2004

Futures Thinking to Achieve Sustainable Development at Local Level in Ireland

Lorcan Sirr

Technological University Dublin, lorcan.sirr@tudublin.ie

Ruth Kelly

John Ratcliffe

Follow this and additional works at: <https://arrow.tudublin.ie/futuresacrep>

Part of the [Economics Commons](#), [Geography Commons](#), [Political Science Commons](#), [Public Affairs, Public Policy and Public Administration Commons](#), [Strategic Management Policy Commons](#), [Urban, Community and Regional Planning Commons](#), and the [Urban Studies and Planning Commons](#)

Recommended Citation

Kelly, R., Sirr, L., Ratcliffe, J.: Futures thinking to achieve sustainable development at local level in Ireland. *Foresight*, Vol. 6 Iss: 2, pp.80-90. 2004.

This Report is brought to you for free and open access by the Futures Academy at ARROW@TU Dublin. It has been accepted for inclusion in Reports by an authorized administrator of ARROW@TU Dublin. For more information, please contact arrow.admin@tudublin.ie, aisling.coyne@tudublin.ie, gerard.connolly@tudublin.ie.

Futures thinking to achieve sustainable development at a local level in Ireland

Lorcan Sirr
John Ratcliffe
Ruth Kelly

We are living in times of unprecedented global change and upheaval and over the next ten to 20 years governments, organisations and individuals will face increasing difficulties in an environment of growing complexity, heightened uncertainty and a quickening pace of change. The concept of sustainable development implies the reconciliation of long-term socioeconomic development, environmental protection and quality of life; essentially it is concerned with the future. Unfortunately, the potential for linking “futures thinking” to debates about sustainable development at local and regional government levels is relatively undeveloped, particularly in Ireland. Responding to this challenge, The Futures Academy at Dublin Institute of Technology, Ireland, was established in January 2003 to provide both a research and consultancy forum for future-proofing policies and strategies using the “prospective through scenarios” methodology. This paper describes the evolution of sustainable development in Ireland and the generic field of futures thinking, with particular focus on the prospective process which may assist key local policy makers and stakeholders move towards sustainable development for future generations in Ireland.

The context

It could be argued that sustainable development is in danger of moving from a state of ambiguity to a cliché without ever having passed through a stage of meaningfulness or comprehensibility. The tenuous nature of the concept, coupled with its increasing importance in international and national policies, has led to a wide variety of definitions and interpretations. There is no commonly accepted single definition of the concept (Haughton and Hunter, 1994) and in the third decade since the publication of Our Common Future (Brundtland Commission, 1987), sustainable development remains a concept intuitively understood by many but still very difficult to express in tangible or operational terms (Lele, 1991). The most frequently cited version is that which emerged

from the World Commission on Environment and Development (WCED) report *Our Common Future*: “sustainable development is development which meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland Commission, 1987). This definition, according to Hediger (2000) is based on an ethical imperative of equity within and between generations and implies sustaining the natural life-support systems on the planet, while extending to all the opportunity to improve quality of life. In other words, sustainable development encompasses not only environmental protection, but also economic development and social cohesion and is most widely represented by the three overlapping circles model (see Figure 1). In this model, it can be argued that progress is characterised by a gradual convergence of the three circles, indicating a holistic and co-ordinated approach that fully integrates economy, environment and society (Dooris, 1999). Essentially, sustainable development is multi-dimensional, and incorporates many different aspects of living, from pursuing environmental protection and maintaining natural capital, to achieving economic prosperity and equity for current and future generations.

Overlapping discourses in sustainable development

Although the WCED definition of sustainable development emphasised that environmental problems cannot be considered in isolation from others such as poverty and social disintegration, it also recognised the uncertainties encompassed by the time dimension and future resources, technologies and human values (Shiftan et al., 2003). At the United Nations Conference on Environment and Development (UNCED) 1992, Ireland was one of the 150 nations which endorsed Agenda 21, a blueprint which is intended to set out an international programme of action for achieving sustainable development for the twenty-first century (Irish DoELG, 1997). It has been estimated that over two thirds of the actions in Agenda 21 require the involvement of local governments. Therefore, local and regional authorities have a key role to play in achieving sustainable development (Keatinge, 1993). Chapter 28 of Agenda 21, Local Agenda 21 (LA 21), has precipitated extensive action for sustainable development at the level of the municipality (Selman, 1998) mainly because it encourages a more proactive role, and requires stakeholders to explore wider implications of their lifestyles while promoting collective responsibility for actions (Mehta, 1996). Sustainability indicators, LA 21 programmes and development and implementation of environmental management systems (EMSs), for example, have long been recognised in Ireland as vital

tools to assist local authorities map the course towards a more sustainable future (Irish DoELG, 1995, 2001). However, the potential for linking futures thinking to debates about environmental, economic and social changes at local and regional levels is very undeveloped in Ireland.

The application of futures thinking to achieve sustainable development at local and regional levels in the UK is also a revolutionary, yet rapidly evolving process. Under the UK Local Government Act (2000), all local authorities were required to change their political systems and consequently, central government adopted futures thinking at local level through the modernisation programme for local government. The programme created conditions for local governance which were strategic, integrated and futures-oriented. One of the key purposes behind the programme was to rebuild the links between local government and local people (as advocated in LA 21) responding to a sense that the public had become disengaged from, and sometimes distrustful of, the political process. This raises challenges and opportunities for developing expert and participative futures research to inform local thinking, decision making and action (Saunders, 2002b). The programme for local government stresses the role of councils as community leaders. A key part of this role is ensuring the engagement of local communities genuinely influencing regeneration priorities from the “bottom up” (Sparks and Nicholson, 2000). The programme has several parallels with LA 21 as it is not controlled by the local authorities, but is instead about the local authority using its position and its resources to try to facilitate the achievement of a level of community consensus. Essentially, local authorities play the roles of facilitator and of major actor, without infringing the rights of other participants by adopting a form of “top-down” control (Kitchen et al., 1997). However, the process cannot be all “bottom up”. Local leadership and a high political profile are needed to encourage active participation in local sustainable development initiatives. Critical to effective participation is the holding of strategic conversations with key actors and members of the public. This is discussed in more detail later. The development of the modernisation agenda for Britain opened up opportunities for futures thinking in pursuit of sustainable development, even if at present it seems to be in conflict with the “deliver” agenda of the short term (Saunders, 2002c). Slaughter (2002) regards short-term thinking as one of the most dangerous perceptual defects that we have inherited from the recent past – society wants to

transform the world beyond measure but does not want to stop to consider the long-term consequences.

The Irish situation

In Ireland's recent Budget 2004, new decentralisation plans were announced to relocate Government departments out of Dublin to regional centres under a long-planned decentralisation scheme. In order to promote regionally balanced and sustainable growth, a total of eight departments and the Office of Public Works (including their ministers and senior management) will move their headquarters from Dublin to provincial locations, leaving seven departments with their headquarters in Dublin. According to Morgenroth (2004) this move poses many problems and challenges to both central and local government. He believes that apart from running contrary to the Irish National Spatial Strategy (NSS), the decentralisation plan reduces the likelihood of real local and regional government reform, and if the European experience is a barometer, will lead to reduced efficiency in strategic policy making and service delivery. In addition, recent legislative changes including Ireland's Local Government (Planning and Development) Act (2000), Local Government Act (2001) and the Local Government (Planning and Development) (Amendment) Act (2002) presented a new set of challenges to local authorities. The Planning Acts aim to ensure that the planning system of the twenty-first century would be strategic in approach and imbued with an ethos of sustainable development and would deliver a performance of the highest quality.

Indeed, the estimation of future impacts of existing spatial plans and policies on land-use development, and the consideration of alternative planning and policy scenarios for impact minimisation, are of growing interest for urban and regional planners (Barredo and Demicheli, 2003). The Local Government Act (2001) introduced a range of reforms to enhance the fundamental democratic nature of Irish local government. It provided a modern statutory framework for the local government system structures, functions and operations and repealed outdated law and terminology. The Act aims to enhance the role of the elected member, support community involvement with local authorities in a more participative local democracy and modernise local government legislation.

The introduction of strategic policy committees (SPCs) and county and city development boards (CDBs) in Ireland represented a significant departure from the way local authority

business had been conducted. In existence since 1997, SPCs and CDBs were given statutory basis under the Local Government Act (2001). The main objective is that SPCs will provide policy centred committees that can harness the experience of relevant external bodies to renew and revitalise local government. They will also enhance the overall role of councillors by providing a platform for input in the policy formulation process at an early stage, for effective monitoring of existing policies, and for policy review. CDBs, on the other hand aim to enhance local democracy by ensuring that local communities and their representatives have a real say in the delivery of the full range of public services locally. The creation of SPCs and CDBs may be seen as the emergence of a more interactive and inclusive element within democracy to enable “strategic conversations”. Their capacity to undertake debates about long-term issues could facilitate a collaborative and shared journey to help cope with uncertainty and complexity. Indeed, the Irish Guidelines on Local Agenda 21 (Irish DoELG, 2001) identify regional authorities, SPCs and CDBs as strategically placed to advance LA 21 at both local and regional levels. However, this potential is currently relatively unexplored in Ireland. Consequently, Irish policy makers at all spatial scales are now faced with new challenges and increasing levels of complexity in working towards sustainable development. Therefore, the need to develop new approaches to anticipate and prepare for the future is becoming increasingly important (Puglisi and Marvin, 2002).

In recent decades, futures thinking has evolved as a means to establish a vision for a preferred future and then to identify the issues, trends and choices to be addressed in achieving that future. Futures thinking explores alternatives, assumptions, choices and consequences and helps to reveal the driving forces that propel actions and choices in the present so that we can consider whether or not we want them to be incorporated into plans for a sustainable future. The following sections describe the concept of futures thinking and examine the possible benefits to local authorities of employing the “prospective” process, in particular, as a means of working towards sustainable development in Ireland.

The futures concept

Throughout most of human history, the growth of population, the degradation and depletion of natural resources, the restructuring of societies, and the development of new technologies have usually been so slow as to be imperceptible during an individual

lifespan (Meadows and Randers, 1992). However, in the past two centuries the global economy has shown exponential growth, transforming the character of the planet and especially of human life (Mebratu, 1998).

Today, urban and regional policy makers operate in a complex world of change and uncertainty in which the need for developing new approaches to anticipate and prepare for the future is becoming increasingly important (Masini and Vasquez, 2000). There is growing realisation that the future is not fixed with the idea that the future can be influenced, shaped or created gaining impetus in the past decade. By trying to make things happen, rather than guess what might happen, governments, organisations, and individuals for that matter, have to embrace uncertainty and deal with it by continually reviewing a wide range of policy options. Hence, foresight and futures thinking are evolving as vital tools for businesses, governmental organisations and political leaders facing uncertainty, building on the pioneering work of, inter alia, Herman Kahn, Gaston Berger, Bertrand de Jouvenal, Michel Godet and Eleonora Masini. Futures thinking is a means of enhancing creative policy research and development and is becoming increasingly important because many developments, particularly those that affect the development of people, a country's infrastructure, economic base, or the protection of our environment, are extremely long-term processes. In these cases it is important to pursue the correct path now. To discover in 25 years, for example, that we have taken the wrong course would be disastrous, and futures thinking aims to reduce the chance of this happening. At a national level, a vision of the future provides a benchmark against which strategically to appraise policy decisions that can arise from inappropriate short-term thinking (Newall and Menzies, 1997). The future will not be shaped by a single dominant trend or force, but by converging influences from a number of sources; by multiple interacting causes or driving forces of change (Sundberg and Thurber, 1980). These are described in further detail later in the paper. The prospective through scenarios method is based on the belief that the path is open to a number of possible futures. Its primary purpose is to contribute to a better understanding of the contemporary world, and of its hidden complexities and uncertainties (De Jouvenal, 1986).

The Futures Academy

The creation of a Futures Academy at Dublin Institute of Technology for the first time in Ireland furnishes public and private sectors with expertise and networks within which

to develop and instigate future-proofing in their own disciplines and industries. The objectives of the Academy include the following:

- . foster a more informed, structured and imaginative approach by practitioners and decision-makers working in the land, property, construction and development disciplines towards urban futures;
- . contribute generally towards advancing and furthering the progress of sustainable urban development;
- . develop an integrated and multi-disciplinary approach towards policy formulation and problem solving; and
- . provide positive support to organisations in improving the flexibility and robustness of strategic planning and organisational management in the face of uncertainty and change.

The Academy is a member of the EE IG euroProspective, which was formally established on August 13th 2001, and its status published in the Official Journal of the European Communities on 2 October 2001. The main objective of euroProspective is widely to support the promotion and the development of futures thinking. The main activities of euroProspective include (Goux Baudiment, 2002):

- . the exchange of information about futures thinking and research, especially through the management and co-ordination of a multilingual Web site;
- . promotion of existing high-quality foresight and prospective practices, both for the human values they carry and for the rigour of their methods; and
- . organisation of a strong and permanent network between European and non-European futurists (academics and professionals).

The “prospective” process through scenario thinking is a futures method most frequently employed at the Academy. This approach does not aim to predict the future. It simply allows an organisation or community to understand creatively what is going on in their environment, to appreciate the complex forces shaping that environment, to think imaginatively through what this means for them, and then demonstrate the readiness to act decisively on this new knowledge. The stages in the prospective process are described here.

The prospective process through scenarios

The crux of scenario planning is that several coherent futures are selected from a number of possibilities and developed in enough detail to be highly plausible (List, 2003). Scenarios generally come in two forms: exploratory and normative. Exploratory scenarios depict self-consistent future worlds that would emerge from the present through credible, cause, effect and feedback developments and reach an end-point that seems plausible. Normative scenarios, on the other hand, represent desirable future worlds (Ratcliffe, 2003). Since the 1980s scenarios have become increasingly popular in strategically planning for a more sustainable future and a range of variations in the scenario development process has evolved. These approaches vary from extrapolative and normative scenarios favoured by Erich Jantsch, to the French school of probable and desirable scenarios, to first and second generation scenarios chosen by the Shell-SRI, to trend, optimistic, pessimistic and contrasting scenarios preferred by Herman Kahn (Masini and Vasquez, 2000). The prospective method (or “la prospective”) has French origins and allows for uncertainty and ambiguity in the contextual environment to be acknowledged and implications for strategy development to be considered (Burt and Van der Heijden, 2003). In the 1980s, the choice of which scenario methodology to follow was largely influenced by Shell’s scenario approach. When initially developed, scenario planning helped the company understand external change, change in markets, the competitive arena, technology and demographics (Van der Heijden, 1996). Despite the variations in scenario planning, essentially they address three major issues (O’Brien, 2004):

- (1) the synthesis of information about what is important for an organisation, a necessary foundation for futures thinking;
- (2) the development of a consistent and plausible set of descriptions of possible futures, or scenarios, through the use of a structured methodology; and
- (3) the evaluation of the implications of these scenarios for the organisation today.

Herman Kahn repeatedly insisted that the scenario is not a predictive device but that this should not be taken as an argument against the scenario approach. Scenarios are both a matter of cognition and imagination. According to Aligica (2003) they refer to the realm of the possible, and as such belong to the ontology of possible worlds and to the psychology and epistemology of thought experiments. The principle objective of scenario development is to challenge one’s own mental interpretation of the future, often referred to as the “business as usual” future (Ravetz, 2000). The process draws on a

group's intuition to identify the main factors driving the system, in particular those that are significantly uncertain. By stretching these variables to their limits of credibility, the group tries to create a number of possible futures (scenarios) which, while plausible, are significantly different from business as usual (Van der Heijden, 2000).

Despite their story-like qualities, scenarios follow systematic and recognisable phases. The process is highly interactive and imaginative. It begins by isolating the decision to be made, rigorously challenging the mental maps that shape peoples perceptions, and accessing and gathering information, often from unorthodox sources. The next steps are more analytical: identifying the driving forces of change, the predetermined elements and the critical uncertainties. Examples of such driving forces are demography, societal factors (including lifestyle and societal values), economic conditions, political forces and technological development (Burt and Van der Heijden, 2003). More and more scenario planning functions as a collective thinking exercise or the mobilisation of many minds (brainstorming). However, it has been suggested that the popularity, appropriation and increased use of scenario building means that specialists no longer monopolise the technique and that consequently, there has been a decrease in methodological rigour (Godet, 2001). Despite this apparent shortcoming, "prospective" through scenarios offers an opportunity, whether to an organisation or a local authority, to think "outside the box" and develop more innovative and creative strategies towards sustainable development.

The process

Given the restricted nature of the text, all that is possible here is a brief note on each stage highlighting some of the techniques employed, issues that emerge and relevance of the process to local authorities planning for a more sustainable future.

1. Set the strategic question

This might be a general examination of the position of the local authority within its external environment, identification of gaps in the knowledge base and training needs, or possibly how effective the local authority is in its approach to community, environmental and social issues including equity, interaction and active participation. The resolution of a strategic question "must take into consideration the conflicting goals and values espoused by various interests as well as the facts" (Leitch and Leistritz, 1984). Therefore,

critical to the strategic question and indeed the prospective process, is the holding of strategic conversations with key actors and members of the general public. The purpose here is to give democratic expression to the visions of the community the local authority represents. Citizen participation and education of the community are vital to the success of planning for a sustainable society (Maser, 1997). Individuals and social groups wish to mould not only their own future but also the general shape of the future (Ga'spa' r and Nova'ky, 2002). Sustainable development places major emphasis on local accountability, interaction and democratisation, challenges many contemporary perceptions of local governance and offers an opportunity for local authorities (notably through LA 21 programmes) to develop effective participatory structures. Its political viability depends on the full support and participation of the people it affects through their local authorities, social institutions and their own personal contributions (Galvin and Jackson, 1995). Increasingly, qualitative researchers are recognising that interviews are not neutral tools of data gathering, but active interactions between two or more people leading to negotiated, contextually based results examining the "how" and the "why" as well as the "what". Consequently, strategic conversations have evolved as a vital tool to help organisations, governments and policy makers thoughtfully examine and develop more sustainable policy decisions. The creation of scenarios relies on unusual points of view, often from outsiders, to stimulate, engage, and advance strategic conversations, developing alternate mindsets open to inherent complexities and uncertainties that confound most linear strategic plans (Barnett, 1992). Strategic conversations are fast emerging as a central feature of the scenario process, and scenario exercises, in turn, are becoming a prime tool of strategic planning.

2. Identify the driving forces of change

Scenario building, in conjunction with a careful analysis of the driving forces of change, fosters systematic study of potential future possibilities – both good and bad (Enserink, 2000). In practice, the driving forces of change are identified by: continuous monitoring through horizon or environmental scanning; in-depth interviews with acknowledged experts; targeted questionnaire surveys (Delphi surveys, for example); and brainstorming workshops at the start of the prospective process. In relation to sustainable development, the main drivers of change can be classified as follows:

- . Environmental. The need to arrest environmental degradation and ecological imbalance.

- . Societal. The need for equity in the quality of life among present-day populations and the need to avoid impoverishment of future generations (Redclift, 1987).
- . Economic. The need to ensure that economic growth is not considered in isolation from social and environmental considerations.

The “Six Sector Approach” utilised in the “prospective” process to identify drivers of change includes an additional three to the list: culture, governance and technology. However, quality of life (“the need to provide for an individual’s happiness or satisfaction with life and environment including needs and desires and other tangible and intangible factors which determine overall well-being” (Cutter, 1985)) is another important consideration. Stevenson (1998) identifies a further three “cross currents of change”:

- . Globalisation – occurring simultaneously with localisation; centralisation with decentralisation; and standardisation (for example, a global based culture) with diversification.
- . De-westernisation – democracy and human rights as western constructs; or multiculturalism in the west does not mean power sharing, whereas in certain non-western countries it does.
- . Mindset – plurality of possible world views, post modernism and awakening of human spirituality.

An understanding of the complexity and richness of local and regional sustainable development can only be achieved by local authorities examining the interconnectivity and interrelationship between the various drivers, which calls for holistic approaches and integrative strategies, while simultaneously strengthening the principles of participation and partnership. Essentially, the driving forces of change shape and propel the story lines described in a particular plot for a scenario.

3. Determine the main issues and trends

The key elements of futures worlds are predetermined events and critical uncertainties. As mentioned above, very often forecasts or extrapolations are too conservative in the long run, and local authorities or indeed any organisation may unintentionally foster tunnel vision by paying too much attention to current trends, projecting the past forwards and ignoring the unexpected. Sustainability indicators attempt to quantify

driving force issues and trends and are frequently a feature of LA 21 programmes. However, Bell and Morse (1999) consider the major criticism regarding sustainability indicators to be that they attempt to encapsulate complex and diverse processes in relatively few measures. The world is a complex system and science copes with a complex system by breaking it down into components and studying how these work in isolation, and then together. This reductionist approach has been criticised because some systems are so large, with so many interactions, that they are impossible to model. However, there are still clear demands for reductionism. Governments and businesses alike tend to desire one future, a clear answer, and therefore may tend to overlook the importance and influence of complexity and uncertainty. Complexity and uncertainty requires accepting that there are many factors that influence change (Inayatullah, 2002). In addition, extrapolating past and current trends into the future (forecasting) is frequently erroneous. The further forward forecasters try to predict, the more erroneous the forecasts seem to get (MacKay and McKiernan, 2003). This serves only to lend additional credibility and applicability to the prospective through scenarios method which is qualitative in nature and is essentially based on a process that helps all concerned to think, talk, plan and act differently and creatively, but ultimately in concert. Indeed, chaos theory, which outlines the emergence of different new situations amid periods of instability, not only guides us through the labyrinth of possible futures but also systematically generates them with its methods aiming at quantitateness (Nova'ky, 2001). The prospective process does not intend to discredit quantitative or forecasting research methods, but rather to support and add to them in a positive and meaningful way thus facilitating the creation of holistic, comprehensive and integrated strategies. To clarify the process of strategic thinking it is important to focus on a relatively small number of issues and trends that are critically uncertain and impact most upon the strategic question. A crucial aspect of this stage is the process of clustering, whereby the issues and trends are grouped into major policy fields. This is explained in the following subsection.

4. Clarify the level of impact and degree of uncertainty Of most interest to any organisation are those scenarios which have the highest degree of uncertainty and the highest level of impact. Indeed, the Millennium Project cited as a major global issue the diminishing capacity of governments and organisations to make decisions as issues become more global and complex under conditions of increasing uncertainty and risk

(Glenn and Gordon, 1999). A common approach towards determining the key areas of critical uncertainty that will form the central themes of the developing prospective, is to rank the issues and trends according to their:

- level of impact upon the strategic question; and
- . degree of uncertainty (likelihood) of occurring within the given timeframe (Ratcliffe, 2003).

The issues and trends are clustered in a matrix as shown in Figure 2 into two main categories:

- (1) High impact/low uncertainty forces. These are the relatively predictable trends which are common to all scenarios.
- (2) High impact/high uncertainty forces. These provide the structure for the scenarios. Issues that are assigned to the top three upper right corner boxes of the three-by-three matrix are key. The issues are further delineated into axes of uncertainty. In most cases, two general areas are identified which are believed to have the highest impact upon the strategic question and the highest level of uncertainty over the potential outcome. A quadrant matrix is then constructed using the two areas identified as axes forming dimensions within which four possible scenarios may be built.

5. Establish scenario logics

Scenario logics or themes are the organising principles around which scenarios are structured. Just as in a movie script or a novel, the theme of a scenario overlays its plot or story and provides an overarching reason for why specific forces or players behave as they do (Schnaars and Ziamou, 2001). Establishing scenario logics is crucial to the development of the scenarios. At this stage it is necessary to focus on the high impact/uncertainty issues, which centre on two critical axes of uncertainty. Logics can be expressed in many ways. The most common method, however, is using the 2 x 2 matrix, expressing logics in simple narrative form or by depicting them and their local level interactions diagrammatically showing causal connection (Figure 3). Scenario logics facilitate tests of the robustness of alternate strategies under different assumptions about the future. They are essentially organised themes, principles, or assumptions that provide each scenario with a coherent, consistent, and plausible logical underpinning (Gausemeier et al., 1998).

6. Create different scenarios

Scenario development (Figure 3) is perhaps a “keystone” methodology of futures thinking. A scenario can be defined as a rich and detailed portrait of a plausible future world or as a future state of a system (Beroggi, 1997). It can model plausible futures that have been structured to reflect features of local authorities, organisations and social systems, including a number of the key uncertainties that they face (Slaughter, 2002). However, it is important that scenarios of reasonably possible futures do not ignore the scenario-spoiling “wild card” of low possibility futures (Marien, 2002). Scenarios are a prime means for developing organisational awareness regarding the ambiguities of deeply-rooted environmental change and represent a test-bed for strategic decision making (Van der Heijden, 1996). The development of coherent scenarios involves both individual and collective brainstorming, identifying major developments, assembling ideas in thematic areas and distinguishing convergent from divergent ideas (Barbanente et al., 2002). Essentially, each scenario should be:

- . plausible: credibly capable of happening;
- . robust: internally consistent and coherently defensible;
- . divergent: structurally differentiated, not simply variations of the same theme;
- . challenging: testing the conventional wisdom of the organisation and providing novelty of thought; and
- . useful: contributing specific insights into the future that help tackle the strategic question (Ratcliffe, 2003).

At its core, the scenario-based planning process emphasises construction of mental models outside the participants’ familiar surroundings and thus allows for new and original thinking to emerge (Krause, 2002). Each scenario should have an evocative title, a beginning, middle and end, an approximate time-line and early indicators of change. What really matters about the scenario approach to strategy work, is the thinking process rather than the bureaucracy of planning. Applied in this way, scenarios can become part of organisational culture that invests in assumptions, values and mental models instead of tools and techniques (Van der Heijden, 1996).

7. Produce the prospective

The “prospective” approach is intrinsically “normative” in that it concludes by describing a single preferred future. The systematic process of trying to anticipate the future can actually play a very valuable role in helping to create the most preferred future (Neigher, 2003). Berger (1957) described ‘la prospective’ as integrating the efforts of “a philosopher, psychologist, sociologist, economist, pedagogue, doctor, statistician, demographer and an engineer or two . . .” into one shared vision (Berger, 1957). The “prospective” comprises not only the study of the future, and an evaluation of alternative outcomes against given policy decisions, but also the will to influence the future and shape it according to society’s wishes.

Prospective covers the concepts of “preactivity” (understanding) and “proactivity” (influencing), whereas foresight concerns itself mostly with preactivity but the proactivity is missing (Godet, 2001). “Prospective” thinking demands an integrated process and a long-term vision of the different possible choices for the future with full awareness of their mutual impacts (Goux Baudiment, 2004).

8. Move to strategic planning

In strategic planning, choices are made continually to adjust how an organisation, given its mission, strengths and weaknesses, responds to anticipated change in a complex and uncertain environment (Morrison and Cope, 1985). Strategic planning pays dividends to organisations (local authorities in particular) when approached in a disciplined process with “top down” support and “bottom up” participation. Fundamentally, strategic prospective applies anticipation to action. In one way, it provides a bridge between strategic thinking and planning which were, traditionally and deliberately, mutually exclusive (Ratcliffe, 2003). Van der Heijden (2002) believes that through the prospective process anticipation to action in strategic planning may be achieved by:

- . creating operational awareness of the environmental imperative requiring change;
- . guiding the formation of operational plans;
- . enlisting key members of staff who have power to act; and
- . establishing coherence in management through the development of a shared view.

Conclusion

Prospective through scenarios thinking as a methodology for improving foresight recognises that in an ever changing and uncertain environment the future cannot be

known, but it can be understood. However, at local and regional level anticipation is not widely practised by decision makers and as Godet (2000) states “when things are going well they can manage without it, and when things are going badly, it is too late to see beyond the end of their noses”. A problem with applying futures thinking to local government is the difficulty in understanding the dynamism of the sector. This requires an understanding of the key drivers influencing change, and in particular emerging tensions or contradictions. The paradigm of sustainable development inherently but not explicitly embraces futures thinking. Almost all published definitions of the concept, whether based on weak or strong sustainability principles, refer to both present and future generations and are generally motivated by a real concern for the long-term well being of humanity. LA 21 emphasises the role of local authorities in achieving sustainable development and calls upon them to develop effective and innovative strategies. Futures thinking offers local authorities an ideal opportunity to incorporate long-termism and foresight into strategic planning at local level. Sustainable development demands integrated policy, planning and social learning processes in order to be effective. Similarly, futures thinking needs to be participatory in order to be effective. Futures thinking is also multidisciplinary. It looks for connections between different perspectives and for insight into the key patterns that emerge. A key challenge to local authorities is to overcome short-termism and evidence-based policy making. What worked or did not work in the past will not be a definitive guide to what will work in the future – best practice may need to be regarded as something to take into account when forward planning rather than as something to copy (Saunders, 2002b).

The “prospective” process is about preparation, not prediction. By incorporating flexibility into future scenarios, local authorities ensure robustness and dynamism when preparing strategies and projects, while preparing for change may help realise any opportunities and minimise risks. A typical time dimension is to anticipate at least 20 years ahead. However, this may vary according to the project or the organisation. Engaging commitment at all levels of the local authority is crucial to the success of the process, in particular, decision-makers who are key to persuading people that long-term thinking matters. Futures thinking for local authorities demands an effective partnership structure involving several organisations, interests groups and the general public. Establishing partnerships takes a pragmatic and utilitarian approach and is a vital element in establishing effective interactive networks (as advocated in LA 21).

Finally, understanding change in local government requires an appreciation of the way in which different tensions resolve themselves over time, such as the tension between efficiency and democracy, managerialism and public choice theory, and the tension between the national and sub-national (Reid, 1999). Prospective through scenarios provides a framework for local authorities to achieve this and represents a fundamental shift in strategic planning at local level – one which will hopefully have a major role to play in working towards sustainable development for future generations in Ireland.

References

- Aligica, P.D. (2003), “The challenge of the future and the institutionalization of interdisciplinarity: notes of Herman Kahn’s legacy”, *Futures*, Vol. 36 No. 1, pp. 67-83.
- Barbanente, A., Khakee, A. and Puglisi, M. (2002), “Scenario building for Metropolitan Tunis”, *Futures*, Vol. 34 No. 7, pp. 583-96.
- Barnett, S. (1992), *The Nissan Report*, Currency Doubleday, New York, NY.
- Barredo, J.I. and Demicheli, L. (2003), “Urban sustainability in developing countries megacities: modelling and predicting future urban growth in Lagos”, *Cities*, Vol. 20 No. , pp. 297-310.
- Bell, S. and Morse, S. (1999), *Sustainability Indicators: Measuring the Immeasurable*, Earthscan, London.
- Berger, G. (1957), “Sciences humaines et pre´ vision”, *Revue des Deux Mondes*, 3 February.
- Beroggi, G.E.G. (1997), “Decision modeling in policy management”, *An Introduction to the Analytic Concepts*, Kluwer Academic Publishers, Boston, MA.
- Brundtland Commission (1987), *Our Common Future*, World Commission on Environment and Development, University Press, Oxford.
- Burt, G. and Van der Heijden, K. (2003), “First steps: towards purposeful activities in scenario thinking and futures studies”, *Futures*, Vol. 36 No. 10, pp. 1011-26.
- Cutter, S. (1985), *Rating Places: A Geographer’s View on Quality of Life*, Association of American Geographers, Washington, DC.
- De Jouvenel, H. (1986), “Prospective for a new citizenship”, *Futures*, Vol. 18 No. 2, pp. 25-33.
- Dooris, M. (1999), “Healthy cities and Local Agenda 21: the UK experience, challenges for the new millennium”, *Health Promotion International*, Vol. 14 No. 4, pp. 365-75.

- Enserink, B. (2000), "Building scenarios for the University", *International Transactions in Operational Research*, Vol. 7, pp. 569-83.
- Galvin, T. and Jackson, J. (1995), "Towards an integrated policy", in Covery, F. and Feehan, J. (Eds), *Assessing Sustainability in Ireland*, The Environmental Institute, University College Dublin, Dublin, pp. 182-5.
- Ga' spa' r, T. and Nova' ky, E. (2002), "Dilemmas for renewal of futures methodology", *Futures*, Vol. 34 No. 5, pp. 365-79.
- Gausemeier, J., Fink, A. and Schalke, O. (1998), "Scenario management: an approach to develop future potentials", *Technological Forecasting and Social Change*, Vol. 59 No. 2, pp. 111-30.
- Glenn, J.C. and Gordon, T. (1999), "The Millennium Project: issues and opportunities for the future", *Technological Forecasting and Social Change*, Vol. 61 No. 2, pp. 97-208.
- Godet, M. (2000), "The art of scenarios and strategic planning: tools and pitfalls", *Technological Forecasting and Social Change*, Vol. 65 No. 1, pp. 3-22.
- Godet, M. (2001), *Creating Futures: Scenario Planning as a Strategic Management Tool*, Economica, London.
- Goux Baudiment, F. (2002), *Together, Let's Further Futures Intelligence*, euroProspective Network Partnership, Paris.
- Goux Baudiment, F. (2004), "The EEIG euroProspective: implementing futures thinking on European scale", *Futures*, Vol. 36, pp. 131-5.
- Haughton, G. and Hunter, C. (1994), *Sustainable Cities*, Kingsley Publishers, London.
- Hediger, W. (2000), "Sustainable development and social welfare", *Ecological Economics*, Vol. 32 No. 3, pp. 481-92.
- Inayatullah, S. (2002), "Reductionism or layered complexity? The futures of futures studies", *Futures*, Vol. 34 Nos 3-4, pp. 295-302.
- Irish DoELG (1995), *Local Authorities and Sustainable Development: Guidelines on Local Agenda 21*, Department of the Environment and Local Government, Stationery Office, Dublin.
- Irish DoELG (1997), *Sustainable Development: A Strategy for Ireland*, Department of the Environment and Local Government, Stationery Office, Dublin.
- Irish DoELG (2001), *Guidelines on Local Agenda 21*, Department of the Environment and Local Government, Stationery Office, Dublin.
- Keatinge, M. (1993), *The Earth Summit's Agenda for Change: A Plain Language Version of Agenda 21 and the Other Rio Agreements*, Centre for Our Common Future, Geneva.

- Kitchen, T., Whitney, D. and Littlewood, S. (1997), "Local authority/academic collaboration and Local Agenda 21 policy processes", *Journal of Environmental Planning and Management*, Vol. 40 No. 5, pp. 645-59.
- Krause, P.H. (2002), "The PROTEUS Project scenario-based planning in a unique organization", *Technological Forecasting and Social Change*, Vol. 69, pp. 479-84.
- Leitch, J.A. and Leistritz, F.L. (1984), "Delphi analysis: a technique for identifying and ranking environmental and natural resource policy issues", *The Environmental Professional*, Vol. 6, pp. 32-40.
- Lele, S. (1991), "Sustainable development: a critical review", *World Development*, Vol. 19 No. 6, pp. 607-21.
- List, D. (2003), "Multiple pasts, converging presents, and alternative futures", *Futures*, Vol. 36 No. 1, pp. 23-43.
- MacKay, R.B. and McKiernan, P. (2003), "The role of hindsight in foresight: refining strategic reasoning", *Futures*, Vol. 36 No. 2, pp. 161-79.
- Marien, M. (2002), "Futures studies in the 21st century: a reality-based view", *Futures*, Vol. 34 No. 5, pp. 261-81.
- Maser, C. (1997), *Sustainable Community Development: Principles and Concepts*, St Lucie Press, Delray Beach, FL.
- Masini, E.B. and Vasquez, M. (2000), "Scenarios as seen from a human and social perspective", *Technological Forecasting and Social Change*, Vol. 65 No. 1, pp. 49-66.
- Meadows, D. and Randers, J. (1992), *Beyond the Limits*, Earthscan, London.
- Mebratu, D. (1998), "Sustainability and sustainable development", *Environmental Impact Assessment Review*, Vol. 18 No. 6, pp. 493-520.
- Mehta, P. (1996), "Local Agenda 21: practical experiences and emerging issues from the South", *Environmental Impact Assessment Review*, Vol. 16 Nos 4-6, pp. 309-20.
- Morgenroth, E. (2004), "Decentralisation high cost for little return", *Irish Independent*, 2 February, p. 4.
- Morrison, J.L. and Cope, G. (1985), "Using futures research techniques in strategic planning: a simulation", *Planning for Higher Education*, Vol. 13 No. 2, pp. 5-9.
- Neigher, W.D. (2003), "The process is the plan: defining strategic community futures", *Evaluation and Program Planning*, Vol. 26, pp. 441-57.
- Newall, H. and Menzies, M. (1997) in Peren, R. (Ed.), *Our County, Our Choices*, New Zealand Futures Trust, Wellington.

- Nova' ky, E. (2001), "Methodological renewal in futures studies", in Stevenson, T., Massini, E., Rubin, A. and Lehman- Chadha, M. (Eds), *The Quest for the Futures, A Methodology Seminar in Futures Studies*, Finland Futures Research Centre, Turku.
- O'Brien, F.A. (2004), "Scenario planning: lessons for practice from teaching and learning", *European Journal of Operation Research*, Vol. 152 No. 3, pp. 709-22.
- Puglisi, M. and Marvin, S. (2002), "Developing urban and regional foresight: exploring capacities and identifying needs in the North West", *Futures*, Vol. 34 No. 8, pp. 761-77.
- Ratcliffe, J. (2003), *Imagineering for Construction: Using a Prospective Process through Scenario Thinking for Strategic Planning and Management in the Construction Industry*, Futures Academy, Dublin Institute of Technology, Dublin.
- Ravetz, J. (2000), *City Region 2020: Integrated Planning for a Sustainable Environment*, Earthscan, London.
- Redclift, M. (1987), *Sustainable Development: Exploring the Contradictions*, Routledge, London.
- Reid, M. (1999), "Thinking about local government – time to change the paradigm?", *Future Times*, Vol. 4, pp. 1-8.
- Saunders, J. (2002a), *Designing the Future, Zone 6: Beyond the Boundary – to infinity and beyond*, Northern Permaculture Gathering Version 1, 11 May, available at: www.futuresedge.info.
- Saunders, J. (2002b), "A quiet revolution: opportunities for local futures in the UK", *Foresight*, Vol. 4 No. 2, pp. 10-20.
- Saunders, J. (2002c), "Looking forward to the long now: linking a futures mindset with sustainability", *FuturesEDGE*, October, pp. 13-15.
- Schnaars, S. and Ziamou, P. (2001), "The essentials of scenario writing", *Business Horizons*, July-August, pp. 25-31.
- Selman, P. (1998), "Local Agenda 21: substance or spin", *Journal of Environmental Planning and Management*, Vol. 14 No. 5, pp. 533-53.
- Shiftan, Y., Kaplan, S. and Hakkert, S. (2003), "Scenario building as a tool for planning a sustainable transportation system", *Transportation Research Part D*, Vol. 8, pp. 323-42.
- Slaughter, R.A. (2002), "Futures studies as a civilizational catalyst", *Futures*, Vol. 34 No. 6, pp. 349-63.
- Sparks, D. and Nicholson, G. (2000), *Development Trust Briefing for Local Authorities – The Future Is Here*, Development Trusts Association, London.
- Stevenson, T. (1998), "Netweaving alternative futures: information technocracy or communicative community", *Futures*, Vol. 30 Nos 2-3, pp. 189-98.

Sundberg, N.D. and Thurber, C.E. (1980), "World trends and future prospects for the development of human resources", *International Journal of Intercultural Relations*, Vol. 4 Nos 3-4, pp. 245-74.

Van der Heijden, K. (1996), *Scenarios: The Art of Strategic Conversation*, John Wiley & Sons, London.

Van der Heijden, K. (2000), "Scenarios and forecasting: two perspectives", *Technological Forecasting and Social Change*, Vol. 65 No. 1, pp. 31-6.

Van der Heijden, K. (2002), *The Sixth Sense*, John Wiley & Sons, Chichester.

Final Draft - no diagrams