4 THE KNOWLEDGE SOCIETY

4.1 Introduction

The description of our society as a Knowledge Society (KS) is only one among many others that has been introduced in an attempt to characterise some of the main developments it has undertaken in the late twentieth and early twenty-first centuries (Keenan et al., 2002). Needless to say, other descriptions have been proposed, such as, the media society, the risk society, the multi-cultural society, the global society etc. and a more detailed overview can be found in (Pongs 1999, 2000). Even so, accepting the description of our society as a KS one has met with objections from commentators for various reasons. Some hold that they imply that current changes are revolutionary, whereas they should be thought of more as evolutionary trends. Some argue that since all human societies have relied upon knowledge and information, the terms are implicitly discounting the capabilities of earlier societies and privileging the sorts of knowledge, and information that our societies particularly prioritise (Keenan et al., 2002).

For the purpose of this research project, the aim of this chapter is to give the reader an understanding of what the KS is by providing some background history concerning its origins and to describe some of its basic characteristics. Following on from this, a description of the implications which the KS has for governments and organisations, especially in terms of policy and knowledge management.

4.2 Background

During the 1960s, the studies of the Austrian American Economist Fritz Machlup, Austrian American Management Writer Peter Drucker and the American Political Scientist Robert E. Lane greatly influenced the concept of the KS. The contribution of knowledge work to the economy was first clearly examined and emphasized by Machlup who is also credited with popularizing the concept of the information society (Machlup, 1962). Lane is known as one of the first authors who noted the term *"knowledgeable society"* and in his article he argued against irrational politics and

asked for more rational knowledge. He demanded rational knowledge as scientific expertise in order to improve societal decision making processes (Lane, 1966). In his book, *The Age of Discontinuity*, Drucker provided guidelines for mastering the discontinuities brought about by information technology and knowledge work (Drucker, 1969).

During the 1970s, American Sociologist Daniel Bell explored the emerging predominant role of "theoretical knowledge" as the new "axial principle" of society, particularly in the fields of politics, work and science (Muller-Prothmann, 2005). Further concurrent reasoning can be found in the Japanese "Plan for an Information Society" of 1972 (Masuda, 1990 (1981)), the Richta Report (Richta, 1971) and (Porat, 1977; Edelstein, 1978). But most importantly, Bell foretold the coming social age and invented a new phrase to describe it: "*the knowledge society"*. In his book, *The Coming of the Post-Industrial Society*, Bell charted an economic shift from an industrial economy where most people were engaged in producing things, to a post-industrial where the workforce was increasingly concentrated on services, ideas and communication. Much of the new emphasis, Bell argued, would be increasingly dependent on people and institutions that produced knowledge – in science, technology, research and development. Bell rejected the concept of a post-capitalistic society, because the new society would be determined by "knowledge" instead of "labour" (Krings, 2006). Bell commented that, *"The post-industrial society is a knowledge society in a double sense: first the sources of innovation are increasingly derived from research and development...second, the weight of the society – measured by a larger proportion of Gross National Product and a larger share of employment – is increasingly in the knowledge field"* (Bell, 1976 (1973)).

During the 1980s and 1990s, the academic and public awareness became steadily intensified and extended the general themes of the societal centrality of knowledge to a broad variety of fields of investigation (Krohn, 2000; Muller-Prothmann, 2005). The growing popularity of the KS term during the 1990s was fostered especially through the work of Peter Drucker and Robert Reich, through their continued research in management theory (Muller-Prothmann, 2005). However, another concept of the KS was developed by the German-American sociologist Nico Stehr in his book, *Knowledge Societies* (Stehr, 1994). In contrary to Bell his theory implies the ability of

social action. He does not focus mainly on technology, but on knowledge contents, the position of the human beings within new media, solidarity and social power. He considers that the increasing penetration of knowledge in all societal levels produces a tremendous need for qualification and performance by all professionals. When for Lane the amalgamation between the scientific, public and economic sector still was a wishful thinking, according to Stehr's analysis the role of experts becomes extremely important in the KS. For him the development of knowledge can therefore be considered as the basis both for social inequality, for social conflicts as well as a source for social solidarity. But similar to Bell's theoretical approach he assumes a strong social change towards a KS without developing systematically the problems of social change (Krings, 2006).

Although there is a long historical debate about the importance of knowledge for the development of modern societies, there is no consistent theory of a KS. None of the sciences of sociology, economics or management offer a theoretical and empirical concept of a KS (Krings, 2006). In the following section, a number of components are suggested as a useful way of describing the KS.

4.3 What is the Knowledge Society?

KS is one of many terms which has been voiced in an attempt to describe some of the main developments in industrial societies in the late twentieth and early twenty-first century. Though, this statement is without its criticisms, it is fair to suggest that one of the characteristics of a KS is that it recognises that knowledge is an asset, a major creative force, and a major component of any human activity, be it; economic, social, scientific or cultural. When any of these activities are pursued, a subsequent large supply of knowledge and information is required.

Early attempts to describe a KS indicated that the dominant role of science and technical-scientific knowledge is the basic feature. In modern times, there are some who continue to believe that this is the case (Gibbons, 1994).

Lane defined a knowledgeable society as one that is predominantly characterised by its members who:

- inquire into the basis of their beliefs about man, nature and society;
- are guided (perhaps unconsciously) by objective standards, and, at the upper levels of education, follow scientific rules of evidence and inference in inquiry;
- devote considerable resources to this inquiry and thus have a large store of knowledge;
- collect, organise and interpret their knowledge in a constant effort to extract meaning from it for the purposes at hand;
- employ this knowledge to illuminate (and perhaps modify) their values and goals (Lane, 1966).

From a socio-economic point of view, the KS is characterised primarily through three facts that have been identified in the debates of the 1960s and 1970s (Machlup, 1962; Bell, 1976(1973); Porat, 1977):

- knowledge as productive force: the manufacturing of goods and services increasingly needs knowledge-based resources compared to material resources;
- employment structure dominated by knowledge workers: more than half of the employees of a society are employed at a workplace with knowledge-based work;
- general expansion of public and private research activities, like high increase or research and development expenditures.

Besides focussing on the economic aspects, the KS can be distinguished on four different levels (Muller-Prothmann, 2005) as described by (Wirth, 2000) as follows:

- On a sociological level, KS means that knowledge and expertise based structures and processes spread throughout society and into everyday life.
- On a technological level, KS is characterised through extensive dissemination of technological infrastructures in the form of knowledge-based, sensitive transport systems for information, communication, persons, goods, energy and financial transactions.

- On an organisational level, it is stated that knowledge-based management methods, globalisation of business communication and knowledge as resource for production of goods and services, gain increasing importance.
- On a psychological level, education life-long learning and the individual ability to handle excessive information are popular keywords.

Following the debates of the 1990s, Maasen summarises the widely-accepted conceptions of a KS and are listed as follows:

- Besides money and power, information, knowledge and expertise play an important role as influential resources for social reproduction.
- Increase of knowledge-based work and occupations and their permanent diffusion into other social spheres. Education and career paths are not linear anymore.
- Developments are caused by science as the dominant paradigm, globalisation of information and knowledge networks, higher awareness of risks and contingencies, increase of knowledge from the demand side as well as the supply side.
- Transformational social effects due to the extension of knowledge as the basis for all the functional spheres in society as an evolutionary process.

All of the above conceptualisations of the KS consider it to be an attractive counterpart to the industrial society and as a societal concept to successfully approach the social and economic problems in the future (Muller-Prothmann, 2005).

The European Foundation for the Improvement of Living and Working Conditions (EFL) (Keenan et al., 2002) suggests that a useful way of thinking about KS is that it involves the intersection of several related trends. Generally, these trends can be linked back to many of the points raised in the aforementioned conceptualisations and are as follows:

- ***Information Societies***

  The information society is a historical era which can be viewed much like the

steam or electrical eras and can be dated back to the late 1970s. It is one of the components of the Knowledge Society – not surprisingly, since information is one of the components of knowledge. The question which arises is this: what is so distinctive about the present historical era regarding information and knowledge when other human societies throughout the course of history have equally accumulated and applied knowledge of various sorts, and have also produced and processed a wide range of information? It appears that the answer can be traced to the large-scale diffusion and utilisation of information technology (IT), which has allowed unprecedented capabilities with the capturing, processing, storing, and communication of data and information. This is the main argument which suggests that it makes sense to think of the industrial world as moving into an information society.

However, IT is a relatively discontinuous phenomenon and the information society has arguably already passed through a number of distinctive phases. For example, computers were large and remote, used only for large scale number-crunching applications, but now they are ubiquitous, appearing in machinery such as machine tools and industrial robots, and based on stand-alone personal computers. In the current phase the diffusion of IT capabilities has extended still further – into items of workplace and domestic equipment - and in which networking is important. Already the contours of the next phase can be discerned, with commentators talking about ubiquitous computing or *"ambient intelligence"*.

Information societies may take various forms around the due to different political and cultural arrangements, but the boundaries between them may dissolve due to the global communications permitted by IT. These communications will enable subcultures and interest communities to form irrespective of national boundaries, allow the expansion of companies into new global markets and open the doors to the migration of labour and students. Elements of different cultures are being transferred around the world on an unprecedented scale – though some elements are favoured more so than others.

Thus the KS depends on the information society for its infrastructure. However, though the information society is necessary it is not solely sufficient for a KS, which requires more than just the active implementation of new technologies.

- ***Innovation***

Besides IT, recognition of the importance of innovation cannot be ignored as it contributes as an element in corporate and national competitiveness; and in strategies to increase the efficiency and effectiveness of organisations of all types. Innovation can be either technological or non-technological.

- ***Technological***

IT is a revolutionary technology applicable to all types of economic activity due to the fact that all human activities involve information processing. However, other technologies of extremely wide scope are also becoming available and increasingly complex societies are creating social and industrial demands for new products and processes.

These developments underpin the increasing importance of innovation as an element in corporate and national competitiveness. Use of new processes makes organisations able to operate at lower cost and higher quality. Development of new products allows them to capture new markets (or meet social needs better). Innovative capacity is seen as differentiating between successful and unsuccessful organisations, regions and systems. Furthermore, members of a KS are more likely to be better informed and will seek to make their views known as consumers, users of innovations or citizens concerned with the ethical, social and environmental implications of technological change.

Thus, innovation is central to the KS and is reflected in investment in

Research and Development (R&D) and other associated activities, such as, efforts to create innovative labour forces, efforts to secure intellectual property rights and efforts to create innovative consumers

Also there is a role for scientific and technological (S&T) knowledge in innovation in a KS. Consequently, the volume of knowledge is increasing and the resulting innovations are more complex due to the ever-increasing number of diverse bodies of knowledge. The implications of such complexity has resulted in the necessity for organisations to collaborate more when accessing knowledge.

- ***Non-Technological***

S&T is not the only basis for innovation. Innovators need to have knowledge of markets, user requirements, regulations, access to finance, organisational change, and how to do things which have aesthetic, cultural, social or organisational elements.

Innovation in social affairs may often stem from knowledge gained through practical experience rather than from research. One reflection of KS trends is that many government organisations are seeking to be more systematic in the way in which they develop and assess policies – they seek to become learning organisations, using more "evidence-based" mechanisms in policy design and implementation. Methods such as evaluation studies are being employed to determine what works and what does not, and how policies may better meet their objectives. Such methods are also used by some large charities and voluntary organisations.

In a KS, knowledge of social innovation can be widely diffused through the information networks that are effectively global in reach. However, more research into social innovation in the KS is required.

- ***Service Economies***

  Service economies are a development in western industrial societies where the majority of employment is concentrated in services, accounting for major economic output. For some, service is an important management principle and increasingly the value-added is composed of elements of design, marketing, and so on, and not from the manufacturing process itself.

  The knowledge-intensity of production is growing in the KS. Organisations have an increasing proportion of their staff performing service operations rather than physical production, and are also investing more of their resources on acquiring inputs from business services as opposed to raw materials. Specialised services are providing critical inputs to organisations in all sectors on a vastly increased scale. Activities like R&D are often contracted out to specialist services, which are also important in helping organisations assimilate new technologies. Other specialised services, such as software, telecommunications and environmental issues, have grown which reflect the new demands placed on organisations, which they do not already possess.

  The service economy thus involves a change in relations between business and consumers, the growing requirements for specialised knowledge, changes in the nature of work and changes in lifestyle.

- ***Globalisation***

  Globalisation is a process which involves the combining of economic, technological, sociocultural and political forces (Croucher, 2004). Thus, the globalisation of economies is facilitated by IT, and in turn stimulates more innovation-based competition. It promotes demand for better understanding of diverse cultures and regulatory systems, and allows for new avenues of learning from the experience of other organisations and countries. It promotes better political understanding and enables collaboration between governments.

- ***Demography***

  Demography is the statistical study of all populations. It encompasses the study of the size, structure and distribution of populations, and spatial and/or temporal changes in them in response to birth, death, migration and ageing. In view of these aspects, demography has become a very important subject for modern societies. The issue of ageing Western populations has serious implications for education, working life, health and consumption patterns. In addition, issues concerning the extent to which migration is used as a solution to demographic imbalance and how the vigour and diversity associated with population movement can be maximised in the face of social strains and xenophobic sentiment from some quarters.

- ***Knowledge Management***

  One can easily disagree over whether knowledge can be managed in today's knowledge intensive society. Knowledge is largely cognitive and highly personal, while management involves organisational processes. However, the management of knowledge has arisen as an important specific issue in KS, which has been covered in the previous two chapters. What is certain is that organisations are seeking to apply formal techniques and new information systems to help them make more effective and efficient use of their data, information and knowledge resources.

In light of these trends a number of questions have been raised, such as: Can we measure KS developments? How does KS relate to social change? What does the KS mean for working conditions? What does the KS mean for industrial relations? What does the KS mean for living conditions? (Keenan et al., 2002)

4.4 Knowledge Society and Knowledge Based Economy

One of the significant questions raised in the last section was: Can we measure KS developments? There have been many efforts to develop new statistics and systems of

indicators to measure the diffusion of new IT in business and the community, and to examine levels of use and even styles of use (for example; more or less active ways of implementing ecommerce). These efforts are ongoing, and provide valuable material with which to compare different countries and regions, and even social groups and industrial sectors. Typically, major reports on the "knowledge based economy", usually show numerous indicators which are introduced as evidence for the emergence of KS, and sometimes also for purposes of international benchmarking. Such indicators are often cited as:

- Data on availability of and access to telecommunications and the Internet
- Data on use of PCs and the Web by businesses of various types for ebusiness and e-commerce
- Data on Educational Qualifications
- Patterns of Work, Employment and Skills
- Use of new technologies in e-Government and public services such as Health

Equally, the term, “knowledge-based economy” prioritises the instrumental use of scientific knowledge for competitive economic advantage. Science is seen as both the key factor of new production and as traded commodity-product in itself. In a keynote speech a former UK Prime Minister stated that, “a knowledge economy is an economy where we do not compete on wages – how can we when China’s wage costs are 5 per cent of ours? – but on intelligence, on innovation, on creativity” (Blair, 2006 in TAKING EUROPEAN KNOWLEDGE SOCIETY SERIOUSLY, 2007).

Consequently, the “knowledge society” and “the knowledge based economy” appear to be inextricably intertwined and it would be impossible to consider either one exclusively.

4.5 The Knowledge Society and Government

Any government would be concerned with the economic well-being of its nation and it would consider it vitally important that it cultivates a society which fully embraces knowledge in all its forms. Consequently, many initiatives have been introduced by governments to encourage the use of knowledge.

4.5.1 International

In response to the needs to embrace the importance of knowledge as an asset, a defining European commitment was struck in 2000, with the agreement of the Lisbon Agenda by the EU Council of Ministers. This committed Member States to the ambitious goal of becoming "the world's leading knowledge-based economy" by 2010. This agreement, known as "eEurope - An Information Society For All" (eEurope, 2000) is a political initiative to ensure the European Union fully benefits for generations to come from the changes the Information Society is bringing. These changes, the most significant since the Industrial Revolution, are far-reaching and global. They are not just about technology. They will affect everyone, everywhere. Bringing communities, both rural and urban, closer together, creating wealth, sharing knowledge, they have huge potential to enrich everyone's lives. Managing this transformation represents the central economic and social challenge for the Union. It will impact profoundly on European employment, growth and productivity for the next five years and for decades afterwards. eEurope is intended to accelerate positive change in the Union. It aims at ensuring this change towards the Information Society is cohesive, not divisive. Integrating, not fragmenting. An opportunity not a threat. In essence, eEurope aims at bringing the benefits of the Information Society to the reach of all Europeans.

The key objectives of eEurope are:

- Bringing every citizen, home and school, every business and administration, into the digital age and online.
- Creating a digitally literate Europe, supported by an entrepreneurial culture ready to finance and develop new ideas.
- Ensuring the whole process is socially inclusive, builds consumer trust and strengthens social cohesion

To achieve this, Europe needs to address its weaknesses and exploit its strengths. It must overcome the handicaps that are holding back the rapid uptake of digital technologies:

- generally expensive, insecure and slow access to the Internet and e-commerce
- an insufficient digitally literate on-line population
- lack of a sufficiently dynamic, entrepreneurial, service-oriented culture
- a public sector which is not playing a sufficiently active role in enabling the development of new applications and services

The eEurope initiative builds on the current policy framework, concentrating on priority actions which address these handicaps. Where European strategy matters. Where European action can count. Where inequalities between Member States in terms of access and utilisation of Internet can be reduced. Where there is European added value in developing common approaches to problems. These actions are:

1. European youth into the digital age
2. Cheaper Internet access
3. Accelerating E-Commerce
4. Fast Internet for researchers and students
5. Smart cards for secure electronic access
6. Risk capital for high-tech SMEs
7. eParticipation for the disabled
8. Healthcare online
9. Intelligent transport
10. Government online

Each action focuses on specific ambitious targets which need to be achieved urgently. The European Commission cannot achieve these targets alone. A joint effort of the Member States, the European Commission, industry and citizens is required. These efforts should be extended to adhesion countries (eEurope, 2000).

It was officially reaffirmed in 2004, and has been a continual preoccupation of EC and member-state policy actors (TAKING EUROPEAN KNOWLEDGE SOCIETY SERIOUSLY, 2007).

4.5.2 National

Ireland, as a member state of the European Community, is committed to the eEurope agenda. Currently, the Information Society Policy Unit (ISPU) in the Department of the Taoiseach has overall responsibility for developing, co-ordinating and driving implementation of the Information Society agenda. The aim of the ISPU is to ensure that Ireland develops as a fully participative, competitive, knowledge-based Information Society, with all of the benefits that entails. The ISPU also has specific functional responsibility for the following areas:

- further developing the potential of eGovernment
- development of an inclusive Knowledge Society
- management of the Access, Skills and Content (ASC) Initiative
- the National Payments Conference
- responding to EU and international reporting requests on the Information Society in Ireland

As of July 2008, the ISPU have indicated that work is ongoing on the development of a new national action plan on the knowledge society, which will be published over the coming months. This third national action plan will succeed the following reports:

- Implementing the Information Society in Ireland – An Action Plan (1999) which addressed areas such as: telecommunications infrastructure; development of electronic commerce and business opportunities; enabling measures; legislative and regulatory measures; ICTs and delivery of public services; support areas where action is needed; and taking the work forward.
- Progress Implementing the Information Society - Second Report of the Inter-Departmental Implementation Group, July 1999 which provides a review of progress since the Action Plan was launched. It also includes details of further initiatives arising from the Action Plan which are now being proposed such as: Local Authorities; Land Registry; Companies registration Office (CRO); Dept. Education and Science; Dept. Foreign Affairs; GMS/Health Board and Dept. Justice, Equality & Law Reform.

- New Connections (2002). which addressed areas such as: Key Infrastructures (telecommunications infrastructure; legal and regulatory environment; and eGovernment) and Supporting Frameworks (eBusiness; R&D; lifelong learning and eInclusion).
- Two reports were published following the New Connections (2002) report, the first progress report in February 2003 and the second progress report in April 2004. The foreword in both reports indicate that much progress has been made.

However, in 2002 the Information Society Commission (ISC) published, "Building the Knowledge Society Report to Government" outlining Ireland's relative weaknesses in addressing the challenges of the emerging knowledge society and highlighted the following:

- Levels of broadband connectivity are very low both in absolute and comparative international terms.
- We have traditionally low levels of investment in research and development and a relatively low level of patenting activity.
- General societal engagement with Internet technologies is weak relative to leading countries, reflected in a both a low residential Internet penetration rate and significantly shorter amounts of time spent online by the average user.
- We have poor rates of participation in adult education and training by international standards, pointing to a bigger challenge in embracing a culture of lifelong learning.
- We are behind leading countries in the application of ICTs to the education sector.
- Our relatively high VAT rate in an EU context tends to undermine our attractiveness as a location for distribution of digital content – a market that is developing an increasing strategic importance. The global digital content market is estimated to be growing at an annual rate of around 30 percent and is projected to be worth in the region of $434b by 2006.

In 2005, the ISC published, "Learning to Innovate - Reperceiving the global information society" which outlined a number of recommendationsinging Ireland's

relative weaknesses in addressing the challenges of the emerging knowledge society and highlighted the following:

1. Establishment of Broadband Delivery Group
2. Renewal of eGovernment Strategy
3. Renewal of eBusiness Strategy
4. Community-based ICT Programmes
5. eAccessibility
6. ICT Security
7. Monitoring Engagement with ICT
8. Knowledge Society Foresight

As of July 2008, there are no new publications to indicate what levels of progress have been made with the development of our knowledge society.

Leaving aside this ambiguity, another initiative should be mentioned. This initiative is known as the "Towards 2016 Ten-Year Framework Social Partnership Agreement 2006-2016". The parties involved include the government, trade unions, employers, farming organisations and the community and voluntary sector. The purpose of this initiative is to maintain a strategic focus on key national priorities which help create and sustain the conditions for employment growth, fiscal stability, restructuring of the economy to respond to new challenges and opportunities, a dramatic improvement in living standards and a culture of dialogue which serves the social partners, but more importantly, the interests of the people of the Ireland.

In this agreement recognition for the KS is clearly acknowledged in section five. It acknowledges the pending publication of the KS Action Plan, which will build upon the outcomes of the previously mentioned action plans of 1999 and 2002 whilst recognising the ubiquity of technology, the need to use technology as a tool in the drive towards the knowledge economy activities and the need to provide greater inclusiveness. It will be in line with the European Initiative and will provide for the continued exploitation of ICTs by all; including government, private sector organisations, public sector organisations and the community and voluntary sector – all of which are social partners (Towards 2016).

4.6 The Knowledge Society and Organisations

Whilst governments recognise the benefits of a knowledge society for its citizens and economy, these benefits are also recognised by many of the organisations who conduct business on a daily basis. If an organisation is to succeed, it must identify, value, create and evolve its knowledge assets. As we already identified, knowledge, rather than capital or labour, is described as the only meaningful economic resource in the knowledge society (Drucker, 1993).

There are numerous types of organisations throughout the world. They range from the giant multinationals to small traders and partnerships, and from large public sector services to small charities. Some organisations produce goods, such as computers and motor cars, others produce services, such as insurance and customer advice. Some organisations produce only one product, others produce many. Predominantly, organisations belong to either the private sector or public sector, and occasionally some may be a hybrid where a privately run organisation is partly owned by the government.

Despite the obvious variations in the nature of different organisations, there are some principles common to all.. Organisations can be said to operate rationally, that is to say their members are drawn together specifically in order to pursue goals or objectives. In order to pursue such goals efficiently, an organisation will tend to be divided into separate functions, such as production, administration and marketing. Separation of functions leads to efficiency because it enables specialisation to take place which, in turn, allows for the development of expertise in fairly narrow areas. But it also entails problems of control and communication. In consequence, organisations are characterised by the proliferation of rules guiding internal relationships between its members and the external relationships its members must establish with suppliers, customers and the community at large. Organisations are thus bureaucratic; they have goals, a division of functions, a hierarchy of control and a set of rules.

The term bureaucracy tends to evoke in the public mind an image of “form-filling” and “buck-passing” by faceless, bored administrators. To a large extent this is a reflection of reality. The rule-book approach stifles initiative and the separation of the worker

from his product helps to create a lack of work satisfaction. This is the inevitable price of bureaucracy which, nevertheless, offers the most efficient form of large scale operation. Not all organisations are, however, rigid or mechanistic. Some organisations, such as, research establishments, which depend heavily on the initiative and inventiveness of their members, are organic. Here, the hierarchy of control is more diffused and rules are used less than in the mechanistic case.

With regards to this research, the distinction between public sector organisations and private sector organisations is described. In either case, these organisations may be seen as responsible for producing goods and services for consumption or use by people or other organisations.

4.6.1 Private Sector Organisations

A private sector organisation, or business organisation, is one whose primary function is geared to respond to, and in part create, the wants of consumers in a market economy. There are a number of different types of business organisation. Typically, these are:

- Small, single product organisations – often controlled and managed by its owner with very little formal structure. More energy is spent on production and selling rather than activities such as research and development.
- Large, single product organisations – often characterised by a more formal organisational structure, broken down into separate functions/departments. Each department is responsible for one part of the flow of activity of the raw material stage to the point which the product is supplied to market. In this type of organisation, there is generally some research into ways of improving the product or the process of production.
- Large, multiple product organisations – often characterised by expanding a range of products. Usually, this diversification of products lead to the adoption of a divisional organisational structure whereby each division are responsible to an over-arching board of top management. These organisations typically search for new products as well as undertake research into product and process improvements.

- Service Sector organisations – often characterised by the provision of a service to the consumer. Examples of services are banking, retailing and leisure. Thus, these organisations need to be in close contact with its consumer population.

There are a number of factors which govern the size and structure of organisations. These are:

- Availability of finance – access to large amounts of finance/capital has been proven to be an important stimulus to the growth of companies. Gaining access to this finance can be provided through the use of *limited liability, the Stock Market* and *retained profits.*
- Impact of technology - changes in technology have affected the organisation in a number of ways. First, new technology has introduced the possibility of new products. Second, production methods have incorporated technology in such a way as to achieve economies of scale. Third, new technology in communications has open doors to new markets in different countries.
- Market changes – the market environment is continuously changing. However, markets have been characterised by the following features: first, growth in size; second, change in patterns of demand; and third, the rise in competition. As mentioned, technology has had a huge impact on the availability of new markets and typically *globalisation* is a term which describes this phenomenon.
- Government – governments do little to discourage the growth of industrial organisations. Its attitude is conditioned by the realisation that large organisations, with their vast resources for capital investment, their ability to search for new products, and their capacity to reap significant economies of scale, offer the best means of ensuring effective competition in domestic and foreign markets.

In general, the primary objective of any private sector organisation is to achieve profit. Profit can be described as a condition which is achieved when the excess of an organisation's revenue over its total costs is at its highest level.

4.6.2 Public Sector Organisations

A public sector organisation is an organisation which is not geared towards the needs of the market system or the drive to make profit. Public sector organisations represent the many complex roles which a government must conduct when it intervenes in the market to achieve political, social and economic ends. Therefore, there are many more types of public sector organisations than in the case of private sector organisations. Public sector organisations can be classified according to:

- Size – public organisations range in size from the small, for example; Dept of Environment, to the extremely large, for example; Dept of Finance.
- Source of finance – all public sector organisations are financed through some form of Treasury department upon approval of the government.
- Purpose in governments – the variety in the purposes and the functions of public organisations mirrors the many various activities undertaken by government.
- Degree of autonomy – all public sector organisations are, in some way, accountable to government. However, they differ in the degree of discretion which they possess in relation to the independent formulation and implementation of policies. Thus, more central government departments would have less discretion than their more less central counterparts.

Typically, the structure of government can be broadly classified under three broad headings:

1. Central government organisations – these are government departments which are charged with the task of putting parliamentary policies into practice.
2. Local authorities – these are responsible for the provision of many services, including housing, fire protection and library services.
3. Agencies – a substantial amount of government business is conducted not by government departments or local authorities but by government agencies. Such public sector organisations have been created, often in a haphazard fashion, to satisfy specific social needs.

Unlike private sector organisations, profit is not an objective of public sector organisations. Generally, government is concerned with improvement to the general welfare or well-being of the community as a whole. Such an objective may be expressed in very broad terms, such as “the creation of a fair and just society” or “the maintenance of a thriving economy in which everyone can achieve a reasonable standard of living.” However, political objectives are also found to exist. Politicians hold office only if they are elected. It should, therefore, come as no surprise to discover that political parties use economic policies to acquire votes, and that, in consequence, public sector organisations are sometimes obliged to take action which are of a political nature.

4.6.3 Organisations and their use of Knowledge Management

For many years the management of knowledge has been recognised by private sector organisations in an attempt to fulfil many different objectives such as innovation, competitiveness, lower costs and financial profit. Public sector organisations are typically thought to come later to the concept of KM. The OECD (2003b) suggests that this is in part due to a traditional environment whereby competitiveness and the “bottom line” are afforded less priority than in the private sector. However, in response to the KS, government and European initiatives, and increasing pressure to improve efficiency and effectiveness, together with the importance of sharing knowledge across government agencies, it comes as no surprise that in recent years the management of knowledge has become an important public management theme (O'Riordan, 2005). The OECD (2003a) emphasises that public sector organisations have different incentives, strengths and weaknesses compared to private sector organisations in relation to the management of knowledge. On the one hand, the pressure of competitiveness, the incentive to lower costs, the drive for innovation and the pursuit of financial profit are traditionally less important for public sector organisations. In addition, outcomes are typically less clear and less measurable. Finally, management structures tend to be quite hierarchical which, it is suggested, provide fewer incentives for innovation and teamwork.

However, the activities of public sector or government organisations are frequently knowledge intensive, with a need to maintain a whole-of-government perspective an

important consideration. Evidence of these knowledge intensive activities is the necessity to maintain records of all activities and for reasons of public interest transparency and access to these records of knowledge is critical. Finally, ageing civil and public servants and increased staff turnover create new challenges for the preservation of institutional memory and the training of new staff (O'Riordan, 2005).

In light of this, the Irish Government has proposed initiatives, as noted above, to help meet these challenges within the government and public sector organisations but more importantly its initiatives also encourages research and development, more life-long learning, a better communications infrastructure, as a vehicle to encourage further investment from private sector organisations, which are ultimately beneficial to our society and citizens.

4.7 Conclusion

The purpose this chapter was to describe the meaning of the "knowledge society" to the reader by providing a historical background, describing some conceptualisations and identifying some of the emerging trends which it has produced. Though it may be difficult for some to accept the term "knowledge society" to describe or label our modern society, this has not stopped governments from adopting either the term or concept to develop policies. Governments accept the significant role which knowledge has in the shaping of our modern society, given the recognition it has as an important asset. As noted earlier, governments are concerned with the improvement of the general welfare or well-being of the community as a whole and if the role of knowledge helps with fulfilling this objective it should be embraced.

In light of this, the European Community introduce its eEurope initiative in 2000 with a view to embracing the importance of knowledge as an asset. It is a political initiative to ensure the European Community fully benefits from the changes the Information Society is bringing where sharing knowledge will create wealth and enrich the lives of every European citizen. Needless to say the management of this transformation represents a central economic and social challenge for the Community. Ireland, as a member of the European Community, is committed to the eEurope initiative and has

made its own proposals to embrace the importance of knowledge as an asset and the creation of the knowledge society.

Organisations are also an integral part of our modern society. Organisations exist to provide employment, and to provide goods and services for consumption. A description of private sector organisations and public sector organisations, citing the differences in make-up and objectives of each, were outlined to the reader. The objectives of either type of organisation has in some way dictated how knowledge and its management has been employed. In either case, what is important is the necessity for governments to stimulate the provision, creation and use of knowledge for the purpose of reaping social and economic rewards which the "knowledge society" ultimately aims to achieve.