Futures thinking in city planning processes: the case of Dublin.

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Appendix 1
Appendix 1 discusses models of change. It is based on Linda Groff's article Models of change, with examples of key issues in the futures studies field (2003). The first part presents the general models (linear, cyclical and dialectical). The second part deals with the models of change that attempt to explain the changes occurring today, such as models of accelerating growth, S-curves, step jump, evolutionary spirals, alternation between chaos and order and acceleration of accelerating change. These models are of a special interest to futurists at present. Recognition of a more specific pattern of change, which a phenomenon follows and establishing its position within the model allows imagining more clearly and adequately the future of this phenomenon.

(I) General models

**Linear models**

- **Changes through different stages (A, B, C, D).** Assuming that the rate of change will be maintained and that the future will be different from the present it could be also assumed that to get from one state to another the changes will go through different stages. These phases of change can be illustrated as follows:

\[
A \rightarrow B \rightarrow C \rightarrow D
\]

An example of the process of evolution through successive stages can be evolution of civilisation going through different stages of technological and social development, including hunting and gathering age, agricultural era, industrial revolution, information age and postinformation epoch (Groff 2004)

- **Linear predictable change (change in A leads to predictable change in B)** (Fig. 1). The model of linear growth is one of most common and popular models of change. The future is being seen as an extension of the past and as predictable. The change from one state to another is slow and gradual.
Fig. 1 Linear, predictable change (Groff 2004:86)

An example of such a change can be Darwin’s theory of evolution, which assumes that the biological evolution, from one group of organisms to another happened through a slow, regular alteration (Groff 2004)

Cyclical models

- Cyclical change through sequential points or stages (Fig. 2). In this model change is cyclical and it goes through a series of recurring positions or stages. An example of cyclical change is the change of seasons. Another example is P. R. Sarkar’s model of the rotation of power within any society between four main groups: the military, intellectuals or academics, business and the people. This model is based on the Indian caste system. The model can start in any stage of the circle, but the order of stages is always the same. Each group comes to power because it has something that is needed by society, and the group holding the power lacks. The group can hold a power only for a certain length of time until its weaknesses and failures appear. Then a new group, which can fulfil the existing gaps, takes over the power. (Groff 2004)

Fig. 2 Cyclical change through sequential points or stages (Groff 2004:87)
- **Cyclical change through non-sequential points or stages** (Fig. 3). In such a model change is cyclical, but the movements between different stages lack any particular order. An example of such a change is the rotations of people in leadership positions or jobs within an organisation. (Groff 2004)

![Fig. 3 Cyclical change through non-sequential points or stages. (Groff 2004:89)](image)

- **Cyclical change between two points or poles over time** (Fig. 4). This model presents change as it rotates between two points or two opposite situations over time. An example of such a type of change is alteration within an economic system between expansion and contraction, or boom and bust. (Groff 2004)

![Fig. 4 Cyclical change between two points or poles over time (Groff 2004:89)](image)

**Dialectical models**

- **Dialectical change between thesis, antithesis, and synthesis** (Fig. 5). In this model one situation (thesis) leads to opposite situation (antithesis) and in result of their interaction there is a new situation created (synthesis). Synthesis includes elements of both previous situations – thesis and antithesis. The synthesis becomes thesis and the process begins all over again. (Groff 2004) Although the change has
cyclical character, the final situation of each cycle is different and in long-term leads in certain linear direction.

Groff (2004) as an example of such a type of change gives capitalism that began with the industrial age. It led to socialism, which was an industrial age critique of capitalism. An interaction between both systems led to new global economic order. It seems that the new global economy includes elements of both, capitalism and socialism. Groff argues though that only socialism has changed, while the new global economy is based on capitalism.

\[ \text{Fig. 5 Dialectical change between thesis, antithesis and synthesis (Groff 2004:91)} \]

(II) Models explaining the changes occurring today

- **Accelerating growth** with negative ‘doom and gloom’ example and with positive ‘breakthrough’ example. (Fig. 6) This model is based on the assumption that change is accelerating at a steady pace. Groff (2004) argues that it is necessary to identify the growth rates early in order to prepare for the change and to develop adequate policies dealing with its consequences.

There are negative and positive images of future portraying consequences of the accelerating growth. The negative perception leads to ‘doom and gloom’ vision of the future. An example of such thinking could be a growth rate of interrelated global factors, such as increase in population numbers leading to: a raise in demands for food and energy, degradation of natural environment and depletion of
non-renewable resources. The positive 'breakthrough' visions of the future can be illustrated by the growth rate of people interested in personal development and transformation.

![Graph: Accelerating growth](image)

**Fig. 6 Accelerating growth (Groff 2004:92)**

- **S-Curves.** The model of S-curves could be considered as successive to the model of accelerating growth. After a phase of accelerating growth the system can reach a point or a state of 'limits to growth'. This situation is characterised by lack of adequate resources needed to ensure unlimited future growth of the entity. When the point of 'limits to growth' is reached, it causes a major crisis within the system. Different ways of coping with this critical situation can lead to the steady-state growth (Fig. 7), the breakdown and deepening crisis (Fig. 8) or the breakdown followed by a quantum jump/breakthrough to a new system level (Fig. 9). (Groff 2004)

![Graph: S-Curve](image)

**Fig. 7 S-Curve (accelerating growth followed by 'limits to growth') leading to 'steady state' growth (Groff 2004:94)**

An example of the S-curve leading to 'steady-system' growth can be further evolution of human civilisation, if the principles of the sustainable development will be implemented and the unsustainable growth and exploitation patterns changed (Groff 2004).
An example of the S-curve model leading to breakdown and deepening crisis is outbreak of a dangerous disease, for instance, plague wiped out one third of Europe's population in 14th century.

Fig. 8 S-Curve (accelerating growth followed by 'limits to growth') leading to breakdown (Groff 2004:95)

An example of S-curves leading to breakdown of the system followed by a quantum jump/breakthrough to a new system can be the Second World War and development of nuclear bomb. The war was a crisis situation to which development of nuclear bomb was a response. Research on nuclear energy aimed to assist US in ending and winning the war, but became a breakthrough that has opened up a new chapter in human history (Groff 2004).

Fig. 9 S-Curve (accelerating growth followed by 'limits to growth') leading to a breakdown of the system followed by a quantum jump/breakthrough to a new system level (Groff 2004:96)

- **Step jump model** (Fig. 10). In this model the change has a form of a sudden jump to a new system level. The shift occurs suddenly and, if compared to the last discussed S-curve model, there is no crisis situation. An example of such change can be transformation of water from ice to liquid form and to steam, or emergence of a totally new idea that for instance moves the thinking to another level.
Fig. 10 Step jump model: a sudden change to a totally new state or system level  
(Groff 2004:97)

- Evolutionary spiral (Fig. 11). This model brings together the Eastern cyclical model and the Western linear model. In this model the crises (A) within the existing system stimulates innovations (B), which lead the system into a new phase of its development (C) (Groff 2004).

Fig. 11 Evolutionary spiral: combination of cyclical/eastern model and linear/western model of reality (Groff 2004:98)

- Chaos theory (Fig. 12). In this model a known recognisable pattern of change within an existing system can suddenly become a chaotic, turbulent and unfamiliar. But out of the chaos a new focal point emerges, around which a fresh order is created. In recent years, as complexity of the world increases, chaos theories are gaining importance. The swinging between order and chaos are used, among others, to explain weather patterns and fluctuations in the stock market.(Groff 2004)
Fig. 12 Chaos theory: alternation between order (recognisable and usually predictable pattern of change within a system) and chaos (an unrecognisable pattern of change) (Groff 2004:100)

- Acceleration of accelerating change (Fig. 13). This model is based on assumption that the rate of change increases in a given unit of time and within the same evolutionary curve or cycle. An example of such a change can be the early evolution of the universe, when there was an acceleration of the number of the new stars that were formed.

Fig. 13 The acceleration of accelerating change -- from one unit of time to the next within the same evolutionary curve or cycle of change (Groff 2004:101)
Appendix 2
Examples of projects, which used futures methods in urban planning

Contemporary cities are subjected to continuous rapid changes and the uncertainty of their outcome. In order to prepare for these changes and their consequences urban planners and decision-makers increasingly apply futures methods and techniques in the course of their work. In this Appendix examples of different cities and urban regions (Lyon, Vancouver, Bilbao, Catalonia) that have employed futures methods in order to set direction for their future development are presented.

Each example is discussed in regard to: origins of the project; organisational matters, such as structures, resources, participants; applied methodology and the outcomes and outputs of the project.

1. Lyon Millenaire 3 – “21 priorities for the 21st century”

Background of the project

Lyon is the third-largest city in France with 1.3 million people inhabiting the Greater Lyon area. Once it used to be the main French city and a major European centre. It has a long business tradition that continued through the centuries and sustained the city’s thriving prosperity and international position. Lyon’s status has declined with the rise of Paris and as a result of the administrative changes in the 1960s. The city then became a capital of the new Rhone-Alpes region, but its role was not recognised by other economically independent sub-regions like the Saint-Etienne (Le Gales 1994).

The territory of Greater Lyon is divided among fifty five municipalities. A highly fragmented and weak local government system, urban sprawl, social problems and a need to improve the national and international competitiveness of the region underlined the development of the Millenaire 3 project.

The Millenaire 3 programme was launched in 1997 by Raymond Barre, Mayor of Lyon and President of Greater Lyon. Leadership of locally, nationally and internationally influential former French prime minister ensured political support and provision of resources necessary for the project realisation (EC 2002).

The programme aimed at providing the conurbation with a comprehensive, integrated development programme consistent with the sustainability principles that would enable
Lyon to improve its international ranking and achieve social cohesiveness (EDURC 2000). One of the great challenges for the project was to bring together all 55 municipalities forming the region so as to create a coherent whole, and then engage the representatives of all sectors of society (local government agencies, business circles, academia and community groups) in the development of the strategy.

Similar future-oriented approaches were undertaken by previous administrations. For example, in 1989, Michel Noir was elected Mayor on the back of a new economic development strategy called “Lyon 2010”, which envisioned the city in 20 years time. Much of the content of “Lyon 2010” was a continuation of the infrastructure projects initiated by previous governors. While the previous initiatives focused mostly on the built environment, the Millenaire 3 has given more attention to human, social and cultural agenda (EC 2002).

Structure, organisation, resources, participants

Millenaire 3 is an ongoing activity that has an annual budget of €1.4 million, which is provided by the Greater Lyon public authority. The time horizon used is variable but stretches as far out as twenty years ahead. The project is entirely co-ordinated, managed, resourced and communicated by the Greater Lyon’s local authority. The Forward Planning and Strategy Unit (MPS) is responsible for the operation, communication and promotion of Millenaire 3. The Unit directly reports on its activities to the Secretariat General – the central part of the local authority.

Thousands of people from different fields have been engaged in this project through variety of means. Central to the project realisation was effective use of marketing techniques in raising awareness, communication, promotion and generating the sustained commitment and participation of various groups and individuals (ibid).

Methodology

The Millenaire 3 approach was based on the assumption that planning for the future can no longer be left entirely to specialists and that it should be based on the cooperation of all actors involved in shaping the city. Therefore great emphases were placed on generating an active involvement of a large number of Lyon’s citizens. Individuals and groups across the Metropolitan region were invited through the media, leaflets and letters to participate in various meetings, open forums and group
discussions. Participants were asked to propose their own ideas regarding the future of the city through discussion. Along with these, in-depth interviews were conducted with key players in the city, including national government, Regional Council, University, Chambers of Commerce and Trades, employer organisations, trade unions and cultural and religious institutions. The outputs of these discussions and interviews were recorded in the form of research reports. These were later used in the formulation of proposals for the development of the city over the next twenty years (ibid).

The approach adopted was based on the working groups for the key phases of the project. At the beginning a committee of experts was assembled to consider the strengths, weaknesses, opportunities and threats (SWOT) facing Greater Lyon. A number of methods were used in order to foster public debate, including:

- Regular Forward Planning Sessions, which provided a forum for public discussion on the issues like socio-cultural change in the Greater Lyon, memory and identity, work and job training, knowledge, leisure and so forth. Between 100 and 250 people participated in these sessions, which lasted from half to a full day.

- Small ‘Working groups’, whose task was to find solutions to the challenges currently facing the city and to come up with proposals of specific actions. The members of these groups were drawn from civil servants, elected members of the Urban Community Council and representatives of other bodies and civil society.

The vision of the Lyon’s future was included in twenty three themed reports produced within the exercise. There was no a single ‘shared vision’ developed, but the future was shown through a collection of different perspectives and points of view (ibid).

Outputs and outcomes

In September 2000 the set of proposals for development of Greater Lyon “Conurbation Project: A Competitive, United City – 21 Priorities for the 21st Century” was presented to the public. The results of the project were debated by the Urban Community Council and also the Greater Lyon Council voted on the proposals presented.

The vision developed within the Millenaire 3 framework describes Greater Lyon through five strategic policy themes:

- An international, culturally receptive city
- An attractive, liveable city
- A city that fosters the spirit of enterprise
- A city conducive to lifetime learning
- A city putting consultative democracy to work

Within each of these policy themes a number of more detailed objectives was specified. The total number of priority objectives was twenty one, thus: “21 priorities for the 21st century”. The results have indicated that the focus was placed on “How?” rather than “What?” issues (ibid).

As noted earlier, Millennaire 3 is ongoing activity. Two out of twenty one priorities are related to the continuation of the programme. The twentieth priority was realised through establishment of the Development Council, whose role was to enable society to participate in the development of the region as provided by the legislation on territorial planning and sustainable development. The Council consists of more than 300 people, including representatives of official bodies, qualified public Fig.s, community association representatives and citizens. Its role is to monitor social problems and issues, continuously look at major problems facing the city region, organise discussions on these matters and consult on the conurbation’s projects and their implementation. The realisation of the twenty first priority involves making the Millennaire 3 a permanent approach through establishment of the Conurbation Prospection and Strategy Taskforce. Its role is to manage the Development Council and to pursue the Urban Community’s internal prospective and strategic research, to follow-up, evaluate the conurbation project and to suggest adaptations arisen from the change of the circumstances.

The project helped to establish a stable relationship based on trust between the civil society and the Greater Lyon. It strengthened the role of Lyon Urban Community as a coordinator and mediator at the regional level and contributed to a change in its approach to shaping and implementing Greater Lyon’s strategies. The approach led to the synergy of three functions: public debate, networking of actors and projects. Public debate, a key aspect of Millennaire 3, enabled the exchange of views and ideas and helped to build relationships based on trust. Networking of actors helped to overcome sectoral divisions and established an ongoing debate between stakeholders. Millennaire 3 has led to emergence of new projects and initiatives, which ensure continued mobilisation of actors and provide fresh visibility for non-mainstream actors and forces rising within the metropolis (ibid).
2. The Long-term Plan for Greater Vancouver

Background of the project

The 100-year plan for Greater Vancouver was developed as Canada’s response to an international competition on Sustainable Urban Systems Design, sponsored by International Gas Union. Greater Vancouver, selected through a national process, was chosen because of the diversity of municipalities and development models that form the metropolitan area. This decision was also based on the fact that the results of the study could be used by the Greater Vancouver Regional District (GVRD) in developing a long-term economic, social and environmental strategy. Greater Vancouver Regional District, a federation of twenty one municipalities, was established to plan and develop urban systems in the region. The GVRD collaborates with another regional organisation – the Greater Vancouver Transport Authority in order to deliver services and manage growth of the metropolitan area. Development of a strategy that envisions a long-term sustainable future aimed at aiding short-term decision-making. The strategy was set to be a guide in formulating new policies and enabling change in a short-term perspective (Cities PLUS 2004).

Greater Vancouver, located on the west coast of Canada, has a population of 2 million people and with 650 000 immigrants from all over the world is one of the most multicultural regions in the world. The economy of the city is based on trade and industry. Vancouver’s traditional role as a trading hub is linked to the Pacific Northwest’s deepest salt-water port. Greater Vancouver due to outstanding natural surroundings, walkable neighbourhoods, safe streets and diversity of urban environments is often placed among the most attractive cities in the world to live, work and play. It was hoped that the long-term plan would enable to protect and enhance Vancouver’s exceptional qualities (ibid).

Structure, organisation, resources, participants

The project was run through co-operation of the Sheltair Group (a private planning consulting company), the GVRD (the public sector client), the Liu Institute for Global Issues (a university based think tank) and the International Centre for Sustainable Cities (a civil society organisation). It was financially supported by a wide range of sponsors, who over time became active participants and played an important role in development of the strategy. The exercise took eighteen months to be completed. Five
hundred individuals representing public, private and civil sector actors were engaged in different phases of the process, from preparing foundation reports, to developing future scenarios and taking part in a series of workshops (ibid).

Vancouver received support from other Canadian cities, federal departments, civil society and the private sector in realisation of this project.

**Methodology**

The study is focused on the area of Greater Vancouver. The first step in the process was learning to look at the metropolitan region as an integrated urban system - a living organism.

The methodological approach adopted by Vancouver was based upon the Adaptive Management Framework. The concept of adaptive management comes from ecological sciences, where it is used to describe a way in which social systems interact with natural systems and how they adapt to unexpected events through continuous, long-term adaptive management processes. It is a framework approach that creates links between strategies and goals, and incorporates feedback and accountability. Adaptive management is also used in social science, business and urban planning.

Adaptive Management Framework could be described as a pyramid (an example is given in Fig. 8) that has a vision for the desired future at the zenith, and then is built from more detailed levels including goals, targets, strategies and implementation policies and technologies.

The approach used to develop the long-term future vision for Greater Vancouver involved three main phases:

1. **Envisioning the future of the region.** The first step in this phase was defining the region as one system, in which interactions were occurring continuously between people, environment, infrastructure and the administrative structures. Next the core themes underlying the vision were identified and the components of the urban system were evaluated through foundation papers outlining the limitations for each of them. Also the strengths in the form of assets and past successes were recognised. All of these fed into the creation of an image of Vancouver’s desired state in hundred years time. This image was consistent of one broad vision and a
set of specific visions and series of goals for each component of the urban system.

(2) **Exploring the options.** Firstly the impact of driving forces shaping the next decades was assessed through application of forecasting techniques. Next a set of measurable 100-year goals was proposed for each of the urban system components. And then the current situation was recognised and the critical path between the 100-year goal and current situation was defined. The scale of required changes to achieve the critical path was assessed and the best practices to put Greater Vancouver on the right path were identified. The last step in this phase was development of backcasting scenarios, which outlined how specific strategies and best practices can be connected over time in order to create a trail leading from the current state to envisioned desired future situation.

![Diagram of the Adaptive Management Framework](image)

**Fig. 1. The Adaptive Management Framework (Cities Plus 2004).**

(3) **Implementing the plan.** The focus in this stage was on developing integrated strategies that would guide the implementation plans. Integrated Design Workshops involving a wide range of stakeholders were used to envision the transformation. Finally a series of short-term implementation steps were identified and roles for a wide range of stakeholders were defined (ibid).

*Outputs and outcomes*
Among the main outputs of the project were the 100-year plan itself, transferable methodological framework and established networks of people.

The plan represents a substantial change in planning practice towards integrated comprehensive planning. In the past the GVRD would develop its strategic direction from a series of separate plans each with its own vision, goals, time-scales and structures. Connections and interactions between different components of the system were rarely acknowledged or examined. Often some of the system’s components, such as energy and economics, were neglected or treated as unimportant. The new long-term plan treats the urban system as an integrated whole, where all urban elements are taken into consideration and all are to be transformed accordingly to the set of visions, goals and strategies.

The Adaptive Management Framework, the methodological base of the project, can provide a model for long-term planning that could be adapted by other urban areas trying to implement sustainability principles.

The Greater Vancouver Regional District (GVRD) recognised the project as very beneficial for the establishment of new partnerships, clarification and stimulation of the commitment to urban sustainability and creation of learning networks at the regional, national and international levels.

Development of the plan has engaged a wide range of actors representing all sectors and all levels of government in a collaborative process based upon communication and trust. Importance of collaborative process was stated by J. Carline, Chief Administrative Officer of the GVRD:

"The Cities Plus project reinforces the power of the collaborative process. This helps to develop rich solutions and to ensure that the ownership of the solutions are rooted in the community so that they will be implemented." (Cities PLUS 2004).

It has been recognised that the 100-year horizon helped to look forward leaving behind current preoccupations and vested interests. The extrapolative and backcasting scenarios were powerful tools in the process, which was as important as the plan itself. The process enabled to see the region and its people differently and helped to generate informed choices today (ibid).
3. Barcelona – Catalonia 2010

Background of the project

Catalonia is an Autonomous Spanish Community inhabited by 6 million people. Barcelona with 1.6 million people is its main urban centre. In the late 1980s Catalan Regional Government (Generalitat) decided to undertake an exercise that would help to anticipate future developments in the province and that would generate debate on the long-term positioning of Catalonia in the Mediterranean region. It was hoped that widely spread debate would help to establish region’s internal image – what does Catalonia mean for Catalanians, as well as its national position within Spain and its international status in Europe. In 1989 Generalitat founded the Institut Català d’Estudis Mediterranis (now called ICM – Catalan Institute of the Mediterranean), which became a coordinator of the Catalonia 2010 project.

The focus of the study was very broad. All aspects of Catalanian society were taken into consideration – culture, politics, economy, demography, spatial planning and so on. A lot of emphasis was placed on consideration of international links and possibilities of trans-national cooperation between local authorities (EC 2002).

Structure, organisation, resources, participants

The project was financed by the Presidency of Generalitat and coordinated by the ICM and Futuribles International. The core working group had thirteen members. The direct sponsorship of Generalitat gave the project a high level of transparency and allowed stakeholders representing different sectors to buy into it.

The study began with a series of meetings with all departments of the regional government. These meetings were held firstly, to introduce the project and secondly, to identify the relevant future-oriented and strategic work that has been done in the areas covered by the study. At the same time a list of experts specialised in the focal areas was drawn. The participation of experts-stakeholders took various forms throughout the study. Among them were working groups, reports and detailed background documentation preparation, Delphi and other types of surveys, workshops and seminars (ibid).
Methodology

The project was carried out in four main stages. In the first phase the main forces shaping development of the province up to 2010 were identified through the system analysis. MICMAC method, created by M. Godet, was used to determine the driving forces of change that would be characterised by the highest impact and the highest uncertainty of their outcome.

The second stage comprised the study and analysis of the morphology of the Catalan system over next two decades. This led to identification of six main sub-systems in the Catalan morphology:

1. Demographic evolution.
2. Territorial planning: land use, infrastructure and communications.
3. The productive system.
4. The labour market and social protection.
5. The dynamics of Catalan society.
6. The geopolitical and institutional framework.

Trend analyses of the variables were carried out in this phase. Special attention was paid to possible ‘break-points’ or ‘inflection-points’ that could be caused by events or intentional actions. This was connected to the examination of the strategies of various actors involved looking in depth at possible partnerships, conflicts and resources available to them.

In the third phase each of the sub-systems was examined in detail, also a series of hypotheses and related micro-scenarios were developed. Analysis and projections of the sub-systems dynamics was the longest and the most difficult part of the study. A number of different methods were used to accomplish it, including desktop research, surveys distributed among different sectors of Catalan society, single round of Delphi survey and opinion-poll type of surveys.

The last fourth stage involved creation of global scenarios. Five global scenarios of different type were developed:

1. Transition trend scenario to 2000 – “Catching the train on the run”.
2. Favourable trend scenario to 2010 – “Catalonia, they motor of Europe”.
3. Pessimistic breakdown scenario to 2010 – “A marginalised Catalonia”.

298
(4) Alternative discontinuous break scenario to 2010 – “A new development strategy”.

(5) Involuted discontinuous break scenario to 2010 – “An introspective Catalonia” (ibid).

Outputs and outcomes

The most concrete result was publication of the final report that summarised the work carried out over three years. The report published in three languages: Catalan, Spanish and French, became an essential reading for all – politicians, officials of all government tiers and actors from the private sector. It became a widely used reference in political debates and policy-making processes. It introduced a whole range of new theories and terminology.

The results of the study were communicated and reflected upon in a series of twenty four seminars, which took place around the whole region. ‘Catalonia 2010’ project was widely covered by press through synthetic articles, commentaries and special reports. The study has not been continued neither specific evaluation was undertaken (ibid).

4. Revitalisation Plan for Metropolitan Bilbao

Background and scope of the project

Bilbao, situated in the Spanish Basque Country, within its metropolitan border is a home for about 1 million people spread around thirty municipalities. The region is the fifth most populated metropolitan area in Spain. Traditionally the economy of the city was based on steel and shipbuilding industries. As a result of the global shift from industry to service based economy, Bilbao has been struggling with severe economic, social and environmental problems. The fears for the future of the city led to the mobilisation of local actors and as a result an extensive planning action was undertaken in 1989 at the request of the Basque Government and the Bazkaia County Council. This action was underlined by the belief that the ability of Bilbao to compete internationally was bound to the improved quality of life in the area and upgrading its infrastructure with special emphasis on communication facilities. In 1992 Strategic Plan for the Revitalisation of Metropolitan Bilbao was launched. The plan envisioned
metropolitan Bilbao as open, plural, integrated, modern, creative, social and cultural 21st century city-region (TRANSLAND 1999).

Structure, organisation, resources, participants

A public and private partnership body - ‘Bilbao-Metropoli-30’ (Association for the Revitalisation of Metropolitan Bilbao) was founded in order to develop a new vision for the future of the metropolitan region and prepare a regeneration plan divided up into easily legible projects. The organisation has ten members of staff and 2 million euro of annual budget (EDURC 1999).

The main tasks of the Association for the Revitalisation of Metropolitan Bilbao are:
- implementation of the Strategic Plan,
- promoting the project and the region itself,
- conducting research on issues regarding Metropolitan Bilbao and carrying out studies of other cities that could be beneficial for the project,
- encouraging collaboration between public and private sectors in order to find mutual solutions to the problems facing the region (TRANSLAND 1999).

Up to 1996 16 billion euro was invested in the projects that have arisen from realisation of the plan. The financial support came from the local authorities, private sector and the European institutions (ibid).

Over three hundred people from the public and private sector have been involved in the process, including twenty nine local and regional authorities, two universities, fifty one enterprises of various size, twenty two non-profit organisations and twenty six associates, such as embassies, foundations and museums.

Methodology

The prospective methodology was used as a foundation approach for development of the strategic plan. Great emphases were placed on the process, in which the plan was developed. Committees comprising experts, representatives of different sectors and decision-makers took part in the process, which consisted of three main phases: planning, implementation and evaluation. In the first phase detailed analysis of Bilbao were conducted, then future scenarios were created and set of strategies was developed. Next out of these strategies the plan of action was established (EDURC 1999).
The most important phase of the process was evaluation. Evaluation has been recognised as essential due to the constant changes occurring in the city that bring a need for regular updates of the plan and a need to examine the impacts of the implementation of the plan on the city-region. Bilbao-Metropoli-30 has produced a range of tools for measuring the impact of implementation of the plan on city’s physical, social and human resources, and also on citizens’ satisfaction. These include:

- A set of 85 ‘prospective indicators’ that combine quantitative and qualitative measures. Their relevance is assessed annually. They provide critical information on future trends and are also used in checking the validity, reliability and legitimacy of the overall approach.
- ‘Benchmarking’, which involves comparisons of results of strategic approaches applied in other cities. This feeds into the process itself and into the annual evaluation report, which summarises previous year and sets out the next planned steps. The report is also a form of communication of the project results with the public (ibid).

Evaluation methodology used by Bilbao-Metropoli-30 has raised a number of questions at local level:

- How to bring together urban and strategic planning?
- How to evaluate the overall impact of a strategic plan above and beyond the actual projects involved?
- How to foster citizens’ participation in the evaluation process?
- How to match effectiveness with participation in the evaluation process?
- What type of indicators, objective or perception based, are more relevant?(ibid).

Outputs and outcomes

One of the most important outputs of the project was the strategic plan that aimed at improving the quality of life for Bilbao citizens through enhancing the quality of urban environment and increasing the international competitiveness of the metropolis. The plan outlined a set of eight themes essential for realisation of these aims:

- Investment in human resources.
- Service metropolis in a modern industrial region.
- Mobility and accessibility.
- Environmental regeneration.
- Urban regeneration.
- Cultural centrality.
- Co-ordinated management by the public administration and the private sector.
- Social action.

Arising from the plan a number of physical projects were completed or are under construction:

1. The Guggenheim Museum, which opened in 1997, has attracted 1.3 million visitors in its first year. It generates 0.47% of the Basque Country’s gross domestic product. The museum is one of the major tourists attractions of the Basque region and the whole of Spain.

2. The Euskalduna conference and concert hall that comprises of convention room with 2200 seats, three theatres and several lecture theatres, opened in 1999, is hoped to enhance cultural and business sectors in the city.

3. The Waterfront – mixed-use cultural and business quarter created on a brownfield site,

4. Infrastructure projects: the underground railway, new air terminal, port enlargement, and intermodal transport zone.

The project has been very effective so far. 50% of the initiatives proposed have been completed. The success is due to the methodology applied, which led to mobilisation of a wide range of actors and allowed development of a collective dialogue between them. This generated commitment to capital and human resources and economic efficiency. Significant role to play in the project’s success has the participatory evaluation approach that sustained the momentum of the process and led to increased awareness in the city (ibid).
Appendix 3
List of people with whom strategic interviews were conducted.

<table>
<thead>
<tr>
<th>Name of the interviewee</th>
<th>Organisation / contact details</th>
<th>Date of the interview</th>
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</thead>
<tbody>
<tr>
<td><strong>Academia</strong></td>
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<tr>
<td>1 Brian Hughes</td>
<td>DIT</td>
<td>10/11/03</td>
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<tr>
<td>2 Prof. John O'Hagan</td>
<td>Trinity College</td>
<td>1/6/04</td>
</tr>
<tr>
<td></td>
<td>Prof. of Economics and College Bursar</td>
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<tr>
<td><strong>Local government</strong></td>
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<tr>
<td>3 John Fitzgerald</td>
<td>DCC, City Manager</td>
<td>10/3/04</td>
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<tr>
<td>4 Michael Gough</td>
<td>Dun Laoghaire-Rathdown County Council</td>
<td>14/5/04</td>
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<tr>
<td></td>
<td>Senior Planner</td>
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<tr>
<td>5 Paul Hogan</td>
<td>South Dublin County Planner</td>
<td>14/7/04</td>
</tr>
<tr>
<td>6 Dick Gleeson</td>
<td>DCC, Senior Planner</td>
<td>26/4/04</td>
</tr>
<tr>
<td>7 Senan Turnbull</td>
<td>Fingal County Council, Fingal Development Board</td>
<td>27/1/04</td>
</tr>
<tr>
<td>8 Elaine Hess</td>
<td>Dublin City Development Board</td>
<td>5/2/04</td>
</tr>
<tr>
<td>9 Mary Darley – Regional</td>
<td>Strategic Planning Guidelines</td>
<td>26/1/04</td>
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<tr>
<td><strong>Central government</strong></td>
<td></td>
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<tr>
<td>10 Niall Cussen</td>
<td>DoE, Spatial Policy Section</td>
<td>10/2/04</td>
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<td><strong>Governmental and non-governmental agencies – stakeholders</strong></td>
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<tr>
<td>11 Brian Geoghan</td>
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<td>12 Matt Moran</td>
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<td>25/2/04</td>
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<tr>
<td>13 Rory O'Donnell</td>
<td>NESC</td>
<td>13/2/04</td>
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<tr>
<td>14 Tom Coffey</td>
<td>DCBA</td>
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<tr>
<td>15 Declan Martin</td>
<td>Dublin Chamber of Commerce</td>
<td>16/3/04</td>
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<tr>
<td>16 Conor Simpson</td>
<td>IDA</td>
<td>24/5/04</td>
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<tr>
<td>17 Helena Acheson</td>
<td>FORFAS, Competitiveness and Innovation Division</td>
<td>22/3/04</td>
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<tr>
<td>18 Adrian Devitt</td>
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<tr>
<td>19 John Henry</td>
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<td>20 Karl Kent</td>
<td>An Bord Pleanala</td>
<td>10/3/04</td>
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<tr>
<td>21 Gerard Burns</td>
<td>DDDA</td>
<td>30/4/04</td>
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<td><strong>Consultants / researchers</strong></td>
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<tr>
<td>22 John Fitzgerald</td>
<td>ESRI</td>
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<td>23 Conor Skehan</td>
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<td>9/6/04</td>
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<td><strong>Community</strong></td>
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<tr>
<td>24 Patrick Gates</td>
<td>Dublin Inner City Partnership</td>
<td>14/6/04</td>
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<tr>
<td>25 Betty Ash</td>
<td>St. Andrew’s Resource Centre</td>
<td>11/5/04</td>
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<tr>
<td>26 Brendan Dowling</td>
<td>Dublin City Community Forum</td>
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<td>27 Eamonn Ryan</td>
<td>Green Party</td>
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<td>28 Michael Mulcahy</td>
<td>Fianna Fail</td>
<td>14/6/04</td>
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<tr>
<td>29 Brian Hayes</td>
<td>Fine Geel</td>
<td>16/6/04</td>
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<td>30 Dermot Lacey</td>
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<td>31 John Bruder</td>
<td>Treasury Holdings Group</td>
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<tr>
<td>32 Tom Hamilton</td>
<td>Shelbourne Developments</td>
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</tr>
</tbody>
</table>
Appendix 4
List of questions, on which strategic conversations were based:

1. How would you describe your role/role of your organisation in shaping the future development of Dublin?

2. In your opinion, what is needed in order to make possibly the best decisions shaping the future development of Dublin?

3. Where and how do you look for needed information? What do you think about the quality and reliability of the available data?

4. What are the examples from the past that provide good lessons for future-oriented thinking in the planning processes in Dublin?

5. What are the obstacles preventing/blocking the future-oriented thinking among decision-makers in Dublin?

6. Who are the people driving change in Dublin?

7. In your opinion, who and how currently performs strategic and imaginative thinking and planning in Dublin?

8. In your opinion, is there anything else needed to make better decisions about the future? What is needed to encourage future-oriented thinking in Dublin?
Ballymun sculptures in New York!

A group of Ballymun artists was invited to exhibit their works in New York. This is the third exhibition of sculptures created from recycled materials, which will be shown outside the country. The first two were displayed in Amsterdam and Manchester.

Our very talented people work together in the Craft Centre, using materials from waste. Their works are widely known in Ireland. We all like the water-bed benches, chess tables in the park and what we all are the most proud of: the big clock on the Town Hall tower.

Well done! Congratulations!

New resident on the Trade Street

The Electronic Equipment the form, "Kneeling to your door" service became an "own office" enterprise. The small business, based on repairs of broken products and recycling obsolete objects, mostly electronic ones, had so many clients, that it wasn't possible anymore to call in to individual houses. Now clients can bring their treasures to be fixed to the spot, located in the shopping mall on Trade St. between Bill's Mum Bakery and "Gardener Corner", opposite café - bookshop "The Beans of knowledge". Welcome on the Ballymun high street!

"The Beans of knowledge" on our "High Street"
Newcomers!
Welcome in Ballymun!

Over last couple of years we noticed increasing numbers of people looking for a house to rent or to buy in Ballymun. We asked Mr Barry O'Kiefe, who moved to Ballymun from Shankill five months ago, about his reasons for change. Mr O'Kiefe said: "I used to like Shankill, but besides beautiful landscapes and the sea, there is nothing to enjoy. Why Ballymun? This town has good reputation! I have a couple of friends living here. They all like this place a lot! It has its own character - it's full of life, and what's very important, safe. People know each other here, smile, talk and care. It's easy to get a job in the neighbourhood and the house prices are reasonable. Do you need any more reasons?"

Annual Spring Trip
This year Ballymun Youth Centre took its members and friends to greet the spring in the Burren, Co Clare. "It's a fantastic way to spend time together and to show young people how they can enjoy life, have fun in different way" said Emily Johnson, one of the parents present on the trip.

Pupils teaching pupils
The primary school in Ballymun has finished the annual edition of its training programme on traffic safety and the prevention of drug abuse. The last version of the programme was slightly different than in previous years. The "drug abuse" part was run by former pupils, who were involved in drugs in the past, and also by their parents. They were asked to talk about the reasons for using drugs, dangers, health risks and ways out of the addiction from their own experience. The questionnaire from the pupils at the end of the programme showed a good response to this method.
Laura Smith teaches how to love ourselves...

An unexpectedly big number of people showed up for the meeting with Laura Smith, the author of the latest best-seller "Learn how to love yourself". Such a big number of Ballymun's inhabitants being in the same place, at the same time was last seen almost a year ago, in September 2016. We were celebrating the 10th anniversary of the opening of construction works on the Ballymun Regeneration programme at the BBQ organised by the Local Authority.

Laura Smith is a very famous American psychotherapist, who deals with very common mental problems of modern societies like loneliness, lack of acceptance and love. The huge audience on the meeting brings the question to our minds: do we experience these problems in our society?

The death of the neighbour

On Monday, 24th of May, the police found the body of 68 year old Mr. O'Hara, who lived on his own in one of the new apartments on Shanahan Rd. Mr. O'Hara died of a heart attack. The body was found three weeks after his sudden death. His death was discovered by the postman, Mr. Railey. He called police and emergency services after he noticed a strange, unusual smell coming out of the apartment. Mr. Railey knew Mr. O'Hara very well. He used to come with a parcel for him every month. He remembered Mr. O'Hara as a very nice, funny man, full of energy and joy, who always showed him pictures of his daughter living in England and offered him cups of tea. He was very surprised that none of his many neighbours noticed that Mr. O'Hara didn't show up for his everyday evening walk around the square.

ROAD ALERT!!!

With the growing number of cars on the roads of GDA the traffic problems are becoming more severe. Travelling to the City Centre over the coming weekend might look like a really heavy nightmare. We appeal to everybody: Don't go if you don't have to! Take a bus! Cycle! Leave the care in the garage!
THE BALLYMUN BOARD
June 1, 2017

THE READER OF THE YEAR!

The end of the 17th "Read and Write" Competition
We just closed the annual competition for the best reader
organised by the Ballymun Library. We asked the head
librarian, Mrs. Fiona Fianagan to say a few words about this year
contest.

BB: How many people entered
the contest this year?

FF: 212 people more than last
year. The exact number is 2598.
Isn’t it impressive? I’m very proud
of the participants. The level of
the contest was very high.

BB: Could you remind us of the
rules of the contest?

FF: The competition has been
running for 11 months. People
participating in the game are
obliged to read minimum 20
books and write a short review,
sort of recommendation or anti-
recommendation, for each of
them. The reviews are kept in our
library database, so everybody
has an access to them. The main
task is to write an essay on one
of the books chosen by the
contestants.

BB: How many participants
entered the contest more than
once?

FF: It's fascinating! But 90% of
readers were in the competition
at least once. We have 31
people, who participated in all, 17
editions. Some of them developed
amazing reading and especially
writing skills. They had their
text published in regional
and national papers and
magazines.

BB: Congratulations! We should
be very proud of our intelligent
Ballymun society.
The results of the contest will be
announced on Sat., 9th of June
in the AXIS Centre. After the award
ceremony there will be a wine
reception and concert of
traditional Irish music. ALL
BALLYMUN PEOPLE ARE
VERY WELCOME!

* On the picture: Fiona Fianagan
with Mrs. Patricia Rossmond, the
winner of the 16th contest edition.

Sisters Karen and Marcelle Smyth, Thomas Murphy and Niamh Brown
after the graduation ceremony in Ballymun Business School

The Body College

We are happy to announce
the opening of the new
learning centre in our town.
Over the last five years
Ballymun has become a location
for the Languages Centre,
Ballymun School of Music,
Dance and Ballet and "The
Rose" - the florist college.
This year is time for learning how
to treat our body. A new Beauty
and Physical Therapy College
starts its courses in September.
The enrolment for first classes
starts next Monday, 9th of June.
All keen to gain new knowledge
please contact: "The Body
College", Green St., Ballymun,
tel: (01) 5832793.

Letters to the Board

Dear Colleagues and Teachers,
My name is Jim Collins. I am a
disabled, 23 year old boy, in a
wheelchair from birth. I just
finished my BA degree in
Marketing and Advertising in
Ballymun School of Business.
The last 3 years were amazing
for me. I gained my first degree in
the school known for its high level
of education. It wasn’t easy for a
person with serious physical
disability. But what was most
important for me was that I met
wonderful, caring people, who
helped me through all these
years.
I would like to say THANK YOU
SO MUCH for all your help.
- support and friendship! It meant
so much to me! And I know that it
wasn’t just for me. I saw many
people, healthy people, helping
each other in many ways – by
financial support, mental support
in difficult moments,
encouragement and a smile. My
next step in life will be moving to
Ballymun, where I found a new,
sweet home.
Yours truly,
Jim Collins
"The Ballymun stories"
New best-seller!!
Here it is! The book we all were waiting for! "The Ballymun stories" became a best-seller in the first week of availability on the market. The 10 librarian copies were sold out immediately. The library has a list of people waiting in the queue to borrow it. The very successful writer, Mr. Farquhar Fitzgerald, spent 5 years on research for his stories. Asked what was his best experience during that time, he said: "I was amazed with the people!"

Ballymun – the Tidiest Town!
Winner again!
We are very proud to announce that Ballymun Town won the last year edition of the "Tidy Town" contest! It's the 7th victory in this, 28-year-old competition! It's worth to remember the town had always a position in the top five. Well done people of Ballymun! CONGRATULATIONS!

"Our Green" Ballymun Park

New B&B "Cherry-tree"
on Cherries Street
New B&B hostel opens on 1st of June. The increasing number of tourists in Ballymun and the lack of suitable accommodation for the last 2 years, gave rise to the opening of a new B&B. It's an unusual business, based on neighbourhood co-operation. A group of inhabitants from Cherries St. set up a small company, put the money together and bought the house displayed for sale on Cherries St. It took them 2 months to convert the house into the hostel. The 11 neighbours became the owners and employees of the hostal.

Cherry-tree B&B
14 Cherries St.
Ballymun
01-9665231

knowledge of the history of the place. They were able to describe the smallest details about the life in Ballymun decades ago. I could experience extremely strong feelings about the place – pride, very positive identity, and also responsibility and huge concern, when the times weren't too good and the town was struggling with serious problems."

Photographer: Patrick Fitzgerald, Ballymun 100 years ago and Ann Cooney and Emily Brown, "weep new with memories".

WELCOME IN BALLYMUN COMMUNITY!
A very warm welcome to the new born children in our community. Ballymun has 6 new inhabitants since last week.
Appendix 6
List of people, to whom the questionnaires were sent:

A. Planners:

Dublin City Council
1) John Fitzgerald, City Manager & Town Clerk
2) Owen Keegan, Director of Traffic
3) Jim Barrett, City Architect
4) Sean Carey, Assistant City Manager Planning & Development
5) Brendan Kenny, Assistant City Manager, Housing Social & Community Housing Construction
6) Kevin Dowling, Principal Officer, City Manager's Department
7) Philip Maguire, Assistant City Manager Corporate Services Environment & Culture
8) Pat McDonnell, Planning Officer
9) Michael Philips, City Engineer
10) Michael Redmond, Finance Officer & Treasurer
11) Matt Twomey, Assistant City Manager Engineering Fire Brigade
12) Niall McDonnell Planning Department
13) G. McCarron (former chief planning officer, Dublin City & County Council)
14) Ciarán McNamara, Executive Manager, Planning,
15) Martin Kavanagh, Executive Manager, Economic Development,
16) Alan Taylor, Economic Development Officer, Economic Development Unit
17) Executive Manager, Seamus Lyons Corporate Services Department
18) Brendan Dunne, EU/International Affairs Unit
19) Michael Phillips Dublin City Engineer
20) Tom Leahy Deputy City Engineer
21) Willie Ward Waste Management Executive Officer, Waste Management Services Division
22) Margaret Foynes Environmental Awareness Officer, Waste Management Services Division
23) Frank Murray Executive Manager, Environment and Culture Department
24) Eileen Brady Executive Manager, Housing and Community Services Department
25) John O'Connor Executive Manager, Housing and Community Services Department
26) Mary Hanlon City Community Development Officer,
27) Tim O'Sullivan Executive Manager, Office of the Director of Traffic

Fingal County Council

28) William Soffe County Manager
29) Alan Carthy Deputy County Manager/Director of Services, Housing Dept.
30) Michael Lorigan Director of Services. Transportation Department

31) Margaret Howard A/Director of Services, Water & Drainage
32) P. J. Howell Director of Services. Environment, Parks & Public Libraries Department
33) Shay Barker A/Head of Corporate Affairs

34) Senan Turnbull Director of Services. Community, Culture & Sports Department
35) Marguerite Murphy A/County Architect
36) Pat Keane Head of Finance
37) Gerry Duane, Head of Information Technology
38) David O'Connor, Director of Services, Planning
39) Robbie Farrell, Administrative Officer – Economic Development
40) Michael Galvin, Senior Executive Officer.
41) Peter Tuck, Senior Executive Officer.
42) Liam McGlynn, Senior Executive Officer.

_Dun Laoghaire-Rathdown County Council_
43) Derek Brady, County Manager
44) Derek Jago, County Architect
45) Kathleen Holohan, Director of Housing
46) Tony Pluck, Head of IT & Communications
47) Michael Hogan, Head of Finance
48) John Fitzgerald, Director of Environmental Services
49) Mary Mallon, Director of Community & Enterprise
50) Charlie MacNamara, Director of Culture, Community Development & Amenities
51) Eamon O'Hare, Director of Transportation
52) Tom Mowlds, Senior Community Officer
53) Michael Gough, Director of Economic Development & Planning,
54) Declan McCulloch, Senior Executive Officer (Planning)
55) Louis Monks, Senior Executive Officer (Development)
56) Gerard Hayden, Head of Corporate Services

_South Dublin County Council_
57) Mr Joe Horan, County Manager
58) Billy Leonard, Assistant Head of Information Technology
59) Eddie Conroy, Senior Architect
60) Martin Judge, Senior Executive Officer Finance
61) Jim Walsh, Senior Executive Officer Economic Development
62) Mary Pyne, Senior Executive Officer Economic Development
63) Hugh Hogan, Senior Executive Officer Corporate Services
64) Frank Nevin, Senior Executive Officer Corporate Services
65) Michael Coleman, Senior Executive Officer Community
66) Gary Keogh, Senior Executive Officer Environmental Services & Parks
67) Sean Murray, Senior Engineer
68) Jim Byrne, Senior Administrative Officer Housing
69) Philip Murphy, Senior Administrative Officer
70) Mick Fagan, Senior Executive Officer
71) Abe Jacob, Senior Administrative Officer Planning
72) John Bird, Senior Planning Officer
73) Neil O'Byrne, Senior Planner
74) Michael Kenny, Senior Planner
75) David Trevis, Senior Executive
76) Eamonn Cunningham, Senior Executive Officer Officer Roads & Traffic

_Fingal Development Board_
77) John O'Brien, Senior Executive Officer, Fingal Development Board
78) Emer Coleman, Strategy Development Officer
79) Mick Dunne, Strategy Development Officer
80) Ciaran Staunton, Strategy Development Officer

_Dublin City Development Board_

81) Peter Finnegan, Director
82) Elaine Hess, Strategic Policy Manager
83) Marianne Azema, Strategic Policy Manager
84) Susan Glennon, Strategic Policy Manager
85) Kelly O’Sullivan, Strategic Policy Manager
86) Bernadette O’Donoghue, Strategic Policy Manager

_Dun laoghaire Development Board_

87) Mary L. Mallon, Director Community & Enterprise
88) Donal O Neill Senior Executive Officer

_Dublin South Development Board_

89) John Hannon MCC Chair Economic Development (Planning & Development) SPC
90) Philomena Poole Director of Community Services
91) Lorna Maxwell Strategy Development Officer
92) Paul MC Laughlin Strategy Development Officer

B. Consultants:
1. Auevene Byrne, Auevene Byrne & Associates
2. Michael Grace, Brady Shipman Martin
3. Dr Brian Meehan, Brian Meehan & Associates
4. Joan Heffion, R&H Consulting (FDB)
5. Helen O’Keefe, CAAS Environmental services Limited
6. Mr Richard Hamilton, Colin Buchanan and Partners
7. Brendan Allen, Environmental Impact Services Limited
8. Alison Harvey, ERM (Ireland) Limited
9. Shay Fenton, Fenton-Simons Ltd
10. Grainne Mallon, Grainne Mallon & Associates
11. Mr Jim Brogan
12. John Spain, John Spain Associates
13. Tony Manahan, Manahan Planners
14. Pauline Byrne, Murray O Laoire Architects
16. Ms Mary MacMahon, Planning and Research Services
17. Ann Mulcrone, Reid Associates Chartered Town Planners, Planning & Development Consultants
19. Simon Clear, Simon Clear Planning and Development Consultants Ltd
20. Bernard Feeney, Goodbody Economic Consultants
21. Diarmuid O Grada
22. Stephen Little, Stephen Little & Associates Chartered Town Planners & Development Consultants
23. Mr Keith Simpson, Strategic Planning and Development
24. Deirdre O’Connor, Tiros Resources Limited
25. Mr Tom R. Phillips, Tom Phillips + Associates
26. Candy Murphy, Goodbody Economic Consultants
27. Unique Perspectives
Appendix 7
The cover letter for the questionnaire:

Date .......... 

Dear .............

My name is Ela Krawczyk and I am a PhD research student at the Dublin Institute of Technology. I am undertaking research to identify a role for and evaluate the application of, futures methods to urban planning processes in Dublin. The principal aims of my research are to discern the current approach towards the future used in the urban planning in Dublin and to identify techniques and methods used to anticipate future change and to deal with uncertainties related to that change.

I would be very grateful if you could take a few minutes to complete this questionnaire and return it to me at your earliest convenience. The results of the questionnaire will be used only for the purpose of my thesis and possibly for future publications arising from my research. The information provided in your answers will be treated in the strictest confidence.

With this in mind, I would appreciate if you would return the completed questionnaire to me, by post in the enclosed envelope, by Friday, the .............

Thank you very much for your co-operation with this research.

Yours sincerely,

Elzbieta Krawczyk, MA

Dublin Institute of Technology
The Faculty of Built Environment
Bolton St.
Dublin 1
Tel. +353-1-4023723
Fax +353-1-4023999
E-mail: elzbieta.krawczyk@dit.ie
Approaching the Future in the Planning Processes in Dublin

October 2003

Ela Krawczyk, MA
The Futures Academy at Dublin Institute of Technology
Approaching the Future in the Planning Processes in Dublin

This questionnaire forms a part of the PhD research into the ways of approaching the future in the urban planning process in Dublin. Your answers to the questions below will help me to discern the current approach towards the future and to identify and evaluate different methods and techniques used in urban planning in Dublin to anticipate the future and to deal with the uncertainty and complexity associated with futures changes and trends.

1. How would you describe an approach towards the future practised in the current urban planning in Dublin? Please choose one from the responses listed below, which is the closest to your opinion or, alternatively give your own description:
   - Planning for the present by reacting to the past problems
   - Planning to meet a predicted future
   - Planning with consideration of a predicted future
   - Planning by creating a desired future
   - Other, please describe

2. In your opinion, what type of information “about the future” is presently collected in order to assist planning processes? Please choose from the responses listed below and/or add your own.
   - Quantitative information describing the present situation
   - Extrapolation of current well established trends
   - Estimation of future activities, i.e. transport, housing, school needs etc.
   - Information on emerging trends, which may gain great importance in the future
   - Possible future implications of new technologies, cultural and social trends for the urban space
   - Possible future implications of new policies and decisions made
   - Needs and wishes expressed by communities
   - Information on global issues that may have a significant impact on Dublin and Ireland
   - Other, please describe

3. In your opinion, what type of information “about the future” would you consider the most desirable to make more informed choices in the urban planning process? Please choose from the responses listed below and/or add your own.
   - Quantitative information describing the present situation
   - Extrapolation of current well established trends
   - Estimation of future activities, i.e. transport, housing, school needs etc.
   - Information on emerging trends, which may gain great importance in the future
   - Possible future implications of new technologies, cultural and social trends for the urban space
   - Possible future implications of new policies and decisions made
   - Needs and wishes expressed by communities
   - Information on global issues that may have a significant impact on Dublin and Ireland
   - Overall vision of the most desired future
   - Other, please describe

---

* Dublin. By Dublin I mean Dublin Region embracing four local authorities: Dublin City Council, Fingal County Council, Dun Laoghaire-Rathdown County Council and South Dublin County Council.
** By urban planning I mean its social, economic, environmental and spatial dimensions.
4. In your experience, what methods and techniques are used in the current urban planning process in order to collect required information "about the future"? Please choose from the responses listed below and/or add your own.

- Models of urban systems
- Quantitative forecasting methods
- Trends extrapolation
- Geographic Information Systems
- Long-term projections

- Demand estimation
- Scenario planning
- Visioning
- Others ..................................................

5. In your experience, what are the advantages of the traditional methods, such as listed in Q4, used to generate the information "about the future" in the urban planning process in Dublin?


6. In your experience, what are the drawbacks of the traditional methods, such as listed in Q4, used to generate the information "about the future" in the urban planning process in Dublin?


7. Do you know of any futures methods, such as those listed below, which were or are being used in the current planning process in Dublin? Please choose from the list below and/or add your own.

- Alternative futures scenarios analysis
- Visioning
- Delphi method
- Cross-impact analysis
- Environmental scanning

- Qualitative trend analysis
- Futures wheel
- Relevance tree
- Others ..................................................

8. The present ways of generating information "about the future" in the urban planning processes in Dublin could be characterised as following?: Please indicate your opinion.

<table>
<thead>
<tr>
<th>Characteristic</th>
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321
9. Public participation is recognised as an important feature of the contemporary urban planning process, especially activities leading to the development of new policies and decisions shaping the future. In your experience, how would you describe community participation in the planning processes in Dublin?

☐ There is none.
☐ Public is consulted, but does not have a real influence.
☐ Public has an opportunity to propose and develop their ideas and their voice is an important factor.
☐ Others, please describe

10. In which phases of urban planning process are effective methods generating knowledge “about the future” required the most?

☐ Urban research
☐ Decision-making
☐ Policy development
☐ Implementation phase
☐ Other

11. Please indicate if you agree or disagree with the following statements:

(i) Urban planning processes in Dublin require new ways of approaching the future in order to plan for it better.

☐ Strongly agree
☐ Agree
☐ Disagree
☐ Strongly disagree
☐ No opinion

(ii) New methods of assisting the generation of knowledge “about the future” are needed for the urban planning processes in Dublin.

☐ Strongly agree
☐ Agree
☐ Disagree
☐ Strongly disagree
☐ No opinion

(iii) Planning in Dublin is performed according to the strategy/vision determining the direction of the future development for the city and/or region.

☐ Strongly agree
☐ Agree
☐ Disagree
☐ Strongly disagree
☐ No opinion

(iv) Planners and decision-makers in Dublin do understand the complexity and cohesiveness of urban systems.

☐ Strongly agree
☐ Agree
☐ Disagree
☐ Strongly disagree
☐ No opinion

(v) Planners and decision-makers systematically link the past, present and future in their decision making.

☐ Strongly agree
☐ Agree
☐ Disagree
☐ Strongly disagree
☐ No opinion

(vi) Political system and legislation in Dublin supports long-term, creative and vision driven planning process.
(vii) There is a need for a forum that would bring together all sectors of society and create space for discussion and collaboration on the future of Dublin.

12. Please indicate which group, from those listed below, you represent:

- Local authorities
- Central government
- Private and public consultants
- Public agencies
- Academics
- Community representatives
- Developers
- Others

13. Information about you:

Qualifications / Degree ..........................................................

Sex:
- Male
- Female

Age:
- Under 25
- 25 - 34
- 35-44
- 45-54
- 55-64
- Over 65

If you have any other comments, please use the space provided below.

THANK YOU FOR YOUR TIME AND EFFORT!

Glossary

Cross-Impact analysis. It helps to identify and evaluate interaction and interdependence of trends or events upon each other.

Delphi method. It employs a group of experts to judge the timing, probability, importance and implications of factors, trends and events in respect of the problem in question.

Environmental scanning. It is a broad exploration of all major trends, issues, innovations, events and ideas across many disciplines.

Futures wheel. It involves examination of a possible future event through consideration of various immediate consequences and effects of the immediate consequences. It creates an expanding ring of consequences.

Holistic – considering a whole city together rather than individual elements.

Qualitative trend analysis. It involves identification and characterisation of emerging trends with examination of possible impacts the trend may have on other areas.

Normative - generating a vision of the most desired future.

Relevance tree. It organises possibilities by successive levels of detail. The tree diagram developed by application of this method attempts to map everything of importance in the future of a given phenomenon.

Scenario analysis. It involves creation of scenarios describing possible alternative futures. The scenario stories are created in a systematic and rigorous process, but also highly interactive and imaginative.

Visioning. It is used to create images of different possible futures. The visioning method aims at development and consideration of desirable futures. A great importance is given to values, which are important components of the visions.
Appendix 8
The design of the Prospective workshop:

Day 1, Tuesday, 3rd December 2002

1. Welcoming 9.05 – 9.20 a.m.

1.1. Welcoming. Introduction of the purpose, the outline of the workshop and the expected outcomes.

1.2. Introduction of participants. The paper ball was created by facilitator, who introduced herself first and throw the ball to the next person. The participants were asked to say their name, the field they work in and why did they come to the workshop.

2. Phase 1: Understanding of the past and present 9.20 – 10.20 a.m.

2.1. Purpose - before the future will be examined the understanding of past and present - basis for the existing situation needs to be gained.

2.2. A short presentation of the present situation made by facilitator. Introduction to the problem and stimulation for further discussion. (10 minutes)

2.3. A group discussion that was finished with development of diagram illustrating the present situation. (30 minutes)

2.4. Identification of the key-issues, the core problems that cannot be missed during further discussion. (20 minutes)

Each phase was started with short introduction (2-3 minutes) about its purpose and expected results and explanation of the procedure.

3. Phase 2: Exploration of the future – the scenario process 10.20 – 1.30 p.m.

For this phase futures scenario method was used.

3.1. Identification of the driving forces of change in 6 sectors: culture, demography, economics, environment, governance and technology. Participants were divided into 3 groups working on 2 headings each for 25 minutes. Another 15 minutes was allocated for reading aloud the issues and trends and placing them on the sheets of paper hanging on the wall. Participants had a chance to add their issues to the headings they were not working on. (40 minutes)

3.2. Coffee break 11.00 – 11.15 a.m.

3.3. Identification of the main issues and trends relevant to the main topic arising from the driving forces. Participants were working in 3 groups again. This stage was
concluded with reading out the issues and trends and placing them on the wall. (45 minutes).

3.4. Clarification of the level of impact and degree of uncertainty for these issues and trends. Each participant evaluated the impact and degree of uncertainty of the trends on the considered situation. Following system was applied:

The level of impact:
1 – no impact 2 – weak 3 – mild 4 – strong 5 – very strong

The level of uncertainty:
1 – very unlikely 2 – unlikely 3 – difficult to say 4 – likely
5 – very likely to have an influence

At the end the votes were summed up and the marked issues were placed on the grid shown below. (30 minutes)

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<table>
<thead>
<tr>
<th>Potential jokers</th>
<th>Pivotal uncertainties</th>
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<td>Indirect impact</td>
<td>Direct impact</td>
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<td>Context shapers</td>
<td>Significant trends</td>
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Higher uncertainty

3.5 Creation of the future scenarios. Participants were asked to create three future scenarios built according to the scenario logics explained by facilitator. (60 minutes)

4. Lunch 1.30 – 2.00 p.m.

5. Phase 3: Development of the vision.

5.1. A short introduction of the phase: aim, method. Encouragement of participants to think unthinkable, to be non-conformist and flexible, to be enterprising and inquisitive, to take a chance on being wrong or failing, to shun cynical, know-all and perfectionist attitudes and to stand up for their ‘cranky’ ideas in order to create a strong, interesting, viable and most desirable vision of the future. It was underlined that no criticism was allowed during the visioning phase. (10 minutes)
5.2. “Set your imagination free” - loosening exercise. Creating a joint story by participants. (20 minutes)

5.3. The envisioning process started with an attempt to rewrite the problems identified in phase 1 in a positive way. Next the participants were asked to brainstorm on the suggestions for the future vision: realistic and unrealistic. (45 minutes)

5.4. **Coffee break 3.15 – 3.30 p.m.**

5.5. An identification of main components of the vision through clustering of the ideas originated in the previous stage. The most desirable future vision should be developed around those focal points through discussion, playing around with the issues and challenging the ideas. The developed vision should have been closed in the form of a coherent outline. (30 minutes)

5.6. Testing the most desirable vision against reality. The question “What might change a course of action towards achievement of the desirable vision?” was asked and answered. (50 minutes)

Summary of the day, conclusions and outline of the second day. (10 minutes).

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**Day 2, Thursday, 5th December, 2002**

1. Welcoming and the outline of the day. (10 minutes)

2. **Phase 4: Guidelines for the action.**

   2.1. Review of the previous day – scenarios, the vision and modified vision. (15 minutes)

   2.2. The question “How can we achieve the desirable vision?” was addressed to the group. The group is giving the suggestion for the short-term action first (up to 5 years) (35 minutes) and long-term actions (up to 25 years) (35 minutes).

2.3. **Coffee break 10.45 – 11.00 a.m.**

2.4. Identification of actors responsible for actions aimed at achievement of desirable vision and their roles in the process. (45 minutes)

3. **Presentation on the Futures thinking and Prospective by Prof. John Ratcliffe. (20 minutes)**

4. Summary and conclusions for the workshop.
Appendix 9
Imagine Dublin 2020

Our vision for the future of the city

Dublin Chamber of Commerce
Introduction

Since Dublin Chamber of Commerce published its Dublin 2020 Vision some seven years ago, there have been remarkable changes to Dublin.

High quality employment is now a realistic option for most people, the fabric of the city has improved dramatically and it is achieving international recognition and status across almost all sectors of the economy.

So what needs to be done to sustain this progress?

To sustain this progress we need a new approach.  As it stands Dublin's growth is being driven by the same factors and dynamics that have historically led to its success.

To achieve this we need to

- Focus on the city's strengths
- Enhance the city's image and reputation
- Improve the city's infrastructure
- Enhance the city's services
- Improve the city's quality of life

Knowledge

Imagine a Knowledge City

Dublin 2020 is a "knowledge city" that generates, attracts and retains high quality skills.

Dublin's education standards are high, but there is still a need to improve the provision of education and training facilities.

Dublin has a high proportion of the population with a tertiary education and is a key player in the knowledge economy.

Dublin is home to some of the world's leading research institutions and is a major contributor to the knowledge economy.

Dublin is a city that is open and welcoming to new ideas and innovation.

Dublin is a city that is vibrant and dynamic, with a strong sense of community and a strong sense of place.

Dublin is a city that is accessible and affordable, with a strong sense of community and a strong sense of place.

Dublin is a city that is under constant development, with a strong sense of community and a strong sense of place.

Dublin is a city that is under constant development, with a strong sense of community and a strong sense of place.

This creates a business environment, which is both collaborative and competitive. The value of small indigenous companies is well recognized and entrepreneurial spirit is highly promoted and supported.

What is needed

- Enhance the city's image and reputation
- Improve the city's services
- Improve the city's quality of life
- Enhance the city's infrastructure
- Enhance the city's education and training facilities
- Enhance the city's research and development facilities
- Enhance the city's entertainment and cultural facilities
- Enhance the city's transport and connectivity

We must all work together to create a Knowledge City. Together we can make Dublin an even better place to live, work and visit.

End of Page
Imagine an Aircraft Mechanic in 2020

Imagine a young man who moved to Ireland from Eastern Europe as a boy and now runs his own aircraft maintenance business, specializing in high tech engine maintenance for private planes.

His progress through the Irish education system is likely to have included an apprenticeship in mechanics, possibly followed by a degree course in aviation. A post graduate business course, available in many of the life of least cost colleges, would have allowed him to develop his technical knowledge into a more practical business opportunity. In this case, a first business carrier involving the maintenance of aircraft parts, but developing into the more specialist area of servicing aircraft engines.

A not unlikely contact with Ireland’s rapidly expanding international business, leading by main companies making use of the smaller airports around Dublin, and with technology creating a new generation of contact engines to supply supercrane power through to smaller planes.

This business will be in a position to produce the kind of work to Dublin Airport and the smaller airports catering for private planes. Complete diagnostic tools and remote arms will be used of the intricate repair work. Perhaps the new day is to establish an Irish-based franchise specializing in supersonic engine diagnostics and repair.

The young man may also face the dilemma of combining work and social activities. An early career as a star GAA player at minor level may now come back to haunt him. Could he find the first name Czech Fragonard to name an aircraft? With Dublin’s airports no longer used by Ryanair, he may well find the thinking of taking home from his business and becoming a professional GAA player.

A City That Works

Dublin 2020: A modern, dynamic city – a city that works.

The city has an integrated comprehensive transport system, thanks to the speedy implementation of the UTO Plan for Change strategy. Accessible and fast public transport, coupled with private car and bike, makes travel in the city easier than ever. The city is a model of environmental sustainability, with its extensive network of bike routes, and the even more extensive network of walkways. Dublin is well-connected to other parts of the country through its rail network and its national motorway system. The new airport at Dublin South will allow the city to grow beyond its current level of thirty million passengers a year.

The Greater Dublin Area Authority ensures that regional planning is well-planned and managed. Effort is made to ensure that new development of the area is based on proven principles, with every new development of the area being planned in advance. Taller buildings, particularly along the main road between the city areas, are also planned in a sustainable manner. Skiing is banned, and extensive open space has been created in the redeveloped parts of the city. City centre living and working.

What is needed: Dublin of the DPO

Futuress for Change Strategy

A New Dublin Moving Process

Continued expansion of the building envelopes

Transport

Environmentally sustainable transport network

Energy-efficient buildings

Sustainable city living and working

Cultural and creative economy

High-quality public realm

331

Knowledge Working European Countries Work Together
European

A Great European City

Dublin is well known in Europe for its unique cultural and historic character. Because of its distinct character – combining the best of Irish, European and diverse cultures – it attracts visitors from all over the world. Thomond infrastructure is well developed: hotels, conference facilities, sports facilities, and cultural attractions – which means that Dublin has a lot of many meeting catering for different needs, tastes and interests. Dublin is considered one of the most livable cities in the world, with a high standard of living. Dublin is also a great place to do business, with a low tax rate and a high quality of life. Dublin is home to many large multinational companies, which have attracted many expatriates to the city.
Imagine a Talalight Medical Graduate

Talalight Medical University 2020 - Ireland’s leading Medical University and Research Centre, developed through a merger of the former Talalight Institute of Technology and Talalight Hospital.

Picture one of its graduates. She is currently a Senior Researcher with an Irish health company specialising in robotic technology in the primary health care sector. Her hobby is cooking. She started a cooking company at Talalight Medical and, despite working full-time, still manages to make elaborate meals for her family and friends in riders and Central Asia. She’s married to another Talalight graduate, still located back at the original home in Talalight.

Our senior researcher has recently married and is living with her husband and two children in the Netherlands. They prefer to live in the Netherlands because of the easy accessibility to large cities and the many interesting entertainment events. She has no difficulty with the fairly heavy commute by train from Rotterdam to Talalight, but frequently prefers to cycle or use her power scooter.

We'll Governed

Dublin 2030 has a strong urban governance system, as well as a major transport system. It includes a regional masterplan strategy, with Dublin Area Authorities and county-based local service structure.

The metropolitan region of the Greater Dublin Area is managed by the Greater Dublin Area Authority. Its functions include strategic land use, planning, transport management and marketing the city for investment. The current local authorities from Dublin and the adjoining counties continue to play an important role in the provision of local services. A City Wide Mayor, who is supported by a Chief Executive and a Board of Directors, is the principal decision maker of the Authority, while the local authorities, the state and the Government ensure its effective implementation of policies.

The GLAA has a transparent approach to and strategic planning, which allows the public and elected representatives to monitor the progress of the plan in the implementation of the plan. The role of different sectors, such as business, community groups and environmental organisations are heard and taken into account in the formulation of long-term regional planning. Together with the other local authorities, the GLAA is responsible for the delivery of infrastructure services.

Transport plans are aligned with self-safety and traffic control strategies to enhance mobility and comfort. The Authority's functions in transport planning and implementation of transport policies ensure that an integrated transport system is provided. The Authority's transport regulation function allows for the provision of services on a competitive and efficient basis. There are no transport monopolies.

Business and economic development teams report to the Authority's work in marketing and promoting Dublin as an investment location - identifying Dublin's strengths and opportunities in new economic clusters. As part of its long-term planning, the Authority supports a Future Planning Forum, which brings together representatives of all sectors in the city to discuss and debate the future. A dedicated research institute conducts studies on potential future trends and their implications for the city.

What is needed

- Establishment of a
  Greater Dublin Area
  Authority (GLAA)

- GLAA to be
  responsible for
  transport
  management
  and
  infrastructure
  planning
  in the city
  area

- GLAA to be
  funded by
  extraordinary
  levy as proposed by
  the Mayor's
  initiative

- Central
to
doms
  to
  ensure
  participation
  in
  the
delivery
  of
  infrastructure

Imagine a Mayor for Dublin

Imagine a native Dubliner with direct experience of the Irish and American political systems, now in his second term as Mayor of Greater Dublin.

Dublin's Mayor was first elected in 2013 and re-elected with an increased majority in the 2018 election.

A native of Dublin's inner city, his background included a degree in Politics and Economics from an American University, a stint membership of the IRA in the US, a stint as a member of a group in America with leading politicians in March, and Presidential elections in the US.

A former British police officer has also been there as a City Councillor, then an avowed political representative in the Dublin City Council, Dublin Area Authority, and now elected as the first Mayor to head up the new Authority, with the aim of making it the driving force behind Dublin's future as the European capital of progressive cities.

In the Mayor's daily schedule, his busy day includes speaking on the budget allocation for the next five year investment in transport, meetings with transport operators and reviews of the bus route tendering system, and juggling investments to the regional housing strategy.

Much of his time is spent with finding delegations from other international cities whose main question is generally: How did Dublin achieve such an international success?

What if we don’t …?

So what happens if the vision is not adopted?

There is an implicit assumption in many Government strategies that Dublin can look after itself. This thinking is supported by the fact that Dublin has remained dormant for the last 60 years. In the meantime, public investment has gone into the Dublin region, and this public policy has started to meet the scale of development in Dublin. This view fails to recognize the rate of decline in general, the engines of regional and national growth and leads to a lack of strategic direction for fast growth cities such as Dublin.

While this view holds sway, the dangers to Dublin's future development pose significant challenges. The downside scenario arising from this could not be as follows:

- Critical infrastructure in areas of transport, telecommunications, environment and location are not defined, or are at a very early stage.
- Time to compete.
- Dublin’s economy is rapidly declining, with infrastructure, and land development lagging.
- The vision of competitiveness leads to a loss of major investment and jobs to other cities and counties.
- Critical infrastructure in areas of transport, telecommunications, environment and location are not defined, or are at a very early stage.
- Time to compete.
- Dublin’s economy is rapidly declining, with infrastructure, and land development lagging.
- The vision of competitiveness leads to a loss of major investment and jobs to other cities and counties.
- Critical infrastructure in areas of transport, telecommunications, environment and location are not defined, or are at a very early stage.
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- Critical infrastructure in areas of transport, telecommunications, environment and location are not defined, or are at a very early stage.
- Time to compete.
- Dublin’s economy is rapidly declining, with infrastructure, and land development lagging.
- The vision of competitiveness leads to a loss of major investment and jobs to other cities and counties.
Acknowledgements

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Inda Connolly, ESB
Aidan McCarthy, H2 Consult
Gerard O'Hallan, Amarch Consult

Dedicated to the memory of Brendan Behan, Dublin Chamber of Commerce

Design: Baseline
Photographs: The Photographers' Company

Dublin Chamber of Commerce
Appendix 10
Scenarios developed by the community in the “Development of community indicators in Ballymun” study.

**Scenario 1: Characterless Suburb**

Ballymun has become a commuter town where people live in routines, doing chores when they come home from work and then closing their door. People rarely know each other; there is no interest in the neighbours. Newcomers find it especially hard to integrate. The houses are empty all day and at night the only sign of life are televisions flickering in each house. The only shops in the area are “Extra vision” video shops, take-aways and off licences. There are no flower shops, cafés, launderettes hairdressers, post offices and no neighbourhood centres. The neighbourhood centres have failed through lack of local interest. There is life, vibrancy and shopping on the main street due to the student population but this is transient. They are not there over the summer and other major holidays. Student population even decreases at weekends.

The group did not have a clear vision when it came to green spaces and graffiti. It was described as the American dream – lawn, car, 2.5 children. You buy books to learn to love yourself because no one has time to love you. Once a year the community gets together for a cheesy family fun BBQ.

How did we get here?

Increased aspiration to own property has become a common goal despite increasing house prices. Wages and jobs are a main focus therefore less time spent on domestic/community issues.

Car use was seen as a major reason for people’s lack of connection with one another. Too much time is spent in cars commuting to and from work, doing shopping, taking kids to and from school. Less time spent on the street where it could be possible to stop and chat with neighbours. The use of the car exemplified the insular focus on the nuclear family. Architects were hampered in their creativity by tenants’ demands for a perceived normality. There is no room for low income tenants which could include desirable and undesirable elements within the community such as single parent families, artists, drug users and ethnic minorities.

It was agreed some common goals to avoid the characterless suburb

1. Communication
2. Increased mobility without a car
3. Amenities that connect people within walking distance
4. Local enterprises employing local people
5. Supervised kids’ amenities/activities

**Indicators** for these goals

1. How many neighbours do residents know – immediate and local
2. Occupancy rate of neighbourhood centre premises
3. What is the balance between services and commerce in the neighbourhood areas
4. How many locals are employed locally
5. How many kids use local clubs/ How many new members sign up every year
6. What is the distance travelled to work
7. Number of after school activities offered
8. How many adults are part of a club or after work activity in the local area
9. How many hours of TV are watched per day per family
10. How many homes are rented in the area (percentage)
11. How many funerals are well attended
12. No. of people attending funerals
Scenario 2: Learning Centre

Our education is a partnership. Parents – Pupils – Community – Business
We learn through actions and through involvement with each other. There is a local
involvement in decision making and funding for education, thereby creating a sense of
ownership and a strong responsibility to educate each other with respect.
There has been a change in the system and curriculum that promotes life long learning for
everyone. There are now lots of choices and options; education is the norm for everyone. It is
creative, open minded, vibrant and fun. All education is free which also includes transport,
books and cheap accommodation. Funding has also been provided for workshops and modern
premises. There are tax incentives provided for areas of research. Many institutions of
education come into the area and there is a high teacher/student ratio

How did we get here? Common goals
1. Lots of Community/Parental involvement in the local education system
2. Working with a Village concept
3. High motivation/personal responsibility for self education

Indicators
1. Percentage of pupil completion of Post Primary Cycle
2. Amount of community projects with children/youth involvement
3. Anti social behaviour

Scenario 3: Successful Small-business Centre

Ballymun now has an interesting atmosphere, attention on music, arts and Axis (community
arts centre). There is an open-air stage on the main street. Irish food take away (? – well,
cabbage and potato). A wide range of food is available. A food fair happens every so often
along with a fleamarket selling 2nd hand stuff. There is a vegetarian restaurant in the area
along with an easy-going small café where you can sit and read the papers.
There is a focus on crafts. You can see craftspeople at work making things from recycled
materials. Products created are a focal point of the area such as sculptures made from recycled
materials. Benches for the area are made from recycled plastic and water (i.e. water-bed
benches!). To aid participation there is a material exchange and an equipment shop for the
rental of all tools such as lawn mower, ladders, benches, sports equipment and bikes.
Shopping facilities have improved. There is a local food Coop plus interesting shops stocking
different products such as a bakery, bookshop, flower-plant shop, butcher and bike shop. The
shopping centre is fully tenantated along with the neighbourhood shopping streets. The main
street is dynamic with a range of experiences, which meet the needs of a changing population
including both residents and visitors.
The Rediscovery Centre collects and processes household waste and sells recycled products.
This creates local employment but also draws on a wider population for waste materials.
Electronic Equipment Recycling – people are trained at the Rediscovery Centre to create a
workforce to do the electronic equipment.
Soft stripping of the flats creates work for people in repairing broken products and recycling
obsolete objects.
A successful technology park – innovative and sustainable, which meets the needs of residents
and the wider population.

How did we get here? Common Goals
1. Residents insisted on better shopping facilities
2. There was greater demand
3. Subsidies which didn’t favour organic food production ended
4. There are recycling Drop points for everyone to use easily
5. Plastic is more biodegradable and there is a change in toys designed and made from plastic. They are more durable and less quick to break

**Indicators**
1. Number of Households participating in a recycling scheme
2. Amount of material being recycled
3. Number of people working in Ballymun
4. Number of people who are working in the environmental industry within Ballymun
5. “Wellbeing” of the work force
6. Number of people who use the shopping centre
7. Number of outlets that sell organic/eco-friendly produce within Ballymun

**Scenario 4: Great Community Spirit**

There is a history of our own place, a positive identity with a sense of achievement and pride within the community. There are celebrations and festivals, which raise the profile for Ballymun nation-wide. A flag is created to fly over the new Town Hall in Ballymun which houses an accessible local authority offering 24 hour customer care.

Ballymun has its own Town Council making decisions at a local level regarding traffic, parks etc. People of Ballymun want to be a part of the decision making process, they have the knowledge, control over spending and power to change things.

Ballymun is friendly and harmonious with good neighbourliness being practised by the washing of each others' cars and the watching of other peoples' children. There is a mobile family support unit and a doctor at the end of the road. I can knock on the door of my neighbour to ask for help as I know my neighbour and people are eager to look after one another and especially the elderly within the community. People with problems get the help they need. There is a tolerant atmosphere and a respect for one another. A return to the Celtic values of close-knit communities.

The environment is tidy and clean without it being stuffy and it has won many competitions for “Tidy Town” district. There is a large community involvement throughout the area, with neighbourhood meeting places provided to ensure good communications. The relationship with the Garda is positive.

People work in the area for the good of all. When work is finished people stay and enjoy Ballymun. Kids of Ballymun attend our own university. People really enjoy being here.

The business park flourishes especially with computer-related businesses and many tourists visit the area.

**Indicators**
Indicators should be easy to communicate and measure, and reflect real change.

a. Increased participation measured by numbers attending
b. Forums
c. Planning workshops
d. Members in community groups
e. Trust
f. Decisions/Influence
g. Activity
h. Number of activists in the area
i. Number of kids hanging around doing little or nothing
j. Access to information
k. Interviews
l. Knowledge about how to influence what’s going on
m. Local Shopping
n. Percentage spent locally
o. People wanting to
p. Come to Ballymun
q. Stay in Ballymun
r. Move to Ballymun
s. Litter
t. Local history

**Scenario 5: Common Goals, Safe Place**

This group had difficulty imagining Ballymun as a safe place. Fears revolved around the behaviour of children at present, both in relation to safety issues, issues of vandalism and respect for people and their property.

In the new Ballymun people are leaving their homes and walking along safe streets. People of all ages are moving about. Traffic is calmed so that it is safe for pedestrians. There are numerous facilities and services in the area which means that people have places to go to spend their spare time and to get essential needs such as shopping. Children have been involved for many years in programmes run in the schools with considerable parent involvement dealing with issues such as traffic safety and the prevention of drug abuse. People are committed to their community.

**Common Goals**

1. Flats not to be left empty

**Indicators**

1. Number of crimes reported (including description of crime type)
2. Number of crimes solved (percentage)
3. Neighbourhood survey of perception of safety
4. Number of Neighbourhood Watch groups
5. Number of Guards on the streets
6. Number of road traffic accidents
Appendix 11
MOBILE AND ACCESSIBLE DUBLIN:
An application of the Prospective methodology in developing a vision for the future integration of transportation and land use in Dublin.

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ABSTRACT: Contemporary cities can be characterised by a high pace of change and the growing complexity of their systems. Technological, economic and social evolution brings transformation that needs to be dealt with and accommodated in order to sustain consistent harmonious growth. Many cities are not prepared to adapt to these changes. This results in a vast range of urban problems. The rapid growth of Dublin during the last decade has intensified infrastructural and transportation problems. A number of institutions have been addressing these difficulties through the application of various solutions.

This paper presents an attempt to address the lack of efficient integration between transportation and land use in Dublin through the application of the futures methodology – Prospective. Futures methodologies assist in understanding the main forces driving change: enable the creation of images of possible and desired futures; and help to generate recommendations and action plans to solve the existing problems in a rigorous, systematic and comprehensive manner.

This paper presents the methodology itself, the applied process and the results of the study.

Keywords - futures methods, Prospective, urban planning.

1. INTRODUCTION

Over recent years Dublin city and region has been struggling with a series of major infrastructural problems. The vast economic and demographic growth of the city and region in the 90s placed enormous pressures on the existing infrastructure and created many severe problems, such as traffic congestion, pollution, poor accessibility and mobility, a housing crisis and urban sprawl. Infrastructural difficulties result in very high social, economic and environmental costs, which need to be reduced in order to maintain the high competitiveness of Dublin – the engine of Irish economy, and to improve the quality of life for people living and working in the city and region.

The problems existing in the city have been broadly recognised. National and local agencies work intensely to find the best solutions to these problems. A number of projects, different in type and scale, have been undertaken in order to improve the situation. But much more needs to be done in order to resolve the crisis.

There are many factors responsible for this situation. The existing spatial structure and inefficient transportation system combined with poor planning decisions and lack of strategic thinking could be blamed. It could be argued that as well as a number of physical improvements, there is also a strong need to create a strategic vision that would guide future integration of transportation and land use.

This paper presents the research that attempts to address the lack of an effective relationship between transportation and land use in Dublin and to develop a vision of an efficient future relationship between the two. In order to fulfil the objectives of this
project the futures methodology Prospective was employed. Futures methodologies assist in understanding the main forces driving change; enable the creation of images of possible and desired futures; and help to generate recommendations and action plans to solve the existing problems in a rigorous, systematic and comprehensive manner. The Prospective process allows one to recognise and understand past and present trends and decisions that led to the formation of the existing situation and to explore and identify possible trends and forces that will shape the future. Furthermore it provides a framework to develop a vision of the most desired future state and to generate suggestions and recommendations how to achieve this state.

2. THE PROSPECTIVE METHODOLOGY

Prospective was invented by Gaston Berger in the 1950s in France as a way of thinking about the future. Berger claimed that the world was more complex than it was thought and that the extrapolations and classical forecasting process were not able to cope with the changes in the world. The role of Prospective was not to predict the future but to build possible future worlds (Roubelat, 1997). From the philosophical concept Prospective evolved into a formalised, comprehensive and rigorous methodology, which has been employed in many different fields, and which uses a whole spectrum of future techniques and methods.

On the grounds of documentary research and through conducting Prospective exercises, like the one presented in this article, the author has developed her own form of this methodology, mainly for use in the urban planning field (see Fig. 1). The process consists of the five main parts. The first step is ‘formulation of the problem or strategic question’. Identification of the problem/strategic question and formulation of a precise statement addressing it, is crucial for the whole process. Often the statement of the problem/strategic question acts as a ‘point of reference’ throughout the process and helps to focus on the main problem being considered.

The second phase, ‘understanding the past and present’, aims at drawing a complex picture of the present situation. Identification of the key-issues and problems of the present state helps to develop an understanding of the overall situation. Often problems can be turned into positive statements during the visioning process in the fourth phase. Recognition of the past trends and decisions and their role in shaping the present state helps when trying to imagine their implications for the future. In analogical way, it also enables one to imagine the implications of various present and future trends. It supports identification of causes and addresses the sources of the problems rather than symptoms. Identification of the main actors present on the scene assists in recognising who is responsible for undertaking action and implementation of the vision, developed at the later stage.

‘Exploration of the possible and probable futures’ helps to address the strong need to know what the future might be like in order to prepare and plan for it. The activities in this phase do not aim to forecast the future, but their role is to identify the main trends and forces that will shape it. The set of future scenarios, developed in this phase, should steer the imagination and inspire thinking about the most desired and also the most feared future states. The scenario method (Ratcliffe 2002) provides a good framework for systematic exploration of the possible futures and creation of future scenarios.
Fig. 1 Prospective methodology model
‘Development of the most desirable vision’ is a key phase. This stage differentiates Prospective from other futures methodologies, which often concentrate only on anticipating the future change and its implications. An image of the most wanted future enables one to determine the direction and identify the path and means of how to get there. It helps to develop measures that would monitor the current course of action and would assist in verifying this direction. The visions of cities, communities and nations have an ethical dimension that need to be carefully considered. It is necessary to ensure the participation of all sectors of society and interest groups in the process, as their wishes and ideas about most desirable futures may vary. It also needs to be acknowledged that the decisions and actions taken in order to achieve the vision will influence the lives of the next generations.

The last part of the process aims at generation of ‘recommendations and suggestions for implementation of the vision’. It provides a framework for formulating policy proposals and suggestions for action and the development of indicators to measure progress. An important part of this phase is the identification of agencies responsible for action and the development of mechanisms that would assist in revisions of the vision and in generating new suggestions in order to respond to changing conditions.

3. METHODOLOGY APPLIED IN THIS STUDY

A combination of futures methods and techniques was employed in this study in order to collect a broad range of information and ideas. Included was: a Prospective workshop, environmental scanning, survey, strategic interviews and observation. Table 1 shows the sources of information for each stage. The data generated in this study has qualitative and subjective in character.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Prospective workshop</th>
<th>Survey</th>
<th>Environmental scanning</th>
<th>Strategic interviews</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding of the past and present</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Exploration of the future</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>The most desired vision</td>
<td>✓</td>
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<tr>
<td>Recommendations for action</td>
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Table 1. The source of data for each stage of the process

The Prospective workshop was the main method used. It took place over two days and was structured around the five main phases of the Prospective process (Fig. 1), however not all the stages were completed. This study was developed in order to test the methodology and some steps of the process shown in Fig. 1. were developed only in the course of analysis of this study. A number of techniques were employed within the workshop framework in order to complete individual tasks. Among them were: structured brainstorming, visioning, the scenario technique and mind mapping. Participants of the workshop were postgraduate research students in planning and fields related to it such as geography and social science. Their involvement was voluntary. The event was facilitated by the author.
The remaining methods used in this study had a complementary role. Environmental scanning assisted in the collection of information on the existing trends and future issues, which may gain impact over the topic of the exercise. The author monitored media, performed field observations and gained knowledge from various conferences, seminars, informal chats and the Internet.

The survey distributed among the workshop participants helped to discern their opinions on the present situation and to discover their fears and wishes about the future. The questionnaire aimed at the stimulation of creative thinking among the participants and also was a valuable source of information for the facilitator of the workshop.

Strategic interviews, a popular interviewing method in the futures research, were another form of collecting opinions and information. Strategic interviews have open character. The interviewer plays an active role during the course of interview trying to follow and develop the most interesting and significant themes emerging in the course of conversation.

4. RESULTS OF THE STUDY

4.1. Present situation and past trends and decisions, which formed the current state

The current situation regarding the relationship between transportation and land use in Dublin has been formed by a combination of various decisions and policies introduced over the decades and different trends and developments in numerous areas. In the process of analysis, a number of categories emerged by which the past and present could be characterised. These were: spatial structure and land use patterns, property market and housing stock, transportation system, governance and planning system, quality of life and social, cultural and economic aspects.

Spatial structure of Dublin city and region is characterised by low population densities in regard to urban areas, urban sprawl, an expanding commuter belt, and domination of single use residential areas in the suburban Dublin. Land use patterns are dominated by single use areas with very little of mixed use. This type of spatial structure creates huge pressure on the transport system and results in high economic and social costs. Low densities generate a dependency on private cars and discourage mixed use, which is most successful in the areas with higher level of population densities.

Planners and the government recognise the problems related to these spatial patterns. A number of new policies and regulations have been introduced in order to encourage higher densities and mixed-use developments, for example Residential Density Guidelines, Local Location Area Plans and Living Above the Shop.

Spatial patterns are strictly connected to the property market and housing stock, being residential, office and industrial. These are characterised by high house values, insufficient housing supply and lack of affordable residential housing in the city and region. The vast economic and demographic growth of Dublin in the 90s created a huge demand for residential housing that could not be accommodated by the existing stock. This led to the massive increase in house prices in the city and has been driving many house buyers to the neighbouring counties, where the prices are affordable. This led to an increase in the number of commuters.

An important driving force in the property market is costumer preference. In Ireland especially, tradition and cultural values have great influence on the property market. Irish dwellers favour living in houses preferably with front and back garden.
Apartment dwelling is a fairly new trend and is gaining popularity only recently, as the need for higher densities has been recognised and the number of apartment developments has grown significantly.

The transportation system in Dublin is overloaded and its capacity does not meet the systematically growing demand. The public transport system could be described as being unreliable, expensive and of poor quality. Its radial structure reflects old travelling patterns, when most of the economic, social and cultural activities were concentrated in the city centre and a need for inter-suburban connections was very small. Obsolete routes structures and the lack of fully integrated ticketing systems make travelling long distances in the city time consuming and expensive. The failure of public transport to compete successfully with private cars results in over-dependence on private cars and leads to immense traffic congestion in the city centre and some suburban nodes. All this makes accessibility to and mobility within the city very poor, and as a consequence affects the quality of life in the city.

The transportation crisis has been recognised and addressed, but the situation is improving very slowly. The Dublin Transportation Office (DTO) developed a strategic plan for improvement of the transportation system in the city. It requires provision of new infrastructural elements, such as LUAS (the light railway system currently under construction) and Port Tunnel, which will provide an alternative to the city centre route for heavy goods vehicles travelling from Dublin Port to the outskirts of the city. Also necessary are changes in the traffic regulations. The DTO introduced QBCs (Quality Bus Corridors), which enable buses move faster than regular traffic. A number of initiatives introduced, such as parking restrictions and ‘operation free flow’, aim at changing the commuter behaviour patterns.

A very important trend is the growing awareness of the unsustainability of existing travel patterns. Walking and cycling are being recognised as equal to the car. The necessary infrastructure for the further development of these means is being provided.

Governance and planning have great importance in shaping the relationship between transportation and land use. Irish governance system is highly centralised. It results in a relatively weak local government, which does not have enough power and financial resources to develop and implement appropriate regional and local policies. The unsustainable character of many macro-policies enhanced development of the present crisis situation.

Planners could be accused of having poor professional skills, lack of long-term strategic planning and deficit of innovative and creative thinking. Delays in implementation and weak development control could be pointed out as further sources of problems. Fragmentation of local government in Dublin - four local authorities operating in the city - results in the four separate spatial development plans, which do not always correlate with each other. The need for the integration of planning departments has been recognised and the idea of establishment the Greater Dublin Area Authority has been proposed, but so far has not been addressed.

Over recent years central and local governments have changed their ways of thinking about future development. Sustainability has been adopted as the key model for the future growth. A lot of energy and resources are being directed into provision of necessary infrastructural elements and regeneration and rejuvenation of different parts of the city.

The relationship between transportation and land use have important implications for the cities functionality and the quality of life of residents. Traffic congestion causes air and noise pollution, which becomes source of many health problems. The time spent in the traffic jams is lost from family life, hobbies, leisure or social activities.
Lack of affordable housing and lack of adequate facilities for families living in the city centre pushes out many families to the commuter belt areas. The housing stock, in the city centre as well as in the suburban areas, can be characterised by poor design and lack of adequate facilities that would attract a variety of tenants -- young single people, families and elderly.

Dublin has many positive aspects, which would strengthen the city’s attractiveness, if adequately promoted. The city is located between the sea and the mountains. It has many attractive historic areas, such as Georgian Squares, parks, neo-classical buildings, that create an interesting and distinctive atmosphere. Dublin is also an attractive size, which keeps a good balance between a big city choice and a small city intimacy.

There are a number of other issues related to the relationship between transportation and land use. They could be summarised under ‘social, cultural and economic aspects’. The Conflict between ‘private vs. public good’ has a great impact on the planning process and governance. It influences formulation of development plans as well as implementation phases. A cultural attitude that could be summed up ‘it’ll do’ restrains creativity, change and innovation.

Demographic and economic issues have an important impact on the relationship between the two aspects discussed. A proportionally high population of young people in the city and large immigration into the country combined with the cultural change, create new demands for greater variety of housing and services.

A high rate of economic growth in the 90s played a very significant role in the creation of the present situation. Location of new businesses and high level of immigration into Dublin put enormous pressure on the existing infrastructure. The rapid economic growth was ‘played for’ through introduction of various policies, but was not ‘planned for’ by the improvement and development of the necessary infrastructure that would support and maintain this growth. The financial resources have been directed towards infrastructural improvement, but the timing and efficiency of these projects are in question.

4.2. Exploration of the future

The first step in the ‘exploration of the future’ phase was identification of the main driving forces of change that would influence the strategic question. These were identified within six main categories: Economy, Governance, Technology, Environment, Culture/Society and Demography. Then the more specific issues and trends arising from these forces were determined. In the next step the level of impact and degree of uncertainty of these issues and trends were assessed. This helped to classify these trends and issues in terms of their role in shaping the future. Ratcliffe (2002) distinguishes four categories of trends and issues in regard to their level of impact and degree of uncertainty. These are:

a) Pivotal uncertainties – these are likely to have a direct impact, but their outcome is uncertain. They are pivotal in the sense that the way they turn out may have strong directional consequences. These trends determine the shape of different scenarios.

b) Significant trends – these impact more directly upon the theme considered and it should be possible to anticipate their effect.

c) Potential jokers – these are pretty uncertain as to their outcome and less relevant. However they may gain importance over time and become pivotal uncertainties. Thusly, they should be monitored in order to detect any changes in their level of impact.
d) Context shapers – these are relatively certain and have low impact. They surely will shape the future context.

Future scenarios are usually built around pivotal uncertainties. Their strong impact, but high uncertainty of the outcome creates the possibility for very different futures to unfold. In this exercise, due to a failure of the marking system used for assessment of level of impact and degree of uncertainty, a definite majority of trends were classified as ‘significant trends’ and only 4 out of 72 were categorised as ‘pivotal uncertainties’. This eliminated the possibility to create a set of legitimate future scenarios.

Despite the failure to build alternative images of possible futures this part of the exercise was very valuable for participants of the workshop in order to stimulate and inspire their thinking about the future and to gain understanding how different futures may unfold. It is necessary to remember that Prospective methodology is a process, which is as important as the final results.

4.3. Development of vision of the most wanted future

The visioning method was used in order to collect ideas that would characterise the most wanted future. The facilitator was trying to encourage participants to think the unthinkable, to be creative and innovative and to keep their minds open to any irrational thoughts. All ideas were equal and possible. Critique of others was forbidden. This helped to generate many realistic and non-realistic ideas about desired state of Dublin in 2025.

Fig. 2. Themes that merged in the clustering process

The ideas were related to the whole city, but with special focus on the relationship between transportation and land use. In the clustering process 22 themes emerged (Fig. 2). The author composed an overall vision for Dublin 2025 using the collected ideas (Fig. 3). Later the participants of the workshop approved the vision story.

The most desirable vision for Dublin 2025 portrays the city of a compact urban structure served by fully integrated and efficient transport system, which will ensure fast and convenient movement around the city. Higher densities of new developments, especially in the inner city, and mixed land use in the inner city and suburban areas will reduce the need for travelling in first place. Public transport will provide good links between high density and mixed-use hubs in the city region. A dense network of safe, multi-purpose cycling lanes will support the use of alternative modes of transport for short journeys. A culture of healthy living will support the use of bikes, rollerblades, segway over cars. Realisation of this vision will be possible, because of the shift in how individuals, organisations and government agencies think and the co-
operation of all key decision-makers in the city. A new planning system, in which the transportation services will be considered before planning permissions will be granted, will be based on collaboration. The local authorities and planning agencies will learn from the best European practices and they will also encourage and support creative and innovative indigenous ideas. Dublin will be a pedestrian friendly city with many attractive pedestrian walkways. Public space will be accessible to all citizens, especially families. Well-designed buildings and green infrastructure will create a pleasant environment for variety of activities.

After the development of the vision, the obstacles that could be met on the way to achieve the vision were identified. Two groups of barriers were considered – local and global. Among the obstacles of local character were: financial constraints, people’s attachment to the car, lack of courage, the motor-industry lobby, the system of local governance, lack of political will, economic systems, lack of efficiency in public expenditure, lack of political vision, lack of co-operation, lack of imagination, self-interest, corruption, short-sighted developers, short-termism, cynicism and scepticism, apathy, lack of opposition in the political system and global monopolism. Among the global factors identified as obstacles were: running out of oil, diseases, slowdown in the world’s economy, too much centralised power in the global context, technology in the wrong hands. Sellafeld, fundamentalism, flooding and climate change, Dublin under threat from Northern Ireland terrorism.

It needs to be stressed that 13 out of 19 obstacles of local character were related to the ways of thinking, attitudes and politics, which are very difficult to change, once formed. Change in attitudes and ways of thinking as well as provision of financial resources are required in order to create conditions, in which the vision can be realised.

Dublin in 2025 is a city with a well-established symbol of community/ pub culture/ Clery’s Clock/ Ha’Penny Bridge/ Trinity College/ Book of Kells with a strong sense of place.

There are no class divisions any more. It’s a happy, smiling society, where there is no place for homelessness. People feel attached to their neighbourhood. There is a support network in place for people with problems and difficulties. More stability is created by more equality.

Family values are integral to city living. Government policies are supporting parenthood by longer paid paternity leave and provision of decent childcare facilities. Families are overwhelmingly present in city life, especially in the city centre, where a range of facilities for children and pedestrianised zones create a welcoming environment for family living.

Dublin has a big cultural centre with an art gallery meeting national demand. A vibrant cultural and social life is concentrated in the car-free city centre, where pubs are mixed with late night cafes. Many varied festivals, concerts and celebrations take place in a big open public space.

People feel safe in the city. The security staff is redundant, because there is no need for them anymore. People respect each other and others’ property. Streets are safe, because of the values and because of fewer cars on the streets.

Dubliners are healthy people. They care about their eating habits and the importance of fast food is decreasing. It’s a drug free city. The improvement of the quality of air has helped to fight asthma and other diseases.

Citizens of Dublin are engaged in civic life. They participate in local elections, which they enjoy. They have more rights and their voices are listened to. The option for nominations brought a possibility to nominate their own candidates, if any of proposed by the political parties is not satisfactory. The Mayor of the city has executive functions and is elected directly by citizens. People involved in politics are there because of their aspirations to make a difference, not because of the benefits associated with politics and governance. Government services and the police are trustworthy and credible, performing their functions for all citizens.

The economic climate of the city fosters young entrepreneurs and co-operative markets. The value of crafts is recognised and affordable workshops are provided. The economy is diversified and there is less space for monopolies.

Environmentally friendly attitudes are characteristic of Dubliners. Littering is a social crime. Everybody recycles waste and is aware of his/her personal impact on the environment. There are many factories based in
Ireland using recycled material for their production.

Water is an important element in the city landscape and life. There is no waste water any more, no leakages and the drainage system is a part of a green infrastructure. The quality of water used in the city is high as it comes from natural sources and there is no fluoride in it any more. The Liffey is an axis of the city and it doesn’t divide Dublin for the better South and worse North. Clean water in the river and the canal network invites to various water based activities. There is a water-bus operating on the Liffey. People live in barges berthed on the canals.

Use of alternative sources of energy like solar and wind are common.

The city is marked by variety. It works 24 hours. There are always places to go at 3 a.m. The variety of shops and services are available most of the time. Flexibility and diversity are characteristic of the city. There are no queues to taxis anymore because pubs are closed at different hours.

There is a co-operation of different educational institutions. The universities and colleges based in the city have created a forum for research and exchange with dedicated facilities.

People have time and space for recreation. Appropriate recreational facilities keep youth far from trouble.

Open spaces, where people meet, walk and talk, are abundant such as pedestrianisation of College Green. The sporting spirit is very visible in the city. The new national soccer stadium hosts the games of the championship league, as Dublin has a championship league team these days.

Dublin has an efficient public transport network consisting of buses and rail and a water-bus with an integrated smart card system for the whole of Dublin. The transport system is accessible for all. The necessary assistance instruments are built into the system and there is a mobility scheme for the elderly, monitors on the bus stops with information on the next bus. The mixed use of land helps to shorten the distances for travel. The efficient transport system is combined with alternative modes like cycling, segway, roller-blades etc.

The necessary infrastructure is provided for alternative modes. The transport system is eco-friendly. There is a big emphasis on the saving resources and minimising the impact on the environment. Modern technology assists in improving the quality and comfort of people and freight movement.

The 1960s legacy of badly designed buildings like Liberty Hall or Hawkins House, are replaced with new high quality construction. There is a new large modern conference centre that hosts many prominent world events, as Dublin is a vibrant, welcoming and friendly city easily reachable from any location in the world. The green infrastructure performs a number of important roles. It creates a sense of harmony and friendliness in the city and also is used as natural filter for pollution, helps to keep the rain water levels stable, is used for natural drainage systems. The quality of design is very high and all new buildings are equipped with good insulation systems, energy saving equipment and recycling facilities etc.

All development land is nationalised and there are no longer difficulties associated with zoning and unfair speculation associated with it. Space for city gardens and farms is provided to allow people to live close to work and nature at the same time. High buildings create an important line in the city landscape. They provide the necessary accommodation for many international corporations to consolidate their operations.

Anyone can find a suitable and nice place to live as there is enough high quality and affordable housing, rented and owner occupied for all types of tenancy. Flexible housing layouts, proper storage facilities and different types of design are characteristic of the housing fabric. There are many housing co-operatives and development speculation is minimised.

Dublin is a welcoming city with the name well established on the tourism market. New tourist centre offers a broad range of services for visitors. It provides parking for coaches under the building and a helicopter landing on the top. Tourists come to the city.

Fig. 3. The Most Desired Vision for Dublin 2025

4.4. Recommendation and suggestions for action

In the last phase of the process suggestions and recommendations on how to achieve the most desirable vision were proposed. A number of ‘suggestion themes’ emerged in the process of analysis. These were:

Development of integrated public transport system, which would be an equal competitor to the private car. This could be achieved through development of multi-mode public transport system, which would consist of rail, bus, metro and water-bus. These modes would be connected through ‘exchange travel centres’ equipped with shelters, and which would provide information on the next departures and alternative modes and routes. The centres would offer waiting facilities and possibly small retail
and service points. The public transport system would have an integrated ticketing system, what could be achieved through application of smart-card technology.

**Formation of multi-skilled specialist body responsible for planning and development in Dublin city and region.** The need for the creation of one agency responsible for the planning and development of Dublin city and region has been recognised over recent years and has resulted in the proposal of establishment of Greater Dublin Authority. Participants of the workshop strongly emphasised this need by proposing the creation of one agency, which would link and integrate functions distributed between different local authorities in the Greater Dublin Area. An alternative proposal was creation of a platform on which local authorities in the region could co-operate, as it was recognised in the first phase of the process that the competition between local authorities is one of the most important problems characterising present situation. Perhaps the Prospective process could provide a framework within which local authorities meet and develop a suitable form of collaboration.

**Rising political, civic and environmental awareness through different channels, such as media and education.** A significant problem, which was stressed in the first and third part of the process, was the attitude of politicians, government and public. Raising political, civic and environmental awareness is necessary in order to engage wide public in governance and in order to create space for change of behaviour and ways of thinking. This could be done through different means. Among proposed suggestions were:

- The Local Agenda 21 bus travelling around the country and spreading civic and environmental awareness. The arrival of the national bus could be combined with local actions focused on local issues.
- Transparent and adequate communication of government actions and decisions to the community, including explanation of reasons, expected effects and possible side effects.
- Shaping civic and environmental attitudes from an early age (primary school) through introduction of civic and environmental subjects and through special educational programmes, run by well-trained teaching staff.
- Educational programmes promoting civic and environmental awareness for all age groups.

**Changes in taxation.** The introduction of local taxation was proposed in order to allow the local government to generate more money and to spend it according to needs. Another suggestion involved introduction of road pricing and ‘carbon taxes’, which would be used for investment into public transport. It also has been recognised that development of transparent taxation system is important for building trust in government.

**Changes in the planning practice.** Planning is crucial for the development of the city and it should have proactive and long-term character. The application of the Prospective methodology was suggested as one of the methods to encourage and support long-range planning. Another proposal was related to the gradual process of introduction of new elements, which would allow to monitor the change and to evaluate its impact.

The importance of active and creative public participation in the planning process was emphasised and called for. ‘Planning by cartoon’ was proposed as one of the ways to gain public engagement. The planning process should be meaningful for citizens and should motivate them to express their opinions and solutions to different problems. Wider public participation could be achieved by making the planning process
interesting and fun. The media was indicated as a good channel to inform and challenge society.

Another suggestion to promote best planning practice was learning from good examples developed and applied elsewhere. It does not mean applying ready solutions used by others, but rather be stimulated and inspired by them in order to develop best practices for the Irish and the Dublin context.

**Reduce the need for travel.** Part of problem solving is elimination of the cause. A solution to the traffic congestion and car dependence problem could be a reduction in the need for travel and commuting. The following suggestions were put forward in order to reduce need for travel:

- Attracting business and jobs to the towns in the commuter belt,
- High density and quality apartments close to work places,
- Mixed land use developments.

**Role of employers in supporting alternative modes of transport and in integration of transportation and land use.** Participants of the workshop recognised employers as one of the important players in the process of implementation of the vision. Employers can shape behavioural patterns and choices of their employees by:

- Changing shift patterns that would ease congestion in peak times,
- Provide financial incentives for car-sharing,
- Reduce car bonus in companies,
- Substitute car bonus with free pass for public transport that would be tax free,
- Provide change and shower facilities for cyclists,
- Create new jobs in the hubs in the commuter belt.

Employers are affected in a significant way by the problems of current situation, such as delays caused by traffic, tiredness and the high stress levels of commuting employees. They have a choice: to be engaged in the process or shift their business elsewhere. Therefore it is very important to engage them in the vision development process and to give them a chance to express their opinions and concerns.

**Development of land use patterns integrated with transportation.** This group of recommendations relates to capitalisation on the infrastructure already existing. The suggestions propose increase in the population densities around transport nodes and formulation of a nodal development scheme.

**Implementation process and planning control.** In the first part of the Prospective process a weak planning control and inefficient implementation process were recognised as important problems in the current situation. In order to address these issues the following suggestions were proposed:

- Establishment of planning ombudsmen (outside, independent) control body,
- Decrease the flexibility of the zoning process,
- Establishment of the position of the ‘planning mediators’ that would participate in negotiations between developers, planners and public,
- Develop mechanisms for effective policies enforcement.

**Accessibility of public spaces and their role in community building.** An important part of the vision was the development of a strong community identity and building viable social links. In order to address this part of the vision a role of public space in this process was indicated. Pedestrianisation of city centre, inner city and creating pedestrian friendly neighbourhoods was one of the proposals. Others involved protection of existing green spaces and creation even more green spaces in the city, increasing visual attractiveness by introduction of more elements of small architecture to the city landscape, i.e. shelters in most needed places, development of derelict parts of the city and encouragement of better aesthetics and design.
5. FINAL THOUGHTS

In present times it is not enough to prepare spatial plans and implement them in order to ensure stable and healthy growth of cities. Globalisation, accelerating pace of change and growing complexity of urban systems created new contexts that makes it more difficult to plan for and manage city growth. It is necessary to link physical planning with social, economic and cultural development. Understanding the city and context, in which it functions, is crucial for policy development and the decision-making processes.

Futures methodologies, especially Prospective, offer a framework to develop a better understanding of the city system, its complexity and its past, present and possible future dynamics. The results of the study show that a change in the way of thinking, in attitudes and political system is necessary to plan for a better future for all. The participants of the study recognised the possible role of Prospective in creating a space for mindset shift and developing creative and innovative ways of thinking, which was indicated by this recommendation: “sit all of the councillors of the local authorities down to workshops like the ‘prospective’ workshop we have just had in order to realise that competing with each other is detrimental to their own areas and working together is in all of the their own self interests”.

REFERENCES:
Appendix 12
The set of scenarios developed in the “Dublin-Belfast economic corridor” study:

Scenario 1: Avarice

“Exploitation is the name of the game”

*Global & European Situation:* Avarice is a scenario shaped by a global future of rapid but unruly economic growth. Internationally, competitiveness is the key economic driver, while social and environmental issues are left on the backburner. Western nations thrive within this atmosphere, whereas most developing nations, particularly Africa, cannot appropriately adjust and consequently lag behind. The European Union has mounted efforts to steer economic growth in a more responsible and sustainable manner but to little avail, particularly considering the extent of the reigning corporate governing power.

*Irish Situation:* It is the year 2015, and the current Irish economic climate has emerged owing primarily to the infestation of the country by hungry players from the global village. Having taken advantage of the islands’ political vulnerability and ineptitude, exploitation is the name of the game.

A highly competitive but volatile economic corridor exists. Challenging times prevail as Irish competitiveness is confronted with EU deepening and the rising tide of emerging developing countries, whose high levels of production and cheap labour offer attractive alternatives.

Corporate governance dominates. Dublin and Belfast serve as the country’s CBDs and are overrun with international business and financial institutions. A competitive rather than supportive relationship exists between the two cities, with Dublin retaining the cutting edge. Dominating multi-nationals have set seed and mushroomed in clusters around the major cities, particularly Dundalk and Newry. Graduates from the privately funded Institutes of Technological Excellence (ITEs) at Dundalk and Newry feed into the highly technologically skilled and youthful workforce. Drogheda serves as the corridors’ center of industrial activity and energy production, utilising nuclear energy. In general, the agricultural sector is in decline but particularly so along the corridor. The east coast of the country has been disguised with concrete and no longer resembles the once rich and fertile plain it was so infamous for during the 20th century.

The corridor is plagued by unsustainable development. Reactive urban sprawl has overshadowed the once green belt between Dublin and Belfast. Little control exists over the development of the area. The incapacity of the transport infrastructure of the early 2000s to facilitate the present trend of increasing car ownership has lead to the demand for the development of the M15 multi-lane highway stretching from Arklow to Belfast. Major development of Dublin airport has occurred as has a high speed Dublin-Belfast rail connection. Land prices are at an all-time high owing to the ever increasing pressures on the built environment. Incineration serves as the main waste disposal option, and the waste hierarchy of reduce, reuse and recycle is not adhered to.
Pollution is prevalent around the major cities, which have consequently lost their attractiveness as social and tourist havens.

Overall, citizens of the corridor are wealthy and prosperous. A narcissistic middle-class society reigns, having succumbed to the power of materialism. Traditional ideals are deported and a new dogma of self-interest is adopted. However, the gap between the rich and poor is ever-widening, and social unrest is upshot. Urban decay results, particularly within Dublin, and high social costs must be paid. Unemployment within the city is prevalent but is an issue that has not been confronted in an adequate manner, as is homelessness. Furthermore, ethnic minorities are socially excluded and ghettoisation results. Society, therefore, is moving in opposite directions as the darker side of capitalism is highlighted.

**Key Events:**
- Economic boom within an unstable political climate
- Inflation rates surge reaching the highest rate ever recorded at 6.5%
- Unemployment rates are modest at 3.5% but the problem is concentrated within city centres such as Dublin and Belfast
- Waste production is on the rise
- Energy consumption levels have doubled in the last ten years since 2005
- Widening gap between the rich and poor along the corridor
- Isolation of prosperity and wealth along the east coast of the country

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**Scenario 2: Back to the Future**

"Socio-political backlash"

**Global & European Situation:**
Back to the Future is a scenario characterised primarily by the 2015 worldwide social uprising. Citizens decide to take to the streets owing to their disillusionment with failing international economic and political structures. Within the relatively stable European climate, however, such protests are rare, with the main exception being the socio-political backlash that the Republic and North of Ireland experience.

**Irish Situation:**
Owing to the country’s unique political situation, the disruption here is acute. Anarchy prevails as the peace process collapses and consequently spills over into sectarian violence. The conflict has political roots and will require political solutions.

Security emerges as the highest social priority. Policing is on alert and commonplace. Belfast quickly becomes isolated from the rest of the island as terrorist activity takes rule. Loss of hope as regards the peace process results, and the Irish Government retracts its involvement from the Northern political process. Feelings of mistrust, fear and resentment develop within the society of Northern Ireland, and consequently, there are little or no cross-border relations.

Economic growth is stagnant, particularly within the North as the significance of the border is reaffirmed. The corridor loses its appeal as a competitive economic highway,
and consequently ends at Drogheda. Growth and development is primarily confined within the Republic, and the importance of Cork and Galway as economic hotspots is evident. The frameworks of the Dublin/Cork and Dublin/Galway corridor emerge

Population growth reaches an all time low within the North, which will subsequently face a grey future. The majority of the youthful and educated population migrate southwards as well as towards mainland Europe. Dublin, therefore, directly benefits and serves as the economic centre of the island but only to a limited extent. External investment is transferred from the North southwards, particularly to Cork, and as such, strong economic relations develop between the two cities. However, fear of the sustainability of such external investment dominates in terms of the attractiveness and competitiveness of the corridor in light of the volatile political situation.

Modest attention is paid to emerging social issues, and as a result, the quality of life is poor. Unemployment is high, and there is a dependence on welfare. Safety on the streets is non-existent and Belfast, in particular, has entered a time of deprivation. The lack of development beyond and around the border, however, has resulted in little environmental degradation but the underutilisation of the corridor’s natural resources has also led to the collapse of the tourist industry. Furthermore, there is a strain on urban environmental services, including water supplies, waste treatment and the provision of social housing amongst others.

It is a time of turmoil and a test to the ingenuity and resourcefulness of the Irish people.

Key Events:
- Economic situation is pitiful but the political situation must first be addressed
- Failure of the peace process has led to resurgence in terrorist activity
- Social issues, particularly security and quality of life must be prioritised within the political agendas of the Republic and Great Britain
- Avoidance of economic cul-de-sacs is an important issue
- Unemployment stands at a high rate of 7.5%
- Birth rates fall to an all-time low

Scenario 3: Redemption

“Building a better world”

Global & European Situation:
Redemption is a scenario centred on the strength of the global political climate. Although internationally the economy is in a fragile state, the European thesis in response to this is: the examination of socio-political responsibilities.

Irish Situation:
The global situation has direct implications for the economic stability of the corridor, which consequently remains insecure. However, it is the year 2015 and within the country’s ubiquitous stable political regime, both the governments of the Republic and the North have focused their objectives on the rebuilding of the island.
Following the slow and painful death of the Celtic tiger, sluggish economic growth prevails along the corridor. Post Tigerland syndrome emerges. A sense of social and cultural determination is born, and traditional ideals are rekindled. An era of awakening towards an appreciation for the greater common good transpires.

North/South co-operation is strong both socially and politically. The elements of faith and trust have surfaced as fundamental priorities within the political system, and as such an independent, effective Northern Irish political institution materialises. Close working connections remain with the Republic and Great Britain, however local politics and democracy prove more significant in terms of the success of the political system by encompassing whole-heartedly the principles of Local Agenda 21. Furthermore, LA21 is of particular economic importance along the border region. The cities of Newry and Dundalk, for example, will play pivotal roles in determining the future sustainability of the economic corridor.

Tourism booms. The industry is primarily based on the island’s unspoiled, clean, green and safe image. Promotion of the island occurs on a mass scale as “a break from reality”. Dublin regains its position as one of the most popular tourist destinations within the European Union, and more rural unspoiled destinations along the east coast, such as around the area of Carlingford take off as new hotspots. Traditional and indigenous businesses flourish, and are encouraged along the corridor, particularly financially by the EU Sustainable Tourism First Fund. The Irish Sea is once again blue and open as a sustainable but competitive resource to the fishing industry. Drogheda emerges as the capital city of the industry, focusing its activities predominantly upon speciality and holiday fishing. The coast is considered the island’s ultimate natural resource and is protected legally and co-operatively on both sides of the border by stringent coastal management regulations.

Sustainable development is enshrined as the key to the success of the corridor. Its principles are interwoven into all government and local government policies. Public transport networks and routes are readdressed and built upon to encourage the use of integrated multi-modal transport, particularly within the cities of Dublin and Belfast. Funding is born out of Public Environmental Taxes (PETS) focusing charges on unsustainable environmental practices. The car becomes and increasingly expensive and legislated against “luxury” owing to high levies on fuel. Renewable energy is highly subsidized, and the exploitation of solar energy is commonplace within new developments in the main cities along the corridor and within new residential developments both within suburban and rural areas.

Social costs and welfare demands, in general, are high. Third level educational fees are standard as are high medical costs. Unemployment rates are moderate to high, particularly within isolated areas along the corridor, and consequently, a disturbing number of the island’s youthful population emigrates to mainland Europe and Great Britain in search of broader and more business orientated employment opportunities.

The economic situation remains fragile and insecure but hopeful. It is the intention to keep corporate taxes low to encourage once again investment by external industrial and business interests along the corridor. Belfast is specifically promoted as a competitive and congenial city for long-term investment, and the corridor’s clean image is furthermore promoted as a suitable location for investment by ethically
responsible and sustainable businesses. Challenges, however, do and will exist in the future in light of the corridor’s unstable economic situation and perhaps a certain level of risk taking will be required in order to further its development.

Key Events:

- Economic fragility
- Slow down of Celtic Tiger and emergence of Celtic Sloth
- Political awakening towards the need for improved quality of life
- Societal value change
- Emergence of traditional industries and businesses
- Lack of young business class
- Unemployment rates are moderate to high at 5%

Scenario 4: Bridging the Gap

“Working our way forward”

Global & European Situation:
Bridging the Gap is a scenario representative of a time of global metamorphosis. Worldwide, a real sense of stability prevails, and consequently, the need to build on this is recognized. Within the European Union, it is envisioned that substantial progress can be made and policy measures incarnated, although political and societal skepticism has not been completely banished and an air of caution still remains.

Irish situation:
Although economic growth surges once again for the first time since the 1990s, it does so at a more cautious and steady pace under the guidance of strong political leadership both in the Republic and in the North.

The economic corridor emerges as information and knowledge based artery pulsing up the coast stretching from Bray to Belfast. Situated at the cutting edge of the global economic framework, business and industry flourish along the east coast. “Smart” businesses play the field, and the corridor embodies itself as an attractive and competitive location for external investment. The Greater Dublin Area benefits immensely from this investment, which spills over into the midlands.

However, global competition is extreme and merciless. Competitive advantage is the name of the game. and consequently, risk management is a business priority. Entrepreneurship must be politically encouraged in order to decrease the dependence of the corridor on multi-national investment. Will lessons therefore be learned from the failures of the Celtic Tiger era?

Civic society exists, with equality of opportunity prevailing as the main objective, particularly within the steady Northern Irish political climate. The Irish identity has evolved and reinvented itself, amending its early 21st century materialistic values. Although wealth and prosperity have taken hold, the gap between rich and poor is no longer unforgiving. Quality of life is high for the majority, and social issues dominate
the political agenda. The cities of Dublin and Belfast have recovered from their near approach towards desolation and are now characterised as healthy and sustainable capital cities. Increasing strain, however, appears to have lent itself along the corridor as population growth is high and growing as is immigration. Furthermore, migration from the west coast of the country to the east coast is common.

The environmental wrongs of the past are readdressed. Major investment is pumped into the bioremediation of brownfield sites as a result of public demands for environmental and health issues to be prioritised. Illegal dumping, particularly that uncovered in the Dublin and Mourne Mountains are mitigated. Bio-technological solutions surface, including the production of genetically engineered organisms, to deal with industrial and hazardous waste, whereas commercial and household waste is dealt with at point source. The polluter pays principle is enshrined in government policy and legislation. Major challenges do, however, exist and are projected with increasing environmental strains and demands owing to high population growth. Transport problems, however, still exist as the existing infrastructure struggles to cope with increased demand, and therefore travel bottlenecks are common, particularly at the border city of Dundalk.

As such a cautious approach must be employed and the principles of sustainable development adhered to in order for the corridor to develop in a profitable and environmentally sustainable fashion.