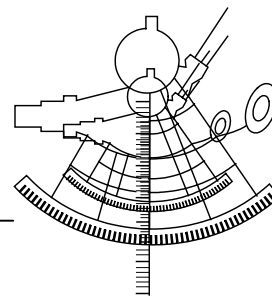


European Trend Chart on Innovation

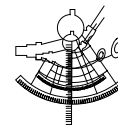


Thematic Report:

Lifelong Learning – an overview of national measures in the EU Member States and Candidate Countries

Covering period to March 2002





The European Trend Chart on Innovation

Innovation is a priority of all Member States and of the European Commission. Throughout Europe, hundreds of policy measures and support schemes aiming at innovation have been implemented or are under preparation. The diversity of these measures and schemes reflects the diversity of the framework conditions, cultural preferences and political priorities in the Member States. The 'First Action Plan for Innovation in Europe', launched by the European Commission in 1996, provided for the first time a common analytical and political framework for innovation policy in Europe.

Building upon the Action Plan, the 'Trend Chart on Innovation in Europe' is a practical tool for innovation policy makers and scheme managers in Europe. Run by the 'Innovation' directorate of DG Enterprise, it pursues the collection, regular updating and analysis of information on innovation policies at national and Community level, with a focus on innovation finance; setting up and development of innovative businesses; the protection of intellectual property rights and the transfer of technology between research and industry.

The Trend Chart serves the 'open policy co-ordination approach' laid down by the Lisbon Council in March 2000. It supports policy makers and scheme managers in Europe with summarised information and statistics on innovation policies, performances and trends in the European Union. It is also a European forum for benchmarking and the exchange of 'good practices' in the area of innovation policy.

The 'Trend Chart' products

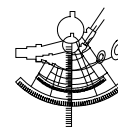
The Trend Chart on Innovation has been running since January 2000. It tracks innovation policy developments in all EU Member States, plus Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Iceland, Israel, Latvia, Liechtenstein, Lithuania, Norway, Poland, Romania, Slovak Republic and Slovenia. The Trend Chart web site (www.cordis.lu/trendchart) will provide access to the following services and publications as they become available:

- a database of policy measures across Europe;
- a 'who is who?' of agencies and government departments involved in innovation;
- a series of six-monthly country reports for all countries covered;
- a series of six-monthly trend reports covered on each of the four main themes;
- a number of benchmarking reports;
- the European Innovation Scoreboard and other statistical reports;
- a news service and thematic papers;
- the annual reports of the Trend Chart.

The present report was prepared by **Paul Cunningham and Elvira Uyarra, PREST, University of Manchester**. The information contained in this report has not been validated in detail by the Member States or by the European Commission.

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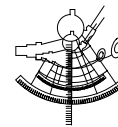
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Lifelong Learning: An overview of national measures in the EU Member States and Candidate Countries

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Lifelong Learning: An overview of national measures in the EU Member States and Candidate Countries

1. Introduction

1.1 Learning and the 'knowledge society'

"Learning is an essential basis for progress in the 'knowledge society'; it is critical for economic growth and social welfare... But the resources required to meet that goal are potentially large and countries differ in their capacity to generate them."¹

"The Information Society will have to be a "Society of **Lifelong Learning**" if Europe's businesses, workers and citizens are to make optimum use of the potential offered by new technologies."²

It is clear from the above extracts that, in the 'knowledge economy' envisaged by policy makers across the world, the role of the individual would be critical. Although technology, and information and communication technologies (ICT) in particular, will form a key driver for growth in this new economic model, such technology is next to useless without the human skills and talent that are necessary both to operate it and implement its integration into the fabric of business, commercial and social life. Skills are required to innovate, introduce, and routinely implement new technologies. The specific skill requirements change alongside the technological innovation. (Much the same might be said of organisational innovation, too.) In addition, new skills are required to participate fully in the knowledge-based society in which we live³. Therefore, human capital forms a key ingredient of the knowledge economy, providing the key to unlock the potential increases in productivity and growth potential.

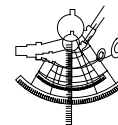
The development of human capital in principle represents a win-win strategy for policy makers: on the one hand, in very simple terms, it provides industry and business with the trained workforce it needs to enable it to capitalise on the opportunities for improved performance offered by new technologies and, on the other hand, it provides a 'learned audience' which is able to utilise – and demand – the sophisticated products and services generated by business and industry. However, it is necessary to coordinate such policies with other policies – 'credentialism' and inappropriate development of large numbers of people with skills that are not in demand can be counterproductive strategies. Some regions and countries may suffer brain drains, discontented highly educated underemployed groups, or costly retraining needs. Furthermore, as indicated by the extract from the OECD report quoted above¹, human capital development is a strategy which can be costly to implement.

The production of a well-educated workforce, able to meet the demands of industry and society, and having capabilities for training the workforce of tomorrow, have long been recognised as priorities in achieving and maintaining national and regional competitiveness. However, the demands imposed by the accelerating pace of technological development means that new skills must be learned at a rate that matches this technological progress. The skills accumulated during the 'traditional' route of primary and secondary education no longer equip an individual for life. While the acquisition of basic competencies (i.e. writing, reading and arithmetic) is still vitally important, new competencies are

¹ *Economics and Finance of Lifelong Learning*, OECD, Paris, 2001.

² Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on *Europe at the Forefront of the Global Information Society: Rolling Action Plan*, COM(96)607

³ Johnstone, D.J., *Teaching for lifelong learning*, OECD, Paris, 2001



required and novel educational concepts such as 'entrepreneurship' and 'interdisciplinarity' also have to be fostered and accommodated.

In comparison to twenty or thirty years ago, far greater numbers of young people now complete and go beyond secondary education. Even so, results from the International Adult Literacy Survey 2000 indicate that at least 25% of adults in the 20 countries surveyed – and up to 75% in a few of them – “lack the minimum literacy skills necessary for modern life and work”⁴. Therefore there is a high risk that these people will become victims of social exclusion, trapped in low-paid employment or unable to find jobs at all.⁵ This danger is exacerbated by the pace of technological change already outlined, and social exclusion will affect those unable to grasp the opportunities afforded by the Information Society, such as access to the Internet, improved communication services, etc. The pervasiveness of ICT in modern life means that its users are no longer a clique of the scientific and technological elite but people from all sectors of society that are affected by its rapid development.

Faced by a lifetime of constantly changing technological (and consequently, societal) demands, increasing numbers of adults will have to renew their knowledge and skills. Thus, while it is able to provide a foundation, initial education will no longer be able to offer the entire range of necessary skills. Moreover, while those who do well in their formal schooling early in life are generally more likely to access further education and training in later life, the opportunities for learning in later life should not be denied to those unable to benefit fully from initial education, for whatever reason³.

1.2 Lifelong learning

The discussion above provides the rationale for what is termed 'lifelong learning', a term which may be broadly defined as the opportunity for all members of society to update their skills and to learn throughout their lives. This may mean not only helping people develop the skills they need to be successful in employment, but also supporting learning of all kinds – including informal learning, community-based learning and learning for pleasure – which can help people to overcome social disadvantages and play a full role in society.

However, it is necessary to explore a little more what is meant by lifelong learning. As already noted,

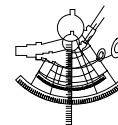
“the field of lifelong learning is necessarily very broad. This is both its attraction and, simultaneously, a potential source of weakness. Lifelong learning ranges from the most highly formal and structured educational activities to the most informal and tentative explorations of understanding. Lifelong learning also quite properly encompasses many different levels, purposes, contents, outcomes and motives for learning. This provides scope for a great variety of learning styles and approaches and celebrates diversity. But precisely because of this, there is always an accompanying danger that the field will become so all-inclusive that it inhibits sharpness of focus. Strategy to promote lifelong learning may easily become so multi-stranded that it prevents the development of a clear sense of priority.”⁶

Policies aimed at the provision of lifelong learning must provide a balance of incentives on both the demand and the supply side of the system: individuals, companies and countries must see clear

⁴ Johnstone, D.J., *ibid.*

⁵ It is important to bear in mind, however, the line of argument that suggests that the knowledge economy inherently requires a substructure of low-paid, routine work – not all of which can be exported to developing countries. The claims are debatable, but cannot be dismissed out of hand, as the growth of low-paid service work in sectors as diverse as fast food and call centres indicate. Of course, such work could represent a temporary phase in careers rather than their endpoints.

⁶ *Creating Learning Cultures: Next Steps in Achieving the Learning Age*. Second report of the National Advisory Group for Continuing Education and Lifelong Learning, Department for Education and Skills, UK, 2001.



benefits from investing in the acquisition of new skills⁷. In some cases, the benefits are obvious, i.e. the provision of a better trained workforce, whilst in other cases they are less tangible, such as increased demand for high-tech consumer products or the establishment of broader social networks that can support innovation and entrepreneurship.

Paradoxically, advances in ICT that are (as we have seen) a leading driver of the need for lifelong learning, also offer policy makers an increased range of options for the delivery of lifelong learning. Computers are an immensely powerful educational tool, and many of the skills required to utilise them may be self-taught; the Internet offers opportunities for distance learning; software packages can deliver home based courses or workplace training. As a result, it is not surprising to note that many of the measures put in place by national governments capitalise on developments in ICT for their delivery.

1.3 Lifelong learning and innovation

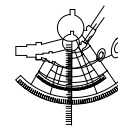
The remit of this report, within the context of the Trend Chart on Innovation Policy Developments, is to examine the prevailing policy situation with regard to the implementation of measures designed to deliver or to stimulate the provision and uptake of lifelong learning which have an impact on innovation. As a consequence, areas of lifelong learning which deal, for example, with the acquisition of additional language skills or what might be termed 'hobby' or 'life' skills (cooking, arts, sport, etc.), are not relevant. (Although, the learning of languages could be relevant in the case of technologically-skilled immigrants whose inclusion in the workforce would be of direct national benefit).

As a result, this report focuses on government measures or policies aimed at facilitating the implementation of lifelong learning programmes to improve the general assimilation of new technologies and remedy shortages of skills. These include, for example, 'Information Society' initiatives and more focused initiatives aimed at training/recruiting IT workers, or workers in other areas where there are perceived shortages of skills.

The report is structured as follows: Section 2 provides a review of the relevant indicators on lifelong learning from the *European Innovation Scoreboard 2001*. Section 3 presents an overview of the types of initiatives/mechanisms in the results provided, whilst Sections 4-9 offer more detailed descriptions of specific country activities under each type of mechanism. Finally, Section 10 provides a number of overall conclusions.

Caveat: It should be noted that the information obtained for Sections 3 – 9 was gathered in a relatively unstructured way in response to one of a set of generalised questions. The questions were circulated amongst the network of Innovation Correspondents working under Lot 1 of the Trend Chart project. The mechanisms were only categorised after the information had been collected and so the information presented should not be regarded as a comprehensive picture of all the lifelong learning initiatives ongoing in each country but as a snapshot of illustrative examples.

⁷ Johnstone, D.J, *op.cit.*



2. Lifelong learning: an indicators-based approach

The *2001 European Innovation Scoreboard*⁸, produced under the Trend Chart activities, presents indicators based on national levels of participation in lifelong learning across the EU Member States.

2.1 Definition

The indicator used is “equivalent to the European Commission’s structural indicator 1.7”. This takes as its reference population all members of the population aged between 25 and 64 years old inclusive. The report defines lifelong learning as

“participation in any type of education or training course during the four weeks prior to the survey, except in the Netherlands, France and Portugal where the respondent had to be involved in an education or training programme at the time of the survey. Education includes both courses of relevance to the respondent’s employment and general interest courses, such as in languages or arts. It includes initial education, further education, continuing or further training, training within the company, apprenticeship, on-the-job training, seminars, distance learning, and evening classes.”

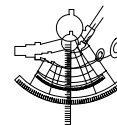
In this sense, the definition chosen is very broad and inclusive, and is not fully compatible with the narrower remit chosen for the collection of information for this report.

The Scoreboard notes that the limitation of the indicator to a narrow “window of four weeks in the Spring could reduce comparability between countries due to differences in adult education systems”. It further notes that although “Little is known at this time about such differences, ...differences in the timing of national holidays, preferred times for adult education courses, the average length of adult courses, and other unknown factors could influence the results and reduce comparability”.

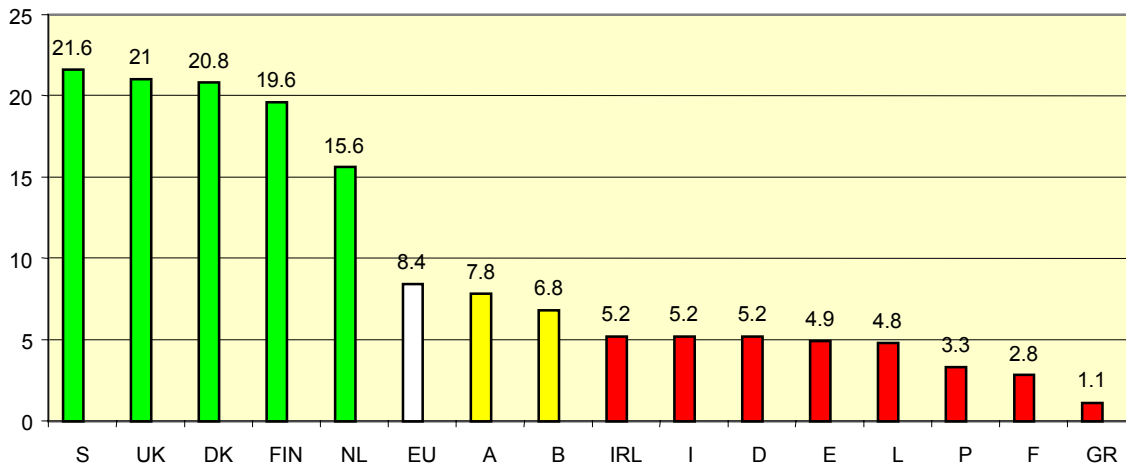
2.2 Results

As can be seen from the following figure (taken from the **European Innovation Scoreboard**), the highest rates of lifelong learning participation are found in the Scandinavian countries and the UK, followed by the Netherlands. Interestingly, Italy, Germany, and France, three of the largest EU economies, have below-average rates of adult participation in education and training. This, as the Scoreboard explains, pulls the EU average down. The low rates reported for France may “be due to the French data being limited to education at the time of the survey, although the same limitation applies to the Netherlands, which has an above average rate of life-long learning”.

⁸ *The European Innovation Scoreboard*, Commission of the European Communities, Luxembourg, October 2001. Available at: http://cordis.lu/pub/innovation-smes/docs/inno_scoreboard_2001_en.pdf



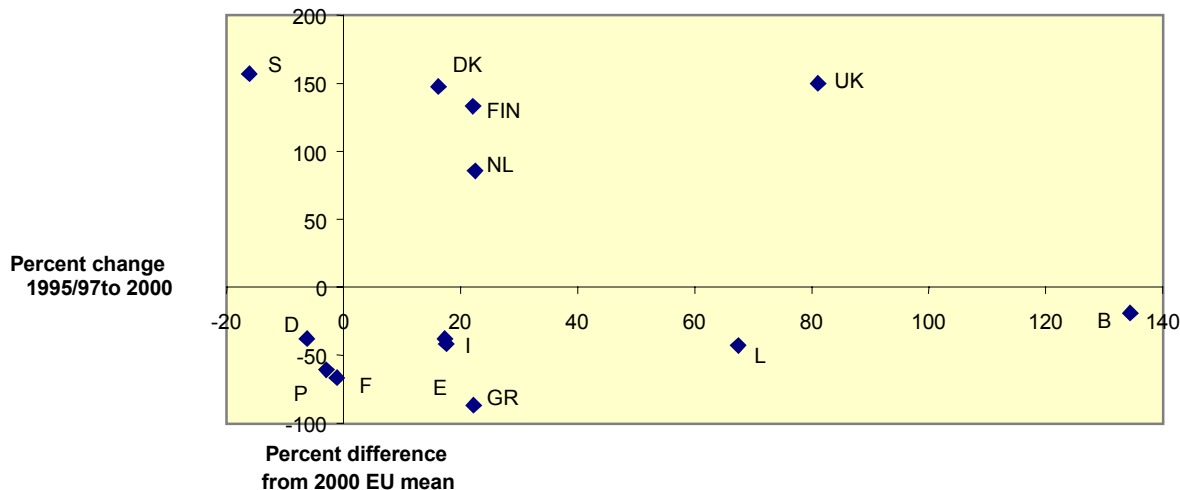
Participation in lifelong learning (% of 25-64 year-olds)



Data are from the Eurostat Labour Force Survey. Data for Spring 2000, except for 1997 data for Austria and Ireland. No data available for the US or Japan.

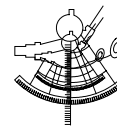
The *Scoreboard* also presents trend data covering the period 1995/97 to 2000 (1992/94 to 2000 in the case of the UK). These are presented below.

Participation in lifelong learning (Trend)



(Trend results for 1995/97 versus 2000, except for the UK, which compares 1992/94 results to 2000. No trend results available for Ireland and Austria.)

The results span a change in definition: “Before 1998, the indicator was limited to education and training of possible value to employment, while the data for 2000 includes all types of education. This change should magnify the percentage change between 1995/1997 and 2000”. Nevertheless, as the *Scoreboard* notes, “even with this change, the lifelong learning rate in France and Germany has



declined, possibly due to educational systems that limit opportunities for adults to pursue further education. All three of the Scandinavian countries, plus the Netherlands and the UK, are staying ahead, while Luxembourg and Belgium, in particular, should catch up to the EU average, due to rapid rates of increase.”

3. Lifelong learning: initiatives and measures

The following section presents an overview of the types of measure reported in the Trend Chart Country Reports for the period September 2001 to April 2002. As already indicated, the members of the network of Innovation Correspondents were asked to provide information in a very unstructured, general format in response to the question:

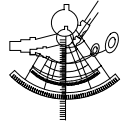
“Please describe any examples of government measures or policies to aimed at facilitating the implementation of lifelong learning programmes to improve the general assimilation of new technologies and remedy shortages of skills. These would include “Information Society” initiatives and more focused initiatives aimed at training/recruiting IT workers, for example.”

From the illustrative examples provided it has been possible to develop a broad categorisation of approaches that deal with lifelong learning⁹:

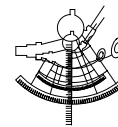
- Government strategies and plans:
 - Guidelines on lifelong learning within National Strategies
 - Specific Action Plans on lifelong learning
- Investigations into lifelong learning
 - Studies/reports/research programmes
 - Seminars, debates and consultation fora
- Lifelong learning support
 - Institutional measures
 - Institutional initiatives/agreements
 - Participation in Community initiatives
- Awareness raising
 - Web-based initiatives
 - Other awareness raising
- Training initiatives
 - Education-based initiatives
 - Training in ICT
 - Vocational training
 - Technical training to executives and engineers
 - Civil Servants training
 - General Training
 - Adult Training
- Incentive schemes
 - Self-employment schemes
 - Tax facilities

⁹ This is not intended to be a comprehensive listing of approaches to lifelong learning, merely a categorisation of the illustrative examples provided in the Country Reports.

European Trend Chart on Innovation



The following sections provide examples of these approaches as reported in the Country Reports for October 2001 to April 2002.



4. Government strategies and plans

This section deals with high-level (government/Ministry) strategic pronouncements and policies, which deal with the issue of lifelong learning. These may be national economic development or innovation plans which explicitly mention the issue of lifelong learning, or more specific action plans dedicated either partially or completely to this issue.

4.1 Guidelines on lifelong learning within National Strategies

A number of strategic policy documents which outline objectives for lifelong learning within the broader national economic or innovation context can be found in many EU Member States and Candidate Countries. For example, the UK's White Paper on Enterprise, Skills and Innovation, *Opportunity for all in a world of change*, makes numerous explicit and implicit references to lifelong learning. The pervasiveness and breadth of lifelong learning therefore make the compilation of a comprehensive picture of all relevant initiatives a particularly resource-intensive task, and is beyond the scope of this study. Thus the examples provided below and in the following sections should be considered as illustrative rather than comprehensive.

In **Norway**, the issue of lifelong learning forms an important part of the educational policies of the Government, according to the latest budget proposition¹⁰. The Norwegian Government has also stated that it will continue working on the so-called 'Competence Reform' (see Section 8.6, General Training).

In **Portugal**, the National Employment Plan has defined the main objectives for the national lifelong learning strategy. These include: improving the quality of basic education; expanding and diversifying the initial education of youngsters; improving the qualification and ensuring the employability of adults; and developing a national system for training, certification and development of competences on telecommunications and information technologies.

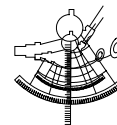
In **Finland** a lot of attention has been paid to the principle of lifelong learning during the last years – especially within education policy. The 'Development Plan for Education and University Research' for the years 1999-2004 identifies lifelong learning as one of the main principles underlying the development of education. The development plan's aims are geared to improving the following in terms of lifelong learning: the basic educational level of young people in the transition from school to working life; the basic educational level of the middle-aged; learning ability at all ages; learning opportunities available to senior citizens; formal recognition of skills and knowledge obtained outside education institutions; educational information and counselling; the criteria for funding education institutions; and the enhancement of teaching skills.

Another government plan paying attention to the principle of lifelong learning in **Finland** is the new national strategy for education, training and research in the information society for the years 2000–04. One of the goals set in the strategy is that, by the year 2004, Finland will be one of the leading knowledge and interactive societies.

The 'National Innovation Programme' of **Latvia** is expected to define guidelines for the creation of innovation culture and a society open to innovation, and this is assumed to also cover aspects of lifelong learning.

¹⁰ St.prp. nr. 1 (2001 – 2002) Ministry of Education and Research, pp. 15.

<http://odin.dep.no/ufd/norsk/publ/stprp/014001-030007/index-dok000-b-n-a.html>



A major policy document from the Government of **Lithuania**, *Measures for implementation of the Government's Programme for 2001-2004* (LT 14), foresees an important objective relating to the issue of lifelong learning, namely to prepare a "Strategy for ensuring lifelong learning and an action plan for its implementation". It is estimated that this measure should be ready for implementation by the fourth quarter of 2002. In addition, the draft version of a national strategy for Lithuania concerning the development of an Information Society, entitled *Lithuania – a Country of Global Possibilities*, contains as a priority objective, the goal of developing a 'competent society'. Within this context, the emphasis is put on the importance of lifelong learning.

A further example is provided by the **Hungarian** 'National Information Society Strategy'. In the educational programme section of the Strategy, the principal mission is stated as "to support the acquiring of knowledge of so-called Information and Communication Technologies at every training level". According to the 'National Information Society Strategy', 'lifelong learning' should be achieved through training adults to use info-communication equipment (e.g. computers, the Internet, modems, etc.). The programme is financed by sub-programme numbers 10 and 11 of the Széchenyi Plan's Information Society and Economic-Development Programme (HU 24).

4.2 Specific Action Plans on lifelong learning

In addition to the priority granted to lifelong learning in government policy documents, support has also materialised in a number of countries in action plans and strategies which were specifically targeted to lifelong learning.

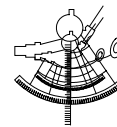
One example is provided by **Belgium**, where the Flemish government has approved (7 July 2000) an action plan on lifelong learning¹¹, signed by the Ministers for Education, Employment and Tourism, and Economy, Spatial Planning and Media. One of the key points (No. 11) of the Action Plan was that of "placing Flanders on the train of ICT and the knowledge economy". This was translated into several 'action points', for example: strengthening of the technological component in the entire initial education (by the end of 2002), integration of ICT in the education system (end of 2003)¹². A public debate on lifelong learning was launched on 12 December 2000 on the basis of the CONBEL-report (see Section 5.1 Studies/reports etc.). Since then, further events have taken place which set out a vision of Flanders as a 'learning meeting point' (*Vlaanderen als lerend trefpunt*). The outcomes of some of these events have been integrated in the action plan approved by the Flemish government on 22 February 2002.

In **Germany**, the Federal Ministry of Education and Research (BMBF) has produced an Action Programme entitled 'Lifelong Learning for All'. This identifies fields of action for a learning society: safeguarding quality in education, comparability of examinations, improving the readiness to learn, promotion of cultures of teaching and learning, creation of an environment that stimulates learning of people in special situations, and intensifying the exchange of experiences and international co-operation. The Action Programme lists several measures, the most important of which are:

- The programme 'Learning Regions' (DE 53) which promotes the building of regional networks of education institutions in order to introduce innovative measures for training and education.
- The pilot programme 'Lifelong Learning' promotes innovative projects that strengthen individual initiatives to learning as well as co-operation among suppliers of educational services and the people demanding further education.
- The programme 'New media in Education' (DE 44) aims at improving the use of educational software in Germany.

¹¹ Actieplan "Een leven lang leren in goede banen", July 2000.

¹² As another example, the "Beleidsnota Onderwijs en Vorming 1999-2004" concerned lifelong learning (point 3.17).



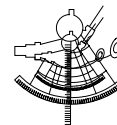
The policy document *e-Luxembourg*, sets out a plan which aims to ensure that **Luxembourg** benefits from the Information society. The plan focuses on the need for firms, citizens, and the administration to acquire and use efficiently the new electronic communication electronic tools that have become available. Among the various measures that are due to be implemented, the following specifically concern lifelong learning:

- *Decotec project (Development of Expertise in Collaborative Open Technologically enriched Educational Contexts)*: The aim of this project is to develop and assess a new model in teacher training based on open and technologically enriched learning contexts.
- *E-ducere project*: The objective of this project is to analyse the needs of secondary degree teachers in such a way to offer them an adapted training programme.
- *My School!* project: This project is an education portal which offers information to teachers and pupil, together with a forum on all teaching and learning aspects.

In August 2001 the **Estonian** education minister formed a working group of experts for developing an 'Estonian strategy for lifelong learning'. The main emphasis of the strategy is placed on adult education and the authors are concentrating on generating study opportunities for those who have obtained basic education.

In **Spain** the Info XXI Action Plan was commissioned, focusing on learning ICT. The Programme foresees actions aimed to increase life-long learning in ICT as well as to encourage and promote the utilisation of new technologies in companies and updating public administrations.

The **Slovakian** Government has published a document which defines the primary, secondary and tertiary education systems' objectives for the next 15 years. 'Millennium – National Programme for Education and Training' foresees a gradual increase of funding for education aimed at reaching 5% of GDP in 2006. It also stipulates that the system of continuing education and retraining should be reinforced, and that a strategy for lifelong learning needs to be developed.



5. Investigations into lifelong learning

Prior to or in parallel to government strategies, a series of initiatives have been commissioned in order to enhance the knowledge and the implications of long-life learning in the countries concerned. These have taken the form of studies, reports, and targeted seminars or consultation exercises, to enhance the understanding of the problem, and to provide the basis for developing specific strategies on lifelong learning.

5.1 Studies/reports/research programmes

The **UK** Treasury has recently commissioned a study into the provision of skilled researchers. It was tasked with examining whether there are adequate mechanisms in place for businesses to identify their needs for specific skills and communicate them to the higher education sector, and for the sector to respond effectively. The study was prompted by an earlier Treasury study which identified the need to ensure that businesses can access suitable employees at all levels and thereby reduce one of the key potential barriers to R&D and innovation¹³. The working group, chaired by Sir Gareth Roberts, reported in early April 2002.

In **Belgium**, as already mentioned in Section 4.2, the Flemish Government has commissioned a joint study on lifelong learning. This was undertaken between 1998 and 2000 by the Universities of Leuven and Gent. The study resulted in the CONBEL-report¹⁴, which presents some 22 key ideas and 82 proposals on lifelong learning.

In **Greece**, a number of studies to improve the quality and planning of lifelong learning programmes have been performed. Also, at the regional level, studies have been sponsored to identify the needs of the labour market, particularly in the larger regions of the country

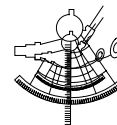
Similarly, in **Portugal**, several studies by various government agencies have been carried out to identify human resources requirements with a view to defining priority areas for lifelong education and training. The sectoral studies on professional profiles developed by INOFOR provide elements for diagnosis and prospective analysis of professions, competences, professional profiles and training needs. These studies now cover around a dozen industries, from textile and clothing to transport. Also relevant to this aspect is the research coordinated by Roberto Carneiro, a former Minister of Education, on learning and working in the 21st century¹⁵.

Another example is provided by the **Finnish** research programme 'Life as Learning', which is scheduled to run during 2002-2006. This programme is being jointly undertaken by the Academy of Finland, the National Board of Education, the Ministry of Education, the National Technology Agency (Tekes) and the Finnish Work Environment Fund. The programme aims to create a wide range of co-operation projects leading to applicable and utilisable research in various sub-fields of learning. It attempts, among other things, to find a way of managing the challenges of lifelong and 'life-wide' learning in order to avoid a new kind of exclusion and to anticipate future learning needs from the point of view of society, culture and the individual.

¹³ HM Treasury/Inland Revenue *Increasing Innovation – A Consultation Paper*, Budget 2001.

¹⁴ BAERT, H., VAN DAMME, D., *Uitgangspunten en contouren voor een samenhangend beleid van levenslang leren in Vlaanderen*.

¹⁵ Roberto Carneiro (coord.), *Aprender e Trabalhar no Século XXI*, Lisboa: Direcção Geral do Emprego e Formação Profissional/Ministério do Trabalho e da Solidariedade, 2000.



In **Ireland**, the 'Task Force for life-long learning' was established by the Department of Enterprise, Trade and Employment in collaboration with the education sector to explore the wide range of issues identified concerning lifelong learning. The report of the Task Force has not yet been published and there is some concern with the slippage in time-scales for implementing the recommendations of the 2000 White Paper.

In **Spain**, a joint study (PAFET) on new skill requirements by ICT enterprises was undertaken in 2001 in order to check on-going academic profiles and industrial requirements. The study was carried out by ANIEL (entrepreneurial association on ICT), the Ministry of Education and Professional Association of Telecommunication Engineers, and it aimed at giving some advice about future demands and the necessary updating of qualified human resources.

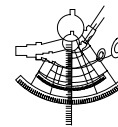
Finally, in **Poland**, a private company (Demoskop) has been commissioned to conduct an analysis of the demand for learning and training, and of existing government measures. The report, '*Market for adults learning and training services*' has now been produced.

5.2 Seminars, debates and consultation fora

France held a debate on lifelong learning on the floor of the regional forum for science and technology. The debate was organised by the national assize of scientific and technical culture. During the event, researchers, scientists, and representatives of associations debated how to allow citizens to learn and understand throughout their entire education. It also focused on the objectives and the meaning of scientific and technical activities. Other issues addressed included how to promote a technological and scientific culture, both within school and in outside structures in order to achieve scientific and technological lifelong learning.

Germany's 'Forum Education' was designed as a special body within the *BLK* (Joint Conference on Education Planning and Research Promotion of the Federal Government and the *Länder*). In November 2001, the Forum presented a list of recommendations for reform in education. These recommendations stressed the increasing significance of knowledge and learning in society, and the need for lifelong learning.

In **Estonia**, a number of seminars and debates are to be held throughout the country during 2002 on Estonia's strategy for lifelong study. These discussions will be organised by the Estonian Adult Educators Association (ANDRAS). The debates will attempt to include regional aspects in the strategy; a cooperation network, at the regional level, of initiative groups of adult trainers from the private and public sectors, is already in existence. The results of the debates will be compiled as a single document and presented to the experts' working group.



6. Lifelong learning support

A series of initiatives have been taken to accommodate existing institutional conditions to prioritise on lifelong learning, through increasing institutional co-ordination, for example, or institutional agreements among the relevant social partners or stakeholders. Participation in Community initiatives (such as Socrates) was also given important attention.

6.1 Institutional measures

An example of this type of approach is available in **Portugal**, where there is now inter-ministerial cooperation (between the Ministries for Education and for Labour), which has led to the creation of the National Agency for Adult Education and Training (ANEFA) and the National Agency for the Coordination of Socrates and Leonardo da Vinci programmes.

6.2 Institutional initiatives/agreements

An agreement of the Social Concertation Council, on Employment, Labour Market, Education and Training in **Portugal** has some relevance to the issue of lifelong learning. The agreement, signed by the Government and all social partners (employers associations and trade unions), is aimed at reducing the weaknesses of the Portuguese labour market. The Agreement grants workers the right to continuous training (and lifelong education) as a tool for enhancing the employability of individuals and the competitiveness of firms. One of the main objectives is the development of a nationwide network of Centres for the Recognition, Validation and Certification of Competences.

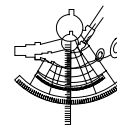
More directly targeting ICTs, an Agreement has been reached in **Spain** between the entrepreneurial associations (ICT sector) and the National Institute for Employment (INEM). Its general aim is to develop training programmes (as FORINTEL) to update labour profiles to the demands of ICT enterprises. This commitment envisages a fixed recruitment quota by enterprises that favours students engaged on Learning Programmes subsidised by INEM.

6.3 Participation in Community initiatives

Two countries provided examples of their participation in European Community initiatives as approaches to the development of lifelong learning. **Cyprus** participates in the Leonardo da Vinci programme – through the CPC an agreement has been made for the approval of terms and conditions of the country's participation in European Union programmes in the fields of vocational training and education. **Slovakia** has also provided the example of its participation in the EU's Socrates and Leonardo programmes.

In Portugal, as mentioned earlier, the National Agency for the Coordination of Socrates and Leonardo da Vinci programmes was created.

In general terms, the new generation of EU Education and Training Programmes place greater emphasis on lifelong learning. *Grundtvig*, a new action within the Socrates programme, **aims to enhance adult education provision by means of European co-operation**. This programme will support transnational co-operation projects; learning partnerships; mobility for training of educational staff and networks. Most, if not all EU Member States and Candidate Countries may be expected to have some level of involvement in Socrates.



7. Awareness raising

7.1 Web-based initiatives

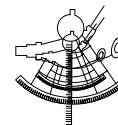
As noted in the Introduction, the development of the Internet and the huge uptake of the technologies required to support its utilisation, have provided governments with an invaluable medium for the dissemination of lifelong learning stimulation information, as well as providing a mode for the delivery of a range of lifelong learning packages. Two examples are provided below.

In **Austria**, a 'further education database' has been developed by the Public Employment Service. This widely accessible database aims to assist the population in gaining an overview of the different possibilities in further education.

Meanwhile, in **Bulgaria**, the 'intellectual exchange' launched by the Ministry of Education is aimed at furthering the development of contacts between inventors, business and investors and is directed at product and technology innovation of industrial production, thus providing an example of a more targeted delivery mechanism.

7.2 Other awareness raising

The Information Society Promotion Office is operated by the ARC Fund in **Bulgaria**. Its main objective is to support the development of an information society through raising awareness amongst the general public, industry, public administration, NGOs and academic institutions, as well as by fostering the uptake of e-business applications among Bulgaria's small and medium sized enterprises (SMEs).



8. Training initiatives

There are numerous examples of training initiatives. These tend to vary according to the agency through which they are delivered and in terms of their target audiences, ranging from the general public, to adult learning, executives, engineers or civil servants. Moreover, a large part of these initiatives have been specifically targeted at ICTs.

8.1 Education-based initiatives

The Axis Foundation (NL 25) was set up in the **Netherlands** in 1998 in order to reduce the shortage of technically skilled personnel and to reduce the declining enrolment in technical education. The activities of the Axis Foundation are designed to interest more young people in choosing educational paths in science or technical studies and thus stimulate them to pursue a career in technology.

The **UK's** Science Ambassadors Scheme aims to strengthen and expand all those activities that encourage younger people with Science, Technology, Engineering and Maths (STEM) skills to go back into schools to act as role models, relating the STEM subjects more clearly to the world of work, and encouraging others to follow them. This is being delivered as the Science and Engineering Ambassadors (SEAs) Programme and has been developed jointly by the Department of Trade and Industry and the Department for Education and Skills. The SEAs Programme is expected to be a long lasting legacy of the UK's Science Year (2001). It will be delivered through the 53 SETPoints coordinated by SETNET which will broker local arrangements between schools and Ambassadors. Over the last year, this network has merged with the former SATRO network, thus helping to rationalise delivery. Ambassadors will assist teachers in a variety of ways to set science, technology and maths studies in the context of daily life.

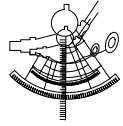
The Research Promotion Foundation is an agency aimed at the development of scientific and technological research in **Cyprus**. The Foundation supports lifelong learning to young researchers through various schemes, but mainly through the PENEK programme (CY 20), launched for the second time in April 2001. Specifically, this programme aims at providing training and further education to young researchers in particular scientific fields.

In **Latvia**, the draft of the 'National Concept for Development of Higher Education and Higher Education Institutions in the Republic of Latvia' sets out the strategic position for the development of the Higher Education system in Latvia until the year 2010. Among other measures the Concept is expected to define the details of a system of qualifications (including credit points for part-time study and lifelong learning). By 2006 it is hoped that modules for structured professional programmes will have been developed.

The **Hungarian** 'Scientific and Technology Policy 2000' aims to create academic career opportunities with a particular focus on the postdoctoral system, thus limiting the brain drain that the country has been experiencing. The overall aim is to increase the number of Ph.D. students who will decide to work in Hungary. One objective is to introduce attractive postdoctoral programmes in order to guarantee a steady supply of faculty members for the country's universities.

8.2 Training in ICT

This type of approach was felt to be one of the most innovation-relevant applications of lifelong learning. It is not surprising therefore that a large number of illustrations was found for this section.



The programme 'eFit Austria' can be seen as a platform in progress which deals with various initiatives and programmes. The base for this work rests with the '*Computermilliarde*'. 'eFit Austria' covers various initiatives and programmes:

- the creation of competence centres for adult education,
- more flexible learning forms for the second-change education (*eTraining*),
- special projects for disadvantaged groups and advanced access to educational information and advice.
- Infrastructural improvements in the form of extended public internet access.
- Promotion for obtaining the *European computer driving licence* (ECDL). Computer courses are offered within the scope of second-change education in rural areas.

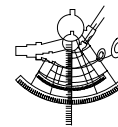
The LERNET scheme (DE 51), operated by the BMWi in **Germany** attempts to bring together basic knowledge in various fields of training (ranging from computer science to cognitive science to pedagogical science) in order to create innovative solutions for a network-based education system. On the side of the suppliers of such technologies, BMWi intends to support SMEs offering training services and software. On the side of the users of such education systems, both SMEs and public administration are target groups.

The **Netherlands** government invests in projects that aim to resolve personnel shortages in ICT. In 1999 the ICT Task Force – consisting of captains of industry in the ICT sector and board members from regional training centres, colleges and universities – presented plans to deal with continual complaints by ICT firms about personnel shortages and education. The report of the ICT Task Force has led to the preparation of 9 business plans that are eligible for funding. The nine business plans focus on:

- the image of the sector;
- the match between education and the labour market – the drafting of programmes in regular education should take into account the demands by business relating to ICT employees;
- target groups – various business plans are aimed at an increased participation of minority groups in ICT, e.g. ethnic minorities, refugees and women.

In **Spain** the INFO XXI Action Plan (see section 4.2.) has developed several Programmes to provide special training in IT. In this context, the FORINTEL Programme present two specific actions: Information Technology training for users in order to spread and encourage the adaptation and use of IT technologies in everyday living; and IT training for new professionals. The latter is in direct response to a recognised shortage of skills detected in the labour market. During 2002, the predicted budgets of the FORINTEL Programme will be €3.5 million (€1.5 million devoted to users' training on IT and €2 million for the training of new professionals).

The **UK** has introduced a range of measures which deal with training in ICT. The Government has targets to train up to 10 000 more people each year in advanced ICT learning through the New Technology Institutes and also to pilot New Deal programmes to move 5000 (newly redundant/unemployed) people into ICT jobs. At the more general level of raising ICT skills and awareness, the Government is introducing 6000 UK-online centres (UK 49) around the country. Also with regard to high-level skills in IT, electronics and communications (ITEC), as part of the Government's skills strategy, there is cooperation between government, business and education to deliver improvements in ITEC skills, by improving the image of careers in IT and promoting dialogue between employers and providers on skill needs areas. At a broader level, there are a number of initiatives in place which examine and tackle the barriers which are hindering the entry, progression and retention of women in higher education and research.



8.3 Vocational training

The **Greek** ESEKA initiative (Linking Education and Training with Employment) is a measure planned to improve the quality and relevance of training mechanisms. In this context a National Council has been established, supported by a technical secretariat, and it is currently engaged in the design of automatic mechanisms for penalties and rewards for publicly funded training centres.

In the **Netherlands**, the '*Scholingsimpuls*' (training impulse, NL 38), which was introduced in 2001, aims to support the development of innovative training projects for employees. Additional training is intended to increase the 'employability' of employees and answer the demand for high-skilled personnel in business. The target group of the measure is sector organisations. The measure is scheduled to run until 2004. Other measures existing in this area are Vocational Training and Adult Education 2000 (NL 20) and Knowledge exchange Vocational Training and Industry (NL 21).

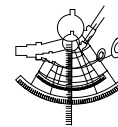
The **Swedish** Advanced Vocational Education (AVE), pilot project (SE 15) is a new form of post-secondary education intended to correspond to real needs in the employment market. In the autumn of 2001, AVE comprised 12 000 students and held 250 courses in a large variety of sectors. One-third of the time is spent in the advanced application of theoretical knowledge at a workplace. An evaluation of the Advanced Vocational Education project¹⁶ has shown that 75% of the students are employed and 4% are running their own companies within six months after graduating. The project was made permanent in May 2001 as suggested in the Government Bill Advanced Vocational Education¹⁷.

In the **UK** a number of measures target the vocational and technical education systems, aiming to rationalise vocational qualifications up to technician level, ensuring that half of all general Further Education (FE) colleges have a Centre of Vocational Excellence, and allocating over one billion pounds (roughly €1.6 billion) to reform and increase the number of Modern Apprenticeships between 1997 to 2004. In order to deliver some of these qualifications, the Learning and Skills Council has been developing a workforce development strategy, while £45 million (€74 million) has been invested in a smaller stronger network of National Training Organisations and an additional £8 million (€13 million) has been allocated to support Group Training Associations to provide Modern Apprenticeships.

The main purpose of the 'Higher Technical Institute' (under the **Cyprus** Ministry of Labour and Social Insurance) is to train high-level technician engineers in order to satisfy the needs of industry by providing suitable personnel to take up middle level technical posts. The Institute organises short courses of a vocational character, mainly covering new technologies for people coming from industry. These courses are run under the auspices and sponsorship of the Human Resource Development Authority. The Cyprus Productivity Centre (CPC) offers, in all the major towns, a wide range of management development programmes, as well as upgrading and *ab initio* vocational training programmes for technicians. Additionally, the CPC through the Mediterranean Institute of Management (MIM) organises annually a Post-Graduate Management Diploma Programme, designed to increase the employability of unemployed young university graduates and to improve the managerial potential of those already working. The CPC is a department of the Ministry of Labour and Social Insurance and was established in 1963. The activities of the CPC are the output of the following four distinct components: Management Development Component, Public Administration Component, Mediterranean Institute of Management (MIM), and Vocational Training Component.

¹⁶ SOU 1999:119 Evaluation of the Advanced Vocational Education

¹⁷ Government Bill 2000/01:63 Advanced Vocational Education



8.4 Technical training for executives and engineers

Luxembourg has established 'The Sitec'. The objectives of this initiative are: to contribute to innovation and technological development by raising awareness of information sources, through lifelong learning and training, and the qualification of men and women to provide training in lifelong learning, and to diffuse culture and scientific technological information within the firm. The development axes identified over the last six months in the field of lifelong learning are:

- DESS in 'Computer and innovation'.
- Le@rn training.
- Parent project.
- 'Innosertion project'.

The government of **Lithuania** provides funding for the training of heads of companies and employees through the Ministry of Economy. This funding covers training and consulting, which is directed at competence training, improvement of qualifications, improvement of existing professional skills and knowledge for higher and medium level of heads of enterprises and employees, as well as taking into account the ever changing demands of the labour market.

8.5 Civil Servants training

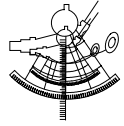
The **Cyprus** Academy of Public Administration (CAPA) is a part of the Ministry of Finance, created in 1991. Its major aim is to contribute to the efficiency and effectiveness of the civil service through developing the management capabilities of civil service departments. The Public Administration and Personnel Service (PAPS) promotes continuous training to civil servants in parallel to the training activities of the CAPA. Training on offer includes professional training, training related to technical issues, management/administration training and training on computer programmes.

8.6 General Training

In **Italy**, as in 2000, €1.55 million have been set aside each year for promoting lifelong learning courses. The money is intended to finance training for workers on the basis of contractual agreements which allow for reductions in working time and direct requests for training by the workers.

The **Norwegian** Ministry of Education and Research has established a 'Competence Development Programme' (*Kompetanseutviklingsprogrammet*). This is aimed at contributing to innovation in the market for lifelong learning. Companies, municipalities, knowledge institutions, labour organisations and others may initiate projects under this programme. The main target groups are public and private enterprises of all sizes, including the self-employed. The VOX institute is administering the programme, which will be evaluated at some point in its lifetime. The Ministry gave NOK 50 million (€6.5 million) to the Competence Development Programme in 2000 and 100 million (€13 million) in 2001. In the period 2000 to 2001 the programme received 1200 applications.

The **Cyprus** Human Resource Development Authority is a semi-governmental organisation managed by representatives of employers, unions and the government. The training activities promoted by HRDA are designed to meet the needs of the economy, enterprises and the labour force. These are set out in the form of guidelines by the HRDA, in co-operation with the Cyprus Planning Bureau. The training activities are delivered through some 160 training institutions in both the private and the public sectors, which employ about 800 people in total. In 1999, 41 992 people participated (14% of the working population) in 451 training programmes, and €9.58 million were spent on training and associated activities.



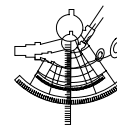
Under the **Norwegian** Evaluation systems for practical experience (*realkompetanse*), a national system for the evaluation of practical work experience will be established in the middle of 2002.

8.7 Adult Training

The Adult Education Centres in **Cyprus** have been in operation since 1960. They offer second chance opportunities to adults in various subjects of education and training. During the school year 1999-2000, 17 120 adults attended various courses which took place in 250 centres and were given by 470 teachers and instructors.

In **Finland** the National Programme on Ageing Workers was implemented between 1998-2002. The programme is based on the changes foreseen in the structure of demography and labour force in the forthcoming years in Finland. One of the aims of the programme has been to develop adult education so that it would better meet the needs of the population aged 45 and over. The National Programme on Ageing Workers has been implemented by The Ministry of Social Affairs and Health, together with the Ministry of Labour and the Ministry of Education.

In the **Netherlands** adult training is offered at all levels. Regional Education and Training Centres (ROCs) have special departments for adult education



9. Incentive schemes

Lastly, support for lifelong learning has materialised in a series of measures focused around incentive schemes, such as financial incentives or tax facilities. This type of incentive is pervasive among member states, however the following examples serve to illustrate some of the types of support employed.

9.1 Self-employment schemes

A self-employment scheme for tertiary education graduates has operated since 1983 within the Ministry of Labour and Social Insurance in **Cyprus**. It provides financial incentives in the form of loans and interest rate subsidies to stimulate self-employment. However, a three-month training can be subsidised to the applicants.

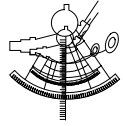
9.2 Tax facilities

The **Netherlands'** *Scholingsfaciliteit* (training facility, NL 41) allows companies to deduct at least 20% of their investments in employee training from their corporate income.

In **Sweden** a tax-based incentive has been proposed. Tax-deductible savings (with a maximum of approximately €1,050 per year) for individual learning and skills development are to be introduced from 2003. On withdrawal from this learning account, a special learning and skills development premium will be given. The learning and skills development premium is augmented by a fixed sum of €110 for all participants.

In **Poland**, tax deductions are available for citizens spending their own money on education, up to a maximum of €109 deducted from tax for spending on scientific aids (including computers, software, scientific books), and a further maximum €109 deducted from tax for expenditures on courses improving professional qualifications (including foreign languages and computer sciences).

In **Spain** tax deduction schemes for training (for SME's) have also been identified. These allow companies to deduct 5%-10% of spending on training. Tax credit for training was broadened to include training in new technologies (ICT) from 2001.



10. Overall conclusions

The overall description of the initiatives in the different Member States demonstrates the pervasive character of lifelong learning support generally, and much diversity in the type of support provided among Member States.

A heightened priority has been attached to lifelong learning in policy initiatives. This report provides evidence that lifelong learning is an important policy objective supported by the launch of specific strategies or action plans in many countries. Support has also taken the form of institutional innovations, targeted studies, consultation fora, awareness-raising exercises and training programmes.

Generally, support for lifelong learning encompasses a wide range of measures, featuring training programmes in particular, together with the development of more flexible training methods and use of ICTs. Additional schemes have been identified that support lifelong learning in the form of financial mechanisms and tax incentives.

The material reviewed within this report does not provide an exhaustive description of all actions undertaken in the Member States but does illustrate a wide variety of ongoing activities. Future reviews will undoubtedly be able to detect a greater number of schemes and initiatives within the classification scheme that has been devised, possibly this scheme will be extended. It is expected that the profile of lifelong learning policies and activities will continue to rise.