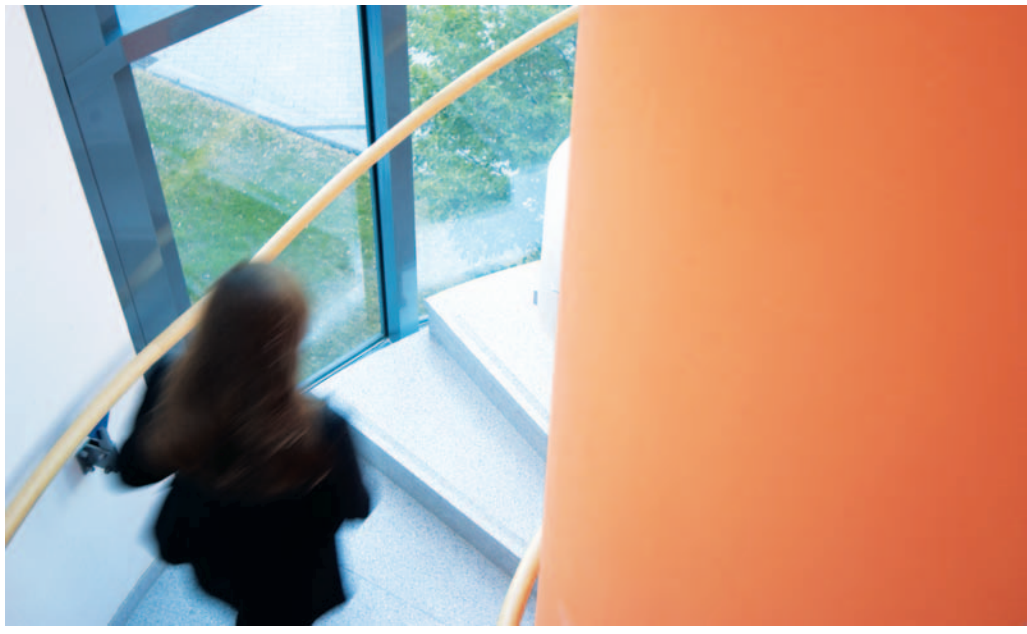
Enterprise publications



2003 Observatory of European SMEs

2003/1 Competence development in SMEs

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Competence Development in SMEs

This report has been prepared from information provided by all partners of the European Network for SME Research ENSR (see Annex IV) and was coordinated by Mr. Iñigo Isusi from IKEI, Instituto Vasco de Estudios e Investigación, the Spanish ENSR partner.

OBSERVATORY OF EUROPEAN SMEs

A series of reports submitted to the Enterprise Directorate-General of the European Commission (see also Annex IV to this report) by:

KPMG Special Services and EIM Business & Policy Research in the Netherlands

in co-operation with:

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These are the abbreviations used in this report for the Europe-19

A	Austria	NL	Netherlands
B	Belgium	P	Portugal
DK	Denmark	S	Sweden
D	Germany	UK	United Kingdom
EL	Greece	EU	European Union
E	Spain	IS	Iceland
F	France	LI	Liechtenstein
FIN	Finland	NO	Norway
IRL	Ireland	EEA	European Economic Area
I	Italy	CH	Switzerland
L	Luxembourg	Europe-19	EEA plus Switzerland

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server: http://europa.eu.int.

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Preface

Enterprises are at the heart of the strategy launched by the European Council in Lisbon in March 2000. Reaching the objective of becoming the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth, creating more and better jobs, and developing greater social cohesion will ultimately depend on the success of enterprises, especially small- and medium-sized ones.

The *Observatory of European SMEs* was established by the Commission in December 1992 in order to improve monitoring of the economic performance of SMEs in Europe. Its task is to provide information on SMEs at the national and European level.

The reports of the *Observatory* provide an overview of the current situation in the SME sector in Europe through statistics on the number of enterprises, on total employment, and on production by size of enterprise. In addition, the *Observatory* reports cover a range of thematic issues.

The *Observatory of European SMEs* covers 19 countries: the 15 countries of the EU, plus Iceland, Liechtenstein, Norway, and Switzerland.

In 2003 and 2004, the following reports are planned:
- Competence Development in SMEs
- SMEs and Access to Finance
- SMEs in Europe 2003
- Highlights from the 2003 Survey
- Internationalisation of SMEs
- SMEs and Co-operation
- The Impact of EU Enlargement on European SMEs
- SMEs and the Liberalisation of Network Industries

The research for the *Observatory* reports is carried out on behalf of the Enterprise Directorate-General of the European Commission by ENSR, the European Network for SME Research, co-ordinated by EIM Business & Policy Research from the Netherlands in a consortium led by KPMG Special Services from the Netherlands.

The *Observatory of European SMEs* is managed in the Enterprise Directorate-General by Unit A-5, 'Competitiveness Analysis and Benchmarking'.

*For a description of the activities of the Enterprise DG, see the website of the European Commission: http://europa.eu.int/comm/dgs/enterprise For more information on the Observatory of European SMEs, including how to access or order the reports, see: http://europa.eu.int/comm/enterprise/enterprise_policy/analysis/observatory.ht*m

Information on previous reports of the Observatory may be found there as well.

Summary

Competence Development in SMEs

- In the current competitive and complex economic environment, human capital is increasingly recognised both by countries and by business organisations as a key engine for growth and competitiveness.
- SMEs identify a number of advantages derived from their involvement in competence development activities, such as enhanced staff retention and motivation as well as increased competitiveness and productivity. Research shows that involvement in competence development activities has a positive effect on the individual SMEs' competitiveness and performance.
- Up to 80 % of European SMEs follow formal as well as non-formal methods for improving the competence base of their in-house human resources. The most common methods include visits to expos/trade fairs, courses/seminars/conferences provided by external trainers, reading of professional literature and meetings amongst personnel for knowledge exchange. SMEs' involvement in formal/non-formal competence development methods is positively correlated with the size of enterprises.
- It is possible to identify three main groups of European countries according to their involvement in competence development activities. SMEs belonging to several Nordic and Central European countries (Norway, Finland, Sweden, Iceland, Liechtenstein and Austria, as well as Ireland) show a high involvement in formal and non-formal competence development activities as well as a wide selection of methods for developing their in-house competence base. By way of contrast, SMEs located in the Southern European countries (Italy, Greece, Spain and Portugal) as well as France and Luxembourg, show the lowest involvement in these activities, a situation that has to be urgently improved. Finally, the remaining European countries occupy an intermediate position between the two.
- The main sources of external competence for European SMEs are their clients and suppliers. Other important sources include business and trade associations, consultants and training centres/universities. The percentage of enterprises employing different sources of external competence increases with the size of the enterprises. Country considerations show important differences concerning the importance of the different external sources.
- There is a positive relationship between the skill content of the SMEs' different occupational groups and their involvement in competence development activities. Amongst the very small enterprises, these activities are particularly concentrated within the 'directors/managers' group.
- Half of the European SMEs have a specific person or group responsible for identifying possible existing skills gaps/shortages (basically the owner or the general manager).
- For half of the European SMEs, competence development activities are a key part of their general business strategy. Around four out of ten European SMEs suggest a need to upgrade their in-house competence base. Both percentages increase with the size of the enterprise.
- There is a positive relationship between enterprise size and the regular nature of the enterprises' competence development activities. Four out of ten European SMEs try to obtain economic returns from these activities in the short term. Only 18 % of European SMEs have a written plan for developing their in-house competence base, although this percentage increases with the size of the enterprise.
- SMEs, especially the smallest ones, suffer from a number of obstacles for engaging themselves in competence development activities. These include short-term business pressures, cost issues, the entrepreneur/management team's own negative attitude to change, the SME entrepreneurs' limited ability to diagnose effectively their own competence needs or their limited contact with relevant sources of competence. SMEs very often feel reluctant to invest in people, as they fear the possibility of skilled labour being 'poached ' by competitors.

- National public authorities are developing a range of different policy measures intended to upgrade national SMEs' competence base. These measures include support for formal training, access to external consultancy services or empowering methods to management and organisational innovation. It is also possible to identify an increasing emphasis on the introduction of the so-called 'competence-based training', involving the recognition of knowledge and skills acquired through practical experience.

Chapter 1
Introduction

The current competitive context is defined by four main factors, i.e. continuous technological developments (specially linked to the ICTs), shorter product life cycles, increasingly demanding consumers and, finally, global competition. Within this context, the advanced economies are increasingly becoming what is called 'knowledge economies' which, in turn, has reinforced a growing consensus on the key role that human capital plays in sustaining economic growth and enterprises' competitiveness.

Having this in mind, enterprises in general and SMEs[1] in particular are increasingly aware of the importance of key words such as 'knowledge', 'skills' or 'competencies' for assuring their competitiveness.

'Competence' is defined in this report as the mix of human knowledge, skills and aptitudes serving the enterprises' productive purposes and therefore its competitiveness. 'Competence development' therefore can be defined as the measures taken by any enterprise to develop its competence base. This goal can be obtained from a double perspective:

- On the one hand, developing the competence base of its human resources, basically through different forms of formal and non-formal learning (training courses, internal seminars, work groups, assistance to expos, etc).
- On the other hand, obtaining the desired competence externally. Examples include, i.e., the recruitment of new employees, the purchase of consultant services or the co-operation with other external stakeholders.

Specific SME research on competence development is rare, although information on some specific aspects (i.e. formal training) is reasonably available. Studies taking a more holistic view of competence development in SMEs are very difficult to find, and comparative information at international level is practically non-existent[2].

This report tries to provide a comprehensive analysis of how SMEs in the European Union, Norway, Iceland, Liechtenstein and Switzerland (Europe-19) develop their in-house competence and acquire external expertise, as well as the main attitudes, benefits and barriers that they face in this respect. More specifically, this report tries to provide an answer to the following questions:

- Do SMEs develop in-house competencies? What tools do they use for this purpose?
- Do SMEs co-operate with external experts? What external sources do they prefer for this purpose?
- What are the preferred professional/job categories that take part in the organisation's competence development activities?
- Do SMEs plan their competence development strategies?
- Do SMEs identify their existing competence needs? Who takes these decisions?
- To what extent are these competence development activities related to the business strategy and goals?
- What are the main purposes underpinning SMEs' decisions to develop their competencies?
- Is it possible to establish a link between competence development activities and individual SMEs' performance?

1 For the currently used European definition of SMEs, please have a look at the Commission Recommendation of 3 April 1996 concerning the definition of Small and Medium-sized Enterprises (SMEs), Official Journal L 107 of 30.04.1996. For simplification purposes, SMEs are those enterprises with fewer than 250 employed persons. See Annex I for a description of their role in the European economy.

2 The issue of competence development amongst the European SMEs has been dealt with in previous Observatory reports, although from a limited perspective. The issue of education and training (always from a formal perspective) was analysed in the third and sixth reports, whereas the issue of SMEs' access to external advice was dealt with in the fifth report.

- What are the main barriers that make the SMEs' decisions to develop their competencies difficult?
- What public initiatives are being taken in the different European countries and by the European Commission in order to facilitate the development of competencies in SMEs?

From a methodological perspective, this report combines a review of the existing national and international literature collected by the partners of the ENSR network with first-hand information obtained from a comprehensive survey conducted amongst a large number of European SMEs, the ENSR Enterprise Survey 2002[3].

This report is structured around 4 main chapters:
- Chapter 2 identifies the concepts of competence and competence development.
- Chapter 3 discusses the European SMEs' approach towards competence development activities.
- Chapter 4 analyses existing public national support initiatives intended to encourage competence development activities within SMEs, as well as the initiatives developed by the social partners in this domain.
- Chapter 5 summarises the results and gives a number of recommendations for policy action.

3 For further details on the ENSR Enterprise Survey 2002, see Annex II to this report. It is necessary to underline the importance and unique nature of this survey and of the data obtained from it. This 'uniqueness' lies in several factors such as its scale (it includes data from 7 669 SMEs in 19 European countries and in all industries), its scope (it is solely focused on SMEs) and its concentration on facts.

Chapter 2
Approaching the concept of competence development

2.1. The transition towards a knowledge intensive economy: implications from a macro perspective

The current economic environment is characterised by global competition, fast technology developments, shorter product life cycles, more demanding consumers and changing enterprise structures through merges, alliances and take-overs. In this competitive and complex environment, human capital is increasingly recognised as a key engine for economic growth. Thus, the new growth theories make economic growth dependent on the rate of accumulation of both physical and human capital, defined by the levels of knowledge, skills and competencies of the workforce[4].

Some authors[5] suggest that the Western developed countries have experienced in the past few decades a transformation in which knowledge has become one of the most important inputs underpinning economic development and competitive advantage[6]. The skills currently required are often related to fields that are not only of a technical nature, but also of an organisational and social character (see Table 2.1) that may allow staff to operate in more fluid and interactive organisational contexts[7].

Table 2.1: Main competencies required by European enterprises in the future

- Learning to learn
- Information processing and management
- Deduction and analytical skills
- Decision making skills
- Communication skills, language skills
- Teamwork, team based learning and teaching
- Creative thinking and problem solving skills
- Management and leadership, strategic thinking
- Self-management and self-development
- Flexibility

Source: Hätönen, H, 'Osaava henkilöstö - Nyt ja tulevaisuudessa' (Skilful staff - now and in the future), Metalliteollisuuden keskusliitto, julkaisuja 4/98, MET, Helsinki, 1998.

From a macro perspective, there are several reasons why knowledge may exert a greater influence on economic growth today. First, knowledge is diffused more rapidly and widely than ever, partially due to the increased use of ICTs. Second, today's economy is dominated by services where intangibles play an important role. In this con-

4 OECD, Knowledge, Work Organisation and Economic Growth, Labour Market and Social Policy-Occasional Papers No 50, Paris, 2001.
5 E.g. OECD, Employment and Growth in the Knowledge-based Economy, Paris, 1996.
6 Chaston, B.B., E. Sadler-Smith, Small firm organisational learning: comparing the perceptions of need and style among UK support service advisors and small firm managers, in: *Journal of European Industrial Training,* Vol. 23, issue 1, 1999.
7 Moniz, A.B., I. Kovács (study coordinators), Evolução das Qualificações e das Estruturas de Formação em Portugal (Evolution of the Qualifications and Training Structures in Portugal), Instituto do Emprego e Formação Profissional, Lisbon, 1997.

text, technological innovations are likely to be diffused all the more effectively and rapidly when human capital is high[8].

This shift towards 'knowledge-based' economies has resulted in a higher demand for both skilled and 'knowledge-intensive' employment. The OECD[9] suggests that the relative demand for skilled and knowledgeable workers versus unskilled labour has increased in the last decade. The OECD also suggests that this rise reflects mainly demand developments and not just an increase in educational attainment[10].

At EU level, the latest European Competitiveness Report[11] shows that there has been an upgrade of skills in employment across the Member States during the second half of the 1990s, which appears to be unrelated to differences in their economic structure. In addition to this increase in high-skill employment[12], labour shortages and skill gaps have become a very important issue in nearly all the European economies, basically due to the constrains they pose on the economic growth. In the EU there is evidence of shortages of skilled and highly skilled labour, arising from a supply of highly skilled workers which is smaller than demand, and growing at a slower rate. Moreover, and according also to the latest European Competitiveness Report, this skill gap is present more acutely in Europe than in the US.

In this sense, labour shortages and skill gaps in different sectors and occupations (especially amongst the highly skilled) have been identified as the main factor hampering economic growth in the most recent National Action Plans for a number of EU countries[13.] In this respect, ICT-skill shortages have been suggested as particularly relevant by several pieces of literature. According to the 2002 Enterprise Scoreboard[14], between 10 % and 12 % of the existing demand for ICT skills cannot be satisfied across all Member States and Norway, and this skill shortage is forecast to increase in the coming years. However, it is also acknowledged that labour shortages in future years can be as acute at the top of the skill spectrum as at the bottom [15].

2.2. Definition of the competence development concept. What are we talking about?

The importance of improving the competencies and skills of the enterprises' human capital is currently widely accepted as a key tool for fostering the competitiveness of enterprises in general and SMEs in particular. Notwithstanding this, it is interesting to note that a number of empirical studies conducted at micro level amongst SMEs have failed to show a positive relationship between SMEs' involvement in formal training activities and individual enterprises' competitiveness and performance[16]. This position is well summarised by Storey, who suggests that 'whilst it seems to be the case at national level that formal training is associated with better performance, this link has not been adequately demonstrated at the level of the small firm sector'[17].

The main explanation for this result is that the traditional studies on the upgrading of human capital resources usually fail to recognise this issue adequately. Thus, most of the existing studies focus their attention only on formal training practices that are easy to understand in terms of time and financial resources used. This formal learning is typically provided by education or training institutions, usually leading to certification, which can be labelled as intentional from the learner's perspective[18].

However, enterprises in general and SMEs in particular use other methods for upgrading the competencies and skills of their human resources. Some authors argue that discrete 'learning from others' and 'on-the-job' prac-

8 OECD, Links Between Policy and Growth: Cross-country Evidence, Paris, 2000.
9 OECD, Knowledge, Work Organisation and Economic Growth, Labour Market and Social Policy-Occasional Papers No 50, Paris, 2001.
10 The OECD underlines the fact that between half and one third of these workers have not reached a university degree, which underlines the importance of on-the-job experience.
11 See Commission Staff Working Document, European Competitiveness Report (SEC(2002) 528), Luxembourg, 2002.
12 This increase in high-skill employment is accounted for largely by changes in the skill content of jobs rather than changes in the sectoral location of employment growth.
13 European Commission, Joint Employment Report 2000, COM (2000)551 Final, Brussels, 2000.
14 European Commission, Benchmarking Enterprise Policy: Results from the 2002 Scoreboard, SEC(2002)1213 of November 2002.
15 CEDEFOP, Learning for Employment, Second report on Vocational Education and Training Policy in Europe, Luxembourg, 2003.
16 I.e. see J. Baldwin, W. Chandler, C. Lee and T. Papailiadis, Strategies for Success: A Profile of Growing Small- and Medium-sized Enterprises (GSMEs) in Canada, Ottawa, 1994. The results of this extensive study show that the expenditure per employee on training is negatively correlated with business profitability.
17 Storey, D.J., Understanding the Small Business Sector, Routledge, London, 1994, p. 203.
18 Communication from the Commission to the European Parliament and the Council, Making a European Area of Lifelong Learning a Reality, COM (2001) 678 final, 21.11.2001.

tices are a 'hallmark' of small enterprises[19], where most of the learning is based on 'learning by doing'[20]. Such training practices do result in tacit competencies and skills that form the base for an enterprise's competitive edge but they are difficult to recognise by standard measures (i.e. education levels or diplomas). Traditional literature on SMEs' training practices has very often ignored these non-formal methods such as learning by doing, visits to other enterprises, dialogue with customers and suppliers, personal development meetings, work rotation, staff meetings, etc[21] which are very important for SMEs.

In order to capture all these non-formal elements[22], there is an increasing attention in business and management literature to the concept of competence. This concept has its origins in psychology. In fact, the term has been used in an educational context as far back as the 1920s, although the development of the American and much of the EU 'competence' movement owes its existence largely to the work undertaken by McCelland during the 1970s[23].

Following Argyris' definition[24], competence can be defined as the synthesis of knowledge (what you learn in education), skills (what you gather in your job, at your work place, and in social life from your daily experiences) and aptitudes (these are, the abilities to use this knowledge and skills). The European Commission defines competence as the capacity to use effectively; experience, knowledge and qualifications[25]. Other authors such as Nordhaug have tried to relate the term competence to professional requirements regarding productivity, so he defines competence as 'the composite of human knowledge, skills and aptitudes that may serve productive purposes in organisations'[26].

This report will make use of this last definition, where competence will be understood as the combination of human knowledge, skills and aptitudes serving productive purposes in SMEs and contributing to their competitiveness. Any enterprise can 'develop' its competence base by a number of different possible measures, that is to say, by recruiting the 'right' competence from outside or by developing the human resources the organisation already possesses. These investments will only be effective if they are used in an effective way that targets the market needs[27].

Following Nordhaug's so-called 'Competence Chain model'[28], this report is focusing its attention on the activities that SMEs carry out for upgrading their competence base in two main domains,

1 'Development of in-house competence', which represents the measures a firm takes to develop their competence status available within their in-house human resources.
2 'External competence acquisition', where firms acquire (buy or by other means get access to) different external competencies that are outside the enterprise's boundaries and that enterprises lack internally[29] but may be regarded as essential for the optimal performance of the firm[30].

19 Hendry, C., M.B. Arthur, and A.M. Jones, Strategy Through People - Adaptation and Learning in the Small-Medium Enterprise, Routledge, London 1995.
20 Gibb, A, The Enterprise Culture and Education; Understanding Enterprise Education and its Links with Small Business, Entrepreneurship and Wider Educational Goals, in *International Small Business Journal*, Vol. 11, No. 3, 11-35, 1993.
21 Ylinenpää H., Managing Competence Development and Acquisition in Small Manufacturing Firms, Department of Business Administration and Social Sciences, University of Technology, Luleå, 1997.
22 Non-formal learning can be defined as all learning that is not provided by an education or training institution and that typically does not lead to certification. It can be structured or not structured (in terms of learning objectives, learning time or learning support), and may be either intentional or non-intentional from the learner's perspective.
23 I.e. D. McCelland, Testing for 'competence' rather than 'intelligence'. In *The American Psychologist,* Vol. 28, No. 1. Washington: American Psychologist Association, 1973, pp. 1-14.
24 Argyris, C, Knowledge for Action: A Guide to Overcoming Barriers to Organisational Change, San Francisco: Jossey Bass Publishers, 1993.
25 Communication from the Commission to the European Parliament and the Council, Making a European Area of Lifelong Learning a Reality, COM (2001)678 final, 21.11.2001
26 Nordhaug, O., Human Capital in Organisations; Competence, Training and Learning, Scandinavian University Press, Oslo, 1993 (p. 50), taken from H. Ylinenpää, Managing Competence Development and Acquisition in Small Manufacturing Firms, Department of Business Administration and Social Sciences, University of Technology, Luleå, 1997.
27 Ylinenpää H, Conclusions of Workshop 3 of the European Forum on Top Class Business Support Services, Cardiff, October 2001.
28 Nordhaug, O., Human Capital in Organisations; Competence, Training and Learning, Scandinavian University Press, Oslo, 1993 (p. 50), taken from Ylinenpää H., Managing Competence Development and Acquisition in Small Manufacturing Firms, Department of Business Administration and Social Sciences, University of Technology, Luleå, 1997.
29 Nordhaug, O., Kompetansestyring i arbeidslivet (Organising competence in enterprises), Tano Aschehoug, Oslo, 1998.
30 Lassinantti, L., H. Ylinenpää, Trainees as Change Agents in SMEs -Experiences from a Program for the Development of Smaller Enterprises, Dept. of Business Administration and Social Sciences, Small Business Academy, Luleå University of Technology, Luleå, 1998.

The final decision to invest in competence development activities depend on a number of different but complementary elements[31]:

- Firstly, the different environmental influences and pressures enterprises have to face, such as technological change, changes in market demand and competition, etc. Just to give an example, enterprises operating in stable environments have less pressure and fewer incentives to change, so in such situations most of the learning can be characterised as what some authors[32] call 'single-loop learning'[33]. By way of contrast, in more dynamic environments, enterprises probably need to challenge their standards and routines, which in turn requires a more developed form of learning ('double-loop learning').
- Secondly, the enterprise's own strategic orientations and goals. Thus, enterprises trying to maintain their market competitiveness by reducing costs can be expected to have different competence development and acquisition strategies in comparison to enterprises pursuing growth by investing in new fields of business/markets. In this respect, and especially amongst the very small enterprises, SME owners and general managers play a central role in defining the enterprise's business objectives and goals[34].
- Thirdly, the broadness and level of the existing in-house competencies, in the sense that an enterprise having a broad range of in-house, high-level competencies, invests in competence development in a different way to an enterprise with a narrower base of in-house, low-level competencies. An enterprise with a broader competence base can be expected to be a more qualified and demanding buyer of external competencies.

Finally, it is important to distinguish between competence at individual and organisational level. Individual competence can be regarded as a necessary but not a sufficient condition for organisational competence[35], as all learning takes place inside individual human heads[36]. Moreover, a high level of individual competence does not automatically result in a high level of organisational competence, i.e., shared mental models within the organisation[37] that result in routines and collective knowledge. An optimal degree of organisational competence requires a transfer mechanism that facilitates interplay between an individual and the organisation's frameworks and routines.

2.3. The transition towards a knowledge intensive economy: why it is so important for SMEs to invest in competence development activities?

European enterprises in general and SMEs in particular are increasingly paying attention to the issue of knowledge, skills and competencies as they acknowledge the importance of the development of these for their competitiveness in the so-called knowledge-based economy. In fact, and as Hamel et al. suggest[38], a competitive organisation is not only a portfolio of products or services, but also a portfolio of competencies that are used in a way that corresponds to customers' needs.

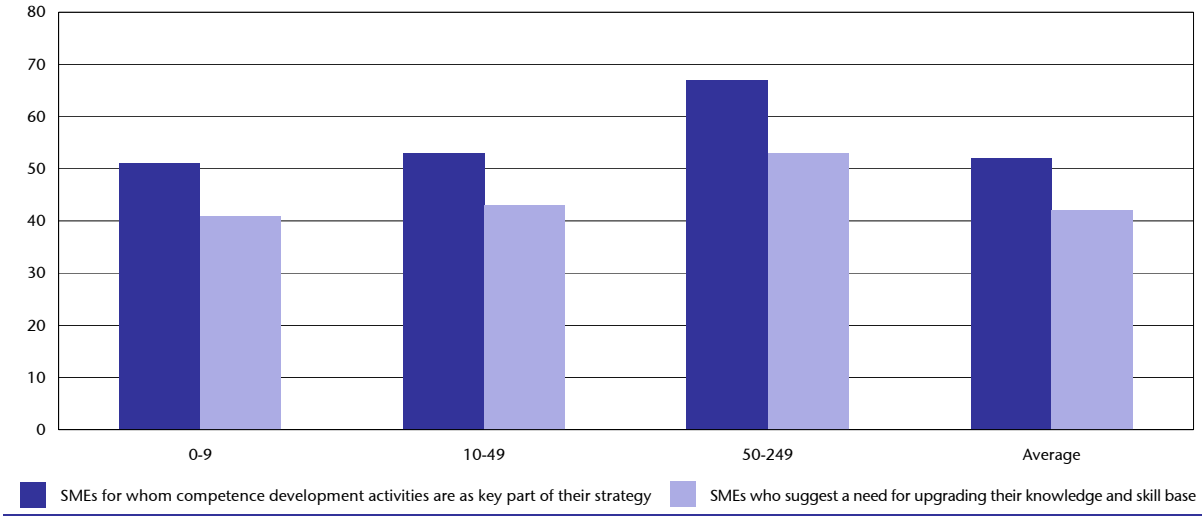
Therefore, it is not strange that management literature advises enterprises to develop into organisations that facilitate the learning for all of their staff and continually transform themselves in order to maintain and improve their competitiveness[39]. Some authors[40] point out that it is easier to rebuild an organisation when it has lost all its physical records and systems than if it has lost all its employees.

Some recent data, the ENSR Enterprise Survey 2002, show that around half of European SMEs point out that competence development activities are a key part of their general business strategy (see Figure 2.1). This impor-

31 Ylinenpää H., Managing Competence Development and Acquisition in Small Manufacturing Firms, Department of Business Administration and Social Sciences, University of Technology, Luleå, 1997.
32 Argyris, C., D.A. Schön, Organizational Learning, Reading, Ma: Addison - Wesley, 1978.
33 Single-loop learning relates to 'doing things right' by detecting and correcting errors, whereas double-loop learning questions these taken-for-granted standards of doing things right, and thus facilitates a radical change of existing processes, routines and values.
34 Storey, D.J., Understanding the Small Business Sector, Routledge, London, 1994.
35 Mabey, C., G. Salaman, Strategic Human Resource Management, Oxford, Blackwell Publishers, 1995.
36 Teece, D.J., R. Rumelt, G. Dosi, and S. Winter, Understanding corporate coherence - Theory and evidence, in *Journal of Economic Behaviour and Organization*, 23, pp. 1-3, 1994.
37 Kim, D. K., The link between individual and organizational learning, Sloan Management Review, Vol. 35, No. 1, 1993.
38 Hamel, G., C.K. Prahalad, Competing for the Future, in *Harvard Business Review*, July-Aug., 1994.
39 Pedler, M., J. Burgoyne, and T. Boydell, The Learning Company. London: McGraw Hil, 1991.
40 Kim, D.K, The link between individual and organizational learning, Sloan Management Review, Vol. 35, No. 1, 1993.

tance seems to be higher amongst the medium-sized enterprises (67 % of responses). Meanwhile, around four out of ten European SMEs admit a need to upgrade their in-house competence base, and it is possible to identify a higher concern amongst the medium-sized enterprises in comparison to the very small and small enterprises (see also Figure 2.1).

Figure 2.1: Percentage of SMEs for whom competence development activities are a key part of the general business strategy/suggest a need to upgrade their knowledge and skill base, by enterprise size, Europe-19



Source: ENSR Enterprise Survey 2002.

Available national evidence complements the previous results, confirming the important role attributed by SMEs to the upgrading of their human resources. Thus, 40 % of Austrian SMEs argue that further education constitutes one of the key factors for the future success of the enterprise, whereas for another 18 % it is the most important impact factor for future enterprise success[41]. Up to 86 % of the Belgian SME-executives believe that an involvement in training benefits the enterprise's general efficiency[42]. In Denmark, up to 83 % of national enterprises confirm a positive return on investment for competence development activities[43], so it is not strange that for 67 % of them, continuing development of competencies in general is regarded as crucial or very important for the competitiveness of the enterprises[44].

It is possible to identify a number of reasons that explain the enterprises and SMEs' increasing attention to developing their competence base[45]:

– New technologies (especially ICTs) are introducing new competence and organisational requirements at the work place[46] so, for instance, 51 % of the Portuguese enterprises with 10 or more employees identify the introduction of new technologies as the main factor generating training needs[47]. The success of technological and organisational innovations within an enterprise depends to a large extent on the abil-

41 Egger, A., Betriebliche Aus- und Weiterbildung als Schlüsselfaktor für erfolgreiche Klein- und Mittelbetriebe in Österreich (Education and Further Education as Key Factor for Successful Small and Medium-Sized Enterprises in Austria), Thesis at the Johannes Kepler University, Linz, 2000.

42 Lannoo, R., Ruim 80 % van de KMO's noemt opleiding van medewerkers noodzakelijk. 54 % doet het ook (More than 80 % of the SMEs state that training of employees is necessary; 54 % also do it), UNIZO, Brussels, 27/05/2003.

43 IFKA (Institute of Market Trends) & LO (The Federation of Danish Trade Unions): Kompetenceløft i Danmark 2000 (Upgrading of Competences in Denmark 2000), Copenhagen, 2001.

44 Gjerding, NA (ed.), Den fleksible virksomhed, (The Flexible Enterprise), Erhvervsudviklingsrådet, Report No. 1 of the DISKO Project, Copenhagen, 1997.

45 See for instance D. Patton, S. Marlow, (2002) The determinants of management training within smaller firms in the UK: What role does strategy play?, *Journal of Small business and Enterprise Development,* Vol. 9, No. 3.

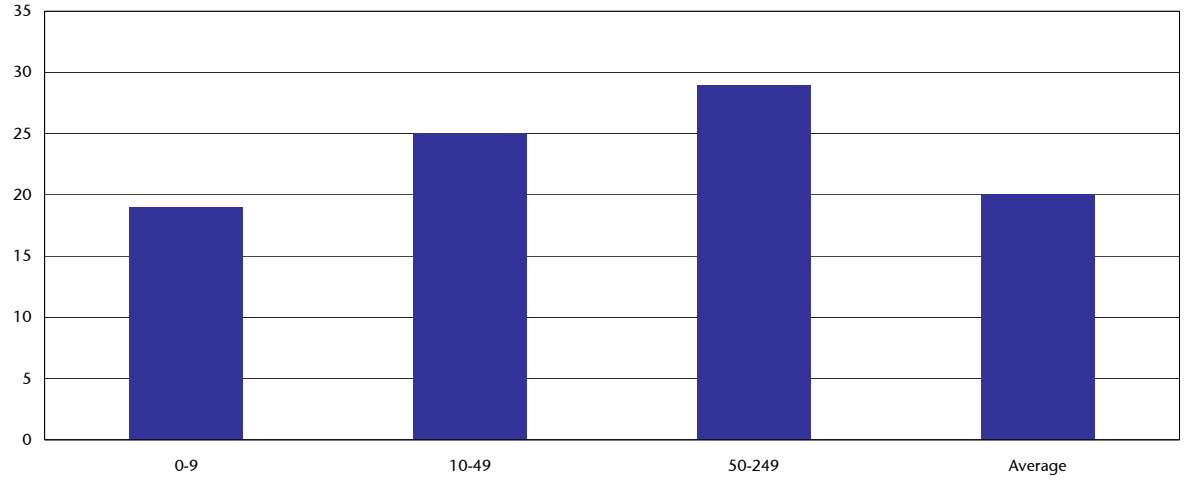
46 Kailer, N., J. Steinringer, Personalentwicklung in Klein- und Mittelbetrieben; Bedarfe und Trends in einer dynamisierten Wirtschaft (Personnel Development in Small and Medium-Sized Enterprises; Needs and Tendencies in a Dynamic Economy), Vienna, 2000.

47 DETEFP, Inquérito às Necessidades de Formação Profissional das Empresas 2000-2002, (Survey on the Enterprises' Training Needs 2000-2002), Lisbon, 2000.

ity, skills and intellectual capacity of individuals at all levels[48] to absorb change and interpret the rapidly changing environment[49]. Therefore, the old 'Tayloristic' success formulas characterised by the division of labour between 'thinkers' and 'doers' are not applicable in the current knowledge-intensive economic environment[50].

– The increasing internationalisation of markets and the subsequent competitive pressures faced by SMEs, as well as the changing legal requirements SMEs permanently have to deal with[51], are resulting in added competence needs[52]. It is therefore not surprising that SMEs face important difficulties in recruiting and/or retaining competent staff. In fact, the ENSR Enterprise Survey 2002 shows that lack of skilled labour has been the main constraint on business performance of European SMEs in the last two years, and 20 % of them are affected by this problem (see Figure 2.2).

Figure 2.2: Percentage of European SMEs negatively affected by the lack of skilled labour, by enterprise size, Europe-19



Source: ENSR Enterprise Survey 2002.

– Another important reason is related to the ageing process of the European workforce. Swedish estimates show for example that during the next 10-15 years around half of the small business employees will retire. This may cause an important part of the enterprises' key-competencies to be lost, this loss may have negative consequences on competitiveness, productivity and efficiency. Therefore, the preservation and development of competencies are critical issues to these enterprises[53]
– In some countries, SMEs seem to be particularly affected by the inability of the formal education system to match the enterprises' current needs[54]. This, in turn, implies an added need for SMEs to engage themselves in competence development activities.
– Management literature increasingly underlines that competitive advantages built on capabilities, knowledge and skills are often less visible to competitors and more difficult to imitate, providing therefore a base for a sustainable and robust advantage[55].

48 Senge, P, The Fifth Discipline: The Art & Practise of The Learning Organization, New York, Doubleday, 1990.
49 ESADE et al, Small Business Training and Competitiveness: Building Case Studies in Different European Cultural Contexts, TSER Project, Barcelona, 2001.
50 Crawford, R, In the Era of Human Capital, Harper Collins, 1991.
51 Heberer, J., R. Grap, Betriebliche Weiterbildung in kleinen und mittelständischen Unternehmen, Methoden und Vorgehensweisen (Continuing Training in SMEs, methods and performance), Herzogenrath, 1995.
52 Berufliche Fortbildungszentren der Bayerischen Arbeitgeberverbände 'Bildungsplanung im Betrieb, Strategien zur Ökonomisierung betrieblicher Weiterbildung in kleinen und mittleren Unternehmen, Wirtschaft und Weiterbildung' (Planning of competence development activities in the enterprise, strategies to make competence development in SMEs feasible), Nürnberg, 1995.
53 Stenlund, K.L., S. Hörte, Competence Accounting - Methods for Measuring and Valuing Key-Competencies, Luleå University of Technology, Division of Industrial Organization, Luleå, 1999.
54 Moura, R., Evolução das Políticas de Formação nas Empresas, Evolution of Training Policies in the Enterprises, OEFP, Lisbon, 1999.
55 Ylinenpää, H., N. Nilsson, Knowledge Transfer and Organizational Competence Building - A Case Study of Two Knowledge-Intensive Firms, paper presented at 5th Conference on Competence Management, Helsinki, June 2000.

2.4. The activities of European Institutions to develop the competence base of European SMEs

The Lisbon European Council set the European Union the strategic goal of becoming the most competitive and dynamic knowledge-based society in the world by 2010. It is well recognised that people, their knowledge and competencies are among the key elements to Europe's future since knowledge and competencies are a powerful engine for economic growth and competitive advantage[56].

In this sense, several European Council meetings (Stockholm in March 2001, Barcelona in 2002) have set up several key education and training benchmarks to adapt education and training systems to meet the needs of the knowledge society and provide more and better employment (see Table 2.2).

Table 2.2: Key education and training benchmarks for Europe by 2010

- All Member States should at least halve the rate of early school leavers, with reference to the rate recorded in 2000, to achieve an EU average rate of 10 % or less;
- Member States will have at least halved the gender imbalance among graduates in mathematics, science, technology while securing an overall significant increase in the total number of graduates, compared to 2000;
- EU average participation in lifelong learning should be at least 15 % of the adult working population (25 to 64 age group) and in no country should it be lower than 10 %;
- The number of 25 to 64 year-olds achieving upper secondary level education should be raised to 80 % of the working population;
- Increase substantially annual per capita investment in human resources;
- Agree on the concrete future objectives of education and training systems;
- Develop a European framework to define the new basic skills to be provided through lifelong learning;
- Define means to foster mobility of students, teachers and training and research staff;
- Improve employability and reduce skills gaps;
- Increase employment in services.

Source: CEDEFOP, Learning for Employment: Second Report on Vocational Education and Training Policy in Europe, Luxembourg, 2003.

The Lisbon European Council also recognised the key role that small businesses play in job creation and economic and social prosperity within the European Union as a breeding ground for business ideas and a main driver for entrepreneurship. For this reason, the Feira European Council endorsed the 'think small first' principle[57] as one way to progress towards the Lisbon objectives, so Member States are fully encouraged to create the best possible environment to allow small businesses to operate and flourish.

A recent Commission's communication states that 'people working in small and medium-sized businesses need access to appropriate learning opportunities to keep their skills and competence updated'[58]. For this purpose, the Commission has taken a number of initiatives in recent years. These initiatives can be summarised as follows[59]:

- The European Council in Barcelona in March 2002 set the objective of making the EU educational and training systems a world reference by 2010.
- On 14 February 2002, the Council and the Commission jointly adopted a detailed work programme on the follow-up of the objectives of education and training systems in Europe[60]. It focuses on three main objectives, i.e. to improve the quality and effectiveness of education and training systems in the EU, to facilitate everybody's access to such systems and, finally, to open them up to the wider world.

56 Communication from the Commission to the Council and the European Parliament, Productivity: The Key to Competitiveness of European Economies and Enterprises, COM(2002) 262 final, Brussels, 21.5.2002.
57 This commitment is embodied in the European Charter for Small Enterprises as endorsed by the Heads of State or Government at the Santa Maria da Feira European Council of 19-20 June 2000 (Annex III of the conclusions of the Santa Maria da Feira European Council).
58 Communication from the Commission to the Council and the European Parliament, Thinking small in an enlarging Europe, COM(2003) 26 final, Brussels, 21.1.2003.
59 For a further description see Commission of the European Communities, Report from the Commission to the Council and the European Parliament on the Implementation of the European Charter for Small Enterprises, Com(2003) 21 Final/2, Brussels, 13.2.2003.
60 Council document 6365/02, 20 February 2002.

- Also in February 2002, the Commission adopted its Action Plan for skills and mobility[61]. This plan aims at addressing a number of challenges, i.e., the need to adapt education and training systems more effectively to the labour market, the importance of boosting lifelong learning and skills acquisition (particularly skills in ICTs) and, finally, the need to improve systems to recognise qualifications and competencies. This Plan also suggests the need for a European framework of methodologies and standards for the identification, assessment and recognition of non-formal learning, work experience and training received[62]. In this sense, and accordingly to international trends, the EU is paying increasing attention to the development and recognition of 'competencies' acquired on a non-formal basis[63].
- The European Employment Strategy (EES), launched in 1997 by the Luxembourg Jobs Summit, is currently shifting its attention, amongst other issues, towards a stronger emphasis on lifelong learning and making education and training in line with labour market needs[64].
- Following on from the Communication on Lifelong Learning[65,] the 'Bruges process' was launched to improve co-operation in vocational education and training amongst EU Member States, the European Economic Area, the candidate countries and the Commission.
- The Commission has presented a number of initiatives intended to ensure the supply of skilled labour, especially as far as ICT and e-business skills and job profiles are concerned. Examples of these initiatives include the final report of the Best Procedure ICT Skills Monitoring Group, 'e-Skills in Europe: Benchmarking Member States Policy Initiatives', the complementary initiative on 'Information and Communication Technologies and e-Business skills for user industries and SMEs'[66]. In addition to this, the Commission presented actions needed to ensure the supply of skilled labour in a recent report endorsed by the Barcelona Summit[67]
- Finally, the Commission is concerned with the use of information technologies in education, especially in relation to self-study methods. Examples of this are eEurope 2002 Action Plan[68], the initiative eEurope 2005[69] or the Commission's proposal for a programme on the use of ICT to improve access to education and training[70].

In addition to these initiatives, it is worth stressing the activities supported by the European Structural Funds (i.e. the European Social Fund) by which EU SMEs benefit exclusively or along with other target groups in the area of training and human resource development in several European Objective regions.

61 Commission's Action Plan for skills and mobility, COM(2002) 72 final, 13.2.2002.
62 An in-depth discussion on this issue can be found in the Communication from the Commission: Making a European Area of Lifelong Learning a Reality, COM(2001) 678 final, 21.11.2001.
63 CEDEFOP, Training and Learning for Competence, Second Report on Vocational Training research in Europe, Thessaloniki, 2001.
64 Commission Communication, Taking Stock of Five Years of the European Employment Strategy, COM(2002) 416 final, 17.7.2002.
65 Communication from the Commission, Making a European Area of Lifelong Learning a Reality, COM(2001) 678 final, 21.11.2001.
66 Communication from the Commission, eLearning Action Plan; Designing tomorrow's education, COM (2001) 172 final, 28.3.2001.
67 Report from the Commission. Report requested by Stockholm European Council: Increasing labour force participation and promoting active ageing, COM(2002) 9, 24.1.2002.
68 eEurope 2002, An information society for all, Action Plan, 14.6.2000.
69 Communication from the Commission, eEurope 2005: An information society for all, COM(2002) 263 final, 28.5.2002.
70 Proposal for a Decision of the European Parliament and of the Council adopting a multiannual programme (2004-2006) for the effective integration of Information and Communication Technologies (ICT) in education and training systems in Europe (eLearning Programme), COM(2002) 751 final, 19.12.2002.

Chapter 3
Competence development activities in European SMEs

3.1. Introduction

The previous section has defined competence development as those activities that enterprises in general and SMEs in particular carry out in order to develop and upgrade their competence base.

This chapter investigates the European SMEs' involvement in these activities, where special attention will be paid to the following issues:

- The main activities that SMEs carry out for developing the competence base of their human resources, as well as their degree of involvement.
- The main sources of external competence for the European SMEs.
- The employment categories mainly benefiting from these competence development activities.
- As an additional characterisation of these activities. Special attention will be paid to issues such as their short/long term, regular/irregular nature, and the person(s) responsible for identifying the existing competence needs or the presence of planning activities in this domain. A specific discussion will also be held on some subgroups of SMEs and their involvement in competence development activities, as well as on the relationship between involvement in competence development activities and individual SMEs' performance and growth.
- The most important barriers for SMEs to become involved.

3.2. Degree of involvement of European SMEs in competence development activities

As it has already been suggested, enterprises in general and SMEs in particular may take a number of initiatives for improving their competence base from within their in-house human resources, where these initiatives can include formal as well as non formal methods. Theoretical discussions suggest that non-formal methods are particularly relevant to SMEs[71].

The ENSR Enterprise Survey 2002 fully confirms these expected results. In the survey, entrepreneurs were asked which methods they used in their enterprises to develop the competence base of their human resources. The pre-selected answering categories were based on literature findings[72], mentioned in Chapter 2. Table 3.1 shows that, despite the fact that formal training (i.e. courses/seminars/conferences provided by external trainers) is the second most used method for upgrading internal competencies, there are also other non-formal methods extensively used by European SMEs for this purpose.

71 Hendry, C., M.B. Arthur and A.M. Jones, Strategy Through People - Adaptation and Learning in the Small-Medium Enterprise, Routledge, London, 1995.

72 See e.g. H. Ylinenpää, Managing Competence Development and Acquisition in Small Manufacturing Firms, Department of Business Administration and Social Sciences, University of Technology, Luleå, 1997.

The method most employed to develop competence is to visit expos and trade fairs. These visits can be regarded as an important method for developing an SME's internal competencies. Thus, enterprises in general and SMEs in particular learn from these exhibitions and trade fairs the latest technological and/or market developments in their specific branch of industry. Expos and trade fairs where new technologies, machines and production processes are exposed and demonstrated are particularly popular amongst SMEs. Both entrepreneurs and employees can thus get acquainted with these new developments in an efficient and effective way. In a limited period of time (one or two days) they can get information about new developments in their own line of business, as well as in those of their suppliers and clients. These new developments are directly linked to the new competences that are required in the business. In addition, these expos and trade fairs assist SMEs to take part in different activities such as seminars, networking activities, counselling, etc. Of course, it is fair to acknowledge that this method is less focused on competence building than other methods such as courses, reading of literature or tutor/mentoring activities. For SMEs it seems however to be a very attractive method.

In addition to visits to expos/trade fairs, other important methods include the reading of professional literature as well as the setting up of meetings amongst personnel for knowledge exchange. Methods such as co-operation with consultants and advisers for developing the internal competence base, courses provided by own personnel or study visits have an intermediate importance, they are used by around 20 % of the SMEs. Finally, methods such as tutor/mentoring activities or job rotation are used less extensively[73].

Table 3.1: Percentage of SMEs using different methods for developing the competence base of their human resources in the last three years, by enterprise size, Europe-19

	Number of employees			Average
	0-9	10-49	50-249	
Visits to expos/trade fairs	57	70	78	58
Courses/seminars/conferences provided by own personnel	19	38	54	21
Courses/seminars/conferences provided by external trainers	39	56	70	41
Study visits	17	22	41	18
Job rotation (in-house or in other firms)	8	17	29	9
Tutor/mentoring activities for staff	10	20	27	11
Promote reading of professional literature	36	39	58	37
Co-operation with consultants and advisers for developing internal competence	21	32	39	22
Meetings amongst personnel for knowledge exchange	32	46	56	33
Other activities	4	5	5	4
Do not know/no answer	0	0	0	0
% of SMEs not involved in any of the suggested methods	20	9	4	19
% of SMEs not having formal training activities	61	44	30	59
Average number of methods applied by enterprises	3.1	3.8	4.8	3.1

More than one answer allowed.

Source: ENSR Enterprise Survey 2002.

As it can be seen, small organisations have a strong preference for non-formal training practices. This result is fully confirmed by Danish empirical evidence[74], which shows that only very few Danish enterprises point to formal training practices as more important in comparison to non-formal training practices, whereas half of the enterprises consider the two forms equally important, and 40 % consider the non-formal training most important (see Table 3.2). Moreover, non-formal training practices are suggested as more important in all cases, although perhaps these practices are particularly important when the enterprises train new employees and when the enterprises change their organisation.

73 Of course, the limited workforce available within very small enterprises may explain this lack of in-house job rotation practices.

74 Oxford Insight and Handelshøjskolecentret: Praksislæring i industrien - praksislæringens udbredelse inden for industrien (Situated Learning - the Diffusion of Situated Learning in the Industries), financed by Industriens Uddannelsessekretariat (Secretariat of Industrial Training), Copenhagen, 2002.

Table 3.2: Importance of non-formal and formal training practices in different situations, Denmark, 2002

	Equal important	Non-formal learning most important	Formal training most important	None - don't use any type	Don't know	Total
When training new employees	11	87	1	1	1	100
When we invest in new technology	34	37	25	2	3	100
When we change our organisation	30	42	13	5	11	100
Running development of the employees competencies	31	37	28	2	1	100

Source: Oxford Insight & Handelshøjskolecentret, 'Praksislæring i industrien - praksislæringens udbredelse inden for industrien' (Situated Learning - the Diffusion of Situated Learning in the Industries), financed by Industriens Uddannelsessekretariat, Copenhagen, 2002.

National literature provides a number of reasons for this strong preference for non-formal training practices: lower costs[75], ease of integration of this training into the enterprise's everyday activities or its easier focus on the worker's specific individual and work role needs[76]. Belgian evidence[77] complements this result, showing that enterprises in which the employees get very few opportunities to participate in formal training practices also offer little non-formal training opportunities.

Therefore, it can be concluded that the European SMEs do carry out activities for developing their in-house competencies. In fact, the ENSR Enterprise Survey 2002 shows that only 19 % of European SMEs admit that they have not used any of the suggested methods in the last three years, whereas this percentage would have been as high as 59 % if only formal courses provided by external trainers had only been taken into account (see Table 3.1). Moreover, a significant number of activities do take place at the workplace (meetings, tutor/mentoring, job rotation, etc). This result is also confirmed by other studies that show that up to 71 % of European workers report learning new things at work[78].

Meanwhile, enterprise size considerations show several interesting results (see also Table 3.1). The order of importance of the different methods seems to be practically the same amongst the different sizes, so visits to expos/trade fairs and courses/seminars/conferences provided by external trainers are the two main methods used by all sizes for developing in-house competencies. The ENSR Enterprise Survey 2002 results also point out that the average number of competence development methods applied by enterprises increases with the size of the enterprise (3.1, 3.8 and 4.8 methods amongst the very small, small and medium-sized enterprises, respectively). In fact, the percentage of European SMEs that have not used any of the suggested methods for developing their in-house competence is negatively related to size considerations (20 % amongst the very small in comparison to 9 % and 4 % amongst the small and medium-sized enterprises)[79].

These enterprise-size related differences are fully confirmed by other reports and studies both at Pan-European and national level. The most exhaustive piece of European research, the Eurostat' Continuing Vocational Training Survey (CVTS2)[80], fully confirms these enterprise size effects. National studies provide complementary perspectives. Thus, and despite the fact that smaller enterprises do invest in training less frequently than large enterprises, those who do, not necessarily devote a smaller share of the labour cost[81].

75 Koch, C.L.Y, E. van Straten, Personeelsbeleid in enkele MKB-bedrijven (Personnel management within a few SMEs), Strategic study B9703, EIM, Zoetermeer, 1997.

76 Curran, J., R. Blackburn, J. Kitching and J. North, Small firms and workforce training: some results, analysis and policy implications from a national survey, in: M. Ram, D. Deakins and D. Smallbone (eds.), Small firms; enterprising futures, London, Chapman, 1997.

77 De Smedt, S. (editor), Klare kijk op competentiemanagement (A clear view on competence management), Gids op maatschappelijk gebied, Vormingscentrum Ter Munk vzw & Garant uitgevers nv (Publishers), European Social Fund and Arvo vzw (financial support for this edition), Special edition devoted to 'competence management', Brussels, Vol. 93, No. 7, September 2002.

78 European Foundation for the Improvement of Living and Working Conditions, Third European Survey on Working Conditions 2000, Dublin, 2001.

79 In other words, 80 %, 91 % and 96 % of the European very small, small and medium-sized enterprises have been active in developing their in-house competence. Interestingly enough, these percentages are clearly well above the ones referring to the percentage of SMEs for whom competence development activities are a key part of their general business strategy or for those who suggest a need to upgrade their knowledge and skill base (see Figure 2.1). This result may suggest that for a large share of SMEs, (some) of the competence development methods are fully integrated in their daily business life, and do not respond to short-term requirements or specific strategic considerations.

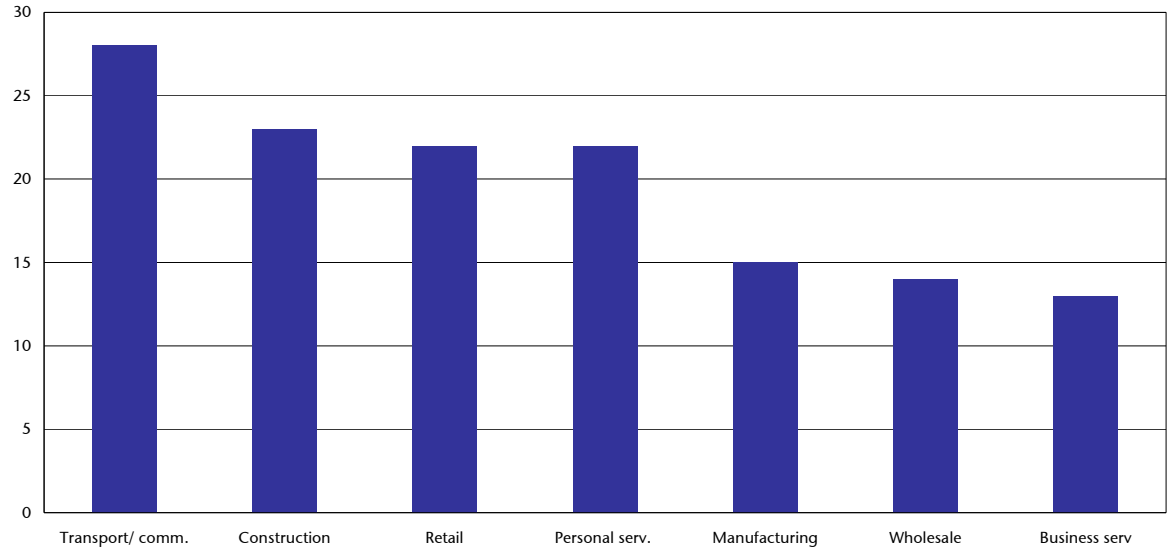
80 Eurostat, Continuing Vocational Training Survey (CVTS2), Luxembourg, 2002.

81 Delmotte, J., M. Lamberts, L. Sels and G. Van Hootegem, Personeelsbeleid in KMO's; Een onderzoek naar de kenmerken van een effectief KMO-personeelsbeleid (Personnel Management in SMEs; A study about the characteristics of an effective SME-personnel management), Cahier 1-Cahier 9, VIONA, HIVA/ KU-Leuven, Leuven, 2001.

Large enterprises support training activities on a wider scope of issues and competencies, whereas small firms primarily concentrate on topics that are 'close to their business'[82], probably as a consequence of their lack of resources. Not surprisingly, Icelandic[83] and Swiss[84] evidence suggests that, in the smallest enterprises, the proportion of employees who pay themselves for formal training courses is higher than in larger enterprises, especially with regard to qualifications in the business-administrative and social sphere in comparison to the technical domain. Finally, Danish research[85] shows that the use of ICTs for training purposes is positively related to the size of enterprises[86].

Focusing on sector considerations, the ENSR Enterprise Survey 2002 shows that, for all sectors, visits to expos/trade fairs is by far the main method, especially by the wholesale and manufacturing SMEs. The second most important method in nearly all sectors corresponds to courses/seminars/conferences provided by external trainers, where this method is particularly used by business service SMEs. Interestingly enough, manufacturing SMEs particularly underline the importance of meetings amongst personnel, whereas personal service SMEs stress the reading of professional literature as their second more important method for improving their in-house competence base.

Figure 3.1: Percentage of European SMEs not using any of the suggested methods for developing the competence base of their human resources in the last three years, by sector, Europe-19



Source: ENSR Enterprise Survey 2002.

There also exist differences by sectors concerning the percentage of SMEs not using any of the suggested methods (see Figure 3.1). The largest differences can be found between transport/communications and construction on the one hand and wholesale and business services on the other hand (28 %, 23 %, 14 % and 13 %, respectively), however, it is difficult to provide explanations for these differences. Factors relating to different competitive pressures, different sector enterprise structures or different use of the suggested methods may explain these differences. In any case, the high involvement of business service SMEs in competence development activities can be explained by their continuous need to have access to the latest knowledge for remaining in the market.

82 Bundesamt für Statistik, Weiterbildung in der Schweiz 2001; Auswertung der schweizerischen Arbeitskräfteerhebungen 1996-2000 (Further training in Switzerland 2001 on the basis of the surveys of the Swiss active population 1996-2000), Swiss Federal Office of Statistics, Berne, 2001.

83 Jonasson, J.T., J.R. Arnardottir, Lifelong learning Iceland report III, University of Iceland, Social Science Research Institute, Reykjavik, November 2001.

84 Wüst, P., 'Betriebliche Weiterbildung in der Schweizer Industrie (Further training in Swiss industrial companies), PhD thesis, University of Zurich, 1999.

85 IFKA, Det danske kursusmarked - kompetenceudvikling i den private sektor (The Danish supply of courses - Upgrading of competences in the private sector), Copenhagen, 2002.

86 For an in-depth discussion of the role of ICTs in training activities amongst the European SMEs, please see Sixth Report of the Observatory of European (Chapter 9).

The ENSR Enterprise Survey 2002 data desegregated at country level yield several interesting results (see Table 3.3). It is possible to identify three main groups of European countries according to their involvement in competence development activities. A first group comprised by several Nordic (Norway, Finland, Sweden or Iceland), Central European countries (Liechtenstein and Austria) and Ireland can be labelled as the most active in this domain. Thus, SMEs in this country group show a high involvement in formal and non-formal competence development activities as well as a wide selection of different methods for developing their in-house competence base.

Table 3.3: Percentage of SMEs using different methods for improving the competence base of their human resources in the last three years, by country

	Country																			Aver-
	A	B	DK	FIN	F	D	EL	IS	IRL	I	LI	L	NL	NO	P	E	S	CH	UK	age
Visits to expos/trade fairs	81	66	57	72	34	75	37	45	73	60	74	53	68	73	45	58	77	69	52	58
Courses/seminars/ conferences provided by own personnel	21	17	18	18	16	25	30	19	24	17	22	21	23	29	13	29	28	33	16	21
Courses/seminars/ conferences provided by external trainers	64	51	50	62	24	42	38	57	63	40	68	28	53	65	21	40	56	41	46	41
Study visits	33	30	26	23	11	21	24	29	27	12	30	14	24	27	8	21	45	26	17	18
Job rotation (in-house or in other firms)	7	11	17	23	5	5	10	13	12	13	7	6	4	12	3	10	18	9	10	9
Tutor/mentoring activities for staff	10	23	22	14	2	3	27	39	30	11	8	2	32	17	4	3	18	6	21	11
Promote reading of professional literature	54	53	41	60	28	61	10	43	49	27	63	28	61	69	15	11	48	47	47	37
Co-operation with consultants and advisers for developing internal competence	36	19	31	28	9	17	19	23	36	30	29	13	31	32	7	16	38	21	30	22
Meetings amongst personnel for knowledge exchange	36	30	50	49	22	27	44	51	50	39	44	27	27	64	16	24	45	34	42	33
Other activities	13	3	2	8	2	6	4	5	3	4	13	6	2	18	4	2	11	6	5	4
Don't know/no answer		0						0	1	0	1		4	1		0			1	0
% of SMEs not involved in any of the suggested methods	6	8	7	7	37	12	27	14	9	15	8	20	8	4	41	23	8	15	19	19
% of SMEs not having formal training activities	36	49	50	38	76	58	62	43	37	60	32	72	47	35	79	60	44	59	54	59
Average number of methods applied by enterprises	3.8	3.3	3.4	3.9	2.4	3.2	3.3	3.8	4.1	2.9	3.9	2.5	3.7	4.3	2.3	2.8	4.2	3.4	3.6	3.1

More than one answer allowed.

Source: ENSR Enterprise Survey 2002.

By way of contrast, another group formed by the Southern European countries (Italy, Greece, Spain and Portugal) as well as France and Luxembourg, shows the lowest involvement in competence development activities (both in terms of formal/non-formal activities as well as in the number of different methods employed for this purpose). Finally, a third group of countries such as the Netherlands, Denmark, Belgium, the United Kingdom, Switzerland or Germany occupies an intermediate position.

Results from other Pan-European studies[87] confirm this North-South divide. To give an example, the 2002 Enterprise Scoreboard[88] suggests that while life-long learning has become a reality in some Member States such as Finland, Denmark, Sweden or the Netherlands, there is hardly any evidence for continuing education in other Member States such as Greece, Portugal or Spain. Amongst other factors, the different national structures of the business sector (higher presence of larger enterprises in the North in comparison to a lower average enterprise size in the South) can explain the Nordic countries' higher involvement in competence development activities vis-à-vis their Southern counterparts. Other possible explanations might be given by the different existing institutional frameworks (accessible training infrastructures, different public policy involvement, etc), as well as the existing differences in the labour markets (Southern European markets characterised by less formalisation, higher unemployment rates and higher degrees of job insecurity). In any case, further research is required for fully understanding these important differences.

A second interesting result coming from the ENSR Enterprise Survey 2002 refers to the positive methods used by SMEs in different countries. According to the results (see also Table 3.3), visits to expos/trade fairs seem to be the main method used in all the surveyed countries, where the only exceptions of Greece and Iceland for whom courses provided by external trainers are the most frequently employed method. Notwithstanding this, the comparison amongst countries points out important differences in the frequency of use as far as the different methods are concerned.

To give an example, referring to the setting up of meetings amongst personnel for knowledge exchange, it is again possible to identify a North-South divide. Thus, the Nordic countries (Norway, Iceland, Finland, Denmark or Sweden), together with Ireland, are the countries where this possibility is more extensively used in comparison to countries such as Portugal, Spain or France. This result is also confirmed by other studies[89], which show the existence of a clear line between Northern and Southern Europe in terms of the presence of teamwork or the possibility to discuss work organisational changes. Several explanations can be suggested for these differences. Thus, several authors suggest that the understanding of the different instruments and methods to be used for training purposes is not necessarily the same in different countries[90]. Additionally, existing national differences in historical and cultural attitudes do have an influence on SME's decisions regarding its investments in competence development[91] (i.e. more autocratic management styles in the South in comparison to the North).

3.3. Sources of external competence for European SMEs

Enterprises in general and SMEs in particular may resort to external sources for knowledge and competencies that are not available in-house but that may be required for the optimal performance of the enterprise. These external sources include the recruitment of new employees or the interaction with other agents such as consultant services, clients/ suppliers, other entrepreneurs with no business relations, authorities, banks or training centres/universities. Networking, external co-operation and competence acquisition are therefore regarded by many small enterprises as rational methods to compensate for their lack of in-house knowledge and competence[92] (very often in the form of tacit knowledge/competence)[93].

The ENSR Enterprise Survey 2002 illustrates the main sources of external competence for European SMEs. Table 3.4 shows that the main source is the enterprise's clients and suppliers, followed by business and trade associations (including chambers of commerce), consultants and training centres/universities. Other less utilised sources

87 See Sixth Report of the Observatory of European SMEs (Chapter 9), as well as Eurostat, Continuing Vocational Training Survey (CVTS2), Luxembourg, 2002.

88 European Commission, Benchmarking Enterprise Policy: Results from the 2002 Scoreboard, SEC(2002)1213, November 2002.

89 E.G. The European Foundation for the Improvement of Living and Working Conditions, Third European Survey on Working Conditions 2000, Dublin, 2001.

90 AC&G and Knowledge Activating Group, A Holistic Approach to Competence Development in SMEs around Europe: Methods for Competence Development derived from EU/ADAPT Projects in Spain and Sweden, Madrid, 2000.

91 Havenga, K. and H. Ylinenpaa, Competence Development in Swedish, South African and Russian SMEs: A Study of Attitudes and Preferences across Countries, Luleå University of Technology, 1997.

92 Julien, P-A., Small Business as a Research Subject: Some Reflections on Knowledge of Small Business and its Effects on Economic Theory, in *Small Business Economics*, 5, pp. 157-166, 1993.

93 The distinction between tacit and explicit knowledge is based on the work carried out by Nonaka and Konno (I. Nonaka, I. and N. Konno, The Concept of 'Ba': Building a Foundation for Knowledge Creation, California Management Review, 40, 3, 1998). According to these authors, explicit knowledge can be expressed in words and numbers and shared in the form of data, scientific formulae, specifications, manuals, and the like. Meanwhile, tacit knowledge is highly personal and hard to formalise, involving subjective insights, intuitions and hunches. Whereas explicit knowledge can be easily transmitted between individuals formally and systematically, tacit knowledge is more difficult to communicate or share with others. Most of what is understood as competence is 'tacit' in its character.

of external competence include auditors & banks, recruitment of new personnel or other entrepreneurs. Finally, public authorities are mentioned by only 8 % of European SMEs.

Table 3.4: Percentage of SMEs using different sources of external competence in the last three years, by enterprise size, Europe-19

	Number of employees			Average
	0-9	10-49	50-249	
Recruitment of personnel with required new competence	13	27	48	14
Auditors & Banks	14	20	26	14
Consultants	18	24	35	18
Clients and/or suppliers	33	34	40	33
Other entrepreneurs (no business relations)	13	12	16	13
Training centres/Universities (public or private)	15	27	35	16
Business and Trade Associations	20	26	36	21
Public authorities	8	9	17	8
Other actors	5	3	4	5
Don't know/no answer	1	2	2	1

More than one answer allowed.

Source: ENSR Enterprise Survey 2002.

This important role of customer and suppliers is also stressed in a number of Swedish[94] and German[95] researches, which show that the customers and suppliers operating directly in the firms' value-processing chains represent the most important and frequent partner for small manufacturing firms when acquiring external competence. Due to their close, trusting and long-term relation, the vertical supplier-partner is expected to have a higher legitimacy from the small enterprise's perspective.

Interestingly, an enterprise size perspective shows that clients/suppliers seem to be the main external source of competence for the smallest enterprises (less than 50 employees), whereas for the medium-sized enterprises it is the recruitment of new personnel. A recent literature review on the role played by innovative SMEs on employment creation[96] complements this result; in the sense that it shows that job creation for highly skilled workers is more likely in medium-sized enterprises in comparison to their smaller counterparts. Also, the percentage of enterprises employing different suggested sources of external competence increases with the size of enterprises, in line with the results presented in previous section.

Focusing on the sector perspective, the two main sources identified for external competence (clients/suppliers and business/trade associations) are the most important ones for all the sectors. Country considerations (see Table 3.5) show that, in most of the countries, clients/suppliers are regarded as the main source of external competence with some exception such as Finland and Iceland (auditors/banks), Germany and Liechtenstein (training centres/universities) and Portugal (business/trade associations). Nevertheless and in all these countries, clients/suppliers are regarded as the second most important source.

94 Ylinenpää, H., Managing Competence Development and Acquisition in Small Manufacturing Firms, Department of Business Administration and Social Sciences, University of Technology, Luleå, 1997.

95 Wagner, H., M. Wehling and M. Weingärtner, Stand und Entwicklung der betrieblichen Weiterbildung in kleinen und mittleren Unternehmen' (Status quo and competence development in SMEs) in: G. Schreyögg and Jörg Sydow (editors), Managementforschung 5, Empirische Studien, (Management research 5, Empiric studies), Munich, 2000.

96 Sheikh, S., T. Oberholzner, Innovative Small and Medium Sized Enterprises and the Creation of Employment, Inno-Studies-Lot 9, Luxembourg, 2002.

Table 3.5: Percentage of SMEs using different sources of external competence in the last three years, by country

	Country																		Aver-
	A	B	DK	FIN	F	D	EL	IS	IRL	I	LI	L	NL	NO	P	E	S	CH	UK	age
Recruitment of personnel with required new competences	22	16	16	21	11	11	19	38	27	12	26	16	18	33	5	11	29	21	21	14
Auditors & Banks	27	42	32	58	8	7	8	47	39	4	29	14	52	51	6	5	44	17	29	14
Consultants	37	16	17	17	10	13	12	24	22	34	27	14	17	24	5	9	22	13	20	18
Clients and/or suppliers	37	58	44	56	43	13	26	46	50	34	42	26	62	65	11	11	60	32	54	33
Other entrepreneurs (no business relations)	21	23	9	44	9	6	16	30	19	12	27	4	30	30	4	7	29	12	21	13
Training centres/Universities (public or private)	30	24	11	34	21	21	5	16	30	10	44	14	20	23	4	6	25	31	21	16
Business and Trade Associations	34	26	17	36	22	12	3	15	38	20	32	16	35	36	13	11	19	16	37	21
Public authorities	15	10	13	27	6	4	4	12	14	5	16	4	11	23	4	4	20	6	18	8
Other actors	7	2	4	14	2	4	10	9	3	4	6	4	6	28	8	5	7	4	4	5
Don't know/no answer	2	1	0		2	1	0	0	1	1	2	3	3		2	1	0	1	1	1

More than one answer allowed.

Source: ENSR Enterprise Survey 2002.

Similar to the results in previous section, it is worth stressing the existing differences amongst countries in relation to the use of several sources. Taking the example of auditors/banks, they are regarded very positively by the Finnish, Dutch and Norwegian SMEs (more than 50 % of SMEs use them) in comparison to Portugal, Spain or Italy (less than 6 % of SMEs use them). This result stresses again the existing different historical traditions and cultural attitudes in the different countries. Finally, and referring to Ireland, Irish SME entrepreneurs particularly value the role played by other entrepreneurs in comparison to the remaining countries. This result is fully confirmed by national evidence[97], which shows that other entrepreneurs are preferred over consultants or university faculties as Finnish SME entrepreneurs feel that another entrepreneur has the same difficulties and problems.

According to several authors[98], external sources of competence play a key role for expanding the small enterprises competence sources. Thus, any external source of competence acquired by the enterprise may act as a 'broker' or an intermediary to other external resources. For example, the hiring of a consultant's services acts also as a broker to other external competencies such as universities, research institutes and specialised suppliers. In this sense, the consultant becomes a 'bridge' between two 'nodes' (the individual SME and, i.e., the research institute) without connecting these nodes directly to each other.

Notwithstanding this, the difficulties of acquiring external competence are higher in small than in large enterprises[99]. The smaller scale limits the individual enterprise's 'absorptive capacity'[100], i.e. the number of potential nodes between the firm and external competencies. In the prototype of a small manufacturing firm, managed by a single owner-manager without any support from a management team or from functional specialists, this node is represented by the sole owner-manager[101]. Moreover, this owner-manager has got a lower and more limited

97 Malinen, P., Assisting Potential Fast Growth SMEs - Case Dublin Business Innovation Centre, Turku School of Economics and Business Administration, in *Business Research and Development Centre, Series B Research Reports, B 4/2001*, Turku, 2001.

98 Belotti, C., Teknikförnyelseprocesser i småföretag, Thesis Swedish University of Agricultural Sciences, Uppsala, 1996, quoted by H. Ylinenpää, Managing Competence Development and Acquisition in Small Manufacturing Firms, Department of Business Administration and Social Sciences, University of Technology, Luleå, 1997.

99 ESADE et al, Small Business Training and Competitiveness: Building Case Studies in Different European Cultural Contexts, TSER Project, Barcelona, 2001.

100 Cohen, W.M., D.A. Levinthal, Absorptive capacity: A new perspective on learning and innovation, in *Administrative Science Quarterly*, 35, pp. 128-152, 1990.

101 Julien, P-A., New Technologies and Technological Information in Small Businesses, in *Journal of Business Venturing*, 10, pp. 459-475, 1995.

range of competencies in different fields. A small firm with an extended management team, on the other hand, represents an organisation where the capacity to absorb external knowledge and expertise is shared among several organisational 'nodes'.

The previous results can be complemented with some additional ones:

- First, Belgian[102] and Dutch[103] research shows that the probability of using external consultancy is higher amongst highly-qualified, highly-educated entrepreneurs and correlates positively as well to the enterprise size.
- Secondly, Norwegian[104] and Swiss[105] evidence suggests that exchange of information with colleagues, other entrepreneurs and friends/relatives seem to be of particular importance amongst newly established enterprises.

3.4. Employment categories benefitting from competence development activities

This section analyses the main occupational groups benefiting from the competence development activities carried out by European SMEs. The ENSR Enterprise 2002 survey shows that 'directors/managers' (including owners) group is the occupational group benefiting most, well above other groups such as 'clerks/administrative personnel' or 'technicians/engineers' (see Table 3.6). Other groups such as 'middle managers', 'semi-skilled' or 'low-skilled workers' benefit to a much lesser degree. Therefore, a positive relationship between the skill content of the different occupational groups and their involvement in competence development activities can be assumed.

Table 3.6: Main occupational groups benefiting from competence development activities, by enterprise size, Europe-19 (percentage of SMEs)

	Number of employees			Average
	0-9	10-49	50-249	
Manual, low-skilled workers	15	28	37	16
Semi-skilled (e.g. drivers, machine operators)	24	43	51	26
Technicians, engineers	35	56	68	36
Clerks, administrative personnel	37	55	64	39
Middle management foremen	26	47	68	28
Directors and managers	60	56	67	60
Don't know/no answer	1	1	1	1

Only enterprises active in competence development activities.

More than one answer allowed.

Source: ENSR Enterprise Survey 2002.

Enterprise size considerations show that the smaller the enterprise, the more likely is a concentration of competence development activities in the 'directors/managers' group, probably as a result of the limited workforce available within these enterprises. By way of contrast, small and especially medium-sized enterprises invest into a wider scope of occupational groups, especially the 'directors/managers' and 'technician/engineers' categories.

All sectors focus their competence development activities on the 'directors/managers' category, followed by 'clerks/administrative personnel' with the exceptions of construction and personal services (slightly more focused on 'technicians/engineers') and the manufacturing sector (see Table 3.7). Again, the 'directors/managers'

102 Lambrecht, J., F. Pirnay and P. Amédodji, Evaluation des dispositifs wallons d'aide à la consultance (Evaluation of Walloon support for consultancy), Le Centre d'Etudes pour l'Entrepreneuriat, EHSAL-K.U. Brussel, Le Centre de Recherche PME et d'Entrepreneuriat de l'Université de Liège, Brussels, Liège, 2003.

103 Kool, C.H.W. (editors: F.A. von Dewall and M.J.P.M. Peek), Ondernemers over adviseurs; Een grensoverschrijdende verkennning (Entrepreneurs about advisors; A cross-border exploration), Economic Bureau ING Bank, Amsterdam, 2002.

104 Borch, Odd Jarl and M. Iveland, Fra hobby til næring? Utfordringer knyttet til etablering av småskala produksjon i Norge(From hobby to business? Challenges connected to establishing small scale production in Norway), NF-rapport No. 24/ 97, Nordlandsforskning (Nordland Research), Oslo, 1997. Study financed by The Research Council of Norway and the Ministry of Agriculture.

105 Meyer, R, J. Harabi, and R. Niederer, Der Einfluss der Berater, Weiterbildung und des Beziehungsnetzes auf den Erfolg junger Unternehmen, (Influence of external advice, further training and personal network on the success of young companies), Discussion Paper 2001-01, Fachhochschule Solothurn Nordwestschweiz, Solothurn, January 2001.

occupational group is the category benefiting most in all the surveyed countries, with the exception of Austria, Germany and Liechtenstein (particularly focused on 'technicians/engineers'), Iceland (focused on 'administrative personnel') and Norway ('semi-skilled workers'). In all these countries, 'directors/managers' is the second most important target group.

Table 3.7: Main occupational groups benefiting from in-house competence development activities, by sector, Europe-19 (percentage of SMEs)

	Main activity						
	Manufac-turing	Construc-tion	Wholesale	Retail	Transport/ comm.	Business services	Personal services
Manual, low-skilled workers	23	22	16	16	19	9	18
Semi-skilled (e.g. drivers, machine operators)	39	33	26	23	37	19	22
Technicians, engineers	38	41	30	32	29	40	37
Clerks, administrative personnel	38	34	49	36	49	43	35
Middle management foremen	29	27	31	25	33	32	25
Directors and managers	62	58	66	58	61	61	57
Don't know/no answer	2	1	0	1	0	1	2

Only enterprises active in competence development activities.

More than one answer allowed.

Source: ENSR Enterprise Survey 2002.

These results are complemented and confirmed by the existing literature:

- Small and medium manufacturing enterprises are characterised by a sharp division of labour between 'blue-collar' and 'white-collar' staff as regards to contents, extent and nature of their learning processes[106]. Thus, owner-managers, middle-managers or staff specialists are oriented towards external sources of competence, whereas blue-collar employees are more oriented towards internal sources[107]. This marked difference can be explained by the different roles assumed by the different occupational categories. Whereas managers and white-collar specialists are concerned to improve the firm's effectiveness by interacting with competencies outside the firm ('how to do the right things'), employees on the shop-floor lever are focused on improving efficiency by learning 'how to do things right'.
- The Third European Survey on Working Conditions[108] shows that learning opportunities and the possibility to discuss organisational changes increase with the skill content of the workforce, where managers and professionals are more likely to have exchanges on a regular and formal basis than other job categories.
- The OECD acknowledges that enterprises in general and SMEs in particular tend to choose investments from which they expect a high return, so formal training concentrates on workers who are already qualified and enjoy relatively high professional status[109]. A similar result is found in Austrian[110], Danish[111], Italian[112] and Swiss[113] research.
- Belgian evidence points out that enterprises with a relatively large number of manual workers and a small number of highly-educated employees invest less in education than enterprises with a high con-

106 Ylinenpää H., Managing Competence Development and Acquisition in Small Manufacturing Firms, Department of Business Administration and Social Sciences, University of Technology, Luleå, 1997.

107 This result is also confirmed by another Icelandic research, i.e. J.T. Jonasson and J.R. Arnardottir, Lifelong learning Iceland report III, University of Iceland, Social Science Research Institute. Reykjavik, November 2001.

108 European Foundation for the Improvement of Living and Working Conditions, Third European Survey on Working Conditions 2000, Dublin, 2001.

109 OECD, Beyond Rhetoric: Adult Learning Policies and Practices, Paris, 2003.

110 Machacek, T, Der Weiterbildungsmarkt in Österreich - Marktstudie und Trendanalyse (The Market for Further Education in Austria - Market Study and Analysis of Trends), Vienna: Thesis at the Vienna University of Economics and Business Administration, 2001.

111 IFKA, Det danske kursusmarked - kompetenceudvikling i den private sektor (The Danish Supply of Courses - Upgrading of Competences in the Private Sector), Copenhagen, 2002.

112 Montanino, A., Formazione aziendale, struttura dell'occupazione e dimensione dell'impresa (Enterprise training, structure of occupations and enterprise size), Working paper, Centro Studi Confindustria, Roma, 1999.

113 Buchmann, M., Was bringt unsere Bildung? Zum Abschluss des NFP33 Wirksamkeit unserer Bildungssysgeme, (What is the outcome of our educational system? Conclusions of the NFP33 Effectiveness of our Educational systems), Swiss National Science Foundation/National Research Programme, Zurich, 1999.

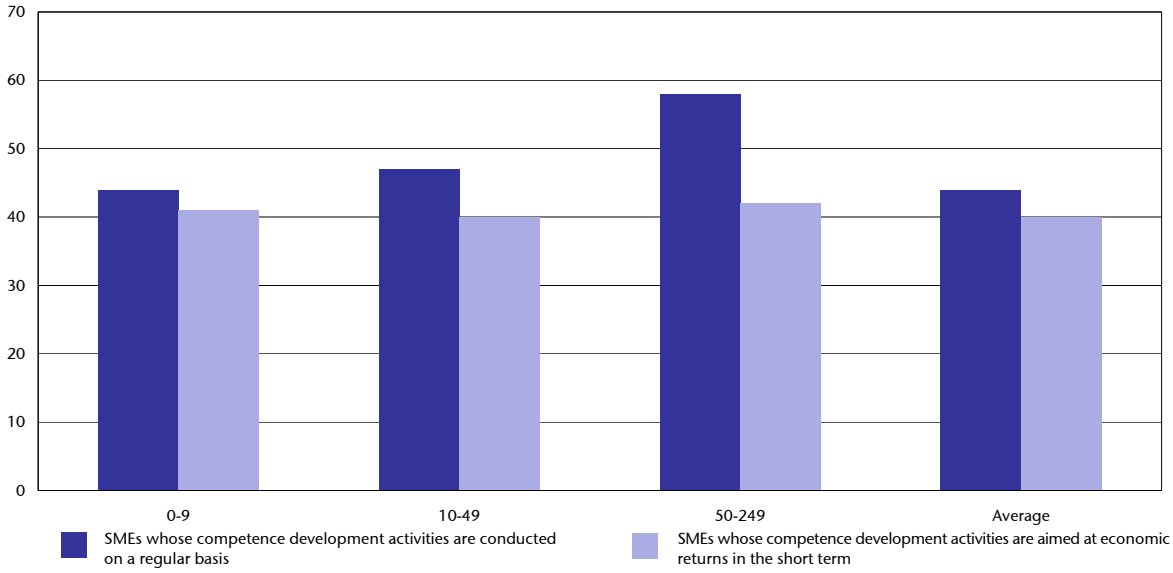
centration of highly-educated people[114]. Moreover, this study also shows that the higher the 'status' of an employee, the more resources are invested in the training of that employee. A similar result is confirmed by Portuguese empirical research[115].

3.5. Further features of the European SMEs' competence development activities

A number of additional characteristics define and distinguish the competence development activities carried out by European SMEs. The ENSR Enterprise Survey 2002 indicates that:

– There is a positive relationship between enterprise size and the regular nature of the enterprises' competence development activities (see Figure 3.2). Thus, around half of European SMEs agree or fully agree with the view that their activities in this field are conducted on a regular basis. This percentage increases from 44 % amongst the very small enterprises to 47 % and 58 % amongst the small and medium-sized enterprises. No important differences can be noticed when sector or country considerations are taken into account. Around four out of ten European SMEs support the view that their competence development activities are aimed at obtaining economic returns in the short term, and no important differences by enterprise size can be identified. This result seems to be in accordance with other international literature[116] showing that small firms demonstrate a more short-term approach than large enterprises. Once again, no important differences can be found at sector level, but the Southern European countries (Greece, Spain and Italy), together with France and Ireland, are the countries whose SMEs focus more strongly on the short-term perspective.

Figure 3.2: Percentage of SMEs who state that their competence development activities are conducted on a regular basis/are aimed at economic returns in the short term, by enterprise size, Europe-19



Only enterprises active in competence development activities.

Source: ENSR Enterprise Survey 2002.

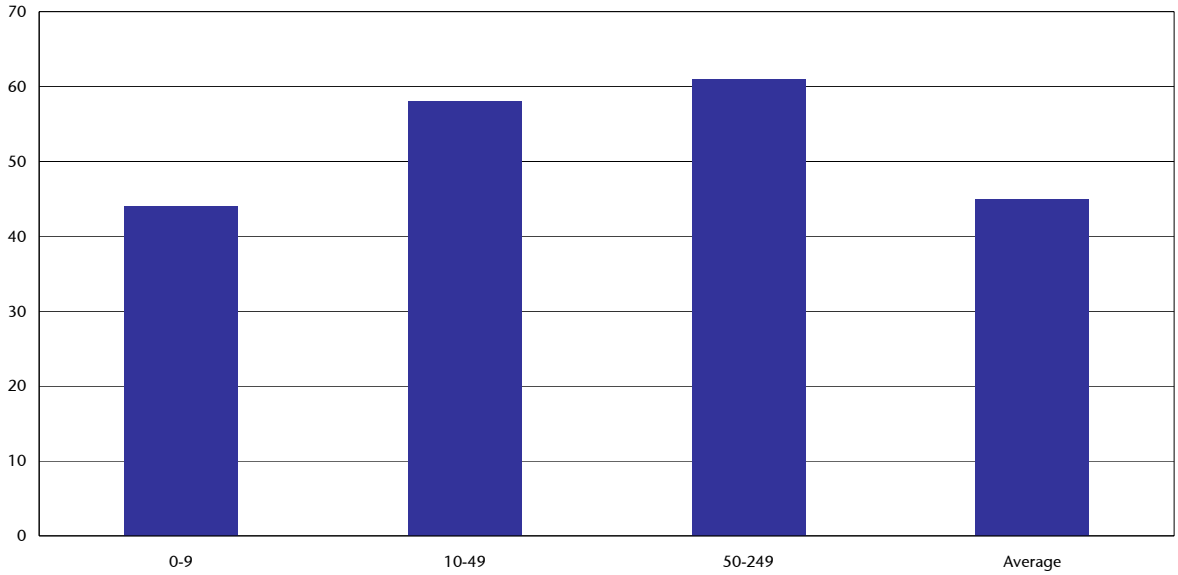
114 Sels, L., J. Bollens and D. Buyens, 20 lessen over het bedrijfsopleidingsbeleid in Vlaanderen (20 lessons about the company training policies in Flanders), Viona, Leuven, 2000.

115 Departamento de Estatística do Trabalho, Emprego e Formação Profissional do Ministério do Trabalho e Solidariedade, Inquérito ao Impacto das Acções de Formação Profissional nas Empresas 1998-2000, (Survey on the Impact of Vocational Training in Enterprises 1998-2000), Lisbon, 2000.

116 Examples include:
- Westhead, P. and D. Storey, Management Training and Small Firm Performance: Why is the Link So Weak?, in *International Small Business Journal*, 14, 4, pp. 13-24, 1996.
- Hultman, G., A. Klasson, and M. Nilsson, Organisationsövergångar och unika kulturer; Förändringsdynamik och utvecklingsstöd via växtkraft mål 4, Verket för innovationssystem, (Organization transitions and unique cultures; Dynamic of changed and development support via the objective 4 program), Stockholm, 2002.

– The ENSR Enterprise Survey 2002 shows that up to 45 % of European SMEs have a specific person or group responsible for identifying possible skills gaps/shortages within the enterprise (see Figure 3.3). Moreover, this percentage increases with the size of the enterprise (44 % in the case of very small enterprises to 58 % and 61 % in the case of small and medium-sized enterprises, respectively). No important differences exist at sector level. On the other hand, wide country differences show no clear geographical pattern. Finally, Dutch research suggests that SMEs are more likely to provide formal training to their employees if they have a human resources management department/manager[117].

Figure 3.3: Percentage of SMEs who state that they have a special person of group responsible for identifying competence needs, by enterprise size, Europe-19



Only enterprises active in competence activities.

Source: ENSR Enterprise Survey 2002.

– In most SMEs it is in the hands of the owner or the general manager to identify the skill gaps/shortages (60 % and 20 %, respectively). This central role of the owner/manager is particularly evident in the case of the very small and small enterprises. In the medium-sized enterprises, the responsibility for this task seems to be shared between a management team (especially the general and the human resource managers). No important differences by sector or country can be seen. The existing literature on the issue[118] confirms this central role of SME owners and general managers, not only in identification but also in understanding the real investment decisions on competence development activities[119]. Spanish evidence[120] also suggests that the education level of the manager/management team has a positive impact on the SME's involvement in competence development practices.

117 Kok, J.M.P. de, L. M. Uhlaner and A.R. Thurik, Human Resource Management within small and medium-sized firms: facts and explanations, *Strategic Study B200103*, EIM, Zoetermeer, 2002.

118 CEDEFOP, Internationalisation and changing skills needs in European small firms, Synthesis Report, CEDEFOP Reference series 23, Luxembourg, 2002.

119 Storey, D.J., Understanding the Small Business Sector, Routledge, London, 1994.

120 Barba, M.I., A. Aragón, and R. Sanz, Condicionantes de la formación en las pymes industrials, (Determinants of training in manufacturing SMEs), in *Economía Industrial*, No. 334, Madrid, 2000.

Table 3.8: Person or group responsible of identifying competence needs, by enterprise size, Europe-19 (percentage of SMEs)

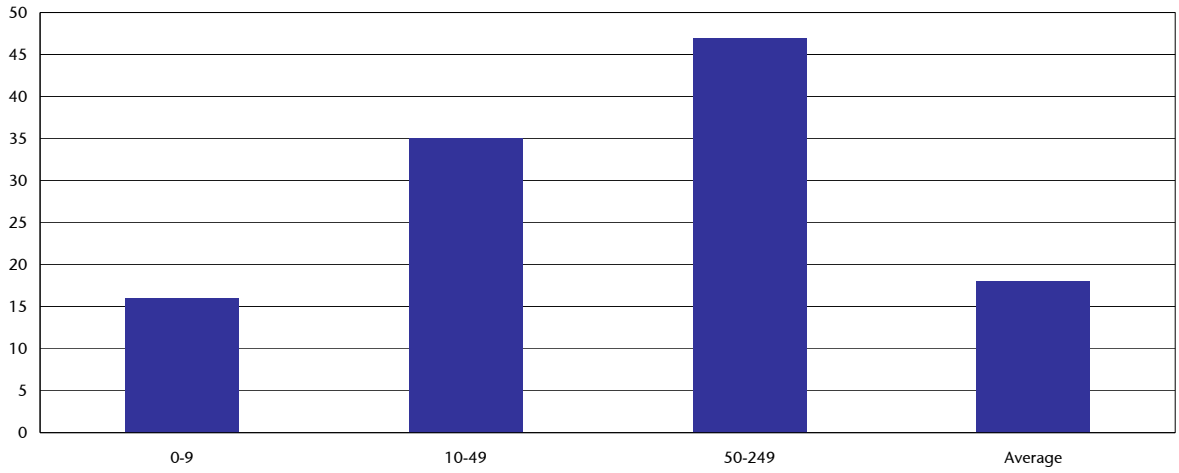
	Number of employees			Average
	0-9	10-49	50-249	
The owner	64	35	15	60
The general manager (if different from above)	18	29	25	20
The human resources manager (if different from above)	2	6	22	3
The management team	9	16	16	10
A group formed by representatives of the management team	2	7	15	2
Other	5	6	7	5
Don't know/no answer	0	1	0	0
Total	100	100	100	100

Only enterprises active in competence development activities.

Source: ENSR Enterprise Survey 2002.

– Only a small proportion of European SMEs (18 %) has a written plan for developing their in-house competence base, although strong differences exist by enterprise size (see Figure 3.4). Only 16 % of the very small enterprises have one, this percentage increases to 35 % and 47 % amongst the small and medium-sized enterprises. This result is confirmed by the existing literature[121]. Thus, competence development decisions are less formalised in small than in large enterprises due to their resource constraints and limited strength to 'set the rules of the game'[122]. This may not mean that plans do not exist in the owner/general manager's head[123]. The ENSR Enterprise Survey 2002 also shows that the presence of written plans varies by country although, again, no clear geographical patterns can be appreciated.

Figure 3.4: Percentage of SMEs with a written plan for developing their in-house competence, by enterprise size, Europe-19



Only enterprises active in competence activities.

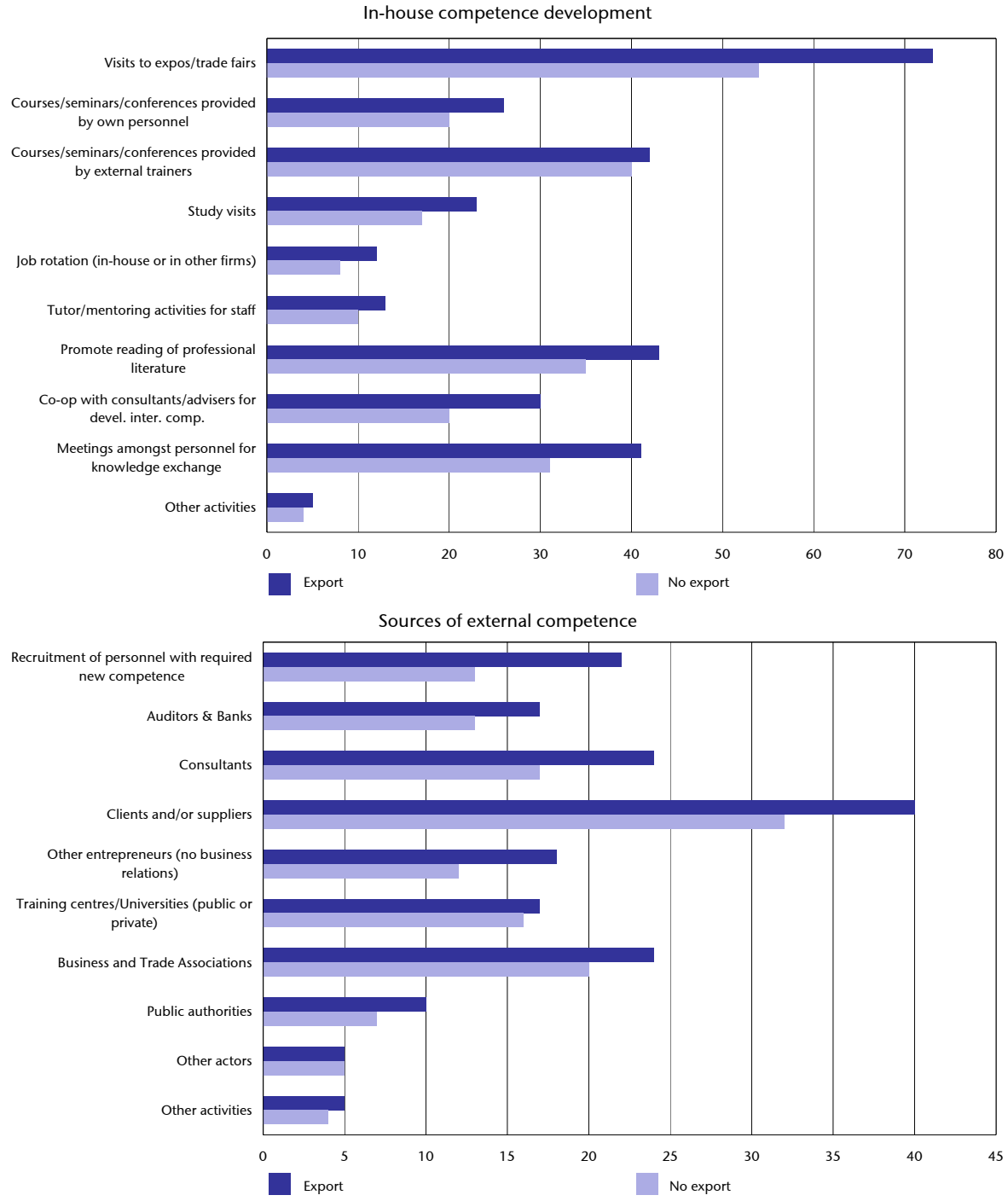
Source: ENSR Enterprise Survey 2002.

121 Examples include:
- Schläfli, A., Ph. Gonon, Kooperationspotenziale zwischen kleinen und mittelständischen Betrieben und Bildungsinstitution in der Weiterbildung (Co-operation potentials between small and medium-sized enterprises and training institution in continued training), KTI (Commission for Technology and Innovation)/Schweizerischer Verband für Weiterbildung (Swiss Association for Further Training), Zurich, forthcoming 2004.
- Matthews, C.H., S.G. Scott: Uncertainty and planning in small and entrepreneurial firms: An empirical assessment, in: *Journal of Small Business Management*, pp. 34-52, October 1995.

122 Storey, D.J., Understanding the Small Business Sector, Routledge, London, 1994.

123 Wagner, H., M. Wehling and M. Weingärtner, Stand und Entwicklung der betrieblichen Weiterbildung in kleinen und mittleren Unternehmen' (Status Quo and competence development in SMEs), in: G. Schreyögg and Jörg Sydow (editors), Managementforschung 5, Empirische Studien, (Management research 5, Empiric studies), München, 2000.

Figure 3.5: Percentage of SMEs active in competence development activities, by exporting and non-exporting SMEs, Europe-19



Source: ENSR Enterprise Survey 2002.

– European SMEs engaged in export activities use more methods for improving their in-house competence base and have more access to external sources of competence in comparison to the non-exporting SMEs. Particularly relevant activities include visits to expos/trade fairs, as well as increased co-operation with clients/suppliers, consultants or business/trade associations (see Figure 3.5). This result is confirmed by

Danish evidence[124], which shows that SMEs exposed to increased competition put more emphasis on the development of their human resources than other enterprises. A CEDEFOP study[125] strongly supports the view that European exporting small enterprises basically support the development of their international competence through both networking with clients/suppliers and using support provided by sectoral associations.

– The ENSR Enterprise Survey 2002 reveals that European SMEs that are particularly affected by a lack of skilled labour have a relatively strong attitude towards competence development activities in comparison to those SMEs that have other constraints or are unable to identify any constraint (see Table 3.9). These SMEs particularly affected by skill problems have also a relatively higher need to upgrade their workforce competence base and give a more important role to the competence development activities in the general business strategy. In addition to this, they have more difficulties to identify their skill needs or relevant sources of competencies and name more frequently a lack of public support for these activities.

Table 3.9: Attitudes towards competence development activities of SMEs affected by a lack of skilled labour in comparison to other enterprises, Europe-19

	Major constraints			
	Lack of skilled labour	Other	None at all	Average
Key part of business strategy*	56	54	45	52
Need to upgrade competence base	52	44	30	42
Difficulties to identify skill needs	21	14	11	15
Difficulties to identify sources of competencies	25	19	12	19
Lack of public support	56	49	35	46

* Only enterprises active in competence development activities.

Source: ENSR Enterprise Survey 2002.

– A number of European empirical researches and studies have established a positive relationship between involvement in competence development activities (understood in the same general sense as in this report) and individual SMEs' ability to retain and motivate staff[126], as well as to show better business results. Thus, high-performing SMEs express higher learning needs[127] that result in more time and money invested in competence development. High-performing SMEs also address both broader fields of topics and broader categories of staff with their competence development investments, and seem to be more constrained by management skills than they are by financial market failures[128]. Interestingly also, high-performing SMES employ a broader menu of methods for developing in-house competence in the firm[129], show a broader range of in-house competence[130] and are more inclined to obtain more competencies from outside-the-firm (i.e. external advice and information provided by suppliers, accountants, bankers, consultants, competitors, etc.)[131]. Finally, high-performing firms are more market-oriented, and have a better understanding of their competitors[132].

124 Gjerding, N.A. (ed.), Den fleksible virksomhed, (The Flexible Enterprise), Report No. 1 of the DISKO Project, Erhvervsudviklingsrådet, Copenhagen, 1997.
125 CEDEFOP, Internationalisation and changing skills needs in European small firms, Synthesis Report, CEDEFOP Reference series 23, Luxembourg, 2002.
126 IBEC, IBEC National Training Survey, Dublin, March 2000.
127 DETEFP, Inquérito às Necessidades de Formação Profissional das Empresas 2000-2002, (Survey on the Enterprises' Training Needs 2000-2002), Lisbon, 2000.
128 Hughes, A, Innovation and Business Performance: Small Entrepreneurial Firms in the UK and the EU, Judge Institute of Management Studies and CBR, Cambridge, 2001.
129 Voxted, S. Efteruddannelsessystemets rolle og muligheder i det danske innovationssystem, (The Role and the Options of the Supplementary Training System in the Danish Innovation System), Report No. 3 of the DISKO Project, Erhvervsudviklingsrådet, Copenhagen, 1998.
130 Ylinenpää H., Managing Competence Development and Acquisition in Small Manufacturing Firms, Department of Business Administration and Social Sciences, University of Technology, Luleå, 1997.
131 Donckels, R., J. Lambrecht, Networks and Small Business Growth: An Explanatory Model, in: *Small Business Economics*, No. 7, pp. 273-289, 1995.
132 Storey, D.J., Understanding the Small Business Sector, Routledge, London, 1994.

Table 3.10: Case study of a national SME that has developed successful strategies in order to develop and upgrade its internal competence base

Cooke Brothers Ltd was first established in 1872 in central Birmingham and moved to its present site in Walsall in 1961. It is managed jointly by the great-grandsons of one of its founders. A specialist manufacturer of hinges, specialist pressings and associated architectural hardware, the company employs approximately 100 staff. Market segments supplied include furniture, automotive, and special requirements for a range of industries.

The company faced three challenges, the first self-imposed, the other two dictated by the market:

- The company aimed to be a world-class manufacturer and to expand the business steadily through diversification into new markets
- A decline in the company's original market, namely furniture, led to a corresponding need to develop new markets, such as the white goods industry
- Increasing customer expectations in terms of price, quality and service made it evident that greater efforts must be made in the matter of customer care.

In order to respond to these challenges, a company-wide TQM programme was initiated in the early 1990s. Investors in People was viewed as an ideal framework for introducing cultural changes and new skills essential to the company's progress. In addition, it was decided to retain the best traditions of a family business but to run the company on more open lines. Examples included:

- Manufacturing cells of five employees were introduced. An electronic swipe card clocking-in system with computer links enabled operators and cells to register work on specific job codes. The company now has a high degree of control and knowledge about contracts and customers and can track every step through the production process. More comprehensive induction procedures were introduced, along with a new appraisal system. Staff has been made fully aware of the business plan and the part that each individual plays in its achievement.
- The company has become totally customer-driven. The wide variety in the customer base requires the ability to provide for both just-in-time large-volume production and one-off specials. Investment was made in new technology, such as CAD/CAM tool design and CNC blanking, to ensure high product quality and to provide rigorous testing facilities.
- The directors have made a point of visiting other good-practice companies to gain new ideas and also encourage local companies to visit Cooke Brothers. The company participates in local business networks and DTI programmes.
- Changes to working practices were introduced. Staff now receives much more detailed information about the business and future strategy through regular team meetings, notice boards and newsletters. Innovation and creativity are positively encouraged and, where appropriate, new ideas are tried at the workplace by the initiator. Staff works at the level of their commitment to the business.
- There was a move towards multiskilling and teamworking, which involved a major training effort delivered by tailored in-house programmes. A new, purpose-built training facility was provided to encourage staff to take up recognised national standards, such as NVQs for cell leaders.

From these developments, the enterprise is witnessing several results, such as higher profitability and turnover or enhanced corporate image in the local community. In addition, staff is better informed, more highly skilled, enjoy more job satisfaction and make a more creative contribution to the company's success, which in turn results in clearer links between individual objectives and the business plan. Late deliveries have been reduced substantially through departments taking responsibility for delays, and production engineers liasing directly with customers. This has improved customer satisfaction levels.

Cooke Brothers achieved Investors in People recognition in January 1993, the first company in the Walsall area to do so.

Source: Investors in People Press Office.

- Finally, there is very little empirical evidence on organisational competence in SMEs, i.e. the presence of shared mental models within the organisation that result in routines and collective knowledge[133]. The difficulties in determining the degree of organisational learning and the elements triggering these organisational learning practices may explain this relative lack of empirical information on the issue. In any case, several Spanish studies have tried to assess the degree of organisational learning amongst the Spanish SMEs[134], as well as the degree to which knowledge in SME is made explicit[135]. According to the

133 Kim, D. K., The link between individual and organizational learning, in: *Sloan Management Review,* Vol. 35, No. 1, 1993.

134 Martínez León, I., et al, Aprendizaje organizacional en pymes, (Organisational learning in SMEs), ACEDE National Annual Congress, Zaragoza, 2001.

135 Ruiz Mercader, J., I. Martínez León and C. Ruiz Santos, Conocimiento explícito en pymes, (Explicit knowledge in SMEs), ACEDE National Annual Congress, Zaragoza, 2001.

results of these studies, it is possible to establish a positive relationship between enterprise size and both the degree of organisational learning[136] and of explicit knowledge[137]. Both results are explained, to a large extent, by the greater amount of documents and knowledge practices used by larger enterprises, as well as by the higher availability of resources available for these purposes.

3.6. Barriers to engaging in competence development activities

Previous sections have shown the existence of a positive relationship between enterprise size and involvement in competence development activities. This important result may suggest that SMEs, specially the smallest ones, suffer from a number of specific obstacles in developing their competence base. A number of studies have looked into these barriers. However, it is important to recognise that non-involvement in competence development activities can be a perfectly rational decision since, as some authors suggest, SMEs may be satisfied with their existing skills/knowledge base[138].

A European literature survey on the issue of barriers provides the following results:

– Danish empirical evidence[139] suggests that the main reason for not carrying out formal training activities is related to lack of time considerations[140]. Other important reasons include, in this order, insufficient financial resources, lack of planning and, finally, lack of relevant training courses (see Table 3.11). In fact, most SME entrepreneurs are pre-occupied by their active involvement in the daily activities of the enterprise[141]. The typical SME is driven by short-term business pressures and is looking for quick and easy solutions that, very often, cannot be provided by some forms of competence development[142]. This problem is often aggravated by the owner-managers' awareness of the failure risk of long-term investments in competence development[143].

Table 3.11: Main reasons for not carrying out formal training activities in Denmark 2001, by enterprise size

	1-9	10-49	50-199	200+	Average
Insufficient budget	25	25	24	43	30
No relevant courses on the market	17	17	17	5	13
No relevant courses nearby	4	10	10	3	7
Cancelled courses	4	4	12	8	8
Lack of knowledge of the choice of courses	12	4	8	5	7
Lack of motivation with the employees	8	15	5	7	8
Lack of motivation with management	12	13	15	11	13
Lack of time	54	46	63	52	54
Lack of planning	12	10	27	16	18
Lack of guidance	4	6	5	0	4
Other	8	15	14	13	13
Don't know	8	2	2	0	2

Source: IFKA, Det danske kursusmarked - kompetenceudvikling i den private sector, (The Danish Supply of Courses - Upgrading of Competences in the Private Sector), Copenhagen, 2002.

136 Organisational learning is defined as a quantitative index indicator that takes into account the number of both internal and external learning practices along with the necessary tools (i.e. IT equipments) required to facilitate organisational learning.

137 This explicit knowledge degree is again defined as a quantitative index referring to the existing documents and practices on which knowledge may have been made explicit along with the tools in the hands of the enterprise to actually foster the transition from tacit to explicit knowledge (i.e. IT equipment).

138 Houssemand, C., The continuing vocational training in Luxembourg, National inquiry for the European continuing vocational training survey, CEPS/INSTEAD, STATEC Bulletin, 2002.

139 IFKA (Institute of Market Trends), Det danske kursusmarked - kompetenceudvikling i den private sektor (The Danish Supply of Courses - Upgrading of Competences in the Private Sector), Copenhagen, 2002.

140 A similar result was found in Ikei and the ENSR, Training Processes in SMEs: Practices, Problems and Requirements, project funded by the Leonardo Programme, Donostia-San Sebastián, 1997.

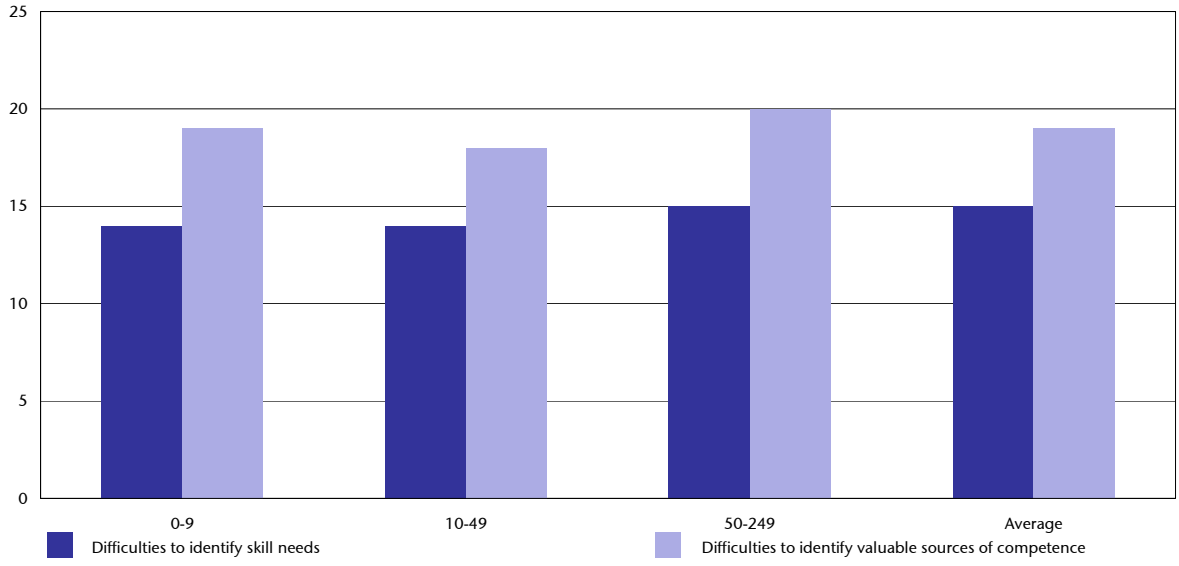
141 Tillaart, H. van den, J. Warmerdam, Arbeidsomstandigheden in kleine bedrijven (Working conditions in small enterprises), VUGA, The Hague, 1997.

142 Malinen, P., Assisting Potential Fast Growth SMEs - Case Dublin Business Innovation Centre, Turku School of Economics and Business Administration, in: *Business Research and Development Centre,* Series B Research Reports, B 4/2001, Turku , 2001.

143 Storey, D.J., Understanding the Small Business Sector, Routledge, London, 1994.

– SMEs are also particularly affected by the cost of developing the competence base of their workforce, especially if the expected economic returns are not very clear. Such costs include the direct expenses (i.e. a training course), and also the costs related to the absence of an individual employee. The latter costs are relatively high for small firms[144], since there are few colleagues to fill the absence. The SMEs' financial constraints may make it even more difficult for them to participate in these activities[145]. Up to 65 % of Portuguese enterprises that recognise short and medium-term training needs intend to apply for official support in order to organise or take part in vocational training initiatives, where this result reveals an important dependence on external financing in this Member State[146].
– Some authors argue that the owner entrepreneur/management team's negative attitude to change is also an important barrier for competence development activities[147]. Linked to this point, SME entrepreneurs are very often reluctant to invest in people bearing in mind the possibility of skilled labour being 'poached' in imperfect labour markets, which in contrast may foster SMEs to 'buy in' skilled employees rather than invest in developing their in-house competence base. Leroy speaks of the 'competence-paradox'[148], which means that enterprises that invest in their employees' competence development simultaneously increase the possibility that these employees will leave the company. In fact, most SMEs believe it to be the individual rather than the enterprise that benefits mostly from the learning activities[149].

Figure 3.6: Percentage of SMEs who have difficulties to identify their skill needs/valuable sources of competence, by enterprise size, Europe-19



Source: ENSR Enterprise Survey 2002.

– Another important barrier is that SME entrepreneurs are often not able to diagnose their own competence needs effectively[150.] The entrepreneur's limited information[151] and contact with sources of competence results in a limited overview of the opportunities available and links to their workforce's compe-

144 Curran, J., R. Blackburn, J. Kitching and J. North, Small firms and workforce training; some results, analysis and policy implications from a national survey, in: M. Ram, D. Deakins and D. Smallbone (eds.), Small firms; enterprising futures, London, Chapman, 1997.
145 Westhead, P., D.J. Storey, Management training and small firm performance: why is the link so weak?, in *International Small Business Journal* 14(4), pp. 13-24, 1996.
146 Moniz, A.B., I. Kovács (study coordinators), Evolução das Qualificações e das Estruturas de Formação em Portugal (Evolution of the Qualifications and Training Structures in Portugal), Instituto do Emprego e Formação Profissional, Lisbon, 1997.
147 Qvist, E., Spesialisering i bedriftsutvikling (Specialising in enterprise development), Norwegian School of Management, Sandvika, Oslo, 2000.
148 Leroy, F., Lang leren(d) leven; Van employability naar enjoyability (Long-life learning; From employability to enjoyability), Over Werk, Tijdschrift van het Steunpunt WAV, pp. 44-56, March 2002.
149 Open University, Lifelong Learning for Enhanced Competitiveness, Briefing Paper Number 4, Centre for Higher Education Practice, Milton Keynes, 1999.
150 Expert Group on Future Skills Needs, Report on In-Company Training, Dublin, 2000.
151 Nooteboom, B., Firm size effects on transaction costs, in *Small Business Economics* No. 5, pp. 283-295, 1993.

tence needs[152]. Notwithstanding this, the ENSR Enterprise Survey 2002 results show that only a small minority of SMEs admit to having difficulties both to identify skill needs or find valuable sources of competence (15 % and 19 %, respectively) (see Figure 3.6).

- SMEs are often critical about the quality, extent and orientation of the existing supply of formal training and external advice. Too theoretical and seldom tailored to the individual SME needs[153]are common criticisms. Austrian evidence[154] shows that, as far as external formal training activities are concerned, the competence of the provider is a factor equally important as price considerations since, for many SMEs, there is often a significant gap between the business-driven needs of SMEs and the mainstream adult education curriculum.
- In some cases, employees themselves may be a barrier to the upgrading of their competence levels, especially if they are unconvinced of the benefits of learning (i.e. due to the low career development chances[155]), they are afraid of further responsibilities derived from them[156] or they have limited time (i.e. persons with family responsibilities). Dutch research[157] suggests that many small enterprise employers believe that if employees are not motivated enough to take the initiative themselves, they should not be pushed to do so.
- In addition to these demand-side barriers, learning suppliers (especially those providing formal learning activities such as Colleges or Universities) find important barriers to working with SMEs because of different cultures, difficulties to make learning a practical possibility or respond to the SMEs' time constraints, etc.[158]

152 Groß, F., Zukunftsorientierte Formen der Weiterbildung in kleinen und mittleren Unternehmen durch externe Kooperation, Schriften zu Management und KMU, (Future oriented forms of competence development activities in SMEs by external co-operation), Flensburg, 2000.

153 Kool, C.H.W. (editors: F.A. von Dewall and M.J.P.M. Peek), Ondernemers over adviseurs; Een grensoverschrijdende verkennning, (Entrepreneurs about advisors; A cross- border exploration), Economic Bureau ING Bank, Amsterdam, 2002.

154 Fasel, G., N. Kailer, Ältere Arbeitnehmer/innen - Last oder Ressource; Leitfaden zur Entwicklung und Nutzung der Kompetenzen älterer ArbeitnehmerInnen, (Older Employees - Burden or Resource; Guide for the Development and Usage of Competencies of Older Employees), Austrian Chamber of Commerce's Institute of Business Promotion (WIFI), Vienna, 2001.

155 Fasel, G., N. Kailer, Ältere Arbeitnehmer/innen - Last oder Ressource; Leitfaden zur Entwicklung und Nutzung der Kompetenzen älterer ArbeitnehmerInnen,(Older Employees - Burden or Resource; Guide for the Development and Usage of Competencies of Older Employees), Austrian Chamber of Commerce's Institute of Business Promotion (WIFI), Vienna, 2001.

156 OECD, Beyond Rhetoric: Adult Learning Policies and Practices, Paris, 2003.

157 Koch, C.L.Y., E. van Straten, Personeelsbeleid in enkele MKB-bedrijven (Personnel management within a few SMEs), Strategic study B9703, EIM, Zoetermeer, 1997.

158 For a further discussion on this issue see: Association of Colleges and Ufi, Workforce Development in SMEs, London, 2000.

Chapter 4
National public support to encourage competence development practices in SMEs

4.1. Introduction

This chapter presents a number of initiatives carried out at national level in order to facilitate competence development activities amongst SMEs. This discussion will be further complemented with a presentation of the initiatives developed by the social partners (both at EU and at national level) in this domain.

Before going into detail, it is worth stressing that contemporary training policy is characterised by a number of elements that are common in most advanced countries. According to the ILO[159], these elements include, amongst other issues, the following two elements:

- An increasing emphasis on lifelong learning and training opportunities for all people (which in turn requires the devising of appropriate policies and mechanisms for targeting learning and training programmes at particular groups with special needs),
- A shift towards development and recognition of 'competencies' that comprise a wide range of work-related knowledge, technical and behavioural skills. Here, there is a trend towards the introduction of the so-called 'competence-based training', involving the recognition of knowledge and skills acquired through practical experience.

4.2. Initiatives at national level

European national governments have developed a wide range of policy measures intended to upgrade national SMEs' competencies. This section gives an overview of a number of these initiatives that can be regarded as 'good practices'[160]. The scope of these public initiatives is very wide, and can be grouped under four main categories.

The first group of 'good practice' examples includes initiatives for fostering further education and continuous training activities provided by external providers. These initiatives are primarily aimed at improving the employees' competencies in order to provide enterprises with new development and growth opportunities, although in some cases they are primarily focused on the SME leaders (i.e. the Icelandic 'Step Ahead' programme or some Greek measures specifically designed for the self employed).

In some cases (i.e. the Law of 22nd June 1999 in Luxembourg), the type of support includes both financial and fiscal incentives, whereas other measures (i.e. the 'Small Firm Development Account', see Table 4.1) include a combination of financial assistance to invest in employees' training activities with the provision of different consultancy services to better define training needs. Interestingly also, some other measures particularly stress the

159 ILO, Learning and training for work in the knowledge society, Report IV, Geneva, 2002.

160 The information for this section has been provided by the national ENSR partners, who were requested to provide one relevant example of a national policy measure intended to encourage competence development activities amongst the national SMEs. An in-depth description of the different measures can be found in Annex III of this report.

importance of mobilising groups or networks of enterprises to develop training responses 'tailor made' to their own needs (the Irish Skillnets initiative).

Table 4.1: The 'Small Firm Development Account' programme

The 'Small Firm Development Account' is designed to provide financial assistance to small enterprises, based in the East Midlands (the United Kingdom) with 5 to 49 employees, who want to invest in the skills and training of their employees against clearly defined business objectives. Additionally, the account is also designed to provide a package of services to help build the capacity of enterprises to identify training needs in line with business needs, and navigate the array of training provision to provide the solution most relevant to enterprises. This measure is sponsored by the Department for Education and Skills, and the Learning and Skills Council in the East Midlands

Source: East Midlands' Learning and Skills Council.

Finally, other initiatives stress the importance of 'virtual' teaching methods (i.e. the German 'Mercur' measure) or are exclusively focused on SMEs that are intended to implement, for the first time, personnel development measures (i.e. the Austrian 'Promotion of Personnel Development in Small and Medium-Sized Enterprises'). Interestingly also, and following the Nordic tradition of social dialogue, the Danish 'good practice' measure (the 'Fund for Educational Planning 2002') requires that the supported projects must be carried out in collaboration between management and employees for receiving public support.

Meanwhile, the second group of 'good practice' policy measures intends to foster the access of SMEs to external consultancy and advice that may help to increase the enterprises' competitiveness. In some cases, public support covers part of these consultancy expenses (i.e. the Belgian 'consultancy/advice vouchers'), whereas in other cases the measures include the provision of expert advice (i.e. the Portuguese Action Line for Organisational Innovation or the Spanish PIPE 2000 programme). It is worth highlighting that some of these measures stress the importance of building networks between enterprises for exchange of experiences and guidance (i.e. the Finnish 'National Workplace Development Programme' or the Norwegian FRAM programme).

Table 4.2: The 'FRAM' programme

The FRAM[161] programme is a Norwegian public management and strategy development programme for managers at manufacturing and service enterprises with 5 to 30 employees, whose aim is to improve the participants' competence base. The programme started in 1992, and it is continuously updated. FRAM organises projects on a number of different issues in seven pilot regions on a yearly basis. Basically, two main activities are conducted in parallel within each project, that is to say, participation in regional seminars that focus on learning by exchange of experience among participants and, secondly, enterprise expert guidance during a 15-month development process. The programme is organised by the Norwegian Regional and Development Fund.

Source: Agderforskning.

In addition to these initiatives, some countries have developed a third group of measures intended to foster enterprise networking for knowledge exchange purposes. It is worth drawing attention to the activities supported by the PLATO-project, started in 1987 in Flanders (Belgium) and currently widespread in other EU Member States such as Denmark, Germany or Sweden. The principle of this measure is that large enterprises become 'godfathers' for SMEs, so the executives from these large enterprises pass on knowledge, provide individual and collective guidance and support to a group of SMEs in all aspects of business management for two years.

Finally, some countries are developing several interesting measures in order to recognise the knowledge, skills and competencies acquired through practical experience and non-formal training practices, so individual employees' personal skills and professional experience are made visible and recognised. Examples of this type of policy measures can be found in France (VAP, 'Validation of Professional Experiences), Italy (the regulations contained in the 'Promotion of Employment' Law) or the Netherlands (the EVC, Recognition of Acquired Competences) (see Table 4.3).

161 The English word for FRAM is FORWARD. FRAM is an abbreviation for understand (forstått), realistic, accept and measure.

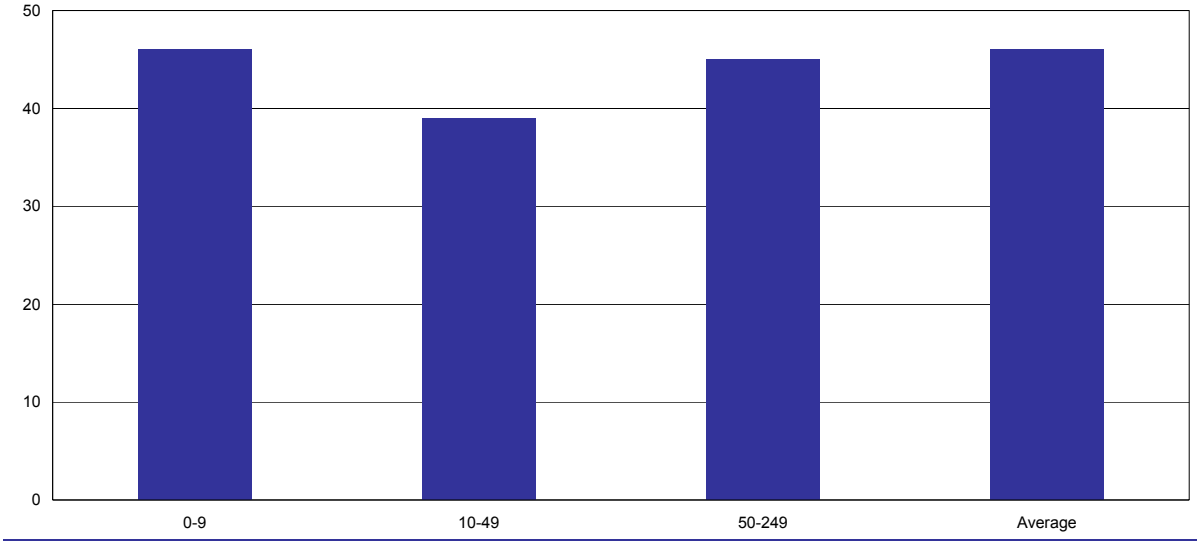
Table 4.3: The Dutch 'Recognition of Acquired Competences' initiative

The EVC (Erkenning Verworven Competenties, or Recognition of Acquired Competences in English) is an information centre, which provides employees and employers information about EVC, contributes to the development of EVC-procedures and stimulates practice of EVC. Basically, EVC aims at increasing the willingness of employers to invest in strategic human resource management, as well as increasing the willingness of employees to take responsibility for their own employability. These objectives are achieved by making personal skills visible, which implies that different forms of learning are now recognised to lead to the learning of specific skills. This measure is run by the Ministry of Economic Affairs in co-operation with the Ministry of Social Affairs & Employment, the Ministry of Education, Culture & Science and the private organisation CINOP

Source: Dutch Ministry of Economic Affairs and EIM.

As it can be seen from this non-exhaustive list, it is possible to suggest that the European national governments are currently involved in several initiatives intended to upgrade the competence base of their national SMEs. From a demand-side perspective, these results can be complemented with the perception that SMEs themselves have of the existing public support in this domain (see Figure 4.1). Thus, the ENSR Enterprise Survey 2002 shows that up to 46 % of European SMEs complain of a lack of public support in this domain, where the very small and the medium-sized enterprises seem to be particularly concerned by this issue.

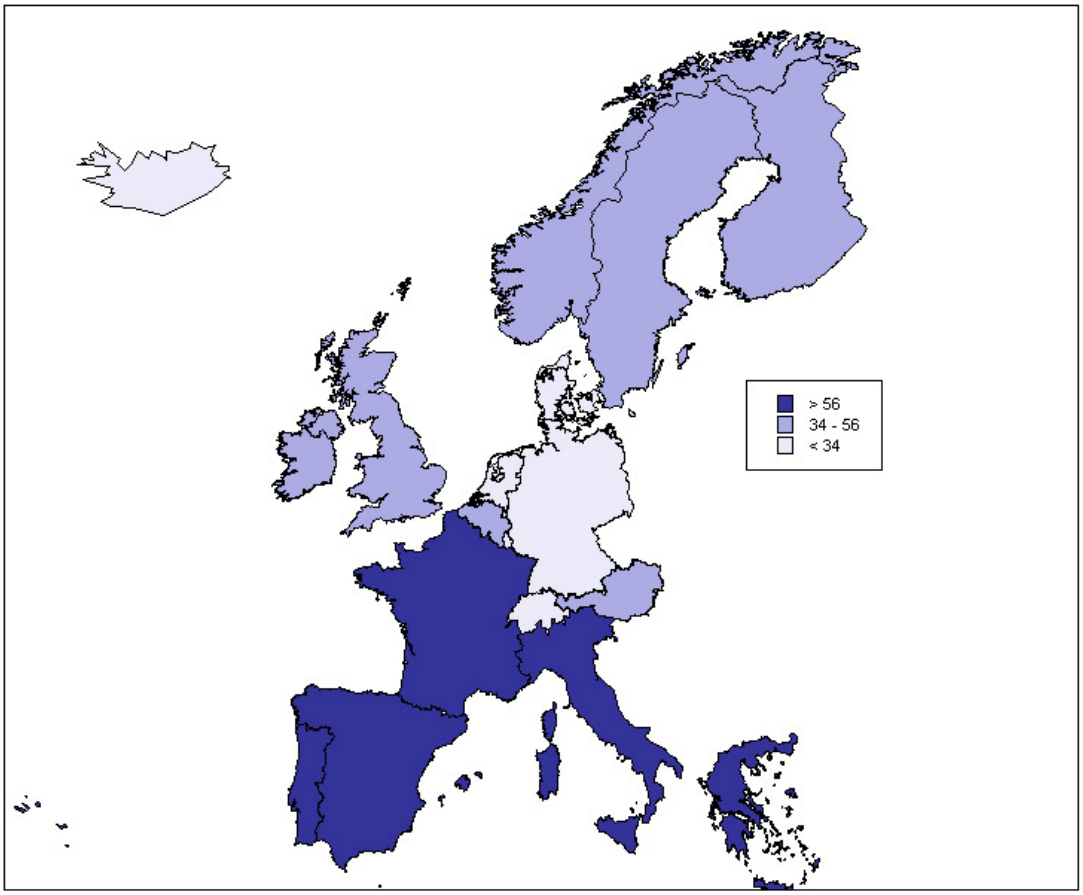
Figure 4.1: SMEs who complain of a lack of support by the government for competence development activities in enterprises, by enterprise size, Europe-19



Source: ENSR Enterprise Survey 2002.

Country considerations show that the percentage of SMEs affected by lack of public support is particularly high in the Southern European countries (i.e. Greece, Portugal, Italy and Spain), as well as France, where 57 % of the national SMEs point out this situation. In Denmark, Germany, Iceland, Luxembourg, the Netherlands or Switzerland, a majority of SMEs is satisfied with the public support (see Figure 4.2). It is interesting to notice that, generally speaking, those countries that show the lowest percentage of SMEs involved in competence development activities (i.e. the Southern ones) are also the most critical with the existing public support.

Figure 4.2: Classification of European countries according to their satisfaction/dissatisfaction on existing public support: Percentage of SMEs who complain of a lack of public support for competence development activities in enterprises, Europe-19



Source: ENSR Enterprise Survey 2002.

4.3. Initiatives by social partners

In addition to the activities and initiatives developed by national/regional authorities, social partners both at European and national level are developing a number of initiatives in order to upgrade the competencies and qualifications of the workforce. This emerging role is fully in line with an increasing trend at international level by which social partners are becoming active parties in policy formulation, investment and provision of learning opportunities and training[162].

At European level, social partners[163] have reached a number of agreements on the role of the social partners in the development of continuing training in the Member States. In the context of the European social dialogue at cross-sectoral level, the social partners have issued an Interim Report on Social Dialogue on Education and Training. Additionally, social partners have recently agreed on a 'Framework of Actions for the Lifelong Development of Competencies and Qualifications'. This framework, agreed on 28 February 2002 in Brussels and submitted to the Social Summit in Barcelona, underlines competence development and acquisition of qualifications for all age groups as the major challenge for lifelong learning and its contribution to an inclusive society.

162 ILO, Learning and training for work in the knowledge society, Report IV, Geneva, 2002.

163 The European social partners include the European Trade Union Confederation (ETUC), the Union of Industrial and Employers' Confederations of Europe (UNICE/UEAPME) and the European Centre of Enterprises with Public Participation and Enterprises of General Economic Interest (CEEP).

At national level, the social partners are also involved in competence development and lifelong learning activities. The European Foundation for the Improvement of Living and Working Conditions has recently commissioned a report[164] to examine recent developments and trends in collective bargaining in terms of lifelong learning in the EU Member States plus Norway. According to this study, several issues emerge:

- Since the late eighties/early nineties, lifelong learning has gained increasing importance in the agenda of the national social partners, so there seems to be a good consensus about the importance of this issue. In some countries, this has led to the adoption of a position by the social partners, with recommendations for public administration and companies. In other countries, the content of bargaining has involved the establishment of an institutional, normative and financial regulatory framework for continuing training.
- Industrial relations influence the arrangements on lifelong learning. It is possible to identify three main clusters of countries. A first cluster is composed of countries such as Austria, Belgium, Denmark, France, Italy, the Netherlands, Norway and Spain, which show an extensive development of the national and sectoral level collective bargaining on lifelong learning. In the second cluster, in countries such as Germany (and partially also Italy and Norway), there is a significant number of company agreements that deal with lifelong learning (although sectoral level bargaining remains important). Finally, it is possible to identify a third cluster of countries with limited collective bargaining (i.e. Ireland, Greece, Luxembourg, Portugal and the United Kingdom), where the issue of lifelong learning is still separated from collective bargaining.
- Training time credits and individual learning accounts seem to be emerging issues in collective bargaining in most of the countries where collective bargaining on this issue is possible. As far as enterprise size considerations are concerned, the study underlines the enormous differences between small and large enterprises.

164 European Foundation for the Improvement of Living and Working Conditions, Lifelong Learning and Collective Bargaining; an analysis of EIRO articles, Dublin, 2002.

Chapter 5
Summary and conclusions

'Competence' is defined in this report as the mix of human knowledge, skills and aptitudes serving the enterprises' productive purposes and therefore its competitiveness. 'Competence development' is therefore defined as the measures taken by any enterprise to develop its competence base.

This report has illustrated that up to 80 % of European SMEs take a number of initiatives to improve their competence base available within their in-house human resources in addition to 'formal' methods linked to courses/seminars/conferences provided by external trainers. Non-formal methods linked to 'learning from others' and 'on-the-job' practices are widely used by SMEs. The most important methods are visits to expos/trade fairs, reading of professional literature or meetings amongst personnel for knowledge exchange. Other non-formal initiatives used include co-operation with consultants and advisers for developing the internal competence base, courses provided by own personnel, study visits, tutor/mentoring activities and job rotation (in-house or with other firms). The fact that visits to expos/trade fairs is the European SMEs' main method for competence development may also cast some light on the weaknesses of these activities, as well as on the difficulty of reaching the European goals in terms of knowledge building.

The order of importance of the suggested methods seems to be practically the same amongst the different enterprise sizes distinguished, although SMEs' involvement in formal/non-formal competence development methods is positively correlated with the size of enterprises. Therefore, SMEs use a wider scope of different methods the larger they are. At European level, a North-South divide may be seen, not only concerning the percentage of SMEs involved in competence development activities, but also on the different methods employed.

In addition to developing the competence base of their in-house human resources, enterprises in general and SMEs in particular may resort to external sources in order to exploit knowledge and competencies that are not available in-house but which may be required for the optimal performance of the enterprise. The main sources of external competence for the European SMEs are their clients and suppliers. Other important sources include business and trade associations (including chambers of commerce), consultants and training centres/universities. Less utilised sources of external competence include auditors & banks, recruitment of new personnel, other entrepreneurs and, finally, public authorities.

External sources of competence acquired by the SMEs are important, since they may imply the acquisition of a new network of external contacts and competencies that might be utilised for development of the small firm. Notwithstanding this, the percentage of enterprises employing the different suggested sources of external competence increases with the size of enterprises. Clients/suppliers are the main external source of competence for the smallest enterprises whereas the recruitment of new personnel is the main source for the medium-sized ones. Remarkable source differences exist if country considerations are taken into account, which stresses the influence of existing different historical traditions and cultural attitudes in the different countries.

There is a positive relationship between the skill content of the SMEs' different occupational groups and their involvement in these activities, especially amongst the very small enterprises, whose competence development activities are particularly concentrated within the 'directors/managers' group. By way of contrast, small and especially medium-sized enterprises invest in these activities on a wider scope of occupational groups, especially in the 'directors/managers' and 'technician/engineers' categories. Literature on this issue shows that small enterprises are particularly characterised by a sharp division of labour between 'blue-collar' and 'white-collar' staff in the content, extent and nature of their learning processes.

There is a positive relationship between enterprise size and the regular nature of the enterprises' competence development activities. A significant share of SMEs tries to obtain economic returns from these activities in the short term. Around half of European SMEs have a specific person or group responsible for identifying possible existing skills gaps/shortages within the enterprise, where this specific role is in the hands of the owner or the general manager (especially amongst the very small and small enterprises). Only a small proportion of European SMEs admit to have a written plan for developing their in-house competence base, although strong differences can be seen by enterprise size.

European SMEs engaged in exporting activities and therefore exposed to increased competition use more methods for improving their in-house competence base and have more access to external sources of competence in comparison to non-exporting SMEs. Meanwhile, European SMEs that are particularly affected by a lack of skilled labour have a distinctive attitude towards competence development activities in comparison to the remaining SMEs. This, suggests a higher need to upgrade their workforce competence base, as well as a more important role of the competence development activities within the general business strategy. They also have more difficulties to identify their skill needs or relevant sources of competencies and seem to complain of a higher lack of public support for these activities.

This report also identifies that, for a large share of European SMEs, competence development activities are a key part of their general business strategy. Around four out of ten European SMEs confirm a need to upgrade their in-house competence base, where medium-sized ones seem to be particularly concerned about internal and external resources. The reasons behind the SMEs' decisions to engage themselves in competence development activities include the changing requirements at the work place due to new technologies (especially ICTs), as well as the subsequent changing working organisation structures. Other important reasons include the increasing internationalisation of the markets, the difficulties in recruiting and/or retaining staff in certain countries, the ageing process of the European workforce, and the inability of the formal education system in several Member States to match the enterprises' current needs.

SMEs also identify a number of advantages derived from these activities. These advantages include increased competitiveness and productivity, as well as enhanced staff retention and motivation. This report has identified a number of studies that establish a positive relationship between competence development activities and individual SMEs' competitiveness and performance.

SMEs, especially the smallest ones, suffer from a number of specific obstacles that make it difficult for them to engage in competence development activities. These barriers include important short-term business pressures (lack of time), cost issues, the owner entrepreneur/management team's negative attitude to change, and the entrepreneurs' limited ability to effectively diagnose the competence needs or to contact sources of competence. Some SMEs also complain about the poor quality, extent and theoretical orientation of the existing supply of formal training and external advice. In addition to this, SMEs very often feel reluctant to invest in people bearing in mind the possibility of skilled labour being 'poached '. Finally, employees themselves may resist upgrading their own competence levels.

Public authorities are developing a range of different policy measures intended to upgrade the national SMEs' competence base. These measures include support to formal training, access to external consultancy services or empowering methods to management and organisational innovation. In addition to this, several countries are developing measures in order to recognise the knowledge, skills and competencies acquired through practical experience and non-formal training practices.

From a policy perspective and following the OECD's suggestion[165], governments have to create an environment, conducive to the acquisition and development of skills and competencies. Amongst others, this report provides several possible suggestions for them:

– It is necessary to find a way to broaden the traditional concept of learning upon which most forms of education and training, as well as policy measures are based. This report supports the view that a broader concept of learning should also take into account the relationship between formal learning and the learning that takes place in workplaces, as well as the link between education & training and the labour market

165 OECD, Knowledge, Work Organisation and Economic Growth, Labour Market and Social Policy-Occasional Papers No. 50, Paris, 2001.

- Policy-makers should encourage different ways and channels to formally 'recognise' the non-formal knowledge and skills acquired through practical experience (especially important for SMEs). This may help people to prove their qualifications, their skills and competencies in a way that is more likely to improve their future employability, becoming therefore a further incentive to employees to engage themselves in formal/non-formal competence development initiatives. Examples such as the accreditation of non-formal learning suggested by the Commission are relevant in this field[166].
- Policy makers should support the access of SMEs to different external sources of competence. This report has shown that both suppliers and clients are especially important for SMEs both as direct sources of external competence, and as brokers to other external competencies. Public authorities need to take this result into account.
- It seems to be important to expand the existing knowledge on the organisational learning issue in order to identify the organisational, productive, technological and social factors that facilitate/make this learning difficult amongst SMEs, as well as the practices and tools that are more convenient for SMEs. Special attention has to be paid to the possibilities introduced by the ICTs in this field. When these issues have clearly been identified, policy makers should design public policies, intended to promote investments in organisational learning, in SMEs. For this purpose, information exchange of existing 'good practices' could be fostered. Perhaps, public authorities should encourage co-operation both between the social agents (trade unions and employers) and amongst enterprises themselves (i.e. SMEs in well-established clusters) for partially overcoming the difficulties of promoting organisational learning on the firm level.
- Finally, policy makers should develop policy measures intended to improve the distribution of competence development opportunities amongst those workers with fewer opportunities, such as the employees of the smallest enterprises, people undertaking non-standard forms of work or the less educated ones.

166 Commission's Action Plan for skills and mobility, COM(2002) 72 final, 13.2.2002.

Annex I
The position of SMEs in Europe-19

93 % of all European enterprises have less than 10 employees

There are 20.5 million enterprises in the European Economic Area (EEA) and Switzerland, providing employment for 122 million people. Some 93 % of these enterprises are micro (0-9 employees), 6 % are small (10-49), less than 1 % are medium-sized (50-249) and only 0.2 % are large enterprises (250+). Of all these enterprises nearly 20 million are established within the European Union. Two thirds of all jobs are in SMEs, so one third of all jobs is provided by large enterprises. Within SMEs, total employment is split up roughly equally between micro enterprises (employing less than 10 employees), and small and medium-sized enterprises.

The size-class distribution of employment differs, however, between countries. For example, the share of micro enterprises in total employment is 48 % in Italy, and 57 % in Greece.

On the other hand, the share of large enterprises in total employment is over 45 % in Iceland and the United Kingdom.

Table I.1: The basic facts about SMEs and large enterprises, in Europe-19, 2000

		SME	Large	Total
Number of enterprises	(1 000)	20 415	40	20 455
Employment	(1 000)	80 790	40 960	121 750
Occupied persons per enterprise		4	1 020	6
Turnover per enterprise	Million €	0.6	255.0	1.1
Share of exports in turnover	%	13	21	17
Value added per occupied person	€ 1 000	65	115	80
Share of labour costs in value added	%	63	49	56

Source: Estimated by EIM Business & Policy Research; estimates based on Eurostat' s SME Database. Also based on European Economy, Supplement A, June 2001 and OECD: Economic Outlook, No. 65, June 2001.

The average European enterprise employs 6 people

On average, an enterprise in Europe - even including all very large enterprises- provides employment to 6 people; the average for SMEs only is 4 people. However, this varies between 2 people in micro enterprises, and over 1 000 in large enterprises. Between countries, there are large differences as well. On average, an enterprise has 2 occupied persons in Greece and 3 in Italy, compared with 10 in Ireland, Luxembourg, Austria and the Netherlands.

Most jobs in Europe are created by micro enterprises

On balance, large enterprises lost jobs between 1988 and 2001, while employment in the SME-sector increased. In the early years this growth was concentrated in micro and small enterprises, as significant employment growth in medium-sized and large enterprises only started in 1997. In 2001, employment growth slowed down. Current estimates show that this occurred both in SMEs and large enterprises, but the slow down is slightly more pronounced in large enterprises.

Annex II
Set-up and structure of Survey

II.1. Introduction

The ENSR Enterprise Survey 2002 is designed to make uniform data on SMEs available from nineteen European countries. This enables the Observatory of European SMEs, in addition to using Eurostat and other secondary data, to make comparative analyses based on recent and comparable SME data. Data have been collected from enterprises in each of the 19 countries covered, i.e. the 18 Member States of the EEA and Switzerland.

Interviews were conducted using the CATI-system of Intomart. CATI stands for Computer Assisted Telephone Interviewing. The overall design and implementation of the stratification, the questionnaire and the fieldwork were done in close collaboration between staff from EIM Business & Policy Research in the Netherlands, partners in the ENSR network and Intomart.

In this annex the sample size and stratification plan of the ENSR Enterprise Survey 2002 are described. This will foster a proper use and interpretation of the data that have been collected. The 2002 ENSR Survey of SMEs was carried out from May-August 2002. Highlights from the survey were published in a separate volume[167]

II.2. Sample size

The size of the sample was determined by considering the need to report on dichotomous variables at country and size class level, with reasonable accuracy and confidence. Statistical theory shows for dichotomous variables that if sample errors are not to exceed ± 10 %, at a confidence level of 95 % a total sample size of about 90 is needed for that level. This applies to estimates at the country-size class level combined. As three size classes are distinguished in nineteen countries, the minimum required sample size can be calculated as 3 * 19 * 90 = 5 130 interviews. Estimates at the country or size class level separately are of course much more precise at the same level of confidence, as there are many more respondents at these levels.

To allow additional analyses, i.e. by various subgroups to be distinguished in the group of sampled enterprises, the planning did not aim at 5 130 interviews but at about 50 % more: 7 750 interviews. Finally 7 669 completed interviews were obtained.

II.3. Stratification plan

Interviewing 7 750 SMEs means covering about 0.04 % of all SMEs. A simple random sample would imply that in total only about 65 medium-sized enterprises (spread over nineteen countries and seven sectors) could be expected in the sample. Obviously this would be insufficient to reach any valid conclusion about the group. Therefore a disproportionately stratified sample is used; this means interviewing less than a proportional number of smaller enterprises and more than a proportional number of larger enterprises. Consequently, observations from the survey must be weighted in order to arrive at representative results.

167 European Commission, Observatory of European SMEs; Highlights from the 2002 Survey; Report submitted to the Enterprise Directorate General by KPMG Special Services, EIM Business & Policy Research, and ENSR, Brussels, 2003.

The stratification of the ENSR Enterprise Survey 2002 is defined in terms of industry (i), enterprise size (s), and country (c). The stratification aims to minimise the standard deviation of the weights used in raising sample results to population levels, taking account of the fact that, in many cases, data by country and/or by enterprise size class or by sector of industry are presented. In order to guarantee a sufficient number of observations for these subsets of the European enterprise population, the following constraints A to E have been imposed:

A. In each country/size class combination: at least 100 observations.
B. In each industry/size class combination: at least 100 observations.
C. In each country/industry combination: at least 35 observations.
D. In each individual industry/size class/country combination: at least 2 observations.
E. In each individual industry/size class/country combination: an upper limit of 10 % of the stock of enterprises.

Restriction E supersedes the other restrictions if conflicts arise. So if 100 observations at the country/size class level (restriction A) would exceed 10 % of the stock of enterprises, the 10 % was set as an upper limit.

The stratification plan that resulted from this procedure is presented in Table II.1, by country and all size class sectors.

Table II.1 Stratification plan: country by size class (for all sectors)

Country	Micro (0-9)	Small (10-49)	Med.-sized (50-249)	Total
Austria	108	100	100	308
Belgium	161	100	100	361
Denmark	146	100	100	346
Finland	105	100	100	305
France	461	100	100	661
Germany	472	100	100	672
Greece	161	100	100	361
Iceland	132	100	13	245
Ireland	100	100	100	300
Italy	581	100	100	781
Liechtenstein	194	22	3	219
Luxembourg	100	100	50	250
Netherlands	122	100	100	322
Norway	124	100	100	324
Portugal	169	100	100	369
Spain	346	100	100	546
Sweden	149	100	100	349
Switzerland	127	100	100	327
United Kingdom	505	100	100	705
Total	4 264	1 821	1 665	7 750

Source: Sample optimisation developed by EIM.

The stratification procedure results in a sample of 4 264 micro firms, 1 821 small firms and 1 665 medium-sized firms (see Table II.1). Although there are many more micro firms than larger firms in this sample, the differences in sample size between the three distinguished size classes are much smaller than the corresponding differences in the population. In other words, micro enterprises are still underrepresented in our sample, while small and especially medium-sized enterprises are over represented.

Disproportionate stratifications have also been made regarding country. The sample size ranges from 219 for Liechtenstein to 781 for Italy. Again, while the sample size is larger for large countries, small countries are overrepresented in the survey. Without this overrepresentation, it would not be possible to make valid statements concerning the smaller countries.

The overrepresentation of certain countries, sectors and size classes is corrected by weighting the survey results. Therefore, all percentages in text and tables in this report refer to weighted results.

Annex III

Brief description of selected 'good practice' policy measures intended toupgrade the national SMEs' competencies

Country	Description of the selected measure
Austria	'Promotion of Personnel Development in Small and Medium-Sized Enterprises' (Förderung von Personalentwicklung in kleinen und mittleren Unternehmen), started in January 2002 with the basic aim of supporting the Viennese SMEs to implement personnel development measures for the first time and thereby increase their competitiveness. For this purpose, SMEs are refunded with 50 % of the expenses for further education delivered by an external training provider with a limit. The Wiener ArbeitnehmerInnen Förderungsfond runs this measure.
Belgium	Since March 2003, the Flemish government is covering half of the costs of special 'consultancy/advice vouchers' aimed at the Flemish SMEs. The basic goal of this measure is to encourage SMEs to get more external professional advice when taking important enterprise decisions on a wide range of issues (general corporate organisation, strategy, employee management, marketing, automation, environment, etc). From an operational perspective, the individual counselling project has to cost at least 300 euro, although SMEs can buy up to 820 vouchers (costing 30 euro each).
Denmark	The 'Fund for Educational Planning 2002' has been run by the Danish Ministry of Education, which covers practically all economic sectors and is aimed specifically at enterprises with less than 100 employees. The basic goal of this fund is to increase the employees' competences in order to provide enterprises with new development and growth opportunities. Subsidized activities include, amongst others, the collaboration between an educational institution and an enterprise, the development of new ways and methods in training and competence development, the preparation of training and competence development plans within enterprises or, finally, the setting up of networks concerning educational planning and competence development. The project must be carried out by collaboration between management and employees for receiving public support. There are at present no funds to be allocated in the year 2003 for this measure.
Finland	The Finnish 'National Workplace Development Programme' is intended to improve the effectiveness and quality of working life at Finnish workplaces, and is managed on a tripartite basis. Basically, the measure provides expert support and funding for development projects in enterprises. Supported projects typically focus on promoting teamwork and empowering methods of management, increasing multiskilling, improving coping at work and building networks between companies. Both management and employees take part in planning and carrying out the projects. Around two thirds of the 2000-2002 funding has been devoted to SMEs.
France	French statutory regulations provide formal recognition of an employee's professionally acquired skills (VAP, 'validation des acquis professionnels'). VAP was regulated by the law dated July 20th 1992, enabling any person having exercised a professional activity for five years to validate his or her experience. This regulation was broadened in January 2002 and became known as '*validation des acquis de l'expérience*' (VAE), so a wider range of diplomas and greater procedural flexibility have been introduced.
Germany	'Mercur' measure, first introduced in 2000 and financed by the Ministry for Education and Research and the Bundesinstitut für Berufsbildung (Bibb) (Federal institute for vocational training). From March 1998 until March 2002 this project was a pilot project to check the possibilities for tele-learning in the field of craft, although since year 2000 it is a 'virtual' academy for the German craft enterprises. The Research Institute for Competence Development in the Craft Sector at the University of Cologne is responsible of running this measure, always in close collaboration with the German craft chambers

Greece	The Ministry of Labour has launched, in collaboration with other partners, a number of measures aimed at fostering training amongst those employed. Examples include the measure on vocational training for employees of private companies (of which around 70 % of the beneficiaries come from very small companies) or the measure on vocational training for the self employed people or entrepreneurs of very small companies
Iceland	The 'Step Ahead' programme, run by the Icelandic Technology Institute. This programme is intended to facilitate leaders of small firms (micro and spin-off) to seek guidance in marketing, finance, environment, product management and organisation. For this purpose, the programme supports training activities in entrepreneurship and innovation management
Ireland	Skillnets is an enterprise led body set up in April 1999 to provide Irish enterprises with new opportunities to develop relevant, effective answers to their training and development needs. The Skillnets Board includes representatives of different Irish employers and workers' organisations. Skillnets runs the Training Networks Programme, which focuses on mobilising groups or networks of companies to develop strategic responses 'tailor made' to their own needs. Skillnets is funded under the new National Training Fund through the Department of Enterprise Trade and Employment, although enterprises contribute an average of 32 % of the costs of training
Italy	The Italian education and training system is currently being changed in order to allow the recognition of competences acquired in addition to formal learning. The 'Promotion of Employment' law sets out an approach to lifelong learning whereby competences acquired through work can be assessed and potentially recognised in the same way as those acquired through formal institutions.
Luxembourg	The Law of 22nd June 1999 has been developed in order to support and develop continuous vocational training activities amongst the Luxembourgish salaried staff. The State contributes in the form of direct subsidies or tax rebates on the revenue determined in relation to the investments in terms of professional training organised during one or more years. The institution responsible of running this programme is the INFPC (Institut National pour la Formation Professionnelle Continue).
Netherlands	The EVC (Erkenning Verworven Competenties, or Recognition of Acquired Competences) is an information centre, which provides employees and employers information about EVC, contributes to the development of EVC-procedures and stimulates practice of EVC. Basically, EVC aims at increasing the willingness of employers to invest in strategic human resource management, as well as increasing the willingness of employees to take responsibility for their own employability. These objectives are achieved by making personal skills visible, which implies that different forms of learning are now recognised to lead to the learning of specific skills. This measure is run by the Ministry of Economic Affairs in co-operation with the Ministry of Social Affairs & Employment, the Ministry of Education, Culture & Science and the private organisation CINOP.
Norway	The FRAM programme (FRAM is an abbreviation for understand, realistic, accept and measure) is a management and strategy development programme for managers at manufacturing and service enterprises between 5 and 30 employees, whose aim is to improve the participants' competence base. The programme started in 1992, and it is continuously updated. FRAM organises projects on a number of different issues in seven pilot regions on a yearly basis. Basically, two main activities are conducted in parallel within each project, firstly, participation in regional seminars that focus on learning by exchange of experience among participants and, secondly, enterprise expert guidance during a 15-month development process. The programme is organised by the Norwegian Regional and Development Fund.
Portugal	The 'Linha de Acção Inovação Organizacional' (LAIO or Action Line for Organisational Innovation) is run by the INOFOR (Institute for Training Innovation) in partnership with the IDICT (Institute for the Development and Inspection of Working Conditions). The general objective of LAIO is to contribute to organisational innovation amongst the Portuguese private enterprises and co-operatives with 50 to 250 employees. For this purpose, public support is both of a financial nature (subsidies) as well as technical assistance in project implementation, with a strong component of consulting services
Spain	The main goal of the PIPE 2000 ('Plan de Iniciación a la Promoción Exterior' or Introduction Plan to Foreign Promotion) is to increase the number of Spanish exporting SMEs, basically through a cultural and competence change in those Spanish SMEs having potential to export. For this purpose, the PIPE programme provides financial support as well as individualised and specialised advice, offered by a team of tutors and intended to upgrade the SMEs' international competencies. PIPE is run by the Spanish Chambers of Commerce in collaboration with the Spanish Institute for Foreign Trade (ICEX).

United Kingdom	The 'Small Firm Development Account' is designed to provide financial assistance to small enterprises, based in the East Midlands with 5 to 49 employees, who want to invest in the skills and training of their employees against clearly defined business objectives. Additionally, the account is also designed to provide a package of services to help build the capacity of enterprises to identify training needs in line with business needs, and navigate the array of training provision to provide the solution most relevant to enterprises. This measure is sponsored by the Department for Education and Skills, and the Learning and Skills Councils in the East Midlands
Source: ENSR partners.	

Annexe IV
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More information on Enterprise DG

Additional useful information on the work of Commissioner Erkki Liikanen and the Enterprise Directorate-General is available through printed publications and on the web.

Commissioner Erkki Liikanen, responsible for Enterprise and the Information Society:
http://europa.eu.int/comm/commissioners/liikanen/index_en.htm

Enterprise DG on the web:
http://europa.eu.int/comm/dgs/enterprise/index_en.htm

CORDIS (Community Research and Development Information Service):
http://www.cordis.lu

Enterprise DG work programme:
http://europa.eu.int/comm/dgs/enterprise/work_programme_2002.htm

Enterprise DG's printed publications:
http://europa.eu.int/comm/enterprise/library/index.htm

Enterprise Publications

Enterprise Europe is a free-of-charge newsletter published quarterly in the 11 Community languages by the Enterprise Directorate-General. It covers the whole range of Enterprise DG's work, announcing new initiatives as well as providing practical information.
http://europa.eu.int/comm/enterprise/library/enterprise-europe/index.htm

CORDIS focus is published twice a month in English, French, German, Italian and Spanish. It provides a review of the main developments in all aspects of European Union research and innovation activities, covering general policy developments, programme implementation, calls for tenders and results, events, legislative activities, and much more.
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On-line version: pharmacos.eudra.org/F2/eudralex/index.htm

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