corroborated by the National Spatial Strategy (NSS) 2002-2020, the Regional Planning Guidelines (RPG) 2002, and the current National Development Plan (NDP) 2007-2013, all of which are discussed in detail in Chapter 2.
Increasingly, as the 21st century unfolds, the GDA assisted by economic globalisation will become the engine of the Irish economy, as is already evident in the measure of its increasing national share of gross value added and of job creation (Kitchin and Bartley, 2007).

Global economic growth is one of the most powerful drivers of urban sprawl in tandem with the development of information and communication technologies (EEA, 2006). As new forms of place identity emerge in response to intensifying globalisation, so new ‘results-oriented’ political/administrative arrangements, including single purpose agencies, quasi-autonomous non-governmental organisations (QUANGOs) and multi-sector partnerships, materialise as adaptive responses to competitiveness (Larragy and Bartley, 2007). Hughes (2003) asserts that in order to maintain competitiveness on a global scale the reality of Dublin and the GDA’s position must be recognised and accepted. Hughes has forecasted a GDA population of 1.93 million people by 2011, a figure in excess of government predictions of 1.65 million, as outlined in policy and strategy. The GDA represents the area most affected by unprecedented growth from 1994 to date. Hughes’s increase in population prediction is born out by the central statistics’ 2006 figure of 1.706 million (CSO, 2006).

The implications of a continuation in the growth of the GDA are an increase in the demand for housing and employment, which in turn has implications for added consumption pressure from an economical and environmental perspective. County Meath in particular saw a 58% increase in car ownership from the period of 1996-2002.
(CSO, 2004). The strong growth of the GDA is a result of the region’s role both within Ireland and as a European capital city. Consequently, the GDA will need to accommodate 403,000-480,000 additional inhabitants by the year 2020. Population growth and economic development, as well as house type and price are predicted to be the main drivers of land use change in the GDA during the coming decades (EEA, 2006).

A new Regional Authority for the GDA, which would prepare land use and transportation strategies and implementation plans and promote an integrated public transport system, has been mooted since 2001. However, Comhar\(^2\), the Government’s Sustainable Development Council, suggest that it is not yet clear how effective these measures will be in redressing current problems (Comhar, 2001). To date, January 2010, no such GDA authority exists.

1.6 Research Questions

By 2004, almost 80% of Europe’s population lived in cities; indeed the EU was cited as the most urbanised region in the world (World Bank, 2003). Ireland was no exception to this trend, and by 1991 60.7% of Ireland’s population could be classified as urban (CSO, 2006). Within the Irish urban milieu, Dublin clearly dominated. During the 20\(^{th}\) century, Dublin’s population grew rapidly, transforming it from a densely compact city to a sprawling ‘city region’, where the city’s influence spread into towns, villages and countryside well beyond the geographical boundaries of the GDA.

\(^2\) Founded in 1999 as a forum for national consultation and dialogue on all issues relating to sustainable development,
Figure 1.3 Urban/rural population in Ireland, 1926 and 2006 (CSO, 2006).

Despite the fact that since the mid-1960s over half of the Irish population have lived in urban areas, it is only in the 1990s that Ireland had begun to formulate and to implement genuine urban policies. In the past in Ireland, rural values took precedence and little was done to tackle the growing social, economic and environmental problems of dereliction and decay in inner cities, the problems of socio-economic exclusion and marginalisation in some suburban areas. It was only in the mid-1990s that Ireland started adopting comprehensive spatial planning, the aim of which was to find new ways of creating critical mass in declining towns and cities and develop new types of urban-rural partnerships.

Ireland has one of the most centralised systems of governance in Europe. For the last 25 years, the two largest and traditionally rural-based political parties in Ireland have been losing their share of overall voting percentages at each election. In less than 10 years urban agendas will dominate politics in Ireland. These large political parties will need to
rethink their approach to local and national governance in order to survive in this changing society (Skehan and Sirr, 2008). Changing values, combined with increased urbanisation and a larger population mostly concentrated in the area around Dublin and four other cities, also have profound political implications (Ibid.). Current planning policy and strategy in Ireland implicitly, if not explicitly, supports the concept of smart growth in terms of achieving local and global sustainability within the urban environment. This means that although the term ‘smart growth’ is not used in current Irish planning policy and strategy, the principles that underpin the concept are identified in current Irish planning policy and strategy as a means to achieve more sustainable development.

Whilst this implicit if not explicit support exists, persistent and continuing socio-economic and environmental challenges suggest that certain factors appear to deflect policy intentions from policy outcomes. This research explores the complexities within the current land-use system in Ireland, particularly in light of recent changes in land-use policy, reform of the functions of local government, and a recent move towards greater participatory democracy in Ireland. The key question that must be addressed is how the long-term goals of smart growth can be reconciled with the short-term political goals of present day systems of governance. As part of the European Union Sixth Environment Action Programme, the EU Commission has posed four key questions in relation to urban planning:

1. What is ‘best practice’?

2. Why isn’t every urban area using best practice techniques?
3. What can be done to overcome these problems?


Questions 2 and 3 are considered of particular relevance to this research project. Implicit in question 2 is that best practice techniques are being achieved in some areas, but not, however, in every EU urban area. This is a fundamental point of this study; this thesis is not presenting a view that there is no evidence of best practice. There are a number of examples of development where achieving best practice is a fundamental principle. This being said, this study is more concerned with socio-economic and environmental challenges in the GDA, the driving forces that drive these challenges and how, if in any way, the concept of smart growth could be applied in the mitigation of current challenges. The unsustainable development evident in the GDA region suggests a deflection in policy and strategy intentions from policy outcomes. Achieving the principles of smart growth must be viewed as a long-term objective, taking into account the well-being of both present and future generations.

1.6.1 Research Objectives

Several directly or indirectly related economic, environmental, political and social issues set the ‘problematic’ or overall question for this research. Critical to acknowledge from the outset is the subjective nature of this research. The context within which this research is set is the concept of smart growth, and this concepts links with the broader concept of sustainable development. Allied to this is the context of urban development.
in the 21st century as outlined in the introduction of the thesis. Given the complexity and scale of the entire planning and development discipline, this research is broad in its scope. In order that the research is rigorous and robust the following objectives have been set:

1. Critically evaluate theoretical approaches to urban planning and the role of the state within the context of planning in capitalist societies.

2. Analyse the relationship between planning policy and planning practice in Ireland.

3. Conduct a review of the concept of smart growth: origins, purposes, philosophical and epistemological foundations and methods.

4. Ascertained the attitudes and opinions of a sample of individuals from statutory and non-statutory sectors towards the continuing evolution of the planning and development process in Ireland and more specifically the Greater Dublin Area.

5. Create urban development Scenarios for the Greater Dublin Area in 2025 using Futures methods and techniques.

6. Identify a candidate list of sustainability indicators to monitor, track and evaluate progress towards sustainable urban development.

7. Develop an “Irish smart growth toolkit”.

The objectives listed above are underpinned by the need for a holistic, integrated, multi-sectoral and multi-disciplinary approach, elements it is proposed that are fundamental to the ability to accommodate growth in a manner that is economically viable and socially and environmentally responsible.
As a contribution to knowledge this research offers new and significant insights to town planning, sustainable development and related policy implementation in Ireland. The research generates three types of new knowledge: GDA scenarios, a ‘Smart Growth toolkit’ and a candidate list of sustainability indicators. The research proposes new techniques to enable Ireland to move from rhetoric to reality in the delivery of more smart growth development.

1.7 Research Methodology-Synopsis

To ensure that the research process for this thesis is robust, much consideration has been given to the separate but related stages of research design, identification of research objectives, data collection, data analysis methods, presentation of results, conclusions to be drawn and recommendations for further research.

To deal effectively with the broad scope of the study, the research proposes the use of traditional quantitative methods alongside the use of qualitative Futures methods. The use of this combined approach is seen as a means to advance the objectives of the research in a broader way than if either a quantitative or qualitative approach alone had been adopted, and has stimulated debate in a multi-strategic manner that covers multiple sectors and disciplines. The debate is underpinned by epistemological and ontological considerations and this is discussed in greater detail in Chapter 4. With this in mind, the research has crossed academic boundaries, and draws on literature from economics, geography, planning, politics, sociology, and environmental management and conservation.
1.8 Thesis Chapters Overview

Chapter 1, as the introduction to the thesis, provides the background and context within which the study takes place. This chapter provides a map of the direction the thesis takes, giving an overview of the current situation in a more resource-conscious 21st century that sees cities moving centre-stage, and the implications of this. This is followed by an examination of the GDA as the main area of study. The compact city and network city as two models of spatial organisation are examined in Chapter 1 as alternative means to effect more efficient land-use patterns.

Chapter 1 then presents the research question and objectives of the thesis, and the final section provides an overview of all Chapters. Whilst the introduction presents a view that there has been unsustainable development in the GDA, this is not to be interpreted as condemnation of low-density development, a model of development in Ireland that continues to be the choice of many. An appreciation of the themes of economy and governance represent a fundamental thread that weaves through the entire thesis.

Chapter 2 follows on from the scope and nature of the study discussed in Chapter 1 and outlines the origin, evolution and critical evaluation of planning structure in Ireland. This is achieved via secondary research in the form of documentary sources to identify key themes, issues and trends that appear to drive the current development paradigm. The themes that emerge through the literature review highlight the significance and importance of the role of politics in shaping and influencing planning policy and
strategy in Ireland. Planning policy strategy and legislation are also considered, along with the status of implementation of current policy and strategy. A link is made between planning ideology in the past and present political climate in Ireland. This, it is argued by the author, provides a more clear understanding of the structural constraints and the governance system in Ireland. The significance of this serves to shed more light within the context of current socio-economic and environmental challenges in the GDA.

Chapter 3 presents a critical evaluation of the concept of smart growth as an alternative methodological and philosophical approach to urban development. Whilst the grass roots of the smart growth movement are to be found in the United States (US), smart growth as a planning and governance concept is characterised by principles which endeavour to offer solutions to socio-economic and environmental challenges of global proportions. The theory that underpins the concept of smart growth is also considered. In presenting a critique of smart growth the chapter aims to identify if the concept of smart growth has something, if anything, to offer within an Irish context in dealing effectively with the negative socio-economic and environmental challenges that are evident in Ireland.

The methodology adopted for the research is discussed in detail in Chapter 4. The research rationale and justification of the chosen methods is considered to ensure the methods chosen are robust, credible and appropriate to advance the aims and objectives of the research in an effective manner. The epistemological foundations of the methodological framework adopted for the research are discussed in detail. Given that
the research adopts a multi-method approach that combines both quantitative and qualitative data collection methods, the chapter presents a critique on the merits and demerits within the context of individual sociological perspectives. The process of triangulation and the more broad process of crystallisation as vehicles to counter researcher bias and validate data collected are considered. The chapter provides a detailed outline of traditional quantitative methods and the less traditional and more qualitative Futures methods identified as the most appropriate data collection methods. The choice of methods is viewed within project time and resource constraints alongside any limitations encountered in the sampling process. The data collection methods adopted for the research, including a quantitative comprehensive survey, Futures workshops and strategic conversations, are presented.

Chapter 5 presents the primary data findings from the quantitative data collection method. Firstly, the techniques used to organise data are outlined. The way in which the intangible raw data collected via the smart growth survey is transformed into tangible information is outlined. The chapter is presented in sections that outline findings which correspond with the individual questions asked in the three sections of the smart growth survey. Findings of individual questions are presented in a chronological format using illustrative graphs and tables. A selected number of significance tests conducted on the findings are presented, the aim of which is to identify if any relationship exists between how respondents answered individual survey questions.
Chapter 6 presents the primary data findings from the qualitative data collection methods. The Futures methods, whilst qualitative in nature, provided quantitative outcomes, the sustainability indicators and the strategies that make up the Irish smart growth toolkit and three scenarios for the GDA in 2025. The smart growth Futures workshops are presented in a report style format. This is followed by the presentation of the three scenarios created by the workshop participants. The mechanisms identified by the workshop participants as a means to facilitate the implementation of policy and strategy, and which inform the smart growth toolkit, are then presented. The chapter continues with a description of the indicator development, selection and categorisation. The creation of scenarios for the GDA in 2025, an Irish smart growth toolkit and the identification of a candidate list of sustainability indicators imply a practical and tangible outcome of the research. It follows that such tangible outcomes may be of use to a wide range of actors, both statutory and non-statutory, within the planning and development process as a means to effect more sustainable development.

Chapter 7 brings together the findings outlined in Chapters 5 and 6. It presents recurring themes and any commonalities apparent when the primary and secondary data are combined and considered within the context of the multi-method approach adopted for the research, to include documentary research, and from the quantitative and qualitative data collection methods. Whilst a number of overlapping themes and issues emerged through the three methods adopted, any differences in the data are also presented.

Chapter 8 presents a summary of the research, outlines the manner in which the research
questions were answered, and describes how the individual objectives were realised. Conclusions that emerge from the study are presented. A list of recommendations as a potential means to enable Ireland to meet its local, national and global commitments to achieve sustainable development are presented. This is followed by the role, if any, of smart growth within the context of planning and development in the future in Ireland. The thesis contribution to knowledge is also presented.
2.1 Introduction

Since 1922, Ireland’s comparatively undeveloped economy and relatively unspoilt environment have meant that implementation of planning legislation has posed relatively little difficulty. However, Ireland's exceptional rate of economic development during the Celtic Tiger, alongside significant population growth, in-migration and a rapidly accelerating process of suburbanisation presents unprecedented challenges for planning professionals. Indeed, the emphasis on sustainable development, coupled with its increasing importance in international and national policies, has propagated additional challenges with planners now required to accommodate development in a manner that is economically viable and socially and environmentally responsible.

The initial focus of this chapter is on the origin and evolution of the planning system in Ireland, including an overview of the bodies vested with the authority to drive policy formation. This chapter provides a reference source and information base which is intended to inform understanding and evaluation of the legislative foundations of the planning system and how it is influenced by the political climate. Given the breadth, complexity and diversity of existing legislation, only the most significant developments are reviewed.
2.2 Planning in Ireland: Significant Developments

Planning in Ireland has traditionally been dominated by short-term, present-focused and locally based decisions about space (Scannell, 1995). The most significant piece of local government legislation, following the establishment of the Irish Free State in 1922, was the Local Government Act of 1925. Section 3 of the Act abolished rural district councils and transferred their powers and duties to the county councils. Physical planning as carried out under the Local Government (Planning and Development) Acts, 1963-2002, is therefore primarily a matter for Local Authorities (LAs). Local Authorities are bodies charged with the provision of specified services and functions. They also have primary responsibility for certain financial and administrative functions within defined areas of the Republic of Ireland (RoI). These bodies were, until 2001, county councils, corporations of county and other boroughs, urban district councils and boards of town commissioners. A major programme of local government reform began in 2002 and is discussed later in this section.

Physical planning in Ireland formally commenced with the enactment of the Town and Regional Planning Act, 1934. This Act, closely modelled on the British Town and Regional Planning Act, 1932, introduced a coherent system of positive and regulatory planning based on the preparation by the planning authority within each local authority of a planning scheme (the precursor to the development plan), which was to govern future development. Of note however is that the provisions of the 1934 Act were not mandatory. Under the provisions each local authority had the autonomy to decide whether or not to become a planning authority. Additionally, this Act contained no
provisions setting out the content of the ‘Planning Scheme’, a legal document prepared by LAs that sets out policy and requirement for use, development and protection of land, and which consists of a written document and any maps and plans it refers to; it was left entirely up to individual local authorities as to what would be included in the Planning Scheme for their functional area. The three main functions of the Irish planning system as depicted by Bartley (2000) are shown in Figure 2.1.
Figure 2.1 provides a clear flow diagram of the functions of the Irish Planning System. The fundamental aim of the Town and Regional Planning (Amendment) Act 1939 was to reduce rigidity and increase the flexibility of the planning scheme procedure that was evident in the Town and Regional Planning Act, 1934. Nonetheless, few authorities passed the necessary resolution to give planning powers to ensure the development of Planning Schemes. As a predominately rural economy, the power to influence in the mid-1940s, post-WWII Ireland was in the hands of rural politicians, with limited commitment to the solution of urban issues and problems.

This situation was in contrast to the British commitment to a detailed form of planning and control of both urban and rural issues at a national, regional and local level (Nowlan, 1988). The difference in approach is also evident in the time taken to adopt the new planning legislation in Ireland.

In 1952, only 17 of the 27 county councils had adopted the Planning Acts of 1934 and 1939. In fact, by 1962, three counties still had not done so. This could have reflected development pressures and how complicated the planning system was to operate (Grist, 1999). At this time in Ireland there was a lack of experience and expertise in planning and development procedures. An attempt to simplify the system is evident in the 1957 Draft Dublin Planning Scheme. The country was, until the 1960s, highly rural with mainly small domestic self-supporting industries. It had yet to face industrialisation, which inevitably posed extensive problems due to the lack of planning and proper infrastructure (Torbjorn, 2004).
By the early 1960s, the existing urban planning system in Ireland was increasingly regarded as unworkable and even detrimental to development; development that arguably was much needed to facilitate economic growth in Ireland. Yet Ireland's changing socio-economic conditions, particularly the growth of development pressures resulting from industrialisation, rapid urbanisation and population expansion, were making an effective planning system essential (MacLaren, 1993).

As a result, the Irish Government accepted assistance from the United Nations (UN) and the World Bank to address the problem, and the subsequent publication of the Abrams Report in 1960 led to the enactment of the Local Government (Planning and Development) Act in 1963 (Bartley, 2001). This 1963 Act was informed by the British Town and County Planning Act 1962. It represented a legislative watershed and formed the foundation for modern urban planning in Ireland (MacLaren, 1993). It is important to note, however, that whilst the structure of the Irish legal system and political-administrative machinery of local authorities were inherited from Britain, Irish planning did not completely mimic its British counterpart (Bartley, 2007). The British planning model at this time, characterised as managerial in nature, being managed by unelected New Town Corporations, was also viewed as being undemocratic.

The Irish system instead allocated all of the new planning functions to the local authorities and provided channels for consultation at all stages of the planning process. The ‘technical’ and ‘managerial’ aspects of planning in Ireland were subordinated to the ‘political’ aspects (Bartley, 2007). Since the implementation of the 1963 Act, the
activities of planners and the issues with which they are faced have expanded and changed, principally in the areas of socio-economic development and environmental protection.

Development is defined under section 3 (1) of the 1963 Act as “the carrying out of any works, on, in or under land or the making of any material change in the use of any structures or other land”. The Local Government Planning and Development Act 1963 obliged each LA to prepare a development plan within three years of the commencement of the Act (the development plan is explained in detail in section 2.5.1). A procedure is laid down for placing the draft of the development plan on public exhibition for at least three months. Any objections made to the draft plan must be taken into consideration. The central principle of the planning system is that permission is required in respect of the development of land. Development undertaken by the State and LAs in the interests of the common good is exempt from the same level of public scrutiny as development proposed for private benefit (Callanan, 2003).

Development (Strategic Infrastructure) Act, 2006 made significant changes to the way strategic infrastructure developments are determined within the planning system.

Strategic infrastructure development represents development that is of strategic economic or social importance to the State or a region. It also includes development that can advance NSS and RPG objectives in an effective and time-efficient manner. Types of development deemed of strategic importance include: major gas pipelines and their associated terminals, buildings and installations; high voltage (110kv or more) electricity transmission lines and interconnectors; motorways and other major roads; and development by or on behalf of a local authority on the foreshore. In addition are railway works including light rail and metro systems and certain associated commercial development on adjacent land; and compulsory acquisition of land associated with certain of the above developments.

The Local Government Planning and Development Act, 2000 repealed and updated the previous Local Government Planning and Development Acts and introduced a strategic dimension for the first time into the planning system. Notably, provisions were made for Regional Planning Guidelines (discussed in section 2.6) that would provide a framework within which county/city and other development plans will be formulated. Operationally, the 2000 Act functions on twin levels: it provides for the making and implementation of schemes regulating land-use (development plans, special amenity area orders, local area plans (LAPS), landscape protection areas, special amenity areas) in a general way; it also prohibits the development of land uses unless it is authorised and carried out under, and
in accordance with, the permission or licence of the appropriate planning authority and/or An Bord Pleanála (the Planning Appeals Board).

When the planning system was first established in 1963, appeals were made directly to the Minister of the Environment, but allegations of undue political influence during the 1960s and 1970s led to the establishment of an independent planning board, An Bord Pleanála\(^3\), in 1976 (Ellis 2002:443). Ireland is unique among other European countries in having a Planning Appeals Board. This factor may be of significance in relation to the time it takes for a planning application to go through the planning process in Ireland compared to countries that do not operate an appeals process. An Bord Pleanála has powers to decide any planning appeal both for and against planning permission the objective of which is to remove political interference from any contentious planning (Ellis, 2001). The appeals board provides an arbitration forum in which any decision made by a planning authority on a planning application can be reviewed at the request of the applicant or any other interested party (Bartley, 2007).

An Bord Pleanála consists of a chairman and eight ordinary members, all of whom are full-time, salaried office holders. The Chairman is appointed by the Government, for a term of seven years, from three names put forward by a selection committee, the composition of which is set out in the 1983 Planning Act. Seven of the eight ordinary

---

3 An Bord Pleanála was established by the Local Government Planning and Development Act, 1976 to determine appeals, references and other matters under the Planning Acts and appeals under the Local Government (Water Pollution) Acts, 1977-90, the Air Pollution Act, 1987 and the Building Control Act, 1990 (Grist, 1999). Moreover, the two levels of operation are linked, in that development and other more specific land-use plans are the blueprints for development in the area of each planning authority (Scannell, 2006).
members are appointed by the Minister for the Environment from nominations received from various cultural, academic and commercial organisations in the field of planning and development. Ordinary members are normally appointed for five years, but their term of office can be shorter at the Minister’s discretion.

A further development proposed and adopted in Part IX of the Planning and Development Act, 2000 was the establishment of Strategic Development Zones (SDZs), adopted to streamline and to speed up the planning process. The purpose for which this designation was originally intended, as set out in the 1999 Planning and Development Bill, was to allow a streamlined planning process to operate on specific sites, selected by the government for reasons of strategic importance to the national economy, in order to facilitate inward investment by internationally mobile companies.

During the passage of the Bill through the Dáil, however, part IX was amended to include designation of SDZs for residential development, and the first three sites designated in June 2001 were all for housing purposes (Grist, 2003). Certain developments, such as Adamstown in Lucan, Co. Dublin, were fast-tracked through the planning process in an attempt to achieve a better balance between supply and demand, especially in the Dublin region.

In acknowledgement of the need for a more integrated, holistic and long-term approach to planning and development, the word ‘sustainable’ now precedes the word development throughout the entire 2000 Act. Fundamentally, sustainable development addresses three major concerns:
a) The need to arrest environmental degradation and ecological imbalance;

b) The need to avoid impoverishment of future generations; and

c) The need for equity in the quality of life among present-day populations (Redclift, 1987).

This change is of great significance in Ireland, as issues regarding sustainability are receiving more attention at a local and national level than was the case in previous planning legislation. The emergence of a holistic approach to planning is also connected to the political economy of contemporary cities in which quality of life has become a factor of competitive advantage in the ongoing struggle to attract mobile capital (Healey, 1997; Crofts, 1998). Indeed, prior to the introduction of the 2000 Act, the integration of environmental considerations into the planning system in Ireland rapidly gained impetus driven by, *inter alia*, the Environmental Action Programmes; the EU Directive on Environmental Impact Assessment 85/337/EEC and Directive 97/11/EEC amending Article 4 of the 1985 Directive; and the establishment of the Irish Environmental Protection Agency under the EPA Act 1992.

A further development at national level was the publication of *A Government of Renewal* (Fine Gael, 1994:8) which pledged more sustainable development through “the integration of environmental considerations into all aspects of development policy and action so that our natural and cultural heritage will continue to be available to future generations”. This report highlights an increased commitment on behalf of the then Irish government to find ways to accommodate growth in a more environmentally responsible manner. The significance of this is that at this time the Irish government
recognised the importance of environmental considerations alongside a more long-term approach to planning and development. This was in contrast to more short-term focused motivations of planning and development policy up to that time.

Of further significance is the Local Government (Planning and Development) Act 2000, which has the fundamental objectives of ensuring that the planning system of the 21st century in Ireland would: (a) be strategic in approach, (b) have an ethos of sustainable development, and (c) deliver a performance of the highest quality. Planning, therefore, has a strong political dimension because it involves strategic decision-making about using resources and directing and controlling change to achieve sustainable development for current and future generations. It would be useful at this stage, therefore, to examine the political context for planning in Ireland and institutional roles and responsibilities in relation to planning and development.

### 2.3 Politics and Planning

The current phase of economic and physical planning policy in Ireland is characterised as entrepreneurial in nature and coincides with the latest pressures of globalisation and trends of intensified competition between places (Bartley, 2007). Ireland has been a parliamentary democracy since 1921, when it regained independence from Britain. Currently there are two political jurisdictions on the island of Ireland: one in the six counties that represent Northern Ireland and one in the remaining 26 counties in the Republic or South of Ireland. Ireland has a dual political system comprising two levels
of government, central and local. The executive power of the State is exercised by and under the authority of central government. The government formulates policies, promotes legislation and directs the different departments in their work (Torbjorn, 2004).

The planning system in Ireland has been described as responsive and flexible in nature, and these features have enabled it to respond appropriately to the country’s changing economic circumstances. Since the mid-1990s we have seen a move towards an integrated approach to long-term planning in Ireland in tandem with a more pro-active, entrepreneurial spirit approach to planning at a local level.

Increasingly, planning activity is conceptualised not as a functionalist notion of ‘the regulation of land-use’ but as the holistic notion of managing the land-use demands of society’s collective activities in space (Healey, 1997). As planning acts as a distributor of real well-being, it becomes imbued with political significance. It follows that the conception of the role of the state in a capitalist society will inevitably determine one’s understanding of the role of planners themselves, either as technical operatives implementing democratic decisions, as managers and bureaucrats with ideals and goals of their own making, as social reformers effecting marginal redistributions in favour of the less well-off, or as functionaries of the local state whose actions favour dominant classes or interests, giving legitimacy to outcomes which are intensely unequal.

Central government consists of a National Parliament (Oireachtas) which is made up of three elements, the Dáil Éireann (elected House of Representatives), the President (elected) and the Seanad Éireann (the Senate, members nominated and elected by various bodies). Their functions and powers derive from the Constitution of Ireland, which is the basic law of the State, enacted on 1st July 1937.
(MacLaran, 1993). Roche (1993) discusses the growth in interest groups in Ireland and that the planning system is susceptible to the demands of too many interest groups.

It could be argued that there exists an incompatible link between the short-term political system, where expedience in delivering political promises is imperative to securing re-election, and the overall long-term objectives of sustainable and balanced national and regional development. Short-term priorities expressed in clear operational terms frequently gain overriding emphasis (Seabrooke et al., 2004). The proportional representation by the single transferable vote (PR-STV) electoral system used in the Republic of Ireland allows for a particularly localised style of voting, where voters may express high preferences for candidates local to their area, without the risk that their votes will be ‘wasted’ if these candidates have little prospect of success.

The PR-STV electoral system allows for candidates’ surplus votes to be proportionally distributed between the remaining candidates once the required quota has been reached. The process allows for a particularly localised style of voting, where voters may express high preferences for candidates local to their area, without the risk that their votes will be ‘wasted’ if these candidates have little prospect of success.

---

5 The proportional representation by the single transferable vote (PR-STV) allows voters to rank-order candidates when casting their ballots, with the range of preferences limited only by the number of candidates. Another key element of the Irish electoral system is its use of multi-member constituencies, with between three and five candidates elected in general election constituencies, and between three and seven candidates elected in local election contests (Kavanagh, 2007). The PR-STV electoral system allows for candidates’ surplus votes to be proportionally distributed between the remaining candidates once the required quota has been reached. This phenomenon is known as ‘friends and neighbours’ effect, where candidates win their largest percentage of votes in areas surrounding their home base, or ‘bailiwick’, and their support levels decline the further one moves from this bailiwick, amounting to distance-decay effect (Seabrooke et al., 2004)
The ‘friends and neighbours’ effect associated with the use of the PR-STV system in Ireland means that politicians are more compelled to fulfil voter expectations in order to maintain their share of the party vote. This has a number of consequences: candidates from the same party will compete with each other for support from the same pool of votes; small parties tend to rely on strong candidates in certain constituencies if they are to win any seats; and parties can ask their supporters to transfer votes to other, preferred parties (O’Malley, 2007).

The electoral and party system forces politicians to provide constituency services which the politicians might not otherwise provide; it is in the politician's interest to provide that service, the actual efficacy of politicians' interventions on behalf of constituents being a side issue; the politician's goal is simply that people prefer them over their own party rivals. Collins and O’Shea (2003) have labelled this process ‘clientelism’. Ireland’s political system has shown the ability to incorporate significant pressure groups through corporatist arrangements by which tangible benefits are received by ‘privileged’ interests. Individual citizens also seek to gain advantage or overcome disadvantage via privileged access through the intervention of their local representatives. MacLaran (2003) stated that planners have also frequently come under pressure from local authority councillors and members of the Dáil, lobbying on behalf of constituents. This, is of significance in the distribution of public goods and services where individual sectors within society gain advantage based on the ability and power to influence the political process at the expense of less influential sectors in society.
Chapter 2 – The Planning Structure in Ireland: An Overview

The incompatible link that exists between politics and planning has been the topic of much debate. For example, the 1991 local elections in Dublin witnessed the breaking of the conservative Fianna Fáil party’s control over Dublin Corporation (the former administrative authority for most of the outer suburbs and rural fringe), attributed in major part to the role which the councillors had played in the rezoning of green-belt areas (MacLaran, 1993). The planning debate in Ireland has been the focus of much attention, and it could be reasoned that there is a need for politics to be decoupled from the planning process, especially in light of evidence of irregularities in the planning and development system under investigation from 1997 until 2008 by the Mahon (formerly Flood) Tribunal.

At the heart of the Mahon Tribunal (Mahon Tribunal, 1997) is that politicians received payments from property developers to re-zone lower value agricultural land to higher value residential development land. By its nature the Irish electoral and political system makes councillors particularly vulnerable to local demands. Komito (1983), Collins and O’Shea (2003), and Bartley and Kavanagh (2007) argue that councillors in Ireland may find themselves more dependent on the support of individual party activists and potential campaign supporters than on the votes of community groups, with a result that may not be in the best interests of the community as a whole.

McGuirk and MacLaran (2001) argue that the fact that planning departments lack spending powers severely hampers what can be achieved, as planners have to rely on

---

6 The Tribunal of Enquiry into Certain Planning Matters and Payments was established to investigate allegations of corrupt payments to politicians regarding political decisions. Of particular interest are planning permissions and land re-zonings issues in the 1990s in the Dublin County area.
the private sector and the coordination of other local authority spending departments for the execution of plans. As Local Authorities depend on revenue from industrial rates, it follows that competition exists between individual Local Authorities who seek advantage in their own locality. This is in conflict with the principles of regional planning. This is of particular significance when there is a finite amount of resources to be distributed by central government for any region, for example the GDA region with seven Local Authorities.

Local Authority Councillors, as elected officials, have deemed themselves to be victims of the Irish political system and voter expectations with regard to the rezoning of land (Komito, 1983; Collins and O’Shea, 2003). Therefore, the issue of rezoning is more related to politics than planning. To this end, there is an immediate incompatibility between the desires of councillors to be re-elected in the short-term, alongside achieving sustainable development -- a concept with a long-term horizon. McGuirk and MacLaran (2001) propose that the basis of contemporary Irish urban planning lies in land-use zoning and development control. This is particularly significant if one considers the political dimensions where there is scope and desire for gain, be it political or financial; this, in fact, is what led to the Mahon Tribunal of enquiry (Mahon Tribunal, 1997).

Within the context of the Irish planning system, Williams and Sheils (2002), state that existing arrangements involving the sharing of administrative and executive powers over several layers of central and local government is overly bureaucratic, creating
overlapping responsibilities, often characterised by competing or conflicting interests and an inadequate implementation capacity.

Since the late 1980s, Ireland has become a veritable laboratory for experimentation with new governance arrangements both within and beyond government systems. In pursuit of competitive, place-based, economic development, a greater emphasis is placed on the importance of integrating increasingly complex and diffuse fields of policy without compromising competitiveness. This sphere of political action has expanded beyond the realm of traditional government politics and bureaucracy to encompass a broader range of stakeholder or interest groups. New bargaining systems and new forms of collaboration in which the role of the main stakeholder (state, market and community sector representatives) has been redefined have accompanied this trend.

In particular, the traditional role and functions of the state sector have reoriented away from bureaucratic structures and inertia towards a new managerial ethos that embraces more pro-active, market-responsive and user-oriented forms of governance (Larragy and Bartley, 2007). The problems of local councillors having effective control over their professional officers and retaining the right to take policy decisions themselves, in practice as well as in rhetoric, has been the subject of much comment and concern. One example of this is in Section 140 of the Local Government Planning and Development Act, 2000, where a councillor can vote to overturn a planning official’s advice (Department of the Environment and Local Government (DoELG, 2000).
It is also relevant to other local government departments, but the problem is particularly acute in the sphere of land-use planning due to the complexity of the subject matter and the technical language and abstract diagrams which are used to express policy statements and to present proposals (MacLaran and Williams, 2003). As long as politics is coupled with planning there is scope for competition between individuals motivated by the desire to gain advantage and maximise profit. This is particularly true during the Celtic Tiger era driven by a pro-growth agenda. World banks cannot acknowledge limits to growth because growth is seen as a solution to poverty (Daly, 1996).

The pursuit of profit is arguably an intrinsic feature of modern advanced capitalist states; nonetheless, negative socio-economic and environmental outcomes attributable to unfettered economic growth have the potential to destabilise future economic growth and consequently Ireland’s current and future competitive advantage (Bartley, 2007).

The publication in 1997 by the DoELG of the report *Sustainable Development: A Strategy for Ireland* (1997) and the subsequent focus on sustainable development in the Planning and Development Act, 2000 (DoELG, 2000), where the word ‘development’ is preceded by the word ‘sustainable’ throughout the entire Act, has strongly influenced the policy background of new local authority structures. To date, however, it is not a central part of their brief, with only some Local Authorities having successfully developed Local Agenda 21 plans (DoELG, 2001).

Furthermore, a general lack of linkage of environmental, economic and social issues has to some extent diminished the interest of politicians, and has led to sustainable development being identified primarily with environmental issues (Comhar, 2001).
need for joined-up thinking and consensus on solutions has long been identified as necessary in Ireland (MacLaran, 1993). McDonald and Nix (2005) argue that selective rezonings of land make a mockery of the local area plan’s commitment to sustainable development and also undermine the NSS as a means to achieve more even development. What is clear is that the planning system in Ireland is inextricably linked with political influence with both negative and positive consequences and there yet exists many challenges and opportunities to fully integrate the principles of sustainable development to promote a more balanced, democratic and fairer system. The way planning is structured and implemented varies from country to country and the context provided by the legal and political systems of each country influences the exact nature of planning as it is experienced in each setting (Bartley, 2007).

Planning at national or central level is mainly the responsibility of the DoEHLG and An Bord Pleanála. However, other departments also have a role to play, most notably the Department of Communications, Marine and Natural Resources, the Department of Community, Rural and Gaeltacht Affairs, the Department of Enterprise, Trade and Employment and the Department of Arts, Sport and Tourism. As the main overseer of planning in Ireland, the DoEHLG is responsible for framing planning legislation and for devising a national planning framework.

A positive development has been the publication of the National Development Plans (NDPs), which are regarded as examples of flexible and responsive planning tools (Centre for Environment and Planning, 2000). There have been five NDPs, starting in
1989, 1996, 2000, and 2007. The NDPs represent the principal national instruments which set out the long-term objectives that inform the planning system in Ireland and are discussed in greater detail in section 2.8.1.

The publication of the NDPs 1989-1993 and 1994-1999 meet many of the textbook criteria of a planning strategy, not exclusively in terms of physical planning but also economic and social development (van der Kamp, 1996). The European Strategic Development Perspective (ESDP) was published in 1999, the main aim of which is to maintain the individual characteristics of the various countries within the EU while simultaneously increasing the integration between the member states, socially and economically with the protection of the environment as a core element. The DoEHLG in response to the ESDP published the National Spatial Strategy (NSS) in 2002 (see section 2.8), which included as one of its chief objectives the need to identify and recommend appropriate spatial policies at a strategic level which, if implemented, will enhance the prospects for a sustainable environment across Ireland as a whole (NSS, 2002).

The ESDP places much emphasis on the importance of co-operation between different tiers of government, from local to regional through to community level. In particular, dynamic cities are viewed as the motors of wider, regional economic development in an increasingly competitive environment (Kitchin and Bartley, 2007). The NSS provides an overall framework for planning in Ireland. Plans at regional and local level (i.e. Development Plans (section 2.5.1)) must have regard to its overall objectives. National
planning strategies and development plans will be discussed in section 2.8.1 and 2.8.2 as these are distinct from the planning ‘system’, which if robust enough should be able to accommodate a variety of strategic approaches. The planning system is the framework within which the national plans operate and are implemented.

In 1994, eight regional authorities were established with a specific mandate to promote coordination of LA responsibilities at a regional level. The members of the authorities are county or city councillors from the region appointed by their constituent county or city authorities. The authorities have responsibility for developing and implementing Regional Planning Guidelines (RPGs) to support strategies for regional development. According to Layder (1998), regional authorities could provide an opportunity to adopt an integrated and strategic approach to regional development. However, the statutory powers of regional authorities are limited (they are more assemblies than authorities). Nevertheless, a specific role has been given to these authorities: they have the task of reviewing development plans within their respective regions and ensuring consistency between them.

Since the publication of the NSS in 2002 the RPGs have been adopted by each regional authority, which provides regional-level frameworks for promoting the NSS objectives. Thus there is now in place for the first time an integrated hierarchical framework to promote an integrated approach to development, which aspires to be sustainable in respect of its economic, social and environmental dimensions (Walsh, 2007).
Further progress in the pursuit of more balanced regional development in Ireland is evident in detailed long-term land use and transportation studies that have been completed for Cork and Galway. There has been an assessment of the challenges and potential associated with developing the Atlantic Corridor linking each of the major gateways outside Dublin completed by the DoEHLG in 2006. Transport 21, in theory and in aspirational terms, represents a long-term national transport plan for Ireland (Department of Transport, 2006). The regional initiatives discussed here suggest that progress has been made, in theory, to date in relation to regional development in Ireland. Nonetheless, moving from aspiration to meaningful implementation depends upon a more pro-active approach to the development of regional policy in Ireland.

Walsh (2007) proposes the development of a consistent implementation strategy with appropriate resources, political commitment, training for key actors and ongoing research into the underlying dynamics of the spatial aspects of economic and social development in a state that is uniquely open, and, therefore, in constant need of being vigilant about its position (location) in the international space economy. Achieving this goal represents a fundamental challenge in the current era of globalisation where the fortunes of regions are inextricably linked, but where there is uneven development with an uneven distribution of the resources and wherewithal between regions.

2.3.1 Neo-Liberalism: Implications for politics and planning in Ireland

Neo-liberalism emerged in Ireland in the 1980s as part of the philosophy of a newly-emergent political party, the Progressive Democrats (PDs). This neo-liberal or ‘neo-
laissez-faire’ approach sees no merits in state policies supportive of collective bargaining or dialogue with interest groups. Indeed, neo-liberalism’s major defining feature is an insistence that only the freest possible operation of labour markets will ensure macro-economically benign industrial relation outcomes.

Neo-liberalism thus demands the systematic elimination by government of influences believed to impede the free market. Neo-liberalism is underpinned by right-wing political thinking (Roche and Cradden, 2003). The pace of economic growth during the Celtic Tiger era coincided with the growth of neo-liberalism of the then and now current Fianna Fáil leadership. The Fianna Fáil party has been in government for 18 out of the last 21 years and is characterised as being underpinned by a centre right-wing political ideology. In May 2007 the Green Party won six seats and entered government for the first time since the party was founded in 1986.

The current government in 2010 is characterised as a rainbow coalition comprised of the majority Fianna Fáil, the Green Party, and the independents. The Green Party arguably advocate a more leftist ideology with issues that relate to environment and society fundamental to the Green Party mandate. Green Party members John Gormley and Eamon Ryan are now charged with responsibility for two ministries, environment and energy respectively. Brian Lenihan of Fianna Fáil is the current Minister for Finance. Although the Green Party ministries are significant in advancing the concept of sustainable development, they must be viewed within the context of the Fianna Fáil
Minister for Finance role and the importance of economic viability in advancing the concept of sustainable development.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Left</th>
<th>Third Way</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attitude towards change</strong></td>
<td>Radical (promotes) change</td>
<td>Compromise</td>
<td>Conservative (preserves social status quo)</td>
</tr>
<tr>
<td><strong>Approach to social justice</strong></td>
<td>Egalitarian (needs)</td>
<td>Compromise</td>
<td>Inegalitarian (status + dessert)</td>
</tr>
<tr>
<td><strong>Attitude towards state</strong></td>
<td>Statist/collectivist/ Interventionist</td>
<td>Compromise</td>
<td>Anti-statist/ Anti-collectivist</td>
</tr>
<tr>
<td><strong>Attitude towards human nature</strong></td>
<td>Humans are Co-operative and Altruistic</td>
<td>Compromise</td>
<td>Humans are selfish and Individualistic</td>
</tr>
<tr>
<td><strong>Theorists</strong></td>
<td>Karl Marx</td>
<td>Anthony Giddens</td>
<td>Max Weber</td>
</tr>
</tbody>
</table>

Table 2.1 Political orientations in social theory (Alcock et al 2000:92)

2.4 Planning at Local Level in Ireland

Planning in Ireland is principally a function of local government under the Local Government (Planning and Development) Acts, 1963-2006. Local government in Ireland, as executive agencies with elected boards in the absence of a constitutional basis, derive power and function from central government and report to the Minister for Environment, Heritage and Local Government, and are considered to have authority in their local areas with regard to planning and development. Implementation of the legislation and the provision of services is under the remit of local government in Ireland; however, local government power in Ireland is limited in comparison to other European countries. The application of the subsidiarity principle, intended to ensure that
decisions are taken as closely as possible to the citizen, led to widespread devolution of functions in many Western European countries during the 1970s and 1980s, with Ireland and the UK being notable exceptions (Callanan, 2003).

Until 1978, Local Authorities in Ireland were largely financed by income from rates on domestic dwellings and industrial premises. In that year, domestic dwellings were de-rated and the loss of income to Local Authorities was made good by direct subvention from the central exchequer. This resulted in Local Authorities being securely controlled by central government (MacLaren, 1993). A planning authority is under a general duty to secure the objectives of the development plan. More specifically, under S.15 of the Local Government Planning and Development Act, 2000, ‘it shall be the duty of a planning authority to take such steps within its powers as may be necessary for securing the objectives of the development plan’.

The reality is, however, that the successful implementation of a development plan depends to a large extent on private sector investment and on government funding; matters over which a planning authority exercises little control (Simons, 2004). The provision of information on and promoting public awareness of the environment is within the remit of Local Authorities; however, this role is now shared with the Environmental Protection Agency (EPA) established in 1993. The EPA provides support for the public and private sector by the promotion of environmentally sound practices and through its environmental regulatory services (Maguire et al, 1999). It publishes reports and documents providing guidance and advice and information for the
public and private sector on a range of issues, from licence applications to implementing technical standards and key environmental performance indicators. Furthermore, the EPA monitors and oversees LA functions that relate to the environment.

The 1996 blueprint for local government reform, *Better Local Government: A Programme for Change*, re-asserted the link between local government and local democracy, by stating that Local Authorities are the only bodies outside the Dáil whose members are democratically elected by all of the people (DoELG, 1996). This gives local government a status, which distinguishes it from all other agencies, public, private or voluntary. In July 1999, the 20th Amendment to the Irish constitution recognised the role of local government for the first time in a process of reform for better local government.

One of the principal objectives of reform of local government is to encourage more co-working of representative democracy alongside participatory democracy. To this end, City/County Development Boards (CDB) were established in Ireland to bring together the key agencies in different areas (DoELG, 2001). Two relevant principles were:

a) Enhancing local democracy – ensuring local communities and their representatives have a real say in the delivery of the full range of public services locally; and,

b) Developing efficiency – through development of partnership between Local Authorities and other local organisations (Irish Co-ordinating Group of
Key agencies are drawn from the local government sector, the local development sector, community groups, state agencies and the social partners. The function of the CDBs is the design of a city/countrywide strategy for economic, social and cultural development. In each case, the CDBs are supported through the creation of a Community Forum. The relevance of the CDBs is the role they occupy in enabling everyone in the community to put forward their opinions in relation to the operation and implementation of policy.

New governance structures represent a framework to further advance ‘New Regionalism’. New regionalism as a concept emerged in the 1980s and is characterised by governance that is about establishing vision and goals and setting policy to achieve them. In contrast, ‘Old Regionalism’ from the 1880s to the 1980s was basically characterised by government, and specifically about how to insert a new layer in the hierarchy of state-local relations (Scott, 2007). In theory local governance structures may usefully be defined as being horizontal in character as opposed to the more vertical character of the old regionalism model.

Mullally (2002) sees the CDBs as representing a move to integrate the local development and local government systems in Ireland. Another refinement to the local government system in 2000 was the introduction of Strategic Policy Committees (SPCs). Again, this represents a significant departure from the way local authority business had been carried out traditionally. The role of the SPCs is to prepare the groundwork for policies such as waste, water, planning and roads that will then be
decided on by County or City Councils. The main objective is that SPCs will provide policy-centred committees which can harness the experience of relevant external bodies to renew and revitalise local government. They are also intended to enhance the overall role of councillors by providing a platform for an input in the policy formulation process at an early stage for effective monitoring of existing policies, and for policy review.

The SPC systems have the scope to enhance capacity for involvement in policy formulation, review and evaluation, with inbuilt assistance of relevant sectoral interests and the support of a Director of Services (DoELG, 2001). SPCs ensure that there is a clear relationship between the policy process of the local authority, the County/City Development Board and the national policy framework in the National Spatial Strategy. The SPCs and the CDBs both espouse a participatory approach by local people and this represents the crux of Local Agenda 21 (now Local Action 21 post-Johannesburg Summit 2002) (Mullally, 2002).

Notwithstanding recent changes in Ireland, and the move towards a more regional approach to planning, it should be noted that physical planning is predominantly a local function principally administered by the 88 local planning authorities: this can be broken down into 29 County Councils, 5 City Councils and 49 Town Councils. The functions of all Local Authorities are divided into eight programme groups: housing and building, road transportation and safety, water supply and sewerage, development incentives and control, environmental protection, recreation and amenity, agriculture,
education, health and welfare, and miscellaneous services. Irish Local Authorities derive their powers and functions from Acts of the Oireachtas and must exercise them in an efficient and effective manner.

Under the Irish Local Authority Management System, functions are identified as ‘reserved functions’ and ‘executive functions’. Under this system, reserved functions may be executed by elected representatives, while executive functions must be discharged by a County or City Manager or by some other official to whom this function has been delegated (County Management Act, 1940). Day-to-day planning decisions on individual applications are an executive function (responsibility of the manager) while the adoption of Development Plans is a reserved function (responsibility of local elected members). The planning system in Ireland primarily consists of (Table 2.2) the preparation of a Development Plan, Development Control (i.e. the planning application process) and Enforcement (Scannell, 2003).

2.4.1 Public Participation in the planning process

There are three main opportunities for the public to become involved in the planning process: submitting comments during the formulation of a development plan, making observations when the local planning authority is considering a planning application, and, making a third party appeal (Ellis, 2002). The United Nations Conference on Environment and Development (UNCED) in 1992 was held to raise awareness throughout the developed and developing world about growing concerns on environmental matters. The conference outlined the need to adopt a global plan of
action on ways to achieve economic, social and environmental sustainable development in the 21st century (Grubb et al., 1993). Agenda 21 was ratified at the Summit and represents a global action plan and the blueprint document to facilitate achieving sustainable development in the 21st century. Its basis was agreed during the ‘Earth Summit’ at Rio in 1992 and signed by 179 Heads of State and Government. At Rio an undertaking was given that local councils would produce individual local area plans – a Local Agenda 21. Agenda 21 embraces not just environmental protection but also economic development and social cohesion; public participation is also dealt with. Fundamentally, Agenda 21 is designed to:

a) Provide a framework for discussion on sustainable development;

b) Introduce the need for holistic approaches and integrative strategies;

c) Strengthen the principles of participation and partnership;

d) Highlight the importance of quality of life, holistic human development and respect for ecosystems; and

e) Advocate action within the interconnected social, environmental and economic spheres (Dooris, 1999).

An agreement was made by attendees of the UNCED conference in 1992 that individual local authorities would produce individual Local Agenda (Action) 21 (LA21) plans as a means to translate the objectives of Agenda 21 to local conditions. To reflect the ethos of the subsidiarity principle this would involve consulting with the community, because it is the people in the area who have the local knowledge needed to make sensible decisions for their future.
LA21 is a process designed to facilitate sustainable development at community level. It is an approach based on participation that respects the social, cultural, economic and environmental needs of the present and future citizens of a community. Any LA21 project, therefore, must take into account the long-term well-being and quality of life of the entire community, include a high level of participation at local level, giving particular attention to participation by minority or under-represented groups, and present an integrated vision of how the other aspects of community life will be affected (DoELG, 2001). The World Summit on Sustainable Development (WSSD) held in Johannesburg in 2002 as a ten year follow-up on the 1992 UNCED Summit, witnessed the transition of Local Agenda 21 to Local Action 21. This measure to move from agenda to action aimed to ensure an accelerated implementation of sustainable development and an imperative to translate rhetoric into reality (Ellis et al, 2004).

Local Action 21 emphasises the importance of public participation and advocates more effective democratic involvement emerging from the Agenda 21 argument that only if ordinary members of the community are consulted in decision-making structures may the outcomes of those processes be effectively adopted and understood at local or regional level (MacNaghten and Jacobs, 1997). Public participation may facilitate a process that has more meaning and can empower people to shape and influence their future regarding the issues that really matter to them. Greater public participation in planning and development indicates a shift towards more participatory and representative democracy, compounding the view that the approach to planning and
development in Ireland is being transformed. It is important to note, however, that whilst there have been significant changes within governance structures to engender a more participatory approach within the planning and development process, it does not necessarily follow that there is effective and meaningful participation.

Critics of public participation in planning have argued that in the absence of recognition of inequalities in access to economic, cultural and political resources, pluralist participation serves to merely impose on communities the technical and scientific rationality characterising the practice of planning (Gleeson and Low, 2000). In addition, in contemporary capitalist systems characterised by an absence of ‘economic democracy’, marked by considerable inequality in economic power over material resources and the means of living, the imagined ‘political democracy’ of pluralism may justifiably be regarded as a fiction (MacLaran and McGuirk, 2003).

The effectiveness on the ground at a community level in Ireland of CDBs, SPCs and LA21 initiatives that attempt to ensure the planning and development process is more transparent will only become apparent in the coming years. It is important to note also, that issues of public apathy towards involvement in planning represents one of the reasons for a lack of public involvement. The Local Government Act, 2001, introduced a range of reforms to enhance the fundamental democratic nature of local government by enhancing the role of the elected member, supporting community involvement with Local Authorities in a more participative local democracy, and modernising local government legislation. The Local Government Act, 2001, in repealing and replacing
statutory provisions relating to local government, made consequential amendments to the planning code (Scannell, 2003, 2006). It modernised and simplified the law relating to local government, in particular repealing a series of statutes dating from the early 19th century and providing a common legislative code applicable to all Local Authorities.

While the names of Local Authorities have been modernised, the new authorities continue to have the same functions and geographic boundaries as they formerly had (Grist and Macken, 2003).

Prior to the enactment of the Local Government Act 2001, the elected members had the power to require the manager to carry out any executive function in a manner specified by them under s.4 of the City and County Management (Amendment) Act 1955. A similar provision is contained in s.140 of the 2001 Act. The power to direct the manager by resolution as to how he should carry out an executive function can be used with regard to planning applications (Grist and Macken, 2003). In an attempt to avoid a conflict of interest that may arise where a councillor or an LA employee encounters, in the course of LA business, an issue in which he or she has a personal interest, under the Local Government Act, 2001, the minister is empowered to issue national codes of conduct as guidance on the standards expected of LA members and employees in the performance of their duties (Callanan, 2003).

The Taoiseach established the Taskforce on Active Citizenship in April 2006 against a backdrop of concern about citizens’ participation in their community. The Taskforce
was asked to lead a debate on how citizens engage in the issues that affect them in their communities. As the lowest tier of democracy, local government is central to that debate. The Taskforce identified a democratic deficit at a local level and reported, as a constant theme during the Taskforce’s consultations, that “the perceived distance between the citizen and the local authority was too great, particularly but not exclusively in urban areas” (DoEHLG, 2008:15). It is contended by the author that this is of great significance in light of Ireland’s transformation from a rural past to an urban present.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Role of Planning Authority</th>
<th>Role of Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development Plan</td>
<td>Politicians (Reserved function)</td>
<td>Consultation – public must be consulted before the plan is adopted.</td>
</tr>
<tr>
<td>Development Control</td>
<td>Manager (Executive function)</td>
<td>Objections (and appeals to An Bord Pleanála) – individuals are entitled to</td>
</tr>
<tr>
<td>(planning application /</td>
<td></td>
<td>comment on / disagree with development proposals at planning application stage</td>
</tr>
<tr>
<td>permission process)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enforcement</td>
<td>Manager (Executive function)</td>
<td>Objections – individuals can notify the local authority about, or take action</td>
</tr>
<tr>
<td></td>
<td></td>
<td>through the courts against unauthorised development.</td>
</tr>
</tbody>
</table>

Table 2.2 Roles of Planning Authority and Public in Irish Planning

Table 2.2 outlines the individual roles of planning authorities and the public in the planning process in Ireland. The table presents the procedures followed from the inception of the development plan, development control and enforcement policy in planning in Ireland.
2.5 The Planning System in Ireland: An Overview

The Irish planning system is based on three main functions including preparation of the development plan, which contains the planning policies and objectives of the local authority over a six-year period; development control, which considers if the planning application conforms to the policies and objectives of the development plan; and enforcement of planning and development legislation. If developments take place without permission or not according to the permission, legal proceedings can follow either by warnings or court actions. These three functions are now considered in greater detail.

2.5.1 The Development Plan

The development plan is the public statement of planning policy for the planning authority over a period of six years (Torbjorn, 2004). A development plan sets out the overall strategy for proper planning and sustainable development, indicating the development objectives for the area of the planning authority. Essentially, the development plan shows the LA’s objectives for the primary use of particular areas for residential, commercial, agricultural or industrial purposes, for road improvements and for preserving and enhancing amenities. Public consultation and participation is fundamental in preparing the development plan: 1) at the initial stage when the LA publishes its intention to review the plan, 2) at the draft plan stage and, if necessary, 3) at the amended draft plan stage. The public are invited to submit their observations and voice any potential objectives within specified time frames.

Since the enactment of the Planning and Development Act, 1963, Local Authorities
were obliged within three years to prepare development plans. The plans must be reviewed at no greater than five-year intervals and either varied (by alteration, addition, or deletion) or replaced by a new plan. The contents of the plan include a written statement and are supplemented by maps. The Planning and Development Act, 2000 section 9 provides that every LA must make a development plan every six years. This is a new provision and previously there was no compulsory time limit placed on Local Authorities. This naturally resulted in long delays in the making of new development plans in certain LA areas (Gore-Grimes, 2002). The development plans for cities, boroughs, urban districts and certain towns must contain objectives relating to:

1. Zoning – residential, commercial, industrial, agriculture or others;
2. Traffic – both vehicular and pedestrian;
3. Redevelopment of obsolete areas;
4. Preservation and improvement of amenities;
5. Conservation of sites which form part of the European Unions Ecological Network of protected areas;
6. Provision of accommodation for members of the travelling community;
7. Protection of structures of architectural interest;
8. Preservation of architectural conversation areas (Grist, 1999);
9. Incorporation of the requirements of the Major Accidents Directive regarding the siting of new establishments, modification of existing establishments, and development in the vicinity of such establishments to reduce risk or limit the consequences of a major accident;
10. Provisions for the community including schools, crèches and other education and
11. (In Gaeltacht Areas) the protection of the linguistic and cultural heritage of the Gaeltacht (DoELG, 2000).

Rural area development must also include objectives relating to the provision or extension of water supplies and sewerage services. Development plans also deal with Local Area Plans, Regional Planning Guidelines and guidelines and directives dealing with the property (Grist, 1999). Apart from the mandatory objectives, which must be included in a development plan, it may also include objectives for any purposes listed in the Planning and Development Act 2000, Schedule 1. The Schedule 1 'discretionary' objectives include:

1. Part I deals with location and pattern of development.
2. Part II deals with control of areas and structures.
3. Part III deals with community facilities.
4. Part IV deals with environment and amenities.
5. Part V deals with infrastructure and transport (Scannell, 2006).

Each planning authority is required to make a development plan in relation to its entire functional area. However, county boroughs, towns and urban districts may make development plans in conjunction with an adjoining county council. The development plan is also required, so far as is practicable, to be consistent with such national plans, policies or strategies as the Minister for the Environment and Local Government determines, and relate to proper planning and sustainable development (Gore-Grimes, 2002).
Any new development plan prepared by an LA after the 1st November 2000 must incorporate a housing strategy “for the purpose of ensuring that the proper planning and sustainable development of the area of the development plan provides the housing of the existing and future population of the area in the manner set out in the strategy” (Planning and Development Act, 2000 s. 949(1) (a)).

The preparation of Local Area Plans (section 18 of the 2000 Act) are obligatory (section 19(1) (b)) for areas designated as towns and with a population in excess of 2,000 and where the planning authority is a county council. The LAP does not have to cover the whole of the authority’s functional area, only that which the authority deems relevant for the purpose of the development plans. Section 20 of the 2000 Act states that the authority is required to consult the public before preparing, amending or revoking an LAP. This should include consulting with local residents, public sector agencies, non-governmental agencies, local community groups, and commercial and business interests with and in the area.

2.5.2 Zoning: A Mechanism to Achieve Uniformity in Land-use Planning?

Zoning is the legislative method of controlling land-use by regulating such considerations as the type of building, for example, commercial or residential, that may be erected. Issues that relate to appropriate population densities are also considered within the remit of zoning. Zoning as a mechanism facilitates orderly development of an area by eliminating potential conflicts between incompatible land-uses and establishing an efficient basis for investment in public infrastructure and facilities. Booth (1996:2)
states that “the struggle to control urban form for reasons of health, aesthetics and social control became a key element in the search for civic identity and local economy in the nineteenth and early twentieth centuries in the UK”. He further argues that modern systems of controlling development have arisen as a direct result of the growth of private landownership and the consequent readjustment of the role of government. The earliest form of zoning was inspired by architectural and urban-design controls introduced in European cities toward the end of the 19th century. In accordance with long-established municipal powers, German and Swedish cities applied zoning regulations in the late 19th century to new land being urbanised around the older city cores as a way of controlling the heights and concentrations of buildings and avoiding problems of congestion (Beatley, 2001).

Much of the orderliness of German and Swedish cities and the consistent quality of building line and height is due to the early establishment of detailed zoning regulations and their widespread application at the time of major building activity growing out of the Industrial Revolution. In Ireland, zoning of land occurs through the development plan process, governed by section 10(2) of the Planning and Development Act, 2000. Zoning as a planning tool is applied primarily to urban areas and is accomplished by dividing land area into zoning districts, each having specific conditions under which land and buildings may be legally developed and used.

The result is an urban landscape in which functions tend to become geographically separated. Zoning is a designation given to a particular geographic area by the local government to regulate the type of use and the density of development permitted, the fundamental aim of which is to protect residential uses from the negative externalities of industrial and commercial developments. This form of zoning is too one-dimensional for the many different purposes it now has to serve as it works too much with exclusion rules which isolate certain uses from others (Hall and Pfeiffer, 2000). A change in zoning ordinances under the current system can be passed once a majority of the elected LA councillors vote in favour of the proposed change.

Zoning of land under the current system invariably results in a windfall for the landowner particularly when land is rezoned from one use to another that commands a higher monetary value. It follows that little common good may accrue to the public and no benefit to those who have not been zoned. Booth (1996:74) states “any discussion of planning control through zoning regulations, or of the interaction between systems of planning and constitutional rights, must include reference to the USA,” where a culture of free enterprise is juxtaposed alongside tight regulations that zoning control imposes in many urban areas in a rather contradictory manner. The competition between different regions that this model engenders is not conducive to achieving balanced regional development, as some regions may be zoned for development and other regions are not. As there are some 50 different systems of local government in the USA, this inherently lends itself to inconsistencies and competition within and between individual states.
Advocates of smart growth, as discussed in Chapter 3, argue that performance-based zoning enables mixing of complementary land uses, thus achieving greater diversity and functionality. Gillham (2002) suggests that after market forces have been established, zoning can ultimately be a major factor in determining what any given development will consist of and what it will look like. Thus, zoning bylaws, subdivision regulations, and related codes continue to be considered necessary and effective for protecting public health and welfare. Cluster zoning provides for the construction of buildings in clusters that are not constrained by individual lot sizes and interval requirements, but that respect the overall average density restrictions on a subdivision tract (Hall and Pfeiffer, 2000). This device permits the design of larger areas for open space and other amenities while minimising requirements for roads and utilities. The implications of zoning as a land use tool will be considered further in Chapter 3.

2.5.3 Setting the Boundaries: Development Control

At its inception development control was concerned with the search for the image of the ideal city. It also sought to limit new buildings on new foundations as a way of controlling the influx of migrants that appeared to threaten social order in newly industrialised European cities. A third purpose of development control was the control of disease and the promotion of good health. A more proactive approach to development control, with a greater degree of intervention, emerged in the second half of the 19th century. This was prompted by the idea that it might be desirable to intervene before the decision to develop has been taken, and coincided with moves in Europe and
the USA to develop a system of land-use plans. Development control is also a means of resolving conflict within the discipline of planning and development through the use of discretionary and regulatory systems of control.

It is arguable that, development control’s effectiveness is dependent on approval being obtained for applications only when the proposed development meets all the criteria required under the legal framework of planning and development. In addition to this, it is crucial that the development that actually takes place post-approval reflects in its entirety what was proposed in the planning application. It is contended by the author that if the mechanism of development control was totally effective it would not be necessary to have an enforcement mechanism to deal with development that does not adhere to planning legislation. Section 27 of Local Government (Planning and Development) Act, 1963 enables LAs to permit or refuse planning permission for development that has taken place without prior planning permission. An application for Retention permission arises when any individual applies to retain development work that has been completed without first seeking planning permission. There may be a genuine reason why development has occurred without planning permission, and planning permission is granted when the development that has taken place does not contravene planning principles.

Ireland, like the UK, utilises the discretionary model, while most EU countries and the US are more associated with the regulatory system. Implicit in the discretionary system, not withstanding the system’s flexibility, is a high level of trust in decision-makers, who may be politicians. It follows that there is a notable absence of certainty in such
systems, which in turn has implications for the relationship of the decisions on planning applications to the policy contained in plans. Regulatory systems, in comparison, are derived from countries that have developed administrative law or that have a written constitution that defines rights and privileges. In such systems, planning control has to be clear in defining the rights of individuals as landowners and the precise limits to those rights.

Any system of planning or development control, whether it is essentially discretionary or regulatory, is confronted with the problem of how the criteria on which control decisions are based are to be expressed (Booth, 1996). Ultimately, whilst the differences between both discretionary and regulatory systems are not definitive, it is sufficient to say that regulatory systems stress administrative decision-making whilst discretionary systems are political. At the crux of development control is the influence of public action, in terms of public authorities, on landowners who have a private interest in how the land is developed.

MacLaran (1993) and McGuirk and MacLaran (2001) draw attention to the fact that the planning department lacks spending powers and this severely hampers what it can achieve. Planners must rely upon the private sector and the co-ordination of other local authority spending departments for the execution of plans. This clearly places planning in a very weak position in relation to development interests, especially at times of slump in the property development sector when planners face political pressures to get any development going for the sake of employment in the construction industry. As in many
capitalist systems, urban planning in Ireland can only operate if development proposals are forthcoming from the private sector unless the public sector has the financial resources available for the development.

2.5.4 Enforcement

The requirement to obtain planning permission before commencing development is supported by a range of statutory sanctions. In addition to imposing the obligation to obtain planning permission, the Local Government Planning and Development Act, 1963 provided that any person carrying out unauthorised development would be guilty of an offence, a provision repeated in the Local Government Planning and Development Act 2000. Offences are now considered as ‘crimes’ under current enforcement legislation. This indicates the serious nature with which unauthorised development and breaches of environmental legislation are now considered to be.

As prosecution and conviction secures the punishment of wrongdoers but does not secure the proper planning and development of the area, planning authorities were also given power to implement planning controls by means of enforcement notices which require developers to conform to the planning code (Grist, 2003). When being notified about unauthorised development, the planning authority will issue a warning letter pursuant to Part VIII of the Planning and Development Act 2000 to the person carrying out the development. They will also investigate if any further enforcement is required. In such a case, the planning authority will issue an enforcement notice. The notice will require the person doing the unauthorised development to take necessary steps to either
The new enforcement regime, by being more streamlined than the provisions set out in previous Acts, incorporates a new philosophy of regulatory compliance. In the past, a lack of accountability along with official secrecy militated against high standards (Irish Times, 2007).

In 2006 the EPA identified enforcement as a key issue and this led to the establishment of the Office of Environmental Enforcement (OEE) (EPA, 2007). The OEE exercises a supervisory role in respect of the environmental protection activities and acts as a resource to members of the public who have exhausted all other avenues of complaint (Irish Times, 2007). By adopting a more rigorous approach to environmental enforcement, the OEE has proved successful in improving the level of enforcement of environmental legislation and will build on this in the future (EPA, 2007). This more pro-active approach to enforcement represents a move towards a more integrated and holistic approach to planning and development and an acceptance of the importance attached to environmental protection. This is of significance as enforcement is necessary to ensure compliance and to assist achievement of all environmental policy objectives in light of the recent, current and future economic development and population growth. Of further significance in the enforcement debate is a shortage of personnel within the local authorities to deal with enforcement proceedings (O’Brien, 2007).
2.6 Regional Approaches to Planning in Ireland

Local authorities discharge the vast majority of governance functions outside those of central government and its various agencies. The small size of Ireland, its centralised administration and the affinity people have for counties and cities over regions have tended collectively to diminish any arguments for strong regional governance structures (DoEHLG, 2008). Although neither regionalisation nor regional planning was mentioned in the Planning and Development Act, 1963 the intention to construct a regional framework was part of the ministerial thinking while the Bill was still on its way through the Dáil and Seanad. This may have represented a major deficit in the 1963 Act as evidenced in today’s imbalance in development in Ireland. Regional planning was finally put on a statutory basis by the 1991 Local Government Act, which empowered the Minister for the Environment to establish the eight regional authorities, “for the purpose of promoting the co-ordination in different areas of the State for the provision of public services” (Grist, 1999: 46). EU regions are deemed eligible for financial support depending on their economic circumstances.

There are three different groups, called objectives, which receive financial support from EU Structural Funds. The most significant objective in terms of resources allocated is Objective 1. Objective 1 funding helps regions to catch up if their development is lagging behind other EU regions. This provides Objective 1-designated regions with the basic infrastructure or encourages investments in business economic activity. The criteria for Objective 1 funding eligibility is when regions GDP per capita is 75% or less of the EU average.
In 1999, given economic growth, Ireland no longer qualified as a single region for funding under Objective 1 criteria. The economic growth was not experienced throughout the whole of Ireland and the need for arrangements to draw down EU structural funds led to the creation of the current regional structures, including two Regional Assemblies and eight Regional Authorities (DoEHLG, 2008). The two Regional Assemblies are the Border Mid-Western Regional Assembly and the Eastern and South-Eastern Regional Assembly. The eight Regional Authorities include: Border, West, Midland, Mid-West, South-East, Mid-East and Dublin.

Regional authorities reflect Government policies, notably in the National Development Plans and the National Spatial Strategy. Regional authority functions include promoting the co-ordination of the provision of public services on a regional basis, monitoring/advising on the implementation at regional level of the various operational programmes for delivery of EU structural and cohesion funds, and to ensure consistency between the development plans for their respective regions (Callanan, 2003). Significantly, Regional Authorities were given the power, under the Local Government Planning and Development Act 2000, to draw up Regional Planning Guidelines (RPGs) as an overall co-ordinating framework for all the development plans at city and county council level in each regional authority area. These RPGs were prepared and adopted by 2004 as a further articulation of the National Spatial Strategy at a regional level (DoEHLG, 2008).
2.7 Regional Planning and the Greater Dublin Area

Land-use and regional development have become topical issues in Ireland recently, with some people becoming more concerned by patterns of land-use that have resulted in low-density development, attributable, it is argued, to the continual growth of Dublin outwards into the hinterland of the surrounding counties. Bannon (2004) presents the view that Ireland badly needs a National Urban Policy based on the fact that Dublin has grown rapidly and expanded widely – but a big city is not necessarily either a good or an efficient city. Bannon further contends that growth is not necessarily development and a sprawling metropolis is hardly a sustainable one.

The Buchanan Report in 1969 warned about how Dublin would develop at the expense of the rest of the country. This first attempt for Ireland to adopt a long-term approach to national planning offered an alternative blueprint to ensure balanced regional development and advocated the establishment of some large centres throughout the country as a counter balance to tilt towards the capital city (Buchanan, 1969). The Buchanan Report had advised that balanced regional and national development could best be achieved by promoting the industrialisation and demographic growth of a limited number of urban growth centres across the country as potential counter-magnets to Dublin (Bartley, 2007); however, the recommendations of the Buchanan Report were not implemented. Dublin continued to grow and the regional plan prepared for the metropolitan region allowed it to grow in a manner that many critics argued was both unbalanced and unsustainable (Bartley and Treadwell-Shine, 1999). The objectives of the current National Spatial Strategy (NSS) are comparable to those outlined in the
Chapter 2 – The Planning Structure in Ireland: An Overview

Buchanan Report, the fundamental aim of which is to achieve more balanced and sustainable development. In light of current socio-economic and environmental challenges, failing to implement the ideas outlined by Buchanan represents a lost opportunity.

Had the Buchanan Report been implemented, current socio-economic and environmental challenges may have been avoided. Section 21 of the Planning and Development Act, 2000 conferred on the Regional Authorities the power to make Regional Planning Guidelines (RPGs) for their functional areas. The Planning and Development (Regional Planning Guidelines) Regulations 2003 set out the procedure for the production of the Regional Guidelines. Fundamentally, RPGs set 12 to 20-year strategic policy that Local Authorities must consider in their development plans. The Guidelines consider the statutory obligations of all Local Authorities in a region, and all relevant policies and objectives of the Government, including any national plans, policies or strategies specified by the DoEHLG as relevant to the determination of strategic planning policies.

In accordance with the 2000 Act, the making of RPGs is the responsibility of the regional authority or, where necessary, regional authorities acting together (DoELG, 2000). The objectives of the RPGs in accordance with the principles of proper planning and sustainable development include: projected population trends and settlement and housing strategies; economic and employment trends; the location of industrial and commercial developments; transportation, including public transportation; water supplies and waste water facilities; waste disposal; energy and community facilities; the
preservation and protection of the environment and its amenities, including the archaeological, architectural and natural heritage; and such matters as may be prescribed (Gore-Grimes, 2002).

The 2003 Regulations were supplemented in February the same year by guidance notes indicating that the final document prepared by the Regional Authorities must consider two major areas:

1. Part A - Broad overview of issues and opportunities and a strategy for addressing them.
2. Part B - Guideline for local planning authorities to assist in the making of the development plan.

The guidance notes also set out approximate time scales for action shown in Table 2.2.

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Process Initiation</td>
<td>6 weeks</td>
</tr>
<tr>
<td>2</td>
<td>Initial Issues Paper</td>
<td>2-4 weeks</td>
</tr>
<tr>
<td></td>
<td>Public Consultation</td>
<td>8 weeks</td>
</tr>
<tr>
<td>3</td>
<td>Goal setting and research</td>
<td>10 weeks</td>
</tr>
<tr>
<td>4</td>
<td>Development of a regional strategy</td>
<td>4 weeks</td>
</tr>
<tr>
<td>5</td>
<td>Identification and evaluation of RPG options</td>
<td>8 weeks</td>
</tr>
<tr>
<td>6</td>
<td>Public consultation on draft RPG</td>
<td>10 weeks</td>
</tr>
<tr>
<td>7</td>
<td>Consideration of submissions</td>
<td>6-8 weeks</td>
</tr>
<tr>
<td>8</td>
<td>Implementing and monitoring</td>
<td>end of process</td>
</tr>
</tbody>
</table>

Table 2.3 Timetable for preparation of Guidelines

Table 2.3 outlines the eight steps, tasks and timeframe for the preparation of Guidelines. It is evident from the table that the process details clearly the procedures that must be followed.
Chapter 2 – The Planning Structure in Ireland: An Overview

2.7.1 The Strategic Planning Guidelines for the Greater Dublin Area 1999

The Greater Dublin Area (GDA) of Ireland is the area most immediately affected by the growth and development of Dublin (SPGGDA, 1999) and forms the study area for the thesis. There are seven local authorities under the umbrella of the GDA that include: Dublin City Council, Dun Laoghaire-Rathdown County Council, Fingal County Council, South Dublin County Council, Kildare County Council, Meath County Council and Wicklow County Council. In response to the need for greater balanced development, the publication of the 1999 Strategic Planning Guidelines Report sets a framework for integrated land use and transportation for the sustainable development of the GDA up to the year 2011, and this strategy is used as the basis for planning of the GDA by government departments and agencies.

The SPGGDA attempt to marry land use with transport and infrastructure beyond the city limits (Byrne, 2003). Centres designated under the SPGGDA include Drogheda, Navan, Balbriggan, Naas-Newbridge-Kilcullen, Wicklow, Athy and Kildare-Monasterevin. Development outside of these centres was to be restricted to 'limited needs' (McDonald and Nix, 2005). When Local Authorities are preparing development plans, they must accord with the strategy of the Strategic Planning Guidelines (Brady, Shipman and Martin, 1999).

The key elements of the 1999 SPGGDA include the incorporation of the principles of sustainable development as identified in Sustainable Development: A Strategy for Ireland (1997) and increased emphasis on the concentration of future development into
the Metropolitan Area and into designated development centres located on transportation corridors in the hinterland area. The SPGGDA were given statutory recognition as RPGs in the Local Government Planning and Development Act 2000 under section 21 (4), which states that Local Authorities are to have regard to SPGs. However, as found in the case of Glencar Exploration-v-Mayo County Council, to have regard to particular policies or objectives does not mean that a planning authority is obliged to implement them (McDonald and Nix, 2005). The SPGGDA have now been superseded by the RPGs for the GDA 2004-2016.

In addition, the Local Government (Planning and Development) (Amendment) Bill 2009 has the fundamental objective to end excessive rezoning and opportunist rezoning of land by county councillors, according to Minister for the Environment John Gormley (McGee, 2008). It is intended to replace to ‘have regard’ with to ‘be consistent’ with the RPGS to achieve more balanced development. The Bill is designed to allow an adequate supply of zoned and serviced land to ensure that house prices are not forced upwards and that economic development is maintained. However, it will also outlaw practices where councillors zoned far more land for development than was required.

Land-use and transport are wholly inter-dependent and neither can be planned without a clear view of this complex inter-relationship. Land use may be considered as a direct demand influence, in that people need a house, a place to work, access to schools and basic services. The initial definition of land use is land largely under policy control, both in size and in content, thus enabling planners to influence the pattern of change in a city. The ownership, control, construction and usage of facilities are generally within
the private sector. Changes in land use have an almost immediate effect upon the usage of the transport system (SPGGDA, 1999). Transportation, on the other hand, is a derived demand. People make journeys, not for the sake of travelling, but purely to reach the various destination facilities.

The need for a Planning Strategy that recognises the inextricable link between land-use and transportation was explicitly identified in the Dublin Transport Initiative (DTI) conducted between 1991 and 1994 (before the unprecedented economic growth of the Celtic Tiger era) and the SPGGDA in 1999. Both policies have been formulated in harmony with the objectives of the DTI. Investment in new transportation infrastructure, such as the construction of the Luas light rail or the M50 motorway, is also under policy control and has historically been funded by the public ownership. Changing policies can influence their ongoing usage by motorists and passengers.

Assessment of Progress on Agenda 21 (2001), a report by Comhar, advocates fundamental changes in transport management if Ireland is to meet its commitment under the Kyoto Protocol to reduce global greenhouse emissions to 13% above 1990 figures, quite apart from reducing traffic congestion and providing an acceptable public transport service. The report suggests that demand management and integrated planning are essential to the realisation of this goal. In addition, the SPGGDA, the Residential Density Guidelines and the NSS aim at introducing a more sustainable settlement pattern, which in turn should have a positive impact on transport (Comhar, 2001).
According to Williams and Sheils (2002), a number of problems exist with the policy direction of the SPGGDA, including the absence of effective co-ordination amongst principal stakeholders; competition for resources and revenue amongst the affected local authorities; and the under-estimation of the scale, pace and immediacy of the economic growth experienced in the GDA over the past five years. In the pursuit of more sustainable development in the GDA, the problems identified by Williams and Shiels need to be addressed; not doing so will serve to undermine the current competitiveness of the GDA as the main engine of economic growth in Ireland. Recent changes in governance structures that endeavour to achieve more public participation in the planning and development process represent one mechanism to achieve consensus and collaboration between principal stakeholders. In addition is the idea, not realised to date, of a Greater Dublin Regional Authority to achieve more balanced regional development in the GDA.

2.7.2 The Revised Strategic Planning Guidelines 2002

The third review of the SPGGDA took place in April 2002 in light of the first phase of the implementation of the NSS. The first review took place in 2000 and the second in 2001. The reviews of the SPGGDA provide an update as to the progress made to date in the GDA. There exists a range of strategic policy documents and it is essential that policy documents at a local, regional and national level complement rather than conflict with each other. Information was provided by the authorities in the GDA to the DoELG and published in the September 2001 Quarterly Housing Review. This indicated that there was the capacity to accommodate over 180,500 housing units between 2002 and
2006. The actual number of house completions during this period was 207,000 (DoEHLG, 2007).

The review of the SPGGDA examined the issues of land-use and transportation interaction. Regarding implementation of *A Platform for Change*, projects have been brought forward that include separation of inter-city and suburban trains (from 2010 to 2016) and the procurement phase of the METRO from Dublin Airport to Shanganagh has commenced (Dublin Transportation Office, 2000). The review highlighted that the delivery of the investment programme outlined in the DTO strategy represents a huge challenge. Failure to undertake this investment programme and to adopt complementary housing density and other development policies and practices would exacerbate problems of long distance commuting and low-density development throughout the GDA. The SPGGDA consultants worked within the framework of a vision for the GDA as the capital city/region of the country, reflecting the growing international role and significance of Ireland. The GDA is seen as having a pivotal role in the future competitiveness of Ireland and this reflects the amalgamation of the ideas outlined in all the policy documents at a local and European level referred to throughout this chapter.

National Government recognises the scale and capacity of Dublin to sustain further growth. This is evident in the objectives of the NSS with the identification of Gateways and Hubs to alleviate and prevent an overload situation for the GDA in the future. A Government consultation paper entitled *Institutional Arrangements for Land-Use and Transport in the Greater Dublin Area* (Department of Transport, 2001) proposed the establishment of a strategic body for the GDA that would prepare long-term strategies
for land use and transport, monitor and enforce compliance with these strategies by the implementing agencies and allocate exchequer finance for transport other than national roads. A cross-departmental team was established in 2001 to consider the outcome of the consultation process, prepare the necessary legislation and address the detailed administrative arrangements for the new Strategic Body. This represents the importance of land use and transportation in the GDA and the scope to adopt more efficient land use in the future.

Nonetheless, it was not until seven years after the publication of the Department of Transport report that the Dublin Transport Authority Act 2008 was enacted. This was followed by the establishment in December 2009 of the National Transport Authority. This new statutory body is charged with the responsibility for securing the provision of public passenger land transport services that includes the provision of subvented bus and rail services by Bus Éireann, Dublin Bus and Irish Rail. The new transport body is also charged with responsibility for the development of an integrated transport system in the GDA. It is contended by the author that the timeframe for the eventual delivery of a National Transport Authority means that much time has been lost in dealing effectively with transport challenges in the GDA.

2.8 National Strategic Policy Developments: Significance for Planning in Ireland

National Development Plans and National Spatial Strategies represent investment plans for Ireland and set out roadmaps for Ireland’s future. The ideal of these plans is to build an Ireland that is characterised by sustainable economic growth, greater social inclusion
and balanced regional development. National policy and strategy initiatives of relevance to this study include the National Development Plans, the National Spatial Strategy 2002-2020 and Transport 21.

### 2.8.1 The National Development Plan

The National Development Plan (NDP) relates to schemes of organised large-scale expenditure on (mainly) national infrastructure. The adoption of the programmed, multi-annual spending approach deployed in an NDP is now viewed as evidence of a move to a more systematic and strategic (long-term and integrative) approach to investment based on a more sustainable and enlightened view of resource planning and usage. This positive perception is attributed to the influence of EU policy leveraged by EU funding (Kitchin and Bartley, 2007). The most recent NDP is due to run between 2007 and 2013 with a budget of €184 billion (NDP, 2007). The NDP 2000–2006 represented the primary political and institutional expression of Ireland’s proposed response to the growth of the economy since 1990 and through ‘Celtic Tiger’ era.

The NDP and Community Support Framework (CSF) 2000-2006 funded major investment in public transport initiatives such as the Luas, the Dublin Port Tunnel, the modernisation of the Iarnród Éireann rail fleet and the introduction of the Rural Transport Initiative. Funding for roads under the plan saw 69 projects completed, by 2006 totalling over 500 km of new roadway including 170 km of new motorway. The plan also invested significant monies in wastewater projects, urban and village renewal, health, schools, social inclusion, employment and human resources and housing. A
review in 2006 of the previous three NDPs by the Economic and Social Research Institute (ESRI) revealed that they have made an essential contribution to the transformation of the Irish economy and society over the last 15 years (ESRI, 2006). The review also suggests that “without the investment under successive NDPs the economy would have choked from lack of infrastructure, unemployment would still have been a serious social issue and the environment would be under much more serious pressure than is currently the case” (NDP, 2006:30).

Despite public official endorsement and support for the NDP, McDonald (2007) said that it is no secret that one of the key elements of the current NDP, the completion “by 2006” of motorways or dual-carriageways linking Dublin with Cork, Galway, Limerick, Waterford and the Border, north of Dundalk, was not realised. The Dublin/Border and Dublin/Galway major inter-urban motorways were completed and opened in 2007 and 2009 respectively and the three remaining major inter-urban motorways are due for completion in 2010. The significance of delays in the delivery of road projects in Ireland is that overruns result in a greater cost to the taxpayer for the delivery of much needed infrastructure and these greater costs potentially result in less tax payer revenue available for other public services required for a functioning society. In addition, it is the author’s view that delays in the implementation of plans means that the feasibility and cost of projects at inception is not receiving enough thought and consideration.

The current National Development Plan 2007-2013 Transforming Ireland – A Better Quality of Life for All integrates strategic development frameworks for regional
development, for rural communities, for all-island co-operation, and for protection of the environment with common economic and social goals. Priority areas targeted under the Plan include:

1. Regional Development
2. Rural Economy
3. All-Island Co-operation
4. Environmental Sustainability
5. Social Inclusion.

In theory, the Plan sets out a strong framework for the promotion of regional development with a particular focus on investment in the National Spatial Strategy (NSS) Gateway centres. Strong urban centres are directly related to regional growth and development, affecting employment, incomes and quality of life throughout the regions. The successful implementation of any NDP is dependent upon strong political leadership that mirrors the aspirations of a plan. Furthermore, the development of any plan arguably benefits when a participatory decision-making process that reflects a national vision has been used. This process can potentially test the feasibility of the plan and identify potential obstacles to its implementation.

2.8.2 The National Spatial Strategy

The purpose of the NSS is to set out the pattern of future development in Ireland in accordance with the government’s overall aim on sustainable development as set out in Sustainable Development: A Strategy for Ireland (1997). This is an important factor when attracting inward investment, addressing regional imbalances and achieving
greater equity in terms of capacity to consume for self-development, education and training, thereby aiding balanced competitiveness. This necessitates high-speed public transport linkage with Dublin as the capital city and other points of entry and the settlement structure needed to sustain them.

Bannon (1995) proposed the need for the government to formulate broad guidelines in the form of a national spatial strategy for urban development, infrastructural investment, port development, the siting of heavy industry and the location of information-related industries and services. The view of Bannon at this time was that, in the absence of a coherent urban policy, the dominance of Dublin would serve to frustrate the attainment of national economic and social objectives. Since 1995, economic growth, as discussed alongside the dominance of Dublin and the growth of the greater Dublin regions, presented socio-economic and environmental challenges that need to be addressed. The purpose of a national plan or national strategy is to provide a framework within which all sectoral and local planning is developed to the best overall advantage. The National Spatial Strategy (NSS) 2002 provides a 20-year broad spatial planning framework intended to achieve balanced social, economic and physical development.

The strategy represents a milestone in Ireland because it is the first spatial strategy that focuses at national level. In the absence of a coherent urban policy for the remainder of the century, the dominance of Dublin within the urban system is likely to intensify, the social costs of change may be increased and such a policy vacuum could well frustrate the attainment of national economic and social objectives (Bannon, 1995). Some key
objectives of the NSS include a better quality of life for people, a strong competitive economic position and an environment of highest quality.

The NSS, by providing guidance for government policies and regional and local plans at national, spatial and strategic levels, complemented the National Development Plan (NDP) 2000-2006. This represented a move towards integrated urban and regional development addressing the quality, scale and extent of development required nationally with obstacles and blockages identified (Williams, 2003). The NSS and NDP 2007-2013 envisage the future of Ireland to consist of strategic radial corridors, strategic linking corridors and strategic international access points.

The first phase of the National Spatial Strategy (NSS) 2002-2020 has been to implement the Regional Planning Guidelines, the aim of which is to reconcile uneven development in Ireland, enhance regions that may be disadvantaged and counteract the near total dominance of the Irish economy by the GDA.

The NSS policy for spatial development is based on polycentric and/or multi-centred spatial development and a new relationship between urban and rural areas, parity of access to infrastructure, and knowledge and wise management of the natural and cultural heritage. The role of urban areas in promoting economic development through clustering and agglomeration is recognised in the NSS and mirrors current EU policy. The NSS addresses the contrast between rapid development in the east of the country
and slower rates of development in other regions, in particular the Border, Midlands and Western (BMW) regions.

This corroborates the findings of the ESRI (2003) mid-term review of the NDP and to redress this imbalance, the strategy identifies gateways and hubs that have the capacity to support the stronger urban-rural structure needed to drive the development of these other regions and runs parallel to the ESDP (Grist, 2003). The counties identified in the NSS as gateways are: Greater Dublin Area, Cork, Limerick, Galway, Sligo and Waterford. The areas identified as hubs are Ballina, Cavan, Castlebar, Ennis, Killarney, Kilkenny, Tralee, Wexford and Monaghan (DoELG, 2002). The strategy is designed to build on the strengths of the existing gateways within a network of strong cities and towns and their associated hinterlands. The main objective in identifying gateways as national and regional engines of growth and the complementary role of hubs is to establish a spatial structure capable over time of changing the development trends in Ireland.
The NSS outlines the need for urban land to be developed with more care, sensitivity and efficiency, with the aim of reducing dereliction and under-utilisation. Where greenfield development is necessary it should take place through the logical extension of existing cities, towns and villages (NSS, 2002). The NSS has proposed that Ireland needs to renew, consolidate and develop its existing cities, towns and villages. The
imperative is to keep them as physically compact and public transport-friendly as possible. It is felt that this measure will counteract and prevent further unsustainable urban sprawl while achieving a high quality of design in new development and refurbishment. It must be noted, however, that the government’s decision in the 2004 Budget to decentralise 10,300 civil servants out of Dublin would appear to run contrary to the NSS in terms of spatial strategy (Clinch, 2003). The areas identified in the decentralisation plan do not match the gateways and hubs identified in the NSS. Figures from the Decentralisation Implementation Group show that 3,000 staff had been decentralised by September 2009. The decentralisation plan has encountered a number of factors, including low uptake and challenges from unions, that have served to impede the implementation of the plan (Decentralisation Implementation Group, 2009). Nonetheless, it still stands that the locations designated for growth in the NSS run contrary to the areas identified in the decentralisation plan.

The NSS was described by Douglas (2004) as a devalued currency for two reasons: the first being the decentralisation plans run contrary to the Gateway and Hub locations. Secondly, the guidelines for one-off rural housing are considered to be in conflict with the NSS as one-off rural housing is more associated with low-density design than with compact and high-density design (Ibid.). Beesley (2004) states that the government has cut 29 regional towns from the first phase of the decentralisation programme in a major climb down from its controversial plan to move more than 10,000 civil servants from Dublin to the regions before the end of 2007. This amendment to the decentralisation
programme suggests that the feasibility of successfully implementing such a strategy may now be in doubt.

In 2007 2,000 posts had been transferred to the regions, with a planned movement of up to 6,800 staff by the end of 2009 (Decentralisation Implementation Group, 2007). It follows that the decentralisation plan is not being implemented as envisaged in 2004. The successful implementation of the NSS as a 20-year strategy is dependent on strong leadership, joined-up thinking and a willingness on behalf of society to embrace a more holistic approach to planning and development; the NSS cannot be viewed entirely as a success or failure until this time frame has elapsed. Nonetheless, a shift from the traditional short-term view with a long-term perspective is required because achieving more efficient land-use is arguably a long-term objective. Success of the strategy is also dependent on continuing national economic and employment growth; continual improvement in Ireland’s international competitiveness and fostering balanced regional development. Skehan and Sirr (2008) argue that planning in Ireland, including the NSS, isn’t working and that the continued implementation of the NSS has serious implications for our future success. It proposes spreading the jam too thinly across the country, so everybody gets a taste but nobody's hunger is satisfied. Crucially, the NSS is planning for an Ireland that is probably not going to happen. It is estimated that by 2030 43% of the population will live in the GDA. Politics in the future will be dominated by urban agendas to reflect settlement patterns, in contrast to the rural agenda of the past in Ireland.
Skehan and Sirr further state that Ireland is on the threshold of making critical planning errors that will significantly prolong the unfolding recession. They also criticise the incompatible link between politics and planning and the need to change from the ‘business as usual’ model of development. Within the context of Ireland’s transformation from a rural past to an urban present Skehan and Sirr (2008) propose the need to deal effectively with changing values in Ireland and to work with and not against the driving forces of urbanisation.

2.8.2.1 NSS: Status on Implementation

In 2006 a report was prepared by the DoEHLG and Forfás, Ireland’s national policy and advisory board for enterprise, trade, science, technology and innovation that operates under the auspices of the Department of Enterprise. The report, entitled *Implementing the NSS: Gateway Investment and Funding Priorities*, concludes that a new action plan is needed to enhance all nine NSS-designated Gateways. The findings show that there are plans and strategies in place at national and local level and that significant progress is already being made, especially in relation to infrastructure deficits. However, through analysis of each Gateway, two recurring themes have been identified where the pace of development and implementation need to be urgently addressed:

1. Improved investment prioritisation and funding availability in favour of the Gateways; and,

2. Improved co-ordination of Gateway planning and investment within and between local, regional and national levels is needed to ensure that the Gateways realise their full potential as regional economic drivers (DoEHLG, 2006).
The report went on to indicate that in the absence of a concerted spatial policy response much of future growth will gravitate towards the GDA and its outer fringes unless the other Gateways supported by national policy mobilise the plans, processes and resources needed for more ambitious levels of regional growth.

The Gateway Innovation Fund (GIF) as a means to drive development of regional cities was established under the NDP 2007-2013 as a specific measure to assist in the strategic development of the nine Gateway cities and towns designated in the NSS. The GIF is additional to the significant NDP sectoral investment programmes already committed for the NSS Gateways; it is intended to incentivise, stimulate and reward joined-up strategies and action in the Gateways by helping to fund targeted strategic capital projects that can trigger the accelerated development of the Gateways and their wider regions.

Implementation of the NSS has been ongoing since the launch of the Strategy in 2002. Public investment under NDP 2000-2006 has funded many significant investments in areas such as transport, housing, water services, broadband, urban renewal, and the higher education and research sectors. New investment programmes announced since the publication of the NSS, such as the Government’s 10-year Transport 21 Programme, have also emphasised the importance of supporting regional development and facilitating the development of the NSS Gateways and Hubs. This investment is playing an important role in the impressive economic growth being experienced by all regions (DoEHLG, 2006). Notwithstanding much progress, not all the Gateways have
the degree of shared objectives, vision, communication and co-ordination around planning and investment benefiting their international, national and regional role. A more ‘joined up’ approach is vital.

The DoEHLG and Forfás concluded in the 2006 report that a re-invigorated approach to development of the Gateways now needs the following actions:

1. Renewed commitment to investment prioritisation, both national and local, on the specific needs of the individual Gateways and across the full range of their needs, with appropriately differentiated packages for each Gateway depending on requirements and stage of development.

2. Improved co-ordination of the development efforts for each Gateway across the key public and private stakeholders nationally and locally and between national and local levels.

An emphasis on Gateway development as envisaged in the NSS is underpinned by the goal to ensure planned and co-ordinated delivery of the range of infrastructure for dynamic and vibrant urban centres. The NSS envisages that this approach will attract inward investment, stimulate the growth of dynamic indigenous companies and be an attractive location in which to live and work. Successful Gateways throughout Ireland will then contribute to successful regions and to the country as a whole (DoEHLG, 2006). However, it must be noted that although the NSS may in theory be underpinned by this vision, certain factors, political expedience for example, can deflect policy outcomes from policy intentions.
A 2008 report entitled *Twice the Size? Imagineering the Future of Irish Gateways* commissioned by the Urban Forum and conducted by the Futures Academy and the School of Spatial Planning in Dublin Institute of Technology (DIT) found that the central tenet of planning in the Republic of Ireland to attain balanced regional development, is mistaken (DIT, 2008). The Futures Academy study was primarily about the necessary hopes and visions of the various Gateway towns and cities identified in the NSS.

Whilst the report findings commend the NSS in its provision of a much-needed spatial dimension to recent social and economic policies, it concludes that there is an urgent need for the preparation of an updated NSS, together with a set of Regional Planning Guidelines. One factor that forms the basis of this finding is research conducted by Hughes (2002) discussed in Chapter 1, which indicates that the NSS demographic projections are incorrect. In addition, the report highlights that recent trends in population growth show that the counties that grew the fastest were the ones without gateways, while the counties with gateways grew the slowest. This finding points to a conclusion that the NSS has focused on rather weak centres and therefore the return on public investment was rather low (DIT, 2008). Skehan and Sirr (2008) state that there is a need to plan for a future that is going to happen and not against it. This view is based on the findings that emerged from the DIT 2008 study which found that that by the year 2030 over two-thirds of the population of the island of Ireland will be concentrated within 25 km of the East coast. There is no evidence that existing strategies will prevent this, nor indeed is there any evidence that this would be desirable. An Eastern corridor
from Belfast to Waterford is likely to be Ireland’s best opportunity to maintain a competitive position among the city-regions of an increasingly competitive Europe. The DIT report found that Gateway cities and towns should be encouraged to develop their own ‘distinctiveness’ and should focus on achieving ‘complementarity’ with the Eastern corridor rather than concentrating solely on population growth as outlined in the NSS (Bromley, 2008).

The DIT study on behalf of the Urban Forum in 2008 is of significance in light of the slow-down of economic growth from 2007 to date and the available expenditure allocated through the current NDP to fund current and future implementation of the NSS. The pace of efficacy of the implementation of the NSS is bound to stimulate debate. However, Bartley (2007) presents a caveat and draws attention to an inevitable delay of the implementation of the NSS in a democratic regime that provides for multi-scaled planning based on multiple levels of governance and consultation. He further contends that Local Authority plans in Ireland need time to catch up with the NSS and the subsequently prepared Regional Planning Guidelines devised to give effect to the NSS at regional level. It follows that at this moment in time the implementation, or not, of the NSS as a 20-year strategy cannot be definitively decided upon.

2.8.3 Transport 21

Transport 21 (2006) is the current and first ever national strategy and framework for the provision of a transport system in Ireland. Between 2006 and 2015 the plan aims to address the dual challenges of underinvestment in transport in the past in Ireland
alongside a persistent increase in transport demand. Transport 21 aims to: increase accessibility; ensure sustainability; expand capacity; increase use; and enhance quality of the transport system in Ireland. The strategy proposes a multi-modal approach to include light rail, metro, heavy rail and an increase in bus transport.

Ireland has traditionally adopted a ‘predict and provide’ model for the delivery of transport infrastructure. The delivery of sufficient transport capacity is dependent on the efficient use of existing infrastructure in advance of providing new infrastructure. The challenge of traffic congestion and the cost implications of this issue needs to be addressed. One measure to counter traffic congestion is an increase in the provision of multi-modal transit options in particular in public transport. Fundamental to the provision of public transport is critical mass to ensure the mode is economically viable. Transport 21 is targeted in urban areas to facilitate the improved management of the use of the transport network. Allied to this is the need to maximise its transit capacity to move people and goods, and not solely vehicles.

The scope of Transport 21 is broad in the strategy’s objectives, and improving the quality of the transport system is multi-dimensional. Transport 21 aims to enhance the physical quality of the infrastructure. It follows that the use of public transport becomes a more attractive and viable choice for the discerning customer, motivated by the need for reliability and comfort and time the journey takes. A number of critical elements will be introduced under the plan to include: Park and Ride facilities with a particular focus on rail-based public transport, and integrated ticketing and passenger information.
to be introduced on a phased basis. Transport 21 plans to cater more effectively for people with mobility, sensory and cognitive impairments.

Transport 21 was devised based on information about key economic and demographic transformations in the past decade throughout Ireland. The principal statistical indicators clearly show the transport investment challenges for the decade ahead: the country’s population has increased by 11% since 1996 to just over 4 million and is forecast to reach 4.7 million by 2016 (+16%). Most of the population growth is taking place in the urban hinterlands, not in the existing built-upon areas or in rural areas. This places additional pressure on the transport system because it results in longer distance commuting. According to the 2006 Census, the average distance travelled to work has doubled over the past decade. In addition, average household size continues to fall (from 3.14 in 1996 to 2.81 in 2006 and to a forecast 2.65 by 2020) (Department of Transport, 2006).

2.9 Strengths and Weaknesses: A Critical Evaluation of the Planning Structure in Ireland

Since the mid-1990s Ireland has witnessed a move towards an integrated approach to long-term planning in Ireland in tandem with a more pro-active approach at a local level. Increasingly, planning activity is conceptualised not as a functionalist notion of ‘the regulation of land-use’ but as the holistic notion of managing the land-use demands of society’s collective activities in space (Healey, 1997). Within the context of planning in Ireland, Batley and Kitchin (2007) state that Ireland has experienced a great
transformation from the early 1990s which resulted in a more integrated and holistic approach to planning and development.

Favourable economic conditions during the Celtic Tiger era placed Ireland in a strong position in relation to the ability to put the structures in place to accommodate future growth in a manner that is economically viable and socially and environmentally responsible. Current planning strategy is reinforced by comprehensive and robust planning legislation. There now exists an acceptance of a link between land-use and transportation as evident in current policy and strategy and not evident in the past. Allied to this is a move in the direction of national and regional planning incorporating large-scale planning under the Strategic Development Zones. Although Ireland has a centralised form of government, new bodies that include City/County Development Boards (CDBs) and Strategic Policy Committees (SPCs) armed with the necessary funding have potential to ensure the planning process is more participatory, accountable and transparent. It is, however, somewhat premature to evaluate the success of the City/County Development Boards and Strategic Policy Committees at this time.

Success, it could be argued, is dependent on finding solutions to the challenge of apathy and the need to ensure that resources are made available for the effective functioning of the CDBs and SPCs. Fundamental to such success is a robust legislative framework within which these bodies operate coupled with meaningful action and implementation of policy and strategy.
In theory, there is an array of strengths evident in the current Irish planning system. Nonetheless, current socio-economic and environmental challenges facing Ireland suggest that an unsustainable pattern of development persists. In practice, a number of weaknesses need to be considered now and addressed for the future. The economic growth that occurred during the Celtic Tiger era took Ireland by surprise and this presents an element of urgency in the need to find solutions to current socio-economic and environmental challenges. It is important to note that guidelines and national plans intended to offer solutions are general in nature. It follows that they do not require rigid adherence and as such are open to interpretation by individual local authorities. An incompatible link exists between politics, which operates within a short-term time frame, and the long-term objective to accommodate more sustainable growth. Furthermore, long-term costs and benefits tend, deliberately or otherwise, to be shrouded in uncertainty. Short-term priorities expressed in clear operational terms frequently gain overriding emphasis (Seabrooke et al., 2004). The vulnerable position of councillors to meet local demands, in tandem with the implications of the political nature of the discretionary system of development control in Ireland, highlights the formidable nature of dealing effectively with all socio-economic challenges in Ireland.

The fact that planning departments lack spending powers severely hampers what can be achieved, as planners have to rely on the private sector and the coordination of other local authority spending departments for the execution of plans (McGuirk and MacLaran, 2001). Competition that is generated by individual Local Authorities based
on dependence for revenue streams from industrial rates also poses a challenge in the pursuit of balanced regional development.

Another weakness within the planning system relates to the issue of zoning and rezoning that is within the remit of councillors. The relationship between politics and planning is rife with complexity. It could be argued that there is a need for politics to be decoupled from the planning process in Ireland. As long as politics is coupled with planning there is scope for competition between individuals motivated by the desire to gain advantage and maximise profit. The pursuit of profit via a pro-growth agenda is an intrinsic feature of modern advanced capitalist states and not at all in dispute. Nonetheless, negative socio-economic and environmental outcomes attributable to unfettered economic growth have the potential to destabilise future economic growth and thereby Ireland’s current and future competitive advantage.

Although much wealth was generated during the Celtic Tiger era, wealth was not evenly distributed throughout the economy and there is a continual widening of the gap between rich and poor. This is further evidenced by the designation of the Border, Midland and Western regions as eligible for Objective 1 status EU funding. This situation begs the question: Was the development paradigm from the mid 1990s through to 2007 truly effective in meeting the needs of society as a whole in Ireland? The free market approach by its nature enriches many, but not all, in society, and results in winners and losers. It could be argued that the Irish planning system is overly bureaucratic, with too many agencies, particularly in relation to transport. Williams and
Sheils (2002) state that existing arrangements, involving the sharing of administrative and executive powers over several layers of central and local government creates overlapping responsibilities, often characterised by competing or conflicting interests and an inadequate implementation capacity.

Comhar, the Government’s Sustainable Council, prepared a report on Sustainable Development: A Strategy for Ireland 1997 as the seminal policy document for sustainable development in Ireland. It is accepted that although the strategy has strongly influenced the policy background of new local authority structures, it is not a central part of their brief. In some cases this has made it difficult to have sustainability issues adequately represented. Furthermore, a general lack of linkage of environmental, economic and social issues has to some extent diminished the interest of politicians alike, and has led to sustainable development being identified primarily with environmental issues (Comhar, 2001). A long-held opinion is that there is a lack of joined-up thinking and consensus on solutions (MacLaran, 1993). Chapter 3 explores the concept of smart growth to facilitate an increase in joined-up thinking and ways to achieve more sustainable and balanced regional development.

2.10 Synthesis

This chapter presented an overview of the planning structure in Ireland, to include the origin and evolution of planning in Ireland and significant developments that serve, shape and influence the planning process. The chapter then considered the Irish political system and its relationship to planning. Planning at a local level was then outlined with
Chapter 2 – The Planning Structure in Ireland: An Overview

an emphasis on the three main functions of the creation of the development plan and the structures to oversee development control and enforcement of policy and strategy. Regional approaches to planning in Ireland, a relatively recent phenomenon when compared to other EU member states, were outlined. This was followed with recent strategic policy developments of significance for current and future planning in Ireland, to include the National Development Plan and the National Spatial Strategy. A critical evaluation to identify the strengths and weaknesses of the planning structure was outlined. The rhetoric of the NSS was examined with a view that the strategy inherently if not explicitly supports the concept of smart growth with a main objective to counter and halt urban sprawl. However, it does not necessarily follow that policy is implemented verbatim and this is where a formidable challenge arises. Opportunities have been lost in the past in Ireland by not implementing policy that aimed to achieve more even development.

The nature of the Irish political system was examined, particularly in terms of the incompatible link between the long-term goals of sustainable/ smart growth versus the short-term political goals of the government of the day. The chapter serves as lead in to Chapter 3, which presents a critique of the concept of smart growth as an alternative methodological and philosophical approach to urban development.
CHAPTER 3 – THE CONCEPT OF SMART GROWTH: AN ALTERNATIVE TO TRADITIONAL LAND DEVELOPMENT?

3.1 Introduction

Residential development patterns in Ireland have traditionally been characterised by a model that favours mono land-use. As in many developed countries, Ireland has witnessed suburbanisation in settlement patterns from a rural past to an urban present. As a small open economy, Ireland has experienced a continual decline in agriculture and is now enmeshed in a global market-led network of connections, trading goods and services on an international scale. Urban centres are extending into rural areas and the surrounding hinterland where large tracts of land are being developed in a ‘leapfrog’ low-density pattern. Allied to this change, the economic growth of the Celtic Tiger era, although responsible for many benefits, is also associated with specific socio-economic and environmental challenges as discussed in Chapters 1 and 2.

Within the context of an increasingly globalised world, Ireland must now adopt more initiatives, mechanisms and visionary tools to address the negative aspects of the Celtic Tiger era and ensure that future development is economically competitive and socially and environmentally responsible. Chapter 3 explores the concept of smart growth as one part of the solution to deal effectively with unsustainable development patterns. The theory of smart growth is outlined and the origin and evolution of the smart growth movement as a potential antonym alongside what the concept has to offer within a unique Irish context is duly considered. The chapter outlines the origins of low-density
peripheral suburbanisation, one pattern of development that represents the ideal choice of many. The factors and driving forces that gave rise to low-density development patterns in modern capitalist societies are discussed within the context of the planning and development process and policy and strategy founded upon the principles of sustainable development. One of the major issues driving interest in planning reform has been urban sprawl or the pattern that takes over when, with little co-ordinated planning, people and businesses desert established communities to develop open countryside (American Planning Association, 2002).

The use of the term ‘urban sprawl’ throughout this chapter does not imply condemnation of this pattern of development, but instead is a widely-used term that has been adopted for a pattern of low-density development within the discourse of planning and development.

3.2 Smart Growth: Theory and Practice

Growth has two fundamentally different interpretations: expansion and development. Expansion means getting bigger while development refers generally to the historical changes in society over time; more particularly it refers to ideas of progress or modernisation. Development refers to quality in the nature of society as distinct from economic growth that is quantitative (Douthwaite, 1992). The concept of smart growth emerged in the United States during the 1990s from research undertaken by the Urban Land Institute (ULI). The ULI is an international non-profit education and research institute with a focus on using land in order to enhance the total environment, and
represents the entire spectrum of land use and real estate development disciplines working in private enterprise and public service. At this time the ULI was looking at ways to deal with the problems arising from urban sprawl, traffic congestion, school overcrowding and air pollution. The concept also evolved as a reaction to the apparent failure of traditional planning techniques to improve conditions. By 1999, the ULI was of the opinion that smart growth had become a hot political debate in communities and States throughout the US (Porter, 2002).

Whilst there are many definitions of smart growth, the ULI describes the underlying objective as follows: ‘Smart growth seeks to identify a common ground where developers, environmentalists, public officials, citizens and others can all find acceptable ways to accommodate growth’ (Porter, 2002:4). Smart growth, as an alternative philosophical and methodological approach towards urban planning, calls for greater integration between the economic, environmental and social aspects of planning and development. Smart growth is not anti-growth and contains a number of the seeds needed to address the broader global challenge of sustainable development. ‘As recently as 15 years ago, the term smart growth was absent from our vocabulary, and smart growth principles, by whatever name, were the subject of discussions only among a small group of planners and public officials’ (Costa, 2005: 380).
SOCIETY

Stakeholders:
- Property Developers
- Environmental Groups/NGOs
- Planners/Architects
- Statutory/Non-Statutory Groups
- Community Interest Groups

ENVIRONMENT

SMART GROWTH

PRINCIPLES OF SMART GROWTH
- Mixed-use design / Compact design;
- Wide range of housing opportunities;
- Create walkable communities;
- Create sense of place;
- Preserve open space and farmland;
- Direct development towards existing communities;
- Provide multi-modal transit options;
- Make development choices predictable, fair and cost effective;
- Encourage community and stakeholder involvement;
- Efficient management and expansion of infrastructure;
- Encourage infill and brownfield development in built-up areas.

SMART GROWTH TOOLS
- Impact fees
- Urban growth boundaries
- Inclusionary zoning
- Up-zoning
- Parking waivers
- Transit-oriented development
- Density bonuses

SMART GROWTH PROCESS
- Preparation
- Consultation
- Design
- Approval
- Integration
- Co-ordination
- Implementation
- Monitor and Evaluate

BARRIERS
- Value-conflicts
- Location
- Size
- Lack of technical ability
- Opposition
- Complexity
- Viability
- General marketability
- Management of scheme

Sustainability Indicators

Multi-disciplinary

Multi-sectoral

Figure 3.1 Conceptual Framework of Smart Growth
In 1996, a broad coalition in the US formed the Smart Growth Network (SGN), with members spanning real estate, the US Environmental Protection Agency, advocacy and policy-making circles (Tregoning et al, 2002).

“Growth is smart when it gives us great communities, with more choices and personal freedom, good return on public investment, greater opportunity across the community, a thriving natural environment, and a legacy we can be proud to leave to our children and grandchildren” (Smart Growth Network, 2006:1).

The concept purports to offer solutions to growth management issues with mechanisms such as public policy tools. Bengston et al (2004) suggest, as with any public policy instrument, the specific details of how growth management is implemented rather than the general type of policy are critical in determining effectiveness and impact. Furthermore, they conclude that the challenge planners and policymakers face in managing urban growth and protecting open space in the 21st century are daunting. Smart growth is a strategy that targets the physical development of urban regions. It is, however, also a movement with strong social and political components. Social equity and the avoidance of social exclusion are seen to be essential to the long-term sustainability of metropolitan regions. As an archetypal North American form of metropolitan regionalism, smart growth has thus evolved out of largely volunteerist and localised governance frameworks (Scott, 2007).
3.2.1 Key Principles of Smart Growth

The underpinning ideology of smart growth is that a community should fashion its own version of smart growth through a shared decision-making process and adapt the concept to unique socio-economic, environmental and political circumstances. The concept embraces a holistic approach that accords with community interests and reasonably balances the various principles that make up smart growth in theory. Fundamental to the concept of smart growth according to Joyce (2001) is the requirement for regional perspectives, the requirement for greater efficiency of land use, greater public investment, fiscal reform and adherence to equity considerations. The main objective of the SGN is to build consensus around land use issues and ascertain how to provide local officials, planners, developers, preservationists and environmentalists with the necessary tools and information to battle the problems associated with urban sprawl. The SGN identified the principles listed below (Table 3.1) as necessary to further the concept of smart growth (Tregoning et al, 2002).

<table>
<thead>
<tr>
<th>Smart Growth Principle</th>
<th>Description of Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix land uses to incorporate office, retail and residential in a development</td>
<td>Mixing land uses to achieve several smart growth goals simultaneously by attracting homeowners of various income levels, providing a range of local employment opportunities and reducing travel needs.</td>
</tr>
<tr>
<td>Take advantage of compact building design</td>
<td>Compact building design suggests that communities be designed in a way which permits more open space to preserved, and that buildings can be constructed which make more efficient use of land and resources.</td>
</tr>
<tr>
<td>Create a range of housing opportunities and choices</td>
<td>Smart growth proposes a wide range of housing opportunities to facilitate a broader and more diverse mix of age profiles and family structures.</td>
</tr>
<tr>
<td>Create walkable communities</td>
<td>By employing design techniques such as integrated land uses, mixed housing types, open space protection, and a</td>
</tr>
<tr>
<td>Pedestrian-oriented environment, developers can create new places that are actively supported, rather than opposed, by neighbourhood groups and local authorities.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Smart growth encourages communities to craft a vision and set standards for development and construction which respond to community values of architectural beauty and distinctiveness, as well as expanded choices in housing and transportation.</td>
<td></td>
</tr>
<tr>
<td>Not discounting the environmental benefits, conserving open-space, the economic value of which is fast being recognised by developers who find that the incorporation of natural features, cycling paths, play areas and additional footpaths makes their schemes more marketable.</td>
<td></td>
</tr>
<tr>
<td>Building Master-Planned Communities; most usually on greenfield areas adjacent to the urban fringe, and taking the form of long-term, multi-phased projects that combine a comprehensive mix of land uses and are held together by unifying design and service elements.</td>
<td></td>
</tr>
<tr>
<td>Although the car retains its allure to most occupiers, there is rapidly becoming a growing interest in other choices such as light and heavy rail systems, expanded bus services and bike and pedestrian paths, which all enhance mobility and improve the quality of life.</td>
<td></td>
</tr>
<tr>
<td>Collaborating on Solutions; establishing a shared approach between developers, environmentalists, civic organisation, public officials and local citizens as to how future growth can best be accommodated. Ultimately, ‘fair’ does not mean that everyone will agree with the result. What it does mean, at a minimum, is that a community should engage public in development decisions in good faith.</td>
<td></td>
</tr>
<tr>
<td>Involving the community early and often in the planning process vastly improves public support for smart growth and often leads to innovative strategies that fit the unique needs of each community. Community involvement in a collaborative way, arguably, can lead to creative, speedy resolution of development issues and greater community understanding of the importance of good planning and investment.</td>
<td></td>
</tr>
<tr>
<td>Encouraging brownfield Redevelopment and infill development fulfils a prime aim of smart growth by revitalising the neglected parts of towns, cities and older neighbourhoods.</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.1 Smart Growth Principles (Smart Growth Network, 2006)
Smart growth proposes more resource-conscious methods to accommodate growth in a manner that is economically viable, friendly to the environment and is socially responsible. According to Bunce (2004), the association between environmental protection and economic growth apparent in smart growth policies can be considered a cornerstone of ecological modernisation theory, defined by Young (2000) as a ‘means by which capitalism can accommodate the environmental challenge’. Smart growth promotes collaboration from the beginning of the design process and participation by all interested parties in the decision-making process in an attempt to achieve more diverse and integrated development.

3.2.2 Evolution of the concept: influence from the past

In the early 20th century the ideal of a planned residential community, ‘The Garden City’, was devised and promoted by the English town planner Ebenezer Howard in Tomorrow: A Peaceful Path to Social Reform (1898) (Jenks et al, 1996). The book was a response to the need for improvement in the quality of urban life. Howard, a court stenographer by profession, felt that overcrowding and congestion due to uncontrolled growth since the Industrial Revolution had marred urban life. He persuaded practical businessmen that his idea was financially sound and socially desirable. The ‘Garden City’ concept is underpinned by decentralisation away from the urban core, which could be argued to result in further dispersal and low-density development. However, at the design stage of Howard's concept, there is mixed-use development, a town centre, open space conservation and the adoption of a more holistic approach to the planning and development process.
Although pre-auto age cities were of a different scale and nature than those we encounter today: ‘In the first century before Christ, traffic in Rome was heavy enough to move Julius Caesar to declare a ban on carts and chariots between sunrise and sunset’ (Warren 1997:46), and in fifteenth century Milan, Leonardo da Vinci proposed the multilevel separation of pedestrian and vehicular traffic, with special routes for traffic of the heaviest goods (Ibid.).

Definitions of smart growth consist of desired types of planning and regulatory processes, as well as normative urban form outcomes (Godschalk, 2004). The concept is evolutionary, multidisciplinary, multisectoral and is continuously influenced and shaped by economic, environmental and social factors. There is a suggestion that smart growth is a new term for an old idea of growth management, a strategy that has been in place for 40 years in the US (Haines, 2003).

Smart growth expands on the principles of New Urbanism, an urban design movement founded in the 1980s in the US based on concerns about the design of neighbourhoods and cities in America. The principle aim of New Urbanism is to re-establish ‘the relationship between the art of building and the making of community through citizen-based participatory planning and design’ (Corbett, 2000:28). ‘Proponents of New Urbanism know what physical elements are required to create good streets, healthy neighbourhoods and successful regions and they can describe them in clear detail. They also know how to build coalitions of citizens, developers, elected officials and business
leaders who can turn such visions into reality’ (Hebert, 2003: 205). New Urbanism focuses mainly on urban design and building uses and similar to smart growth derives inspiration from the ideas outlined by modernists that include Le Corbusier and the recently revived work of Jane Jacobs (1961). Hebert (2003:206) states that New Urbanisms’ “mission is simply to write a better text for the urban world of the twenty-first century than the one Wal-Mart and Exxon have ready for us”.

Smart growth, however, has a broader remit than New Urbanism, being concerned with design and other factors like regional transportation systems, regional open-space systems and stakeholder collaboration. Instead of appealing almost entirely to environmental sensibilities, as much North America sustainability discourse does, advocates of smart growth focus the discussion around basic quality of life issues (Tregoning et al, 2002). In its report, Planning for Smart Growth 2002: State of the States, the American Planning Association (APA) encourages adopting smart growth principles to challenge urban sprawl. The term ‘smart growth’ may have North American roots, but the ideas behind the concept have long been translated into action at EU level. For example, the EU (and especially densely populated countries such as the United Kingdom (UK) and the Netherlands) has had a long history of thinking about new ways to manage growth, especially in cities. From the 1990 Green Paper on the Urban Environment to the adoption of the Strategy for Sustainable Development in June 2001, the EU reaffirmed that sustainability lies among the Communities’ policy priorities (Tregoning et al, 2002).
Recent urban design and planning theory attach considerable importance to the concept of mixed-use in achieving sustainability, lower reliance on private vehicular use, and achieving more vibrant urban areas for the long-term. There is, however, scepticism that whilst mixed-use developments are desirable, they are, nevertheless, difficult to achieve. Hall (2000) argues that local development plans commonly work from a paradigm based upon two-dimensional uniform land use allocations. This approach has difficulty in coping with mixed-uses, urban design principles, urban history and the more general pursuit of more compact and sustainable settlements. Furthermore this approach does not provide an adequate basis for public participation. This also suggests that mixed-use promises economic vitality, social equity, and environmental quality, but it cannot readily deliver such benefits in a context where cultural and economic forces promote separation of land uses (Grant, 2002). The significance of this within an Irish context is that a culture of separation represents the historical norm and that planning policy and strategy which is more supportive to mixed-use design is a relatively recent phenomenon in Ireland. With this in mind, alongside a traditional preference to low-density style development patterns, a formidable challenge exists for the planning and development profession to deliver a pattern of development that is deemed the same or better than previous development types.

As a planning and governance concept, smart growth is perhaps the maximum expression of new regionalism in North America (Scott, 2007). Given the importance attached to a ‘bottom-up’ approach in smart growth, from the outset communities adopt the principles that are deemed to be most conducive to an agreed-upon vision. One
outcome of this could be a properly planned low-density dispersed city, if that model represents the choice of the people. Fundamental to this view is that the concept of smart growth is not incompatible with low-density development (Stewart et al 2005). Benefits also include: preservation of cultural and historical aspects of built environment, an opportunity to achieve more diverse tenure types, enhanced quality of life and an empowered citizenry.

Allied to these benefits is a raised awareness about alternative ways to develop that generate intergenerational equity which is at the core of sustainable development, potential for greater civic engagement, reduced greenfield conversion and an increase in brownfield and infill development. Further benefits include greater opportunities to adopt multi-modal transit split, and a reduction in the cost to local authorities for the provision of public infrastructure and delivery of services. Older suburbs benefit from revitalisation, and increased economic competitiveness increases foreign direct investment potential, includes tourism (Porter, 2002). The concept of smart growth has an inherent flexibility and adaptability. The concept proposes a variety of fiscal and regulatory tools, including density bonuses, impact fees, and site value land tax, to realise specific economic, environmental and societal benefits.

3.2.3 Social Theory of Smart Growth

Alcock et al (2000) suggest that it is difficult to achieve an adequate understanding of social policy in the absence of theory. Social policies usually originate in and are shaped by the belief systems of those who initiate them. Theoretical perspectives have
traditionally been divided into categories. The term right-wing once denoted a desire to conserve the privileges attached to traditional modes of status and authority. It has also become associated with a form of liberalism, which is interested not in the preservation of status, but in the promotion of reward on the basis of desert (Craib, 1992). Smith (in Alcock et al 2000) writes that all individuals within the market are motivated by a rational assessment of the benefits and costs associated with the work they do and the goods they purchase. People generally try to maximise their own happiness while minimising their discomfort. In contrast, the term left-wing is traditionally associated with the desire to change from the status quo.

The blurring of the boundary lines between all theoretical perspectives makes it more difficult to categorise without overlap (Alcock et al 2000). The complexities inherent in the categorisation of individual theoretical perspectives mean there will always be exceptions to any rule in social policy. Many conservatives have a paternalistic outlook, which promotes status in the form of hierarchical and unequal social relations but which does not have an individualistic stance on human nature. Instead, there is a strong sense of community and mutual co-operation, which includes a duty to support the poor (Ibid.). It is suggested that the typology over-estimates the coherence within the perspectives and the differences between them.

It could also be argued that the left-right continuum fails to adequately characterise the middle ground. This middle ground, known as the third way (Alcock et al, 2000; Giddens, 2001), represents an area of compromise between the extremes of left and right. Talen (2002) suggests that smart growth is rooted in normative ideals such as
specific ideas about how cities ought to develop. This is usually thought to be driven by functional theory, that is, theories about how cities function, with little recognition that the reverse is also true: theories about how cities function should be supported by theories about how they ought to function. The ultimate goal of smart growth is to establish new governance and planning rules as well as to change attitudes towards urban development (Scott, 2007). Recognising that the world is a complex system, it is important to establish that the concept of smart growth cannot be easily compartmentalised into either being entirely left or entirely right wing in the left/right continuum. Nonetheless, it could be argued that the concept is more aligned towards the left of the spectrum, having the following political, economic and theoretical attributes:

1. **Pro-state intervention where appropriate:**
   The concept of smart growth advocates state intervention in the form of regulation and growth management mechanisms as a means to accommodate growth in a manner that is economically viable, friendly to the environment, and is socially responsible. In contrast to 'engineering' society, Smart growth, it is suggested, facilitates communities to evolve more naturally, thus reflecting the genuine diversity of modern lifestyles.

2. **Anti-total laissez faire:**
   Smart growth advocates suggest that a combination of free market mechanisms and inappropriate government policy has resulted in the current negative socio-economic and environmental challenges associated with urban sprawl. As policies are not cast in stone, a reorganisation of the system of incentives may channel growth where it is most needed, back into existing neighbourhoods.
3. **Pro-participation of all stakeholders in the decision-making process:**

Smart growth encourages a bottom-up approach with collaboration of all stakeholders. The collaboration gives residents a fair chance to express their concerns and goals. Developers benefit because the process is predictable and enables them to line up public support so that projects can move forward smoothly (Smart Growth Network, 2006). This is in tandem with securing top-level support to ensure the adoption and implementation of smart growth principles. Some critics have compared smart growth to the concept of social engineering most associated with Skinner (1988), controlling and shaping attitudes and behaviour by techniques of behaviourist psychology. Growth management solutions reached by consensus in an active and dynamic manner rather than growth control or social engineering underpin the concept of smart growth, thereby countering the idea of undue influence and control.

### 3.2.4 Smart Growth: An Opposing View

It is important to note that public opinion surveys consistently find overwhelming support for curbing urban sprawl coexisting with the lack of support for higher-density development. Thus, many suburban homeowners are likely to support smart growth in the abstract, but oppose its specific manifestations when the increases in density it calls for are planned near them (Fischel, 2001). Paradoxically, the pro-smart growth and anti-smart growth contingents share a common ground based on the desire to deal with housing affordability, traffic congestion and quality of life. Notwithstanding the benefits, smart growth is not devoid of criticism.
Some community groups view smart growth as an open invitation to public officials and developers to design overly dense projects. Others view the concept as an elitist-driven development pattern intent on creating gated communities. Traditionally, efforts to control development collide with strongly held values concerning property rights and the ‘not in my back yard’ syndrome (NIMBY). Nonetheless, ‘the related dynamic of urban decline is more amenable to change because political forces required for change are likely as aged suburbs themselves face decline’ (Bier, 2002:83). What this means is that community groups may be more amenable to change in line with the negative outcomes of poorly planned suburbs emerging, for example, lack of amenities for young teenagers, or lack of community infrastructure for older residents.

Smart growth would appear not to mean the same thing to everybody (Downs, 2005; Ye et al, 2005), suggesting that value conflicts can arise from the various ways it is defined (Godschalk, 2004). Whereas development-oriented interest groups emphasise procedures and incentives such as expedited project reviews, flexible design standards and density bonuses, environmental groups define smart growth primarily in terms of air and water protection, open space protection and environmental justice. Planners and public officials, on the other hand, define smart growth in terms of its cost savings in providing infrastructure to compact cities and its opportunities for revitalising older urban areas. But these differences fulfil the smart growth aim of engaging broad and diverse audiences, and, as such, can be seen as a benefit. Nevertheless, the broader and more diverse the audience, the longer it takes to reach consensus, thereby slowing up the entire planning and development process. On the other hand, there are those who believe that smart growth has not been in place long enough for the public and
policymakers to understand the long-term effect on new initiatives, development patterns and quality of life (Preuss and Vemuri, 2004; Yang, 2003).

Libertarians argue that today’s growth patterns in the US reflect market demands, ignoring decades of government intervention in planning and government subsidisation of roads and automobiles (Dittmar et al, 2004). The libertarian's view is that smart growth advocates tend to overstate the effectiveness of planning remedies and ignore the very real and persistent appeal of the detached single-family home in a suburb with good schools, not to mention the difficulty of changing entrenched lifestyles and habits.

It would appear that opponents of the concept of smart growth are aligned to the right-wing conservative perspective of the left/right theoretical continuum. This is based on the view that the concept is more associated with a ‘bottom-up’ approach synonymous with smart growth. Critics of smart growth concentrate on specific principles of smart growth, for example more compact design, and from this conclude that smart growth plans solely for higher density cities where everyone walks or rides light rail. Smart growth is further criticised on the grounds that more compact design results in a loss of biodiversity, a greater degree of air pollution and thus reduces quality of life. However, advocates of smart growth counter this with the view that mixing of uses is more feasible now and in the future with the availability of new cleaner greener technology in a post-Fordist-Industrialised world.
Opponents of smart growth, which include Wendell Cox in the US, suggest that the use of urban growth boundaries (discussed in section 3.3.1) interferes with the supply of development land and results in an increase in property prices. According to Schill (2004) the Achilles' heel of the smart growth movement is the impact that many of the proposals put forth by its advocates would have on affordable housing. Smart growth advocates counter this by saying that development left entirely to *laissez-faire* market conditions has not been entirely effective in the provision of housing to date. Alongside this are the words of Adam Smith (cited in Douthwaite, 2000:332) who wrote that

“if each of us pursued our personal advantage in the economic sphere we would be led by an ‘invisible hand’ to promote the interests of society more effectively than if we had set out to do so.”

Smith endorsed *laissez-faire* in principle. Implicit in Smith’s idea of an invisible hand was the acceptance by everyone, business people included, of a set of social values to which they conformed and which in certain cases were given force by law. Douthwaite (2000) argues that although Smith supported a *laissez-faire* approach, he did so only when personal gain and advantage is achieved in a manner that acknowledges social values. Broussard et al (2008) argue that incorporating social values into land use planning is one way to assure more balanced planning. Voith and Crawford (2004) argue that the adoption of strict growth management policies, which aim to stop growth without making provisions for new development, raises legitimate concerns about increasing house costs because of diminishing supply. This view has created a perception that smart growth and affordable housing are opposing forces. Ensuring an
adequate supply, distribution, and quality of affordable housing is a litmus test for smart growth.

3.3 Smart Growth Techniques

Advocates of smart growth recommend a variety of economic, social and political tools as listed below to effect more efficient land use:

1. **Support well-designed developments**

   In every community, there are unique and individual features that make each place special, from train stations to local built heritage. These should be protected and new developments should be integrated and designed in a complementary manner.

2. **Conduct community vision exercises**

   Plans developed without strong citizen involvement, it could be argued, do not have staying power. When people feel marginalised from important decisions, they are more reluctant to help out when tough choices have to be made. Community stakeholders are equipped with local knowledge about the vicinity and may offer invaluable creative opinions and views on future visions.

3. **Implement participatory local, regional and national planning**

   The process of LA21, CDBs and SPCs as discussed in section 2.4 of Chapter 2, whilst embryonic, represent initiatives that have been put in place to facilitate public participation in the planning process in Ireland.
4. **Build coalitions that include the entire community: businesses, community groups, environmental groups and elected officials**

Again LA21, CDBs and SPCs offer one avenue for coalitions and forums for consensus building between diverse actors. Furthermore, in 2006 there was a relaxation of EU rules on State borrowing and this facilitates future public/private partnerships. This is important for large infrastructure projects that require greater capital investment than the public sector alone can provide.

5. **Raise more public awareness about the benefits of Smart Growth.**

Education and information disseminated through all media facilitates increased awareness and knowledge with regard to informing people about the concept of smart growth as an alternative approach to urban planning.

### 3.3.1 Smart Growth Regulatory/Financial Initiatives

There are a number of regulatory and fiscal mechanisms/instruments available to achieve more sustainable land use. These include *inter alia*:

1. **Impact fees**

Mathur et al (2003:1303) define an impact fee as a one-time charge imposed on new development by local government to fund a proportional share of the cost of capital facilities required by that development. It is generally charged as a condition for approval of a building permit. Impact fees are fees collected from developers of new homes to pay for schools, parks and other facilities.
Impact fees fund infrastructure bills for local authorities and in return developers can avail of higher density levels that yield maximum profits. Mathur et al (2003) suggest that impact fees add directly to the cost faced by developers in supplying new housing to the market. The effects on new housing prices and the quantity of new construction depend on market conditions, with tighter market conditions lowering the price elasticity of demand and increasing the price effect of the impact fee, and softer market conditions having the reverse effect. MacLaran (2003) argues that ultimately the market will dictate whether the developer, where demand is low, or the consumer, where demand is high, shoulders the financial burden of the impact fee. This, it is suggested, is why there is a degree of state intervention necessary, such as regulatory controls, to protect consumer interests, especially the more vulnerable sectors in society.

2. Urban growth boundaries
An Urban Growth Boundary (UGB), as defined by the Smart Communities Network in the US, is a local government regulatory measure for delineating limits for urban growth over a period of time. Land within the UGB is made available for urban development while land outside the UGB remains primarily rural, for farming, forestry, or open space conservation. A UGB is a way to stop the spread of low-density residential development in suburban and rural areas.

In the US more than a 100 cities and counties have adopted some form of a growth boundary, with Portland, Oregon, seen as a model with a certain degree of success in curbing urban sprawl. Nonetheless, within the context of Portland’s UGB, Jun (2003)
concludes that in fact this growth management tool has not contributed to a reduction in low-density peripheral growth in counties adjoining Portland and not designated within the UGB. Gordon and Richardson (1997) state that what is happening in Portland is as a result of top-down command-and-control planning rather than an expression of individual preferences. Furthermore, Jun (2003:1346) highlights a caveat that must be accounted for and states that ‘bi-state co-operation is required for an effective UGB policy, so the two state UGB policies should be consistent and compatible with each other’. This view suggests that the success of urban growth boundaries as a tool to curb low-density peripheral growth is dependent upon joined-up thinking, collaboration and complementarity of development plans of independent but adjoined jurisdictions.

Within the context of the GDA, where there are seven LAs working independently of and in competition with each other for development that would generate income in a particular area, it would be difficult to apply a UGB successfully without first reaching agreement between the seven LAs on how the UGB could be applied in a manner that benefits the GDA region as a whole and not just individual local authority areas. According to Staley and Mildner (1999) and Jun (2004) UGBs have potentially negative side effects. By reducing the supply of developable land, for example, housing and land prices could increase, thus reducing housing affordability and production. Fulton et al (2006) state that urban growth boundaries can help to redirect urban growth, but in and of themselves they cannot encourage a fundamentally different urban form. Local policy makers and citizens need to understand the nature of these trade-offs and impacts before
they adopt growth boundaries. UGB implies trade-offs about how land will be used and who can use it.

3. Inclusionary zoning and up-zoning

The process of inclusionary zoning occurs when communities have adopted policies or regulations that encourage or mandate inclusion of affordable housing units in residential developments. This process has proved controversial, as discussed in section 1.3.2 of Chapter 1, with regard to the number of social and affordable houses built in Ireland. McDonald (2006) outlines the innovative approach to urban renewal in Vancouver, Canada. From the beginning, provision was also made for social and affordable housing, ‘non-market’, as it is called in Canada, amounting to 17% of the total.

4. Up-zoning

Up zoning is the process of changing the zoning in an area, usually to allow greater density or commercial use. Sometimes the term is used to mean the opposite, for example, changing the zoning in a broad area to limit growth or density. Traditionally, agricultural land is valued at a lower rate than land zoned for residential development and it is suggested that the process of changing designated zones has inherent conflicts of interest and as such warrants a degree of state and regional control to prevent inappropriate zoning practices.
5. Parking waivers

According to Parzen and Sigal (2004), due to the importance of place-making and walkability, development needs well-designed parking garages. However, parking provision is expensive and adds to the cost of residential developments. A new approach of shared parking can reduce parking costs, especially for affordable and senior housing. Seattle, US, for example, waives parking requirements for affordable housing projects serving very-low income (below 30% of median income) residents (Downs, 2004). When the amount of space for car parking is reduced, more space is available for other local amenities.

6. Transit-Oriented Development;

Irish planning policy and strategy outlines the link between transportation and land use. The umbrella of Transit-oriented development (TOD) includes regional planning, city revitalisation, suburban renewal, and walkable neighbourhoods. TOD is a cross-cutting approach to development that can do more than help diversify transportation systems; it can offer a new range of development patterns for households, businesses, towns and cities (Dittmar et al, 2004). The concept is at its adolescent phase in the US and has been touted as a cure-all, with some arguing that all metropolitan growth can be accommodated through higher density infill development along transit lines; a physical possibility perhaps, but not viable in a democracy. Convincing the masses of the benefits that accrue from TOD, it is suggested, may prove to be a formidable task. TOD is never a stand-alone phenomenon and must be conceived within the context of at least a corridor and in most cases a regional metropolis (Dittmar et al, 2004).
6. Density bonuses

According to Carlson and Mathur (2004), a corollary to protecting open space and natural resources is concentrating housing within urban growth areas, which invariably results in housing densities that are far greater than in most suburban residential developments and in an entirely different form of housing and community development. Urban and suburban residents often oppose increasing affordable housing densities through infill development because higher densities threaten the existing neighbourhood scale and character and raise fears of reduced property values. Gordon and Richardson (1997) state that in an industry as cyclical as residential construction, developers are very market-conscious.

The risks of building an unacceptable product are very high, and builders are well aware of the strong consumer preference for the single-family detached home. Providing affordable housing requires providing incentives to both developers and local residents. With this in mind, one solution is for developers to receive higher density bonuses in exchange for the provision of affordable housing and improved amenities for local residents that would otherwise not be in the plans for the development.

3.4 Suburbanisation, Low-density Development, Urban sprawl: One Pattern of Development

Amongst the vast number of hotly debated definitions, Ewing et al (2003) define urban sprawl as any environment characterised by a population widely dispersed in low-density residential development with rigid separation of homes, shops and workplaces.
and a lack of a distinct, thriving activity centre, such as strong city centres or suburban town centres. Urban sprawl is a consequence of both statistical realities and the human condition. Statistically, urban sprawl is the outcome of demographic factors such as population growth and spatial factors such as the limits of the city boundaries. When urban centres reach carrying capacity, growth in population must be accommodated elsewhere – the suburbs. Altshuler and Gomez-Ibanez (1993) suggest that the original application of this term in a planning context was to describe predominantly commercial ‘ribbon’ development along both sides of highways over considerable distances, sometimes called ‘retailscape’. Now the term has been generalised to include almost any kind of low-density suburban development and ‘leapfrog’ development.

The psychological catalyst of urban sprawl is the perception that ‘more’ may be had for ‘less’ in the suburbs and that the general quality of life is better (Goodwin Procter, 2002). It could be argued that a market for sprawl-style development would not exist if land was scarce and expensive as evidenced in the Netherlands, where more compact design and higher-density is the norm, perhaps not through choice but through necessity. The paradigm of urban sprawl drains the economic and cultural life out of cities and consumes more greenfield land and fuel in transportation. At the same time, world population pressures are relentlessly increasing. In towns and cities across the globe older inner city areas are neglected and abandoned, while greenfield sites are developed, and the demand grows unabated for petrol to drive to and from increasingly dispersed destinations. Low-density peripheral growth includes new subdivisions that leapfrog far beyond existing settled areas onto vacant or agricultural land. More
recently, sprawl has also been associated with obesity and other illnesses associated with a lack of mobility (Scott, 2007).

The desire of the upper middle classes to escape to the countryside far from the physical dereliction and unhealthy atmosphere in western cities is evident from the mid-19th century (McManus, 2002). The pattern of development that has resulted in urban sprawl may be traced as far back as the 1840s. At this time, Henry David Thoreau, whilst at Walden Pond, Massachusetts, wrote and reflected upon the benefits of simple living in natural surroundings. Wheeler and Beatley (2004) write that Thoreau's retreat was in large part a flight from the pace and pressures of urban life. Frederick Engels’ writings (England in the 1840s) describe the increasing spatial segregation between the suburban estates of wealthy mill owners and the urban tenements of their workers. Le Corbusier (1933:18), who noted the pattern of development during this period in the form of suburbs, had this to say: ‘Suburbs? Suburbs are broken, dislocated limbs, the city has been torn apart and scattered in meaningless fragments across the countryside’. He further asked, ‘What is the point of life in such places? How are people to live in them? Suburban life is a despicable delusion entertained by a society stricken with blindness’.

This pattern of development particularly accelerated in the US in the post-WWII period from 1945 when changing transportation and economic patterns had transformed North America.

“We live in cities and suburbs whose form and character we did not chose, that is, they were imposed on us, by federal policy, local zoning laws and the demands of the automobile” (Duany, 2002: xiii).
Andres Duany is a founder member of the new urbanism movement. While sprawl development owes its existence to many factors, it is important to understand four essential ingredients, or the ‘genetic code’, of suburbanisation: land ownership and use, transportation patterns, telecommunications technology and regulations and standards (Gillham, 2002). In other words, urban sprawl as a pattern of development is dependent upon a number of socio-economic and political factors, as Gillham (2002:8) argues that ‘without a highly developed system of private land ownership and a viable market for land, sprawl as we know it would be virtually impossible’. The universality of the ingredients that make up the genetic code of suburbanisation, he further argues, is the reason why the characteristics and outcomes are similar and comparable at a global level.

3.4.1 Urban Sprawl: A Global Phenomenon with a Global Reach in Advanced Capitalist States

Thompson (1982:2) states that

“already, from the middle of the eighteenth century, the great suburban sea-change had started in London, the decisive social upgrading which made places distanced from the city centre desirable residential area for those who could afford it rather than mere dumping grounds for the unfortunates unable to live in town houses.”

Urban sprawl is not unique to the US and is also evident in Western Europe, Canada, Australasia and Japan. More recently countries such as Spain are displaying patterns of urban sprawl. According to Munoz (2003), Mediterranean cities have been historically
characterised by the archetypal image of high-density, urban complexity based on mixed-use design and social diversity. However, the increasing incidence of urban sprawl shows a very different urban scenario, which was until recently exclusively associated with the cities of the Anglo-Saxon urban tradition.

Frenkel (2002) highlights the challenges associated with urban sprawl in Israel and the adoption of growth-management policy to restrain urban sprawl. This approach implicitly if not explicitly suggests support for the concept of smart growth. A scenario approach was adopted through forecasting outcomes based on current development patterns in Israel. The results show that in certain regions the effect of the proposed policy on urban sprawl could be impressive. Furthermore, the research suggests that in the near future more places and countries will shift towards growth management policy in light of the negative socio-economic and environmental outcomes associated with planning and development systems left entirely to market dynamics (Ibid.).

Interestingly, in Cairo, Egypt, with an estimated population of 18 million people, measures have been adopted that would in fact result in urban sprawl in an attempt to alleviate the challenges associated with an excessively compact city. These measures include low-density development on greenfield sites. In Cairo it is argued that in order to continue to be economically viable, friendlier to the environment and to enhance quality of life, future development needs to be redirected in a sustainable manner to areas that have sufficient carrying capacity outside of Cairo. This is not an endorsement of urban sprawl, but instead a recognition of ‘urban overload’. Furthermore, once
properly planned there is no reason to suggest that low-density development necessarily represents unsustainable development.

Baum (2004) suggests that sprawl is the product of suburban pulls and urban pushes. The pull factor of the personal preference or dream of living in a low-density rural idyll is pushed by anti-urban sentiments towards living in a compact development within the urban core. Push and pull factors may be influenced by a variety of other variables such as market dynamics, demographic factors and supply and demand of housing. It is important to note that personal preference is totally subjective and is rooted in self-interest in the here and now. Raising awareness among consumers about the need for a long-term approach to urban planning, it is suggested, is essential to achieving more sustainable growth patterns in the future. Both Garcia and Riera (2003) and Frenkel (2002) discuss how urban sprawl is a controversial issue in many countries, since the size and characteristics of cities and the distribution of land uses may have consequences for the environment.

Taylor (2003) discusses how urban sprawl, in particular, had been a source of concern in the inter-war years as low-density development spread out from all of Britain's cities. Taylor suggests that this pattern of development was founded upon conservative ideals and a desire to preserve the countryside, coupled with anti-urban sentiments on the grounds that urban areas were unsafe. The implications of policy choices that supported a dispersal approach are reflected in the current challenges associated with urban sprawl and the need to develop initiatives and tools to halt further sprawl development.
According to Sir John Egan (2004:3), there are too many housing estates dumped into spaces with no amenities and no thought for their future governance in the UK.

In both the UK and the USA, there are parallel debates about proposals for new – and sometimes not so new – patterns of smarter and more efficient growth. Quaid (2002) suggests that, in fact, several urban issues (for example congestion, lack of affordable housing and urban sprawl) stem from multiple causes; however, ‘as society's understanding of the connectedness of urban issues grows, there is an ever-increasing need for developing integrated strategies within local government’ (Quaid, 2002; 450). She examines the utility of a tool, the Sustainability Inventory, developed by the International Council for Local Environmental Initiatives (ICLEI), in advancing the ability of US municipalities to move towards sustainability. The Sustainability Inventory is a tool that municipalities may use to build capacity among staff for infusing sustainability principles into strategic policies, programmes and practices. The approach adopted in compiling a sustainability inventory is mirrored in the principle of smart growth that encourages stakeholder collaboration in the decision-making process before development takes place regarding smart growth targets.

In contrast, Bengston et al (2004) acknowledge that sprawl provides a variety of private benefits to new residents, developers, and other stakeholders, as well as potential social benefits such as more affordable housing costs from building farther out. Nonetheless, sprawl is increasingly viewed as a significant and growing problem that entails a wide range of social and environmental costs, more particularly at a time of ever-increasing
energy prices. According to Robinson et al (2005) recognition of the cost of sprawl has prompted policy makers throughout the world to create various regulations and incentives to reduce it. Duany et al (2002) present evidence to suggest that economic and technological progress may have resulted in a higher standard of living but not necessarily enhanced quality of life.

Urban sprawl is more associated with auto-dependent transport, and this is of significance in the social health of families and the community at large: ‘Life spent enjoying the richness of community has increasingly become life spent alone behind the wheel’ (Duany, 2002: xiii). The first real challenge to the form of development that resulted in urban sprawl may be traced back to Jane Jacobs’s 1961 *The Death and Life of Great American Cities* (Grant, 2002). Jacobs argued, as do advocates of smart growth, that fine-grain mixing of diverse uses creates vibrant and successful neighbourhoods.

Wiewel and Schaffer (2001) suggest that it is useful to distinguish five different strands of thought and motivation that people bring to the question of sprawl and the relationship between the central city and its suburbs. These motivations are related to concerns with:

1. **Environment**

   Environmental concerns are probably the most frequently cited reasons for dissatisfaction with current metropolitan patterns of growth and development. The loss
of farmland and natural areas, air pollution due to traffic congestion, the depletion of water resources, and the abandonment of brownfields in the central city are all serious issues that for many people are negative consequences of rapid urban growth.

2. **Quality of life**

Closely related to the environmental motivation, the concern with a deteriorating quality of life due to metropolitan deconcentration focuses on issues such as the time lost to traffic congestion, and the loss of community in sprawling new developments. Allied to this is the destruction of small towns, and the general blandness and ugliness of suburban neighbourhood and commercial design.

3. **Equity**

For some, the main problem with the movement of people and jobs out of the central city is the resulting inequity. Residents left behind have less access to jobs, and the disappearance of the middle class contributes to the loss of civic and social capital and positive role models for poor neighbourhoods.

4. **Economic competitiveness**

A fourth argument raised against the current pattern of metropolitan deconcentration is that it impedes the ability of a region to compete in the global economy. The basic argument for this is the idea that ‘if we don't hang together, we will hang separately’, specifically in areas such as education, economic development and infrastructure planning. Poor accessibility is the common denominator of urban sprawl, where nothing
is within easy walking distance of anything (Ewing et al 2003). It is further argued that urban sprawl is false economy as it places fiscal burdens on the public sector to extend services and infrastructure such as telephone lines, sewers, and police and fire services to outlying areas, often leaving abandoned cities already equipped with the required infrastructure.

According to Tregoning et al (2002: 479), the term ‘sprawl’ has become popular pejorative, shorthand for poorly planned growth that consumes precious open space and mars the landscape with ugly development. But while people from all walks of life agree on the consequences of this growth pattern, consumers rarely see themselves as part of the problem, or the solution. Many gravitate to the outer edges of suburbia without fully accounting for its trade-offs and contradictions. They want to preserve green space, but do not necessarily see how that relates to their choice of house built on former farmland. Consumers push for new roads to relieve traffic, but are surprised and frustrated by the growth that often follows (Tregoning et al, 2002). For planners and environmentalists who hope to counteract the societal forces behind sprawl, it helps to keep that perspective in mind. For most people, land use issues reside in the here and now, in their own backyard and in a short time-frame, not in some distant place or future.

People think about different facets of planning and development in isolation, not as interrelated pieces of a bigger picture.
“Today’s suburban reality finds its origin in the pastoral dream of the automobile homestead in the countryside. This vision has been equated with a democratic economy in which homeownership equals participation” (Duany et al 2002: 40-41).

This settlement pattern is unsustainable, because if everyone consumes land in this fashion, the result is more far-flung sprawl, chasing the impossible dream and in the process leaving more and more underused infrastructure and new infrastructure built at great expense. There is a long-standing tradition in America of distrust and aversion to urban living. Particularly with the post-World War II proliferation of the automobile, cities have been abandoned in search of the suburban ideal of green, open spaces.

3.4.2 Evolution of Urban Sprawl in the US

Ewing (1997) states that sprawl is not a natural response to market forces, but a product of subsidies and other market imperfections. Suburban sprawl in the US was not an inevitable evolution or historical accident, but a direct result of a number of policies that conspired powerfully to encourage urban dispersal. ‘Town planning, until 1930 considered a humanistic discipline based upon history, aesthetics and culture and became a technical profession based upon numbers’ (Duany et al 2002:10). As a result the American City was reduced into simplistic categories and quantities of sprawl.

The Highway Act 1956 had 90% funding by federal government. The shops stayed in the city, but only for a while and then followed their customers out to suburbia. The US Federal Housing Administration and Veterans Administration loans program, post-World War II, discouraged the renovation of current housing stock. Developers turned
their backs on the construction of row houses and mixed-use buildings and other urban housing types. This was coupled with mortgages that were less than the cost of one month’s rent. Simultaneously, a 41,000-mile interstate highway program coupled with federal and local subsidies for road improvement and the neglect of mass transit helped make automobile commuting affordable and convenient for the average citizen (Duany et al, 2002). In the US, the people who were back from World War II had a whole new approach to accomplishing large-scale tasks, centred on the twin acts of classifying and counting as seen in military operations.

In the case of cities, they took a complex human tradition of settlement and said, ‘out with the old’ and replaced it with a national model that could be easily understood through systems analysis and flow charts (Ibid.). There was high unemployment in the US, especially in construction in the 1930s. Unlike pre-war suburbs, post-war suburb programs addressed homebuilding only and therefore neglected to set aside any sites for corner stores. “As a result, shopping required not only its distinct method of financing and development but also its own location” (Duany et al, 2002: 9). Placed along the wide high-speed collector roads between housing clusters, the new shops responded to their environment by pulling back from the street and constructing large freestanding signage. In this way the new ubiquitous strip shopping centre was born.

Offices then followed the shops out to suburbia, completing the migrations of each of life’s components into the suburbs. As commuting patterns became predominately suburb-to-suburb, centre cities became expendable. It is important to note that there was
no integration of types of uses during this period. While government programs for housing and highway promoted sprawl, the planning profession worshipping at the altar of zoning, worked to make it law (Duany, et al, 2002:60). It is also important to note this as a factor for the middle class. The cities witnessed an evacuation, with some saying that this ‘white flight’ was based on racism terms.

The success of the turn of the century planning, represented in America by the City Beautiful movement, became the foundation of a new profession, and ever since planners have repeatedly attempted to relive that moment of glory (Ibid.).

3.5 Urban Development: The Irish Experience

Bannon (2004) states that ‘Ireland is now an urban society’ and recommends the establishment of a National Urban Authority similar to many other EU countries. The 2006 census shows that the ‘aggregate town’ component of the population now accounts for 60.7% of the total, while 67.2 % of the population reside in the cities, towns and villages collectively. The process of urbanisation represents a multi-faceted challenge for local government (Byrne, 2003). The interpretation and implementation of new national policy and a new Planning and Development Act, allied to increased levels of development, changing expectations with regards to community participation, the process of educating elected representatives and the public with regard to changing policy, and corresponding pressures on local authority resources of a physical and human nature, requires a new and proactive response for local authorities if urbanisation is to contribute positively to the development of Irish society.
3.5.1 Decentralised development: the GDA experience

In the period from 1961 to 1981, Ireland was characterised by particularly rapid population growth in the Dublin region, fuelled by a high rate of natural increase of population and net in-migration. This resulted in the creation of enormous pressures, both for urban development and a need to reduce overcrowding in the inner city. The planning response was to propose a suburban solution, mostly in the form of ‘western towns’. However, the planning system was in its infancy, resources were scarce and the ensuing development was not always of the highest standard. Policy also discriminated in favour of new development with little regard for inner city and for rehabilitation, renewal or infill development. The notion of ‘western towns’ originated from the Myles Wrights Report of 1967. The main recommendations of the report were the development of major self-contained ‘new towns’ at Tallaght, Clondalkin/Lucan and Blanchardstown, Co Dublin. While Wright’s report was never formally adopted, many of his recommendations were incorporated into subsequent Dublin County Development Plans, and formal planning policy supported the development of the three western town units.

The growth of Dublin was not confined to this western area and almost every town and village within a 20 to 25 mile radius of Dublin City centre experienced significant expansion. For the most part the development of the suburbs of the 1970s and early 1980s produced vast uniform, low density, low-rise housing estates. This form of residential development arose mainly from the interplay of two forces. The first was the
availability of large, easily serviced greenfield sites, which prompted the development of extensive estates.

The second was the adoption by developers of planners’ minimum development guidelines as maximum standards (for example length of gardens and amount of public open space), in an effort to maximise profit (McDonald, 2000). This form of development resulted in the consumption of large amounts of greenfield sites and the abandonment of the inner city. One result of this trend of suburbanisation was a 52% reduction in the population of the inner city (Williams and Shiels, 2000).

One of the major problems faced in the inner city was the decline of traditional industrial employment, which either disappeared completely due to restructuring, as was the case with much of the port-related industry, or moved to purpose-built industrial estates on the edge of the city (MacLaran, 2002). These changes to the inner city resulted in high levels of local unemployment, the closure of facilities such as schools, institutions and community services, and a loss of vitality, as the more dynamic members of the population vacated the city centre, either as a result of public policy in the form of financial incentives, or natural trends. This abandonment resulted in adverse qualitative and quantitative transformations, such as a decline of the physical fabric of the city as old industrial sites, institutions and the older housing fabric were left to decay. The deterioration of the physical environment was exacerbated by the blight caused by long-term road proposals and by inadequate conservation policies or rehabilitation incentives. It is contended by the author that certain policy trends, to
include residential density, a road-building culture and fiscal policy that favoured the use of greenfield conversion instead of brownfield redevelopment, rural planning guidelines and decentralisation plans in Ireland, have indirectly exacerbated the incidence of low-density peripheral growth.

McDonald (2003) writes, ‘Dublin is all over the place these days with its entrails spilling out into Leinster and the city’s commuter belt extends from Dundalk to Gorey and as far inland as Athlone’. O’Brien (2004) outlines that attempts to halt Dublin’s urban sprawl into surrounding counties appears not to have been successful, at least up to 2002. This view is corroborated by the EEA 2006 Report as discussed in Chapter 1.

Under the Strategic Planning Guidelines for the Greater Dublin Area (1999), development in the GDA would be largely restricted to the ‘metropolitan area’ – a green belt comprising most of Wicklow, Kildare and Meath. However, according to figures released by the Central Statistics Office (CSO) (2004), some 70% of the growth of the towns of Sallins, Co. Kildare and Ratoath in Co. Meath took place between 1996 and the 2002 census. Housing affordability is one reason for the growth witnessed in the counties adjoining Dublin. In addition is a preference for low-density living founded upon a historical culture of rural living in Ireland.

An analysis of housing output over the period indicates most of the new building took place in the latter three years, in effect after the publication of the guidelines (O’Brien, 2004). McCarthy (2004:8) states:
“it is time to accept that Dublin, unfortunately, now resembles a US Sunbelt city, irreversibly car dependent, and that the sprawl which has already occurred severely limits the potential of rail-based public transport solutions.”

<table>
<thead>
<tr>
<th>County in GDA</th>
<th>Population increase from 1996 census to 2002</th>
<th>Population increase from 2002 census to 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dublin</td>
<td>6.1%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Dublin City</td>
<td>2.7%</td>
<td>2%</td>
</tr>
<tr>
<td>Dun-Laoghaire Rathdown</td>
<td>.07%</td>
<td>.1%</td>
</tr>
<tr>
<td>Fingal</td>
<td>17%</td>
<td>22.1%</td>
</tr>
<tr>
<td>South Dublin</td>
<td>3.4%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Meath</td>
<td>22.1%</td>
<td>21.4%</td>
</tr>
<tr>
<td>Kildare</td>
<td>21.5%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Westmeath</td>
<td>13.8%</td>
<td>10.5%</td>
</tr>
<tr>
<td>Wicklow</td>
<td>11.7%</td>
<td>10.2%</td>
</tr>
</tbody>
</table>

Table 3.2 Population increases in GDA (CSO, 2004 and CSO, 2006).

It is evident in Table 3.2 that whilst the Fingal area is showing considerable growth in comparison to the three other Dublin authority areas, there is also considerable population growth in the adjoining counties of Meath, Westmeath, Kildare and Wicklow.

Another trend now evident in the GDA is the phenomenon of ‘leap-frog’ development. This pattern occurs when developments go beyond the traditional dormitory towns such as Bray and Maynooth and are built in provincial towns within a 50-mile radius of the city, such as Carlow, Drogheda, Navan and Portlaoise (McDonald 2000:33). Whilst housing affordability is cited as one factor that has influenced this trend, individual desire to live in the countryside must also be considered.
3.5.2 Policy development in Ireland and the housing crisis

According to Memery (2001), the following factors fuelled the current housing crisis in Ireland:

1. Housing boom attributed to in-migration and economic growth;
2. A plan for housing was not included in the plan for economic growth;
3. Government policy that continually encouraged home ownership as the most favourable form of tenure (negative perception in Ireland towards private renting);
4. Fiscal incentives in the form of grants for newly-built homes in support of the building industry coupled with mortgage interest tax relief (MITR).
5. The absence of property tax and capital gains tax on owner-occupied house sales;
6. Local authority provision became a low-cost vehicle into home ownership for many households through a variety of tenant purchase schemes;
7. The voluntary housing sector is underdeveloped in Ireland (accounting for less than 1.5% of all housing provision);
8. Panic buying by young people who started buying homes earlier in fear that they would not get onto the property ladder in the future;
9. European Monetary Union had specific convergence criteria which saw a reduction in interest rates in Ireland, thus fuelling the housing boom further;
10. A powerful lobby of owner-occupiers in Ireland;
11. Section 23 tax relief for property investors (increased speculative investors);
The Eurostat urban audit report 2004 highlighted that the percentage of owned dwellings in Ireland has a range between 61.8 and 66.5%. This compares to the Netherlands, where the range of owned dwellings is between 16 and 38% (Eurostat, 2004). The urban audit also examines the proportion of households living in apartments. Dublin, with a population of 496,000, when compared to Helsinki with a similar population of 560,000 people, has 15.9% of households living in apartments and this compares to 85.5% in Helsinki (Eurostat, 2004). The Irish government has traditionally adopted policy that encourages home ownership and a culture of home ownership is now enshrined in the mindset of Irish people. However, whilst the number of owner-occupied dwellings increased by 22.7% (from 807,000 to 991,000) between 1991 and 2002, their share of all housing units actually fell from 80.2 to 77.4% in 2002 and 74.7 in 2006, continuing the decline observed for the first time in recent decades between 1991 and 2002 (CSO, 2004; CSO 2006).

Drudy (2001) suggests that the price of land is of central importance in contributing to the rise of house prices in Ireland. It is suggested that zoning, as discussed in section 1.3.5 of Chapter 1, has a critical role to play in this regard, as evidence suggests that the zoning of agricultural land to the more valuable residential status has enriched certain land owners and fuelled the housing crisis further. Komito (1983:293) suggests that rezonings are not so much a planning problem, as a political problem. The real issues are the political pressures behind planning decisions. In this context, politicians are not necessarily villains; they too are victims of the Irish political system and voter expectations.
Nonetheless, MacLaran (2001:60) states political cowardice resulted in the recommendations of Justice Kenny's Report (1973) into the price of building land, which would have effectively capped the price of greenfield development land, being swept quietly under the carpet of Dáil Eireann. O’Connell (1999) discusses the tenure imbalance in Ireland when compared to other EU countries. However, recent house price increases have resulted in fewer people buying their own homes with a concomitant increase in the private rented sector resulting in increased pressure on the government to provide social and affordable housing.

By the mid-1990s it was becoming increasingly apparent that the legacy of disinvestment in social housing in the late 1980s and early 1990s, coupled with the various sales policies and exacerbated by demographic trends, was leading to a housing crisis in Ireland (Fitzgerald, 1990). Indeed, the unhealthily close links between some politicians and developers had, since the 1970s, been the subject of much speculation and controversy, and in recent years was finally exposed (Flood, 2002). What has emerged is the manner in which legislation and actions by politicians have enriched a minority at public expense through the rezoning of land for housing.

Windfall profits for well-connected developers and builders were the result, together with an increase in the cost to the state of building local-authority housing (Drudy, 2001). The upholding of the right to private property has strongly influenced housing policy in Ireland (O'Sullivan, 2003).
3.6 Smart Growth within an Irish Context?

The forces of influence in planning and development in the last decade in Ireland have arguably been set within the context of economic growth and neo-liberalist free market ideals. Traditionally in Ireland, cultural and economic forces have promoted separation of land uses. Allied to this is the legacy of historically rural lifestyles in Ireland. Hence, it could be argued that there is an immediate incompatibility with the principles that underpin the concept of smart growth.

Ireland, faced with recent socio-economic and environmental challenges mostly associated with unprecedented economic growth, may be more receptive to an alternative development paradigm. First and foremost is the goal, as evident in current planning policy and strategy in Ireland, to achieve sustainable development. Demographic changes in Ireland attributable to in-migration and changing societal profiles; for example family structures and EU enlargement could result in a dilution of the historical rural/urban divide, and old cultural values that may have been less receptive to specific smart growth principles, such as more compact design and more mixed-use design. It could be argued that there is a raised awareness in Ireland to alternative ways to grow which are more holistic in nature. Furthermore, Ireland in 2008 has a more buoyant economy and now arguably has the finance required to advance the objectives outlined in current policy and strategy. Local government reform and increased community participation structures facilitated by new governance structures also add a new dimension and present new ways to deal effectively with challenges associated with unplanned-for growth.
Fundamental to an understanding of the concept of smart growth in an Irish context is the role of politics in planning in a neo-liberalist market-led Ireland as discussed in Chapters 1 and 2. In theory, Ireland may decide to adopt growth controls to achieve more sustainable development; growth controls, however, are not implemented in a political vacuum. Political constraints are important elements of the planning process and should be incorporated into an evaluation of the success of the planning process and recommendations for further reform.

Gillham (2002) writing about urban sprawl in the US states that ultimately the questions that need to be asked are: Is the negative reaction to sprawl being championed by an elite group of intellectuals and environmentalists? Secondly, is the negative reaction founded on the ‘not in my back yard’ (NIMBY) syndrome? Anti-sprawl groups have different motivations. City centre groups decry urban sprawl as they wish to counter the economic drain out of the cities and in to the suburbs. US environmental groups such as the Sierra Club and the National Resources Defence Council are motivated by the desire to conserve resources. Historic preservations groups are motivated by the desire to maintain built and cultural heritage.

Transit-advocate groups are motivated by the desire to achieve multi-modal transit options, which is dependent on critical mass, a criterion that is not achievable when low-density peripheral development is the order of the day. State agencies concerned with the increased costs of service provision are motivated by fiscal constraints. Liberal
or liberal-centred policy organisations such as the Brookings\textsuperscript{7} Institute redress social and economic inequities and oppose suburbanisation because they believe it promotes social and economic inequities and wastes urban resources. Finally, the ULI, the founders of the term ‘smart growth’, occupy a middle ground where sustainable growth is promoted and managed, similar to a carrot and stick approach (Gillham, 2002). Downs (2005) argues that smart growth is discussed more than done because the concept may appear in a favourable manner in theory; however, a number of socio-political and economic structural constraints mean it is harder to deliver in practice. Included in these constraints are: redistributing benefits and costs of development; shifting power and authority from local to regional level; challenges associated with increasing residential density; raising housing prices; failing to reduce traffic congestion; increasing the ‘Red Tape’ of new development; and restricting profits for owners of outlying land.

Several key smart growth principles require government action at the regional or state level, not at the local level where most power over land use planning now resides (Ibid.). What is fundamental to the successful implementation of smart growth principles is adopting a regional approach. Wiewel and Schaffer (2001) suggest that regardless of whether one believes that the current patterns of metropolitan deconcentration and growth are desirable, inevitable, or problematic, there is little doubt that there are a variety of negative effects. These effects have given rise to a range of efforts to change the development patterns, or at least to mitigate the negative

\textsuperscript{7} The Brookings Institution is a nonprofit public policy organization based in Washington, DC. Their mission is to conduct high-quality, independent research.
consequences. Pruess (2005) states that towns are ready to change how and where they
grow but most of them do not have the staff or policy structure to change on their own.

According to Voith and Crawford (2004:103) “smart growth can close some doors and
open others”. In other words, land-intensive housing or housing built on large lots will
likely increase in price and therefore become less affordable. At the same time, as a
result of up-zoning, parking waivers, streamlining of the approval process, subsidies,
and density bonuses, some housing built on less land will become more affordable.
smart growth principles may enable Ireland to accommodate growth in a manner that is
more economically viable, friendlier to the environment and more socially responsible.
This is not to suggest that the concept of smart growth is the ultimate solution, but
instead, by tailoring specific smart growth principles to the unique Irish climate may
result in more efficient land use. Allied to this is the view of Pruess (2005) that suggests
a need for technical assistance and expertise to facilitate the implementation of smart
growth principles.

So, what does the concept of smart growth have to offer Ireland? Ireland has
traditionally adopted a low-density, monoculture model of development. This is evident
in the sprawling of the Dublin region into the surrounding counties. Changing
demographics in Ireland may make it more amenable to adopt more compact and higher
density design where appropriate. More recently a trend is emerging that would suggest
that higher density development is becoming more acceptable to consumers based on
the increase in planning applications for apartments. For example, ‘as case studies
show, it is possible to increase density significantly with modest increase in height’ (Residential Density Guidelines, 1999:17). Furthermore, cleaner and more environmentally-friendly technology now enables more mixed-use design without compromising quality of life and the environment. This is evident in areas such as Temple Bar, Dublin and new housing developments that are including a variety of dwellings in contrast to the traditional housing estate comprised of 1,000 three bedroom semi-detached houses with front and back gardens. This approach is also reflected in policy and strategy examined in Chapter 1 that inherently if not explicitly supports the concept of smart growth.

Ewing (1997) contends that if motorists had to cover the full costs of auto use, including air pollution, parking and other external costs, they would opt for residential, work, shopping and other locations that require a fraction of their current travel.

Liu (2004) discusses the benefits and realities of high-density development by asking three questions: What are the benefits of high-density development? What are the current demographic and market realities of our growth patterns? What are the implications for public policies and research? She suggests several premises frame the academic literature and states that economy today is driven by knowledge and workers’ preferences for residential locations matter. Furthermore, the concentration agglomeration of firms and workers facilitate the flow of information and knowledge exchange. Ultimately, how a region grows physically effects how it grows economically, and how it grows economically effects how it grows physically.
Smart growth advocates multi-modal transit options that include car, rail, bus, bicycling and pedestrian modes. Research conducted by Ewing et al, (2002), Frumkin (2003) and Jackson (2003) suggest a correlation between the physical environment and factors such as obesity. Humphreys (2004) presents survey findings that between a quarter and a third of children in the Republic of Ireland are either overweight or obese. There is a growing culture of auto-dependency in Ireland. Interestingly, one of the recommendations from the survey findings was for the Department of Transport to allocate a certain proportion of its budget to walkways, and tie healthy transport options into its planning decisions (Ibid).

There are a wide variety of smart growth techniques and regulatory and financial initiatives, as discussed in section 3.3.1 and throughout Chapter 3 respectively, which could be adopted in Ireland and which would reflect objectives that underpin policy and strategy in an attempt to deal with this particular challenge. In terms of smart growth and Ireland, not all the principles need to be adopted; hence the concept may have something to offer within a unique Irish context, which is decided by all involved.

3.7 Synthesis

The context in which a pattern of development resulted in urban sprawl was examined in this chapter. Allied to this is the way in which increased housing costs in Dublin have resulted in leapfrog development with the creation of dormitory towns up to 100 km from Dublin centre. The implications of this outcome are reflected in a reduced quality
of life whereby auto-dependent lifestyles are created in the absence of the required critical mass necessary for the provision of a cost-effective public transport system. Gillham (2002) suggests that the nexus between economic growth and personal well-being has been broken. In other words, discontentment with the status quo is spreading in line with low-density peripheral growth patterns. Whilst the chapter presented a view that there are a variety of factors that influence settlement patterns, government policy that may have indirectly exacerbated the housing affordability crisis was examined.

There is no doubt that certain private benefits accrue from low-density development and this is reflected in consumer demand for this style of development; however, evidence was presented in this chapter to suggest a close link between settlement patterns that result in sprawl and negative quality of life factors.

The chapter critically evaluated the concept of smart growth, not as a cure-all but as an alternative proactive growth management strategy. Certain smart growth principles, however, provoke disagreement, and there are a number of barriers to implementing smart growth principles such as more compact and mixed-use design. Nonetheless, the concept is flexible and the principles are adopted only when consensus has been achieved with a broad range of interest groups. Top-level government support of smart growth in tandem with bottom-up collaboration in a holistic and integrated manner, it is argued, is key to any degree of success of smart growth. The social theory that underpins smart growth was examined with an implicit view that the provision of housing left entirely to the free market conditions is not the most effective manner. Techniques that include state regulatory and financial initiatives to facilitate smart
growth were examined. The wheel has not been reinvented by the principles that underpin smart growth; however creative and innovative solutions to deal with current unsustainable development are proposed. Land development in a modern, dynamic, trade-dependent Ireland was examined in light of changing demographics, the shift from a rural past to an urban present and the increasing influence of the process of globalisation. Urban sprawl in Ireland was examined and the implications of the ever-expanding GDA region. The influence of government policy on housing affordability was considered with a view that policy indirectly exacerbated the current crisis.

Ireland has undergone a degree of macro and micro institutional restructuring, the objective of which is to ensure Ireland’s continued economic competitiveness and to enable more effective delivery of services at home and abroad. The more recent integrated approach to planning and development policy suggests that government now recognises that economic competitiveness is directly influenced by environmental and societal factors. Growth in Ireland to be deemed as smart growth must be economically viable, friendly to the environment and socially responsible. Nonetheless, economic stability is an essential ingredient and lynchpin in this endeavour. The benefits of public/private partnerships was considered in relation to the completion of required capital-intensive infrastructure projects that are now more possible due to a relaxation of EU rules of state borrowing. Finally, Chapter 3 discussed smart growth within an Irish context. Smart growth does not have all the answers; however as an active and dynamic concept it provides some alternative methods and presents a new philosophical approach grounded in stakeholder participation.
The evidence presented in this chapter suggests that faced with current challenges attributable to traditional development patterns, a concerted agreed-upon proactive approach is required. Ireland may choose to adopt selected smart growth principles that are considered to be applicable and conducive to unique Irish circumstances.

Smart growth as presented in Chapter 3 does not imply either a compact city or network city approach as outlined in Chapter 1, but instead straddles both paradigms forming a buffer zone between strict decentrist and centrist theory, thereby accommodating both patterns of development in a effective manner (Stewart et al, 2005). It follows that the principles of the concept have a wide range of applications.
CHAPTER 4: METHODOLOGY

4.1 Introduction

Chapter 4 outlines the theory, purpose and rationale that underpin the methods adopted to achieve the aims and objectives of the research. The timeline for the research is from October 2002 to April 2010. The primary data was collected between February 2005 and October 2005. The research proposes a holistic and integrated approach that adopts traditional quantitative research methods alongside the use of non-traditional, more qualitative, innovative and creative ‘Futures Methods’. Deliberately combining different types of methods within the same investigation provides a strategy for overcoming each method’s weaknesses and limitations (Brewer and Hunter, 1989; Bryman, 2008). As discussed in previous chapters, Ireland is faced with a number of socio-economic, political and environmental challenges associated with economic growth during the Celtic Tiger era. Current planning policy and strategy in Ireland is underpinned by the need to find ways to accommodate growth in a manner that is economically viable and socially and environmentally responsible.

This chapter outlines the methods adopted to gather the data that informed the identification of tools in the Irish smart growth toolkit to facilitate the implementation of policy, the identification of a candidate list of sustainability indicators to monitor, track and evaluate progress towards sustainable urban development and scenarios of plausible development for the GDA in 2025. The methods include: a smart growth survey, four smart growth Futures workshops and eight strategic conversations. The
chapter firstly outlines the theory that underpins conducting research and is then followed by the research methods adopted.

4.2 The Research Process

The term methodology refers to a way to seek answers and deal with problems. Methodology represents the underlying theory and analysis of how research does or should proceed and traditionally is influenced by the research discipline. Assumptions, interests and purposes shape the choice of methodology adopted (Blaxter, 1997). Research may be characterised as quantitative or qualitative in nature. Qualitative research is in complete contrast to quantitative research, which focuses on hard science such as engineering (Denzin, 1998). A quantitative research strategy emphasises quantification in the collection and analysis of data and entails a deductive approach to the relationship between theory and research, in which the accent is placed on the testing of theories. A qualitative research strategy in contrast usually emphasises words rather than quantification in the collection and analysis of data and predominantly emphasises an inductive approach to the relationship between theory and research, in which the emphasis is placed on the generation of theories (Bryman, 2001; Bryman, 2008). The use of complementary methods also reveals discrepancies that a single technique might not (Kane and De Brún, 2001).

The use of both quantitative and qualitative data collection techniques, known as ‘methodological triangulation’ (Kane, 2001; Robson, 2005), adds greater depth and scope for achieving the aims and objectives of the research in a more positive and
meaningful way. In addition, methodological triangulation represents a means to validate the research findings (Richardson, 2000). Nonetheless, the idea of combining quantitative and qualitative data collection methods in a multi-method approach for a single research project has generated much debate. The arguments against multi-method research tend to be based on either, and sometimes both, of two kinds of argument: the idea that research methods carry epistemological commitments and the idea that quantitative and qualitative research are separate research paradigms (Bryman, 2001 and Bryman, 2008).

There are at least two versions of the debate about quantitative and qualitative research. The first is the epistemological version, encompassing the embedded methods argument and the paradigm argument. The epistemological version sees quantitative and qualitative research as grounded in incompatible epistemological principles. According to this version of their nature, multi-method research is not possible (Bryman, 2001; Bryman, 2008). The embedded methods argument suggests that it is neither desirable nor feasible to combine epistemological (the grounds for knowledge) and ontological (the nature of the world) methods. The paradigm argument presents a view that quantitative and qualitative research methods represent two separate and incompatible research paradigms and argues that it is not feasible to combine quantitative and qualitative data collection methods. The embedded methods and the paradigm argument do not accept areas of overlap and commonality between quantitative and qualitative research methods.
A technical version, however, which is the position taken by many researchers, gives greater prominence to the strengths of the data-collection and data-analysis techniques with which quantitative and qualitative research are each associated and sees these as capable of being fused. There is recognition that quantitative and qualitative research are each connected with distinctive epistemological and ontological assumptions but the connections are not viewed as fixed and ineluctable (Ibid.).

Any research approach is underpinned firstly by what the researcher wants to investigate. The topic focus facilitates the identification of the research question and the rationale for the research sets out why the researcher wants to conduct research on the chosen topic. This is followed by the means identified as the most effective manner by which to collect the data and, importantly, whether the data can be collected. Expected outcomes are also identified at the early stages of the research.

In order to understand the dynamic interconnections in the world, each element needs to be considered as an influence on other components and in turn being influenced by them (McHale, 1969). The use of non-traditional Futures methods as a means to collect data is a more recent but increasingly adopted approach within the planning and development discipline and arguably represents a creative, innovative and original approach to this research. Robson (2005) refers to the use of more than one source of data collection as ‘data triangulation’.
4.2.1 Primary and Secondary Data

Data may be primary or secondary in nature. Crask et al (1995:16) describe primary data as “data that are gathered specifically for the project at hand”. Primary data involves going out into the field of research to collect data that does not already exist, the aim of which is to contribute to knowledge.

Secondary data is defined as: “data that have already been gathered for some other purpose but that also provide useful information for the current problem” (Crask et al, 1995:16) and involves the collation and synthesis of available literature on the subject of the research. Secondary data enables the researcher to focus attention on analysis and interpretation. Blaxter (1997) suggests that more data are collected than are ever used. It follows that in order for research to be meaningful it cannot be conducted in isolation from what has already been done. All data collection methods have their weakness and sources of bias (Cook and Selltiz, 1964). Previous research found that a layering of different complementary information sources yields a robust result (Nissbett and Ross, 1980; Silverman, 1985; Bryman, 1988; Hammersley, 1990).

4.3 Theory of Research Design

Blaxter (2001) argues that there are specific stages involved in the research process that include: part 1: reviewing the field; part 2: theory building; part 3: theory testing; and part 4: reflecting and integrating. Exploratory research is characterised as flexible and versatile and often represents the front end of total research design when the researcher defines the research problem. Exploratory research helps to determine the most
appropriate research design and data collection methods. The methods traditionally
adopted at this stage include expert surveys, pilot surveys, secondary data and
qualitative research (Wisker, 2001). Descriptive research is used to describe market
characteristics or functions, data and characteristics about the population or the
phenomenon being studied. Descriptive research answers the questions, who, what,
when, where and how and is characterised by the prior formulation of specific
hypotheses and preplanned and structured design. Descriptive research provides facts;
nonetheless, it cannot explain what caused a situation. Explanatory research in contrast,
seeks an explanation of a situation or a problem, traditionally but not necessarily in the
form of causal relationships, and explains patterns relating to the phenomenon being
researched (Robson, 2005).

4.3.1 Quantitative and Qualitative Research Methods

The positivist approach, most associated with August Comte and Emile Durkheim,
seeks the quantitative facts or causes of social phenomena apart from the subjective
states of individuals, such as ‘things’ that exercise an external influence on people. The
positivist, adopting a natural science model of research, searches for causes through
methods such as questionnaires, inventories and demography, which produce data
amenable to statistical analysis. Quantitative data is traditionally associated with
numbers (Denzin, 1998). Post-positivism recognises the force of the criticisms made of
positivism and attempts to come to terms with them. For example, while positivists hold
that the researcher and the researched person are independent of each other, there is an
acceptance by post-positivists that the theories, hypotheses, background knowledge and
values of the researcher can influence what is observed (Reichardt and Rallis, 1994). The post-positivist approach, as with the positivist approach, commits to objectivity, which is approached by recognising the possible effects of these likely biases.

Similarly, positivists maintain that one reality exists and that it is the researcher’s job to discover what it is. Post-positivists also believe that a reality does exist, but consider that it can be known only imperfectly and probabilistically because of the researcher’s limitations. Post-positivist researchers can be viewed as recognising, sometimes reluctantly, that the battle for positivism has been lost, but are still hankering after the mantle of respectability and authority it conferred (Robson, 2005).

The phenomenologist or constructivist, in contrast, is committed to understanding social phenomena from the actor’s own qualitative perspective. He or she examines how the world is experienced. Phenomenology is concerned solely with the structures and workings of human consciousness, and it’s basic though often implicit presupposition is that the world we live in is created in the consciousness, in our heads (Craib, 1992). Phenomenologist researchers, as heirs to the relativist tradition, have grave difficulties with the notion of an objective reality which can be known. They consider that the task of the researcher is to understand the multiple social constructions of meaning and knowledge (Ibid.). The important reality is what people perceive it to be. The ‘forces’ that move human beings as human beings, rather than simply as human bodies, are ‘meaningful stuff’; they are internal ideas, feelings, and motives, Douglas (1970).

Central to the phenomenological perspective, and hence qualitative research, is experiencing reality as others experience it. This method enables the researcher to
empathise and identify with the people they study in order to understand how they see things (Blummer 1969). The phenomenologist seeks understanding through qualitative methods such as participant observation, in-depth interviewing, and that yield descriptive data. In contrast to a natural science approach, the phenomenologist strives for what Max Weber (1968) called *verstehen* – the understanding on a personal level of the motives and beliefs behind people’s actions.

Descriptive observation, interviewing, and other qualitative methods are as old as recorded history and the origins of fieldwork can be traced to historians, travellers, and writers ranging from the Greek Herodotus to Marco Polo (Wax, 1971). It was not until the 19th and early 20th centuries, however, that what we now call qualitative methods was consciously employed in social research (Taylor 1984). Frederick Le Play’s 1855 study of European families and communities (studies of kinship and community types) stands as one of the first genuine pieces of participant observation research (Bruyn, 1966).

The use of qualitative methods first became popular in the studies of the ‘Chicago School’ in the period 1910 to 1940 (Taylor, 1984). During this period, researchers associated with the University of Chicago produced detailed, participant observation studies of urban life and a classic study of the life of immigrants and their families in Poland and America based on personal documents (Ibid.). As important as these studies were, interest in qualitative methodology waned toward the end of the 1940s and beginning of the 1950s, with the growth in prominence of *grand theories* (Parsons,
1951). Since the 1960s there has been a re-emergence in the use of qualitative methods (Becker, 1963; Goffman, 1961).

Qualitative methodology, as with quantitative methodology, is more than a set of data-gathering techniques. It is a way of approaching the empirical world that is inductive: researchers develop concepts, insights, and understanding from patterns in the data, rather than collecting data to assess preconceived models, hypotheses, or theories in a deductive manner, as in quantitative data collection. In qualitative studies researchers follow a flexible research design (Taylor, 1984). Using this approach, the researcher begins a study with only vaguely formulated research questions. In qualitative methodology the researcher looks at settings and people holistically: people, settings, or groups are not reduced to variables, but are viewed as a whole, as would be the case in quantitative research. The qualitative researcher studies people in context of their past and the situation in which they find themselves.

Qualitative researchers are sensitive to the effect they have on the people they study. Therefore, this type of research has been described as naturalistic; that is, researchers interact with informants in a natural and unobtrusive manner, the aim being to understand people from their own frame of reference (Kane and De Brún, 2001). The researcher employing qualitative methods suspends, or sets aside, his or own beliefs, perspectives and predispositions. Bruyn (1966) notes, the qualitative researcher views things as though they were happening for the first time. Nothing is taken for granted and everything is a subject matter of inquiry. All perspectives are valuable when this
method is adopted. The researcher seeks not the ‘truth’ or ‘morality’, but rather a
detailed understanding of other people’s perspectives.

Qualitative methods are humanistic. The methods by which we study people of
necessity affect how we view them. When people’s words and acts are reduced to
statistical equations, as is the case in quantitative data, it is possible to lose sight of the
human side of social life.

When people are studied using qualitative research methods, it is possible to get to
know them personally and experience what they experience in their daily struggles in
society. This approach facilitates learning about intangible concepts whose essence is
lost through other research approaches. Qualitative researchers emphasise validity in
their research and allow us to stay close to the empirical world (Blummer, 1969). They
are designed to ensure a close fit between the data and what people actually say and do.

4.3.2 Theory of Action Research

Action research represents a qualitative research method that sees researchers and
practitioners acting together on a particular cycle of activities, including problem
diagnosis, action intervention and reflective learning (Avison et al, 1999; Coghlan and
Brannick 2005; Kane and O'Reilly-De Brún, 2001; Robson, 2005; Wisker, 2001). Traditionally, research has focused on third-person researchers doing research on third
persons and writing a report for other third persons. In a more complete vision of
research, as presented by action research and many other transformational inquiry
approaches, authentic third-person research integrates first and second person voices. Several broad characteristics define action research: research in action, rather than research about action; a collaborative democratic partnership; concurrent with action; a sequence of events; and an approach to problem solving (Coghlan and Brannick, 2005).

Action researchers work on the epistemological assumption that the purpose of academic research is not just to describe, understand and explain the world but also to change it (Reason and Torbett, 2001). Action research is primarily distinguishable in terms of its purpose, which is to influence or change some aspect of whatever is the focus of the research. It adds the promotion of change to the traditional research purposes of description, understanding and explanation. Action research is comparable to emancipatory research, the purpose of which is to create opportunities and the will to engage in social action (Robson, 2005).

4.3.3 Triangulation and Crystallisation

Triangulation is characterised by the combination of methods or sources of data in a single study (Denzin, 1978; Patton, 1980; Taylor 1984:68). Triangulation is often thought of as a way of guarding against researcher bias, checking out accounts from different informants, and assumes that looking at an object from more than one standpoint provides researchers and theorists with more comprehensive knowledge about the object (Silverman, 2004). Triangulation is based upon the assumption that there is a ‘fixed point’ or ‘object’ that may be triangulated. More recently, however, the notion of crystallisation accepts that there are multiple facets related to one problem
Crystallisation recognises that “there are far more than ‘three sides’ from which to approach the world” (Richardson, 2000:934). Crystallisation rather than triangulation, it could be argued, constitutes a ‘central imaginary’ for validity.

Crystallisation deconstructs the traditional idea of ‘validity’ and provides a deeper, complex and ‘thoroughly partial’ understanding of the phenomenon. Crystallisation appears to represent the many intricacies that are discovered from rich data that reflects different angles at different points in time and from different perspectives (Eloff et al, 2000). An iterative approach is adopted for this research whereby the data collected is examined and re-examined until a decision is reached that every conceivable avenue of understanding is exhausted. Secondary research findings that emerge through documentary research further complement the primary data in the crystallisation process and act as a reference point for comparison with the findings that emerge via the primary research. It follows that note must be taken of the research time constraints; in other words, a decision must be reached by the researcher as to the point at which no further information can be garnered from the data collected.

### 4.4 Comprehensive Survey as a Method of Data Collection

There is much variation and little consensus on how attitudes are measured (Breakwell et al, 2000). A post-positivist philosophy underpins the comprehensive smart growth survey: “A survey is a system for collecting information to describe, compare, or explain knowledge, attitudes, and practices or behaviour” (Fink, 1995a: 1). In order for surveys to be truly effective, certain guidelines must be adhered to. Surveys should
include specific and measurable objectives, a sound research design, and a sound choice of population and sample. Having conducted the survey it is essential to conduct appropriate analysis and report the survey results in an accurate manner (Breakwell et al., 2000).

Before preparing a survey all potentially imprecise or ambiguous terms used in the questions need to be clarified or defined (Peterson, 2000). Furthermore, it is critical to match what the researcher needs to know against the time to ascertain it. The number of questions to include in a survey depends largely on the amount of time available for the survey. Questions are asked in a social, cultural, and economic context. Purposeful and concrete questions that are precise and unambiguous help to advance the aim of this survey. Questions are precise and unambiguous when, without prompting, two or more potential respondents agree on the words used in the question (Peterson, 2000).

Self-administered questionnaires are one of the most frequently used methods for collecting data in research studies (Bourque, 1995). According to Moser (1971) and Kalton (1983) self-administered questionnaires are one of the most widely used social research techniques. Nonetheless, although the use of questionnaires is a popular method of inquiry, interpretation of the responses is not always quite as simple.

4.4.1 Ethical Considerations in Survey Design

Questionnaires in a survey must be ethically sound and must not compromise any participant (Bourke and Filler, 1995). Criteria for ensuring the correct choice of question are based upon reliability, validity and relevance to the research objectives. It
is critical that no agenda be interpreted from the statements made. Blaxter (1997) and Kane and De Brún (2001) highlight important common ethical issues that must be adhered to when collecting data such as confidentiality, anonymity, legality and professionalism. Postal questionnaires, which are by their nature self-administering, have many advantages. Judd et al (1991:152) suggest that this type of survey has proved to be effective in the measurement of social attitudes, and is “probably the most useful source of information”. An alternative to the postal questionnaire is a web-based online survey, completed in real time and without personal contact. Although online surveys are efficient in distribution and response and are cost effective, this method was not chosen on the basis that online surveys may compromise privacy principles and may be passed on to respondents outside the target sample. Online surveys have been further criticised because the sample is restricted to those with web access. In addition, the flexibility of the Internet and the ease with which false identities are created on the Internet exacerbate trust and confidentiality issues according to Cho & LaRose (1999) and can make survey results unreliable.

It is a relatively inexpensive to conduct a postal questionnaire when compared to other methods, and it enables a large area-based sample to be surveyed. The respondents remain in their own environment. This puts the respondent under less pressure for an immediate response and allows them to exercise more personal control over their response without undue influence of an interviewer. Postal questionnaires also afford the respondent greater anonymity (Ibid.).
Whilst the above advantages are noted, certain disadvantages must also be considered. The response rate of this form of data collection is usually low, respondents’ answers may be incomplete and answers may be illegible or incomprehensible. Furthermore respondents may look for advice or opinions from colleagues in answering questions, thus diluting the level of their personal response. Postal questionnaires do not allow for probing.

4.4.2 Sampling Methods

A sample may be defined as a portion or subset of a larger group called a population, which is the universe to be sampled. A good sample is a miniature version of the population (Fink, 1995d). How well a sample represents a population depends on the sample frame, the sample size, and the specific design of selection procedures (Robson, 2005). The three characteristics of a sample frame that need to be evaluated are comprehensiveness, probability of selection and efficiency.

Blaxter (1997) presents a view that most sampling approaches leave out at least a few people from the population that a researcher wishes to study. Fink (1995b) gives one example of how household-based samples exclude people who live in group quarters such as dormitories, prisons and nursing homes, as well as those who are homeless. A key part of evaluating any sampling scheme is determining the percentage of the study population that has a chance of being selected and the extent to which those excluded are distinctive. The question that must be asked is whether or not it is possible to calculate the probability of selection of each person sampled (Robson, 2005).
It is not necessary that a sampling scheme give every member of the sampling frame/list of individuals the same chance of selection, as would be the case if each individual appeared once and only once on a list. It is essential, however, that the researcher be able to find out the probability of selection for each individual selected (Fink, 1995d). If it is not possible to know the probability of selection, it is not possible to estimate accurately the relationship between the sample statistics and the population from which it was drawn. Probability sampling provides a statistical basis for saying that a sample is representative of the study or target population. Every member of the target population has a known, non-zero probability of being included in the sample (Blaxter, 1997).

This method of sampling utilises random selection, which is considered to be fair in that it eliminates subjectivity in choosing a sample. Non-probability sampling becomes the most feasible sampling option should limited time and lack of resources impede probability sampling from taking place. It does not necessarily follow that non-probability sampling is not representative of the population. Non-probability sampling means some members of the eligible target population have a chance of being chosen for participation in the survey and others do not (Fink, 1995d). This method of sampling is considered to be more cost-effective and less time consuming but may be vulnerable to selection biases. Examples of non-probability sampling include: convenience sampling, whereby the researcher selects the most convenient sample on the basis of ease of access; voluntary sampling, which occurs when the sample is self-selected; quota sampling takes place when convenience sampling is adopted within groups of the population; purposive, also know as expert, sampling involves handpicking supposedly
typical or interesting cases; dimensional sampling represents a multidimensional quota sampling; and snowball sampling takes places by building up a sample through information and leads on to other relevant samples to the research (Blaxter, 1997). There is no guarantee that a probability sample will produce overall more accurate results than a non-probability sample (Wisniewski, 2002).

<table>
<thead>
<tr>
<th>Random</th>
<th>Stratified</th>
<th>Systematic</th>
<th>Snowball</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 0 0 0 0</td>
<td>0 0 • 0 0</td>
<td>0 0 0 0</td>
<td>•</td>
</tr>
<tr>
<td>0 0 0 • 0</td>
<td>0 • 0 0 0</td>
<td>0 0 0 0</td>
<td>•</td>
</tr>
<tr>
<td>• 0 0 • 0</td>
<td>0 0 0 • 0</td>
<td>0 0 0 0</td>
<td>•</td>
</tr>
<tr>
<td>0 0 0 0 0</td>
<td>0 0 0 0 0</td>
<td>0 0 0 0</td>
<td>•</td>
</tr>
<tr>
<td>0 0 0 0 •</td>
<td>0 • • 0 0</td>
<td>0 0 0 0</td>
<td>•</td>
</tr>
<tr>
<td>0 0 0 0 0</td>
<td>0 • 0 0 0</td>
<td>0 0 0 0</td>
<td>•</td>
</tr>
<tr>
<td>0 • • 0 0</td>
<td>0 0 • 0 0</td>
<td>0 0 0 0</td>
<td>•</td>
</tr>
</tbody>
</table>

**Cluster**  
**Convenience**  
**Purposive**

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Convenience</th>
<th>Purposive</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 0 0 0 0</td>
<td>0 0 0 0 0</td>
<td>• •</td>
</tr>
<tr>
<td>0 0 0 0 0</td>
<td>0 0 0 0 0</td>
<td>• •</td>
</tr>
<tr>
<td>• • 0 0 0</td>
<td>• • • 0 0</td>
<td>• •</td>
</tr>
<tr>
<td>• • • 0 0</td>
<td>= = = = = = = =</td>
<td>• •</td>
</tr>
<tr>
<td>• • 0 0 0</td>
<td>• • • • 0</td>
<td>•</td>
</tr>
<tr>
<td>0 0 0 0 0</td>
<td>0 0 0 0 0</td>
<td>• •</td>
</tr>
<tr>
<td>0 0 0 0 0</td>
<td>0 0 0 0 0</td>
<td>• •</td>
</tr>
</tbody>
</table>

Figure 4.1 Non-Probability Sampling Strategies (Blaxter, 1997:80)
Figure 4.1 outlines a number of non-probability sampling strategies used for the collection of data in primary research. The sampling method adopted ideally represents the most appropriate means of data collection on a case-by-case basis.

### 4.4.3 Sampling Error

Sampling error denotes variation of the sample means around the true value. The sample means tend to gather closer around the true population mean with larger sample sizes and less variation in what is being measured (Fink 1995d). The sampling process may affect the quality of survey estimates in three different ways. Firstly, if the sample frame excludes some people whom we want to describe, sample estimates will be biased to the extent that those omitted differ from those included. Secondly, if the sampling process is not probabilistic, the relationship between the sample and those sampled is problematic. One can argue for the credibility of a sample on grounds other than the sampling process. However, there is no statistical basis for saying a sample is representative of the sampled population unless the sampling process gives each person selected a known probability of selection. Thirdly, the size and design of a probability sample, together with the distribution of what is being estimated, determine the sample errors: that is the chance variations that occur because of collecting data about only a sample of a population (Fink, 1995b and Wisniewski, 2002).

### 4.4.4 Pilot Test

Pilot testing means having access to a group of potential respondents who are willing to try out a survey instrument that may be difficult to understand or complete. This is a very important aspect of the survey process, which facilitates valuable feedback and
expertise from critical analysis of the questions asked. The pilot test is an opportunity to try out an instrument well before it is made final (Coombes, 2001). The final version of the survey may be a much more robust product when pilot tested at the initial stages.

4.4.5 Ranking of Importance in Survey Design

In measuring attitudes, graphic scales are often used in which the subject responds by placing a check mark on the scale, which may be a continuous line, or a line divided into several categories. Scales may be unipolar or bipolar; for example, ‘not at all beneficial-beneficial’, is a unipolar scale, whereas ‘strongly disagree-strongly agree’ is a bipolar scale. Bipolar scales may be classified within a five point range to include strongly agree, agree, disagree, strongly disagree and don’t know/no opinion. This type of five-category scale is known as a Likert scale as a technique for measuring attitudes, named after social scientist Rensis Likert in 1932 (Peterson 2000). The mid-point range is represented by a ‘don’t know/no opinion’ option. The Likert scale is considered to be the most commonly used scale procedure (Judd et al, 1991). Robson (2005) suggests that items in a Likert can look interesting to respondents, and people often enjoy completing a scale of this kind. This can be of importance, not only because if they are interested they are likely to give considered rather than perfunctory answers, but also because in many situations people may, not unreasonably, just not be prepared to co-operate in something that appears boring.
4.5 Futures Methods and Techniques as a Method to Collect Data

Futurists view the world as entirely interrelated, in which no system or unit can be viewed separately (van Steenbergen 1990). According to Ratcliffe (2003), one of the main criticisms of conventional urban planning is that the concepts, methods and techniques employed tend to re-enforce the present. This makes it difficult for towns and cities to contemplate, design and build alternative visions of the future more suited to their true desires. He further argues that within the next couple of decades, one of the most noticeable changes will be the disappearance of the ‘Plan’ as it is currently perceived – definitive, specific, fixed and agreed, and its replacement with more open-ended land-use control systems for the management and control of resources, as well as mechanisms for conflict avoidance and resolution. Planning will increasingly make use of the ‘preferred option’ path nested within a series of plausible contingency options that would continuously be reviewed and updated. Furthermore, such scenario-based plans will progressively become integrated forums where the objectives of many sectors are synergised and synchronised (Ibid.). Linear models will be replaced with more cyclical models in accordance with the principles of a more cyclic, holistic and integrated approach.

The use of Futures methods in the discipline of urban planning is a relatively recent phenomenon. Future studies can simply mean any exploration of what might happen and what we might want to become. Future studies contribute to an overall understanding of and approach to the future. Future studies are subject or questions-oriented, for example, what are the critical technologies that will have the greatest influence over the next 25 years? Futures research is characterised by the use of
techniques to identify systematically the consequences of policy options and to identify alternative futures with policy implications for decision-makers. Futures methods are decision-oriented, in that they seek to identify and describe current forces that should be understood in order to make intelligent decisions about how the future may unfold.

In Futures studies, the term ‘foresight’ has become common as a systematic and participatory future intelligence gathering and medium to long-term vision-building process aimed at present day decisions and mobilising joint actions. It arises from a convergence of trends and underlying recent developments in the fields of ‘policy analysis’ and ‘strategic planning’, as well as Futures studies. Foresight brings together key agents of change and various sources of knowledge in order to develop strategic visions and anticipation, participation, networking and action. A defining characteristic of foresight is that in essence it is a human capacity to think ahead and to forecast possible outcomes of present decisions. Foresight methods include *inter alia*, Delphi surveys and scenario workshops that derive from the Futures field. Foresight draws on traditions of work in long-range planning and strategic planning, horizontal policymaking and democratic planning, and participatory Futures studies. For this reason foresight represents a plausible and feasible technique as a means to plan for the future. The use of Futures studies is on occasion criticised on the grounds of rigour, quality and validity (Postma and Liebl 2005).

The ‘prospective’, or, more familiarly, *la prospective*, most associated with Berger in the mid-1960s in France, refers to a much wider approach and activity than other
Futures methodologies as it comprises not only the study of the future and evaluation of alternative outcomes against given policy decisions but also the will to influence the future and to shape it according to society’s wishes. Fundamental to la prospective is the notion of preactivity (understanding) and proactivity (influencing). This is in contrast to foresight, characterised solely by preactivity. The significance of this is that la prospective has a broader remit and as such is better placed to deal effectively with complexity and uncertainty. It follows that the term ‘prospective’ and its application across a broad range of policy issues on a wider territorial basis than hitherto is likely to gain greater currency over the next few years.

4.5.1 Horizon Scanning and Prospective through Scenarios

Environmental or horizon scanning is a broad scrutiny of all major trends, issues, innovations and events and ideas across a wide range of activities. This broad approach can help decision-makers in situations of increased uncertainty. The Delphi survey technique uses a panel of experts to judge the timing, probability, performance, importance and implications of factors, trends and events in respect of the problem in question. The use of scenario analysis, adopted in military exercises and most associated with Shell Oil during the OPEC oil crisis in 1970s, has been adopted in urban planning more recently. Given the complexity of human systems, our ability to predict the long-term future is highly constrained, making it potentially dangerous to plan for the future on the basis of medium to long-term forecasts. Recognising this, scenario analysis was developed as a means of exploring alternative futures, enabling decision making to be based on a broad assessment of the possibility space (Mander, Bows,

According to Jiminéz-Beltrán (2001), scenarios and prospective analyses are not merely attractive and intellectually challenging exercises, they are efficient tools for synthesising and communicating complex and extensive information to decision-makers and the public. A key element of scenarios is driving forces; that is, the forces that shape and propel the story described in a particular plot. The logics of the scenarios constitute the rationales that underlie a scenario’s plot or story, the ‘why’ underlying the ‘what’ and ‘how’ of a plot; scenario logics explain why specific forces or players behave as they do. In short, without an understanding of its logics, decision-makers cannot assess the plausibility of a scenario. The plots in the scenarios contain a story that connects the present to the end state; that is, it illustrates what would have to happen for a specific future or world to come to be, for example, strong or weak economy plots.

End states make scenarios specific and unambiguous, and scenarios should describe a particular end state, that is, what happens in a particular future world at some specific point in time. Scenarios are most valuable when they are understood to be movies of an evolving story, not a snapshot of a specific point in time. Scenarios help managers see what possible futures might look like (end states); how these futures might come about, (plots or stories); and why they might occur (logics). In short, scenarios augment
decision-makers’ understanding of the world around them and how the future is unfolding.

The purpose of scenarios is to enhance understanding, produce new decisions, reframe existing decisions, and identify contingent decisions, that is, what the organisation might or should do under sets of circumstances that might emerge at some future time. When using the scenario approach specific core challenges arise, and specific tasks must be undertaken in scenario learning. It is critical to understand the present and the past. A variety of potential futures need to be described and it is essential to delineate how such futures might evolve. Alongside this is the need to identify the appropriate indicators to track. Indicators have to be timely to be useful, they must keep you informed along the way and they must be understandable in that they must convey the information quickly and effectively. Indicators are, therefore, presentations of measurements to suit a particular need (Brandon and Lombardi, 2005:39). Furthermore, for indicators to be useful there must be data collection methods for them.

Figure 4.2 (Ratcliffe and Sirr, 2003) mirrors Schwartz (1991) and provides a framework that can be used in a scenario planning exercise. Within the sphere of scenario planning there is much variety and there is no real standardised process; many differences can be observed in the various approaches within the scenario tradition. Scenario planning exercises help to examine alternative paths of development and an opportunity to consider plausible, possible futures that do not align to a ‘business as usual’ approach. Successful scenario learning involves decision makers. It is important to note that unless
decision makers take ownership of the scenarios, they will not act on them (Fahey, 1998). It follows that effective and meaningful scenario learning is dependent on the support of key decision makers.
Chapter 4 – Methodology

Divergence
- Set the Strategic Question
- Identify the Driving Forces of Change
- Determine the Main Issues and Trends
- Clarify the Level of Impact and Degree of Uncertainty

Emergence
- Establish Scenario Logics
- Create Different Scenarios
- Test Policy Options
- Identify Turning Points

Convergence
- Produce Prospective
- Move to Strategic Planning

Figure 4.2 Scenario Planning Process (Ratcliffe and Sirr, 2003)
Chapter 4 – Methodology

**Neo-liberal Planning Ideology**

**Anticipation**
- Set the Strategic Question
- Identify the Driving Forces of Change
- Determine the Main Issues and Trends
- Clarify the Level of Impact and Degree of Uncertainty
- Establish Scenario Logics

**Decision**
- Converge
- Create Different Scenarios
- Test Policy Options
- Identify Turning Points
- Move to Strategic Planning

**Process**
- High to Low Importance
- Strategic Conversations
- Horizon Scanning
- Delphi Survey
- Cross-Impact Analysis
- Prospective Workshops
- Clustering
- Polarising
- Ranking
- Morphological Analysis
- Creative Writing
- Wind Tunnel Testing
- Gaming and Simulation
- Visioning
- Planning

**Smart Growth Based Planning Ideology**

Figure 4.2a Ratcliffe and Sirr (2003) adapted by the author.
Figure 4.2a presents the Ratcliffe and Sirr (2003) model of the ‘Scenario Planning Process’ adapted by the author to provide greater context to the principal research question of outlining a potential means to move from neo-liberally planning ideology to smart growth based planning ideology.

4.5.2 Focus Groups and Futures Workshops as a Means to Collect Data

Futures methods advocate collaboration, and consensus building through innovative and creative discussion. It follows that focus groups and workshops represent an appropriate environment to adopt Futures methods. Jungk and Mullert (1987) write that Futures workshops are comprised of three stages: the critique phase, where the challenge is identified and presented; the fantasy phase, when workshop participants think creatively about an alternative future vision; and the implementation phase that establishes how the vision identified in the fantasy phase may be achieved.

Focus group methodology is, at first sight, deceptively simple. It is a way of collecting qualitative data which essentially involves engaging a small number of people in an informal group discussion (or discussions) ‘focused’ around a particular topic or set of issues (Silverman, 2004). He suggests that one reason for the contemporary popularity of focus groups in social science research is the flexibility of the method. The underlying idea of focus groups is to gather all interested parties together in a local area in an attempt to come up with solutions to shared problems and to empower local people by encouraging participation. Focus groups and workshops represent an ideal environment to generate debate and develop consensus about the best way forward on a wide range of issues.
During workshops, it is important that facilitators enable people to speak about their different points of view, although they must tactfully remind their group that a major aim of the process is to reach a consensus on the issues.

4.5.3 Strategic Conversations as a Means to Collect Data

Interviewing is considered one of the most important methods of inquiry used in qualitative research. This method enables the researcher to gain invaluable insights into people’s experiences, opinions, values, aspirations, attitudes and feelings (Sanghera, 2005). Strategic conversations are considered a popular interviewing method in Futures research (van der Heijden, 1999). The conversations are open in character, where the interviewer plays an active role during the course of the interview, the aim of which is to try to follow and develop the most interesting and significant themes for the research topic. Ratcliffe (2002) suggests that strategic conversations, as a specific form of dialogue developed over the course of the interview, incorporate elements of both creative interviewing and interviewing as ‘negotiated accomplishment’. Creative interviewing is a form of interview in which the interviewer, using his/her creativity, tries to discover the subject behind the respondent. Through the application of various strategies and tactics, a feeling of mutual disclosure, based on an understanding of friendly feelings and intimacy, is sought (Douglas, 1985).

The interview as a ‘negotiated accomplishment’ may be described as a discursive or linguistic experience, in which the meanings and questions and responses are contextually grounded and constructed together by the interviewer and the respondent (Fontana and Frey, 2000). Strategic conversations as a technique necessitate the
interviewer to play an active and creative role as a means to identify and explore in-depth issues underlying the subject of the study. Qualitative interviewers have to force themselves to constantly ask informants to clarify and elaborate on what they have said, even at the risk of appearing naive (Taylor 1984:96-97).

The issue of ‘truth’ in qualitative research is a complicated one. What the qualitative researcher is interested in is not truth *per se*, but rather perspectives. Crosschecks enable the researcher to look for inconsistencies and challenge themes that arise. Strategic conversations were conducted for this research with eight willing respondents during August and September 2005.

**4.6 Design of this Research**

In design terms, this research may be classified as exploratory, descriptive, explanatory, multi-disciplinary, multi-sectoral and action. The initial research design is exploratory, the objective of which is to discover new ideas and seek new insights and a clearer understanding of the planning and development process in Ireland and in particular the GDA. This is coupled with a critique of the concept of smart growth within the context of planning and development. The purpose is to identify if the concept of smart growth has a role to play in the mitigation of socio-economic and environmental challenges attributable to low-density peripheral growth.
4.7 Methods Adopted for this Research

The methods deployed for this research represent the techniques and techniques in gathering relevant data and are classified as both quantitative and qualitative in nature. On this occasion, the desire to find ways to accommodate growth in a manner that is economically viable and socially and environmentally responsible – identified as a key objective of current planning policy and strategy in Ireland – represents the rationale of this research. The primary and secondary research conducted to collect both quantitative and qualitative data via the smart growth survey, the smart growth Futures workshops and the strategic conversations adhered to and followed the principles of best practice in conducting academic research as outlined in this chapter. Given the time limits and
fiscal constraints of this research, much consideration was given to identify the most effective manner in which to gather relevant data to realise the aims and objectives of the research. The merits and demerits of a variety of methods of inquiry were considered. Current approaches to planning and development advocate and aim to be as inclusive as possible. Participation is also fundamental to the concept of smart growth and Futures studies. With this in mind, the methods deemed appropriate for this research are those that attempt to be inclusive and to give a number of actors the opportunity to participate in the data collection process.

The quantitative and qualitative methods adopted for this research complement each other. The rationale that forms the basis for the traditional survey methods as a means to collect data for this research is that such methods enable the researcher to target a large sample from the target population.

4.7.1 A Multi-method Approach

Modern societies are comprised of a complex web of inextricable and on occasion uncertain economic, environmental and socio-political relationships. This idea of complexity and uncertainty is reinforced by the themes, issues and trends that emerge via a comprehensive review of the past and current literature. In addition is the blurring of the boundaries and overlap between the theoretical approaches detailed in Chapter 1. The initial exploratory stage of the research process involved reviewing the specific field of the research that includes sustainable land-use planning. The planning and development process is broad and is directly and indirectly influenced by economy,
environment and society. With this in mind, the exploratory stage of the research highlighted that the research would deliver more robust and meaningful outcomes by adopting a multi-method, multi-disciplinary, multi-sectoral and participatory approach.

To counter any weakness and sources of bias in all data collection methods, three individual, but related, data collection methods are adopted and represent the primary research. Firstly, a comprehensive cross-sectional smart growth survey was conducted in February 2005. This was followed by four, two hour long smart growth Futures workshops conducted over a two week period in August 2005. Finally eight Strategic Conversations were conducted between August and October 2005. The survey facilitated the gathering of quantitative data. The smart growth Futures workshops facilitated the gathering of both quantitative and qualitative data and the strategic conversations were entirely qualitative in nature. Many sources of secondary data have been consulted for this research, including books, journals, newspaper articles, conference proceedings, radio and television media programmes, government publications, reports from both statutory and non-statutory sources and the Internet. Futures methods, as with the concept of smart growth, advocate a participatory ‘bottom-up’ approach to the planning and development process. This compatibility, coupled with a move towards more participatory democracy, adds further rigor, credibility, depth and density to the research outcomes. In addition, both Futures methods and the concept of smart growth accords with an integrated and holistic approach to deal effectively with complexity and uncertainty as evident in modern advanced capitalist societies. The compatibility between Futures methods and the concept of smart growth, when used together, in theory represents an ideal partnership to effect implementation of policy and
strategy. With this in mind, both advantages and disadvantages of this method of data collection must be considered.

4.8 Method 1: Comprehensive Survey

Research budgetary and time constraints, along with the advantages and disadvantages of postal questionnaires, were carefully considered before a decision was made to conduct a postal survey as a means of gathering data.

4.8.1 Sampling Method Employed

Society, through its constituent individuals, is the main occupier of space. It follows that every individual has an interest directly or indirectly in the planning and development of the built environment. Non-probability purposive and systematic sampling methods were deployed to obtain the sample list for this research. Given the nature and scope of the research, a decision was made to gather the opinions and attitudes of a multi-disciplinary and multi-sectoral group of professional/non-professional, statutory/non-statutory individuals who directly or indirectly have an impact and a role to play in shaping future urban development in Ireland and particularly the GDA.

Table 4.1 outlines the list of respondents that the survey was administered to. The survey questions were designed not to require a high level of technical expertise or knowledge relating to the planning and development process; however, a glossary of terms was supplied to respondents to counter any lack of understanding. The respondents were questioned as ‘occupiers of space’ and not as planning and development experts. In order to create a systematic approach and a framework to
develop a sample, it was decided to create a sample based on professional interest. Naturally, as members of society, they also have a personal interest and viewpoint on the issues at stake.

Non-probability purposive sampling method is conducted with a purpose in mind; on this occasion to obtain a sample that includes individuals traditionally associated with the planning and development process. This target sample includes architects, chartered surveyors, planners, planning consultants, LA planners, property developers and investors. In addition, the Institute of Auctioneers and Valuers in Ireland (IAVI), which is the largest body representing auctioneers, estate agents and valuers in Ireland, is also judged as an appropriate body to be surveyed. The rationale for selecting IAVI members is based on the institutes’ important relationship with and influence on the property profession in Ireland. All available membership lists and electronic databases were accessed and every \( nth \) element is selected in a systematic fashion.

Firstly, the sampling fraction must be derived by dividing population size by the required sample size. For example, if the list contains, 1,000 elements and the sample required is 100 then every tenth element is selected. For this research the Golden Pages electronic database facility was accessed to obtain mailing details for architects, planning consultants, chartered surveyors, property developers and property investors. It must be noted that this database contains only those land-use practitioners or businesses who subscribe to the Golden Pages service and as such may not contain all practicing architects, planning consultants, chartered surveyors, and property developers.
Nonetheless, given this limitation, time and resource constraints made this process the most viable option. The seven local authorities within the GDA were consulted to create a database of local authority planners, CDB and SPC members. Again, every \( nth \) element in the list was included to achieve a representative sample.

Smart growth seeks to bring individuals together to find acceptable ways to accommodate growth in a more sustainable manner. At the heart of smart growth is the notion of inclusivity, collaboration and consensus building in an integrated and holistic manner. The inclusion of members from CDBs and SPCs in the survey is indicative of the need to ensure that local community members and non-governmental organisations (NGOs) are represented in some way in the survey and thereby reflects a participatory approach associated with the concept of smart growth.

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Quantity surveyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>City/County Development Board and Strategic Policy Committee Members in GDA</td>
<td>70</td>
</tr>
<tr>
<td>Chartered surveyors</td>
<td>89</td>
</tr>
<tr>
<td>Planning consultants</td>
<td>50</td>
</tr>
<tr>
<td>Property developers</td>
<td>78</td>
</tr>
<tr>
<td>Institute of Auctioneers and Valuers in Ireland</td>
<td>160</td>
</tr>
<tr>
<td>Property investors</td>
<td>20</td>
</tr>
<tr>
<td>Local Authority Planners in GDA</td>
<td>40</td>
</tr>
<tr>
<td>Architects</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total Surveys Distributed</strong></td>
<td><strong>607</strong></td>
</tr>
</tbody>
</table>

Table 4.1 Respondent type and quantity surveyed.
The smart growth survey was distributed to 607 respondents as listed in Table 4.1. Each individual survey was franked and posted from Dublin Institute of Technology, Bolton Street, Dublin 1 in February 2005. The limitations and significance of the respondents targeted in this survey are discussed further in section 4.10.

### 4.8.2 Sampling Limitations and Significance for this Research

Prior to 2007 an individual in Ireland could practice as an architect without having obtained formal architectural qualifications. In addition, any member of society may act in the capacity of an auctioneer without having obtained formal qualifications. The significance of this is that there potentially exists a number of practising architects that lack formal qualifications and as such may not subscribe to databases that list architects who do possess formal qualifications. There is also a degree of crossover and overlap between the professions targeted on this occasion. Furthermore, it is not possible to quantify the exact number of property developers and property investors, on the grounds of how a property developer or a property investor can be defined. Whilst every effort was made to accurately quantify the target population for this research, the target population is not definitively known as it cannot be assumed that the respondents targeted subscribe to electronic databases or are members of professional bodies associated with the planning and development process. With this in mind it is suggested that as with any non-probability sample, the sample used for this survey does not represent every member of the entire target population but does, however, represent a broad group of individuals to furnish relevant and meaningful data to fulfil the aims and objectives of this research.
This issue arguably would be of more significance if the survey analysis were based solely on the profession of the individual surveyed. However, the analysis and findings of the survey are presented based on the respondents’ gender, age group, level of qualification and the profession most associated with, to include land-use planning, property development, neither, or other.

4.8.3 Pilot Test of Smart Growth Survey

The smart growth survey was critically analysed by Ms Jean Saunders in the Statistical Consulting Unit (SCU), located in the Department of Mathematics and Statistics at the University of Limerick. The SCU provides a professional statistical consulting service and promotes good statistical practice amongst researchers. Pilot testing of the instrument was also conducted in October/November 2004 at an internal level in the Dublin Institute Technology, Bolton Street, Dublin 1 and externally with academics and colleagues working in both the public and private sector who were willing to give opinions and valuable constructive criticism. A hard copy of a sample survey was distributed at the pilot stage. This facilitated the process of reducing the number of questions from 80 to a more manageable 28 questions. Given the closed nature of the questions asked, this represents a feasible number of questions having regard to the respondents’ time constraints and the opportunity to increase the response rate.

The pilot stage of the research ensures that the questions are tested against the relevant criteria before being sent out into the ‘real world’. The pilot conducted for the smart growth survey highlighted that although technical expertise is not necessary to answer the survey questions, it would be advantageous to include a glossary of terms to ensure
that all terms and the language used in the survey was clearly understood. Furthermore, the pilot stage identified ways in which the questions could be worded to ensure the most valuable data could be garnered. The survey questions were asked in the context of the respondents’ attitudes to the built environment issues and the planning and development process in Ireland. The term ‘attitude’ may usefully be described as a complex mental state involving beliefs, feelings, values and dispositions to act in certain ways (Fink, 1995c).

The chief research objective of the smart growth survey was to measure attitudes and gather quantitative data regarding specific issues that relate to the process of planning and development in Ireland, and in particular urban development in the GDA. The selection process for the type of question to be used in the smart growth survey identified closed or forced questions, whereby the respondent is directed to choose from a list of alternative answers. This is in contrast to open-ended question whereby the respondent is allowed to formulate their own answers (De Vaus, 1993). Closed questions ascertain how strongly an opinion is held and force the respondents, to some degree, to make a choice. Open-ended questions are conducive to the qualitative data collection. The reason for the use of closed questions was such that the Futures methods adopted for the research would deliver the qualitative data needed.

**4.8.4 Smart Growth Survey February 2005**

A comprehensive survey was conducted in February 2005. The survey was distributed to 607 respondents, listed in Table 4.1. The survey questions were identified from economic, environmental, social and political themes that emerged from the secondary
documentary research. The principles of smart growth represent the themes in the questions throughout the survey. The survey comprised entirely closed questions. A copy of the questionnaire is available in Appendix 1. In order to elucidate the purpose of the survey, a cover letter explaining the aim and objective of the survey and instructions to be followed in completing the survey were included. The respondents were also assured about the confidentiality of the results. The respondents were requested to return the completed survey by the 28th February 2005. This facilitated a three-week turnaround for completed surveys to be returned. Given that the survey was administered to 607 respondents it was not feasible to conduct follow-up telephone calls to increase the return rate and this limitation must be acknowledged.

Certain terms within the survey needed clarification to ensure respondents had a clear understanding of the questions being asked. With this in mind, a glossary of terms was included in the survey. A postage paid envelope addressed to the researcher was also included to ensure the best opportunity for the return of the completed survey. As a means to compile a profile of the respondents the first page of section 1 of the survey requested the respondents to compete the following details:

a) Gender
b) Age group
c) Level of educational qualification
d) Sectors to which the respondent would be most strongly connected, that is,
   ⇒ Public Sector
   ⇒ Private Sector
   ⇒ Both
   ⇒ Neither
⇒ Other, please specify

e) County of residence

f) County of employment

Section 2 of the survey asked questions relating to the built environment, the aim of which was to gather data on the factors that influence the respondents in the purchase of a home. The respondents were then asked to rank in order growth-related issues from a list that included traffic congestion, air quality, water quality, overburdened community infrastructure, climate change, provision of affordable housing, open space conservation, and increase in population.

The respondents were surveyed on growth-related issues and the choice of where to live to increase quality of life. Respondents were then asked to identify their view on low-density peripheral growth in the GDA and high density in central urban developments. Question 6 of section 2 was aimed at gathering data on the views of respondents with regard to the issue of land banks, arguably a topic of debate in Ireland. Respondents were asked to present an opinion on compulsory purchase of land by the state in situations where land that is needed for housing is not developed within three years of obtaining planning permission (full or outline). The concept of smart growth advocates multi-modal transit options; hence, it was necessary to include a question to gather data on the respondents’ views on the transit options in their locality. The outcome of planning and development has both direct and indirect impacts on all in society.

In order to fully understand the outcome of the current planning and development process in Ireland it is essential to establish what factors are the most influential at
present. In question 8 of section 2 the respondents were asked to indicate, in their opinion, the importance of specific non-statutory and statutory sectors in influencing planning decisions in Ireland. Finally, question 9 of section 2 asked respondents to rate the factors that drive current development patterns in Ireland with a range of five options from very influential to not influential.

In the first part of section 3 of the survey the respondents were asked to give their opinion on 18 statements using a five-point Likert scale, from strongly agree, agree, neutral/no opinion, disagree, strongly disagree. The final part of section 3 requested respondents to rank a range of factors in order of what they saw as the greatest challenge to achieving smart growth in Ireland. In an attempt to establish if the survey respondents felt that the questions were easily understood, the final question in the survey asked the respondents to indicate their view again with the use of a five-point scale from strongly agree to strongly disagree. The respondents were then thanked for participating in the survey and asked to fill in an optional section that included name, address and contact details to indicate the respondents’ willingness to discuss their views further. It was envisaged that those respondents who had an interest in the subject matter of the research would participate in the next stage of data collection.

4.8.5 Maximising Survey Response Rate

The smart growth survey was designed to be clear, concise and unambiguous as a means to maximise the completion and return of the survey. A cover letter with clear instructions on how to complete the survey was included, alongside a glossary of terms. This is considered as another technique to maximise the response rate. A postage paid
envelope addressed to the researcher was also included in the survey pack. Ideally, each respondent would be contacted to increase the response rate, however, given the research time constraints this was not feasible with 607 respondents.

4.9 Method 2: Smart Growth Futures Workshops

In philosophical terms the smart growth Futures workshops fall within a constructivist phenomenological perspective, meeting as they do the criteria outlined in section 4.3.1. The workshops brought together a group of individuals that had completed the smart growth survey to participate in a scenario planning exercise, to create future planning and development scenarios of the GDA. The workshops also provided a forum to identify strategies to facilitate the implementation of policy and to identify key sustainability indicators to monitor and evaluate progress. The smart growth Futures workshops are indicative of an action research approach. Given the importance of a participatory approach ascribed to both Futures methods and the concept of smart growth, action research represents a compatible and complementary method to adopt for this research. The workshops introduced the multi-disciplinary and multi-sectoral participants to innovative and creative ways to collectively envision future urban development in the GDA. The scenario planning process adopted for this research is outlined in Figure 4.2.

Dr Kirk Shanks, a senior researcher in Dublin Institute of Technology with a wealth of previous experience, chaired the workshops and assisted the author with the facilitation. The smart growth Futures workshops as a forum provided a convivial environment for a
broad and diverse group of individuals with varying opinions and attitudes towards urban development, facilitating the exchange of ideas with individuals from a range of backgrounds. One outcome of this is the opportunity to break down barriers between disparate groups and identify ways to reach consensus, coupled with the development of a collective vision for the future.

4.9.1 Smart Growth Futures Workshops Participants

The 18 individuals who participated in the smart growth Futures workshops were those respondents who had completed the section at the end of the smart growth survey indicating a willingness to participate in the collection of further data. All of these 18 participants were firstly contacted by telephone and invited to attend the workshops. It was not feasible for a number of reasons for all 18 to attend and participate in the workshops.

The objectives of the smart growth workshops were clearly explained to all interested participants via e-mail and telephone communications. Furthermore, each willing participant received an information pack two weeks in advance of the workshops, the aim of which was to clarify the objective of conducting the workshops, the time of workshops and relevant instructions for the venue.

All participants who had indicated intent to attend the workshops were contacted via telephone/e-mail two days prior to Workshop 1. Nonetheless, unforeseen circumstances arose for two individuals who had intended to participate but were unable to attend. The 18 eventual participants were comprised of three architects, two planners, three
planning consultants, two members from ‘The Better Places Forum’ (a Dublin community group), one transport planner from Dublin Transportation Office (DTO), three members of Dublin City Councils’ Strategic Policy Committee (SPC), and five county councillors. Two of the councillors are members of the Labour party, one a member of the Green Party, one a member of Fine Gael and one a member of Fianna Fáil. A list of the workshop participants who represented individuals from the public and private sector in Ireland is available in Appendix 3.

4.10 Method 3: Eight Strategic Conversations Conducted - 2005

In philosophical terms the strategic conversations conducted for this research fall within a constructivist phenomenological perspective, being committed to understanding social phenomena from the actor’s own qualitative perspective. The merits of strategic conversations must be viewed within the potentially subjective nature of this qualitative method of inquiry. This subjectivity, it is argued, arises from selective perceptions and biased interpretations. In recognition of this, Kvale (1996) proposes that the researcher’s perspectives should be clearly stated in the research report. Furthermore, the analysis and interpretations of the interview findings should be sensitive to selective perceptions and biased interpretations. Prerequisites of conducting successful interviews include: being non-judgemental; listening actively and attentively; allowing the respondent to talk; being sensitive; and probing – following up on topics that have been raised by asking specific questions. The researcher has an important role of creating a convivial atmosphere that enables the respondent to talk freely and in a relaxed manner. The fundamental objective was to gather attitudes of respondents in relation to the driving
forces, issues, and trends that influence the planning and development process in Ireland.

The objectives of the strategic conversations were to determine the interviewees’ opinions, attitudes, understanding and aspirations within the context of the goal of more sustainable urban development in Ireland. Twelve questions were asked of the interviewees, eleven being open-ended in nature and one being closed in nature. The rationale for using open-ended questions is that such questions allow respondents to formulate their own answers. This approach is most conducive to the strategic conversation method as outlined in this chapter. The context for strategic conversations and the profiles of the interviewees who participated in data collection for this research are discussed in greater detail below. A copy of the questions asked is available in Appendix 4.

4.10.1 The Strategic Conversation Process

The qualitative strategic conversations were recorded using a standard tape recording device and conducted following best practice guidance (Kvale, 1996). This consisted of a briefing, the interview proper and debriefing. Each participant was thanked for their time and contribution to the collection of data for the research project. Again the purpose and context for the strategic conversations was outlined and the anonymity of the information gathered assured. A request to record the strategic conversation via was made.
How the strategic conversation was to proceed was then explained and the participant was invited to have any issues clarified before the interview commenced. The interviewee was asked if it was acceptable to tape the interview and this was followed by the interview proper. All eight interviewees were happy to have the interview recorded.

A compact cassette recorder was utilised to record the strategic conversations. The audio tapes were transcribed verbatim by the author. Each strategic conversation was followed by a debriefing. This involved the researcher repeating the main points raised by the interviewee to ensure that the interviewee was in agreement with these. The participants were invited to add further comments. Any other questions were answered and once again the participant was thanked for taking part.

### 4.10.2 Profile of Strategic Conversation Interviewees

Eight participants, seven male and one female, took part in the strategic conversations. Participants were those who had completed the smart growth survey and had indicated a willingness to participate in further data collection. The participants were asked to participate in the smart growth Futures workshops, however due to other commitments were unable to participate. The participants were then asked if they would be willing to be interviewed as a further method of data collection. The objectives of conducting the strategic conversations and the purpose and potential outcomes of the research were clearly explained to prospective interviewees and eight interviews were conducted between August and September 2005. Three statutory and five non-statutory
respondents were interviewed. However, three of the non-statutory interviewees identified themselves as having an influencing role in relation to policymaking.

<table>
<thead>
<tr>
<th>Interviewee Title</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewee One</td>
<td>Local authority councillor; (Member CDB and Former Lord Mayor of Dublin)</td>
</tr>
<tr>
<td>Interviewee two</td>
<td>Manager of a nationwide transport association company</td>
</tr>
<tr>
<td>Interviewee three</td>
<td>Managing director of a Dublin-based property development company</td>
</tr>
<tr>
<td>Interviewee four</td>
<td>Local authority junior land-use planner</td>
</tr>
<tr>
<td>Interviewee five</td>
<td>Local authority senior land-use planner</td>
</tr>
<tr>
<td>Interviewee six</td>
<td>Manager of Enterprise Ireland (Irish State development agency)</td>
</tr>
<tr>
<td>Interviewee seven</td>
<td>Managing Director of large Dublin based architecture company</td>
</tr>
<tr>
<td>Interviewee eight</td>
<td>Managing Director of large Dublin based property development company.</td>
</tr>
</tbody>
</table>

Table 4.2 Strategic Conversation Interviewees

The data collected via the strategic conversations complements the data collected via the smart growth survey and this point is discussed further in Chapter 7, the discussion chapter.

4.11 Methods of Data Analysis and Presentation

Advice from supervisors and other research students alongside software availability led to the use of a social science package entitled Statistical Package for the Social Sciences (SPSS). Babbie and Halley (1995) suggest that SPSS is a vehicle for discovering places we have not yet visited. Like most data analysis programs, SPSS is capable of computing many different statistical procedures with different kinds of data. This makes SPSS a very powerful and useful tool, but because of its generalisation it is necessary to specify what we want SPSS to do for us. The researcher when using SPSS makes the choice of the data to be explored and then selects the statistical procedures to do this.
SPSS is user-friendly and facilitates efficient data analysis as most data analysis can be accomplished using menus and dialog boxes. Microsoft Office Excel spreadsheet software package was chosen to create the graphs for this research on aesthetic grounds. Software packages to include Statistical Package for the Social Sciences (SPSS) and Excel software package were utilised to store the data collected for analysis and evaluation purposes.

4.11.1 Analysis of Quantitative Data

The shape the data is in is very important when it comes to the analysis, hence great care is taken to ensure at the survey design stage that the procedure is dealt with in an orderly manner. The main factors that influence the collection of data include the condition in which the data are collected, and where, and with what facilities, the researcher is able to analyse them (Wisker 1996). This involved coding the returned smart growth survey questionnaires. The process of analysis was planned and included an evaluation of the most suitable computer software to organise and analyse the data.

According to Blaxter (1996), data may be ordered or chaotic. On this occasion every endeavour was made to ensure the data was ordered in an attempt to utilise the time available in the most effective manner. It is important to note, however, “there is no single ‘right’ strategy for carrying out research, or for ordering or analysing data” (Ibid.). Denzin (2000) states there are a variety of techniques for managing data, outlined in Table 4.2.
Technique | Description
--- | ---
Coding | Coding is the process by which items or groups of data are assigned codes. These may be used to simplify and standardise the data for analytical purposes, as when characteristics like sex, marital status or occupation are replaced by numbers (e.g. replacing ‘male’ by ‘1’, female by ‘2’).
Annotating | The process by which written (or perhaps audio or visual) material is altered by the addition of notes or comments. In books or papers, these may take the forms of marginal notes, or underlining or highlighting of the text itself.
Labelling | Where the researcher has an analytical scheme in mind, or is developing one, the researcher may go through materials such as interviews or policy documents and label passages or statements with significant words (e.g. ‘mother’, ‘conservative’, ‘career break’, ‘introvert’. These labels can serve to direct your further analysis.
Selection | Selection represents a key process in the management of data, through which interesting, significant, unusual or representative items are chosen to illustrate research arguments. This may take the form, for example, of one member of a group, one institution, one answer to a survey, one particular quotation, one text or a number of such selections.

Table 4.3 Techniques for organising data for analysis

Of importance in this process is that the researcher is choosing, for a variety of reasons, which examples of the data collected to elaborate upon and to discuss in greater detail. However, it must be noted there is always a degree of subjectivity involved in such a process.

According to Blaxter (1996) there are five words that are synonymous and at the heart of the process of analysis, being:

| Concepts | Abstracts or general ideas, which are important to how we think about particular subjects or issues. |
| Theories | Suppositions which explain, or seek to explain, something. |
| Explanations | Statements which make something intelligible, about why things are the way they are. |
| Understanding | Our perception of the meaning of something, in this case the subject area, the issues and/or the research questions understanding. |
| Analysis | Analysis is about the search for explanation and understanding, in the course of which concepts and theories will probably be advanced, considered and developed. |

Table 4.4 Data Analysis (Blaxter, 1996)
The data collected by questionnaires may be either qualitative or quantitative. Questionnaires lend themselves more to quantitative forms of analysis. This is partly because they are designed to collect mainly discrete items of information, either numbers, or words which can be coded and represented as numbers. This emphasis is also partly owing to the larger scale of many questionnaire surveys, and their common focus on representation, which encourages a numerical or quasi-numerical summary of the results (Ibid.). As the questions in the smart growth survey were closed questions it follows that the data generated is quantitative in character.

4.11.2 Analysis of the qualitative data

When using qualitative data analysis the researcher sorts and sifts them, searches for types, classes, sequences, processes, patterns or wholes. The aim of this process is to assemble or reconstruct the data in a meaningful or comprehensive fashion. Qualitative data analysis can take many forms. Traditionally, two propositions underpin qualitative data analysis: analytic induction and grounded theory. Analytic induction, primarily associated with Znaniecki in 1934, refers to a systematic iterative examination of similarities between social phenomena in order to develop concepts or ideas (Ragin, 1994). Znaniecki formulated analytic induction to identify universal propositions and causal laws.

The grounded theory approach, mainly associated with Glasser and Strauss (1967), explains categories, properties and making the connections between empirically collected data to build a general theory to fit the data (Charmaz, 1983). Glasser and
Strauss (1967) describe analytic induction and contrast it with their own method of analysis. They emphasise that analytic induction involves generating theory as well as testing theory in a provisional manner, whereas their own approach emphasises the generating function and thus is termed ‘grounded theory without testing’. The theory produced by analytic induction is universal, precise and limited. Glasser and Strauss underscore when adopting the analytic approach that all data available must be used to test the hypothesis. This is in contrast and in comparison to the grounded theory approach which requires that data only be used until categories become saturated.

The qualitative data analysis for this research is more aligned to a grounded theory approach where themes, commonalities and ideas emerge, but there is no causal explanation as would be the case if an analytic induction approach had been adopted. Qualitative research is an iterative process and grounded theory in particular requires that questions undergo a process of formulation and refinement over time (Glasser, 1992).

4.11.3 Limitations of Research Methods

There are several possible sources of error for each of the data collection methods used, as bias is a risk in all sampling regimes (Fink and Kosecoff, 1998). Firstly to be considered is the low response rate of survey questionnaires. In addition is when respondents chose not to respond to particular questions and when respondents chose the neutral option. As outlined in the presentation of the findings of the smart growth in Chapter 5, survey questionnaires do not allow for probing and it is considered that this
represents a caveat in the interpretation of the findings. It follows that the reason why respondents answer questions cannot factually be established. In addition, the use of this quantitative method is characterised as a more rigid approach, when compared to the more flexible nature of the qualitative methods adopted for this research.

To be a success, workshops need a clear time-frame, agenda and good facilitation (Jungk and Mullert, 1987). It is very important that the facilitator ensures that participants remain focused on the workshop agenda and workshop objectives. There is no definitive right or wrong way to conduct a scenario exercise and as a qualitative research method based more on anecdotal that scientific evidence the process benefits are subjective in nature. To gain a greater degree of ‘buy-in’, scenario learning must be linked to specific decisions, analysis processes and organisational procedures (Postma and Liebl, 2005).

The strategic conversation process as a qualitative data collection method enables the interviewee to talk freely (Sanghera, 2005). With this in mind it is possible that on occasion an interviewee, when feeling particularly passionate or concerned about a particular question, may become somewhat animated. It is important that the interviewer ensures that the strategic conversation follows a smooth transition from one question to the next.

4.12 Synthesis

The complexity of planning and development in modern societies, coupled with continual growth, deems it necessary to examine more innovative and creative ways to
achieve the global challenge of more efficient urban development. This chapter identified the purpose, rationale and theory that underpins the methods adopted for this research, deemed as the most effective manner in which to achieve the objectives of the thesis. The methods chosen were critically evaluated in relation to specific considerations that include ethical soundness, comprehensiveness and efficiency. Allied to this is the notion that the research has potential practical applications within the public and private sector and society at large.

The use of Futures methods alongside traditional methods of inquiry adds a novel dimension to the methodology. This, it is suggested, facilitates a more robust and comprehensive end product. In addition, the combination of quantitative and qualitative research methods adopted demonstrates the multi-sectoral and multi-dimensional nature of this project. The holistic and integrated approach adopted in this research reflects the current initiative of planning with conviction and sensitivity as discussed in Chapter 1. This, it is suggested, is essential to the identification of holistic, comprehensive and integrated mechanisms that reflect the concept of smart growth and enable Ireland to achieve more sustainable development. The data collected via the smart growth survey, the smart growth Futures workshops and the strategic conversations will go through a process of analysis, evaluation, triangulation and crystallisation. This procedure will inform the research conclusions and recommendations.
CHAPTER 5: SMART GROWTH SURVEY- FINDINGS

5.1 Introduction

Chapter 5 presents the findings of quantitative primary data collected via the smart growth survey. The chapter firstly outlines sources of limitation encountered by the methods adopted to collect the data. The raw data collected via the survey is transformed into tangible and understandable information. The findings are presented in a chronological format that corresponds with the three sections contained in the survey questionnaire in Appendix 1. Chapter 5 also presents selected results from a number of significance tests conducted to establish if a relationship exists between respondents’ answers to the survey questions.

5.1.1 Sources of Error in Smart Growth Survey: Limitations Encountered

The smart growth survey questionnaires did not allow for probing, and it is considered that this represents a caveat in the interpretation of the findings. The reason why respondents answer any question in the way they do cannot factually be established. In addition, the use of this quantitative method is characterised as a more rigid approach when compared to the more flexible nature of the qualitative methods adopted for this research. For example the ‘detached house’ was not specified as a ‘one-off’ detached rural dwelling or a ‘detached’ house within a housing estate. It is acknowledged that this ambiguity should have been highlighted and altered at the pilot stage of the study. On occasion the findings from the survey are not illuminating in that the answers given do not lend themselves to definitive conclusions. This issue is of particular significance in
the interpretation of findings and noted wherever it is considered relevant. However, a finding that is not necessarily conclusive still arguably represents a finding.

5.1.2 Normality of Data

The normality of the data becomes an issue when significance tests are carried out. In probability theory and statistics, the normal distribution or Gaussian distribution is a continuous probability distribution that describes data that cluster around a mean or average (Hardy and Bryman 2004). SPSS has been used to identify if the data follow a normal distribution that is traditionally characterised as a bell curve histogram. If the data is normally distributed one can make certain assumptions about the behaviour of the data and thereby determine estimates of the population, confidence intervals, statistical tests and standard errors, but these should be interpreted with caution given the potential for bias (Pallant, 2007). Normality tests were conducted on the smart growth survey results and the data is deemed not to be normal, meaning that the data is only conducive to non-parametric tests. The nature of the data, in that there is not a normal distribution, means that the data did not lend itself to use of confidence intervals. The tests used were hypothesis tests with a 5% level of significance. This means that within the context of the significance tests conducted for this research there a 5% chance of a Type 1 error in the rejection of the null hypothesis that there is no relationship, but this also suggests that there is a 95% chance of a correct conclusion. It is assumed that the survey findings must be viewed within the context and criteria interpreting non-normal non-parametric tests described below.
A significance test estimates the likelihood that an observed study result, for example a difference between two groups or more, is due to chance. In other words, a significance test is used to find out whether a study result observed in a sample can be considered as a result that indeed exists in the study population from which the sample was drawn.

There are two types of significant tests: parametric and non-parametric:

**Parametric**

The term parameter refers to some descriptive variable of the distribution of the data being analysed. In statistics the classic parameters include the mean or average, typical or representative value, and variance in how widespread the data is around the mean. Parametric tests assume that the researcher knows something about these population statistics and this is the origin of the term ‘parametric’ tests. Four conditions must be fulfilled to carry out parametric tests: the data is scale – such data is usually obtained from experiments where the dependent variable is measured on a formal measuring device, such as reaction times, weight loss, etc; the distribution from which the sample is extracted is normally distributed, in other words can be described by the normal distribution; the variances of the variables are equal; and the variables are independent. Parametric are the most ‘powerful’ tests used in SPSS (Pallant, 2007).

**Non-Parametric Tests**

These tests are used when the data is ordinal or nominal and/or it does not qualify as parametric under the criteria outlined above. Non-parametric tests are used when one or more variables in the data set, including the dependent variable, is measured on a
nominal or ordinal scale; one or more variables in the data set, including the dependent variable, violates the normality assumption; and when the sample size is small (< 20 cases or subjects). They are less robust than parametric tests and are less efficient in that they require a larger sample size. Non-parametric methods have three characteristics:

1. They do not involve parameters or population parameters such as the mean and variance. They involve comparisons between distributions rather than parameters and thus are called non-parametric.

2. They do not have to satisfy strict criteria with regard to the nature of the distributions, such as the distribution being normal; in these tests it is not necessary for the populations to be normally distributed; it is only necessary that the distributions have identical shapes. In some cases it may not be necessary to make any assumptions about the distribution.

3. They can be used with all types of data, nominal, ordinal, interval or ratio.

Chi-squared analysis needs a certain number of expected values if it is to work. The original results from the smart growth survey displayed a message that many cells did not have sufficient numbers, thus it is necessary to combine certain categories in each table to ‘beef up’ the numbers in each cell. The non-parametric tests conducted for this research include Chi-Squared, Mann-Whitney U and Kruskal-Wallis analysis.
5.2 Steps Taken to Process Data from Smart Growth Survey

On receipt of completed surveys, the author firstly examined each survey, paying great attention to the manner in which the questions were answered, and highlighting whether the survey respondents had completed all the questions. Each completed survey was then coded for identification purposes and to ensure effective data analysis using the criteria outlined in Table 4.2 of Chapter 4. The completed surveys were examined and re-examined in an iterative process to facilitate the identification of interesting, insightful, explanatory and significant issues, trends and themes. The completed surveys once coded were entered into the SPSS software package by the author.

5.2.1 Response Rate of Smart Growth Survey

Postal questionnaires generally have a low response rate. The number of completed smart growth surveys was 158 and this represented a response rate of 26%. This response rate is marginally above the generally accepted rate for postal surveys of between 20 and 25% (Bourke and Filler, 1995). The results presented are deemed adequate to yield results that may be used in combination with the other data collection methods for this research in achieving the objectives of the thesis.

5.3 Preliminary Data Findings of Smart Growth Survey

The data results that follow represent findings pertaining to sections 1, 2 and 3 of the smart growth survey. The initial results are presented in a bar chart graphical format. A blank copy of the smart growth survey is available in Appendix 1. Section 1 of the
survey contains questions A to I inclusive. Section 2 of the survey contains questions from 1 to 9 inclusive and Section 3 contains questions 10 to 29 inclusive.

5.3.1 Section 1: Profile of Survey Respondents: Questions A, B, C

The graphs now presented provide details of the profile of the survey respondents by gender, age group, respondents’ qualifications and the sector the respondent is most associated with. Male respondents who completed the smart growth survey represent 70.3%, female represent 22.2% and no response represent 7.6%. The higher percentage of male respondents reflects the male-dominated nature of professions that relate to the planning and development process. Tovey and Share (2003) discuss female occupational segregation in Ireland and state that 25% of the female workforce is located in the professional and technical sector. The reason for the 7.6% no response is unknown, but it is assumed that the respondent felt that the question was too personal in nature, or that the respondent believed that such information would not be relevant to the research at hand.
Age Profile:

![Age Profile of Survey Respondents](image)

Figure 5.1 Question a): Age Group of Survey Respondents.

Survey results indicate that the respondents were split evenly between the 20-45 and 46-60 age category, representing 43.5% and 47% respectively. 7.6% of respondents fall within the 61-75 age category. The ‘no response’ equates to 1.9%.

Qualifications:

![I hold the following qualifications](image)

Figure 5.2 Question b): Qualification levels of Survey Respondents.
The survey results indicate that 10% hold second level and, at 88%, a majority of the survey respondents have obtained third level qualifications. Excluding 15-24 year olds (the age group most likely to be still in education), just over one third (34%) of 25-64 year olds had a third level qualification, and this had also increased gradually annually since 2002 when the level was 25% (CSO, 2008). The sample group targeted and respondent type are outlined in section 4.1 of Chapter 4. The sample includes a large number of individuals that generally have obtained a third level qualification as a means to practice in their specific field.

Section 1, question C asked respondents to indicate the professions that the respondents consider themselves most strongly connected with. ‘property development’ represents 30.4%, ‘land use planning’ represents 19.6%, ‘both’ represents 11.4%, and ‘other’ represents 13.3%; however, the respondents did not specify what ‘other’ represented for them; ‘no response’ represents 2.5%.

5.3.2 Section 1: Questions D to L – Findings and Analysis

Section 5.4.2 presents the findings from questions D to L in section 1. The questions relate to dwelling choice, mode of transport and the respondents’ attitude to congestion charging.
What is your county of residence in Ireland?

<table>
<thead>
<tr>
<th>County</th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dublin</td>
<td>93</td>
<td>58.9</td>
<td>58.9</td>
<td>58.9</td>
</tr>
<tr>
<td>Louth</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>60.1</td>
</tr>
<tr>
<td>Meath</td>
<td>7</td>
<td>4.4</td>
<td>4.4</td>
<td>64.6</td>
</tr>
<tr>
<td>Wexford</td>
<td>6</td>
<td>3.8</td>
<td>3.8</td>
<td>68.4</td>
</tr>
<tr>
<td>Cork</td>
<td>4</td>
<td>2.5</td>
<td>2.5</td>
<td>70.9</td>
</tr>
<tr>
<td>Wicklow</td>
<td>12</td>
<td>7.6</td>
<td>7.6</td>
<td>78.5</td>
</tr>
<tr>
<td>Ireland</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>79.7</td>
</tr>
<tr>
<td>Galway</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>81.0</td>
</tr>
<tr>
<td>Leitrim</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>82.3</td>
</tr>
<tr>
<td>Clare</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>83.5</td>
</tr>
<tr>
<td>Offaly</td>
<td>1</td>
<td>.6</td>
<td>.6</td>
<td>84.2</td>
</tr>
<tr>
<td>Kildare</td>
<td>21</td>
<td>13.3</td>
<td>13.3</td>
<td>97.5</td>
</tr>
<tr>
<td>Nationwide</td>
<td>1</td>
<td>.6</td>
<td>.6</td>
<td>98.1</td>
</tr>
<tr>
<td>Limerick</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>99.4</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>.6</td>
<td>.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>158</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.1 Survey Respondents’ County of Residence

Table 5.1 presents survey results on respondents’ county of residence. The GDA counties represent the residence of the majority of survey respondents: Dublin 58.9%; Meath 4.4%; Wicklow 7.6% and Kildare 13.3%.
What is your county of employment?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dublin</td>
<td>107</td>
<td>67.7</td>
<td>67.7</td>
<td>67.7</td>
</tr>
<tr>
<td>Meath</td>
<td>7</td>
<td>4.4</td>
<td>4.4</td>
<td>72.2</td>
</tr>
<tr>
<td>Wexford</td>
<td>5</td>
<td>3.2</td>
<td>3.2</td>
<td>75.3</td>
</tr>
<tr>
<td>Cork</td>
<td>5</td>
<td>3.2</td>
<td>3.2</td>
<td>78.5</td>
</tr>
<tr>
<td>Wicklow</td>
<td>5</td>
<td>3.2</td>
<td>3.2</td>
<td>81.6</td>
</tr>
<tr>
<td>Ireland</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>82.9</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>.6</td>
<td>.6</td>
<td>83.5</td>
</tr>
<tr>
<td>Galway</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>84.8</td>
</tr>
<tr>
<td>Leitrim</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>86.1</td>
</tr>
<tr>
<td>Clare</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>87.3</td>
</tr>
<tr>
<td>Kildare</td>
<td>13</td>
<td>8.2</td>
<td>8.2</td>
<td>95.6</td>
</tr>
<tr>
<td>Nationwide</td>
<td>3</td>
<td>1.9</td>
<td>1.9</td>
<td>97.5</td>
</tr>
<tr>
<td>Limerick</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>98.7</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>.6</td>
<td>.6</td>
<td>99.4</td>
</tr>
<tr>
<td>Unemployed</td>
<td>1</td>
<td>.6</td>
<td>.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>158</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.2 Survey Respondents’ County of Employment

Table 5.2 presents survey results on respondents’ county of employment. The majority of the respondents, 67.7%, listed Dublin as their place of employment. Of the GDA counties, Meath has 4.4% who live in Meath and 4.4% work in Meath; Wicklow has 7.6% who live in Wicklow and 3.2% who work in Wicklow; and Kildare has 13.3% who live in Kildare and 8.2% who work in Kildare.
Dwelling Choice

Survey findings indicate for current dwelling: the ‘terraced house’ category represents 15.2%; both the ‘semi-detached’ and ‘detached’ category represent 38%; ‘apartment dwelling’ represents 3.8%; ‘duplex’ 2.5%; ‘other’ 1.3%; and ‘no response’ 1.3%. For the ideal choice of dwelling, the survey indicates: the ‘terraced house’ category represents 6.3%; the ‘semi-detached’ 6.3 %; the ‘detached’ represents 78.3 %; ‘apartment dwelling’ represents 1.9%; ‘duplex’ 1.9 %; ‘other’ 2.5 %; and ‘no response’ 1.3%. It must be noted that the detached house option does not necessarily imply a one-off house in the countryside and could in fact be a detached house in a housing estate. It is evident that the detached house as the respondents’ ideal choice of dwelling increased by over 100 % when viewed alongside current dwelling of respondents.
Live in a mixed-use design development

The findings indicate that 36.7% chose ‘yes’, 36.7% chose ‘no’, 22.8% chose ‘don’t know/no opinion’ and 3.8% chose ‘no opinion’. The findings indicate an even split in opinion between the respondents on mixed-use development.

Mode of transport to work:

![Figure 5.5 Actual and Ideal mode of transport to work.](image)
The survey findings indicate that 79.7% of the respondents currently drive by car to work. The findings compare with a Dublin Transportation Office Report (DTO, 2006) figure of 62% of survey respondents that travel to work by car. The survey findings indicate that categories including motorcycle, bus, rail, bicycle and by foot are not currently modes of transport to get to work by the respondents to this survey. The respondents’ ideal choice of transport to work, as evident in Figure 5.5, presents quite a different modal split where 42.4% of the respondents selected the car as their ideal choice of transport. This represents a drop of 27.3% on the actual mode of transport. Rail, deemed as a sustainable mode of transport, as an ideal option increased from 2.5% to 22.2%. This, it is suggested, represents quite a high increase. Bus as an option in fact decreased from 3.8% to 3.2%. Getting to work by foot also saw a significant increase from 1.9% to 18.4%.

Introduction of daily congestion charge:

![Figure 5.6 Congestion Charge to enter Dublin City Centre.](image-url)
The survey findings indicate that 37.3% selected the €0 as a congestion charge to enter Dublin City Centre (within Grand and Royal Canals); 38% selected the €1 to €5 charge; 17.1% selected the €6 to €10 charge and 3.2% of the respondents selected the greater than €15 amount. All those in favour of some degree of a congestion charge combined make up 60% of the respondents.

5.3.3 Section 2: Findings from Questions 1 to 9

Section 5.3.3 presents findings from Questions 1 – 9 inclusive of section 2.

Factors that influence purchase of home:

<table>
<thead>
<tr>
<th>Factors</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>1.6266</td>
</tr>
<tr>
<td>Cost</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>3.2658</td>
</tr>
<tr>
<td>Number of bedrooms</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>4.3354</td>
</tr>
<tr>
<td>Style/Aesthetics</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>4.7785</td>
</tr>
<tr>
<td>Proximity to open space</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>4.9241</td>
</tr>
<tr>
<td>Proximity to schools</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>5.3734</td>
</tr>
<tr>
<td>Energy efficiency</td>
<td>158</td>
<td>2.00</td>
<td>10.00</td>
<td>6.1266</td>
</tr>
<tr>
<td>Proximity to relatives</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>6.2532</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>158</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.3 Factors that influence the purchase of a dwelling.

The survey indicates the respondents mean score of factors that influence the purchase of a dwelling. The lower the mean score the more important the factor of influence; the question indicated to the respondents that a score of 1 equals ‘most important’ and a score of 8 equals the ‘least important’ factor. The survey findings indicate that the four
factors that are most influential when purchasing a dwelling are: location, cost, number of bedrooms and style/aesthetics. This is followed by proximity to open space, proximity to schools, energy efficiency and proximity to relatives.

**Growth-related issues of importance:**

<table>
<thead>
<tr>
<th>Issues of Importance</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic congestion</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>2.7278</td>
</tr>
<tr>
<td>Overburdened community infrastructure</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>4.0063</td>
</tr>
<tr>
<td>Air quality</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>4.4051</td>
</tr>
<tr>
<td>Open space conservation</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>4.6266</td>
</tr>
<tr>
<td>Water quality</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>4.9810</td>
</tr>
<tr>
<td>Provision of affordable housing</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>5.2658</td>
</tr>
<tr>
<td>Increase in population</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>5.5063</td>
</tr>
<tr>
<td>Climate change</td>
<td>158</td>
<td>1.00</td>
<td>10.00</td>
<td>6.4241</td>
</tr>
</tbody>
</table>

Table 5.4 Growth-related issues of importance to survey respondents.

The survey findings indicate that traffic congestion is considered as the growth-related issue of most importance. Traffic congestion is followed, in ascending order of importance, by ‘over-burdened community infrastructure’, ‘air quality’, ‘open space conservation’, ‘water quality’, ‘provision of affordable housing’ and ‘climate change’.
Chapter 5 – Smart Growth Survey Findings

Quality of life:

Figure 5.7 Choice of where to live to have a better quality of life.

The survey findings indicate 18.4% selected ‘the city centre’; 27.2% selected ‘the inner suburbs’; 20.3% selected ‘the GDA’; 32.3% selected ‘other’ and 1.3 selected the ‘no response’ category. When the areas that fall under the GDA umbrella are combined the figure represents 63.6%. Respondents that selected the ‘other’ option indicated that ‘other’ to the respondents includes, out of Dublin, while some respondents specified counties, including Kildare, Kilkenny, Clare, Cork, Galway, Meath and Wicklow.
Chapter 5 – Smart Growth Survey Findings

Low density development (1):

The survey findings indicate: 3.8% ‘not an issue’, 10.1% a ‘minor issue’, while 62.7% of the respondents think that the level of low-density peripheral growth in the GDA is a ‘major issue’. This finding must be viewed alongside the 23.4% that represents ‘no response’.

Figure 5.8 Opinions on low-density peripheral growth in the GDA ‘1’
Low density development (2):

Figure 5.9 Opinions on low-density peripheral growth in the GDA ‘2’

It is evident from the findings that a considerable number (55%) of the survey respondents feel that the level of low-density peripheral growth in the GDA is ‘undesirable’. 10.8% chose ‘desirable’, 5.1 % selected ‘don’t know/no opinion’ and 29.1 % gave ‘no response’.
Low density development being avoidable or unavoidable (3):

Figure 5.10 Opinions on low-density peripheral growth in the GDA ‘3’

It is evident from the findings presented that a considerable number of the survey respondents (45%) feel that the level of low-density peripheral growth in the GDA is ‘avoidable’. However this must be viewed alongside the 18% that feel it is ‘unavoidable’, 3.2% ‘don’t know/no opinion’ and 35% ‘no response’. It must be noted that the question was listed in three parts and it appears that the ‘no response’ associated to both part ‘b’ and ‘c’ of the question could indicate that the respondents were inclined to answer only part ‘a’ (the first part) of the question.
High density development

![Bar chart showing survey findings on high-density in central urban developments.](image)

Figure 5.11 High-density in central urban developments.

The survey findings indicate that 42% associate high-density in central urban developments with a decrease in quality of life. Once again, note must be taken that the glossary of terms did not give a definition of ‘quality of life’. 38% of the respondents associate high-density in central urban developments with an increase in quality of life. 15% selected the ‘no change’ category and 6% selected the ‘other’ category. However, what is clear is that the majority of the respondents associate high-density with a decrease in quality of life.
Compulsory purchase order:

The survey findings indicate that 42% of respondents disagree with compulsory purchase order (CPO) by the state of land that has full planning permission but is not developed within three years of obtaining this planning permission; 16% agree ‘less 10%’ of the market value; 18% agree ‘less 25 %’ of the market value; 19% agree ‘less 50%’ of the market value and 5% selected the ‘other’ category. The findings suggest that there are more respondents who disagree than agree with CPO.

Rate aspects in locality:

<table>
<thead>
<tr>
<th>Aspect in locality</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of car pooling</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>1.4367</td>
<td>1.14232</td>
</tr>
<tr>
<td>Number of cycle lanes</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.6013</td>
<td>1.48855</td>
</tr>
<tr>
<td>Quality of rail service</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>3.0063</td>
<td>1.75396</td>
</tr>
<tr>
<td>Road infrastructure</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>3.1962</td>
<td>1.14246</td>
</tr>
<tr>
<td>Pedestrian mobility</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>3.2911</td>
<td>1.39290</td>
</tr>
<tr>
<td>Quality of bus service</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>3.3038</td>
<td>1.55046</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>158</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.5 Rated issues in locality
The survey findings indicate that the amount of car pooling is rated as poor/very poor with a mean rank of 1.43. A rank of 1 is the highest score 3 represents a neutral view and a rank of five represents very good.

Section 2, Question 8 asked the respondents to indicate their opinion on the selected individuals importance in influencing planning decisions in Ireland, where 1 represents very influential and 5 represents not influential. The results are presented in table 5.6.

### Importance in influencing planning decisions in Ireland:

<table>
<thead>
<tr>
<th>Influence in Planning</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Authority planners</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>1.7848</td>
<td>1.26864</td>
</tr>
<tr>
<td>Property developers (including house builders)</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.1076</td>
<td>1.41685</td>
</tr>
<tr>
<td>Elected officials</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.2468</td>
<td>1.44402</td>
</tr>
<tr>
<td>Investors</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.4684</td>
<td>1.50866</td>
</tr>
<tr>
<td>Non elected officials</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.6392</td>
<td>1.49402</td>
</tr>
<tr>
<td>Business community</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.8101</td>
<td>1.55228</td>
</tr>
<tr>
<td>Architects</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.8165</td>
<td>1.28112</td>
</tr>
<tr>
<td>Local community</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>3.1456</td>
<td>1.39529</td>
</tr>
<tr>
<td>Non-governmental organisations</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>3.5253</td>
<td>1.37632</td>
</tr>
</tbody>
</table>

Table 5.6 Importance in influencing planning decisions in Ireland

The mean figure is the figure used for analysis of the descriptive statistics in Table 5.6. It is evident that LA planners and property developers are deemed as most influential with a mean rank of 1.78 and 2.1 respectively. This is followed in order of most
influence by elected officials, investors, non-elected officials, business community, architects, local community and non-governmental organisations.

Factors that drive current development patterns:

<table>
<thead>
<tr>
<th>Factors Driving DP</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property developers (including house builders)</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td><strong>1.6709</strong></td>
<td>1.06743</td>
</tr>
<tr>
<td>Supply of land</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>1.9937</td>
<td>1.39835</td>
</tr>
<tr>
<td>Demand for land</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.0063</td>
<td>1.55370</td>
</tr>
<tr>
<td>Local Authority planners</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.1456</td>
<td>1.62710</td>
</tr>
<tr>
<td>Local Authority councillors</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.4241</td>
<td>1.42003</td>
</tr>
<tr>
<td>National Development Plan</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.7025</td>
<td>1.36148</td>
</tr>
<tr>
<td>National Spatial Strategy</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>2.9620</td>
<td>1.44930</td>
</tr>
<tr>
<td>European spatial policy</td>
<td>158</td>
<td>1.00</td>
<td>8.00</td>
<td>3.7468</td>
<td>1.49707</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>158</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.7 Factors that drive current development patterns

Table 5.7 presents the findings from section 2, Question 9. The respondents were asked to indicate the factors that drive current development patterns. The findings indicate that the factors in order of most importance are: property developers, demand for land, local authority planners, local authority councillors, the National Development Plan, The National Spatial Strategy and European Spatial Policy.

5.3.4 Section 3: Findings from Questions 10 to 29

Section 5.3.4 presents the findings and analysis of questions 10 to 29 from section 3 of the Smart Growth survey. The respondents were asked to respond to a number of
statements. A Likert scale of strongly agree to strongly disagree was used. A ‘no response’ is also listed in the figures to indicate where there was no response.

**Sense of community spirit:**

![Bar chart showing the distribution of responses regarding community spirit.](image)

**Figure 5.13 There is a strong sense of "community spirit" in Irish society.**

The survey findings indicate that 5% ‘strongly agree’, 33% ‘agree’, 25% are ‘neutral’; 26% ‘disagree’; 8% ‘strongly disagree’; and 3% gave no response. Arguably, the result is not conclusive with a spread of opinion relatively evenly distributed. In addition what actually constitutes ‘community spirit’ is subjective in nature.
Mixed-use design and community spirit:

The survey findings indicate that 14% ‘strongly agree’ and 46% ‘agree’ with the statement that mixed-use design would enhance community spirit. When added together the ‘strongly agree’ and ‘agree’ category totals 60%. The neutral category represents 22%; ‘disagree’ represents 10%; ‘strongly disagree’ represents 8%; and ‘no response’ represents 2%.

Figure 5.14 Mixed-Use design would enhance community spirit.
Sufficient structures in place to facilitate community participation in the planning process:

The survey findings indicate 5.7% ‘strongly agree’, 22.8% ‘agree’, 18.4% are ‘neutral’, 35.4% ‘disagree’, 15.2% ‘strongly disagree’ and 2.5% gave no response. Whilst 18.4% selected the ‘neutral’ category, a considerable number (50%) of respondents do not agree that there are sufficient structures in place to facilitate community participation in the planning process. This is viewed alongside 27% who agree with the statement.
Understanding the planning process:

The general public in Ireland have a very good understanding of the planning process

[Bar chart showing the distribution of responses: 1.9% 'strongly agree', 12.7% 'agree', 20.3% 'neutral', 38% 'disagree', 34.7% 'strongly disagree' and 2.5% gave no response.]

Figure 5.16 The general public in Ireland have a very good understanding of the planning process.

The survey findings indicate 1.9% ‘strongly agree’, 12.7% ‘agree’, 20.3% are ‘neutral’, 38% ‘disagree’, 34.7% ‘strongly disagree’ and 2.5% gave no response. If one combines the disagree and strongly disagree category together it appears that over 65% of the respondents in fact feel that the general public in Ireland do not have a very good understanding of the planning process.
Local objection too frequently impedes mixed-use design:

The survey indicates 19% ‘strongly agree’, 39.9% ‘agree’, 20.9% ‘neutral’, 14.6% ‘disagree’, 3.2% ‘strongly disagree’ and 2.5% gave no response. When the strongly agree and agree category are added approximately 60% of the respondents agree that local objection too frequently impedes mixed-use design. This finding suggests that a considerable number of respondents agree that local objection too frequently impedes mixed-use design.

Figure 5.17 Local objection too frequently impedes mixed-use design.
Irish tradition and culture favours low-density development over high-density development:

![Graph showing survey findings](image)

Figure 5.18 Irish tradition and culture favours low-density development over high-density development.

The survey findings indicate 49.4% ‘strongly agree’, 38% ‘agree’, 5.7 % are ‘neutral’, 3.2% ‘disagree’, 1.3% ‘strongly disagree’ and 2.5% gave no response. Nearly 50% of the respondents strongly agree with this statement and when compared to the other survey findings it is evident that the respondents are very much in agreement with each other.
Brownfield and Greenfield development:

Figure 5.19 ‘Brownfield’ sites should be developed before ‘Greenfield’ sites.

The survey findings indicate 46.8% ‘strongly agree’, 33.5% ‘agree’, 12% are ‘neutral’, 3.8% ‘disagree’, 1.9% ‘strongly disagree’ and 1.9% gave no response. The strongly agree and agree when combined means that 70% of the respondents agree with the statement.
Where development should take place:

The survey findings indicate that 26.6% ‘strongly agree’, 36.1% ‘agree’, 21.5% are ‘neutral’, 10.1% ‘disagree’, 3.8% ‘strongly disagree’ and 1.9% gave no response. The respondents agree in high numbers with the statement, 60 % agree with the statement. This survey finding suggests a view that development should only occur where transit routes are located.
Chapter 5 – Smart Growth Survey Findings

Design of new communities:

![New communities are consciously designed in a pedestrian-friendly manner](image)

Figure 5.21 New communities are developed in a pedestrian friendly manner.

The survey findings indicate that 13.9% 'strongly agree', 18.4% 'agree', 22.8% are neutral, 30.4% 'disagree', 12% 'strongly disagree' and 2.5 % gave no response. The respondents who disagree with this statement represent 42.4% and those who agree represent 32%. Given all these facts it is deemed that there is only a low difference between those who agree and those who disagree with this statement.
Entrance into Dublin city centre:

![Chart showing survey results](image)

Figure 5.22 Entry into Dublin city centre should be restricted to even-numbered car and van registrations on alternate days.

Entry into Paris city centre is restricted to even number car and van registrations on alternate days in an attempt to alleviate traffic congestion and this represents the basis for this statement in the smart growth survey. The survey findings indicate that 8.9% ‘strongly agree’, 12.7% ‘agree’, 20.9% are ‘neutral’, 20.9% ‘disagree’, 32.9% ‘strongly disagree’ and 3.8 % gave no response.
Zoning as an impediment to mixed-use land-use:

The survey findings indicate that 12% ‘strongly agree’, 34.8% ‘agree’, 27.2% are ‘neutral’ 17.1% ‘disagree’, 5.7% ‘strongly disagree’ and 3.2% gave no response. The strongly agree when combined with agree equals 47% who agree with the statement. This finding suggests that zoning is considered as an impediment to mixed-use land use by the survey respondents.
Land-use zoning:

Figure 5.24 Decisions regarding the zoning or rezoning of specific locations should not be the function of local authority councillors.

The survey findings indicate that 27.8% ‘strongly agree’, 19.6% ‘agree’, 12.7% were ‘neutral’, 20.3% ‘disagree’, 17.1% ‘strongly disagree’ and 2.5% gave no response. When the strongly agree category is combined with the agree category 45% agree that zoning or rezoning of specific locations should not be the function of local authority councillors; 38% disagree. The findings for this question suggest a split in how the respondents answered the question.
Current government spatial planning strategy supports Smart Growth:

![Bar chart showing distribution of survey responses](image)

Figure 5.25 Current government spatial planning strategy supports the concept of Smart Growth.

The survey findings indicate that 3.8% ‘strongly agree’, 25.9% ‘agree’, 32.3% are ‘neutral’, 24.1% ‘disagree’, 10.1% ‘strongly disagree’ and 3.8% gave no response. The ‘neutral’ category represents 34% and in fact is the highest score. Allied to this is a fairly even spread between respondents who agree with the statement and those who disagree with the statement. It is difficult to draw conclusions from Figure 5.25; nonetheless, the high neutral score when compared to the other scores is of note.
The National Spatial Strategy:

The National Spatial Strategy is being fully implemented as planned to date

![Survey Results Diagram]

Figure 5.26 The National Spatial Strategy is being fully implemented as planned to date.

The survey findings indicate that .6% ‘strongly agree’, 5.1% ‘agree’, 28.5% are ‘neutral’, 38.6% ‘disagree’, 23.4 % ‘strongly disagree’, and 3.8% gave no response. When combined, the ‘agree’ and ‘strongly agree’ category represent 63% of the respondents. Nonetheless, the significance of the high neutral score of 27 % is noted. The findings suggest that the survey respondents believe that the NSS is not being fully implemented as planned to date.
The State and regional planning:

Figure 5.27 The State does not adopt a regional approach to land development in the GDA.

The survey findings indicate that 16.5% ‘strongly agree’, 24.7% ‘agree’, 38% are ‘neutral’, 10.8% ‘disagree’, 4.4% ‘strongly disagree’ and 5.7% gave no response. When strongly agree and agree are combined, 43% of the respondents agree with the statement and 16% (disagree plus, strongly disagree) disagree with the statement.
Chapter 5 – Smart Growth Survey Findings

Need to decouple politics from planning:

![Bar chart showing survey responses](chart.png)

**Figure 5.28 There is a need to decouple politics from planning.**

The survey findings indicate that 39.2% ‘strongly agree’, 24.7% ‘agree’, 10.8% are ‘neutral’, 15.8% ‘disagree’, 7.6% ‘strongly disagree’ and 1.9% gave no response. The survey findings indicate the respondents were less likely to select the ‘neutral’ category and instead the majority appear to be in agreement with the statement that there is a need to decouple politics from planning, the combined figure being 63%. The finding suggests an agreement with the statement that there is a need to decouple politics from planning.
Property developers and ‘Impact Fees’

The survey findings indicate that 31% ‘strongly agree’, 29.1% ‘agree’, 19.6% are ‘neutral’, 12.7% ‘disagree’, 5.7% ‘strongly disagree’ and 1.9% gave no response. When combined, the strongly agree and agree category represent 60% agreement with the statement. The finding suggests that the survey respondents are more in favour of ‘impact fees’ in exchange for building higher densities.

Figure 5.29 Property developers (including house builders) should pay ‘impact fees’ in exchange for building higher densities.
Chapter 5 – Smart Growth Survey Findings

The use of Scenario planning:

The survey findings indicate that 25.3% ‘strongly agree’, 46.8% ‘agree’, 20.3% are ‘neutral’, 2.5% ‘disagree’, 1.3% ‘strongly disagree’ and 3.8% gave no response. The survey findings indicate a strong endorsement in favour of the use of scenario planning as a strategic planning technique to help to prepare for the future. With 2.5% of respondents choosing the ‘disagree’ category this represents the lowest disagree score from all the survey findings. In addition is a very low ‘no response’ rate of 3.8%. This finding suggests that nearly all of the 158 respondents answered this question with an endorsement of the use of Futures techniques in land-use in Ireland.

Figure 5.30 The use of strategic planning techniques like scenario planning would help prepare for the future in terms of land-use in Ireland.
Table 5.8 Smart Growth within an Irish context

Table 5.8 presents the results that relate to section 3, Question 28 of the survey that asks the respondents to rank the greatest challenge to achieving smart growth in Ireland in order, with a score of 1 being ‘very influential’ and a score of 5 being ‘no influence’. It is evident by the mean figure in Table 5.8 that the scores are clustered towards the neutral option. The factor ranked as being nearest to the ‘very influential score’ of 1 is ‘lack of political will to change current practices’.

The final question in the smart growth survey asked respondents’ views of the statement that the questions in this survey were easily understood. It is evident by the Figure that the majority of the respondents agree that the questions in this survey were easily understood. The findings indicate that 65% agree with the statement, 22% chose the neutral option 8% disagree and 5% selected the ‘no response’ option.
5.4 Significance Tests

A number of significance tests were conducted to establish if there is any significance in how the respondents answered individual questions. The fundamental aim of conducting the significance tests in this survey is to identify if there is any difference of opinion between the survey respondents. Statistically significance results are indicated by: Asymp. Sig. values below .05 (Pallant, 2007). Significance tests were conducted between key actors within the planning and development sector and in particular those respondents most associated with land-use planning and those respondents most associated with property development. Significance tests were also conducted between gender, age group and qualifications. The significant tests presented in this chapter represent a selected number of the tests conducted. Whilst the significance tests did not offer illuminating or significant findings, some interesting findings emerged. It is important to record the results, as a finding of no significance is nonetheless considered as a valid finding.

5.4.1 Significant tests findings Section 1 of survey

A significant test was conducted on Question G from Section 1 of the smart growth survey. The chi-squared test is rendered a little less valuable by the fact that a significant number of cells have less than five observations. However the result is statistically significant. The Pearson Chi-Square is 0.245, which exceeds the critical value of 0.05 and this causes us to accept the hypothesis that ‘Gender and Type of Dwelling currently occupied’ are not related.
Gender cross tabulation on: please specify the type of dwelling you currently occupy?

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>7.905(a)</td>
<td>6</td>
<td>.245</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>10.006</td>
<td>6</td>
<td>.124</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.077</td>
<td>1</td>
<td>.781</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.31 Section 1, Question G

The next test conducted on Question G is whether or not there is a relationship between Gender and Ideal Dwelling. Unfortunately the result is not ‘100% valid’ due to the number of cells with less than five observations; however, the result of ‘Pearson Chi-Square’ of 0.474 does very strongly suggest that there is no relationship between gender and ideal choice of dwelling because it exceeds the critical value of 0.05.

**There is no relationship between Gender and Ideal Dwelling**

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.562(a)</td>
<td>6</td>
<td>.474</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.827</td>
<td>6</td>
<td>.443</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.094</td>
<td>1</td>
<td>.759</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.32 Section 1 Question G
A significant test was conducted on Respondents’ Age Group and Current Dwelling. The chi-squared still suffers from the lack of observations in some cells but the result is statistically significant because the value of 0.039 is less than the critical value of 0.050; this means that the null hypothesis of no relationship between age and current dwelling can be rejected in favour of the alternative hypothesis that age group and current dwelling are related.

**Age Group and current dwelling**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>16.242(a)</td>
<td>8</td>
<td>.039</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>18.045</td>
<td>8</td>
<td>.021</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.102</td>
<td>1</td>
<td>.294</td>
</tr>
</tbody>
</table>

Figure 5.33 Section 1, Question G

The next test tested for a relationship between Profession and Current Dwelling. The chi-squared value of 0.387 exceeds the critical value of 0.05; this means that we must accept that there is no relationship or association between profession and current dwelling.

**Profession and current dwelling**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>21.165(a)</td>
<td>20</td>
<td>.387</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>23.377</td>
<td>20</td>
<td>.271</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.649</td>
<td>1</td>
<td>.420</td>
</tr>
</tbody>
</table>

Figure 5.34 Section 1 Question G
However there does appear to be a link between Profession and Ideal Dwelling. The chi-squared value of 0.00 is below the critical value of 0.05 so it is possible to reject the null hypothesis of no relationship between profession and ideal dwelling in favour of the alternative hypothesis that there is an association.

### Profession and ideal dwelling

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>49.338(a)</td>
<td>20</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>42.835</td>
<td>20</td>
<td>.002</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.657</td>
<td>1</td>
<td>.103</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Figure 5.35 Section 1, Question H](image)

Significance tests were conducted from Section 1, Questions I and K ‘my mode and ideal mode of transport to work’, to identify whether or not there is a relationship between gender and mode of transport to work. Unfortunately, once again the problem of less than five observations in a cell appears and it does not seem to be legitimate to combine the cells with lower frequencies. As much as it can be trusted, the result of 0.298 exceeds the critical value of 0.05 and leads to acceptance of the null hypothesis that there is no relationship or association between gender and mode of transport to work.

### Gender and mode of transport to work

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>10.683(a)</td>
<td>9</td>
<td>.298</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>12.505</td>
<td>9</td>
<td>.186</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.772</td>
<td>1</td>
<td>.380</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Figure 5.36 Section 1 Question I](image)
Gender and ideal mode of transport

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>7.599(a)</td>
<td>7</td>
<td>.369</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>9.514</td>
<td>7</td>
<td>.218</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.120</td>
<td>1</td>
<td>.729</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.37 Section 1 Question K

Next it was decided to test for a possible relationship between Gender and Ideal Mode of Transport. The Chi-squared value of 0.369 leads to acceptance of null hypothesis of no relationship between gender and ideal mode of transport. Mode of transport to work and age were considered next: the chi-squared value, allowing for the number of cells with less than five observations, is statistically significant and leads to rejection of the null hypothesis in favour of the alternative hypothesis that there is a relationship between age group and mode of transport.

Age group and mode of transport

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>47.982(a)</td>
<td>18</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>35.141</td>
<td>18</td>
<td>.009</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.303</td>
<td>1</td>
<td>.582</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.38 Section 1 Question I

This was followed by a test to identify a relationship between Profession and Mode of Transport to Work. The chi-squared value of .006, which is less than .05, is statistically significant and we accept that there is a relationship between respondents’ profession
and mode of transport to work. By contrast the hypothesis of no relationship between profession and *ideal* mode of transport has to be accepted.

**Profession and ideal mode of transport**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>72.591(a)</td>
<td>45</td>
<td>.006</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>45.966</td>
<td>45</td>
<td>.432</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>1.549</td>
<td>1</td>
<td>.213</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.39 Section 1 Question K

Significant tests were carried on Section 1, Question L: “if introduced, a daily ‘congestion charge’ to enter Dublin City Centre (within Grand and Royal canals) should be….”. The Chi-squared significance test was conducted on gender, age group, professions most strongly connected with and qualifications. The results indicate no relationship, with a score on each occasion greater than .05 as the threshold of accepting the null hypothesis.

Section 1, Question I gathered data about survey respondents’ willingness to pay a congestion charge to enter Dublin City Centre (within the Grand and Royal canals). With a Chi-square score of .326 the null hypothesis of no relationship between Gender and Congestion Charge has to be accepted; the number of cells with less than five is close enough to ideal to allow the result to stand.
Chapter 5 – Smart Growth Survey Findings

Gender and congestion charge

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.804(a)</td>
<td>5</td>
<td>.326</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>7.323</td>
<td>5</td>
<td>.198</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.159</td>
<td>1</td>
<td>.690</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.40 Section 1 Question J

The chi-squared significant test was conducted on Age Group and Congestion Charge. The caveat about number of cells with less than five values must be inserted again but the chi-squared value of 0.937 would seem to unambiguously suggest that the null hypothesis of no relationship between age group and congestion charge can be accepted.

Age group and congestion charge

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.215(a)</td>
<td>10</td>
<td>.937</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>4.885</td>
<td>10</td>
<td>.899</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.060</td>
<td>1</td>
<td>.806</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.41 Section 1 Question J

With a Chi-square of .610 again with the usual reservation the null hypothesis of no relationship between Profession and Congestion Charge must be accepted.
Profession and congestion charge

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>22.443(a)</td>
<td>25</td>
<td>.610</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>21.334</td>
<td>25</td>
<td>.674</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.177</td>
<td>1</td>
<td>.674</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.42 Section 1, Question J

With a Chi-square of .549, with the same reservation the null hypothesis of no relationship between Profession and Congestion Charge must be accepted.

Qualifications and congestion charge

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>8.823(a)</td>
<td>10</td>
<td>.549</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>7.577</td>
<td>10</td>
<td>.670</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.036</td>
<td>1</td>
<td>.849</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.43 Section 1 Question J

5.4.2 Significant Tests Findings - Section 2 of Survey

Significant tests were conducted on questions in Section 2 of the survey. The result of Section 2, Question 6 is presented. The results indicate that there is no association, between gender, age group and qualifications and compulsory purchase order (CPO). However, the results indicate that the null hypothesis of no association between profession and CPO can be rejected and it is reasonable to suggest that profession does affect the view on this issue. Another test that can be employed is the Kruskal-Wallis
In statistics, the Kruskal-Wallis one-way analysis of variance by ranks is a non-parametric method for testing equality of population medians among groups. Intuitively, it is identical to a one-way analysis of variance with the data replaced by their ranks. It is an extension of the Mann-Whitney U test to three or more groups (Pallant, 2007). No significance emerged from the tests in relation to gender, age group and qualifications.

A significance was noticed (.022 (.>05)) in the relationship between how the professions answered the question on CPOs. The extent of the significance cannot be known; however a Kruskal Wallis Test with a score of .001 (.>05) confirms the view that a relationship exists between the views on CPOs and how the respondents answered the question. This result is not surprising as in Ireland there is a current debate in relation to land banks in private ownership by a number of large development companies. The output shows the test statistic ‘H’ for the Kruskal-Wallis test (although it is labelled chi-square, because of its distribution rather than H), its associated degrees of freedom (there were five groups so the degrees of freedom are 5 -1 = 4), and the significance. The vital result is the “Monte Carlo Sig.” this is less than 0.05 so we can accept that profession does affect the view of the issue. The result is reinforced by the confidence interval of .000 and .001, which does not cross the critical value of 0.05. This gives a lot of confidence that the result is genuine.
Gender and compulsory purchase order

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>7.101(a)</td>
<td>4</td>
<td>.131</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>8.251</td>
<td>4</td>
<td>.083</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>.435</td>
<td>1</td>
<td>.510</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.44 Section 2, Question 6

Age group and compulsory purchase order

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>14.898(a)</td>
<td>8</td>
<td>.061</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>15.086</td>
<td>8</td>
<td>.057</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>1.824</td>
<td>1</td>
<td>.177</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.45 Section 2, Question 6

Qualifications and compulsory purchase order

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>7.513(a)</td>
<td>8</td>
<td>.482</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>7.769</td>
<td>8</td>
<td>.456</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>.656</td>
<td>1</td>
<td>.418</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.46 Section 2, Question 6
### Profession and compulsory purchase order

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>34.592(a)</td>
<td>20</td>
<td>.022</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>38.114</td>
<td>20</td>
<td>.009</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>11.515</td>
<td>1</td>
<td>.001</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Figure 5.47 Section 2, Question 6

#### 5.4.3 Significance Tests Findings: Section 3: Questions 10 to 27

Table 5.9 presents the findings from chi-squared significance tests based on Gender, Age Group, Qualifications and Professions. A significance test that suggest acceptance of the null hypothesis with no association recorded between groups is considered as important as those result in a rejection of the null hypothesis (Babbie, 1998). The findings presented in table 5.9 represent Section 3, Questions 10 to 27 where Y = there is a significance and the null hypothesis of no association is rejected, and N = there is no significance and the null hypothesis of no association is accepted. Within table 7.1, G = gender, AG = age group, Q = qualifications and P = profession most strongly connected with.
### Chi-Squared Test of Significance

<table>
<thead>
<tr>
<th>Question</th>
<th>G</th>
<th>AG</th>
<th>Q</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. There is a strong sense of ‘community spirit’ in Irish society today</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>11. Mixed-use design would enhance ‘community spirit’</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>12. There are sufficient structures in place to facilitate community participation in the planning process</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>13. The general public in Ireland have a very good understanding of the planning process</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>14. Local objection too frequently impedes mixed-use design</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>15. The culture in Ireland favours low-density development over high-density development</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>16. Brownfield sites should be developed before Greenfield sites</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>17. Development should only occur where transit routes are located</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>18. New communities are consciously designed in a pedestrian-friendly manner</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>19. Entry into Dublin city centre should be restricted to even numbered car and van registrations on alternate days through the use of technology</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>20. Zoning is an impediment to mixed-use land-use</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>21. Decisions regarding the zoning or rezoning of specific locations should not be the function of local authority councillors</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>22. Current government spatial planning strategy supports the concept of smart growth</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>23. The National Spatial Strategy is being fully implemented as planned to date</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>24. The state does not adopt a regional approach to land development in the GDA</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>25. There is a need to decouple politics from planning</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>26. Property developers (including house builders) should pay impact fees in exchange for building higher densities</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>27. The use of strategic planning techniques like scenario planning would help prepare for the future in terms of land-use in Ireland</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Table 5.9 Chi-Squared significance tests: Section 3: Questions 10-27.
As is evident in Table 5.9, significance is noted between the respondents’ views by Qualifications on the statement ‘there is a strong sense of community spirit in Irish society today’. The degree of significance cannot be identified. In addition is significance between the respondents’ views by Qualifications and the statement that ‘mixed-use design would enhance community spirit’. A Kruskal-Wallis Test (more than two variables) was conducted on Section 3, Questions 10 to 27. The aim of this separate significance test is to validate the findings from the chi-squared analysis tests. On this occasion no significance is evident in the results of the Kruskal-Wallis Test with a result of .254 for Question 10 and a result of .286 for Question 11. This result is greater that .05, hence no significance is recorded.

In relation to gender, the only significance is noted in relation to the statement ‘local objection too frequently impedes mixed-use design’. This is further validated by the findings of a Mann-Whitney U test (two variables, male, female). The Mann-Whitney U also noted significance between genders in the response to the statement ‘mixed-use design would enhance community spirit’. The significance result of the Mann-Whitney U test with a result of .012, which is less than .05, means that significance is accepted and the Chi-Square result is validated.

5.5 Synthesis

Chapter 5 presented the findings that emerged from the Smart Growth survey. The findings were presented in a graphical and table format. The findings are integrated with the findings from the data that emerged via the smart growth Futures workshops and the
strategic conversations that are presented in Chapter 6. This integration of findings facilitates an analysis and discussion where all primary data collected are compared and contrasted in an iterative manner within the context of secondary data findings to identify emerging themes as presented in Chapter 7. The findings from all three data collection methods then serve to inform the conclusions, recommendations and ideas for further research as outlined in Chapter 8.
CHAPTER 6: FUTURES METHODS: FINDINGS

6.1 Introduction

Chapter 6 presents the findings from data collected using Futures methods. Firstly, findings that relate to the smart growth Futures workshops are presented in a chronological report-style format. This is followed by a presentation of findings that emerged via the strategic conversations.

Three tangible outcomes of the smart growth Futures workshops are outlined in Chapter 6: Scenarios for the GDA in 2025, strategies/mechanisms that inform the ‘Irish smart growth toolkit’ and the candidate list of ‘sustainability indicators’ that may be used to monitor, track and evaluate progress towards sustainable urban development. The strategies/mechanisms presented in the ‘Irish smart growth toolkit’ and sustainability indicators are characterised as quantitative in nature. The scenarios created for the GDA in 2025 are more qualitative and subjective in nature. The strategic conversation findings presented are entirely qualitative in character. The analysis of the data followed data analysis criteria as discussed in Chapter 4.

6.1.1 Sources of Error from Futures Methods Adopted: Limitations Encountered

The smart growth Futures Workshops was deemed as a success, particularly as the participants represented a number of disciplines and a number of public and private sectors. The workshop process arguably can on occasion result in some participants having more to say than others as some personality types are more vocal than others. In
an ideal world there would be an abundance of time; however, the workshops had a
time allocation of two hours each. The political and economic ideas contained in the
scenarios whilst created by the author represent the ideas of the workshop participants.
It is important to note that the scenarios were created in 2005 at the height of the ‘Celtic
Tiger’ pro growth era. This is in contrast to the situation since late 2007 to date (2010)
characterised by continually declining economic growth. The scenarios are intended to
challenge and show alternative perspectives as key functions of a scenario planning
exercise. The scenarios do not seek to definitively state single plausible outcomes but to
explore evolution under different conditions. Chapter 6 in presenting the three scenarios
identifies any unrealistic or suspect political and economic characteristics that
potentially compromises the internally consistency of the scenario logics and hence
their plausibility. Any scenario limitations and the benefit of hindsight are also factored
into Chapter 7 that discusses the combined findings of the multi-method approach
adopted for this research.

With regard to the strategic conversations conducted, whilst every endeavour was made
to ensure that respondents’ answers were not directed or influenced by the view of the
interviewer, it is nonetheless possible to imagine that some views of the author may
have filtered into the conversation, inadvertently, on occasion.

6.2 Smart Growth Futures Workshops: Workshop 1: Critique Phase

Workshop 1, conducted on the 4th August 2005, is identified as the critique phase of the
smart growth Futures workshops. All participants were welcomed by the
chair/facilitator Dr Shanks and thanked for attending the first workshop. This was
followed by an ‘ice breaker’ session with an introduction of each participant in the
group. A ten/fifteen-minute presentation by the author outlined: a brief background to
the research; the context for urban development in the 21st century; some themes that
had emerged to date from analysis of the smart growth survey; the key elements and
principles that underpin the concept of smart growth; the research hypothesis, an
overview of Futures methods and a possible strategic question. This was followed by an
explanation about how the first workshop related to the further three workshops to
follow over the two week period.

The formulation of the strategic question represents Step 1 in the scenario planning
exercise. The workshop participants collectively devised the final wording of the
strategic question: *What mechanisms are required so that the Greater Dublin Area can
accommodate urban development in the next 20 years in a manner that is economically
viable and environmentally and socially responsible?* Step 2 of the scenario planning
exercise involves the identification of key driving forces of change that shape and
propel the story lines described in a particular plot for a scenario. A six-sector
framework to include culture, demography, economy, environment, governance and
technology, presented by the author, was agreed upon by the workshop participants as
six key sectors driving change in urban development and as a suitable framework to list
the issues and trends as per Step 3 of the scenario planning process. The participants
were then divided into three groups and allocated two key sectors per group. Each group
was comprised of a broad mix of participants from different backgrounds and fields of
interest and expertise.

The rationale for deciding to divide the workshop participants into three separate groups
with two sectors each was based on the opinion of the author that within the time
constraints of the workshop it would not have been feasible for each group to identify
Global and EU and GDA issues for all the sectors. Fundamental to the workshops is the
idea that the participants enjoy the process and feel relaxed. Undue pressure is not
conducive to the generation of ideas. In addition, this could impede and obstruct
participants’ creativity, a feature fundamental to Futures research. Group 1 considered
demography and culture; Group 2 considered technology and economy; and Group 3
considered environment and governance. There is no significance to allocation of the
sectors.

Each group was requested to consider the sectors and identify, in their opinion, between
10 and 12 global and EU issues and trends that impact on urban development in Ireland
that are relevant to the strategic question. The groups were allocated 30 minutes for this
stage of the process. Once completed, one member from each group presented the issues
and trends identified to all of the workshop participants. This allowed members from
each group to add further issues and trends that they deemed to be of significance, and
members from each group could add issues and trends to a group that they did not
participate in.
Following this, the groups were requested to consider and identify, in their opinion, between 10 and 12 issues and trends that have an impact on urban development in the GDA. Again the time frame for this stage of the process was 30 minutes. Each group worked together in a collaborative and consensus-building fashion. It follows that some lively debate ensued as participants from a range of disciplines and backgrounds actively engaged with other group members. Again, once completed, one member from each group presented the issues and trends identified to all of the workshop participants to enable further issues and trends to be added. The issues and trends identified are available in Appendix 4. At the end of Workshop 1 the participants were thanked once again for their attendance and input.

6.2.1 Global and EU Issues and Trends Driving Change

The global and EU issues and trends driving change identified by the workshop participants are listed under the six sector framework of culture, demography, economy, environment, governance and technology. The workshop participants listed climate change as a global and EU issue and trend driving change under the theme of environment, EU enlargement and EU Directives; political stability under the theme of governance; mobility of workforce under the theme of economy; cheap labour under the theme of demography; homogenised culture under the theme of culture, and communications under the theme of technology.
6.2.2 Greater Dublin Area Issues and Trends Driving Change

The GDA issues and trends driving change, again identified by the workshop participants, are listed under the six sector framework of culture, demography, economy, environment, governance and technology: traffic congestion was listed under the theme of environment; the need for a Greater Dublin Authority was listed under the theme of governance; broadband infrastructure under the theme of technology; the need to match population with employment under the theme of economy; rise in population from immigration under the theme of demography; and number of social facilities for the interaction of cultures under the theme of culture.

6.3 Smart Growth Futures Workshops: Workshop 2: Brainstorm

Workshop 2 took place on the 9th of August 2005. In the interim period between workshop 1 and Workshop 2 the author compiled the data collected from Workshop 1. This involved two lists; list one contained global and EU issues and trends relevant to the strategic question. The workshop participants were again welcomed and the workshop commenced with an overview of workshop 1 and the plan for Workshop 2. A presentation by the author with the use of diagrams on display for all workshop participants explained Step 4 of the scenario planning process. The participants were once again divided into the same three groups and each group was given the entire list of issues and trends identified in workshop 1, listed under the six-sector framework. As a result each of the three groups had a list of the entire issues and trends identified and not solely the issues and trends identified by their individual groups.
Step 4 of the scenario planning process aims to clarify the level of impact of the issues and trends upon the strategic question and degree of uncertainty (likelihood) of occurring within the given timeframe (Ratcliffe, 2003). Using the scenario planning framework, issues and trends are categorised under four distinct headings (see Figure 6.1, Galt et al, 1997):

- **Potential jokers** are pretty uncertain as to their outcome and less relevant, nonetheless, the potential jokers need to be acknowledged in the process, as to treat them as mere ‘noise’ could be dangerous.

- **Pivotal uncertainties** are likely to have a direct impact, but their outcome is uncertain. Issues and trends may be pivotal in the sense that the way they turn out may have strong directional consequences. These are the areas that will determine the shape of the individual scenarios and are unlikely to vary significantly in any of the scenarios.

- **Significant trends** impact more directly upon the question in hand and it should be possible to anticipate their effect.

- **Context shapers** are relatively certain and will arguably shape the future context. Figure 6.1 outlines the matrix framework adopted in Step 4 of the scenario process.
The participants were then asked to allocate a score from 1 to 10 for each issue and trend listed under the six-sector framework. A score of 1 represents the lowest level of impact and uncertainty and 10 represents the highest level of impact and uncertainty. The participants were allocated 60 minutes for this stage in the process. Once again, much lively debate ensued as the groups collaborated to achieve consensus on the final score for each of the issues and trends. Whilst 60 minutes was allocated, the author invited the participants to take a ten minute break after 30 minutes. Workshop 2 involved much concentration, thought and reflection on behalf of all the workshop participants.

Figure 6.1 Issue and Trends Category Quadrants

The participants were then asked to allocate a score from 1 to 10 for each issue and trend listed under the six-sector framework. A score of 1 represents the lowest level of impact and uncertainty and 10 represents the highest level of impact and uncertainty. The participants were allocated 60 minutes for this stage in the process. Once again, much lively debate ensued as the groups collaborated to achieve consensus on the final score for each of the issues and trends. Whilst 60 minutes was allocated, the author invited the participants to take a ten minute break after 30 minutes. Workshop 2 involved much concentration, thought and reflection on behalf of all the workshop participants.
participants. The table outlining how the respondents ranked the GDA issues and trends is available in Appendix 5.

6.4 Smart Growth Futures Workshops: Workshop 3: The Fantasy Phase

In the interim period between Workshop 2 and Workshop 3 the author tallied the scores for all the issues and trends. Once calculated, the issues and trends were manually plotted by the author under the categories of potential jokers, pivotal uncertainties, context shapers or significant trends. The participants, collectively, were asked to identify two major forces that have the greatest potential to change significantly the future of the GDA. Some forces are predictable, where their direction and impacts may be assessed with confidence. These forces may be referred to as predetermined elements and as such the changes should be anticipated under any scenario, as they appear to be certain. Other forces are less predictable and due to their uncertainty present a wide range of possible future outcomes. Ratcliffe and Sirr (2004) state that in public policy-oriented scenarios, where there are many key variables, a deductive approach, using simple principles of prioritisation to construct a quadrant matrix based on the two most critical uncertainties is preferred. These uncertainties are important as they may lead to diverging paths for the future. They are critical in defining different scenarios.

Figure 6.2 shows governance and economy, identified by all workshop participants and represented as two dimensions forming orthogonal axes. In the future the economy, at one extreme, may be characterised by high-cyclical growth of economy and demography, progressive technological change, a global perspective, and decentralised
development. An alternative economic future may be characterised by more moderate growth rates, slow technological change, a local focus and centralised development within the GDA. Governance, the second key uncertainty, at one extreme may be characterised by collaboration, consensus building, and flexibility with clearly defined rules and responsibilities. At the other extreme, the future of governance may be characterised by tension, uncertainty, inconsistency, a lack of trust and fragmented relationships leading to a distinct lack of co-operation and cohesion between individual actors.

At this point of workshop 3, all of the workshop participants collectively identified the main themes deemed appropriate and fitting to the four quadrants presented on the governance and economy matrix. This process represents an important stage in the scenario planning process. It is at this stage that the scenario logics are identified and a logical rationale and structure for the individual scenarios is formulated. To consider Jungk and Mullert (1987), this stage of the Futures workshops represents the fantasy phase of the process, when intuition, insight and creativity play the greatest role.

Step 5 in the scenario planning process involves the identification of scenario logics that provide the themes for a scenario’s plot or story. Scenario logics connect the present to a specific scenario end-state or outcome, for any ‘future history’ must make sense ‘today’. Put another way, they are the organising principles around which the scenarios are structured. They focus on the critical or pivotal uncertainties concerned and present alternative theories of the way the world might work. These alternative future states are
logical in the sense that a persuasive and rational case can be made for each of the outcomes (Ratcliffe and Sirr, 2004). Using scenarios is rehearsing for the future. You run through the simulated events as if you are already living them. You train yourself to recognise which drama is unfolding. This helps you to avoid unpleasant surprises, and know how to act (Swhartz, 1996). The process is highly interactive, intense and imaginative. The initial phase usually involves rigorously challenging the mental maps that shape people’s perceptions, and then searching assiduously for relevant information. An effective scenario exercise expands the peripheral vision and tests everyone’s perceptions (Ratcliffe et al, 2005). At this point, the participants were again divided into the three groups and allocated on a random basis, one quadrant from the economy and governance matrix outlined in Figure 6.2 the objective of which is to create scenario stories. The participants were presented with criteria that are helpful in constructing scenarios.

Although there is no single right way to create scenarios, to be useful scenarios should each be: plausible, that is, credibly capable of happening; robust, being internally consistent and coherently defensible; divergent, being structurally differentiated, not simply variations on the same theme; challenging, that is, testing the conventional wisdom and provide novelty of thought; and, finally, scenarios need to be useful, contributing specific insights into the future that help tackle the strategic question (Ratcliffe and Sirr, 2004). Step 6 of the scenario planning process involves the creation of the scenario stories. Given the time constraints, on this occasion three scenarios were
created. The first group created a scenario based on the top-left quadrant, characterised by good governance and slow economic growth.

The main themes from this quadrant that represent the scenario logics include humble economic growth, a lack of resources, co-operation amongst local and national government and a strong sense of community values present. The second group created a scenario based on the top right quadrant, characterised by a strong economy and good governance. The main themes from this quadrant include strong economic growth, a fast and dynamic pace of change, a strong regional perspective, and challenges associated with growth, both economic and demographic.

The third group created a scenario based on the bottom right quadrant, characterised by strong economic growth and weak governance. The main themes from this quadrant include strong economic growth, a high degree of competition, uncoordinated and uneven development and conflict amongst individual local authorities. The issues and trends identified by the participants as context shapers form a key element of each of the individual scenarios created. The significant trends are also represented in each of the three scenarios, yet the manner in how they are developed is different in each scenario. The pivotal uncertainties are central to the construction of alternative scenarios. The fourth category for the issues and trends is the context shapers. Issues and trends identified as context shapers are somewhat assured; it follows that such issues and trends will shape the future context. The issues and trends that fall within the context shaper label are evident in each of the scenarios when written up. The scenario stories
and scenario titles created by each of the groups at Workshop 3 were collected at the end of Workshop 3.

Figure 6.2 Dimensions of Uncertainty

Figure 6.2 presents economy and governance as the dimensions of uncertainty identified by workshop participants. The individual scenarios are plotted in Figure 6.2: ‘Winner takes All’ scenario plotted in the strong economy and weak governance quadrant; ‘Utopia’ scenario plotted in the strong economy and strong governance quadrant; and, ‘Allotment Garden City’ scenario plotted in the strong governance and stagnant...
economy quadrant. The three scenarios are discussed in more detail in sections 6.6.1, 6.6.2, and 6.6.3.

6.5 Smart Growth Futures Workshops: Workshop 4: Implementation Phase

Workshop 4 took place on the 16th August 2005. In the interim period of Workshop 3 and Workshop 4 the author worked on the scenario stories created by the three groups. The author considered the scenario narratives, to identify if they are plausible, robust, divergent, challenging and useful. Allied to this was the fleshing-out/expanding of each scenario, facilitated by an examination of the driving forces, issues and trends identified by the participants in Workshop 1. Workshop 4 began with the outline for the final workshop. The author then read the three scenarios out to the entire group, the aim of which was to afford the participants the opportunity to establish if the author had interpreted and presented the scenario stories in the true spirit of the participants’ intentions.

The workshop participants clarified any unclear elements of the scenarios and the author noted all comments to be added or changed. The final scenarios presented in this thesis incorporate any changes identified at Workshop 4. Step 7 in the scenario planning process, the ‘Wind Tunnel Test’ poses the fundamental question of how the task, issue or decision identified as the strategic question looks in light of the scenarios constructed. The workshop participants, again in their individual groups, were asked to consider the scenario they created within the context of the strategic question and to develop strategies in relation to that question: What mechanisms are required so that the
Greater Dublin Area can accommodate urban development in the next 20 years in a manner that is economically viable and environmentally and socially responsible?.

The central challenge of this part of the process is to identify a set of robust core strategies that are capable of adoption in a wide variety of alternative possible futures (Ratcliffe and Sirr, 2004). One member from each group then presented the strategies identified to all of the workshop participants. During this stage of the process all workshop participants considered if the strategies identified were applicable to all of the scenarios created or not. This stage is a very important one in the scenario planning process, as it is at this stage that the participants identify ways to anthropomorphize the desirable future in accord with the fantasy phase of the exercise. Finding ways to accommodate growth in the GDA in a manner that is economically viable, friendly to the environment and is socially responsible, ultimately, represents the desired vision on this occasion and what is required at this stage is a brainstorming session to identify potential means to steer the future towards the desired direction.

The participants, when considering strategies to facilitate the implementation of policy, were asked to be mindful of the following questions: How can we avoid the things we don’t want? How can we make the things that we desire happen? Essentially, how can we achieve the desired vision? What do we need to do? Who needs to do what? What should/can be done in the short/long term? The selection of strategies that form the basis of the Irish smart growth toolkit as a means to implement policy were followed by the identification of key sustainability indicators to monitor, track and evaluate progress.
en route to more sustainable urban development in the GDA. As initially stated in Chapter 40 of Agenda 21, the role of statistical indicators and the importance of monitoring progress towards sustainable development on the basis of indicators are recognised in the governance chapter of the EU strategy (Mullally, 2002).

The logical coherence that was built into the scenarios should allow logical consequences of leading indicators to be drawn out of them (Swartz, 1998). At this stage, the three groups were given a list of all issues and trends for the GDA under the six-sector framework identified at workshop 1. Each participant was asked to allocate a score that ranged from 1 to 5, with 1 representing the least importance and 5 representing the greatest importance. As there were 10 participants in attendance at the final workshop the maximum score for each issue and trend was 50.

The participants were informed that once calculated by the author the 20 indicators that scored the highest score would represent the key indicators for the smart growth Futures workshops. Following this, the workshop participants were again thanked for their attendance and valuable input to the workshops. In the days that followed Workshop 4 a feedback form was e-mailed to all workshop attendants, the objective of which was to gain further insight and opinion from the participants relating to the smart growth Futures workshops. In total 11 feedback forms were completed and returned. One completed feedback form can be seen in Appendix 8. Once tallied, a list of the 20 indicators that achieved the highest score and were deemed of greatest importance to the workshop participants was e-mailed to all the workshop attendees for their information.
6.6 Key Outputs from Smart Growth Futures Workshops

Three scenarios created at the smart growth Futures workshops are presented in the sections that follow. One scenario, *Utopia* is characterised by strong economy and good governance. A second scenario, *Allotment Garden City GDA* is characterised by weak economy and good governance. A third scenario, *Winner Takes All* is characterised by strong economy and weak governance. This is followed by the presentation of the smart growth toolkit and the candidate list of sustainability indicators selected by the workshop participants.

![Figure 6.3 Scenarios plotted: Utopia, Allotment Garden City GDA and Winner Takes All](image)

Figure 6.3 Scenarios plotted: Utopia, Allotment Garden City GDA and Winner Takes All
6.6.1 Scenario One: Utopia

The Utopia scenario is plotted on the top right quadrant on the key uncertainties matrix of strong economy and strong governance in Figure 6.3. Table 6.1 below outlines the key characteristics of the Utopia scenario using the six-sector framework where applicable. This scenario is characterised by low taxation. It is acknowledged that this is curious as traditionally left of centre would imply greater government intervention, via fiscal policy, which would imply greater funding supported by higher tax levels.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>Multi-Cultural</td>
</tr>
<tr>
<td></td>
<td>Reduction in drug abuse</td>
</tr>
<tr>
<td></td>
<td>Increase in tourists</td>
</tr>
<tr>
<td>Demography</td>
<td>Increase in population both natural and from in-migration</td>
</tr>
<tr>
<td></td>
<td>Broad spectrum of ages</td>
</tr>
<tr>
<td></td>
<td>High birth rates</td>
</tr>
<tr>
<td></td>
<td>People living longer</td>
</tr>
<tr>
<td>Economy</td>
<td>Rapid economic growth</td>
</tr>
<tr>
<td></td>
<td>Low taxation</td>
</tr>
<tr>
<td>Environment</td>
<td>Second Airport</td>
</tr>
<tr>
<td></td>
<td>Wide variety of housing types to meet demands of diverse society</td>
</tr>
<tr>
<td></td>
<td>Increase in high-density development juxtaposed with increase in one-off rural housing</td>
</tr>
<tr>
<td></td>
<td>Increase in brownfield and greenfield conversion</td>
</tr>
<tr>
<td></td>
<td>Reduction in air and water quality in specific areas</td>
</tr>
<tr>
<td>Governance</td>
<td>NSS implemented</td>
</tr>
<tr>
<td></td>
<td>Rigid enforcement of planning legislation</td>
</tr>
<tr>
<td></td>
<td>Drug abuse intervention programmes</td>
</tr>
<tr>
<td></td>
<td>Lead by example model of governance</td>
</tr>
<tr>
<td></td>
<td>High value on equity and diversity</td>
</tr>
<tr>
<td></td>
<td>Part V seen as blueprint for provision of social and affordable housing</td>
</tr>
<tr>
<td></td>
<td>A move towards the left of the left/right political spectrum</td>
</tr>
<tr>
<td></td>
<td>A clear regional perspective</td>
</tr>
<tr>
<td>Technology</td>
<td>Industry led education</td>
</tr>
<tr>
<td></td>
<td>Increase in jobs in advanced technology</td>
</tr>
<tr>
<td></td>
<td>Cleaner greener technology</td>
</tr>
<tr>
<td></td>
<td>Enhanced connectivity</td>
</tr>
</tbody>
</table>

Table 6.1 Scenario One: Utopia characteristics

The narrative of the Utopia scenario is outlined in Appendix 7.
6.6.2 Scenario Two: Allotment and Garden City GDA

Figure 6.3 bottom right quadrant presents the Allotment Garden City GDA plotted on the key uncertainties matrix of economy and governance. The bottom right quadrant is characterised by stagnant economy and strong governance. Table 6.2 below outlines the key characteristics of the Allotment Garden City GDA scenario using the six-sector framework where applicable.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>Less multi-cultural society</td>
</tr>
<tr>
<td></td>
<td>Network City model</td>
</tr>
<tr>
<td></td>
<td>Reduction in face to face communication</td>
</tr>
<tr>
<td></td>
<td>Increase in high-density living in city centres</td>
</tr>
<tr>
<td></td>
<td>Increase in full-time employment</td>
</tr>
<tr>
<td></td>
<td>More flexible work schedule</td>
</tr>
<tr>
<td>Demography</td>
<td>Reduction in population growth</td>
</tr>
<tr>
<td></td>
<td>Ageing population</td>
</tr>
<tr>
<td></td>
<td>Reduction in obesity</td>
</tr>
<tr>
<td>Economy</td>
<td>Cut cloth to size ethos</td>
</tr>
<tr>
<td></td>
<td>Slow Growth</td>
</tr>
<tr>
<td></td>
<td>Reduction in Foreign Direct Investment</td>
</tr>
<tr>
<td></td>
<td>Stabilisation of house prices</td>
</tr>
<tr>
<td></td>
<td>Lisbon Strategy objectives not realised</td>
</tr>
<tr>
<td>Environment</td>
<td>Reduction in the use of automobile transport</td>
</tr>
<tr>
<td></td>
<td>Resource conscious mindset</td>
</tr>
<tr>
<td></td>
<td>Reduction in low-density development</td>
</tr>
<tr>
<td></td>
<td>Prudent waste management</td>
</tr>
<tr>
<td></td>
<td>Improved air and water quality</td>
</tr>
<tr>
<td></td>
<td>Stabilisation in loss of biodiversity</td>
</tr>
<tr>
<td>Governance</td>
<td>Collaborative consensus building ethos</td>
</tr>
<tr>
<td></td>
<td>Reduction in planning irregularities with more transparency and accountability</td>
</tr>
<tr>
<td></td>
<td>State compulsory purchase order of land</td>
</tr>
<tr>
<td></td>
<td>Greater Dublin Regional Council</td>
</tr>
<tr>
<td></td>
<td>A clear regional perspective</td>
</tr>
<tr>
<td>Technology</td>
<td>Roll out of broadband technology</td>
</tr>
<tr>
<td></td>
<td>Innovative mechanisms to accurately cost environmental degradation</td>
</tr>
<tr>
<td></td>
<td>New more efficient technologies to save energy</td>
</tr>
</tbody>
</table>

Table 6.2 Allotment Garden City GDA characteristics

The narrative for the Allotment Garden City GDA is outlined in Appendix 7.
6.6.3 Scenario Three: Winner Takes All

The ‘Winner Takes All’ scenario, characterised by strong economic growth and weak governance, is plotted in the strong economy and weak governance top left quadrant of Figure 6.3. Table 6.3 outlines the main characteristics of the Winner Takes All scenario. The characteristics are presented using the six-sector framework where applicable. This scenario is characterised by ‘increase in Muslims’ and ‘unstable weather patterns’. It is acknowledged that this suggestion is entirely without logical foundation and thus compromises the internal consistency of this scenario.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>Multi-cultural</td>
</tr>
<tr>
<td></td>
<td>Commuter based lifestyles</td>
</tr>
<tr>
<td></td>
<td>Increase in Muslims</td>
</tr>
<tr>
<td></td>
<td>Pockets of racial tensions</td>
</tr>
<tr>
<td></td>
<td>Less face to face communication</td>
</tr>
<tr>
<td></td>
<td>Increase in gated communities</td>
</tr>
<tr>
<td></td>
<td>Mahon Tribunal 20 years in existence</td>
</tr>
<tr>
<td></td>
<td>Lack of trust in governance</td>
</tr>
<tr>
<td></td>
<td>Every man for himself ethos</td>
</tr>
<tr>
<td>Demography</td>
<td>Increase in population both natural and from in-migration</td>
</tr>
<tr>
<td>Economy</td>
<td>Strong growth</td>
</tr>
<tr>
<td></td>
<td>Increase in competition</td>
</tr>
<tr>
<td></td>
<td>Developed free economy</td>
</tr>
<tr>
<td></td>
<td>Increase in black economy</td>
</tr>
<tr>
<td></td>
<td>Increase in insurance claims and costs</td>
</tr>
<tr>
<td>Environment</td>
<td>Continued auto dependence</td>
</tr>
<tr>
<td></td>
<td>Increase in waste</td>
</tr>
<tr>
<td></td>
<td>Reduction in air and water quality</td>
</tr>
<tr>
<td></td>
<td>Loss of biodiversity</td>
</tr>
<tr>
<td></td>
<td>Evidence of climate change</td>
</tr>
<tr>
<td></td>
<td>Unstable weather patterns with increased number of floods</td>
</tr>
<tr>
<td>Governance</td>
<td>EU Enlargement with Turkey as new Member State</td>
</tr>
<tr>
<td></td>
<td>Weak governance</td>
</tr>
<tr>
<td></td>
<td>Increase in planning irregularities</td>
</tr>
<tr>
<td></td>
<td>CDBs And SPCs not effective due to lack of finance</td>
</tr>
<tr>
<td></td>
<td>Right wing Thatcherite model of governance</td>
</tr>
<tr>
<td></td>
<td>Lack of regional perspective</td>
</tr>
<tr>
<td>Technology</td>
<td>Nominal advances in renewable energy technologies</td>
</tr>
</tbody>
</table>
Table 6.3 Scenario three: ‘Winner Takes All’ characteristics
The narrative for the Winner Takes All scenario is outlined in Appendix 7.

6.6.4 Irish Smart Growth Toolkit

The Irish smart growth Toolkit was devised by the author and facilitated by the smart growth Futures workshops’ findings. From the outset it is important to clarify that the ‘toolkit’ is just the set of ideas derived from the collaborative work of the workshop participants. Within the context of research time and budgetary constraints it was not feasible or possible to subject the ‘toolkit’ to expert validation. It is acknowledged that expert validation of the ideas would serve to strengthen and add more value to the ‘toolkit’. Some tools in the ‘toolkit’ lack clarity, e.g. ‘Adopt German/Swiss model of governance’ and ‘Adopt London style elected assembly’. Additional research is also required to establish an effective strategy for effective implementation of the ‘tools’ listed. Documentary research facilitated the author as to best practice in the creation of the tools identified. The strategies/mechanisms contained in the Irish smart growth toolkit represent a potential means to implement policy and strategy to enable the GDA to accommodate growth in a manner that is economically viable and is socially and environmentally responsible. The strategies are listed under smart growth principles. The toolkit may be used to show how individual smart growth principles may be achieved. The toolkit, may be utilised by a broad group of stakeholders. To the public sector user and the private sector property developer the toolkit highlights how smart growth principles that are contained in public policy and strategy may be implemented.
Chapter 6 – Futures Methods: Findings

The toolkit provides a frame of reference that can be utilised as an awareness-raising tool and as a non-jargon vehicle to educate and raise awareness to community interests about the planning and development process. It follows that the Irish smart growth toolkit represents an aid that may be used by the public and private sectors, local community groups and all those involved in initiatives that seek to find ways to grow in a more environmentally and socially responsible manner. The Irish smart growth toolkit may be used alongside the sustainability indicators identified at the smart growth Futures workshops listed in Table 6.5.
<table>
<thead>
<tr>
<th>Smart Growth Principle</th>
<th>Smart Growth Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix land uses to incorporate office, retail and residential in a development</td>
<td>Concept of ‘efficiency nodes’ of mixed-use development. Mixed use development in peripheral areas to relieve and reduce effects of over density in city centre. Mixed-use mini communities; that include, work, education, leisure, cultural facilities, including social and affordable housing.</td>
</tr>
<tr>
<td>Take advantage of compact building design</td>
<td>Higher density in city centre that caters for greater multi-type family living. Adopt BATNEEC design standards to encourage higher-density living. Adopt more high-rise development in city centre.</td>
</tr>
<tr>
<td>Create walkable communities</td>
<td>Introduce Traffic Bans on high air pollution days. Metering of traffic road use. Provide more pedestrian friendly spaces. Eliminate unnecessary automobile trips.</td>
</tr>
<tr>
<td>Efficient management and expansion of infrastructure</td>
<td>Use of waste to power generation to include incinerator and biomass processing. Sustainability rating for entire developments, planning permission conditional on good score. More transparency in pricing and costs for public transport. More awareness of pricing and costs for private transport. Insulation grants to ensure 200mm-250mm. Increase the use of Solar power.</td>
</tr>
<tr>
<td>Infill development and brownfield redevelopment and adaptive use in built-up areas</td>
<td>More efficient land-use achieved through infill and brownfield development where feasible in place of further greenfield developments. Technology infrastructure within new developments, broadband a prerequisite. Investment in community halls and cultural space facilities in older communities.</td>
</tr>
<tr>
<td>Encourage community and stakeholder collaboration in development decisions</td>
<td>Improved access to justice system for community organisations. Reduce the number of councillors/TDs/MEPs. Local community based governance underpinned by principle of Subsidiarity. Adopt German/Swiss model of governance. Address voter apathy issues. Establish more effective participation structures (e.g. more funding for CDRs, and full-time LA21 Officers). Introduce compulsory voting linked to definition of citizenship.</td>
</tr>
</tbody>
</table>

Table 6.4 Irish Smart Growth Toolkit
<table>
<thead>
<tr>
<th>Smart Growth Principle</th>
<th>Smart Growth Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourage community and stakeholder collaboration in development decisions</td>
<td>Development of local government community management...</td>
</tr>
<tr>
<td></td>
<td>Introduce Mayoral system with elected mayor</td>
</tr>
<tr>
<td></td>
<td>Adopt London style elected assembly</td>
</tr>
<tr>
<td></td>
<td>County/city managers abolished and powers given to mayor</td>
</tr>
<tr>
<td></td>
<td>Introduce area community cultural action days from Chinese new years day to gay pride day</td>
</tr>
<tr>
<td></td>
<td>Industrial leads education based on industry demands</td>
</tr>
<tr>
<td></td>
<td>Ensure there is a highly responsive workforce to maintain competitiveness</td>
</tr>
<tr>
<td></td>
<td>Industrial leads education demand led Industry leads education</td>
</tr>
<tr>
<td></td>
<td>Greater development of local authority to community</td>
</tr>
<tr>
<td></td>
<td>Greater Dublin Council Arts and Community: responsible for transporta-</td>
</tr>
<tr>
<td></td>
<td>tion, waste management and environmental air and water quality</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Smart Growth Principle</th>
<th>Smart Growth Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make development decisions predictable, fair and cost effective</td>
<td>Site value land tax</td>
</tr>
<tr>
<td></td>
<td>Rental market open only to those who work nearby</td>
</tr>
<tr>
<td></td>
<td>Need for regional authorities, local authorities and then local town councils</td>
</tr>
<tr>
<td></td>
<td>Less centralised government power giving more flexibility and opportunity to monitor and change policy where needed</td>
</tr>
<tr>
<td></td>
<td>Higher tax option, for example, to pay for education, health, roads, Community, agree to pay 2% of PAYE, compulsory tax to one/all of these</td>
</tr>
<tr>
<td></td>
<td>Compulsory purchase mechanisms of underutilised land</td>
</tr>
<tr>
<td></td>
<td>Penalties levied on disruptive local authorities - costs of overturned planning decisions contribute charged to local authority (Achieved through further legislation)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Smart Growth Principle</th>
<th>Smart Growth Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide a variety of transport choices</td>
<td>Need for radial transit points strengthening existing arterial Transit links between each other and city centres; (i.e., links between orbital and radial transit)</td>
</tr>
<tr>
<td></td>
<td>More awareness of pricing and costs for private transport</td>
</tr>
<tr>
<td></td>
<td>Deregulated hackney transport service</td>
</tr>
<tr>
<td></td>
<td>Tax breaks and free parking for “eco cars”</td>
</tr>
<tr>
<td></td>
<td>Increase Park and ride facilities</td>
</tr>
<tr>
<td></td>
<td>Tax incentives to facilitate community artistic endeavour</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Smart Growth Principle</th>
<th>Smart Growth Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foster distinctive, attractive communities with a strong sense of place</td>
<td>Better enforcement of policy and environmental legislation</td>
</tr>
<tr>
<td></td>
<td>Introduce “Quality of Life” policy</td>
</tr>
<tr>
<td></td>
<td>Tree planting by community members in communities</td>
</tr>
<tr>
<td></td>
<td>Developer legal tax relief mechanisms to provide private sector funding for arts and cultural infrastructure</td>
</tr>
<tr>
<td></td>
<td>Improved access to justice system for community organisations</td>
</tr>
</tbody>
</table>

Table 6.4 Irish Smart Growth Toolkit (cont.)
### Table 6.4 Irish Smart Growth Toolkit (cont.)

The Irish smart growth toolkit mirrors tools that are transferable in character and reflect best practice tools to facilitate more sustainable development. The tools identified and listed will be discussed in greater detail in Chapter 7 within the context of the multi-method data findings.
6.6.5 Candidate List of Sustainability Indicators

Brandon and Lombardi (2005) suggest that if we are to evaluate sensibly we need enough information to enable us to make sensible and good decisions. Traditional indicators are presentations of measurements to suit a particular need, such as the measurement of gross domestic product (GDP), to establish the economic well-being of a society. In order to be of value, indicators must be relevant and fit for the purpose for which they are intended; they must be reliable so that you can trust the information that the indicator is providing; and they must be easy to understand even by people who are not experts in the field (Ibid.). Traditional indicators such as GDP have been criticised due to the negative factors that are included such as the expenditure that may result from car crashes or accidents of another kind as this expenditure does not contribute to society in a positive way. Allied to this is the omission from GDP of the unpaid voluntary work conducted that makes a considerable contribution to society. Daly and Cobb (1989) propose an Index of Sustainable Economic Welfare (ISEW) that might serve as an alternative to the GDP for measuring human well-being (Daly, 2004).

Sustainability indicators as alternative indicators and those listed on ISEW measure such aspects that relate to community and a range of issues that include community spirit and quality of life issues over the long-term. As a feedback mechanism, sustainability indicators can direct development towards desired destinations and flag potential dangers en route. The use of sustainability indicators represents an integrated and holistic approach that accords with the concept of smart growth. The use of
sustainability indicators represents a means by which to track progress or otherwise in the pursuit of more sustainable development.

The indicator framework adopted by the United Nations (UN) is the Driving Force, State and Response model. Driving Force indicators suggest human activities, processes and patterns that impact on sustainable development; state indicators suggest the state of sustainable development; and response indicators indicate policy options and other responses to changes in the state of sustainable development (Brandon and Lombardi 2005).

The indicator framework adopted by the European Environment Agency and the Irish EPA is the Driving Force, Pressure, State, Impact, and Response (DPSIR) framework, outlined in Figure 6.4. In expanding on the DPS indicator framework the DPSIR enables the identification of impacts of environmental degradation, for example, biodiversity loss or economic damage; and responses by society to the environmental situation, for example cleaner production regulations.
Figure 6.4 Driving Force, Pressure, State, Impact, Response (DPSIR) Indicator Framework

The candidate list of sustainability indicators selected by smart growth Futures workshop participants are listed in Table 6.5. The indicators are listed under the domain, whether they are a driving force, pressure, state, impact or response indicator. In addition, the key stakeholders responsible for gathering the data that relates to the indicators are listed to the right of the indicator list.
<table>
<thead>
<tr>
<th>Indicator/Domain</th>
<th>Score out of 50</th>
<th>Stakeholder Responsible for Data Collection and Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENVIRONMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household waste generation</td>
<td>39 State indicator</td>
<td>Local Authority and EPA, DoEHLG</td>
</tr>
<tr>
<td>Traffic congestion</td>
<td>46 State indicator</td>
<td>Dublin Trans, Office and AA Ireland</td>
</tr>
<tr>
<td>Quality of life</td>
<td>40 State indicator</td>
<td>Local Authority, EPA, DoEHLG</td>
</tr>
<tr>
<td>Polluter pays principle</td>
<td>39 Response indicator</td>
<td>EPA, DoEHLG</td>
</tr>
<tr>
<td>Percentage of greenfield conversion</td>
<td>38 State indicator</td>
<td>Local Authority, EPA and DoEHLG</td>
</tr>
<tr>
<td>Percentage of brownfield development</td>
<td>39 State indicator</td>
<td>Local Authority, EPA and DoEHLG</td>
</tr>
<tr>
<td>Energy rating on buildings</td>
<td>44 Response indicator</td>
<td>SEI, DoEHLG and EPA</td>
</tr>
<tr>
<td><strong>GOVERNANCE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater Dublin Authority</td>
<td>41 Response indicator</td>
<td>DoEHLG</td>
</tr>
<tr>
<td>Local government income</td>
<td>37 State indicator</td>
<td>Local Authority</td>
</tr>
<tr>
<td><strong>TECHNOLOGY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure transport coordinated land-use and provision</td>
<td>46 Response indicator</td>
<td>DTO, EPA and DoEHLG</td>
</tr>
<tr>
<td>Number of children walking school</td>
<td>42 State indicator</td>
<td>DoEHLG and DTO, EPA and DoEHLG</td>
</tr>
<tr>
<td>Number of people using public transport</td>
<td>46 State indicator</td>
<td>DTO</td>
</tr>
<tr>
<td>Number of public transit options</td>
<td>42 State indicator</td>
<td>DTO</td>
</tr>
<tr>
<td><strong>ECONOMY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing design</td>
<td>42 State indicator</td>
<td>DoEHLG and CIF</td>
</tr>
<tr>
<td>Housing location</td>
<td>39 State indicator and Response indicator</td>
<td>DoEHLG and CSO</td>
</tr>
<tr>
<td>Developer contribution-upgrade to pay for local amenities</td>
<td>39 Response indicator</td>
<td>DoEHLG and Local Authority</td>
</tr>
<tr>
<td>Percentage of land in privately owned land banks</td>
<td>39 Driving force indicator and State indicator</td>
<td>Local Authority</td>
</tr>
<tr>
<td><strong>DEMOGRAPHY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of education achieved in society</td>
<td>42 State indicator and Response indicator</td>
<td>Department of Education and CSO</td>
</tr>
<tr>
<td>Degree of urbanisation</td>
<td>38 Driving force indicator and State indicator</td>
<td>CSO, DoEHLG and EPA</td>
</tr>
<tr>
<td>Degree of low-density peripheral growth</td>
<td>37 Driving force indicator and State indicator</td>
<td>CSO, DoEHLG and EPA</td>
</tr>
<tr>
<td><strong>CULTURAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount of time spent commuting</td>
<td>44 State indicator and Response indicator</td>
<td>DTO</td>
</tr>
<tr>
<td>Number of reported cases of crime per 1,000 of population</td>
<td>37 State indicator</td>
<td>Department of Justice</td>
</tr>
</tbody>
</table>

Table 6.5 Sustainability Indicators
The candidate list of sustainability indicators will be discussed in Chapter 7 within the context of the findings that emerged from the multi-method data collecting methods adopted for this research.

6.7 Findings from Strategic Conversations

The strategic conversations conducted in August 2005 through to October 2005 represent the third data collection method for this research. Section 4.10.2 and Table 4.2 of chapter 4 outlines the profile of the strategic conversation interviewees that represent architecture, local authority planners, local authority councillors, the Irish State development agency, the property development sector and the nationwide transport sector. The data collected represents a third data set that complements and supplements the Smart Growth Survey data and the Futures Workshops data. This third data set adds more depth to the research as a third strand of data to triangulate and crystallise as a means to realise the research objectives and inform the research conclusions and recommendations. The strategic conversations findings indicate that the answers to the questions reflect the interviewees’ individual knowledge and understanding that is influenced by their professional background and area of expertise. Section 3.2.4 outlines the value conflicts that arise in individual understanding of smart growth. The motivation of the strategic conversation interviewees is evident in the answers to the questions. A number of interrelated sectors, factors, and issues and themes emerged through an iterative examination of the data collected via the strategic conversation process. The findings reveal commonalities in the interviewees’ opinions, attitudes and understanding of past and current urban development. Similarities also emerged in
Chapter 6 – Futures Methods: Findings

factors that have influenced past and current development, and shared aspirations and opinions about the obstacles that have prevented Ireland from accommodating growth in a manner that is economically viable, friendly to the environment and is socially responsible. The interviewees were also in agreement in their opinion on what is needed to achieve more sustainable urban development in the future in Ireland. A summary of the strategic conversation findings is outlined in section 6.7.1. The sectors, factors, themes and issues that emerged through analysis of the findings are presented in section 6.7.2 summarised under the headings of governance, economy, environment and society. An inextricable and complex link exists between governance, economy, environment and society. With this in mind there is overlap and blurring of the boundaries between the different headings. The themes and issues are categorised loosely under the individual headings purely for presentation purposes within this chapter. How the sectors, factors, issues and themes that emerged from the strategic conversations relate to each other and how the findings relate to the survey and workshop findings is discussed in greater detail in Chapter 7.

6.7.1 Summary of Strategic Conversations

This section presents a summary of the primary data collected via the strategic conversations. A table containing interviewees’ answers to questions 2 to 12 inclusive is available in Appendix 9. Question 1 asked: How would you describe your role/role of your organisation in shaping future urban development in the Greater Dublin Area? Question 1 represented a warm up question to gain further insight into the background of each of the interviewees. Various roles of respondents were identified, from the
planners who draw up the plans that shape urban environment to the property
developers who facilitate property development and the architect who influences the
quality of the environment created in any given site. The role of the manager of the state
development agency is to shape the future of companies and national enterprise centres.
The role of the manager of the Nationwide Transport association was identified as a
transport lobbyist.

The findings in Appendix 9 indicate that the interviewees’ answers are influenced by
the professional background and motivation of each interviewee. The majority of the
interviewees’ opinions about current urban development were that it is not economically
viable, environmentally friendly or socially responsible alongside a view that is a need
to finds way to grow in an economical, social and environmentally responsible manner.
There was some support for the use of Futures Methods within the planning and
development process. There was 100% support for the use of mixed-use design in an
Irish context. The sections that follow up to section 6.7.2 present a summary of views of
the individual interviewees. All responses to the questions reflect professional
background and motivation of each individual.

6.7.1.1 Councillor Responses

The Labour party councillor was concerned about the spread of the GDA into adjoining
counties and the implications of this unsustainable commuter based pattern of
development. ‘There needs to be a coordinated attempt to deal with this: decentralise
power to the local level and they could tackle a lot of the issues’. A view was also held
that the smaller size of the GDA in the past made is easier to plan for and manage. The Councillor cited the Fianna Fáil mentality as an obstacle to sustainable growth. All interviewees were thanked by the author for their time and views and much valued contribution to the research.

6.7.1.2 Manager of Nationwide Transport Association Responses

The Manager of the Nationwide Transport Association as with the majority of interviewees believes that development is not economically viable or socially and environmentally responsible. “One of the main deficits is in public transport: We’re in a city that has historically neglected its public transport infrastructure since WWII”. In addition, “I think everyone accepts that a modern city needs good quality public transport and we now have the money to build it, but we're generations behind the game”. Investment in rapid rail was recommended to achieve future sustainable growth alongside the use of Futures Methods as a tool to plan for future urban development.

6.7.1.3 Planners Responses

The planners’ responses indicated that they believe that opportunities to achieve sustainable urban development had been lost in the past, “…. where a holistic approach was not adopted. Allied to this is the need to appreciate the need to have infrastructure in place prior to development taking place, as is the case in the Netherlands and Finland”. The view that planning in the past was poor was presented, “There was never any attempt to build up if you like, a kind of antidote to Dublin as the driver of the
whole economy”. The planners stated the importance of the development plan and that all development should be guided by the objectives of the development plan.

6.7.1.4 Property Developers Responses

The property developers presented a view that the idea of being environmentally and socially responsible is seen as an imposition by the property development sector at large. The need for a multidisciplinary skill set in the public sector to implement policy was suggested. In addition, “there should be development concessions on state land to force creativity and innovation. There should be ‘strings’ attached to the disposal of state-owned land”. Furthermore is the need for more education and the use of a carrot and stick approach to achieve more sustainable development.

6.7.1.5 Managing Director of Architecture Firm Responses

The interviewee identified the complex nature of social planning. Within the context of what is needed to achieve sustainable growth the interviewee stated “there is one simple requirement: there has to be, we have to somehow get away from this, how I would describe it, the importance of the individual. There is a collective benefit in terms of planning infrastructure projects for the greater good that are being held up or cancelled costing astronomical overruns simply due to the fact that somebody doesn't want it near them. I think that's got to stop, whether it is a dump or an incinerator, NIMBYism”. A suggestion was made when deciding on large national infrastructure projects to “look at the great projects in Paris, the Mayor of Paris can actually literally drive through major projects”.

306
6.7.1.6 Manager of State Development Agency Responses

Within the context of socially responsible development the manager of the State development agency held a view that, “There is more social awareness now, driven by EU legislation and by the reaction of local government to problems in their individual areas”. The interviewee also advocated the need for a GDA Regional Authority to “look at growth holistically and not county by county and we need to make sure that the development on the outskirts of Dublin is not to the detriment to the centre of Dublin”. The interviewee also identified the importance of a more participatory approach to decision making. “The need for greater interaction and exchange of ideas between all statutory and non-statutory social partners is deemed as critical to future success”. The interviewee also presented a view that, “too much power is centrally held over issues that affect local communities, for example the LUAS (light rail transport system, opened in Dublin in 2004) was delayed for 2/3 years because of government interference”. Such interference was identified as causing cause delays in the delivery and an increase in the costs of projects.

6.7.2 Strategic conversations key findings

The interviewees raised a number of issues that can be considered under the headings of governance, economy, environment and society.

6.7.2.1 Governance

Governance may be usefully characterised as the act of affecting government and monitoring (through policy) the long-term strategy and direction of an organisation. In
general, governance comprises the traditions, institutions and processes that determine how power is exercised, how citizens are given a voice, and how decisions are made on issues of public concern (Larragy and Bartley 2007). The interviewees raised a number of issues that can be considered under the heading of governance. Among them were:

1. Powers/autonomy and finance of local government;
2. Political accountability;
3. Fragmentation of local government;
4. Relationship between local authorities and other stakeholders;
5. The balance of power between central and local government;
6. Public participation in the planning and development process;
7. Lack of effective planning at the regional level;
8. Implementation of current policy and strategy; and,

Within the context of past and current urban development the strategic conversation findings indicate that governance plays an important role. The findings also indicate that better governance in the future is instrumental in accommodating growth in a manner that is economically viable, friendly to the environment and is socially responsible. The findings indicate that in the past Ireland failed to plan properly and that urban development is private sector driven.
6.7.2.2 Economy

An economy may be characterised by the system of production and exchange which provides for the material needs of individuals living in a given society. The interviewees raised a number of issues that can be considered under the heading of economy. Among them were:

1. Investment in capital intensive infrastructure;
2. Implications of ‘Celtic Tiger’ prosperity for capital investment;
3. Investment in environmental mitigation;
4. Social and environmental consequences of economic growth;
5. Management of growth;
6. Need for fiscal incentives and disincentives;
7. Laissez-faire approach to development;
8. Wealth accumulation mindset; and,
9. Uneven nature of development;

Within the context of past and current urban development the strategic conversation findings indicate that economic viability was and is a key driver of development. The findings also indicate that the absence of finance in the past in Ireland contributed to the current deficit in infrastructure and a lack of investment in public transport. The economic growth associated with the Celtic Tiger was cited as an opportunity to invest in ways to accommodate growth in a manner that is friendly to the environment and is socially responsible. A suggestion from one interviewee was that there is a need to do a
retail development plan for the whole GDA to make sure that it is economically viable and to make sure that jobs and retail are going in the right places.

6.7.2.3 Environment

The environment within this context is the aggregate of external conditions that influence the life of an individual organism or population. The interviewees raised a number of issues that can be considered under the heading of environment. Among them were:

1. Environmentally unsustainable development;
2. Increase in environmental awareness;
3. Enhancement of environmental legislation;
4. Over-reliance on auto transport;
5. Support for higher density and more mixed-use urban development;
6. Urban sprawl; and
7. Greenfield versus brownfield development.

Within the context of past and current urban development the strategic conversation findings indicate matters of environmental concern were not an issue of importance. The findings indicate that adhering to environmental concerns is a recent phenomenon driven by recent legislation, policy and strategy. Nonetheless, the findings indicate that being friendly to the environment is seen as an imposition. The findings indicate that future urban development is characterised by a more integrated and holistic approach
where environmental issues represent an important factor. One suggestion that emerged from the strategic conversations to realise the vision of a sustainable city is the need to invest in a Marshall Plan scale in developing public transport for the city. In addition is the need to address urban sprawl. Findings indicate that in Ireland we need to learn to always keep the urban centres strong and vibrant.

6.7.2.4 Society

The concept of society is one of the most important of all sociological notions. A society is a system of structured social relationships connecting people together according to a shared culture (Giddens, 2001). The interviewees raised a number of issues that can be considered under the heading of environment. Among them were:

1. Implications of underinvestment in the public transport and housing infrastructure;
2. Social exclusion;
3. Vested interests and in-built agendas;
4. Past failures of the implementation of planning policy and strategy;
5. Dominant position of GDA;
6. Not in my back yard syndrome (NIMBYism);
7. Historical cultural preference for low-density living;
8. Commuter-based lifestyles;
9. Development is not socially responsible;
10. Complex nature of social planning; and,
11. Education for environmental sustainability.

Within the context of past and current urban development the strategic conversation findings indicate that society is a key driver of development. The findings also indicate that past development was not and current development is not socially responsible. The findings also indicate that to be socially responsible future development, to be more balanced, fair and inclusive, is dependent upon implementing policy and strategy that advocates social responsibility. Another suggestion from one interviewee is to pilot test new policy ideas like Part V of the Planning and Development Act, 2000, to see if the policy is feasible and workable.

6.8 Synthesis

Chapter 6 presented findings that emerged from the smart growth Futures workshops and findings that emerged from the strategic conversations. The workshop findings were presented in a chronological report format. The outcomes of the workshops, including three GDA scenarios created by the workshop participants, were presented. The means by which the smart growth toolkit was created was outlined. In addition the chapter presented the candidate list of sustainability indicators identified by the workshop participants. Chapter 6 also presented the findings from the strategic conversations process alongside a summary of the conversations. The interviewees’ attitudes, opinions and understanding of past and current urban development were presented. The sectors, factors, and issues and themes were presented. This highlighted commonalities, similarities and aspirations for what is needed to accommodate growth
in a manner that is economically viable, friendly to the environment and is socially responsible, which emerged through the strategic conversation findings. The combined findings from the multi-method approach adopted for this research are analysed and discussed further in Chapter 7.
CHAPTER 7: DISCUSSION

7.1 Introduction

The multi-method approach adopted for this research revealed a variety of findings, both illuminating and interesting. The findings reflect the opinions of a number of individuals from the public and private sector in Ireland who participated in the data collection for the research. Whilst those who participated represented a range of different actors, the significance tests conducted do not indicate any significant or unexpected disparity in the participants’ attitudes to the subject matter of this research. The findings enabled the author to gain a broader understanding of the complexity and uncertainty associated with the driving forces, issues, trends and factors that serve to shape and influence Irish planning policy and strategy and development paradigms. Fundamental to this is the role of theory in shaping planning policy and strategy. Whilst not discussing the actual findings presented in Chapter 5 and Chapter 6 per se, this discussion chapter outlines and discusses recurring themes and the commonalities and patterns that emerged from the multi-method quantitative and qualitative approach adopted for this research.

The significance and implications of the commonalities, inconsistencies and patterns that emerged are then discussed broadly within the context of Irish planning policy, the future of the GDA and sustainable development in Ireland. The survey findings represent a starting point for the discussion. The discussion then draws on and incorporates the findings from the smart growth workshops and the strategic conversations where appropriate, and how all the findings when viewed together serve
to make a particular point. The data that emerged from primary and secondary data collection methods was examined then re-examined, compared, contrasted and combined until the author felt that an adequate saturation point was reached. This crystallisation process adds more rigour and depth to the overall research findings. Nonetheless, this iterative process takes place within the time constraints and context of the study.

Whilst Chapter 7 presents a discussion of the findings under a range of headings, in a broad sense the discussion chapter mirrors the six-sector framework used throughout the research of culture, demography, economy, environment, governance and technology. Whilst a hierarchy of importance is not implied between the sectors it is nonetheless important to note the sectors of economy and governance are identified as key uncertainties and the fundamental axis of the entire study. Fundamental to Chapter 7 is the integrated and holistic nature of the entire study where economy, environment and society are inextricably linked. In addition is the link between politics and planning.

The three separate data collection methods generated a considerable amount of data, including survey findings, themed issues and trends that drive change identified by participants in the smart growth Futures workshops. The issues and trends served to inform the three GDA scenario stories created by the author, a candidate list of sustainability indicators and the strategies that inform the Irish smart growth toolkit. The qualitative data generated from the strategic conversations and how it relates to the other data collection methods adopted for this research is also discussed.
Chapter 7 presents a discussion on the data deemed most significant and relevant to the study at hand. A large volume of data was generated throughout the entire study; however, it is not feasible, practical or possible to include every single piece of data collected. It follows that what is included in the discussion of Chapter 7 is the material deemed of most relevance and interest to the study. A legend has been added at the end of Chapter 7 sections where necessary, as a guide for the reader to the source of and location of the figures and tables discussed throughout the chapter that relate to previous chapters. The legend also indicates which of the three data collection methods that the figures and tables refer to.

7.2 Synthesis of Multi-strategy Methods

Much of the data collected via the survey, workshops and strategic conversations suggests that there are socio-economic and environmental challenges in Ireland and this mirrors the findings that emerged through the secondary documentary research as outlined in Chapters 1, 2, and 3. Implicit in the findings is a need to deal effectively with the socio-economic and environmental challenges associated with the Celtic Tiger era. The smart growth survey indicated definitive support for detached style dwelling, and with this in mind there now exists a need to reconcile what people want with the need to achieve sustainable development. The need to achieve sustainable development represents a fundamental goal, as evidenced in planning and development policy discussed in Chapter 2.

Within the context of ‘ecological modernisation’ the need to maintain economic competitiveness is now accepted as inextricably linked with the goal to preserve the
environment and enhance quality of life. This integrated and holistic view mirrors EU planning policy and legislation as the key informant for the direction of planning policy and strategy in Ireland. Finding ways to meet the needs of a society that favours a development paradigm which has to date resulted in unsustainable development arguably represents a formidable challenge.

7.3 Discussion of Combined Findings

The sections that follow represent a discussion based on the findings that emerged from the combination of the three separate data collection methods adopted for this research. The discussion is presented under a number of interrelated factors, issues, trends, and themes. It considers the implications of the findings within the context of past and current planning and development in Ireland, and within the context of future planning and development characterised by the need to accommodate growth in a manner that is economically viable, environmentally friendly and socially responsible. Theoretical limitations and potential sources of error for the three research methods are outlined in section 4.11.3 (chapter 4). Limitations encountered for the Smart Growth survey are outlined in sections 5.1.1 (chapter 5). Actual limitations encountered for the Futures methods adopted are outlined in section 6.1.1 (chapter 6). As with all analysis of survey results, this discussion chapter must be viewed within the context of both theoretical and actual limitations encountered. Of particular note, are any suspect political and economic characteristics of the scenarios created by workshop participants outlined in Chapter 6. The findings and discussion must also be viewed within the context of the
current economic recession and the benefit of hindsight where the belief that ‘Celtic Tiger’ growth was unsustainable has been proven to be true.

7.3.1 Economic Growth as key driver of change

Ultimately, economic growth was identified as the key driver of change during the Celtic Tiger. Ireland’s transformation from a rural past to an urban present resulted in both positive and negative outcomes. There is a need to deal effectively with socio-economic and environmental challenges as a means to ensure Ireland can compete on the international stage as it did during the Celtic Tiger. The overriding importance of the economy emerged as a critical uncertainty in the smart growth Futures workshops and also emerged as a key sector through the strategic conversations interviews. Analysis of the findings from the smart growth Futures workshops alongside findings from the strategic conversations present a view that during periods of favourable economic growth it is more feasible than in more stagnant economic periods to facilitate more environmentally responsible planning and development.

Strong economic growth represents a fundamental element of the ‘Utopia’ and ‘Winner Takes All’ scenarios created in the smart growth Futures workshops. The ‘Allotment Garden City GDA’ is characterised by slow economic growth. An interesting finding that emerged from the strategic conversations is a view that economic growth is socially and environmentally neutral. In addition is the view that economic viability is the driving force for planning and development, whereas being environmentally friendly and socially responsible is considered an imposition. The ‘Allotment Garden City’
scenario appears to be most conducive to the current period in Ireland, a time of stagnant economic growth rates as witnessed from 2007 to date.

Notwithstanding scenario planning limitations, the process as outlined in section 4.5.1 and Figure 4.2 enables participants to think more creatively thus providing a platform for more creative and innovative thinking and planning. In a world characterised by increased complexity and uncertainty this ability to think, plan and act in a more holistic, cyclical and integrated way in contrast to a more linear model represents a fundamental strength of scenario planning exercises conducted through futures workshops. In Scenario 1 (‘Utopia’) a strong economy co-occurs with left of centre politics. In the influential and much debated discussion of Stiglitz (2008) who proposes that the left offers not only higher potential economic growth but sustainable growth. Nevertheless, in this scenario it is not suggested that this is the only route to a strong economy or to definitively state that left of centre politics are a precondition of a strong economy. The scenario explores future evolution on the basis of the co-occurrence of these conditions in keeping with the objectives of the scenarios. Scenario 3 (‘Winner takes all’) is an exploration of weak governance and a strong economy. Traditionally, investments take place only in economies that have very robust and strong governance (particularly FDI). Recognising that the phenomenon of governance is nebulous involving multiple scales and multiple actors e.g. (Rhodes, 1996), this scenario explores is the potential outcome of a weakly regulated and unfettered market. It is here that the influence of the recession in Ireland becomes salient during the ‘Celtic Tiger’ growth era of 1997 through to 2007. In Ireland it is generally recognised that weak governance
and regulation of finance and development is primarily responsible for the severity of the collapse in the housing market, the financial system and the consequent recession (Bergin et al., 2009; Regling and Watson, 2010; Honohan, 2010). There are similarities with the economic situation in the UK and the US in the context of relatively weak regulation of the market particularly in finance. While it may be possible for economic growth to co-occur with systemically weak governance in certain circumstances it appears not to be sustainable in the long-term.

An examination of the Irish smart growth toolkit in Table 6.5 shows a number of economic instruments as a means to accommodate more sustainable growth in the GDA. This indicates the fundamental importance that participants of the smart growth Futures workshops attach to economy. Furthermore, of note in relation to economy is the view of Liu (2004) in Chapter 3 on the important relationship that exists between the economic and the physical growth of a region. The nature of this relationship is critical importance. Survey findings indicated respondents’ concerns in relation to overburdened community infrastructure. A case in point to highlight this is evident in Table 5.4, which presents a view that overburdened community infrastructure is the second most important issue, after traffic congestion, to the survey respondents. Decades of underinvestment in infrastructure in Ireland, due to a lack of economic wherewithal emerged as a theme from the strategic conversations. It follows that an underinvestment in infrastructure in the past was a contributing factor to overburdened infrastructure at the time when the survey was conducted. This point is also of significance in light of the time when the data was collected (2005); at a time of strong
economic growth survey respondents are concerned about the challenges associated with overburdened community infrastructure.

**7.3.2 A Preference for Low-Density Development: Preserving the ‘Rural Idyll’**

There still exists in Ireland a deep connection with the countryside and the desire to live in a detached house, more traditionally associated with low-density development. Figure 1.3 in Chapter 1 outlines the urban/rural split in Ireland in 1926 and 2006 and shows that there has been a transition from 68% rural in 1926 to 40% rural in 2006. Ireland’s transformation from a rural past to an urban present is also acknowledged by Bannon (2004) in Chapter 3, who advocated the need for a National Urban Authority. Ireland may indeed be an urban society, nonetheless Figure 5.18 shows that 90% of the respondents agreed with the statement that Irish tradition and culture supports low-density development. This is considered an overwhelming agreement with the statement.

The answer to this question suggest that there is an incompatible link between Irish tradition and culture and the fundamental objectives of planning policy and strategy, to include the NSS and the NDP. Current planning policy and strategy is more supportive of high-density development and more compact design in the pursuit of more sustainable development; however, it could, in light of the survey findings, be argued that policy does not reflect what Irish people want. The survey findings are backed up further by the Strategic conversations that identified a traditional and historical culture of low-density development in Ireland. In addition are the findings of the Urban Forum
commissioned report conducted by the Futures Academy in 2008 entitled ‘Twice the Size: Imagineering the Future of Irish Gateways’, as discussed in section 2.8.2.1 of Chapter 2. The concept of smart growth adopted in the US as an alternative philosophical and methodological approach towards urban planning represents a policy strategy designed to address the supposed incompatibility of sustainable development with a decentralised political culture. Best practice examples of smart growth success in the US potentially provide Ireland with tried and tested planning methods to achieve more sustainable development.

A preference for low-density development is also evident in the two scenarios characterised by strong economic growth, ‘Utopia’ and ‘Winner Takes All’. Nonetheless, a detached house could arguably be a detached house in a housing estate and not necessarily a one-off rural dwelling. When viewed alongside Figure 5.3, which indicates a preference for low-density living in Ireland, it could be inferred that the respondents when selecting the detached house option did in fact mean the detached house type that is most associated with low-density development. The motivational push and pull factors that drive the preference for low-density development is outlined in section 3.4 of Chapter 3. Table 5.3 highlights that location is the most important factor that influences the purchase of a home. Within the context of the concept of smart growth and sustainable development, the detached house category represents the most unsustainable option in terms of the amount of land required to build, alongside the
increased costs in service provision. This model of development usually creates a greater dependence on motor vehicles as the main mode of transport.

The significance of this trend is the implications of increased energy consumption and the increase in a variety of infrastructural necessities required to service the detached house category when using the traditional development methods. This may usefully be viewed alongside the sustainability indicator ‘energy rating on buildings’ with a score of 44 out of 50 listed in Table 6.5. The significance of this is that the smart growth Futures workshops participants deemed ‘energy rating of buildings’ as one of the highest scoring indicators of importance. The respondents indicated that low-density development in the form of a detached house is their ideal choice of dwelling and that Irish tradition and culture favours low-density development over high-density development; however, this runs contrary to survey respondents’ opinions that brownfield sites should be developed before greenfield sites. The survey findings also indicate that 42% of respondents associated high-density in the city with a decrease in quality of life alongside 38% who associated it with an increase in quality of life. The need for higher-density in the city centre emerged as a theme from the smart growth Futures workshops and the strategic conversations.

Interestingly, in Table 5.4 it is evident that water quality was ranked as the third least important growth-related issue. The significance of this is that an increase in low-density development in the form of one-off housing results in an increase in the use of septic tanks. Ireland in the last ten years has seen a proliferation of one-off urban
generated housing and this is significant in relation to water quality (McDonald and Nix, 2005). Of note in relation to this finding is that Ireland has made a formal commitment to improve the quality of water by 2015 under the Water Framework Directive, cited as the most radical environmental legislation over the last 20 years. In addition are Ireland’s commitments under the Nitrates Directive\(^8\). Whilst agricultural practices in Ireland have the greatest impact on water quality, a reduction in water quality in Ireland in recent years has also been attributed to the proliferation in septic tanks most associated with one-off low-density development, which represents one third of all development (Ibid.).

Alongside a growth in one-off housing in Ireland in the last decade has been a proliferation in apartment building, where this category of dwelling currently represents 40% of all new builds in Ireland. As shown in Figure 5.3, only 3.8% of survey respondents current live in apartments. The apartment option as an ideal choice of dwelling represented just 1.9%, a 50% reduction on the current type of dwelling. This point may also be linked to current planning policy and strategy and how it reflects what type of dwelling people actually want. The \textit{laissez-faire} approach to development during the 1997-2007 Celtic Tiger in Ireland, it is suggested, is the reason why a pattern of low-density development prevailed, as the market provides what people want in rudimentary economic principles of supply and demand. This being said, low-density development need not necessarily be synonymous with unsustainable development (Stewart et al, 2005). It follows that with creativity, innovation and best international

\(^8\) The Nitrates Directive (91/676/EEC) – Council Directive of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources – was adopted in 1991 and has the objective of reducing water pollution caused or induced by nitrates from agricultural sources.
design principles it may be possible to meet the needs of the present without compromising the ability of future generations in meeting their needs. In addition, based on continuing technological advancements, the network city model being more dependent on communications infrastructure rather than physical infrastructure represents a model of more sustainable development.

<table>
<thead>
<tr>
<th>Findings in Text</th>
<th>Chapter location of Figure/Table</th>
<th>Method use to collect data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1.3</td>
<td>Section 1.9 chapter 1</td>
<td>Secondary documentary research</td>
</tr>
<tr>
<td>Figure 5.3</td>
<td>Section 5.3.2 chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.18</td>
<td>Section 5.3.4 chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Table 5.4</td>
<td>Section 5.3.2 chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Table 6.5</td>
<td>Section 6.4.5 chapter six</td>
<td>SG Futures Workshops</td>
</tr>
</tbody>
</table>

Table 7.1 Legend for Figures and Tables

7.3.3 Support for Smart Growth in the Abstract?

It is evident from the findings that emerged from the three data collection methods that there is support for smart growth in Ireland in theory. Current planning policy and strategy implicitly if not explicitly supports the concept of smart growth. In the context of a support for the concept of smart growth in the abstract, a number of contradictions emerged in the survey respondents’ opinions. This suggests that in theory the survey respondents acknowledged that low-density development is a major issue; it is undesirable and is avoidable alongside a preference for low-density type dwelling as the ideal choice of dwelling. In addition, Figure 5.19 presents opinions that brownfield sites, which are more usually associated with more compact and high-density
development, should be developed before greenfield sites, which are more usually associated with low-density development. Of further significance is that brownfield development on occasion takes longer to develop, based on the current planning legislation and the varying degrees of remediation required to bring the site up to the appropriate development standards. The time it takes to process planning applications also emerged as a factor of importance via the strategic conversations most specifically the property developers. A greenfield site, specifically a suburban greenfield site is traditionally characterised by less planning restrictions than a brownfield site. The respondents agreed with the statement that brownfield development should occur before greenfield development, it is suggested, because they recognise that brownfield development is more conducive to sustainable development than greenfield development. This is the view of the author, and it cannot be assumed that this is the definitive reason why the respondents answered in the manner that they did. When the responses to this statement are considered alongside the findings presented in Figure 5.3 and the findings presented in Figure 5.19, once again a divergence of opinion appears. Such contradictions that emerge from the survey findings make it more difficult to form a clear image of the attitudes and opinions of the survey respondents and this adds to the complexity and uncertainty that exists in gaining an understanding of the individual attitudes to the planning and development process. An examination of the candidate list of sustainability indicators listed in Table 6.5 shows that the percentage of brownfield and greenfield development are identified as key indicators to measure sustainable growth in the GDA. The indicators were selected by the workshop participants with the strategic question in mind: What mechanisms are required so that the Greater Dublin...
Area can accommodate urban development in the next 20 years in a manner that is economically viable and environmentally and socially responsible?

The issue of low-density development is also a common theme that emerged through the smart growth Futures workshops as evident in the issues and trends listed by workshop participants. The sustainability indicators listed in Table 6.5 also highlight the ‘degree of urbanisation’ and the ‘degree of low-density peripheral growth’ as key sustainability indicators under the demography sector. Analysis of findings from the strategic conversations also indicates that there is an over-reliance on auto-dependence in Ireland and commuter lifestyles associated with low-density pattern of development.

This research finding of support for smart growth in the abstract mirrors research conducted in the US by Downs (2005). Arguably, this support for smart growth in the abstract compounds the complexity of the entire planning and development process in the provision of what is considered as sustainable development, when viewed alongside the reality of what people indicate what they actually want. Reconciling this incongruity arguably represents a formidable challenge for all involved in planning and development in a more resource-conscious 21st century.

Currently there is much debate at both a local and global level, particularly in the US, that considers low-density development patterns as unsustainable in the long-term. Respondents in Table 5.4 identified traffic congestion as the most important growth-related issue. Once again, a conflict is evident. The vast majority of survey respondents
identified the detached house category as the ideal choice of dwelling. Although it is possible to have a detached house within a housing estate, this style of dwelling is often available in more rural and remote areas that necessitate a commute to city centres and other amenities. In addition is the fact that low-density style development does not provide the critical mass needed to provide public transport in a cost-effective manner. Implicit in low-density peripheral development is the need to commute. In addition are further distances to be travelled than would be the case in more compact and high density development, where in fact there may be no need to commute at all.

By indicating a preference for low-density development alongside serious concern for traffic congestion, respondents have contradicted themselves; unless of course the low-density peripheral growth does not result in an increase in commuter lifestyles, traffic congestion, increased pressure on the environment and socio-economic exclusion. The issue of traffic congestion emerged both through the smart growth workshops and also in the data that emerged through the strategic conversations as an issue of importance. Currently in Ireland there is much debate about a reduction in quality of life associated with commuter-based lifestyles. A further reason why there is a need to reduce auto dependency and vehicle-related greenhouse gas emissions in Ireland are the Kyoto Protocol Commitments that came into force on the first of January 2008.

It is evident by the findings presented in Figure 5.9 that a considerable number (55%) of the survey respondents felt that the level of low-density peripheral growth in the GDA is undesirable. This must be viewed alongside 30% ‘no response’. Again, this result
conflicts with respondents’ opinions in Figure 5.3, where the respondents identified the detached house as their ideal choice of dwelling. Nonetheless, a view is presented by respondents that the level of low-density development in the GDA is a major issue, it is undesirable and it is avoidable, when the findings from Figure 5.8, 5.9 and 5.10 are viewed together.

The findings presented in Figure 5.19 show that a considerable number (55%) of the survey respondents felt that the level of low-density peripheral growth in the GDA is avoidable. This must be viewed alongside 18% that felt it is unavoidable and 35% who gave no response. Once again, this result conflicts with respondents’ opinions in Figure 5.3.

Figures 5.13 and 5.14 arguably present an interesting finding that relates to community spirit and the relationship between community spirit and mixed-use design. Figure 5.13 presents respondents’ opinions on the statement ‘there is a strong sense of community spirit in Irish society’ and shows a relatively even spread of opinion over the five point Likert scale. When viewed alongside Figure 5.14, which presents respondents’ opinions on the view that ‘mixed-use design would enhance community spirit’, the respondents answered in high numbers (60%) in the affirmative. A view that mixed-use design is conducive in an Irish context and was evident in the past in Ireland also emerged through the strategic conversations.
Figure 5.20 presents the respondents’ opinions on the statement ‘development should only occur where transit routes are located’. The findings show that 70% of the respondents agreed with the statement. It could be argued that this agreement was based on the respondents’ knowledge that there is an inextricable link between transportation and land-use. Development that occurs where transit routes are located is deemed as more sustainable development as it is more conducive to multi-modal transit options. As discussed previously in this study, to date in Ireland there has been an over-reliance on the automobile as the primary mode of transport. Table 5.4 shows that the respondents indicated that the growth-related issue of most importance is traffic congestion. It follows that the respondents may be in favour of development that seeks to reduce the over-reliance on one mode of transport, namely the automobile. Implementation of Transport 21 arguably represents one means of providing a wider range of transit options in Ireland.

<table>
<thead>
<tr>
<th>Findings in Text</th>
<th>Chapter location of Figure/Table</th>
<th>Method used to collect data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 5.3</td>
<td>Section 5.3.2 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Table 5.4</td>
<td>Section 5.3.3 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.8; 5.9; 5.10</td>
<td>Section 5.3.3 Chapter 3</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.13</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.14</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.19</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.20</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
</tbody>
</table>

Table 7.2 Legend for Figures and Tables
7.4 Emerging themes from synthesis of research methods

The sections that follow present selected emerging socio-economic and environmental themes from the multi-method research approach adopted. The themes presented are interrelated socio-economic and environmental in character.

7.4.1 Need for GDA Regional Authority

Fundamental to the findings that emerged from the three data collection methods is a need for governance as a means to achieve sustainable urban development. Governance was identified by workshop participants as a critical uncertainty in relation to the strategic question of ‘how to accommodate growth in the GDA in 2025, in a manner that is economically viable and environmentally and socially responsible’. The strategic conversations findings indicated a need to address the dominance of the GDA and the need to find an antidote to the GDA.

The need for skilled people to effectively implement current policy and strategy emerged through the strategic conversations and as a strategy/mechanism identified at the smart growth Futures workshops as a means to accommodate more sustainable growth in the GDA. The theme of governance represents a fundamental axis that drives the storylines in the three GDA scenarios’ narratives outlined in Appendix 7. Governance as a critical force of influence is fundamental to the Irish smart growth toolkit and the sustainability indicators that were identified by the smart growth Futures workshop participants. The Greater Dublin Area was selected as a key sustainability indicator, outlined in Table 6.5.
Chapter 7 – Discussion

The need for a Greater Dublin Authority as a means to effect more sustainable urban development is directly related to the notion of governance. The need for a GDA authority has been mooted for some time in Ireland by a wide range of individuals, but has not materialised to date. A widely-held view is that this may result in a reduction of the power of the seven individual LAs in the GDA. The idea of a GDA authority represents support for a regional approach endorsed by and fundamental to the successful implementation of smart growth principles as a means of achieving more sustainable development.

Figure 5.27 in Chapter 5 presents survey respondents’ views to the statement, ‘the state in Ireland does not adopt a regional approach to land development in Ireland’. Whilst a large percentage (41%) agreed with the statement, 38% of respondents chose the neutral option, representing the highest neutral option for the entire survey. Unfortunately as surveys do not allow for probing the reason for this response is entirely conjecture. The need for more balanced regional development also emerged through the smart growth Futures workshops and the strategic conversations.

The need for Regional planning at a local level within a regional context is reflected in the RPGs outlined in Chapter 1. Nonetheless, the success of the RPGs as a means to prevent unsustainable low-density development in the GDA arguably has not been entirely successful to date, as evident in the EEA (2006) views listed in section 1.3 of Chapter 1. A regional approach is fundamental to the concept of smart growth (see Joyce (2001) section 3.2.1 of Chapter 3). In addition Bartley (2007) in Chapter 2 section
2.8.2.1 outlines the need for integration and joined-up thinking between local, regional and national policy if effective implementation is to be achieved. This view is mirrored by Duany et al (2002) in section 3.4.2 of Chapter 3, who believe that adopting a regional approach has proved to be beneficial as is evident in the orderliness of cities in Germany and Sweden.

There was considerable debate in Ireland during the Celtic Tiger era about the outward growth of development into the adjoining counties of the GDA. The means to counter outward growth is reflected in current policy and strategy as discussed in Chapter 2. It is noted that adopting a balanced regional approach to planning as seen in many EU countries is fundamental to the pursuit of more sustainable development. The respondents have answered in the affirmative to this statement and arguably this is indicative of the respondent’s opinion, in the view of the author, of the need to adopt a regional approach, a phenomenon that is relatively new to the Irish context, as discussed in Chapter 2.

<table>
<thead>
<tr>
<th>Findings in Text</th>
<th>Chapter location of Figure/Table</th>
<th>Methods used to collect data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 5.27</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Table 6.5</td>
<td>Section 6.4.5 Chapter 6</td>
<td>SG Futures workshops</td>
</tr>
</tbody>
</table>

Table 7.3 Legend for Figures and Tables

7.4.2 Policy and Strategy: Rhetoric to Reality

Figure 5.26 presents findings on implementation of the NSS as planned to date. The NSS, as discussed in section 2.8 of Chapter 2, represents government spatial planning
strategy for the next 20 years in Ireland. The NSS represents a long-term strategy and in the view of the author it is premature to assess and draw conclusions on its success, or otherwise, to date. The singular finding does however back up anecdotal evidence that suggests the NSS is not being fully implemented as planned to date and may usefully be considered alongside the status of implementation as outlined in section 2.8.2.1 of Chapter 2.

The implementation of current policy and strategy emerged from the survey, under the governance heading of the three scenarios created at the smart growth Futures workshops. The NSS was also discussed with Interviewee 1 in the strategic conversations within the context of an incompatible link between the government’s decentralisation plans, as discussed in section 2.8.2 of Chapter 2. This view is mirrored by Douglas (2004) in section 2.8.2 of Chapter 2, when he refers to the NSS as a ‘devalued currency’. Acknowledging the caveat of the long-term nature of the NSS and that it is arguably at the early stages of implementation, the survey respondents still feel in high numbers that the NSS is not being fully implemented as planned to date. The strategic conversations findings indicated that opportunities to plan in a more sustainable manner were lost in the past. This is viewed with a view discussed in the literature review Chapter 2 of lost opportunities in the past in Ireland to implement strategies similar to the current NSS, including the Buchannan Report in the early 1970s and the Wright report in the late 1960s. This opinion of lost opportunities in the past also emerged through the strategic conversation data.
7.4.3 Political Obstacles to Planning and Development Process

In Ireland, as discussed in section 2.5.2 of Chapter 2, zoning of land is a controversial and hotly debated issue. With this in mind, it is not surprising that in Figure 5.23 ‘zoning is an impediment to mixed-use land-use’ 27% of respondents selected the ‘neutral’ category, as this issue is fraught with political connotations. Nonetheless, 47% of the respondents agreed with the statement. Traditionally in Ireland the zoning model adopted has been one that favours mono land-use ordinances. This has been based on the not-mixing of land use types based on grounds of incompatibility. As discussed in section 3.2.4 of Chapter 3, the advent of cleaner greener technology now better facilitates the mixing of land-uses arguably more conducive to sustainable development.

Figure 5.24 presents findings from the statement ‘decisions regarding the zoning or rezoning of specific locations should not be the function of local authority councillors’. This suggests that again the respondents were fairly split in their opinion on this statement. As stated previously, the zoning of land is a highly contentious and controversial topic in Ireland. Once again as questionnaires do not allow for probing no further conclusion can be garnered on this finding. Nonetheless, the process of zoning as the legislative method of controlling land-use outlined in 2.5.2 of Chapter 2 presents Germany and Sweden as examples of where detailed zoning regulations and their
widespread application has yielded enduring orderliness in cities. This suggests that there are best practice examples that Ireland could potentially study and replicate in Ireland.

As discussed previously in this thesis, politics has had an influence on planning in Ireland. Figure 5.28 presents the findings from the statement, ‘there is a need to decouple politics from planning’. On this occasion the respondents appeared less likely to select the ‘neutral’ category and instead 38% strongly agreed and 25% agreed with the statement; the combined figure in agreement with the statement was 63%. As stated previously there has been a considerable amount of media coverage on the influence of politics on planning. Governance emerged as a key uncertainty and a fundamental driving force driving changed through the smart growth Futures workshops. Politics and the political landscape also emerged through the strategic conversations as a fundamental obstacle for Ireland in the pursuit of accommodating growth in a manner that is economically viable and environmentally and socially responsible. In particular the councillor interviewed cited the Fianna Fail mentality as an obstacle to sustainable growth. The fact that politics emerged through the three separate data collection methods is significant in light of the Mahon planning tribunal as discussed in section 2.3, and the political implications of the discretionary model of development control adopted in Ireland as outlined in section 2.5.3 of Chapter 2 on planning irregularities in Ireland. In addition, are the implications of the PR-STV electoral system outlined in section 2.3 of Chapter 2 that has resulted in a very localised style of politics in Ireland. More localised politics and the role of elected officials within the context of zoning in
Ireland, it could be argued, is not entirely conducive to balanced regional planning. This view is further evidenced in the Local Government Planning and Development (Amendment) Bill (2009) outlined in 2.5.1, the aim of which is to prevent opportunistic rezonings and to ensure that future development plans made at a local level are ‘consistent’ with RPGs. The Bill arguably recognises that there is a need to halt and prevent unsustainable development in Ireland; it is due to come into effect in mid-2010.

<table>
<thead>
<tr>
<th>Findings in Text</th>
<th>Chapter location of Figure/Table</th>
<th>Method used to collect data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 5.23</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.24</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.28</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
</tbody>
</table>

Table 7.5 Legend for Figures and Tables

### 7.4.4 Futures Methods in the Future of Urban Planning?

The use of Futures methods is identified in strategic conversations, the smart growth survey and in feedback from smart growth Futures workshops participants as a viable method to find ways to accommodate growth in a manner that is economically viable and is environmentally and socially responsible. Twenty first century socio-economic and environmental challenges require twenty first century solutions. The use of Futures methods, it is proposed, represents one means to effect good governance practice, and being founded on a bottom-up approach arguably represents a means to facilitate greater public participation in the planning and development process. Figure 5.30 indicates a strong endorsement in favour of the use of scenario planning as a strategic planning technique to help to prepare for the future. Figure 5.22 with 2.5 % respondents choosing
the ‘disagree category’ represents the lowest disagree score from all the survey questions. Coupled with a very low ‘no response’ rate of 3.8 %, this finding suggests that nearly all of the 158 respondents agree with the use of Futures methods. Futures methods also complement the concept of smart growth by embracing a ‘bottom-up’ approach.

The survey respondents indicated in Figure 5.15 that there are insufficient structures in place to facilitate public participation in the planning process. In addition are the findings shown in Figure 5.16, where 65% of the respondents feel that the general public in Ireland do not have a very good understanding of the planning process in Ireland. This finding may usefully be viewed alongside the opinions of Mullally (2002) in section 2.4 of Chapter 2 and the integral role that CDBs and SPCs have to play. The CDBs and the SPCs represent a move to integrate the local development and local government systems in Ireland. It could be argued that the CDBs, SPCs and LA21 represent viable structures to advance community participation in planning and development and a forum to introduce Futures methods’ principles that underpin sustainable development. Nonetheless, new governance structures to include CDBs and SPCs to be truly influential and effective need to be adequately resourced. Table 6.5 presents ‘local government income’ as a key sustainability indicator listed under the governance sector.
7.4.5 Transport as a Recurring Theme

The transport sector is the largest energy-consuming sector in Ireland, accounting for 40% of total final energy consumption in 2004 (SEI, 2005). Furthermore, as outlined in section 1.2 of Chapter 1, 90% of Ireland’s fossil fuel is imported. Allied to this is oil price fluctuation, security of energy supply in tandem with a debate on potential oil peak. Transport emerged as a growth issue of importance and as a recurring theme from all three data collection methods. Firstly Table 5.4 shows that traffic congestion is viewed as the growth-related issue of greatest importance. Traffic congestion is further identified as a driving force of change through the smart growth Futures workshops and it is identified as one of the key indicators listed in Table 6.5. Dealing effectively with transit-related issues is further identified as a key strategy as listed in the Irish smart growth toolkit in Table 6.4. The issue of traffic emerged through the strategic conversations, where the findings indicate that modern urban development is entirely dependent on the car and where freedom that the car once offered now represents oppression. This view corresponds with ideas of Duany et al (2002) in section 3.4.1 of Chapter 3, where people now spend more time behind the wheel of their car. The manager of the Transport Association interviewed in 2005 stated that the government had the finance at that time to spend on the much needed transport infrastructure.
Within the context of hindsight this point is of significance as in 2010 the finance required for such capital intensive transport infrastructure is no longer available.

Figure 5.6 presents the survey respondents’ opinions on a congestion charge to enter Dublin City Centre. Although the success of the congestion charge in London is a case in point, it must be noted that transport infrastructure in London is characterised by more multi-modal transit options and public transport availability than is the case in Ireland. It follows that to make a judgement on the basis of the findings in Figure 5.6 would be biased, as to compare Dublin to London is not to compare like with like. The London example is presented to show what could be potentially achieved when the public transport options outlined in Transport 21 have been delivered. The ESRI in 2006 made a recommendation to the Irish government that a congestion charge could be adopted as a means to tackle the current congestion challenge in the GDA.

In Figure 5.5 the respondents selected sustainable modes of transport to include rail and by foot as their ideal mode of transport to work. This finding suggests support for the need for multi-modal transit options and is fundamental to Transport 21 as outlined in section 2.8.3 of Chapter 2. Figure 5.21 shows that whilst 25% of respondents selected the neutral option, 45% of the respondents did not agree with the statement ‘new communities are developed in a pedestrian-friendly manner’. Ireland has made formal commitments under the Kyoto protocol to reduce greenhouse gas emissions as discussed in section 2.7.1 of Chapter 2. Direct links exist between transport and greenhouse gas emissions.
In order to meet these legally binding obligations there is a need for a modal shift to more sustainable transport options. Arguably, this point may be viewed alongside the high percentage of respondents who currently drive to work by car 79.7%, as evident in Figure 5.5. There also exists a link between water quality and greenhouse gas emissions associated with traffic congestion. Dealing effectively with traffic congestion, in addition to meeting Ireland’s Kyoto protocol commitments, has the potential to meet Ireland’s commitments under the Water Framework Directive discussed in section 7.4.2. In addition is the inextricable link between different sectors and how dealing effectively with one issue can be have implications for other related issues of concern. The inextricable link that exists between transportation and land-use as discussed in Chapter 2 also emerged as an important issue in the smart growth Futures workshops and the strategic conversations. An examination of Figure 5.20 presents the survey respondents’ affirmative opinion of 73% that development should only occur where transit routes are located. This represents an endorsement of the need for an integrated and holistic approach that is evident in current planning policy and strategy.

<table>
<thead>
<tr>
<th>Findings in Text</th>
<th>Chapter location of Figure/Table</th>
<th>Method used to collect data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 5.4</td>
<td>Section 5.3.2 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.5</td>
<td>Section 5.3.2 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.6</td>
<td>Section 5.3.2 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.20</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.21</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Table 6.4</td>
<td>Section 6.4.5 Chapter six</td>
<td>Survey</td>
</tr>
<tr>
<td>Table 6.5</td>
<td>Section 6.4.5 Chapter six</td>
<td>SG Futures workshops</td>
</tr>
</tbody>
</table>

Table 7.7 Legend for Figures and Tables
7.4.6 Climate Change

From the outset of this thesis the need to address the global challenge of climate change is presented as a fundamental goal by the government in Ireland. One sector that contributes to climate change in Ireland is the transport sector as discussed in section 1.2 of Chapter 1. The concept of smart growth supports multi-modal transit options and favours more sustainable transport modes including rail and walking. Achieving multi-modal transit options means that there is potential to reduce auto-dependency, a less sustainable transit option.

A reduction in auto-dependency arguably represents a climate change rationale for adopting this smart growth principle. Allied to this is the fundamental objective of Transport 21 to deliver more transit options. As evident in Table 5.4, the respondents ranked climate change as the least important growth-related issue alongside an opinion that traffic congestion represents the most important growth-related factor.

The finding suggests that respondents were concerned about traffic but less concerned about climate change. Climate change is partly caused by green house gas emissions from transport. Climate change was identified as a key issue and trend driving change at a Global and EU level by smart growth Futures workshop participants; however, it was not listed as a key issue driving change in the GDA. It is conjecture on behalf of the author to propose that the timing of the survey and workshops that took place in 2005 is significant to this finding. It is suggested that since the Stern Economic Review publication in 2006 and the IPCC (2007) Fourth Review, the challenge of climate
change has moved higher on the political agenda and has become more engrained in the consciousness of people throughout the world.

Table 5.4 also shows that survey respondents identified energy efficiency as the second least influential factor when purchasing a home. This finding suggests that a paradox exists if one considers that the respondents identified the cost of the dwelling as the second most influential factor when purchasing a dwelling. The recent trend in energy costs shows a continual upward trend at a global and local level. Allied to this is Ireland’s past and current over-reliance on energy derived from fossil fuel, currently at 90% (EPA, 2006), a non-renewable resource and a resource that is currently being hotly debated in relation to oil peak.

The significance of this finding is also usefully considered alongside the ERBD. The EU Directive on energy rating on buildings was transposed into law on the first of January 2006. The Energy Performance on Buildings Directive (ERBD) means buildings are allocated an energy rating similar to that currently used to rate the energy performance of domestic appliances such as fridges, fridge freezers, washing machines, tumble dryers and cookers. Since 2009 all newly built homes and non new homes put up for sale must have an energy rating in Ireland under the terms of the ERBD. As a result prospective purchasers will from that date be in a position to establish the energy costs of dwellings in advance of purchase to compare with other dwellings and make an informed decision in relation to purchase or not based on this information. It could be
argued that on this occasion the respondents did not consider that the energy efficiency of the dwelling could have cost implications.

Proximity to schools was also not considered to be a very influential factor in the purchase of a dwelling by the respondents who completed this survey. This finding is interesting, when currently in Ireland there is considerable debate generated about the lack of school places available in areas with new housing developments in the GDA.

<table>
<thead>
<tr>
<th>Findings in Text</th>
<th>Chapter location of Figure/Table</th>
<th>Method used to collect data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 5.4</td>
<td>Section 5.3.2 Chapter 5</td>
<td>Survey</td>
</tr>
</tbody>
</table>

Table 7.8 Legend for Figures and Tables

7.4.7 *The key role of Property Developers*

Property developers are identified through the findings as the main engines of economic growth in Ireland and again emerged as a key sector through the three data collection methods. Firstly it is evident in Tables 5.6 and 5.7 that the survey respondents identify property developers’ key role in influencing planning decisions and as having a key role in driving development in Ireland. To put this finding in context, the EU spatial policy and the NDP are seen as having a minor influence in driving development. In addition is the view of the influence of property developers who have vested interests in planning policy outcomes. With this in mind a view that property developers influence planning policy and strategy in Ireland emerged through the strategic conversations.
Although this might not appear as an important or surprising finding it does in the view of the author match with a general but anecdotal opinion within Irish society that the property development sector is the main driver of economic growth, a view that emerged in the literature as evident in section 1.8.1 of Chapter 1. Bartley (2007) had outlined how important the property developers’ contribution had been to the Celtic Tiger phenomenon, specifically in relation to much-needed investment in the 1980s. Private-led capital driving current planning and development in Ireland emerged as an issue through the strategic conversations. The significance of the influence on planning decisions cannot be described from the survey results; nonetheless this finding supports a general view of the influence of the property development sector in influencing planning decisions and planning irregularities examined in the 11-year Mahon planning tribunal.

As evident in Table 5.7, the supply of land is identified as the most influential factor, followed by property developers (including house builders). The least influential factors identified by the survey respondents are the NSS and European Spatial Policy. Currently in Ireland there a number of land banks privately owned by a number of large property developers. The significance of this during the Celtic Tiger era, when demand for housing was greater than post 2007, it is argued, was that owners influenced the property prices by controlling the release of said land for development depending on the current supply and demand of land. This view is a highly contentious and hotly debated issue worthy of mention but not appropriate to be judged by the author.
Figure 5.12 shows that 42% of respondents disagreed with CPO, 14% agreed with 10% on the market value, 16% agreed with 25% on the market value and 18% agreed with 50% on the market value. By and large this finding suggests that a considerable number of respondents disagreed with the notion of CPO of land in private ownership. If one considers that at least 38% of the survey respondents indicated that they are most strongly connected with property development and the land banks are owned by property developers, it is not surprising that there is disagreement with CPO. Significance tests were conducted based on age, gender, professions most strongly connected with and qualifications. The only test that showed any significance in the relationship between the respondents and how the question was answered was between the different professions. The sector that would be most affected by CPO is the property development sector who own land-banks. Over 30% of the survey respondents are most associated with the property development sector.

Section 3.3.1 in Chapter 3 discusses the use of ‘impact fees’ paid by property developers for community amenities and on occasion linked with permission to build higher-densities. The idea of a development levy paid by developers also represents an element in the Planning and Development Act 2000 as discussed in Chapter 2. Figure 5.29 presents the survey respondents’ opinions of the statement ‘property developers (including house builders) should pay “impact fees” in exchange for building higher densities’. 60% of the respondents agreed with the statement and this is viewed alongside a neutral score of 20%. The issue of development levies also emerged in the smart growth Futures workshops and the strategic conversation. The ‘polluter pays’
principle was also identified as a key sustainability indicator by workshop participants in Table 6.5. It is contended that development impact fees/levies are of importance to the participants in this research.

<table>
<thead>
<tr>
<th>Findings in Text</th>
<th>Chapter location of Figure/Table</th>
<th>Methods used to collect data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 5.3</td>
<td>Section 5.3.2 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.4</td>
<td>Section 5.3.2 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.12</td>
<td>Section 5.3.3 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.29</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Table 5.7</td>
<td>Section 5.3.3 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Table 6.5</td>
<td>Section 6.4.5 Chapter six</td>
<td>SG Futures workshops</td>
</tr>
</tbody>
</table>

Table 7.9 Legend for Figures and Tables

7.4.8 Community Participation in the Planning Process

The concept of smart growth and Futures methods advocates a bottom-up participatory approach where the general public are involved in the planning process from the outset. In addition, the CDBs, SPCs and LA21, as discussed in Chapter 2, in theory advocate a participatory approach. When the ‘disagree’ and ‘strongly disagree’ categories are combined in Figure 5.15 it appears that 50% of respondents disagreed that there are sufficient structures in place to facilitate community participation in the planning process. Finding ways to achieve meaningful participation in the planning process is fundamental to finding ways to accommodate growth in a manner that is economically and environmentally and socially responsible.
The findings from the strategic conversations and in particular the Manager of the Development Agency indicate that socially responsibility is afforded greater importance in Ireland now than in the past.

An examination of Figure 5.16 shows that the respondents do not feel that the general public in Ireland have a very good understanding of the planning process. If one combines the ‘disagree’ and ‘strongly disagree’ category together it appears that over 65% of the respondents in fact felt that the general public in Ireland did not have a very good understanding of the planning process. When Figure 5.15 and Figure 5.16 are viewed together it could be argued that the respondents have strong opinions on public participation in the planning process. However, as surveys do not allow for probing it is not possible to definitively discuss the respondents’ views further.

Figure 5.17 presents the attitude of the respondents to the influence of local objection on mixed-use design. When the ‘strongly agree’ and ‘agree’ category were added approximately 60% of the respondents agreed that local objection too frequently impedes mixed-use design. Firstly, Figure 5.14 may be usefully viewed alongside the results from Figure 5.17 and represents an endorsement of mixed-use design. When this result is viewed alongside the result for Figure 5.15 of the survey that examines the publics understanding of the planning process, it could be argued that more awareness-raising as to exactly what mixed-use design is and the benefits that may accrue could result in less objection and hence more mixed-use design. One way of achieving this is to ensure that the public are fully informed from the beginning of the planning and
development process and this point also links with the results as presented in Figure 5.16 and this is achieved by effective public participation structures. In other words, when the public are included in the planning process it is possible for them to gain a clearer understanding of the mechanics of the planning process. It follows that a clearer understanding of the planning process results in a clearer understanding of what actually constitutes mixed-use design.

It could be argued, and the view of the author is, that an informed public is more likely to make more informed decisions in relation to objections. The issue of local objection in the planning process emerged as a theme in the strategic conversations specifically by the Manager of the Architecture firm; however it was more within the context of NIMBYism slowing down the planning process.

<table>
<thead>
<tr>
<th>Findings in Text</th>
<th>Chapter location of Figure/Table</th>
<th>Methods used to collect data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 5.14</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.15</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.16</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
<tr>
<td>Figure 5.17</td>
<td>Section 5.3.4 Chapter 5</td>
<td>Survey</td>
</tr>
</tbody>
</table>

Table 7.10 Legend for Figure and Tables

7.5 Implications and Significance of Results

The crystallisation process enabled the author to identify a number of common issues and themes that are of concern to the multi-method research participants. The factors, themes and issues of concern that emerged mirror the themes and issues discussed in
current literature and planning and development discourse. The significance and implications of the findings arguably highlight that there appears to be agreement that there is a problem regarding unsustainable development. There also appears to be agreement on the cause and factors of past and current unsustainable development. Finally, there appears to be agreement on what is required to accommodate future growth in a manner that is economically viable, friendly to the environment and is socially responsible. The implications of a continuation in the low-density peripheral spread outwards of the GDA in an unsustainable manner must be viewed within a socio-economic and environmental context. Of importance are oil price fluctuation and security of energy supply. An increase in commuter lifestyles arguably increases the potential for an increase in greenhouse gas emissions. The significance of this is the implications of an increase in greenhouse gas emissions alongside Ireland’s Kyoto protocol commitments. Notwithstanding the social and environmental costs there are economic implications to an increase in greenhouse gas emissions in the future when Ireland will have to buy carbon credits.

7.5.1 Irish Planning Policy

The research findings indicate that there is a support for low-density development alongside a support in the abstract for the principles of smart growth. Arguably this duality reinforces the complexity of the challenge that faces all individuals involved in the planning and development process who seek to find ways to accommodate growth that is economically viable and socially and environmentally responsible, alongside meeting the wants of those whose ideals are rooted in notions of a ‘rural idyll’ most
commonly associated with low-density style development. Whilst it is accepted that Irish planning policy and strategy supports the principles of smart growth, there nonetheless exists socio-economic and political factors that deflect policy outcomes from policy intentions.

7.5.2 The Future of the GDA

Ireland as a country has been transformed from a rural past to an urban present. The importance, dominance and international significance of the GDA is acknowledged throughout this study. Nonetheless, it could be argued that a continuation in unsustainable patterns of development and a maintenance of the status quo is now becoming more strained, as evident in the persistence of socio-economic and environmental challenges. Hughes (2002) in section 1.3 of Chapter 1 proposes the GDA as a City-State of the 21st century and of strategic importance in Ireland and how Ireland is viewed in the international arena. The EEA (2006) report citing the GDA as a worst case scenario of urban sprawl does not suggest that the GDA is growing in a sustainable manner. It follows that in order to maintain economic competitiveness the socio-economic and environmental challenges most associated with the unprecedented economic growth of the Celtic tiger era need to be addressed in the short-term. Whilst the research demonstrates that solutions to achieve more sustainable development exists. The size, scale and spread of the GDA represents a formidable planning and development and governance challenge. Allied to this is the traditional localised political system traditionally founded upon rural principles and ideology. What is needed is a governance structure that reflects the needs of an increasingly urbanised
Ireland. Future success of the GDA as the main economic engine of growth is dependent upon a regional perspective that supports the GDA status. In other words a governance system and structure suited to an urban society in contrast to a governance system and structure that is characterised by more rural principles. This indeed represents a formidable endeavour; however, current planning policy and strategy coupled with sophisticated legislation now exists as the vehicle to realise the pursuit of more sustainable development in the future in Ireland.

7.5.3 Sustainable Development in Ireland.

Achieving the broad concept of sustainable development represents a fundamental objective in Ireland as is evident in current planning policy and strategy. This is a long-term objective and must be viewed within a long-term horizon. Traditional culture in Ireland is characterised by more low-density style settlement patterns. However, a continuation in low-density development characterised by urban sprawl does not represent a sustainable option for Ireland.

The research findings indicate a number of obstacles that serve to impede the implementation of policy and strategy that supports more balanced and even development throughout Ireland. Ecological modernisation as discussed in section 3.2.1 of Chapter 3 identifies the need to protect the environment whilst at the same time not compromising economic growth Bunce (2004) Nonetheless, finding ways to preserve the environment at the same time as continued economic growth represents a formidable challenge, as is evident in the socio-economic and environmental challenges now
evident in Ireland, most associated with unprecedented economic growth during the Celtic Tiger era. It is acknowledged in this research that the GDA represents the key engine of growth and a gateway to Europe and the world, and that future development is predicted to occur mostly on the East Coast of Ireland, as was found in the DIT (2008) report discussed in section 2.8.2.1 of Chapter 2. It is important that future planning and development does not hamper or impede the growth of the GDA; nonetheless it is suggested that growth of GDA investment in unsustainable development practices at the expense of the growth of other regions does not represent balanced regional development, characterised as advocating an integrated and holistic approach. Achieving national sustainable development will potentially strengthen Ireland’s competitive position where individual regions reflect their individual strengths and where they complement and not compete with the GDA as evident in the recommendations proposed by the DIT (2008).

7.6 Synthesis

The multi-method approach taken in this thesis is felt to have been effective in light of any limitations encountered during the process of the study. Researcher bias was effectively accounted for as much as is practical and feasible by the use of the crystallisation process as discussed in Chapter 4. This research has sought a greater level of integration of techniques and methods. The various layers of data gathered via the primary and secondary research have been combined and in so doing similarities and contrasting views have become apparent. This discussion chapter has facilitated the process of drawing conclusions from the research and the identification of
recommendations, to be presented and discussed in Chapter 8. The results revealed some contradictions in the survey respondents’ opinions. In addition are a number of common and interrelated factors, themes and issues that emerged from the three separate data collection methods. The sectors of economy and governance arguably emerged through the research as fundamental themes representing critical forces of influence. Overlap and similarities that emerged from the separate but related data collection methods, it could be argued, validate the findings and add more rigour and depth. Support in the abstract for the concept of smart growth that emerged through the findings arguably serves to highlight the degree of complexity that exists and hence the formidable challenge facing actors in the discipline of planning and development in the 21st century as outlined in the literature. Chapter 8, as the final chapter, continues to draw on the discussion from Chapter 7 to identify conclusions, recommendations and ideas for future research.
CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

8.1 Introduction

This chapter outlines (i) how the objectives were addressed, (ii) conclusions drawn, and (iii) recommendations. The recommendations meet the necessity to move from the aspirations in current policy and strategy to delivery of meaningful outcomes that truly reflect policy and strategy intentions. Current planning policy and strategy in Ireland implicitly if not explicitly supports the concept of smart growth. However, with an appreciation and understanding of structural constraints that deflect policy intentions from policy outcomes, one aim of this study was to develop mechanisms to potentially facilitate the implementation of current planning policy and strategy. Allied to this was the development of a candidate list of sustainability indicators. The scenario-planning exercise also led to the creation of three plausible scenarios that relate to urban development in the GDA in 2025.

In light of the findings, this thesis extends an opinion of whether or not the concept of smart growth offers a genuine and plausible solution to deal effectively with socio-economic and environmental challenges in Ireland and more particularly the GDA.

8.2 Summary

Recent policy initiatives discussed in detail in Chapter 2 represent a departure from policy of the past and show a desire to embrace a more integrated and holistic approach. Collaboration is at the heart of the concept of smart growth discussed in Chapter 3, with
all stakeholders taking an active role in the planning and development process. Modern day planning and development in Ireland advocates more participatory democracy in spirit.

The global challenge of climate change is recognised as the most serious threat that currently faces the planet. The EU now recognises that growth is physically and economically limited, in that it is beginning to cost more from an environmental and social perspective.

This study sought to find ways to facilitate planning policy and strategy in Ireland to move from aspiration to the delivery of outcomes that match policy and strategy intentions. This is achieved by presenting smart growth as an alternative methodological and philosophical approach to the current development paradigm. This is not to assume that the concept of smart growth offers the entire planning solution to the current challenges outlined in this thesis. Rather, it is about broadening the debate by bringing the principles of smart growth to the planning and development discourse and in so doing engender more in-depth debate about an alternative approach. In other words, if not smart growth, then what? The success of smart growth arguably is dependent on an increase in best practice government-led implementation of policy and strategy coupled with a reduction in the dependence of an entirely laissez-faire approach to deliver specific fundamental infrastructural prerequisites in the national interest that can enhance quality of life for all in society.
The first objective, to critically evaluate theoretical approaches to urban planning and the role of the state within the context of planning in capitalist societies was facilitated by an exploration of the theory that underpins planning and the role of the state. within the context of planning in capitalist societies. The second objective, to critically analyse the relationship between planning policy and planning practice in Ireland facilitated a clearer understanding of the origin and evolution of the planning system coupled with an appreciation of the complex relationship between planning policy and planning practice.

The third research objective was to conduct a review of the concept of smart growth: origins, purposes, philosophical and epistemological foundations, and methods. As the concept of smart growth emerged as a movement in the US the literature study had a broader remit. The aim of objective four, to ascertain the attitudes and opinions of a sample of statutory and non-statutory individuals towards the continuing evolution of the planning and development process in Ireland, and more specifically the GDA, was advanced by the findings that emerged from the three primary data collection methods adopted for this research.

The fifth objective was to create urban development scenarios for the GDA in 2025 using Futures methods and Techniques in the smart growth Futures workshops. Objective six, which was to identify a candidate list of sustainability indicators to monitor, track and evaluate progress towards sustainable urban development. The indicators represent a second tangible outcome from the smart growth Futures
workshops. Objective seven, to develop an ‘Irish smart growth toolkit’, was devised by smart growth Futures workshops’ participants and categorised and mapped by the author under the principles of smart growth.

8.3 Setting the Conclusions in the Context of the Role of Theory

The boundaries that separate social, economic and political theory are not always clearly defined. This blurring of the boundaries of interpretation in practice is complex and uncertain. This, it is contended, presents a formidable challenge in an increasingly urbanised world coupled with the socio-economic and environmental challenges associated with this urbanisation process. Furthermore are the unique motivations of individual stakeholders who engage with the development process. This is evident in section 6.7 of Chapter 6 that presents the findings of strategic conversation interviewees.

Although Ireland has been transformed from a rural past to an urban present, Irish culture is historically rural in nature and neo-liberalism represents the dominant contemporary political ideology. Ireland during the Celtic Tiger era was cited as one of the most neo-liberal countries in the world. This view, it is contended, was pre the May 2007 election results that resulted in a marginal shift from right to left in the balance of the left/right political spectrum in theory. The Green Party in government in Ireland, whilst as a minority, for the first time represents a change in ideology, as the philosophy of green party politics is more traditionally associated with a left of centre state intervention approach in the distribution of resources, an ideology that is not
traditionally associated with a *laissez faire* neo-liberal approach. This ideological shift in Ireland could potentially alter the approach adopted towards planning and development in Ireland in the future.

### 8.4 Overarching Thesis Conclusions

The conclusions to be drawn on this thesis may be viewed within the contexts of culture, demography, economy, environment, governance, and technology. Whilst all are inextricably linked, economy and governance emerged as the greatest influences driving change during the Celtic Tiger era and within the context of this research. The themes of transport, support for smart growth principles in the abstract, and the dominance of the GDA and hence the need for a GDA regional authority need to be addressed in the pursuit of more sustainable urban development in Ireland and most especially the GDA. In Ireland, at a policy level there now appears to be a firm commitment to the link between transportation and land-use. Nonetheless, time will tell if such policy and strategy will enable Ireland to move from rhetoric to reality in the delivery of sustainable transportation and land-use. Evidence was presented to indicate that policy and strategy does indeed support the principles of smart growth as a means to achieve more even and environmentally responsible development. The need for a GDA regional authority emerged as a theme throughout the entire study and although mooted at government level in the early 2000s does not exist in 2010. Fundamental to an appreciation of the conclusions from this thesis is an increase in the complexity and uncertainty associated globalisation and the implications for the planning and development process in Ireland and in particular the expansion of the GDA. Such
complexity arguably necessitates strong political will with a commitment to implementing policy and strategy that aims to be more sustainable. Opportunities to grow in a more balanced and sustainable manner have been lost in the past in Ireland and it is imperative that current and future policy and strategy does not follow the same path.\textsuperscript{9}

\textbf{8.4.1 Planning policy and strategy in Ireland is more holistic and integrated}

The primary and secondary research indicated that planning in the past in Ireland was less sophisticated than current planning. A caveat is presented that although planning in Ireland has been criticised as having been ineffective, the less buoyant economic circumstances and lack of finance in the past in Ireland must be considered before judgement can take place. A more holistic and regional approach to land-use is a relatively recent phenomenon in Ireland and is evidenced in current planning policy and strategy discussed in the thesis. Current policy initiatives represent a departure from policy of the past and show a desire to embrace a more integrated approach underpinned by the goal to accommodate growth in a manner that is economically viable and environmentally and socially responsible. Current planning policy and strategy in Ireland has as a fundamental objective the pursuit of more sustainable development. This is evident in policy and strategy as outlined in Chapter 2 of this thesis.

\textsuperscript{9} Examples of opportunities lost in the past include non-implementation of reports on housing by Wright (1967), Bucanan (1969) and Kenny (1973 and 1974). The warning made by Bucanan in 1969 that Dublin would grow at the expense of the rest of the country became a reality during the ‘Celtic Tiger’ era.
The need to address the global challenge of climate change and protection of the environment represents a fundamental objective of all policy and strategy in Ireland. This reflects policy and strategy at an EU and international level. Resource consciousness underpins current policy and strategy in the 21st century; hence there is a need to deliver this more resource-conscious mindset at a local and global level. There has been a move in theory towards a more holistic and integrated approach to planning and development, again mirroring EU policy and strategy. Structures are in place to accommodate more sustainable growth that accords with the concept and theory of smart growth. With this in mind this thesis demonstrates that sustainable solutions are possible. In addition, evidence was presented to suggest that there now exists sophisticated planning legislation as the vehicle to effect implementation of policy and strategy in Ireland now and in the future. The means to effect policy and strategy is further endorsed by planning and development legislation as outlined in Chapter 2 and represents a watershed in Ireland in its commitment towards the pursuit of more sustainable development.

8.4.2 Governance represents a fundamental element of sustainable urban development

Politics and planning in Ireland have deep-rooted psychological and cultural origins. Notwithstanding evident institutional changes and reform of governance systems, there is a need to continue to seek ways to ensure transparency and accountability at all levels. The context for planning in Ireland has changed demonstrably since the mid-
1990s. There has been a partial decentralisation of government functions and the creation of structures such as CDBs and SPCs, the aim of which is to facilitate the planning and development process in a more transparent way and encourage greater public participation. However, the establishment of such participatory mechanisms must be viewed alongside the Planning and Development (Strategic Infrastructure) Act, 2006 discussed in Chapter 2, which made significant changes to the way strategic infrastructure developments are determined within the planning system and arguably resulted in a reduction in the opportunity for community participation.

Ireland continues to have a centralised form of government with local government having limited powers and low budgets. The political landscape and political interference emerged through the strategic conversation data as an obstacle to the pursuit of more sustainable growth in Ireland. Political interference and planning irregularities were discussed in relation to the Mahon (formerly Flood) tribunal of inquiry into planning irregularities that began in 1997 and continued for 11 years until 2008. The incompatible link that exists between politics and planning in Ireland represents an important factor in the unsustainable development patterns during the Celtic Tiger era.

The general election results in May 2007 saw the emergence for the first time in Ireland of a government with a Green Party presence. Although the Green Party were invited to join the Fianna Fáil-led government because the Fianna Fáil party did not have enough seats to form a government alone, the Green Party members still negotiated two key
ministerial roles: the Department of Environment, Heritage and Local Government and the Department of Communications, Marine and Natural Resources. There is thus the potential for more transparent, inclusive and collaborative planning and development as a means to reduce socio-economic exclusion and implement policy and strategy. However, it is contended that proof of this alternative development paradigm will only become apparent in the coming years. In addition is the fact that Fianna Fáil, a party more associated with centre to right-wing politics represents the majority in the current government. Nonetheless, the Fianna Fáil government party are mindful of an increased resource-conscious nature of EU policy and strategy that serves to influence and inform planning and development policy and strategy in Ireland. Furthermore, more resource-conscious systems of governance and more informed governments now realise that it is more economically prudent to consider environmental and social issues in a more integrated fashion.

8.4.3 Economy is a Key Driver

In the past in Ireland there were insufficient funds to develop infrastructure such as multi-modal transit options. During the Celtic Tiger era Ireland was more financially resourced to develop the required infrastructure. The Irish economy during this period was economically viable enough to advance policy and strategy that was not possible to implement in the past. The significance of this is that an opportunity existed in Ireland

---

10 A potential implication of this change is that whilst in government the Green Party will have more opportunity to influence environmental policy than if they were still outside the government. It is contended that environmental issues have received more attention in the almost three years that the Green Party have been in government and ideally this will be translated into more sustainable and balanced development that reflects planning policy and strategy.
to more from rhetoric to reality in the delivery of more sustainable policy and strategy. Foreign Direct Investment (FDI) represented a fundamental element during the Celtic Tiger growth era in Ireland, most especially in a country that is not traditionally associated with a large manufacturing sector and instead is more characterised as a service sector economy. Future FDI in Ireland is dependent upon ensuring that the environment is conducive and attractive in socio-economic terms. A paradox exists whereby the need for investment must be viewed alongside the need to achieve and maintain more sustainable development that in turn does not compromise potential for future FDI. There is the pursuit of profit alongside the pursuit of sustainable growth and there is a need to reconcile and deal effectively with the value conflicts that exist. The smart growth survey findings are a case in point that indicate the low-density pattern of development as a preference for survey respondents.

8.4.4 Transport is a Key Driver

A number of conclusions may be drawn that relate to transport. There is a need to deal effectively with traffic congestion, transportation and land-use, an over-reliance on automobile transport, commuter-based lifestyles and deficits in public transport. The current situation is unsustainable in light of continuing oil price fluctuation, security of supply for a country that imports over 90% of its energy requirements, and Irelands’ Kyoto Protocol commitments. The government now recognises the importance of transport and this is evidence of a more pro-active approach, with the publication of Transport 21 as a means to deliver a sustainable transport system of 21st century
standards. Whilst the objectives of Transport 21 appear laudable, it must be viewed as a success only when an integrated land and transportation plan has been delivered in a sustainable manner. In other words, judgement of its success is reserved until policy rhetoric is translated into reality.

8.4.5 A Property-Led Market Existed from 1997 to 2007

Ireland during the Celtic Tiger era had a property-led market-driven urban development paradigm. With this in mind a conclusion is drawn that despite having a sophisticated planning and development process, certain factors deflected policy intentions from policy outcomes. These factors include a powerful and influential property development sector that was equipped with the capital to drive development in a direction that was on occasion contrary to planning policy and strategy. During this period planning legislation or the political landscape in Ireland were not robust enough to stand up to powerful development lobby groups’ interests. It is acknowledged that the property development sector is a fundamental contributor to economic growth and represents a critical element within the era of the Celtic Tiger. Nonetheless, the want and pursuit of profit took priority over the need for more sustainable development and Ireland experienced a considerable amount of greenfield conversion, more associated with the highly contentious and hotly debated issue of urban sprawl and unsustainable development.

8.4.6 Negative ‘Celtic Tiger’

Alongside the benefits of the growth experienced during the Celtic Tiger there are indeed a number of negative social and environmental disadvantages associated with
this unplanned-for growth. The development paradigm seen during the Celtic Tiger was not sustainable and did not reflect planning policy and strategy that is underpinned by the desire to achieve more sustainable development. Evidence was presented in this thesis to prove that whilst there have been an abundance of economic benefits that may be attributed to the Celtic Tiger era of growth, there are nonetheless unwelcome socio-economic and environmental transformations that need to be addressed to achieve more balanced and more sustainable development. This is of great significance in light of an increasingly globalised world where the fortunes of regions are inextricably linked and borders have less importance than in the past. The EU marketplace has become a more competitive environment since EU enlargement in 2005 from 15 member states to 27 member states.

8.5 Implications of Thesis Conclusions

Whilst acknowledging that a more holistic and integrated approach to planning policy and strategy in Ireland was conceived in the 1990s, achieving the goals of current planning policy and strategy must be viewed with a long-term horizon and cannot be judged to have failed when viewed with a short-term lens. This is of particular relevance to the NSS as discussed in Chapter 2, judged by survey respondents as not being implemented fully as planned to date in 2005. As with the NSS, Transport 21 has a long-term horizon in its delivery and it is premature to judge implementation in its entirety. As outlined in Transport 21, dealing effectively with the transport sector is considered as a fundamental objective of current and future planning policy and strategy.
in Ireland. Hence an opportunity now exists to achieve more sustainable urban development in Ireland.

The governance challenge is to support the participation of those traditionally excluded to bring about societal change (Comhar, 1999). Governance structures are now in place to deliver more meaningful participation in the planning and development process. However, unless the new governance structures are resourced adequately in both philosophical and money terms it will be more difficult to achieve more sustainable urban development. Sustainable urban development is not entirely dependent on strong economic growth and in fact is achievable with good governance and prudent economic spending. Nonetheless, the incompatible link between politics and planning that exists in Ireland represents an obstacle to future sustainable urban development and needs to be addressed.

From a regional perspective competition exists between individual LAs, specifically between the seven LAs in the GDA, all of which want development to occur in their authority area. In dealing effectively with this, the establishment of a GDA regional authority represents one part of the solution. Nonetheless, regional development must represent value for money and regions should ideally complement each other and be in the overall national interest of Ireland, one country amongst 27 within the EU. It would not be wise to allow regions to develop at the cost of other regions when limited
resources are available in the name of distributing resources under the auspices of regional development\textsuperscript{11}.

The blurring of the boundaries between the differing theoretical perspectives, it is contended, compounds the complexity in understanding the planning and development process. Whilst the process of urbanisation is a global phenomenon with many universal attributes, the manner with which it is dealt with in an effective manner is dependent on a number of socio-cultural and economic factors. Although there may be some similarities in the solutions available to deal effectively with current and future socio-economic challenges associated with economic growth, there is nonetheless no one-size-fits-all solution. In addition is the view that whilst the process of globalisation is indeed a global phenomenon where the fortunes of regions are linked, uneven development regionally within countries also represents one outcome of globalisation.

Opportunities lost in the past in Ireland to implement policy to achieve more sustainable urban development must be viewed within the context of the socio-economic circumstances of the time. In light of unprecedented economic growth during the Celtic Tiger, Ireland was in a position to deliver on planning policy and strategy based on economic viability. It is imperative that the current NDP, the NSS and objectives of Transport 21 are achieved by effective and meaningful implementation. Furthermore, it is contended that if policy and strategy is not going to be implemented, then why is there a need to devise policy and strategy in the first place?

\textsuperscript{11} As was discussed in the views of Skehan and Sirr in Chapter 2.
Achieving sustainable transport with optimum movement of goods and people is now acknowledged as fundamental to the pursuit of sustainable urban development. However, future development must adhere verbatim to the principles of planning policy and strategy. The expertise and experience of the property development sector have a significant role to play in achieving sustainable urban development. Nonetheless, lessons need to be learned from the unsustainable development of the past, and future growth must be regulated and channelled in a more sustainable manner.

8.6 Recommendations

Fundamental to the entire recommendation list and undoubtedly representing a formidable endeavour is a need to be creative, innovative and visionary and to view current socio-economic challenges as an opportunity to advance sustainable development in Ireland. As with the conclusions, the recommendations fall within the context of culture, demography, economy, environment, governance, and technology.

8.6.1 ‘Lead by Example’ Governance

The successful implementation of policy and strategy that seeks to achieve more sustainable development requires good governance first and foremost. Good governance with either a large budget or smaller budget can arguably achieve more sustainable urban development. Good governance is fundamental in advancing a new and different set of growth-related policies and can shape a new market profile that is more conducive to sustainable urban development. A lead by example founded upon a realistic vision of
achieving best practice represents a critical component of this good governance approach. In addition, the vision must be realistic and must also recognise constraints. The use of Futures workshops to engage broad and diverse groups represents one forum to deliver a more ‘bottom-up’ approach and this method was deemed effective in the identification of a candidate list of sustainability indicators for this research.

In Ireland there is a need to deal effectively with co-dependent relationships and value conflicts between the state and capitalism, clientelism and the implications of this in the pursuit of sustainable development. This requires politics to be decoupled from the planning process. As long as politics is coupled with planning there is scope for competition between individuals motivated by the desire to gain advantage and maximise profit. This, it is contended, was particularly true during the Celtic Tiger capitalist era driven by a pro-growth agenda. However, decoupling politics from planning represents a formidable challenge. The significance of this is the ability to reform in light of transformational powers stunted by economic growth in a country that adopts the PR-STV system that favours local rather than regional perspectives. Fundamental to achieve the change required is to address inefficient and socially inequitable distribution of resources. This may be viewed as a problem or an opportunity and in the view of the author it represents an opportunity.

8.6.2 GDA Regional Authority

The Greater Dublin Metropolitan Area needs land use guidance and zoning as well as new infrastructure if it is going to achieve a more sustainable form of development over
the period to 2025 (EEA, 2006). With this in mind and based on the evidence presented in this study it is recommended that a GDA regional authority is needed to ensure that current and future economic growth is more sustainable. Zoning changes are needed to facilitate more mixed-use land-use. Arguably a GDA regional authority could facilitate a more sustainable approach to planning and development in the region and counter competition that exists between the seven LAs. A GDA authority could help advance the objectives of the NSS and Transport 21 and effectively deliver more balanced regional development in Ireland. There is a need to develop skills in Ireland to further advance policy and strategy to achieve sustainable development; what is required is the financial backing, skill set and wherewithal to effect implementation of policy. With this in mind there is a need to invest more in research and development to ensure that all actors who operate within the planning and development system in Ireland are equipped with the most up-to-date knowledge about the more effective ways to grow in a sustainable manner.

8.6.3 Facilitate Public Participation

Greater public participation in theory is greatly facilitated by the process of Local Agenda 21 and also affords people the opportunity to participate in the decision-making process about issues that affect people’s lives. There is a need to find creative and innovative ways of funding the structures that facilitate public participation within the planning process at the beginning of the planning process in a similar way to the development sector and not later in the process when many important decisions have
been made in the absence of the local community. One means to effect meaningful and increased participation is to employ full-time Local Agenda 21 officers in LAs; currently the role of an LA21 officer does not represent a full-time job. The need for more funding for CDBs and SPCs could result in a more effective forum for participation. It is not enough to have the structures in place unless they are adequately funded and made known to the local community as a means to engage in the planning and development process. What is now needed is action on giving true meaning to participatory democracy. The role of the Development Agency regarding funding needs to be further explored, as LAs do not have sufficient financial resources to fund CDBs and SPCs.

8.6.4 Address Market Failures

There is a need to address the persistent and continued appeal of low-density development in Ireland. Achieving this is dependent on finding ways to ensure that more compact style development is designed in such a way as to be as or more appealing than the low-density model. There is a need to create a built environment that can accommodate diversity and complexity, instead of serving dominant economic and cultural interests as was hitherto the case in conventional planning. Fundamental to this view is the belief that this represents a formidable challenge for planners and all actors responsible for decision-making in Ireland. The discretionary system of development control is arguably imbued with political significance with potential scope for irregularities to occur as witnessed in Ireland to date. One measure to counter the lack of planning departments’ spending powers that has resulted in reliance by planners on the
private sector may be to re-introduce domestic rates (abolished in the 1970s). This represents a revenue-generating mechanism for LAs. A site value land tax was also identified by smart growth Futures workshops’ participants as one strategy to effect more sustainable urban development. This measure could, in the absence of a concerted balanced regional approach to planning and development, mean that the degree of competition is reduced between individual local authorities.

There is a need to find ways to accurately establish the actual cost of urban sprawl in social, economic and environmental terms. It is contended that if the true cost of this pattern of development was known it would become a less attractive option. More effective implementation of policy and strategy that supports a more holistic and integrated approach in the pursuit of urban development and essentially reflects planning policy and strategy is required. Dealing effectively with the current and possible socio-economic and environmental challenges associated with unchanneled and unplanned-for growth represents a formidable challenge. What is required is a shared vision for the future development of the Greater Dublin Area.

There is a need to alter the perception of high-density living in Ireland. As evident in this study and based on the fact that traditionally in Ireland there is a preference for low-density style development, one measure to address the density debate is to ensure that high-density development is viewed as being as attractive a mode of living as low-density development currently is. Fundamental to this is to adopt best international standards and design principles.
Dublin city council in 2008 amended the building regulations to increase the minimum size of all future apartments. This measure was adopted to facilitate a more family-friendly environment for apartment living and arguably represents a measure to alter the traditional mindset to more compact living. Altering people’s perceptions and behaviour represents a formidable challenge. This is of particular significance in Ireland, which has a long tradition and history of rural lifestyles. Nonetheless, evidence has been presented through the primary and secondary research conducted for this thesis that the current development pattern which is resulting in unsustainable low-density style development needs to be addressed. Not addressing the persistent socio-economic and environmental challenges associated with the current development paradigm could hinder Ireland’s future competitiveness.

By mixing land uses and creating convivial environments where people live and where they work can deliver a number of socio-economic and environmental benefits. This measure can address the spatial mismatch of where people work and where they live. In addition to this is finding creative and innovative ways to provide low-density development in a more sustainable manner, for example, by increasing the availability of broadband technology, a measure that can reduce auto dependency by providing communications infrastructure instead of infrastructure such as roads. This approach mirrors the Network city model example as outlined in Chapter 3. Ensuring that mixed-use design is based on best international practice represents one way to encourage a move away from patterns of development that have been associated with negative socio-economic and environmental outcomes.
8.6.5 The Smart Use of Incentives and Disincentives

Whilst a number of initiatives exist in Ireland to counter unsustainable patterns of development, this study advises that there is a need to be more pro-active in this regard. A carrot and stick approach is recommended with the use of smart growth techniques and fiscal and regulatory incentives and disincentives as outlined in section 3.3 and section 3.3.1 of Chapter 3. Allied to this is to raise awareness of the added economic value that can accrue in the long-term when there is courage to innovate and be more creative and visionary in the short-term. Palliative and piecemeal (micro) measures arguably could affect a tipping point coupled with effective and meaningful reform. Development levies have been used in Ireland since 2004 as per the Local Government Planning and Development Act, 2000. Individual stakeholders, to include inter alia property developers, planners, individuals in society, environmentalists and heritage officers have specific motivations for engaging in the development process that include, economic competitiveness, protection of the built and natural environment, equity and quality of life see sections 3.4.1 and 3.6 of Chapter 3.

Property developers are motivated by the desire to make profit by building developments in the most cost effective manner. The idea of property developers paying ‘impact fees’ in return for being allowed to build higher densities emerged through the survey; over 60% of the survey respondents agree with this measure. The most appropriate and fair means to administer ‘impact fees’ is through planning and development legislation. Although property developers in Ireland currently pay
development levies, different local authorities adopt different rates and would benefit from a more standardised system that embraces a more regional approach.

Offices and retail yield higher profits than open space and housing. It is proposed that retail development, when combined with open space, represents potential to achieve synergy and in fact leads to higher yields for the development sector.

Benefits of mixed-used design need to be presented to the local communities as a means to reduce the spatial mismatch of where people live and where they work, particularly in the current era of increased oil prices. Mixed-use design offers a range of housing opportunities to a wide stakeholder group to include single occupancy households for all age groups and family households. Perspective buyers in mixed-use developments are enticed by the potential to reduce the need to travel to schools and local facilities and the potential for an increase in quality of life.

Planners who devise development plans are motivated to create sustainable and enduring communities that meet the development plan criteria and development that derives that best use of infrastructure provided by the local authority within any fiscal constraints. There is a need to maximise yields within the planning and development process through innovative and creative design processes and fiscal measures to achieve a win-win, win, scenario for all stakeholders within the context of economy, environment and society. The Irish smart growth toolkit presents tools to advance this idea.
8.6.6 Public-Private Partnership

There is a need to effectively unite the three main promoters of smart growth: nongovernmental environmentalists, urban planners and other local public officials and property developers who support smart growth principles. There is potential for synergy, it is contended, by bringing all expertise together in one forum, the fundamental aim of which is to advance more sustainable development as a means to maintain competitiveness and enhance quality of life for all on the island of Ireland. The use of public-private partnerships represents a viable method to achieve this.

The entrepreneurial spirit of the development sector in Ireland has been fundamental to past development. With this in mind the property development sector has a critical role to play in current and future economic development. It is necessary to capitalise on this entrepreneurial spirit and ensure that the property development sector continue to play an active role. Future planning and development as an activity in Ireland must be viewed by property developers as an attractive and economically viable sector to participate in.

‘Planning gain’, when a property developer contributes to community facilities in exchange for higher density development, needs to become the norm within the context of an integrated and holistic approach to planning and development irrespective of economic conditions and not just in boom conditions. An opportunity existed in Ireland during the Celtic Tiger to achieve planning gain in the pursuit of sustainable urban development; nonetheless the GDA was still cited as a worst case scenario of urban
sprawl in Europe. There is also a need to raise awareness that planning gain does not need to be viewed negatively and as being costly by the development community and instead could potentially benefit the development community too. Awareness-raising of the potential financial benefits that can be achieved by alternative development practices is one means to initiate future change and a shift towards more smart and sustainable development that increases revenue streams for the development sector. One means to achieve this is to showcase to property developers best practice international examples of where more balanced development has been achieved.

There is a need to address weaknesses and capitalise on competitive strengths that characterise Ireland as a society. It follows that it is essential to be able to identify what exactly the strengths and weaknesses are. Property developers represented the main driving force and engine of economic growth in Ireland during the Celtic Tiger. Notwithstanding the economic recession in Ireland since 2007, future economic development could benefit from the expertise and experience of people who were instrumental to development during the growth era. With this in mind it is suggested to harness the energy of this fundamental driving force in a more sustainable manner without restricting the development sector.

8.6.7 Wind Tunnel Test Policy and Strategy

As discussed in Chapter 4, the use of Futures methods in urban planning is a relatively recent phenomenon. The findings suggest that Futures methods are considered an appropriate tool for planning for the future in Ireland. It is contended that the concerted
forces of Futures methods, smart growth and the new Green dimension to the current Irish government represents a formidable armoury in current and future battles with unsustainable development. In addition it is suggested that this approach represents a viable means to advance policy and strategy that is founded upon sustainability principles.

The smart growth Futures workshops conducted for this research and the growth of the scenario planning exercise, it could be argued, introduces new and fresh ways to engage all actors in the planning and development process in a manner that is not constrained to rigid rules and an understanding of technical planning language. There is a need to take a long-term approach to the pursuit of more sustainable urban development and allow for the organic evolution of fundamental policy objectives of the NSS and other policy and strategy in Ireland.

There is a need to ensure policy and strategy is stress tested to identify whether it is feasible or not. One mechanism to achieve this is to test ideas on mini-projects, for example, pilot test new ideas like Part V of the Planning and Development Act 2000 to see if policy is workable and feasible. A wind tunnel test on plans may ensure that the proposals are feasible, plausible, and possible, and most importantly reflect the desire of the people. This could flag the idea from the outset that policies could be in conflict with each other as is evident in the decentralisation plans and NSS. It is contended that there is a need to make more modest yet achievable plans and adopt a more piecemeal approach to sustainable urban development. This incremental and perhaps a slower approach, it is reasoned, may be more conducive when faced with a climate that is not
willing to making far-reaching changes all at once. Fundamental to this recommendation is the acceptance of time delay in implementation of long-term strategy and policy as outlined in Chapter 2.

8.6.8 Quantifying Some less Tangible Issues

Outcomes of the planning and development process have an impact on the lives of the people where development occurs in potentially positive and negative ways. The value of quality of life needs to be acknowledged. Clear unambiguous signposts are required to guide and direct current and future development in a sustainable manner. The use of sustainability indicators to monitor, track and evaluate progress towards sustainable development represents one mechanism to achieve this. Sustainability indicators also represent a means to deal effectively with socio-economic or political constraints.

The use of sustainability indicators and the Index of Sustainable Economic Welfare (ISEW) represent mechanisms to truly account for the real environmental and social cost of current and future development patterns. This research recommends the use of the indicators identified from the smart growth Futures workshops discussed in Chapter 6, listed under the domains of driving force, pressure, state, impact or response, alongside the key stakeholders responsible for gathering the data that relates to the indicators.
<table>
<thead>
<tr>
<th>Smart Growth Principle</th>
<th>Link</th>
<th>Research Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix land uses to incorporate office, retail and residential in a development</td>
<td>⇐⇒</td>
<td>• The Smart use of incentives and disincentives;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Public-Private Partnership;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Address market failures;</td>
</tr>
<tr>
<td>Take advantage of compact building design</td>
<td>⇐⇒</td>
<td>• Public-Private Partnership;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Address market failures;</td>
</tr>
<tr>
<td>Create a range of housing opportunities and choices</td>
<td>⇐⇒</td>
<td>• Wind Tunnel Test policy and strategy;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Facilitate Public Participation</td>
</tr>
<tr>
<td>Create walkable communities</td>
<td>⇐⇒</td>
<td>• The Smart use of incentives and disincentives</td>
</tr>
<tr>
<td>Foster distinctive, attractive communities with a strong sense of place</td>
<td>⇐⇒</td>
<td>• Facilitate Public Participation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Wind Tunnel Test policy and strategy</td>
</tr>
<tr>
<td>Preserve open space, farmland, natural beauty and critical environmental areas</td>
<td>⇐⇒</td>
<td>• GDA Regional Authority;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Quantify some less tangible issues</td>
</tr>
<tr>
<td>Strengthen and direct development towards existing communities</td>
<td>⇐⇒</td>
<td>• Address Market Failures;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Quantify some less tangible issues</td>
</tr>
<tr>
<td>Provide a variety of transport choices</td>
<td>⇐⇒</td>
<td>• Wind Tunnel Test policy and strategy</td>
</tr>
<tr>
<td>Make development decisions predictable, fair and cost-effective</td>
<td>⇐⇒</td>
<td>• ‘Lead by Example’ Governance;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Quantify some less tangible issues</td>
</tr>
<tr>
<td>Encourage community and stakeholder collaboration in development decisions</td>
<td>⇐⇒</td>
<td>• Facilitate Public Participation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Quantify some less tangible issues</td>
</tr>
<tr>
<td>Infill development and brownfield redevelopment and adaptive use in built-up areas</td>
<td>⇐⇒</td>
<td>• Address market failures;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The Smart use of Incentives and disincentives</td>
</tr>
</tbody>
</table>

Table 8.1 Research recommendations link with Smart Growth principles.

Table 8.1 presents shows that there are direct links between the research recommendations and the principles of smart growth. Whilst the table links specific
recommendations to individual smart growth principles, there is overlap whereby some research recommendations are applicable to several Smart Growth principles.

8.7 Smart Growth: The Planning Solution for Ireland?

The concept of smart growth is promoted to developers, investors and local communities in the USA on a basis of enlightened self-interest. This study identified support for smart growth in the abstract as discussed in Chapter 7. For smart growth to play a role there is a need to find ways to transform this support and expand upon this support, perhaps by showing examples of where smart growth principles have been adopted successfully and in so doing cultivate greater support for smart growth. There is a need to find ways to raise awareness about the value-added that can accrue by ensuring that development is environmentally and socially responsible and, as such, achieving this can ultimately further increase economic viability.

The concept of smart growth does not offer a silver bullet solution for Ireland. Success of the concept is more dependent upon and conducive to a more state intervention approach. As a planning and governance concept smart growth is underpinned by a more left of centre political ideology, specifically when it comes to the provision and distribution of specific socio-economic and environmental resources in a more prudent, resource-conscious, and socially responsible manner. Ireland, despite the Green Party presence in the current government, was characterised during the ‘Celtic Tiger’ era as having a more centre to right right-wing dominant political ideology that embraces more laissez-faire market dynamics. A centre-right-wing approach is not entirely conducive to concept of smart growth. Nonetheless, planning policy, strategy and
legislation in Ireland reflects the principles of smart growth. As outlined in this thesis, a degree of complexity and uncertainty is acknowledged and there is much blurring of the boundaries of interpretation of ideology, and theory, and ultimately what is required is that if policy has been agreed upon then a way needs to be found to ensure that implementation takes place and that the factors that deflect policy outcomes from policy intentions are flagged and pre-empted. The ten principles listed below are recommended to facilitate the implementation of the concept of smart growth in Ireland.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consensus</td>
<td>Achieve consensus by collaborating on solutions with a broad spectrum of interest groups.</td>
</tr>
<tr>
<td>Integration</td>
<td>Ensure environmental elements form integral features of all new and existing development.</td>
</tr>
<tr>
<td>Audits</td>
<td>Conduct pre-development place audits to identify barriers to and opportunities for smart growth.</td>
</tr>
<tr>
<td>Right Location</td>
<td>Three primary factors play a role in determining the ‘right’ location: how infrastructure investments are optimised, the proximity of jobs and services to housing, and the potential for transportation options, both existing and long-term.</td>
</tr>
<tr>
<td>Brownfield First</td>
<td>Opt for brownfield and infill development where possible in advance of Greenfield conversion.</td>
</tr>
<tr>
<td>Inclusivity</td>
<td>Ensure developments cater for a wide range of incomes.</td>
</tr>
<tr>
<td>Demographic diversity</td>
<td>If suburban development is to be dynamic, lively, and most of all sustainable, it must have housing opportunities for a demographically diverse population. People in such a mix do not have all the same needs or desires for housing; therefore, a mix of housing opportunities helps to create a more sustainable community.</td>
</tr>
<tr>
<td>Design</td>
<td>Design developments to address the spatial mismatch of where people live, work and shop; this is much more achievable now in an era of advanced technology where it is now more feasible to mix uses without comprising environmental quality and the quality of life of those who live in such developments.</td>
</tr>
<tr>
<td>Mass</td>
<td>Try to attract the critical mass needed to provide multi-modal transit options.</td>
</tr>
<tr>
<td>Place-making</td>
<td>Use place-making strategies and branding to enhance and maintain community identity.</td>
</tr>
<tr>
<td>Rewards</td>
<td>Reward developments that manage to accommodate growth in a manner that is economically viable, friendly to the environment and is socially responsible.</td>
</tr>
<tr>
<td>Best Practice</td>
<td>It is not possible even in well-planned and designed smart growth projects to prevent a degree of unrest or dissatisfaction; however, achieving best practice standards should be a fundamental objective.</td>
</tr>
</tbody>
</table>

Table 8.2 Smart Growth principles for Ireland
The principles listed were devised by the author, however, the principles are informed and facilitated by an amalgamation of ideas and opinions of authors discussed in Chapter 3, in particular the Urban Land Institute and the Smart Growth Network. Success of smart growth in Ireland therefore is dependent upon governance structures that support social cohesion, creativity and innovation in a pragmatic manner. In addition is a competitive economic environment that embraces an entrepreneurial spirit and the ability to channel growth in a manner that does not compromise the environment.

8.8 Thesis Contribution to knowledge

This thesis has advanced the state of the art and made a significant and original contribution and insight to knowledge in the area of town planning, sustainable development and policy implementation in Ireland. A specific contribution is made in a critical examination of the most current planning and development policy and strategy in Ireland, to include the NSS, the NDP and the Local Government Planning and Development Act 2000. This research has highlighted that planning policy and strategy in theory but less so in practice, supports the concept of Smart Growth. It has examined the factors that deflect policy intentions from policy outcomes. An understanding of these factors will facilitate the future implementation of planning strategy and policy in a more sustainable manner. This research adopted a multi-method approach to include Futures methods, a relatively recent application in planning and development research. This thesis shows the benefits of bringing together a group of actors from different
sectors in society to visualise a sustainable future for the GDA in 2025. The thesis outcomes have a practical application. The Smart Growth Tools and indicators represent a practical application and outcome from the research that can, after validation, be adopted, adapted and used by a number of statutory and non-statutory actors.

8.9 Final Thoughts and Future Research

This thesis in Chapter 1 began with a view put forward by the World Bank (2003) of ‘opportunity’ or ‘challenge’ question for the planning and development process in the 21st century. Whilst a number of socio-economic challenges exist, this thesis concludes that within the context of Irish planning policy and strategy there is now an opportunity to enable Ireland to move from rhetoric to reality in the delivery of more smart growth urban development, and in fact to act as an example to other countries. This being said, it is fundamental that policy and strategy formation must be viewed within the context of theory. In addition is the complex and uncertain nature where the fortunes of regions are inextricably linked in an increasingly globalised world characterised by an increasing blurring of ideological and geographical boundaries.

The state in a capitalist society occupies a fundamental role in the effective distribution of resources in a sustainable and even manner. If one considers the need for an integrated and holistic approach needed to achieve sustainable development, how can the pursuit of profit be reconciled with the need and desire to grow in a manner that does not compromise the environment and is socially responsible, that is the crux of ‘ecological modernisation’? There exists a need to identify what mechanisms are
required to accommodate capitalism in tandem with being environmentally and socially responsible.

In an attempt to maintain and grow Ireland’s status as a viable location for FDI and as a place where people choose to work, rest and play, cognisance must be taken of the reality of the increased competitiveness that Ireland is faced with. Ireland, as a country that never had a heavy industrial sector, has historically been noted as a country with green credentials. Maintaining a clean green image on a world stage presents a formidable challenge now and in the future and this situation must be addressed.

This study presented the concept of smart growth as a potential alternative planning and governance concept to deal effectively with socio-economic and environmental challenges associated with economic growth in Ireland now and in the future. As the concept of sustainable development is a continually moveable target there are opportunities for future research that examines the process of planning and development within the context of implementation of policy and strategy. There is potential for future research that monitors and evaluates the influence, if any, over time of the shift towards a more left-wing approach to planning and development in Ireland, particularly within the context of the effective implementation of policy and strategy that supports smart growth principles. In addition is the potential to conduct research on governance structures in a country that has been transformed from a rural past to an urban present in an increasingly urbanised, more complex and more uncertain world.
Bibliography


Bibliography

Readings, Little, Brown and Company, Boston.


Daly, H.E. (2004). The Steady-State Economy, in Beatley, T. and Wheeler, S.W. The
Sustainable Urban Reader, Routledge, London.


Department of the Environment and Local Government (2001). Towards Sustainable
Bibliography

Local Communities: Guidelines on Local Agenda 21, Dublin.


Dubos, R.J. (1972). Only One Earth, UN, Stockholm.


Jongman, R.H.G. (2002). Landscape Planning for Biological Diversity in Europe,
Bibliography


Le Corbusier, (1933). The Radiant City, Faber and Faber Ltd, London.


Liu, A. (2004). The Benefits and Realities of High-Density Development, Presentation made on behalf of The Brookings Institution Center on Urban and Metropolitan Policy for the National Association of Realtors: Economic Issues


McDonald, F. (2007). ‘A plan that will choke our roads with traffic’, *Irish Times*, 23rd January, Dublin


Smart Growth Network (2006). This is Smart Growth, Smart Growth Network, USA.


Tovey, H. and Share, P. (2003A Sociology of Ireland, ) 2nd edition, Gill and McMillan Ltd, Dublin


APPENDICES

Appendix 1 Copy of Smart Growth Survey February 2005

Section 1: Firstly we would like to gather some information about you

Your Gender:  Male ☐  Female ☐
Age group:  20-45 ☐  46-60 ☐
   61-75 ☐  no response ☐

a) I hold the following qualifications

   Second level ☐ Third level degree ☐ Other ☐ (please specify) ______

b) Which of the following professions would you consider yourself most strongly connected with

   Property development ☐
   Land-use planning ☐
   Both ☐
   Neither ☐ Other (please specify) ________________________________

c) What is your county of residence in Ireland __________________________

d) What is your county of employment in Ireland _______________________

e) Please specify the type of dwelling that your currently occupy

   Terraced house ☐  Semi-detached house ☐  Detached house ☐
   Apartment ☐  Duplex ☐  Other _________________________________

f) My ideal choice of dwelling is

   Terraced house ☐  Semi-detached house ☐  Detached house ☐
   Apartment ☐  Duplex ☐  Other ____________________________
g) I would choose to live in a mixed-use design development

- Yes ☐
- No ☐
- Don’t know/No opinion ☐

h) My mode of transport to work is, (if more than one, tick where appropriate)

- Car ☐
- Motorcycle ☐
- Bus ☐
- Rail ☐
- Bicycle ☐
- by Foot ☐
- Other (please specify) ______________________

i) The approximate distance that I travel from home to work is? = ___ Kilometres

j) My **ideal choice** of transport to work is

- Car ☐
- Motorcycle ☐
- Bus ☐
- Rail ☐
- Bicycle ☐
- by Foot ☐
- Other (please specify) ______________________

k) I would agree with the introduction of a daily 'congestion charge' to enter Dublin City Centre (within Grand and Royal canals) of:

- €0 ☐
- €1 to €5 ☐
- €6 to €10 ☐
- €11 to €15 ☐
- > €15 ☐
- Other (please specify) ______________________
Section 2: Now we would like to ask you some questions that concern the Built Environment

1. Please rank in order of greatest importance, the factors that influence you in the purchase of a home (1= greatest importance, 8= least importance)

<table>
<thead>
<tr>
<th>Location</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of bedrooms</td>
<td></td>
</tr>
<tr>
<td>Proximity to open space</td>
<td></td>
</tr>
<tr>
<td>Proximity to schools</td>
<td></td>
</tr>
<tr>
<td>Proximity to relatives</td>
<td></td>
</tr>
<tr>
<td>Style</td>
<td></td>
</tr>
<tr>
<td>Energy efficiency</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td></td>
</tr>
<tr>
<td>Other (please specify and rank)</td>
<td></td>
</tr>
</tbody>
</table>

2. Please rank in order growth-related issues from the following list (with 1 being the most important and 8 being the least important)

<table>
<thead>
<tr>
<th>Traffic congestion</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Air quality</td>
<td></td>
</tr>
<tr>
<td>Water quality</td>
<td></td>
</tr>
<tr>
<td>Overburdened community infrastructure</td>
<td></td>
</tr>
<tr>
<td>Climate change</td>
<td></td>
</tr>
<tr>
<td>Provision of affordable housing</td>
<td></td>
</tr>
<tr>
<td>Open space conservation</td>
<td></td>
</tr>
<tr>
<td>Increase in population</td>
<td></td>
</tr>
<tr>
<td>Other (please specify and rank)</td>
<td></td>
</tr>
</tbody>
</table>
3. To have a better quality of life I would rather live in:

- The city centre (between Grand and Royal canals)
- Inner suburbs (inside M50)
- Greater Dublin Area
- Other (please specify)

4. Do you think the level of ‘low density peripheral growth’ in the Greater Dublin Area is:

- Not an issue
- Minor issue
- Major issue
- Desirable
- Undesirable
- Don’t know/No opinion
- Avoidable
- Unavoidable
- Don’t know/No opinion

5. In my opinion, high-density in central urban developments is associated with:

- An increase in quality of life
- A decrease in quality of life
- No change
- Other (please specify)

6. If privately owned development land which is needed for housing is not developed within three years of getting full planning permission, the State should have the right to purchase the land for market value less:

- 0%
- 10%
- 25%
- 50%
- Other (please specify)
7. Please rate the following aspects of your locality using the following scale and circling only one of the five alternatives: 1= very poor 2= poor 3 = neutral 4= good 5= very good NA= not applicable

<table>
<thead>
<tr>
<th>Aspect</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road infrastructure quality</td>
<td>VP</td>
<td>P</td>
<td>N</td>
<td>G</td>
<td>VG</td>
</tr>
<tr>
<td>Quality of bus service</td>
<td>VP</td>
<td>P</td>
<td>N</td>
<td>G</td>
<td>VG</td>
</tr>
<tr>
<td>Quality of rail service</td>
<td>VP</td>
<td>P</td>
<td>N</td>
<td>G</td>
<td>VG</td>
</tr>
<tr>
<td>Pedestrian mobility</td>
<td>VP</td>
<td>P</td>
<td>N</td>
<td>G</td>
<td>VG</td>
</tr>
<tr>
<td>Number of cycle lanes</td>
<td>VP</td>
<td>P</td>
<td>N</td>
<td>G</td>
<td>VG</td>
</tr>
<tr>
<td>Amount of car pooling</td>
<td>VP</td>
<td>P</td>
<td>N</td>
<td>G</td>
<td>VG</td>
</tr>
</tbody>
</table>

8. Please indicate your opinion on the importance in influencing planning decisions in Ireland in your opinion (1= very influential 2= Influential 3= Neutral MI= Minor influence 5= Not influential)

<table>
<thead>
<tr>
<th>Group</th>
<th>VI</th>
<th>I</th>
<th>N</th>
<th>MI</th>
<th>NI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elected officials</td>
<td>VI</td>
<td>I</td>
<td>N</td>
<td>MI</td>
<td>NI</td>
</tr>
<tr>
<td>Non-elected officials</td>
<td>VI</td>
<td>I</td>
<td>N</td>
<td>MI</td>
<td>NI</td>
</tr>
<tr>
<td>Architects</td>
<td>VI</td>
<td>I</td>
<td>N</td>
<td>MI</td>
<td>NI</td>
</tr>
<tr>
<td>Investors</td>
<td>VI</td>
<td>I</td>
<td>N</td>
<td>MI</td>
<td>NI</td>
</tr>
<tr>
<td>Local community</td>
<td>VI</td>
<td>I</td>
<td>N</td>
<td>MI</td>
<td>NI</td>
</tr>
<tr>
<td>Non-governmental organisations</td>
<td>VI</td>
<td>I</td>
<td>N</td>
<td>MI</td>
<td>NI</td>
</tr>
<tr>
<td>Local Authority planners</td>
<td>VI</td>
<td>I</td>
<td>N</td>
<td>MI</td>
<td>NI</td>
</tr>
<tr>
<td>Business community</td>
<td>VI</td>
<td>I</td>
<td>N</td>
<td>MI</td>
<td>NI</td>
</tr>
<tr>
<td>Property developers (including house builders)</td>
<td>VI</td>
<td>I</td>
<td>N</td>
<td>MI</td>
<td>NI</td>
</tr>
<tr>
<td>Other (please specify and rank)</td>
<td>VI</td>
<td>I</td>
<td>N</td>
<td>MI</td>
<td>NI</td>
</tr>
</tbody>
</table>
Appendix 1 – Copy of Smart Growth Survey

9. What factors do you think drive current development patterns in Ireland: (1= Very influential 2= Influential 3= Neutral MI= Minor influence 5= Not influential)

<table>
<thead>
<tr>
<th>Factor</th>
<th>VI</th>
<th>I</th>
<th>N</th>
<th>MI</th>
<th>NI</th>
</tr>
</thead>
<tbody>
<tr>
<td>European spatial policy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>National Development Plan</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>National Spatial Strategy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Supply of land</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Local Authority councillors</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Local Authority planners</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Property developers (including house builders)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Demand for land</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other (please specify and rank)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Section 3: Now please give your opinion of the following statements

SA = strongly agree, A= agree, N = neutral/ no opinion, D= disagree, SD= strongly disagree (please circle one of the five alternatives)

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. There is a strong sense of “community spirit” in Irish society today</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Mixed-use design would enhance “Community spirit”</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. There are sufficient structures in place to facilitate community participation in the planning process</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. The general public in Ireland have a very good understanding of the planning process</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Local objection too frequently impedes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>mixed-use design</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>15</td>
<td>The culture in Ireland favours low-density development over high-density development</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>Brownfield sites should be developed before Greenfield sites</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17</td>
<td>Development should only occur where transit routes are located</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>New communities are consciously designed in a pedestrian friendly manner</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19</td>
<td>Entry into Dublin city centre should be restricted to even numbered car and van registrations on alternate days through the use of technology</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>Zoning is an impediment to mixed-use land-use</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21</td>
<td>Decisions regarding the zoning or rezoning of specific locations should not be the function of local authority councillors</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>Current government spatial planning strategy supports the concept of smart growth</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23</td>
<td>The National Spatial Strategy is being fully implemented as planned to date</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24</td>
<td>The state does not adopt a regional approach to land development in the GDA</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>There is a need to decouple politics from planning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>26</td>
<td>Property developers (including house builders) should pay impact fees in exchange for building higher densities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>27</td>
<td>The use of strategic planning techniques like scenario planning would help prepare for the future in terms of land-use in Ireland</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
28. Please rank the following in order of being the greatest challenge to achieving smart growth in Ireland (1 = very influential, 5 = no influence)

<table>
<thead>
<tr>
<th>Challenges</th>
<th>VI</th>
<th>I</th>
<th>N</th>
<th>MI</th>
<th>NI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic viability (of adopting principles)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Lack of knowledge about smart growth</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Lack of political will to change current practices</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Local Authority planners</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Smart growth not conducive to Irish land-use system</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Community opposition</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Property developers (including house builders)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other (please specify and rank)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Finally: We would like your opinion on this survey, please comment on categories and layout as above:

29. The questions in this survey were easily understood

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral/no opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>
I would like to take this opportunity to thank you for participating in this survey. If you are willing to discuss your views in greater detail (in complete confidence), please complete the following details:

Name: ____________________________________________

Address: ________________________________________

Contact details: ___________________________________

E-mail/ Telephone ___________________________________
Appendix 2 Significance Tests Results

Appendix 2 presents the findings of a selected number of significance tests conducted on the data that was gathered by the smart growth survey. The significance tests conducted are non-parametric and it is assumed that interpretation is based on the criteria for interpretation of non-parametric tests as presented in section 5.1.2.

Significance Test: Section 1 Q F: Please specify the type of dwelling you currently occupy gender cross-tabulation.

**Gender:** With a score of .406 the null hypothesis of no relationship is accepted.

### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.002(a)</td>
<td>4</td>
<td>.406</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>4.828</td>
<td>4</td>
<td>.305</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.148</td>
<td>1</td>
<td>.700</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significance Test: Section 1 Q G: Please specify the type your ideal dwelling and gender cross tabulation. Combining the categories the test the result is:

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.001(a)</td>
<td>4</td>
<td>.406</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3.560</td>
<td>4</td>
<td>.469</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.010</td>
<td>1</td>
<td>.920</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Gender and ideal choice of dwelling:** The chi-squared test shows there is no relationship between gender and ideal type of dwelling because its value of 0.406 exceeds the critical value of 0.05.
Section 1 Q K: My ideal choice of transport to work is compared with: Which of the following professions would you consider yourself most strongly connected with Cross tabulation.

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>33.849(a)</td>
<td>35</td>
<td>.524</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>30.627</td>
<td>35</td>
<td>.679</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.804</td>
<td>1</td>
<td>.370</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Profession:** With a chi-squared score of .524 the hypothesis of no relationship between Profession and Ideal Mode of Transport has to be accepted.

Section 2 Q 1: to test an association between gender and location as a factor in influencing the purchase of a home. The chi-squared result:

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.168(a)</td>
<td>7</td>
<td>.639</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.718</td>
<td>7</td>
<td>.573</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.481</td>
<td>1</td>
<td>.488</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A large number of cells have less than 5 observations. To reduce the impact of this problem some of the categories are combined.

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>2.046(a)</td>
<td>3</td>
<td>.563</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>1.819</td>
<td>3</td>
<td>.611</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.499</td>
<td>1</td>
<td>.480</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Gender: The Chi-Squared value of 0.563 indicates that the null hypothesis of no association between gender and location must be accepted. A significance test was conducted on age-group and location in the purchase of a home. The Chi-Squared result is 0.448 which means accepting the null hypothesis of no association between Age Group and Location as a factor in purchase price.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
</tr>
<tr>
<td>Pearson Chi-Square</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
</tr>
<tr>
<td>N of Valid Cases</td>
</tr>
</tbody>
</table>

Section 2 Q 1: A significance test was conducted on location and profession most strongly connected with. The Chi-Squared result of .448 means that once again the null hypothesis is accepted but there is a very severe problem with the number of cells having less than 5 observations. This combined with the relatively low value of the chi-squared result means that the result may not be valid.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
</tr>
<tr>
<td>Pearson Chi-Square</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
</tr>
<tr>
<td>N of Valid Cases</td>
</tr>
</tbody>
</table>
Appendix 2 - Significance Test Results

Section 2 Q 1: The Chi-Squared test of association between Gender and Number of Bedrooms as a factor in price is 0.791 which means acceptance of the hypothesis of no association between the variables

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.679(a)</td>
<td>8</td>
<td>.791</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.475</td>
<td>8</td>
<td>.706</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.380</td>
<td>1</td>
<td>.538</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When the categories are combined the results are the Chi-Squared result is 0.872 which leads to acceptance of hypothesis of no association.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>1.238(a)</td>
<td>4</td>
<td>.872</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>1.985</td>
<td>4</td>
<td>.739</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.000</td>
<td>1</td>
<td>.983</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 3 Q 10: There is a strong sense of community spirit in Irish society today conducted on gender, age-group, qualifications and profession most strongly associated with.

**Gender:** With a score of .331 the null hypothesis of no relationship is accepted.
Appendix 2 - Significance Test Results

### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.752(a)</td>
<td>5</td>
<td>.331</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>7.755</td>
<td>5</td>
<td>.170</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.102</td>
<td>1</td>
<td>.043</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Age Group:** With a score of .065 the null hypothesis of no relationship is accepted.

### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>17.443(a)</td>
<td>10</td>
<td>.065</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>15.550</td>
<td>10</td>
<td>.113</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.571</td>
<td>1</td>
<td>.450</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Qualifications:** With a score of .010 the null hypothesis of no relationship is rejected.

### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>23.161(a)</td>
<td>10</td>
<td>.010</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>13.847</td>
<td>10</td>
<td>.180</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.476</td>
<td>1</td>
<td>.116</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Profession:** With a score of .785 the null hypothesis of no relationship is accepted.
Appendix 2 - Significance Test Results

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>19.242(a)</td>
<td>25</td>
<td>.785</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>23.625</td>
<td>25</td>
<td>.541</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>.297</td>
<td>1</td>
<td>.586</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 3 Q 11: Mixed-used design would enhance community spirit. 

**Gender:** With a score of .243 the null hypothesis of no relationship is accepted.

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>6.710(a)</td>
<td>5</td>
<td>.243</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>6.325</td>
<td>5</td>
<td>.276</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>.481</td>
<td>1</td>
<td>.488</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Age group:** With a score of .830 the null hypothesis of no relationship is accepted.

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.826(a)</td>
<td>10</td>
<td>.830</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>6.617</td>
<td>10</td>
<td>.761</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>.130</td>
<td>1</td>
<td>.719</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Qualifications:** With a score of .017 the null hypothesis of no relationship is rejected.
Appendix 2 - Significance Test Results

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>21.603(a)</td>
<td>10</td>
<td>.017</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>13.930</td>
<td>10</td>
<td>.176</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.047</td>
<td>1</td>
<td>.828</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Profession:** With a score of .684 the null hypothesis of no relationship is accepted.

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>21.161(a)</td>
<td>25</td>
<td>.684</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>24.878</td>
<td>25</td>
<td>.469</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.974</td>
<td>1</td>
<td>.160</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 3 Q 15: Local objection too frequently impedes mixed-use design:

**Gender:** With a score of .006 the null hypothesis of no relationship is rejected.

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>16.324(a)</td>
<td>5</td>
<td>.006</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>15.654</td>
<td>5</td>
<td>.008</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.031</td>
<td>1</td>
<td>.045</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Age Group:** With a score of .822 the null hypothesis of no relationship is accepted.
### Appendix 2 - Significance Test Results

#### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.917(a)</td>
<td>10</td>
<td>.822</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>6.762</td>
<td>10</td>
<td>.748</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.937</td>
<td>1</td>
<td>.164</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Qualifications:** With a score of .232 the null hypothesis of no relationship is accepted.

#### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>12.859(a)</td>
<td>10</td>
<td>.232</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>14.444</td>
<td>10</td>
<td>.154</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.910</td>
<td>1</td>
<td>.167</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>158</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Profession:** With a score of .372 the null hypothesis of no relationship is accepted.
**Appendix 3 SG Futures Workshops participant list**

<table>
<thead>
<tr>
<th>Name</th>
<th>Background</th>
<th>Contact details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anne Devitt</td>
<td>Councillor Fine Gael</td>
<td>01-8905036</td>
</tr>
<tr>
<td>Kathryn Fallon</td>
<td>Better Places Forum/ Architect Dublin City Council</td>
<td><a href="mailto:fallonk@campus.ie">fallonk@campus.ie</a></td>
</tr>
<tr>
<td>Suzanne Doyle</td>
<td>Kildare County Council Councillor Fianna Fáil</td>
<td><a href="mailto:suzannedoylemcc@eircom.net">suzannedoylemcc@eircom.net</a></td>
</tr>
<tr>
<td>Damian Nolan</td>
<td>SPC Dublin City Council</td>
<td><a href="mailto:Damian.nolan@ntlworld.ie">Damian.nolan@ntlworld.ie</a></td>
</tr>
<tr>
<td>Lorna Kelly</td>
<td>SPC Dublin City Council</td>
<td>01 2693990</td>
</tr>
<tr>
<td>Rory Deegan</td>
<td>Planner Dublin City Council</td>
<td>01-2223628</td>
</tr>
<tr>
<td>Eoin Farrell</td>
<td>Dublin Transportation Office</td>
<td><a href="mailto:Eoin.farrell@dto.ie">Eoin.farrell@dto.ie</a></td>
</tr>
<tr>
<td>Simon Keogh</td>
<td>Better Places Forum/ Architect</td>
<td><a href="mailto:simon@urban-asylum.com">simon@urban-asylum.com</a></td>
</tr>
<tr>
<td>Brian O'Brien</td>
<td>Architect Solearth Architecture</td>
<td>01-6771766</td>
</tr>
<tr>
<td>Kevin Rooney</td>
<td>Developer</td>
<td>087-2752376</td>
</tr>
<tr>
<td>John Martin</td>
<td>Planner DoEHLG</td>
<td><a href="mailto:John.martin@environ.ie">John.martin@environ.ie</a></td>
</tr>
<tr>
<td>Kirk Shanks</td>
<td>Engineer</td>
<td>01-8783773</td>
</tr>
<tr>
<td>Tony Bamford</td>
<td>Planning consultant</td>
<td>01-6760110</td>
</tr>
<tr>
<td>Daniel Aspel</td>
<td>Planning consultant</td>
<td>01-6760110</td>
</tr>
<tr>
<td>Karen McDermot</td>
<td>Planning consultant</td>
<td>01-6760110</td>
</tr>
<tr>
<td>Michael O'Neil</td>
<td>Architect</td>
<td><a href="mailto:ong@indigo.ie">ong@indigo.ie</a></td>
</tr>
<tr>
<td>Niamh Breathnach</td>
<td>Dunlaoghaire Rathdown County Council Councillor Labour Party, Former Minister for Education</td>
<td>01-2889321</td>
</tr>
<tr>
<td>Mary Freehill</td>
<td>Councillor Dublin City Council Labour Party, Former Lord Mayor of Dublin</td>
<td><a href="mailto:freehill@eircom.net">freehill@eircom.net</a></td>
</tr>
<tr>
<td>David Healy</td>
<td>Fingal County Council Councillor for the Green Party</td>
<td><a href="mailto:verdure@eircom.net">verdure@eircom.net</a></td>
</tr>
</tbody>
</table>
Appendix 4 Global and EU Issues and Trends from Workshop 1

<table>
<thead>
<tr>
<th>Global and EU Issues and Trends that drive change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environment</strong></td>
</tr>
<tr>
<td>Climate change</td>
</tr>
<tr>
<td>Energy source</td>
</tr>
<tr>
<td>Water supply</td>
</tr>
<tr>
<td>Population growth</td>
</tr>
<tr>
<td>Soil degradation</td>
</tr>
<tr>
<td>Food production</td>
</tr>
<tr>
<td>Waste</td>
</tr>
<tr>
<td>Limited resources</td>
</tr>
<tr>
<td><strong>EU issues and trends</strong></td>
</tr>
<tr>
<td>EU directives</td>
</tr>
<tr>
<td>EU enlargement</td>
</tr>
<tr>
<td>EU status quo KR</td>
</tr>
<tr>
<td><strong>Governance</strong></td>
</tr>
<tr>
<td>Multi national corporations</td>
</tr>
<tr>
<td>Religious culture</td>
</tr>
<tr>
<td>G8 international agreement</td>
</tr>
<tr>
<td>Political stability</td>
</tr>
<tr>
<td><strong>EU issues and trends</strong></td>
</tr>
<tr>
<td>Political alliance</td>
</tr>
<tr>
<td><strong>Technology</strong></td>
</tr>
<tr>
<td>Communications</td>
</tr>
<tr>
<td>Fuel needs</td>
</tr>
<tr>
<td>Wind energy</td>
</tr>
<tr>
<td>Nuclear energy</td>
</tr>
<tr>
<td>Water quality</td>
</tr>
<tr>
<td><strong>Economy</strong></td>
</tr>
<tr>
<td>Flexible work patterns</td>
</tr>
<tr>
<td>Demographics</td>
</tr>
<tr>
<td>Mobility of workforce</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Sustainable community</td>
</tr>
<tr>
<td>Mixed-use</td>
</tr>
<tr>
<td>Regulation</td>
</tr>
<tr>
<td>Integration</td>
</tr>
</tbody>
</table>
### Demography
- Cheap labour
- Attraction of scare resources
- Changing family types
- Changing family size

### Money versus family types
- Birth rates
- Death rates
- Increase in leisure
- Migration to cities
- Perception of other peoples plight
- Ageism- aging workforce

### Cultural
- Increase in Leisure
- Increase consumables sticks/high-tech toys
- Global tourism
- Homogenised culture
- Terrorism
- Faddism
- Possessions culture
- Ownerships
- Understanding
- Individual/community
- Abundance Versus Limitation
- Toys for boys
Appendix 5 GDA Issues and Trends from Workshop 1

<table>
<thead>
<tr>
<th>GDA Issues and Trends</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level of Impact</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste management/production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water supply</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of life question</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heritage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polluter pay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessive density question</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Governance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater Dublin Authority</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban/Rural divide question</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Representative structures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication pressure question</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part V question</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broadband infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure transport coordinate land use and provision</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated ticketing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real time arrival</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trip reduction public transport (schools)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airport 2 and metro</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Economy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSS – population location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Match population/employment (accurate growth)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing suitability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developer contribution- upgrade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing affordability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Demography</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appendix 5 – GDA Issues and Trends from Workshop 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rise in population from immigration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rise in population organic rise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rise in population economic migration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ageing inner city population</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closure of infrastructure i.e. schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young/ family population NB need for infrastructure i.e. schools and social</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erosion of infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disengagement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extreme awareness of extreme levels of gaps in rich and poor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cultural</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity of cultures of periphery – mixture Post 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of social facilities for interaction of cultures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gentrification of inner city</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locals being displaced due to housing affordability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade offs – quality of life and life on the periphery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commute time Versus volunteerism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teenagers –peripheral areas- perception of past-times/clubs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 6  GDA Issues and Trends Ranked

<table>
<thead>
<tr>
<th>GDA issues and trends</th>
<th>Categorisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste management/production</td>
<td>7/7 Pivotal Uncertainty (PU)</td>
</tr>
<tr>
<td>Transport</td>
<td>8/6 PU</td>
</tr>
<tr>
<td>Quality of life question</td>
<td>9/8 PU</td>
</tr>
<tr>
<td>Air Quality</td>
<td>8/7 PU</td>
</tr>
<tr>
<td>Heritage</td>
<td>6/7 PU</td>
</tr>
<tr>
<td>Polluter pay</td>
<td>8/8 PU</td>
</tr>
<tr>
<td>Representative structures</td>
<td>8/5 PU/Potential Joker (PJ)</td>
</tr>
<tr>
<td>Community pressure question</td>
<td>6/5 PU?PJ</td>
</tr>
<tr>
<td>Community</td>
<td>6/7 PU</td>
</tr>
<tr>
<td>Broadband infrastructure</td>
<td>7/9 PU</td>
</tr>
<tr>
<td>Infrastructure transport coordinated land-use and provision</td>
<td>9/6 PU</td>
</tr>
<tr>
<td>Integrated ticketing</td>
<td>6/8 PU</td>
</tr>
<tr>
<td>Airport 2 and metro</td>
<td>9/7 PU</td>
</tr>
<tr>
<td>Housing suitability</td>
<td>9/6 PU</td>
</tr>
<tr>
<td>Housing location</td>
<td>8/5 PU/Significant Trend (ST)</td>
</tr>
<tr>
<td>Rise in population from immigration</td>
<td>8/7 PU</td>
</tr>
<tr>
<td>Ageing inner city population</td>
<td>6/6 PU</td>
</tr>
<tr>
<td>Closure of infrastructure i.e. schools</td>
<td>7/9 PU</td>
</tr>
<tr>
<td>Young family population NB: need for infrastructure i.e. schools and social</td>
<td>9/9 PU</td>
</tr>
<tr>
<td>Erosion of infrastructure</td>
<td>6/6 PU</td>
</tr>
<tr>
<td>Diversity of cultures of periphery</td>
<td>6/8 PU</td>
</tr>
<tr>
<td>Gentrification of inner city</td>
<td>7/6 PU</td>
</tr>
<tr>
<td>Locals being displaced due to housing affordability</td>
<td>8/9 PU</td>
</tr>
<tr>
<td>Trade offs - quality of life and life on the periphery</td>
<td>9/7 PU</td>
</tr>
<tr>
<td>Teenagers - peripheral areas- perception of past-times/clubs</td>
<td>7/6 PU/ST</td>
</tr>
<tr>
<td>Water supply</td>
<td>5/7 Context Shapers/Significant Trend</td>
</tr>
<tr>
<td>Part V question</td>
<td>4/4 Context shaper</td>
</tr>
<tr>
<td>Housing affordability</td>
<td>9/3 CS</td>
</tr>
<tr>
<td>Greater Dublin Authority</td>
<td>8/3 Potential Joker</td>
</tr>
<tr>
<td>Trip reduction public transport (schools)</td>
<td>9/4 PJ</td>
</tr>
<tr>
<td>No. of social facilities for interaction of cultures</td>
<td>5/4 Potential Joker</td>
</tr>
<tr>
<td>Rural/urban divide question</td>
<td>4/4 Context shaper (CS)</td>
</tr>
<tr>
<td>Issue</td>
<td>Ranking</td>
</tr>
<tr>
<td>------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Extreme awareness of extreme levels of gaps in rich and poor</td>
<td>5/3 CS</td>
</tr>
<tr>
<td>Developer contribution-upgrade</td>
<td>5/6 ST</td>
</tr>
<tr>
<td>Rise in population organic rise</td>
<td>5/8 ST</td>
</tr>
</tbody>
</table>
Appendix 7 Scenario Narratives

Utopia Scenario Narrative

In this scenario, the GDA in 2025 is characterised by rapid economic growth and development and a leadership ethos that places a high value on equity and diversity and seeks the best for all in society. It appears at first glance that the objectives of the first National Spatial Strategy in 2002, to achieve a better quality of life for people and the creation of a strong competitive economic position in an environment of the highest quality, has been realised in the GDA region. Low taxation is the norm alongside good pension funding. Government policy and strategy in 2025 is underpinned by support structures for the many immigrant workers much-needed by the GDA to service its dynamic 24/7/365 economic activity.

The immigrants are drawn into the GDA melting pot by the desire to achieve the ‘Celtic Dream’. Transition programmes are also in place for immigrant groups. Part V of the Planning and Development Act 2000 was implemented on an incremental basis at first, and now in 2025 is viewed as the blueprint and a watershed strategy in the provision of social and affordable housing. Other government strategies aimed at dealing effectively with socio-economic challenges such as drug abuse and unemployment resulted in the targeted intervention of at risk populations that were traditionally characterised by low skill sets. Industry-led education since 2015 has had a major role to play in the provision of the highly educated and aware populace evident in 2025, many of whom are now employed in the technology-driven silicon valley-style companies in Leixlip,
Mulhuddart and Blanchardstown, companies that have successfully forged Ireland’s key role in software provision on a global level since the 1990s.

Cleaner, greener technology methods have now almost eradicated toxic hazardous waste, a goal set in 2012. Airport 2, built between 2012 and 2015 proved to be a huge economic success and witnessed an increase from 16 million people passing through Dublin to 31 million. Airport 3 is now being mooted by many in this vibrant and thriving society. Urban development in 2025 in the GDA is characterised by a variety of housing types, designs and tenure types. Rental security is paramount and the days of students living in grotty accommodation whilst paying premium rent rates are thankfully a long a distant memory.

The traditional mono land-use style of the past that resulted in similar housing estates located in Wexford or Donegal prompted a range of government measures to meet the demands of the more discerning consumer who no longer wanted to live in “Lemming Ville”-style developments and ultimately voted with their feet at the ballot box to initiate change. Many new high-density and high-rise buildings give a Big Apple flavour to this cosmopolitan and vibrant Dublin region.

The spire attracts many tourists to the capital with its continued status as the largest free-standing sculpture in the world. Fáilte Ireland has taken advantage of its appeal to visitors from around the world in all marketing strategies for the GDA. There are a number of award winning ecodesign buildings and more resource-positive features that
include rain water harvesters and composting toilets now compulsory in all new developments.

Good waste management structures are in place; John’s story explains: John tipped the remains of the morning meal into the shredder and listened as it separated the breakfast waste into the six defined fractions for reclamation. He keyed his Earcom™ and booked his place on the next Taxibus™ for his first real-time appointment of the day. He said goodbye to the children of his first and current marriage and left them engaged in their online interactive learning period. He ‘picted’ a message off screen to his wife as she took her first virtual meeting with the other residents of the borough. It was about the growing land use issue, and the council decided on the use of another acre of field.

Last week there had been a prolonged protest action, an actual physical presence action, by the farmers’ lobby outside government buildings. How quaint it had seemed, recalling something from an earlier time, when such a protest might actually discomfort a minister leaving the building itself. Government Buildings was more a symbol of power now, with real-time Vidchat™ allowing consultation of grassroots voters to take every morning on the issues of the day, and ministers leading the discussions from their gated enclaves and mansions; even those now living in other cultures. Some people said that the ministers’ images weren’t real, that some communications companies were still using generated Tridims™ and presenting the ministers’ online personae for them. Still, the decisions were taken quickly on a wide range of issues of day-to-day running of the Eurobloc.
John expected the discussion would resolve itself soon enough, although perhaps too soon for the Farmers Guild, although only three members remained in Greater Dublin now, with most of the open land areas already appropriated for cultural purposes. As usual, another twenty-storey tower would be built, adding another ten thousand souls and mixed-use development to the multi-levelled city of Dunshaughlin. The farmers had still found no viable argument to prevent such development being adopted by the majority, once the Green Dome policy meant that any arable land lost within the footprint of the building had to be reinstated at the top, crops, animals and all, as the EU Directive demanded. The basement hydroponics fields levels always grew enough biomass and purified enough water for the population, while the natural-cycle methane reclamation justified keeping the cows on power source grounds alone.

The Closed loop™ reclamation kept the Airwebreath™ action group happy and with their recent significant gains in the Council since the Siberian Impact and the Weather change, their voice was the strongest in the Council. John had to admit a grudging admiration for their vision, for out of it grew the Sustainable Sufficiency Initiative, which in turn led to the Vertical Acres policy that directed the best land use development humanity had ever seen. With the Maglevs (magnetic levitated transporters) in place for multi-level transportation between the blocs and the Weathershield™ extended over the new addition, Dunshaughlin Compact City would once again meet its yearly profitability targets feeding the growth of the Greater Dublin Nexus. Perhaps this year he would be able to take his family to meet their friends in real-time somewhere on the equator and see some real sunshine; the Garden of Ethiopia
again, perhaps. At least they had no glaciers there he thought, as the Maglev section
picked him up outside his door on the tenth level, then joined to the rest of the bus two
levels below.

**Challenges:**
This scenario has a paradoxical flavour to it. At first glance it appears that good
governance and strong growth is conducive to a reduction in the gap between rich and
poor and a reduction in socio-economic exclusion, a menace of decades past. Although
the population of the GDA may be more mixed with less demarcation of public and
private housing, there has, however been increased alienation due to rapid technological
change. Allied to this has been a continual gentrification of the inner city, which
although it has created a vibrancy of sorts, has also served to marginalise the immigrant
communities and those in the lower income quadrant of society. In this scenario there is
a high concentration of young transient professionals who, work, live and play in the
thriving inner city. This, it is suggested, makes it difficult to enhance a sense of
community. There is also a concentration of mature and well-off people who have opted
to escape the hustle and bustle and have chosen McMansions on the periphery. One of
the implications of this trend is alarming because there is a distinct lack of physical
infrastructure such as hospitals on the periphery.

*Allotment Garden City GDA Narrative:*
As the saying goes, necessity is the mother of invention and under this scenario urban
development in 2025 is characterised by that adage of “cutting your cloth to size”.
Slow economic growth has made the GDA a less attractive place to locate than in 2005,
when it appeared that the GDA was a melting pot for national, EU and global migrants. It follows that the GDA in 2025 now has a more stable population. This stability enables policymakers to forecast the needs of the GDA in a more effective manner than was possible in 2005. As to the cause of the slow growth, the predominant factor was a global recession based on skyrocketing oil prices in tandem with the confirmation of oil peak in 2008. This coupled with the global acceptance as to the reality of climate change in 2007 launched a concerted global, EU and national agenda towards the imperative of sustainable development and the importance of environment.

Wise governance is now the dominant ideology at a global and local level underpinned by the awareness of global humanitarian issues and economic necessity. The seeds for this enlightenment, it is argued, were sown at the G8 Summit held in Scotland in 2005, which saw world leaders and people throughout the globe united in the goal to make poverty history. One outcome of the 2005 G8 Summit was greater support for third world economies and the long-awaited removal of trade restrictions. This new resource-conscious mindset now means that everything is more expensive. Technological advancements have now made it possible to more accurately quantify environmental degradation and factor this cost into the cost of production than was hitherto the case only five years ago.

Whilst there is indeed higher unemployment, more flexible working patterns have facilitated better home and community structures. There is a substantial stabilisation of property values; this it is argued is based on the introduction of State Compulsory
Orders of developer-owned land banks. This measure is now adopted when land in private ownership that had received full planning permission has not been developed within a three-year period. This measure has helped to curtail the low-density peripheral spread of leapfrog development into the adjoining counties of the GDA as a trend all-too-familiar in years gone by. Higher density development, a trend that has become more pronounced in the last decade has seen a reduction in automobile transport.

‘Network City’ nodes are located throughout the GDA region dependent on high quality communications infrastructure in place of transit infrastructure. This paradigm was only made a viable option when the Irish government received EU funding to improve its provision of broadband infrastructure. The fact that the Lisbon Strategy had not been achieved by 2010 resulted in the EU adopting a range of measures throughout the EU. Broadband infrastructure deficits in Ireland were identified as a future potential challenge that could have EU-wide economic implications.

Stringent waste management policies are incorporated into all government policies. A lead by example philosophy prevails with all local authorities achieving Eco Management Audit Systems status. This recycling culture emanating from the top down to local communities sees the proliferation of recycling centres throughout the entire GDA. This measure also generates employment in areas that have high unemployment rates. The WEE directive that became effective on 13th August 2005 saw an increase in the cost of electronic appliances for the consumers. However, the directive has been
successful and all appliances are now disposed of in a more appropriate and environmentally responsible manner than was hitherto the case. The government in 2025 sponsors a car-sharing economy, again founded on the ‘Economic Necessity Ethos’ adopted in 2015. Technological advancements in the last ten years also made it more economically viable to adopt cleaner transport systems with eco cars. Environmentally-friendly buses now run along radial as well as orbital routes of the GDA and this coupled with improved tram networks throughout the city improve the sense of connectivity. Achieving multi-modal transit options is a major objective of the government in 2025. A commuter from Malahide can now travel to Finglas without having to first commute in to Dublin City Centre, as was the case in 2005. In addition, a concerted effort on behalf of the government is the pedestrianisation of the city centre. The adoption of more environmentally-friendly systems sponsored by the business community also contributes to improved air quality throughout the city and beyond.

In February 2004 the European Commission relaxed the rules in relation to State borrowing. From this time the State could allow the private sector to finance capital-intensive projects and spread the cost over periods of up to 20 years, considerably reducing the impact on the Government finances. The new, more relaxed rules applied where the project is financed by private investors who assume a significant element of the risk associated with the project. This measure facilitated the metro and second airport that was built between 2010 and 2025. Although they are now 50% underused, this trend is mirrored elsewhere and reflects a local and global downturn in Tourism. However, Fáilte Ireland initiatives to kick start the tourism industry are beginning to
have a positive effect. The GDA is being marketed at a global level as a cultural hotspot, of café bars and rich heritage and ‘craic’ for the discerning traveller of all ages.

The main driving force steering this new integrated approach to urban development is the Greater Dublin Council. Mooted at the start of the millennium but not created until 2008, this Greater Dublin Regional Authority has facilitated the much-needed coordination and joined-up thinking in terms of governing and controlling the development of the region in a manner that is economically viable, and socially and environmentally responsible. The GDA Regional Authority is an independent entity from central government and financed by local taxes. Attempts to improve local government to achieve greater transparency and accountability in the late 1990s also helped to fuel the momentum towards the need for a regional approach and thus the need for the GDA Regional Authority.

One of the most creative and innovative and indeed highly successful ideas proposed by the GDA Regional Council was the notion of a ‘Market Garden City’ and the reintroduction of allotments throughout the GDA. This idea of a self-sustaining economy was firmly rooted in the history and heritage of Ireland as an island. In the past it could be argued to have been rooted in an isolationist ideology; however, in 2025 it is firmly rooted in economic necessity and the view that the amount of vehicle miles travelled in order to put food on the table, as was the case in the early 2000s, is no longer a sustainable option. The idea of eating strawberries in December in Ireland in
2025 has long since been a thing of the past. This scenario sees an increase in locally grown foodstuffs with a greater reliance on fresh produce. Whilst the motivation for this trend is founded on prohibitively expensive energy costs, it nonetheless contributes to healthier eating habits, and a reduction in cardio-vascular problems and childhood obesity that caused concern between 2005 and 2015.

Challenges:
Whilst this scenario does indeed have an egalitarian feel it could be counter-argued in a sense that there would be reluctance in society to change consumption patterns. Allied to this are the challenges associated with slow growth in relation to property values, and under this scenario demand for industrial and commercial development is low. In such stagnant markets, it could be argued that the long-term goals of achieving sustainable development are considered a luxury despite the attempts of the good governance that is in place. In other words could this government be voted out in the short-term if society at large is not ready to be as resource-conscious as the government?

Winner Takes All Narrative:
2025 continues on the same dynamic as 2005, characterised by moderately high growth and weak planning governance. In this business-as-usual scenario urban development is characterised by a continuation of large mono-use estates alongside the growth of mixed-use development. The success of Adamstown, West Dublin and the inner city Docklands Spencer Dock continues to spur those in favour of a more integrated and
holistic approach to planning and development. This scenario sees the development of the very successful Darndale shopping centre, which commenced in 2007 and completed in 2010. This development in Darndale, a social housing estate in North Dublin, once renowned for its no-go status and anti-social behaviour, in 2025 has been awarded a silver medal in the tidy neighbourhoods of North Dublin competition. An award to be treasured when one considers the heavyweight competition from neighbourhoods in the nearby North Fringe extension. A number of factors contributed to the success of this social housing estate: the development of a community centre, followed by the location of a branch of Dublin City Council offices facilitated the local community in having more input into the future of their neighbourhood. The on-site Dublin City Council office enabled local people to deal more expeditiously with local issues, and having a permanent base in the community enabled Dublin City Council officials to have a more hands-on approach to local issues and see any challenges first hand and not on the end of a telephone.

Due to weak governance, the dynamic of developer-led development continues and 2025 is characterised by privately-owned land banks. It follows that, as in 2005, this trend results in the continual low-density spread of Dublin into the adjoining counties of Meath, Kildare, Wicklow and Wexford. In addition, in 2025 development has not stopped there; in fact commuters are now travelling from as far as Kilkenny and Limerick to work in Dublin. Paradoxically, whilst this trend persists as it did in 2005, efforts to promote the benefits of mixed-use design by a number of government policymakers continues, despite those who wish to maintain the status quo.
With regard to quality of life, whilst there is considerable fragmentation and disillusionment among commuters who spend on average 12 weeks per year in their car travelling to and from work, interestingly, there is an improved quality of life for those who have taken a leap and a break with tradition and opted to live in mixed-use design communities. Mixed-use design can facilitate a better balance in the spatial mismatch of where people live from where they work. Cleaner, greener technology now enables once incompatible uses to be mixed without compromising environmental quality as was evident in slums at the turn of the 19th century when the idea to separate incompatible uses originated. The adoption of best international design principles ensures that residential, retail and industrial uses can co-exist harmoniously. In this scenario Mary, a receptionist in a local business walks the 15 minutes to her place of employment from home. En route she meets Elzbieta, her Polish friend who came to study in Ireland in 2000 who is waiting for the tram to go to lecture in DCU. Elzbieta is one of many East European immigrants who came to live in Ireland and more particularly since 10 new countries joined the EU in 2004.

The EU has seen further enlargement since then with the entrance of the hotly-debated Muslim country of Turkey joining in 2012. Mary puts her son into the company crèche, subsidised for those who live in the locality. During her lunch Mary drops off some dry cleaning and picks up a sandwich to eat in the park beside her place of employment and some groceries for her tea. Ronan the shopkeeper is delighted to catch up on any local chitchat with Mary. Nonetheless, old habits die hard and there still continues to be a
culture opposed to higher density and more compact living. The compact apartment developments built between the 1990s and 2012 left a lasting distaste of higher-density and the view that higher-density is synonymous with a reduction in quality of life persists. One continuing trend in 2025 is the level of transient population in the older higher-density inner city developments. Once people get married and have children the desire for a semi-detached dwelling with its own front and back garden occurs as it did in the year 2005. Another factor in this scenario is the high concentration of immigrant ethnic groups in older inner city areas, deemed by some as no-go areas.

Nonetheless, it is envisaged that the benefits of living in well-designed and maintained mixed-use developments will increase as people tire of commuter lifestyles and the range of socio-economics costs associated with such lifestyles. When people move to the periphery they leave behind them an abundance of social and physical infrastructure including schools, tennis clubs, theatres, leisure centres and shopping facilities. This social and physical infrastructure is not always deemed by developers to be economically viable in low-density sprawling housing estates on the edge.

From a cultural perspective, the GDA in 2025 has pockets of racial tensions with some in the GDA asking “What is Irish?” Such ethnic conflicts are further compounded by the lack of clear rules and direction from the top down. The weak blend of governance evident in this scenario sees less focus on the benefits that may accrue from community participation. There appears to be an incompatible link between the long-term goals of achieving sustainable development and the short-term goals of present day and past
systems of governance. As a result, it could be argued that plans in the late 1990s to improve the governance system to make it more accountable and more transparent in an attempt to achieve better local government have not been successful to date. Alongside this is poor leadership, and not too many lessons learned by the myriad of past tribunals of enquiry. Of particular importance is the legacy of the Fallon (previously the Mahon and previously the Flood) tribunal into planning irregularities that commenced in 1997 and ended in 2015. Hard to believe, that after an almost 20-year planning tribunal, it is suggested that the brown envelopes persist.

_Challenges_

Under this scenario there is a fear that gated communities could become a popular choice for those in society who fear adjoining communities susceptible to socio-economic challenges. The system of weak governance in this scenario could result in a more competitive society where there are winners and losers. This would be fair if each member within society had an equal opportunity to compete. However, the introduction of college tuition fees in 2010 has seen a reduction in people from lower socio-economic backgrounds being in a position to get a third-level education. As it is now more expensive to get a third-level qualification, a certain sector in society are destined to work in lower paid service sector jobs. The model of governance in Ireland in 2025 reflects a right-wing Thatcherite model evident in the 1980s in the United Kingdom; however, a degree of decentralisation has gone some way to improve certain localities.

One negative outcome of this model is the distinct lack of a regional perspective deemed to have been fundamental in terms of urban development in many Western
European Countries such as Germany and the Netherlands. In relation to transport, in this scenario there exists a duality where the trend of auto dependency evident in 2005 persists; however, the last decades’ increases in oil prices has served to reduce the number of trips made. Leisure time for people is now enjoyed in the private sphere of the home in many of the homogenised housing estates sprawled across the GDA.
Appendix 8 Completed Feedback Form from SG Futures Workshops:

Feedback Questionnaire for Smart Growth Futures Workshops - August 2005

Thank you for your participation in the workshops, it was much appreciated. I would like to ask you to answer few questions regarding the workshop – its procedure and the content. Your answers will help me to improve any future exercises and to assess the value of conducting a scenario planning exercise.

1. What was your favourite part of the workshop and why?

Getting together in groups and having discussions. Because there were people from so many different backgrounds I think it was a great way to gather together new ideas.

2. What are the advantages of the process?

Working together in groups and giving feedback I think is a great way to gather new ideas.

3. What are the weak points of the process?

I think there was too much emphasis on form filling, which I think prevented the free flow of discussions.

4. What did you not like and what would you change and how?

I think there were maybe too many pointers and headings, which took away slightly from the central theme of the workshops.
5. What do you think about:

**Structure**: Good

**Timing**: Very good

**Facilitation**: Very good

**Quality of explanation of the process and its parts**: Very Good

6. Do you have any other comments?

I found the workshops very enjoyable and a great way of getting people from similar backgrounds together; it’s so unusual to get an architect and a planner together in one room to discuss any issue and I think it should be encouraged more. Many Thanks.
Appendix 9 – Interviewee quotes from Strategic Conversations

<table>
<thead>
<tr>
<th>Strategic Conversation Question</th>
<th>Interviewees Responses (Not entire list of all responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2: Do you think current urban development in Ireland is economically viable, friendly to the environment and is socially responsible?</td>
<td>The majority of the interviewees’ opinions about current urban development were that it is not economically viable, environmentally friendly or socially responsible. A lot of the current urban development is not economically viable and people have long distances to commute to work. “People have long commutes in the GDA and other major centres around the country, such as Cork, Limerick and Galway” (Councillor) At the moment it is becoming quite difficult to see how the development in the GDA can remain economically viable; however, it hinges on whether you are buying or investing. The current development pattern is economically viable for venture capitalists but not for first time buyers who cannot afford to buy property at current prices” (Planner 1) Current urban development is not environmentally friendly [five out of the eight interviewees (62.5%)] Development in the past was not environmentally friendly. Current planning legislation has resulted in more environmentally-friendly development. (Planner 2) Being friendly to the environment is as an imposition and not a choice. In other words, developers are now obliged by law to adhere to specific environmental protection criteria as part of the development process Developers do not see an economic benefit accruing from adopting environmentally friendly principles. [remaining three interviewees] A large majority (75%) of interviewees said that current development is not socially responsible Some development is socially responsible and some is not. Social responsibility is imposed and social planning is so complex. (Managing Director of Architecture Firm) There is more social awareness now, driven by EU legislation and by the reaction of local government to problems in their individual areas.’ (Manager of State Development Agency)</td>
</tr>
<tr>
<td>Q3: Do you agree that there is a need to find ways to accommodate urban development in a manner that is economically viable, friendly to the environment and is socially responsible?</td>
<td>All agreed.</td>
</tr>
</tbody>
</table>
| Q4: What is needed in Ireland in your opinion so that urban development can be accommodated in a manner that is economically viable, friendly to the environment and is socially responsible? | The responses to this question were broad and diverse; however, there was overlap and shared opinions on what is needed. Individual responses arguably reflect the discipline and sector that each individual represents. There needs to be a coordinated attempt to deal with this: decentralise power to the local level and they could tackle a lot of the issues. In the context of Dublin, there needs to be a Greater Dublin Area Local Authority with the power to tackle and deal with the issues such as transport and sewage of the GDA alone. Good local governance is required similar to that seen in other countries that have made progress in these areas. It's not that there are not good government officials or councillors; they only have partial control and no direct control. (Councillor) One of the main deficits is in public transport: “We’re in a city that has historically neglected its public transport infrastructure since WWII”. The car is the optimum transport unit. Even within the use of resources, there are more car-based choices made in Ireland rather than public transport. In the past in Ireland people would aspire to car ownership and usage and mass transit would always be the poor relation. Now that thinking is passé and “I think everyone accepts that a modern city needs good...
quality public transport and we now have the money to build it, but we're generations behind the
game". (Manager of Transport Association)

What is needed is a multidisciplinary skill set in the public sector to implement policy. There should be
development concessions on state land to force creativity and innovation. There should be "strings
attached to the disposal of state-owned land". There is a need for more education and the use of a carrot
and stick approach to achieve more sustainable development. (Property Developer)

There is a need for a Greater Dublin Authority to address the challenge of urban sprawl. The GDA is
going to grow and "I think we need to look at that holistically and not county by county and we need to
make sure that the development on the outskirts of Dublin is not to the detriment to the centre of
Dublin. (Manager of State development agency)

There should be a pilot testing of new policy ideas like Part V of the Planning and Development Act,
2000, to see if the policy is feasible and workable". (Property Developer)

That there is a need to do a retail development plan for the whole GDA to make sure that it is
economically viable and to make sure that jobs and retail are going in the right places. There is a need
for a review of the whole local and central government organisation and how it is set up and operates,
for example, the revenue of shopping centres may be spread throughout the whole of the GDA and not
just individual counties: "we're getting retail development in the wrong places to satisfy the needs of
the local authority". (Planner1)

What is needed is to follow up on the development plan, because we have it all set out there:
Implement our plan, I mean it's based on high-density public transport corridors, high-density nodes
which are linked to public transport corridors, and if that can be achieved then you don't necessarily
have to have the sprawl emanating out further and further all the time. (Planner 2)

There is a need for a more bottom-up approach to planning with more resources put into education and
awareness-raising in local communities. The importance of CDBs to advance a holistic approach in a
more democratic and transparent fashion than was hitherto the case is endorsed. The need for greater
interaction and exchange of ideas between all statutory and non-statutory social partners is deemed as
critical to future success. (Manager of State development agency)

There is one simple requirement: there has to be, we have to somehow get away from this, how I would
describe it, the importance of the individual. There is a collective benefit in terms of planning
infrastructure projects for the greater good that are being held up or cancelled costing astronomical
overruns simply due to the fact that somebody doesn't want it near them. I think that's got to stop,
whether it is a dump or an incinerator, NIMBYism. There must be some better way of deciding that
Dublin or the nation requires things and it just gets done: ‘If you look at the great projects in Paris, the
Mayor of Paris can actually literally drive through major projects’. (Managing Director of Architecture
Firm)

Q5: What lessons can be learnt from past and present urban development patterns?

The responses to this question are mostly concerned with the planning and development process.

In the past urban development had the advantage of Dublin being a smaller city. Some of the larger
towns and cities provided a good blueprint as to how a town or city should exist. A view is held that
things were more at hand and manageable. (Councillor)

Modern urban development is entirely dependent on the car: That's great in a sense that everybody
likes the freedom of a car; however, we have got to the stage where freedom of the car has become
oppression because of the fact that we are crammed in traffic jams so much and that provides a
challenge to think more imaginatively about how communities should be developed. In the GDA the
use of cars is just bringing things to a halt, and there is a need to take people away from reliance on the
<table>
<thead>
<tr>
<th>Q6: Can you name any obstacles that prevent Ireland from accommodating growth in a manner that is economically viable, friendly to the environment and is socially responsible?</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are a number of obstacles that relate to governance that prevent Ireland from accommodating growth in a manner that is economically viable, friendly to the environment and are socially responsible. The mentality that drives the biggest political parties (Fianna Fáil) is one of the biggest obstacles: “One of the problems with the party of Fianna Fáil is that it is based on populism, which implies that they respond to the latest pressure point and I think that is behind a lot of our problems, and the fact that they are in power so much of the time consolidates that problem”. (Councillor) [One example given to back up this view is the NSS running contrary to decentralisation plans as discussed in Chapter 2.]</td>
</tr>
<tr>
<td>Too much power is centrally held over issues that affect local communities, for example the LUAS (light rail transport system, opened in Dublin in 2004) was delayed for 2/3 years because of government interference. Such interference can cause delays in the delivery and an increase in the costs of projects. (Manager of State development agency)</td>
</tr>
<tr>
<td>The main obstacle is the political landscape, as Ireland is an extremely democratic country, almost to a fault, and “the planning process in Ireland, irrespective of what it is you want to construct, the planning is extremely tedious and slow and it mitigates against the efficient use of capital”. However, “it can be a good thing because some of these filters and hoops that make capitalists jump through can be very desirable”. (Planner 2)</td>
</tr>
</tbody>
</table>
The planning laws in Ireland are skewed in favour of the objector and tend to slow things down, and that mitigates against growth generally but also mitigates against sustainable growth and makes Ireland a tedious place in which to do business. (Property Developer)

Another obstacle is the inherited transport deficit and infrastructure deficit; it is particularly true in Dublin City and countrywide. Underdeveloped transport affects urban development. (Manager of Transport Association)

There is a lack of skill sets to implement policy. The current development pattern is not the sort of development that is good for a community and as such is not socially responsible. High density development has eroded a sense of community. (Manager of State development agency)

Political interference is a problem. Allied to this is the high (40%) Capital Gains Tax, which results in people holding on to their property. If the tax was lower there would be more turnover of property and this would in time generate tax at a lower level for the government. (Property Developer)

The planning system is too fast and maybe that's “where it's making all the mistakes; the mistakes are being made due to how quickly we need to be throwing out files”. Eight weeks is not enough time to actually assess the impact of huge developments on the future of Ireland. (Transport Association Manager)

Obstacles in the future will be developers and landowners holding on to land and not allowing Ireland to develop as it should. People hold on to land to make more money, which doesn't allow for the natural progression and natural development and expansion of villages and cities. (Planner 1)

A lack of public transport is the biggest obstacle. There are other factors like land costs; however this challenge isn't really solvable, as the whole development system in Ireland is left to the private sector to develop: “it's the private sector that are the main developers”. A comparison was made between local authorities in Ireland, who do not have land ownership control, and the Netherlands. In the Netherlands when local authorities draw up a plan they actually own the land on which they're planning. (Planner 2)

There are number of obstacles including built-in agendas, vested interests to maintain the current development pattern from all kind of levels, and possible ‘get rich quick merchants’. There are people building up land banks. In Ireland now there is a mindset and a culture of ‘get rich quick’: “possibly it has come from our history, a long history of deprivation and no self-government”. (Planner 1)

Ireland has a major problem with strategic planning. Why produce a plan if you're not going to implement it? (Property Development Manager)

There is no Greater Dublin Authority with the legal authority to proceed and implement the vision for the GDA. (Manager of Architecture Firm)

The obstacles are financial. The finance required for capital-intensive infrastructure projects that traditionally the government provides is needed and the people with the ability to implement infrastructure plans. (Property Development Manager)

Q7: In your opinion, who are the people driving urban development in Ireland today?

Government, local, national, EU and developers. There is a mixture of government, developers, county councils, and the European Union (EU), not necessarily in that order. (Councillor)

Overwhelmingly, it is the private sector and venture capitalists in various forms. Property developers as entrepreneurs are the main engines of economic growth at the moment. (Manager of transport Association)

County Councils, city manager writing development plans, the Department of the Environment, and the
Appendix 9 – Interviewee quotes from Strategic Conversations

Residential Density Guidelines. *(Property Development Manager)*

Developers. They're the ones, nobody else. *(Planner 2)*

The key question may be, “Is there a key group of people driving or is it being driven by certain sectors?” The development of the suburbs has been driven by developers rather than the councils as the developers, unlike the councils, have the finance needed for such development. It follows, that developers have a major say in development and where development takes place. *(Manager of State development agency)*

Developers are the guys that hold the land banks, which is not where it should lie. That's the big problem. *(Manager of Architecture Firm)*

It has to be the private sector at the moment and they're the various developers and there's not many of them because we're such a small country. *(Planner 1)*

**Q8: Are you aware of the use of Futures methods such as Foresight, Visioning Exercises and Scenario planning in urban development?**

The majority of the interviewees (75%) were aware of the use of Futures methods such.

I am aware of the use of Futures methods in urban development. They don't really take place, not within the formulaic titles used in the question. *(Planner 2)*

I am only aware of the use of Futures methods in terms of the preparation of the county development plan about how development is going to occur over the next six years. *(Property Development Manager)*

**Q9: Do you think the use of Futures methods could contribute to the process of urban development to ensure that urban development is economically viable, friendly to the environment and is socially responsible?**

Respondents were unsure in their opinion.

The use of Futures methods in urban development is a great way to ensure that development is economically viable, friendly to the environment and is socially responsible and economic viability should be run in tandem with this. *(Property Developer)*

It should be explored more, as many scenarios as possible, perhaps with the use of computers’ artificial intelligence (AI) but without replacing face-to-face communication. “I think that we cannot lose sight of who is going to live in the developments and the community should be involved in the scenario planning exercise; I think this is invaluable to the planning process” *(Manager of State development agency)*

If those exercises took place at national, regional and local levels, it might be an extra tool to use. Probably, Futures methods and scenarios are at least one can compare them and do some research before the development actually goes ahead. *(Manager of Transport Association)*

Maybe. I think all those devices are basically tools to test and find ways to achieve the vision, they will not create the vision, and you must have the vision first. *(Manager of Architecture Firm)*

Yes. I would have thought that that kind of criteria was essential. *(Planner 2)*

**Q10: Have you ever heard of the concept of Smart Growth?**

From the outset it is important to note that all the interviewees had completed the smart growth survey in February 2005.

Three interviewees (38%) had heard of the concept and five interviewees 62% had not.
**Q11: In your opinion is mixed-use design appropriate in an Irish context?**

100% of the respondents showed support for the use of mixed-use design within an Irish context. Yes, we need to move back in that direction. *(Councillor)*

Mixed-use design is appropriate in some areas but not in others, for example, it is more suitable in city centre developments. *(Manager of State development agency)*

“What is an Irish context? If we look back in history, Ireland had all these little villages with mixed-use design, with people living over shops, people living in rural areas in farms living beside where they work. Without a doubt, mixed-use design is Irish and should be retained with any future urban design and development in any way”. *(Planner 1)*

Mixed-use design is appropriate in an Irish context. *(Property Developer)*

**Q12: Do you have any comments that you would like to share with me with regard to the questions asked earlier?**

All respondents 100% felt they had discussed their views in enough depth and were satisfied to conclude the conversation at that point.
Papers published by Dorothy Stewart,

Smart Growth and Sustainable Development: Two concepts with one meaning?

**Paper written and presentation made at:** International Postgraduate Research Conference in the Built and Human Environment, Salford, Manchester, March 2004.

Smart Development for Brownfields: A Futures Approach using the Prospective through Scenarios Method

**Paper written and presentation made at:** Second International Conference on Brownfield Sites: Assessment, Rehabilitation and Development, in association with Wessex Institute of Technology, United Kingdom, and University of Siena, Italy, June 2004.

Smart Growth and the Irish Professional Land-use Stakeholder: From Rhetoric to Reality

**Paper written and presentation made at:** Institute of Technology, Blanchardstown, Research and Innovation Seminar, April 2004.

Smart Growth in Ireland: From Rhetoric to Reality?

**Paper written and presentation made at:** International Postgraduate Research Conference in the Built and Human Environment, Salford, Manchester, April 2005.


Smart Growth: A buffer zone between decentrist and centrist theory? (2006)