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PROGRAMME

Competence Development in SMEs: Practices and Methods for Learning and Capacity Building.

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1. GENERAL INTRODUCTION TO THE NATIONAL REPORT

This is the Spanish report on Competence Development in SMEs for the Leonardo Programme. After this general introduction, section 2 presents the most relevant findings from the national literature review on competence development among Spanish SMEs. More specifically, this section provides information on the definitions used in the Spanish literature on competence development, the degree and extent of involvement of Spanish SMEs in such activities and the identification of competence needs and planning. Also, an overview is given on the rational and barriers for Spanish SMEs to engage themselves in competence development activities, the topics and employment categories most benefited from such activities and organisational learning in SMEs.

Section 3 next deals with the results from the survey carried out among 151 Spanish SMEs on competence development activities, focusing on attitudes of Spanish SMEs towards competence development, the external to-the-enterprise sources of knowledge and knowledge, the actual practices carried out by surveyed firms along with the occupational groups benefited from competence development activities. This section also deals with the formalisation and diffusion of the in-house knowledge, the scanning of competence development needs, the identified skills shortages/gaps and the barriers for SMEs to engage themselves in competence development activities. Finally, a comparison with the European average results is provided.

Section 4 gives an overview of the main findings from the working sessions, providing expert information on issues already dealt with in the literature review and the survey together with the identification of public initiatives aimed at fostering the development of competencies in SMEs.

Finally, and bringing this Spanish report to an end, section 0 presents the conclusions and recommendations to be drawn from the whole research on Competence Development among Spanish SMEs.

2. RESULTS FROM THE NATIONAL LITERATURE REVIEW

2.1. DEFINITIONS USED IN THE SPANISH LITERATURE ON COMPETENCE DEVELOPMENT

The Ibero American Foundation of Knowledge[1] regards ***competence development*** as a vital issue for enterprises since their competitive advantages rely precisely on such competencies or abilities and defines the competence development cycle (or Competence Model) within an organisation. The process starts with the identification of the key competencies, which are made up by two types of competencies:

- *Organisational competencies*: they help differentiate the enterprise in the market.
- Competence profiles, composed by
  - *Corporation Competencies*: those that all the employees must possess in order to enable the enterprise to provide their clients with value.
  - *Role Competencies*: shared by those who are in charge of a series of tasks.
  - *Position Competencies*: set in a context in specific work processes.

Competence Models translate business strategies into competence-based human resource management systems. There must be strategic plans for competence development pinpointing the key organisational competencies, the strategic goals and the key business processes. Also, there are responsible persons appointed for each key competence along with the actual practices (training, mentoring, coaching, etc) regarded for those competencies to be developed and the specific targets to be reached in each one of them.

Competence development implies that knowledge must be easily transferable and applicable to new situations in a way that learning becomes actual competence. Once learning has become competence, it is part of the intellectual capital of the organisation and may be used by it, providing feed-back to the strategic plans for competence development. The Competence Development Cycle is part of the general Competence Management System.

Boronat[2] too provides a classification of competencies based on the existing literature on the topic, identifying the following:

- *Functional competencies*: linked with the firm's strategic orientation, the actual implementation of the strategy and the value-added chain. They are a source of competitive advantage for the enterprise and their proper development demands certain managerial and organisational competencies. They include, among others, competencies in marketing, production and finances.
- Co-ordination competencies, composed by:
    - *Managerial competencies*: creation of a strategic vision and its communication to the entire workforce, along with the detection and exploitation of asymmetries in the markets of strategic factors. Additionally, they play a key role in creating and co-ordinating the other types of competencies.
    - *Organisational competencies*: they either foster or hinder the development of other competencies. They are linked with a mission and business culture that promotes co-operative behaviour and the generation of ideas that may turn into innovation.
- *Dynamic competencies*: renewal of abilities and resources, which is key in fast-paced environments. They deal both with knowledge management and development and learning.

Other concepts linked with competence development are directly addressed by the reviewed literature. In this sense, ***organisational knowledge*** is defined by Ruiz[3] as the one that takes place within an organisational setting, that is, at the enterprise and that stems both from individual knowledge and the organisational, personal and cultural values along with the employees ability to learn and the available organisational resources. Such knowledge is created, disseminated, shared and managed within the enterprise.

Organisational knowledge may either be tacit or explicit. ***Tacit knowledge*** is difficult to express and put into words since it is revealed through actions and highly

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[1] Fundación Iberoamericana del Conocimiento. Available at: www.gestiondelconocimiento.com

[2] Boronat, M., 'Competencias distintivas y tamaño organizativo: análisis de su efecto conjunto en el desempeño' (Distinctive competencies and business size: analysis of their joint effect on business performance), 13th National ACEDE Congress, Salamanca, 2003.

[3] Ruiz, J. et al, 'Conocimiento explícito en PYMES' (Explicit knowledge in SMEs), 11th National ACEDE Congress, Zaragoza, 2001.

determined by the particular individual who holds it. It is a very 'personal' kind of knowledge and, consequently, difficult to be shared with others. On the other hand, ***explicit knowledge*** lies within the organisation and may be shared between the employees and other people interacting with the enterprise since it is kept in easy-to-access documents, files, databases, etc. It is less 'personal' than tacit knowledge and when people leave their jobs it remains within the organisation.

Organisational learning is defined by Ruiz[4] as the process by which the knowledge of both an organisation and its employees is increased through the interpretation and understanding of the existing tacit and explicit knowledge. Organisational learning aims to generate easy-to-codify knowledge that may be transformed into organisational routines. This process is carried out at an organisational level, in a continuous and dynamic way.

Two types of processes may be identified within organisational learning: internal and external learning. The former refers to those activities and practices carried out internally within the enterprise and that are linked with its productive, administrative or sales processes. Existing information and knowledge are transformed into new knowledge that may then be used. On the other hand, external processes rely on the analysis of external information (clients, competitors, the environment, the economy, politics, the markets,..), which is transformed into knowledge through a learning process and then integrated within the enterprise. For these types of learning to take place enterprises must have the adequate tools.

Concerning ***knowledge management***, Almansa[5] identify eight common elements to be included in the definition of knowledge management. According to surveyed enterprises (only 7.8% of which have less than 200 employees), knowledge management is featured by the following:

- Making knowledge explicit and storing it.
- Sharing knowledge and/or information.

[4] Ruiz, J. et al, 'Aprendizaje organizacional en PYMES' (Organisational learning in SMEs), 11th National ACEDE Congress, Zaragoza, 2001.

[5] Almansa, A. et al, 'La Gestión del Conocimiento en España-2001' (Knowledge Management in Spain-2001), IESE Business School and Cap Gemini Ernst & Young, Barcelona, 2002.

- Applying/using knowledge, linking knowledge and its management with the improvement of some of the business processes.
- Managing and developing people, who are the ones that possess the experience and know-how.
- Turning individual knowledge into organisational one.
- Information management, linking knowledge management with the use of information systems.
- Measuring intellectual capital so that knowledge management allows identifying, assessing and measuring 'intangible assets' and their evolution within the company.
- Learning and training, linking knowledge management with the development and learning of abilities by the employees.

2.2. DEGREE AND EXTENT OF INVOLVEMENT OF SMES IN COMPETENCE DEVELOPMENT ACTIVITIES

In order to assess the degree of involvement of Spanish SMEs in competence development activities, an overview of the extent to which Spanish firms –irrespectively of their business size- partake in training practices is presented first. As shown by a report from the main employer association in Spain, CEOE (The Spanish Business Confederation)[6], employee-training activities were carried out by 88% of surveyed Spanish firms in 2000. Back in 1993 this share was as low as 27%. Other relevant data include the following:

- On average, Spanish enterprises devote 1.8% of their wage expenditure to financing employee training. 1.35% is directly spent by employers while the remaining 0.45% stems from public subsidies. The 1.8% figure is significantly greater than the 1% mark from 1993.
- Comparison with other studies/countries is difficult since different elements are included within 'training' under each study.

[6] Córdova, P., et al, 'La formación en las empresas españolas. Situación, tendencias y expectativas' (Training practices in Spanish businesses. Situation, trends and expectations'), CEOE (Spanish Businesses Confederation), March 2001.

- 54% of surveyed enterprises rely on a specific budget to carry out their training activities. This share goes up to 60% among businesses with more than 25 employees. Those firms that carry out all their training activities through the public body in charge of providing continuing training (FORCEM[7] at the time. From July 2001 onwards, the Tripartite Foundation for Training in the Workplace[8]), do not set aside any specific budget.
- Presential courses last on average 26 hours, but they are losing ground against other types of 'tuition': training in the workplace, distance training, etc. Notwithstanding this, 84% of training is still given through presential courses.
- 63% of training takes place during working time, the rate being greater among large and medium sized businesses.
- Similarly, the use of IT, multimedia and the Internet is more common among larger enterprises than it is among their smaller counterparts.

Focusing on smaller firms, a study by the main SME association in Spain, CEPYME (The Spanish Confederation of Small and Medium Sized Enterprises)[9] presents the situation of the Spanish self-employed concerning training practices. It is found out that 85.4% of surveyed self-employed workers believe that training increases their competitiveness even though only 24.9% of them report having attended training courses in the two years prior to the survey. This reveals that access of self-employed workers to continuing training is more limited than among their salaried employees counterparts.

In any case the courses most frequently attended by self-employed workers in Spain in 2001 and 2002 were IT and Internet, Management and Administration and Labour Risk Prevention. Participation shares vary by region, the highest ones being reported in Galicia (31.7%) and Andalusia (29.9%) as opposed to Madrid (19.9%) and the Basque Country (19.3%), that report the lowest figures. On average, self-employed people who attend training courses are aged between 30 and 39, they have vocational training or university degree as their highest educational

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[7] Fundación para la Formación Continua (Foundation for Continuing Training).
[8] Fundación Tripartita para la Formación en el Empleo (Tripartite Foundation for Training in the Workplace).
[9] CEPYME, 'Autónomos y formación: Necesidades, demandas y resultados' (Self-employed and training: Needs, demands and results), Madrid, 2003.

attainment and carry out their tasks in education, health, finance or business services sector.

These literature findings may be complemented with statistical data on the access to continuing training courses. As it may be seen in Table 1 below, almost one in four (23.5%) surveyed salaried workers in Spain report having attended continuing training courses, the share increasing with business size. In this sense, while only one out of ten micro enterprise workers in Spain (10.4%) are provided with continuing training courses, this share almost doubles among small firm employees (19.5%) and goes up to 29.9% in medium sized businesses. As opposed to this, almost half of all large enterprise workers (44.2%) report having attended continuing training courses. Therefore, it may be concluded that there is indeed a positive link between the chances of accessing to continuing training and business size.

Table 1. Percentage share of salaried workers being provided with continuing training, by business size. 2002.

Business size	Percentage share over total salaried workers
Under 10 employees	10.4
10 to 49 employees	19.5
50 to 249 employees	29.9
250 and above	44.2
Total	23.5

Source: Spanish Ministry of Labour and Social Affairs, 2002 Yearbook, Madrid, 2003.

When building on the actual type of training given (formal or informal) and relying on 1999 data[10], it may be seen that participation in formal courses (both internal and external) is the most common training practice among all business sizes (see Table 2 below). However, there are remarkable differences among the actual share of employees attending courses in micro enterprises (5.6%) and the one among their larger counterparts (42.8%), suggesting once again a significant positive link between business size and participation in training courses.

As far as non-formal training activities are concerned, participation shares across all business sizes are notably lower than the ones observed for formal practices

[10] The Survey on Continuing Vocational Training (Encuesta de Formación Profesional Continua) has been carried out once, in 1999, and data have not been updated ever since.

(see Table 2 below). Thus, the share of workers that report taking part in planned training periods in the workplace (making use of the daily working tools) drops to 4.1% among micro enterprise workers and 6.2% among their small business counterparts. Even large enterprises report a share below the 20% mark (16.8%). In any case, the remaining informal practices show even lower participation rates, the lowest ones being participation in quality circles.

It is also worth pointing out that the positive relationship between business size and participation in training practices holds for all types of training considered except for job rotation, which reports higher employee participation among medium sized enterprises (5%) than among their larger counterparts (4.4%). Nonetheless, the difference is very slim.

Table 2. Percentage of workers (over total workforce) taking part in training activities, by business size and type of training. 1999.

Type of learning	Employee range			
	5-9	10-49	50-249	250 and above
Formal				
• Courses (internal and external)	5.6	9.8	20.3	42.8
Informal				
• Planned periods in the workplace	4.1	6.2	9.8	16.8
• Job rotation (both inside and outside the enterprise)	2.5	3.4	5.0	4.4
• Quality circles	2.2	3.2	4.4	4.4
• Self-learning	2.6	2.2	2.4	9.4
• Conferences and seminars	3.2	3.9	7.3	9.0

Source: Survey on Continuing Vocational Training, Spanish Ministry of Labour and Social Affairs, Madrid, 1999.

Additionally, Idigoras[11] argue that Basque SMEs make use of tools aimed at fostering information exchange at all organisational levels. In has to be pointed out though that their study focuses on a reduced sample of 'excellent' SMEs, made up by enterprises reporting increasing profits for a considerably large period of time and that make use of advanced management tools. Therefore, their results are statistically insignificant due to the reduced sample and, furthermore, cannot possibly be inferred to all Basque SMEs since the sample is biased in favour of 'excellent' SMEs. In any case, their main findings are the following:

[11] Idigoras, I., et al, 'PYMES excelentes: el caso del País Vasco' (Excellent SMEs: the example of the Basque Country), in Papeles de Economía Española, no. 89-90, Madrid, 2001.

- Practices used by the aforementioned SMEs include, among others, interdepartmental work groups, improvement groups, letterboxes for employee-suggestions, explanatory meetings about the business performance, etc.
- These enterprises regard training, both general and specific, as a business priority.
- Most of them (85.7%) report having implemented a total quality management system. Many of them have adopted it in response to their customers' requirement.
- 71.4% of surveyed excellent SMEs in the Basque Country report having adopted a knowledge management system, though half of them are still in the early stages. The knowledge management philosophy is highly regarded by the businesses but they find it difficult to implement it in practical terms.

Ruiz[12] focus on *organisational knowledge* and its degree of formalisation, which is found to be higher among greater firms. As it has been stated above, organisational learning takes place in an organisational setting, at the enterprise, stemming from individual knowledge and the organisational, personal and cultural values along with the employees' ability to learn and the available organisational resources. Such knowledge is created, disseminated, shared and managed within the enterprise. It is argued that SMEs have to develop two main types of processes or activities in order to achieve their needed knowledge:

- Learning, which transforms information into knowledge. While information is explicit, knowledge may either be tacit or explicit.
- The process of making knowledge explicit, transforming tacit knowledge of individuals in explicit knowledge, so that it may be shared between the employees and other people interacting with the enterprise since it is kept in easy-to-access documents, files, databases, etc. It is less 'personal' than tacit knowledge and when people leave their jobs it remains within the organisation.

Based on an assessment of the degree of formalisation of such knowledge, an 'explicit knowledge index' (EKI) is defined, analysing the practices and documents through which businesses make their knowledge explicit along with the actual tools that foster such explicit knowledge. In this sense, the EKI regards both knowledge formalisation indicators (KFI) and tools (T) that foster knowledge being made explicit. The former deal with the documents and practices that allow knowledge to be disseminated, analysed, shared and even increased, both within and outside the organisation. The latter are the needed tools for formalisation to be carried out efficiently and include databases, electronic networks, work group systems, intranets, the internet. Hence:

EKI = KFI + T

On average, surveyed SMEs[13] make use of 12.13 documents and practices (out of the suggested 26), hence rendering an acceptable degree of explicit knowledge. It may be seen that both practices (9.8 on average, out of 21) and tools (2.3 out of 5) report similar respective usage shares around that overall 46.6%.

It is found out that business size plays a positive role on the overall EKI value, this result being statistically significant (see Table 3 below). The same holds for business turnover whereas the share of temporary employment and business age do not have an influence on EKI. The average degree of explicit knowledge is positively correlated with business size so that SMEs report higher scores than micro and small enterprises. This holds particularly for tools that foster knowledge formalisation.

Table 3. Average EKI level, by business size. 2001.

Business size	Average number of practices and tools		
	EKI overall	Practices	Tools
Micro enterprise	10.5	8.8	1.7
Small	11.4	9.3	2.1
Medium sized	13.8	11.0	2.8
Total average	**12.1**	**9.8**	**2.3**

Source: Ruiz, J. et al, 'Conocimiento explícito en PYMES' (Explicit knowledge in SMEs), 11th National ACEDE Congress, Zaragoza, 2001.

[12] Op. cit.

[13] The survey was carried out between January and March 2001 among 157 agrarian businesses from the region of Murcia, south-eastern Spain.

2.3. IDENTIFICATION OF COMPETENCE NEEDS AND PLANNING

It is reported in the study by CEOE[14] that almost all surveyed managers (99%) state to be in charge of analysing the general problems and possible solutions related with their actual jobs. In this sense, 81% of surveyed firms report that all workers have a chance to take part in such an analysis every now and then, through their participation in periodical meetings, quality circles, work-groups, etc.

When it comes to assessing training needs of the personnel, 86% of surveyed managers report to be in charge of such tasks. In any case, 63% of businesses turn to training centres and consulting firms for planning and carrying out their training activities. Completion of training plans is assessed along with the opinion of participants in training activities and issues such as the applicability of what has been learned to the actual job, the acquisition of new knowledge and professional skills and whether or not training has induced changes in the company. It has to be added though that an assessment of the contribution of training to the firm productivity and the satisfaction of participants' managers hardly ever takes place.

Additionally, 40% of surveyed firms state that they have a competence system, even though the term 'competence' seems to be ambiguously interpreted by the enterprises. Nonetheless, there is no available information on the actual ambiguity.

2.4. RATIONALE AND BARRIERS FOR SMES TO ENGAGE THEMSELVES IN COMPETENCE DEVELOPMENT ACTIVITIES

One of the most important barriers for enterprises to engage themselves in competence development activities appears to be the lack of time. In this sense, a study by CEPYME[15] gives an overview of the main problems encountered by Spanish self-employed when trying to carry out training activities. It is found out that 46% of surveyed self-employed who do not attend training courses argue that the lack of time is the main reason why they cannot attend training courses. The second most common factor is the lack of interest or belief that training is not neces

[14] Op. cit.
[15] Op. cit.

sary, scoring 32% of replies. Other suggested reasons include the lack of information (12.1%), feeling too old to attend training courses (5.5%, all of which are aged above 49) and the lack of adequacy of the courses to the enterprise needs (5.1%). It has to be added that, by economic activity sector, the greatest difficulties when it comes to attending training courses are reported by manufacturing, construction, retailing, catering and personal services.

Idigoras[16] argues that as opposed to total quality management systems, the implementation of knowledge management systems appears to be a voluntary decision of the enterprises rather than a customer requirement. All surveyed enterprises[17] regard these management systems (knowledge and total quality) as key for increasing their competitiveness through improved internal organisation and management and customer satisfaction. It is worth adding though that most of them had previously defined the goals they were aiming for when implementing these management systems. In this sense, total quality management systems provide the highest satisfaction degrees among surveyed firms, somewhat higher than knowledge management, which in any case, are implemented among fewer enterprises.

The implementation of these models/systems is fostered by the following elements:

- Having a clear leadership.
- Flat organisational structures as opposed to functional ones.
- Strong and flexible business cultures.
- Fluent communication.
- Commitment, involvement and adequate training of the entire workforce.
- Full involvement of management, both for the implementation of these systems and the completion of goals. All surveyed managers have stated so.

Boronat[18] suggests that the three types of competencies defined, that is, functional, co-ordination –managerial and organisational- and dynamic competencies

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[16] Op. cit.

[17] It has to be borne in mind that their sample cannot possibly be regarded as representative of SMEs since it is composed by so-called 'excellent' SMEs.

[18] Op. cit.

(see section 2.1 above) have indeed a positive effect on business performance, especially functional competencies, followed by dynamic ones and finally, co-ordination competencies. It is also found out that business size also plays a positive role on business performance, but not through a moderating effect of competencies. That is, there appear to be other factors that may explain why larger firms report better business performance but this does not seem to respond to a moderating effect of smaller size on the influence of competencies.

In other words, her findings point towards the existence of different distinctive competencies among enterprises hinting that both small and large companies have advantages that, albeit different, may still lead to the creation of distinctive competencies. Furthermore, the smaller size of SMEs does not represent a burden to fulfil their competencies and having another set of competencies does not necessarily make smaller firms less competitive.

Almansa[19], focusing on knowledge management, find that the main goals for enterprises to engage themselves in such practices are to foster individual learning of the workforce and support those actions taken by the firms aimed at increasing its sales and efficiency. A vast majority of surveyed firms that have adopted knowledge management report having benefited from positive effects (81%), whereas only 2% state the opposite. These positive effects include greater capacity to adapt to changes (23.3%), profitability, cost reduction and efficiency (23.3%) and increased knowledge of customer needs, satisfaction and loyalty (16.3%).

It is also shown that though surveyed managers stress the key role of a proper organisational culture or context for the effectiveness of knowledge management initiatives, they do not seem to be willing enough to commit neither the needed resources nor the required effort. They appear to believe instead that it is a task of employees to motivate themselves and contribute to knowledge development, which leads the author to suggest that there may be an implementation problem of knowledge management systems.

Suggested barriers by enterprises when it comes to engaging themselves in knowledge management activities point at knowledge management not being a priority for firms (41%) along with the lack of information (16%), of knowledge of the concept (16%) and cultural barriers (16%). It is worth adding that 11% of

[19] Op. cit.

surveyed firms argued that they had not adopted knowledge management initiatives due to their reduced staff, by which it can be inferred that the reduced size of SMEs makes them face more difficulties in this respect.

Results suggest that many enterprises have 'adopted' knowledge management by implementing a technology tool first and then, expecting the employees to make use of it, rather than approaching it as a whole new business culture.

2.5. TOPICS AND EMPLOYMENT CATEGORIES BENEFITED BY THE COMPETENCE DEVELOPMENT ACTIVITIES

The study by CEPYME[20] reveals that the most attended courses in 2001 and 2002 by self-employed workers in Spain were IT and Internet, Management and Administration and Labour Risk Prevention. By economic activity sector, the greatest difficulties to attend training courses are reported by manufacturing, construction, retailing, catering and personal services.

2.6. ORGANISATIONAL LEARNING IN SMES: PRACTICES AND BARRIERS, STORAGE AND DISSEMINATION.

As it has been mentioned above (see section 2.1), ***organisational learning*** may be defined as the process by which the knowledge of an organisation and its employees is increased through the interpretation and understanding of the existing tacit and explicit knowledge. Its goal is to generate easy-to-codify knowledge that may be transformed into organisational routines. This process is carried out at organisational level in a continuous and dynamic way.

Two types of processes may be identified within organisational learning: internal and external learning. The former refers to those activities and practices carried out internally within the enterprise and that are linked with its productive, administrative or sales processes. Existing information and knowledge are transformed into new knowledge that may then be used. On the other hand, external processes rely on the analysis of external information (clients, competitors, the environment, the economy, politics, the markets,..), which is transformed into knowledge through a learning process and then integrated within the enterprise. For these types of learning to take place enterprises must have the adequate tools.

Bearing this in mind, Ruiz[21] aims to assess the degree of organisational learning among SMEs along with the influence of a series of variables -business size, business age and flexibility of human resources (measured as the share of temporary employment)- on the degree of organisational learning. In order to assess these variables, an organisational learning index (OLI) is defined, including both internal and external learning practices along with tools that foster learning. More specifically, the OLI allows measuring the learning level of each enterprise taking into account the number of both internal (ILP) and external practices (ELP) along with the needed tools (T) to achieve new knowledge within the organisation. Hence, the OLI may be expressed as follows:

$$OLI = ILP + ELP + T$$

On average, it is found out that the degree of organisational learning among surveyed firms[22] is not very high, scoring 9.6 out of 22 identified practices, even though it may still be regarded as acceptable, since these firms carry out almost half of all considered activities. The average levels for the respective indexes making up the OLI show that on average, surveyed SMEs make use of 2.3 internal learning practices (out of a total of 8), 2.8 external learning practices (out of 5) and 4.4 tools aimed at fostering organisational learning (out of 9). Relatively speaking, it is found out that internal learning practices report the lowest values, which suggests that SMEs have the proper tools to foster organisational learning but that these are not used to their full potential, particularly when it comes to internal learning.

The distribution of the OLI value by business size (see Table 4 below) reveals a statistically significant difference hinting at a positive link between business size and the overall OLI value, by which the greater the firm the higher the number of organisational learning practices and tools. It is also seen that the difference by business size is mainly driven by the use of tools that foster organisational learn

[20] Op. cit.
[21] Op. cit.
[22] Results come from a survey carried out between January and March 2001 among 157 agrarian businesses from the region of Murcia, south-eastern Spain. The regarded items include 8 internal learning practices, 5 external learning practices and 9 learning facilitating tools.

ing, which is significantly greater among medium sized firms (5.4) than among micro (3.1) and small (4.3) enterprises.

Table 4. Average OLI level, by business size. 2001.

Business size	OLI overall Average number of practices and tools
Micro enterprise	7.7
Small	9.4
Medium sized	11.0

Source:Ruiz, J. et al, 'Aprendizaje organizacional en PYMES' (Organisational learning in SMEs), 11th National ACEDE Congress, Zaragoza, 2001.

On the other hand, business age does not have an influence on organisational learning while labour flexibility, measured as the share of temporary employment total seems to have a negative role on organisational learning. Hence, the OLI goes up when permanent workers are hired.

Prieto[23] states that knowledge management exerts a positive influence on organisational learning, for which knowledge management practices must comprise technology co-ordination elements along with fostering knowledge-oriented behaviour among the staff. In any case, different approaches to knowledge management may be identified depending on the emphasis placed on each of the two aforementioned elements. As a result of this, the effects on organisational learning will differ.

In this sense, it is argued that the most common practice of adopting knowledge management systems by implementing first the co-ordinating (technical) elements along with the information systems may hinder the fulfilment of the entire learning potential of the firm. According to the authors, by setting up first the technology in support of storing and disseminating knowledge, firms risk limiting themselves to exploiting their actual knowledge rather than fostering new one. Instead, it is pointed out that the adoption of a knowledge management system should preferably start by fostering a knowledge-oriented behaviour among the staff, in order for them to be involved in the whole process, and then move onto co-ordinating and information analysis systems. In any case, those enterprises that are able to focus both on technical elements together with behavioural ones are the ones likely to

[23] Prieto, I., et al, 'Estilos de gestión del conocimiento. La velocidad de aprendizaje como factor clave' (Knowledge management styles. Learning speed as key factor), 13th National ACEDE Congress, Salamanca.

maximise their learning potential since knowledge management calls for a new definition of the interaction among the employees, processes and technology.

2.7. GENERAL CONCLUSIONS TO BE OBTAINED FROM THE AVAILABLE LITERATURE

As it has been shown, no literature dealing directly with competence development activities among Spanish SMEs has been found. Instead, relevant literature on the topic seems to focus more on a series of issues closely linked with competence development, such as knowledge management, organisational learning and organisational knowledge. Nevertheless, Spanish literature[24] regards competencies as the factors upon which the competitive advantages of businesses rely. Furthermore, competence development implies that knowledge must be easily transferable and applicable to new situations in a way that learning eventually becomes actual competence.

Concerning the extent of involvement of Spanish SMEs in competence development activities, the concept is ambiguously interpreted by enterprises[25] and hence, does not render significant results. In any case, there is remarkable information on participation in training activities, suggesting a positive link between business size and the percentage share of employees attending formal training courses. In this sense, 10.4% of micro-enterprise workers are provided with training as opposed to 44.2% among large enterprises. Informal training reports lower shares than formal practices among all business sizes, and generally speaking, the positive relationship with firm size holds too.

Business size also seems to play a role when it comes to the formalisation of the degree of organisational knowledge. It is shown that larger businesses make use of a greater number of both practices to make knowledge explicit and tools to foster explicit knowledge. Additionally, it is found out that 'excellent SMEs'[26] are featured by having adopted knowledge and total quality management systems and the fact that training is a business priority for them.

[24] Ibero American Foundation of Knowledge, op. cit.
[25] CEOE, op. cit.
[26] Idigoras, op. cit.

The identification of competence needs appears to lie mostly among firm managers even though it is found out[27] that a majority of businesses (63%) turn to training centres and consulting firms for planning and carrying out their actual training activities.

Lack of time is reported to be one of the most important barriers for the adoption of competence development activities (more specifically, attending training courses), followed by the lack of interest in the topic. With regards to knowledge management, the topic not representing a priority for the firm is the main obstacle but it is also worth stressing that 11% of surveyed firms[28] argue that their limited business size (in terms of number of workers) hinders their chances to adopt a knowledge management system.

Concerning the reasons to adopt knowledge management systems[29], it is argued that as opposed to total quality management, they are adopted voluntarily by enterprises due to the belief that they will improve internal organisation and both management and customer satisfaction. It is also suggested[30] that the main goal of knowledge management systems is to foster individual learning and increase business efficiency. In this sense, it may be added that a majority of firms report having enjoyed positive effects as a result of their knowledge management systems, the most frequent ones being an increased capacity to adapt to changes and greater profitability.

Finally, organisational learning too is found to be positively correlated with business size[31], by which the greater the number of employees the higher the number of organisational learning practices and tools. It is suggested[32] that knowledge management plays a positive role on organisational learning, even more so if it is initially adopted by fostering a knowledge-oriented behaviour among the staff rather than by implementing first technology in support of storing and disseminating knowledge.

[27] CEOE, op. cit.
[28] Almansa, op. cit.
[29] Idigoras, op. cit.
[30] Almansa, op. cit.
[31] Ruiz, op. cit.

3. COMPETENCE DEVELOPMENT ACTIVITIES IN NATIONAL SMES: RESULTS FROM THE SURVEY

3.1. DESCRIPTION OF THE SAMPLE

The sample of surveyed enterprises in Spain is made up by 151 businesses from the whole of the Spanish territory, including both the Balearics and the Canary Islands. By business size the distribution is almost perfectly balanced, 49% of the surveyed enterprises being small firms (10-49 employees) and the remaining businesses being medium sized enterprises (50-249 employees) (see Table 5 below).

By economic activity sector, surveyed enterprises have been classified into seven main sectors: food and beverage, textile, clothing, leather and shoes, woods and furniture, paper and print, fuel, chemical and plastic, metal products, machinery and equipment, and electric and electronics. The respective shares of each of the sectors in the total sample range from 13.2% (fuel, chemical and plastic) to 15.9% (metal products, machinery and equipment).

Table 5. Sample breakdown by companies' size and sector

COMPANIES' CHARACTERISTICS	Number of companies	%
Size (Employment)		
10-49	74	49.0
50-249	77	51.0
Sector		
Food and beverage	22	14.6
Textile, clothing, leather and shoes	21	13.9
Woods and furniture	21	13.9
Paper and print	22	14.6
Fuel, chemical and plastic	20	13.2
Metal products, machinery and equipment	24	15.9
Electric and electronics	21	13.9
TOTAL	**151**	**100.0**

Source: Ikei and ENSR partners, CODE Leonardo project

The survey has been conducted by telephonic interviews with the owner, general manager, human resources director, training director or other director of the enterprises. The prospective respondents have been contacted by phone in the first place and after agreeing on taking part in the survey, the questionnaire has been sent to them via mail, fax or e-mail. As it has been mentioned above, completion

[32] Prieto, op. cit.

of the actual survey has been carried out by phone, through telephonic interviews that been held between March and May 2005.

The results of the Spanish survey are to be placed in a context featured by the massive presence of SMEs. In this sense, the Spanish business structure -and also the European one- reveals a huge share of SMEs in the total number of enterprises, making up 99.8% of all businesses in Spain (see Table 6 below). This figure equals that reported by the EU-19 average. Building on the different business sizes, it may be stressed that a vast majority of these SMEs are actually micro enterprises, which make up 93.9% of all enterprises in Spain. As a result of their predominant relative weight, the average enterprise in Spain has five employees. The EU-19 average shows similar results, with a 93.1% share of micro enterprises and an average business size of six employees. Small firms represent 5.2% of all businesses in Spain (5.9% on average in the EU-19), while the relative weight of medium-sized firms in the total drops to 0.7% (0.8% in the EU-19).

Table 6. Percentage distribution of employment and enterprises, by business size. Spain and the EU-19. 2000.

Business size	Enterprises		Employment	
	Spain	EU-19	Spain	EU-19
Micro enterprises	93.9	93.1	47.3	34.3
Small	5.2	5.9	20.0	19.0
Medium sized	0.7	0.8	12.5	13.1
Total SMEs	99.8	99.8	79.8	66.4
Large enterprises	0.2	0.2	20.2	33.6
Total	100.0	100.0	100.0	100.0

Source: 'The 2002 Observatory of European SMEs', DG Enterprise and 'Informe: las PYME en España 1996-2000 (Report: SMEs in Spain 1996-2000), SME Directorate General, Spanish Ministry of Economics.

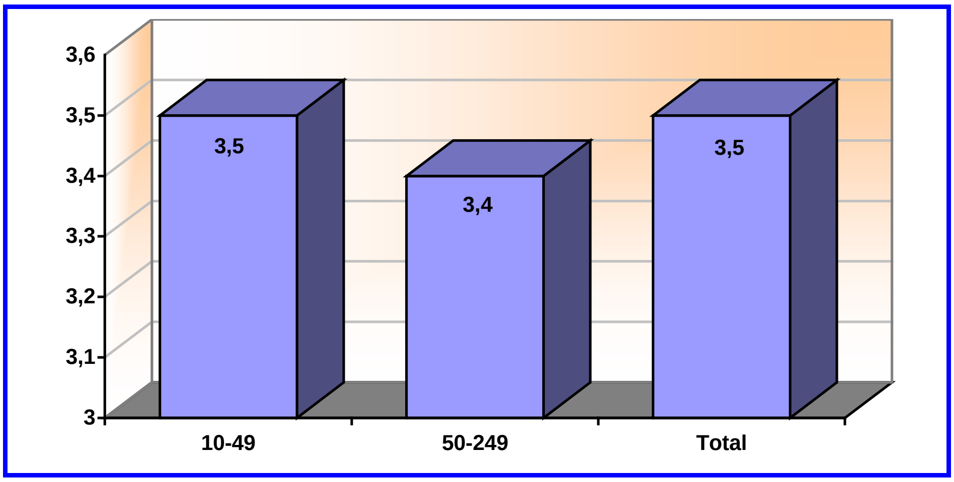
The distribution of total employment across different business sizes shows that almost four in five Spanish employees (79.8%) work at SMEs (see Table 6 above), this share being lower for the EU-19 average (66.4%). Employment in SMEs reveals once again the main role of micro enterprises, which employ almost half of Spanish employees (47.3%). One in five employees in Spain (25%) work at small firms, whereas 12.5% do it at medium-sized enterprises.

The respective average shares in the EU-19 show a lower share of micro enterprise employment (34.3%) and more similar ones of small and medium-sized ones (19% and 13.1%, respectively). The greatest difference stems from employment in large enterprises, which in Spain equals one fifth of total employment (20.2), the EU-19 average share being as high as one third (33.6%).

3.2. ATTITUDES OF THE ENTERPRISES TOWARDS COMPETENCE DEVELOPMENT ACTIVITIES

Surveyed enterprises in Spain regard competence development as important for sustaining their competitiveness. More specifically, on average Spanish enterprises rate the degree of importance 3.5 points on a scale ranging from 1 (not important) to 4 (very important) (see Graph 1 below).

Graph 1. Importance attributed by enterprises to the competence development activities for sustaining their competitiveness, by enterprise size



Results from '1'= Not important to '4'=very important
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

By business size there are no remarkable differences found. In this sense, small enterprises in the 10 to 49 employee-range rate the degree of importance of competence development activities for sustaining their competitiveness at 3.5 (on the same scale from 1 to 4), while medium sized ones (50 to 249 employees) rate it at 3.4.

3.3. EXTERNAL-TO-THE-ENTERPRISES SOURCES OF KNOWLEDGE AND COMPETENCE

The most relevant external sources of knowledge and competence for the surveyed businesses in Spain are the clients (see Table 7 below). On a scale ranging from 1 (not relevant) to 4 (very relevant), enterprises rate clients at 3, being followed by suppliers (2.6) and competitors and business colleagues (2.6). As opposed to them, universities and training centres are rated at 1.9 points, the lowest score among the different regarded sources, while the government and public agencies score 2 points. In any case it is worth stressing that, on average, no actor has been rated as irrelevant when it comes to representing an external source of knowledge and competencies.

Table 7. Relevance for the enterprises of different actors as sources of knowledge and competencies, by enterprise size

	Enterprise size		
	10-49	50-249	Total
Recruitment of new external personnel with required new competencies	2.3	2.4	2.3
Suppliers	2.6	2.7	2.6
Clients	3.0	3.2	3.0
Competitors and business colleagues	2.6	2.4	2.6
Consultants and accountants/auditors	2.2	2.6	2.2
Universities and training centres	1.9	2.2	1.9
R&D centres and technical experts	2.1	2.2	2.1
Business and Trade Associations	2.3	2.5	2.4
Government & public agencies	2.0	2.0	2.0

Results from ‘1’=not relevant for my enterprise to ‘4’=very relevant for my enterprise
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

By business size, both small and medium sized enterprises rate clients as the most relevant external source of competence: 3 and 3.2 points, respectively, on a scale ranging from 1 to 4. Small enterprises rate suppliers (2.6) and competitors and business colleagues (2.6) as the joint second most relevant external source of knowledge and competence, while universities and training centres (1.9) and government and public agencies (2) are granted the lowest score.

Spanish medium sized enterprises also rate suppliers as the second most relevant external source of knowledge and competence (2.7), being followed by consultants and accountants/auditors (2.6). As opposed to small businesses, competitors and business colleagues are ranked joint fifth (along with recruitment of new external personnel with the required competencies), after business and trade associations.

Another slight difference is brought about by the least relevant external source of knowledge and competence. In contrast with both small businesses and the overall average, which tipped universities and training centres as the least relevant source (2), medium sized businesses regard government and public agencies as the least relevant external source of knowledge and competence (2 points on a scale from 1 to 4). It is followed by R&D centres and technical experts (2.2) and universities and training centres (2.2).

3.4. PRACTICES FOR INCREASING ENTERPRISES' COMPETENCE LEVELS

Practices for increasing the enterprises' knowledge, competence and skill base may be either external or internal to the enterprise. Focusing first on the external practices, Spanish businesses regard visiting expositions and trade fairs as the most relevant external practice, being rated 2.8 points on a scale ranging from 1 (not relevant for my enterprise) to 4 (very relevant for my enterprise). Ranked joint second, all with a score of 2.4 points, lie attending courses provided by external-to-the-enterprise personnel, reading information available in trade and sector magazines and reading information available on the Internet (see Table 8 below).

By way of contrast, job rotation and exchanges with other enterprises are rated as the least relevant external-to-the-enterprise practices, scoring 1.2 points on a scale from 1 to 4. They are followed by study visits to other enterprises/institutions (1.6) and the analysis of patents and licenses (1.7).

By business size, and as far as external practices are concerned, there are no significant differences. In this sense, both small and medium sized enterprises in Spain rate visits to expositions/trade fairs as the most relevant external practice when it comes to increasing the enterprises' knowledge, competence and skill base. As opposed to this, job rotation and exchanges with other enterprises are regarded as the least relevant practice by both small and medium sized businesses.

Regarding internal-to-the-enterprise practices, on-the-job learning/learning in the daily work is regarded to be the most relevant practice for increasing the businesses' knowledge, competence and skill base, with an average score of 2.9 on a scale from 1 to 4 (see Table 8 below). Meetings amongst personnel for knowledge exchange/quality circles lie second (2.6), followed by the provision of internal training courses/seminars by own personnel. On the other hand, apprenticeship schemes (1.8) and self-study activities during working time (1.9) are regarded as the least relevant internal practices for increasing the enterprises' knowledge, competence and skill base.

Table 8. Relevance of different practices for increasing the enterprises' knowledge, competence and skill base, by enterprise size

	Enterprise size		
	10-49	**50-249**	**Total**
External-to-the-enterprise practices			
Visits to expositions/trade fairs	2.8	2.7	2.8
Attendance to conferences/seminars provided by external personnel	2.1	2.4	2.1
Attendance to training courses provided by external-to-the enterprise personnel	2.3	2.6	2.4
Co-operation with other enterprises	1.9	2.0	1.9
Study visits to other enterprises/institutions	1.6	1.7	1.6
Job rotation and exchanges with other enterprises	1.2	1.2	1.2
Reading of information available in trade and sector magazines, publications	2.4	2.5	2.4
Reading of information available in Internet (websites, databases, etc)	2.3	2.6	2.4
Analysis of patents and licenses	1.7	2.0	1.7
Internal-to-the-enterprise practices			
Internal training courses/seminars provided by own personnel	2.2	2.5	2.3
Self-study activities during working time	1.9	1.8	1.9
On the job learning/learning in the daily work (for current personnel)	2.8	3.0	2.9
Job /task rotation (in-house)	2.2	2.4	2.2
Coaching/guidance activities for staff by other people in the enterprise	2.1	2.3	2.2
Tutor/mentoring systems for new employees	2.2	2.3	2.2
Apprenticeship schemes	1.8	2.0	1.8
Meetings amongst personnel for knowledge exchange/quality circles	2.6	2.8	2.6
Innovation and R+D activities	2.2	2.6	2.2

Results from '1'=not relevant for my enterprise to '4'=very relevant for my enterprise
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project.

With regards to business size, both small and medium sized Spanish businesses rate on the job learning as the most relevant internal practice for increasing the knowledge, competence and skill base of businesses: 2.8 and 3 points, respectively, on a scale from 1 to 4. Quality circles rank second for both types of enterprises, the score being slightly higher among medium sized businesses (2.8) than among their smaller counterparts (2.6).

Concerning the least relevant internal practices, Spanish small businesses rate apprenticeship schemes 1.8 points on a scale ranging from 1 to 4, while self-study activities are granted a 1.9 score. Medium sized enterprises too regard these practices as the least relevant ones but in reverse order to their smaller counterparts: 1.8 points for self-study activities and 2 points for apprenticeship schemes.

Moving onto the preference of formal or informal training practices, the survey results reveal that more than half of Spanish enterprises (54.3%) regard formal and informal training equally and do not opt for either of them (see Table 9 below). Over two thirds of surveyed firms (34.7%) prefer informal training and knowledge acquired on the job whereas only 10.6% choose formal training acquired on a course (external or internal) as their preferred type of training.

Table 9. Percentage of enterprises, according to their preference of formal/informal training practices, by enterprise size

	Enterprise size		
	10-49	50-249	Total
The formal training acquired in a course (external or internal)	11.2	6.4	10.6
The informal training and knowledge acquired on the job	35.2	31.3	34.7
Both equal	53.6	59.1	54.3
Don't Know/ No answer	0.0	3.1	0.4
TOTAL	**100.0**	**100.0**	**100.0**

All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

By business size, there seems to be a slightly greater preference for informal training among small businesses (35.2%) than among their larger counterparts (31.3%). Notwithstanding this, it is also worth adding that the share of Spanish small businesses preferring formal training almost doubles that of medium sized enterprises: 11.2% and 6.4%, respectively. Hence, it cannot possibly be concluded what type of training is preferred by small or medium sized enterprises and, in any case, the majority of both types of enterprises regard formal and informal practices as equally important: 59.1% among medium sized enterprises and 53.6% among their smaller counterparts.

3.5. OCCUPATIONAL GROUPS BENEFITING FROM COMPETENCE DEVELOPMENT ACTIVITIES

When analysing the occupational groups that take part in competence development activities a significant difference is found between external and internal activities (see Table 10 below). Starting with external activities it can be seen that it is directors and managers (66.4% of surveyed enterprises) and middle management/technicians (60.1%) who mostly benefit from taking part in these kind of activities. By way of contrast, only 3.7% of surveyed enterprises report manual workers/operators taking part in external activities, the share going up to 5.5% when it comes to clerks/administrative personnel.

As opposed to this, participation in internal activities reveals that middle management/technicians is the group that benefits most from taking part in internal activities (76.6% of surveyed enterprises), followed by manual workers/operators (56.8%). In contrast to the external activities, directors and managers report the lowest participation rate in internal activities (18.1% of surveyed firms), lying even behind clerks/administrative personnel (18.2%).

Table 10. Percentage of enterprises, according to the occupational groups mainly benefited from enterprises' external and internal competence development activities, by enterprise size

Group categories	External activities			Internal activities		
	10-49	50-249	Total	10-49	50-249	Total
Directors and managers	66.8	63.8	66.4	18.2	17.5	18.1
Middle management, technicians	58.5	70.2	60.1	76.7	76.5	76.6
Manual workers, operators	3.5	5.1	3.7	56.2	60.5	56.8
Clerks, administrative personnel	5.2	7.5	5.5	18.0	19.3	18.2

Vertical totals may sum more than 100% as enterprises were requested to identify the two groups mostly benefited.
All enterprises.
Source: Ikei and ENSR partners, CODE Leonardo project.

The analysis by business size reveals no significant differences and the results found for the overall average hold for both small and medium sized enterprises. If anything, and as far as external activities are concerned, there is a higher share of medium sized enterprises reporting participation of middle management/technicians than among their smaller counterparts: 70.2% and 58.5%, respectively.

3.6. FORMALISATION AND DIFFUSION OF THE IN-HOUSE KNOWLEDGE

3.6.1. Formalisation of in-house knowledge

The degree of formalisation of in-house knowledge may be assessed through the extent to which a series of management tools are used by enterprises. In this sense, 76% of surveyed businesses in Spain report having a formal organisation chart while 61.9% of them have written manual (s) describing the main tasks and activities of each working post and 61.1% make use of quality management systems (see Table 11 below). As opposed to this, ISO certifications are used by less than half of surveyed enterprises in Spain (43.1%).

Table 11. Percentage of enterprises with formalised management tools, by enterprise size

Variables	Enterprise size		
	10-49	50-249	Total
A formal organisation chart	75.2	81.4	76.0
A formal strategic plan	56.6	53.0	56.1
Written manual(s) describing the main tasks and activities of each working post	61.2	65.8	61.9
Written manual(s) describing the productive standards and routines	52.5	50.9	52.3
Quality management systems	59.5	71.6	61.1
ISO certifications (9000, 14000, others)	41.0	56.1	43.1

All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

A breakdown by business size shows that both small (10-49 employee range) and medium sized businesses (50-249 employee range) in Spain report formal organisation charts as the most common formalised management tool: 75.2% and 81.4%, respectively. In any case, it may be seen that, generally speaking, most of the tools are less frequently used among small businesses than among their larger counterparts, except for having a formal strategic plan and defining written manual(s) describing the productive standards and routines.

In this sense, the use of written manual (s) describing the main tasks and activities of each working post and the implementation of quality management systems are the next most widely used tools by both small and medium sized Spanish enterprises. Nonetheless, the respective shares of user enterprises are larger among the latter, the gap being particularly significant when it comes to quality management systems: 71.6% among medium sized enterprises vs. 59.5% among small businesses.

As far as the least common tools are concerned, ISO certifications report the lowest share of use among Spanish small businesses (41%), whereas among medium sized businesses it is the use of written manual(s) describing the productive standards and routines that reports the lowest share (50.9%).

Focusing now on the use of formalised human resources management tools, there is one that stands out well ahead of the rest among Spanish businesses: meetings to inform employees on changes/developments about job/enterprise, which are reported to be used by 80.6% of surveyed enterprises (see Table 12 below). The remaining tools report usage shares below 50%, the most frequent ones being system(s) for collecting employees' suggestions related to work issues (46.5%) and definition of process(es) for the recruitment and selection of personnel (30.3%). The less frequently used tools by Spanish enterprises are formal systems for evaluating the personnel training needs (21.1%) and the personnel performance (24.6%).

Table 12. Percentage of enterprises with formalised human resources management tools, by enterprise size

Variables	Enterprise size		
	10-49	50-249	Total
Defined process(es) for the recruitment and selection of personnel	30.0	32.6	30.3
Formal system(s) for evaluating the personnel performance	22.7	39.1	24.9
Formal system(s) for evaluating the personnel training needs	19.5	31.7	21.1
A written training plan	24.3	50.2	27.9
System(s) for collecting employees' suggestions related to work issues	44.0	62.0	46.5
Meetings to inform employees on changes/developments about job/enterprise	82.8	67.1	80.6

All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

By business size, Spanish small enterprises report a high use of meetings to inform employees on changes/developments about job/enterprise (82.8%), the remaining tools being notably less frequent. Similarly to the overall average, formal systems for evaluating the personnel training needs are the less commonly used human resource management tools by small firms (19.5%).

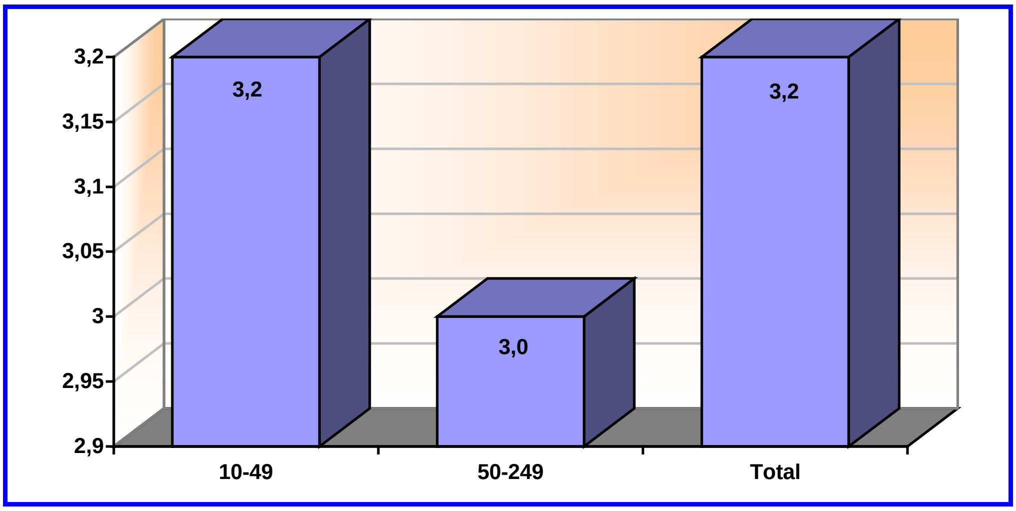
Concerning medium sized enterprises, meetings to inform employees on changes/developments about job/enterprise are also the most widely used tools (67.1%). It is worth stressing though that, as opposed to the total average and small firms, a majority of Spanish medium sized enterprises use both systems for collecting employees' suggestions related to work issues (62%) and a written training plan (50.2%). As it is the case among small businesses, formal systems for evaluating the personnel training needs are the less frequent human resources management tools among medium sized enterprises too, even though the share of businesses making use of them is greater (31.7%) than among their smaller counterparts (19.5%).

3.6.2. Diffusion of the in-house knowledge

Surveyed enterprises in Spain assess that relevant knowledge and information are well disseminated throughout their respective organisations (see Graph 2 below). On a scale ranging from 1 (very badly disseminated) to 4 (very well disseminated), enterprises rate the degree of dissemination at 3.2.

There are no significant differences by business size. If anything, the self-assessment is slightly more positive among small firms, which rate their degree of dissemination of relevant knowledge throughout the organisation at 3.2 points, as opposed to 3 points among their medium-sized counterparts.

Graph 2. Assessment of the degree of dissemination of relevant knowledge and information through the organisation, by enterprise size



Results from '1'= Very badly disseminated to '4'=Very well disseminated
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

Building on the dissemination of relevant knowledge and information within the organisation, a majority of surveyed businesses in Spain prefer informal tools to carry out such dissemination as opposed to formal ones (see Table 13 below). In this sense, 51.6% of surveyed enterprises prefer informal mechanisms for disseminating relevant knowledge and information within the organisation while only 11% choose formal tools. Over two thirds of enterprises (37.1%) regard both types of mechanisms equally.

These findings are relatively similar across both business sizes so that informal mechanisms are preferred by a majority of both small firms (51.8%) and medium sized ones (50.4%). There is a slight difference regarding preference for formal mechanisms, which is higher among small firms (11.6%) than medium sized ones (7.5%). Consequently, the share of medium sized enterprises regarding both formal and informal tools equally (40%) is moderately greater than that of small firms (36.7%).

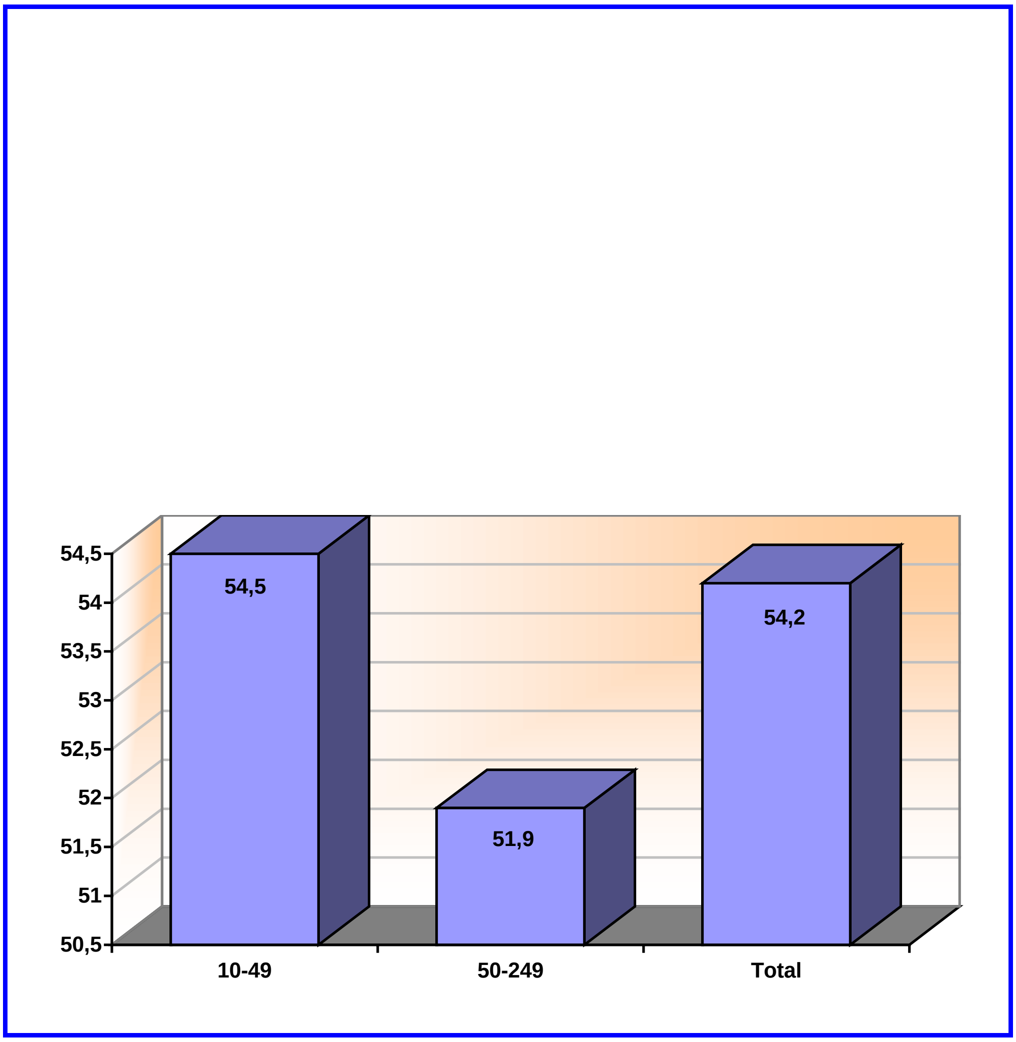
Table 13. Preference of enterprises of formal versus informal tools for disseminating relevant knowledge and information within the organisation, by enterprise size

Variables	Enterprise size		
	10-49	50-249	Total
Formal mechanisms	11.6	7.5	11.0
Informal mechanisms	51.8	50.4	51.6
Both equal	36.7	40.0	37.1
Don't Know/ No answer	0.0	2.2	0.3
Total	**100.0**	**100.0**	**100.0**

All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

With regards to the storage of relevant-to-the-enterprise knowledge, experiences and documents for subsequent use, 54.2% of surveyed enterprises in Spain suggest having databases for this particular purpose (see Graph 3 below). The share among small firms is slightly higher, reaching 54.5%, whereas medium sized enterprises report a moderately lower percentage (51.9%). In any case, the difference by business size in this indicator is slim.

Graph 3. Percentage of enterprises who suggest to have databases where relevant-to-the-enterprise knowledge, experiences and documents are stored for subsequent use, by enterprise size



All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

The characterisation of the aforementioned databases reveals that a vast majority of surveyed businesses making use of them update these databases periodically (92.9%) and that they are generally accessible (89.9%) through ICT-based systems (see Table 14 below).

Data broken down by business size shows that it is slightly more common for medium sized firms to periodically update their databases (96.3%) than it is for their smaller counterparts (92.4%). Similarly, 96.3% of Spanish medium sized enter prises having databases for storing relevant-to-the-enterprise knowledge report them being accessible through ICT-based systems, as opposed to 88.8% among small firms.

Table 14. Characterisation (updating and accessibility) of databases available within enterprises, by enterprise size (% of enterprises)

Variables	Enterprise size		
	10-49	50-249	Total
Databases are periodically updated	92.4	96.3	92.9
Databases are accessible through ICT-based systems (i.e. Intranet)	88.8	96.3	89.9
These databases are accessible to			
All the enterprise's workforce	8.1	4.2	7.6
Only allowed personnel (including management board)	75.3	93.2	77.6
Only the management board	16.7	2.6	14.8
Don't know/no answer	0.0	0.0	0.0

Data referred only to enterprises with databases
Source: Ikei and ENSR partners, CODE Leonardo project

Data on accessibility to these databases (see Table 14 above) reveals that most of the times they are only accessible to allowed personnel (including management board) (77.6%). Only 7.6% of surveyed firms in Spain report them being accessible to the enterprise's entire workforce whereas in 14.8% of firms only the management board can access these databases.

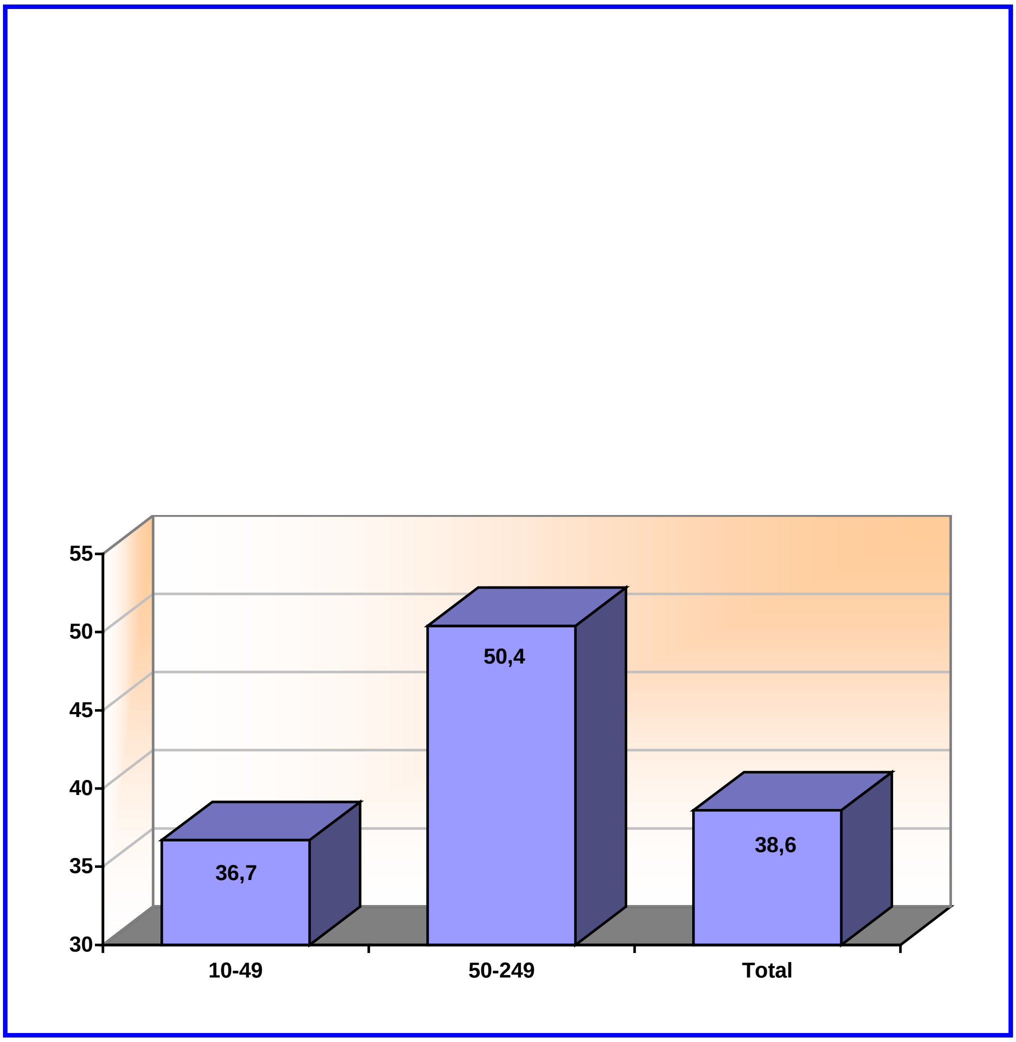
By business size, a vast majority of Spanish medium sized enterprises (93.2%) report limiting the access to databases to allowed personnel only (including management board). Access to the management board alone drops to 2.6% of surveyed medium sized firms whereas 4.2% of them allow the entire enterprise workforce.

A big share of Spanish small firms also limit access to databases to allowed personnel only, but the figure is notably lower than among their medium sized counterparts (75.3% and 93.2%, respectively). As opposed to this, restricted access to the management board exclusively is significantly more frequent among small firms (16.7%) as it is the open access to the whole workforce (8.1%).

3.7. SCANNING COMPETENCE DEVELOPMENT NEEDS

Over one third of surveyed firms in Spain (38.6%) have a special person or group responsible within the enterprise for identifying current or future skill needs (see Graph 4 below). By business size, it may be seen that slightly more than half of surveyed medium sized enterprises (50.4%) rely upon a specific person/group for scanning competence development needs, this share being lower among small firms (36.7%).

Graph 4. Percentage of enterprises who suggest to have a special person or group responsible within the enterprise for identifying current or future skill needs, by enterprise size



All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

Focusing next on the person/group(s) responsible for identifying current or future skill needs (only enterprises who suggest to have such a special person or group responsible within the enterprise), 32% of surveyed firms in Spain report that the human resources manager/training director is in charge of such tasks, while 31.1% of them state that it is the management team (see Table 15 below). In almost one quarter of businesses (24.6%) it is the owner/general manager whereas only 3.4% state that these tasks are carried out by a group formed by representatives of the management team and employees.

By business size, Spanish small firms reveal a very similar situation to that of the total average, by which the identification of current or future skill needs is mainly in charge of the human resources manager/training director (32.2%) and the management team (30%). Among medium seized enterprises the management team is most frequently in charge of these tasks (36.6%), followed by the human resources manager/training director (30.8%). Concerning a group formed by representatives of the management team and employees, only 1.1% of surveyed medium sized firms state that this is their arrangement to carry out the aforementioned tasks (less than both small firms and the overall result).

Table 15. Percentage of enterprises according to the person/group(s) responsible of identifying current or future skill needs, by enterprise size

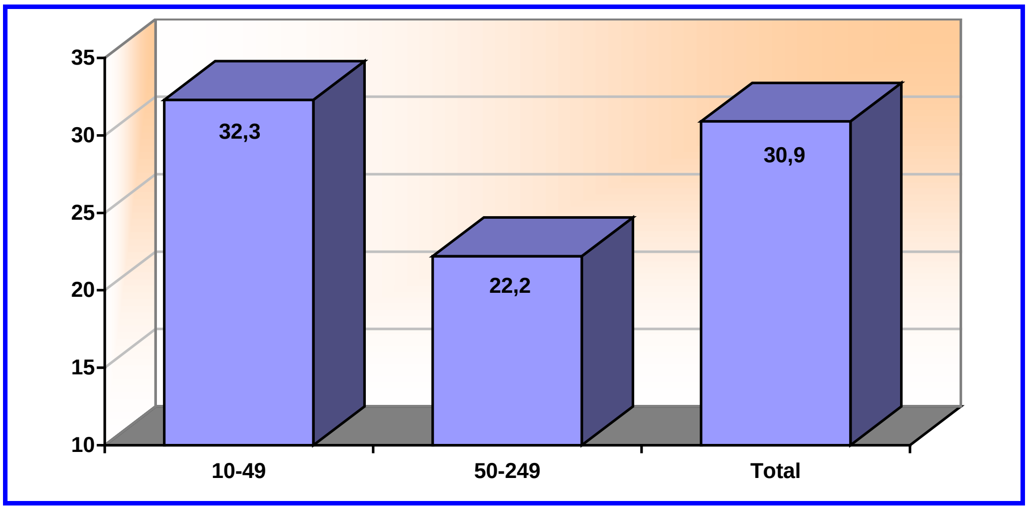
Variables	Enterprise size		
	10-49	50-249	Total
The owner/ the general manager	25.6	19.8	24.6
The human resources manager/training director (if different from above)	32.2	30.8	32.0
The management team	30.0	36.6	31.1
A group formed by representatives of the management team and employees	3.9	1.1	3.4
Other	8.4	11.7	9.0
Total	**100.0**	**100.0**	**100.0**

Only enterprises who have a special person or group for this task
Source: Ikei and ENSR partners, CODE Leonardo project

3.8. SKILL SHORTAGES/GAPS IDENTIFIED BY ENTERPRISES

Almost one in three surveyed enterprises in Spain (30.9%) states that it suffers from a lack (shortage) of skilled labour (see Graph 5 below). More specifically, this is the share of businesses that agrees or totally agrees with the statement that their enterprise is currently experiencing a lack (shortage) of skilled labour. This problem seems to be more acute among small firms than it is among their medium sized counterparts. In this sense, 32.3% of small firms report experiencing a lack (shortage) of skilled labour whereas this figure goes down to 22.2% among medium sized enterprises.

Graph 5. Percentage of enterprises agreeing or totally agreeing with the statement 'My enterprise is currently experiencing a lack (shortage) of skilled labour', by enterprise size

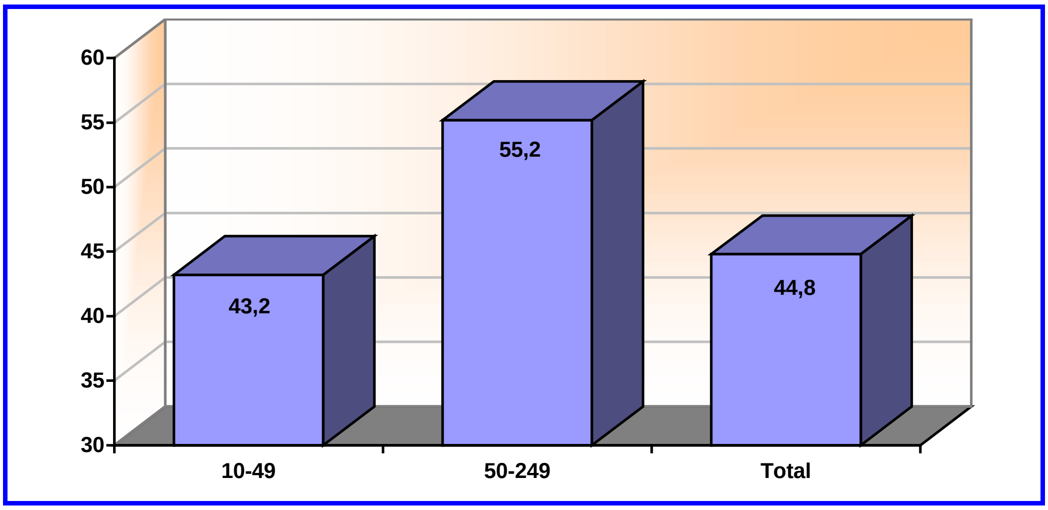


All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

It is found out that 44.8% of surveyed enterprises in Spain report a need to upgrade the competencies and skills base of their respective workforces (see Graph 6 below). Again, this is the share of businesses that agrees or totally agrees with the statement that their enterprise currently needs to upgrade the competencies and skills base of its workforce. Dealing with the results by business size, the share of small firms stating a need to upgrade the competencies and the skill base of their workforces is lower than that of their medium sized counterparts: 43.2% and 55.2%, respectively.

This finding may be unexpected to a certain extent when bearing in mind the previous result by which the share of small firms suffering from a shortage of skilled labour was slightly greater than that of medium sized ones (32.3% vs. 22.2%). Hence, even though it seems that Spanish small firms are more affected by the lack of skilled labour than their medium sized counterparts, they still feel less of an urge to upgrade the skills of their workforce.

Graph 6. Percentage of enterprises agreeing or totally agreeing with the statement 'My enterprise currently needs to upgrade the competencies and skills base of its workforce', by enterprise size



All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

Focusing on the relevance of different competence areas according to the identified needs of the enterprises, sales and marketing rate 2.6 points on a scale ranging from 1 (no need for my enterprise) to 4 (very urgent need for my enterprise). Engineering and manufacturing score 2.4 points while management and finance rank third (2.1). Office work, environment protection and health and safety issues appear to be the least urgent areas for surveyed enterprises in Spain, scoring 1.9 points on the same scale from 1 to 4 (see Table 16 below).

Both small (2.6) and medium sized (2.5) firms point at sales and marketing as the most urgent competence area. The most remarkable difference by business size though stems from the perceived need on personal skills and language abilities, which are regarded as the second most urgent area by medium sized firms (2.4) and the least urgent one by small enterprises (1.9).

Table 16. Relevance of different competence areas according to the enterprises' identified needs, by enterprise size

Variables	Enterprise size		
	10-49	50-249	Total
Engineering and manufacturing	2.4	2.4	2.4
Sales and Marketing	2.6	2.5	2.6
Management, finance	2.1	2.0	2.1
ICTs, computers	2.0	2.1	2.0
Office work	1.9	1.9	1.9
Personal skills	1.9	2.4	2.0
Language abilities	1.9	2.4	2.0
Environment protection	1.9	2.2	1.9
Health and safety issues	1.9	2.2	1.9

Results from '1'= no need for my enterprise to '4'= very urgent need for my enterprise
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

3.9. BARRIERS FOR ENTERPRISES TO ENGAGE IN COMPETENCE DEVELOPMENT ACTIVITIES

The most significant barrier for Spanish enterprises when engaging in competence development activities is the employees' workload that makes these activities difficult to organise (see Table 17 below). On a scale ranging from 1 (it is not a barrier for my enterprise) to 3 (it is a big barrier for my enterprise), the employees' workload scores 1.9 points, followed closely by having an insufficient budget or the costs being too high (1.8). On the other hand, the lowest ratings are given to difficulty assessing own skill needs, lack of information on sources of skills and the available sources of skills being unsatisfactory (1.3).

The employees' workload is suggested to be the main barrier to engage in competence development activities by both small and medium sized enterprises, followed by insufficient budget/too high costs. In any case, Spanish medium sized businesses also report a lack of motivation from the employees (1.7) as one of their principal barriers when engaging in competence development activities.

Regarding the elements that do not represent a barrier for engaging in competence development activities Spanish small firms argue that difficulty assessing their own skill needs is the less significant barrier, scoring only 1.2 points on the same scale from 1 to 3. The remaining results, both for small and medium sized enterprises, are similar to the total average.

Table 17. Relevance of different barriers for enterprises to engage themselves in competence development activities, by enterprise size

Variables	Enterprise size		
	10-49	50-249	Total
Insufficient budget/costs are too high	1.8	1.7	1.8
Employees' workload makes these activities difficult to organise	1.9	1.9	1.9
Too difficult for the enterprise to assess its own knowledge/skill needs	1.2	1.4	1.3
Lack of information on the possible sources of knowledge/skills	1.3	1.3	1.3
The available sources of skills and knowledge are unsatisfactory	1.3	1.3	1.3
Lack of motivation from the employees	1.5	1.7	1.6
Risk of trained employees being 'poached away' by competitors	1.4	1.5	1.4
Lack of support by the government (guidance, subsidies,...)	1.5	1.6	1.6

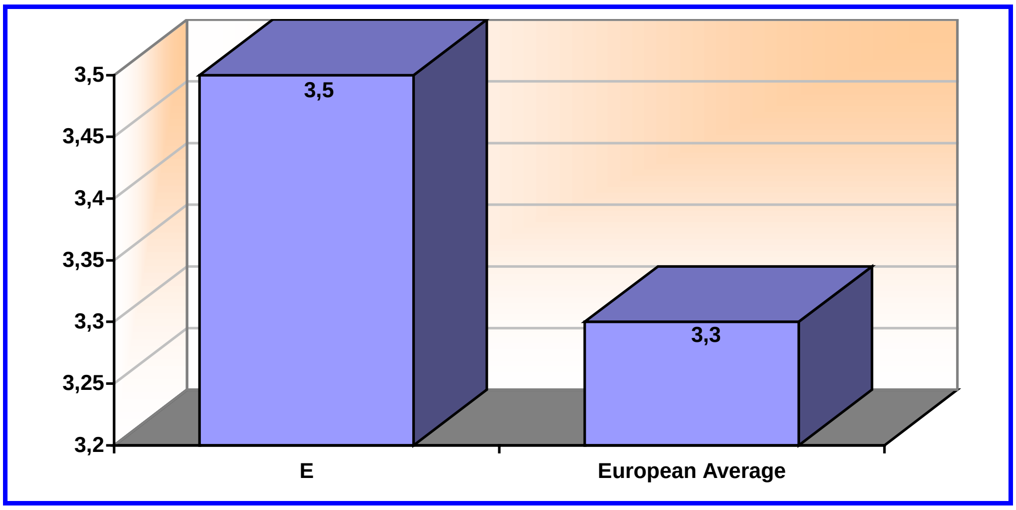
Results from '1'= It is not a barrier for my enterprise to '3'= it is a big barrier for my enterprise
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

3.10. COMPARISON WITH EUROPEAN AVERAGE RESULTS

3.10.1. Attitudes of the enterprises towards competence development needs

The degree of importance attributed by European enterprises to the competence development activities for sustaining their competitiveness is set at 3.3 points on a scale ranging from 1 (not important) to 4 (very important). As it has been mentioned above, this rating goes up to 3.5 points among Spanish enterprises, hence suggesting a moderately greater importance attributed to these activities by Spanish businesses (see Graph 7 below). In any case, and overall, both Spanish and European businesses consider competence development activities to be important for sustaining their competitiveness.

Graph 7. Importance attributed by enterprises to the competence development activities for sustaining their competitiveness, comparison between the national and the European average



Results from '1'= Not important to '4'=very important
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

3.10.2. External-to-the-enterprises sources of knowledge and competence

Clients are regarded to be the most relevant external-to-the-enterprises source of knowledge, both by Spanish enterprises and their European counterparts (see Table 18 below). In this sense, Spanish surveyed businesses rate clients 3 points on a scale ranging from 1 (not relevant form my enterprise) to 4 (very relevant for my enterprise), slightly below the European average (3.2). Suppliers and competitors and business colleagues are the next most relevant external sources, both for Spanish and European enterprises.

Spanish businesses rate universities and training centres as the least relevant external source of knowledge (1.9), while the European average points at government & public agencies (2). These two sources, along with R&D centres and technical experts are reported to be the three least relevant external sources of knowledge and competence by both Spanish and European enterprises.

Table 18. Relevance for the enterprises of different actors as sources of knowledge and competencies, comparison between the national and the European average

Variables	E	European Average
Recruitment of new external personnel with required new competencies	2.3	2.5
Suppliers	2.6	2.9
Clients	3.0	3.2
Competitors and business colleagues	2.6	2.6
Consultants and accountants/auditors	2.2	2.6
Universities and training centres	1.9	2.2
R&D centres and technical experts	2.1	2.1
Business and Trade Associations	2.4	2.4
Government & public agencies	2.0	2.0

Results from ‘1’=not relevant for my enterprise to ‘4’=very relevant for my enterprise
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

3.10.3. Practices for increasing enterprises’ competence levels

Focusing now on the practices geared towards increasing the competence levels of enterprises, and starting with the external practices, it has been shown above that Spanish surveyed enterprises rate visits to expositions/trade fairs as the most relevant practice: 2.8 points on a scale ranging from 1 (not relevant for my enterprise) to 4 (very relevant for my enterprise) (see Table 19 below). Their European counterparts too grant the highest score to visits to expositions/trade fairs (2.7), closely followed by reading of information available in trade and sector magazines (2.6).

Again, Spanish and European firms agree on the less relevant external source for increasing their knowledge, competence and skill base, which is job rotation and exchanges with other enterprises. It gets a 1.2 score among Spanish businesses and 1.5 points among their European counterparts.

In any case it is worth stressing that the scores given by the European businesses are higher than those of their Spanish counterparts for all the sources considered. In this sense, the biggest gap is found in the rating of study visits to other enterprises/institutions: 1.6 points among the Spanish firms and 2 points among the European ones.

Table 19. Relevance of different practices for increasing the enterprises' knowledge, competence and skill base, comparison between the national and the European average

Variables	E	European Average
External-to-the-enterprise practices		
Visits to expositions/trade fairs	2.8	2.7
Attendance to conferences/seminars provided by external personnel	2.1	2.1
Attendance to training courses provided by external-to-the enterprise personnel	2.4	2.5
Co-operation with other enterprises	1.9	2.2
Study visits to other enterprises/institutions	1.6	2.0
Job rotation and exchanges with other enterprises	1.2	1.5
Reading of information available in trade and sector magazines, publications	2.4	2.6
Reading of information available in Internet (websites, databases, etc)	2.4	2.5
Analysis of patents and licenses	1.7	1.9
Internal-to-the-enterprise practices		
Internal training courses/seminars provided by own personnel	2.3	2.3
Self-study activities during working time	1.9	2.3
On the job learning/learning in the daily work (for current personnel)	2.9	3.0
Job /task rotation (in-house)	2.2	2.7
Coaching/guidance activities for staff by other people in the enterprise	2.2	2.5
Tutor/mentoring systems for new employees	2.2	2.5
Apprenticeship schemes	1.8	2.2
Meetings amongst personnel for knowledge exchange/quality circles	2.6	2.5
Innovation and R+D activities	2.2	2.4

Results from '1'=not relevant for my enterprise to '4'=very relevant for my enterprise
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

As far as internal practices are concerned (see Table 19 above), it is found out once again that the scores are higher among European businesses than among their Spanish counterparts. Nevertheless, on-the-job learning is rated as the most significant internal-to-the-enterprise practice by both Spanish (2.9) and European firms (3). Then, it is meetings among personnel for knowledge exchange/quality circles for Spanish enterprises (2.6) and job/task rotation for their European counterparts (2.7). Concerning the least relevant internal practices, apprenticeship schemes are chosen by both Spanish (1.8) and European businesses (2.2), followed by self-study activities during working time.

Moving onto the preference of enterprises for formal or informal training practices, the survey points at similar results in Spain and Europe (see Table 20 below). It can be seen that a majority of both Spanish and European businesses regard formal and informal training practices equally and that over a third of them, choose informal training and knowledge acquired on the job over formal training.

Notwithstanding this, the percentage distribution of Spanish and European businesses by their preference of formal or informal practices reveal a greater share of Spanish firms pointing at formal practices (10.6% vs. 5.5% among their European counterparts). As a result of this, the share of Spanish firms choosing informal practices is also moderately lower than that of European ones: 34.7% and 38.9%, respectively.

Table 20. Percentage of enterprises, according to their preference of formal/informal training practices, comparison between the national and the European average

Variables	E	European Average
The formal training acquired in a course (external or internal)	10.6	5.5
The informal training and knowledge acquired on the job	34.7	38.9
Both equal	54.3	54.4
Don't Know/ No answer	0.4	1.1
TOTAL	**100.0**	**100.0**

All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

3.10.4. Occupational groups benefiting from competence development activities

Focusing now on the identification of the occupational groups that benefit most from external and internal competence development activities developed by enterprises, and starting with the external practices, Spanish and European enterprises render similar results (see Table 21 below). In this sense, directors and managers and middle management and technicians are the two groups that benefit most from external-to-the-enterprise practices, both in Spain and in Europe.

The biggest difference arises from the participation rates of manual workers/operator and clerks administrative personnel. These groups report a lower participation rate among Spanish enterprises than among their European counterparts, the gap being slightly more acute when it comes to manual workers/operators.

Table 21. Percentage of enterprises, according to the occupational groups mainly benefited from enterprises' external and internal competence development activities, comparison between the national and the European average

Variables	E	European Average
External-to-the-enterprise practices		
Directors and managers	66.4	67.0
Middle management, technicians	60.1	67.6
Manual workers, operators	3.7	19.3
Clerks, administrative personnel	5.5	14.1
Internal-to-the-enterprise practices		
Directors and managers	18.1	31.0
Middle management, technicians	76.6	74.4
Manual workers, operators	56.8	54.7
Clerks, administrative personnel	18.2	18.4

Vertical totals may sum more than 100% as enterprises were requested to identify the two groups mostly benefited.
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

As far as internal practices are concerned, the highest participation rates are reported by middle management/technicians and manual workers/operators, both by Spanish and European enterprises (see Table 21 above). On the other hand, clerks and administrative personnel take part in internal activities in less than 20% of surveyed enterprises in Spain and Europe. The most remarkable finding though comes from the participation rate of directors and managers. Among Spanish enterprises, only 18.1% of them report this group taking part in internal-to-the enterprise practices, whereas this share rises to 31% among their European counterparts.

3.10.5. Formalisation and diffusion of the in-house knowledge

Concerning the use of management tools for the formalisation and diffusion of the in-house knowledge, the survey results reveal some differences between Spanish and European enterprises (see Table 22 below). A formal organisation chart is the most commonly used tool by Spanish enterprises (76%), whereas quality management systems are the most frequent among their European counterparts (66.6%). In both areas, written manual(s) describing the main tasks and activities of each working post rank second.

As far as the least frequent tools are concerned, the use of ISO certifications is the lowest one among both Spanish and European businesses, reporting usage shares under 50% (43.1% and 40.5%, respectively), whereas formal strategic plans report a low share among European enterprises (48.2%).

Table 22. Percentage of enterprises with formalised management tools, comparison between the national and the European average

Variables	E	European Average
A formal organisation chart	76.0	62.4
A formal strategic plan	56.1	48.2
Written manual(s) describing the main tasks and activities of each working post	61.9	66.0
Written manual(s) describing the productive standards and routines	52.3	56.8
Quality management systems	61.1	66.6
ISO certifications (9000, 14000, others)	43.1	40.5

All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

Regarding the use of formalised human resources management tools, it is worth stressing the widespread use of meetings to inform employees on changes/developments about job/enterprise, both among Spanish and European businesses: 80.6% and 80%, respectively (see Table 23 below). Systems for collecting employees' suggestions related to work issues come next in both areas, but they are barely used by half of the surveyed enterprises.

On the other hand, the least frequently used tools are formal systems from evaluating the personnel training needs, even though the respective shares reflect a higher share of this particular tool among European enterprises (32.7%) than among their Spanish counterparts (21.1%). It is worth bearing in mind that most of the remaining tools are only used by roughly one third of surveyed enterprises.

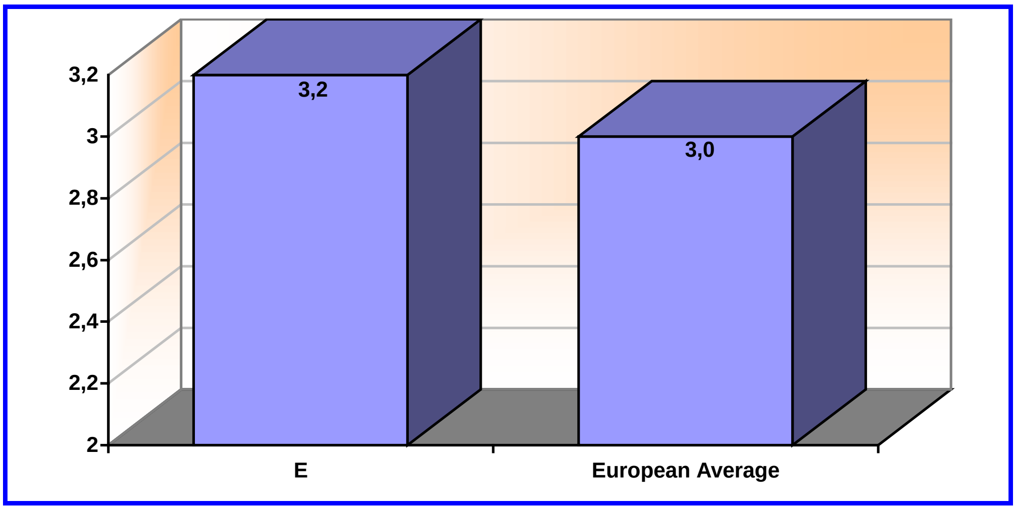
Table 23. Percentage of enterprises with formalised human resources management tools, comparison between the national and the European average

Variables	E	European Average
Defined process(es) for the recruitment and selection of personnel	30.3	34.1
Formal system(s) for evaluating the personnel performance	24.9	34.4
Formal system(s) for evaluating the personnel training needs	21.1	32.7
A written training plan	27.9	36.9
System(s) for collecting employees' suggestions related to work issues	46.5	50.7
Meetings to inform employees on changes/developments about job/enterprise	80.6	80.0

All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project.

Surveyed enterprises assess their degree of dissemination of relevant knowledge and information throughout the organisation to be good (see Graph 8 below). On a scale ranging from 1 (very badly disseminated) to 4 (very well disseminated), Spanish firms rate their degree of dissemination at 3.2, slightly above the European average, set at 3.0.

Graph 8. Assessment of the degree of dissemination of relevant knowledge and information through the organisation, comparison between the national and the European average



Results from '1'= Very badly disseminated to '4'=Very well disseminated
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

With regards to the mechanisms preferred by enterprises for disseminating relevant knowledge and information within the organisation, a majority of surveyed firms in Spain (51.6%) opt for informal tools, the European average being slightly lower at 48.3% (see Table 24 below). In any case, it can be deduced that formal mechanisms are much less preferred by surveyed firms both in Spain (11%) and in Europe (9.7%). Also, there is a significant share of firms in Spain and the European average that regard both types of mechanisms equally: 37.1% and 41.8%, respectively.

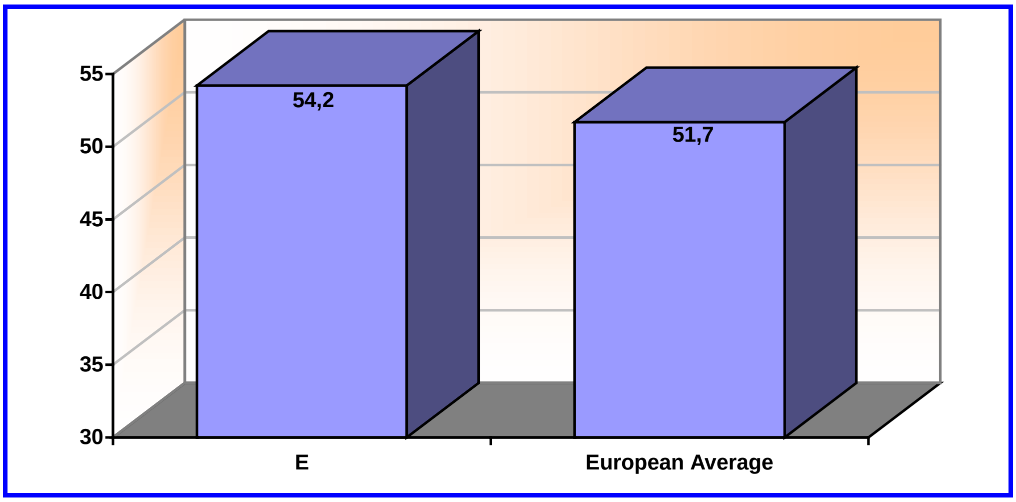
Table 24. Preference of enterprises of formal versus informal tools for disseminating relevant knowledge and information within the organisation, comparison between the national and the European average

Variables	E	European Average
Formal mechanisms	11.0	9.7
Informal mechanisms	51.6	48.3
Both equal	37.1	41.8
Don't Know/ No answer	0.3	0.2
Total	**100.0**	**100.0**

All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

The percentage of enterprises that suggest having databases where relevant-to-the-enterprise knowledge, experiences and documents are stored for subsequent use exceeds the 50% mark in both considered areas (see Graph 9 below). In Spain, 54.2% of surveyed businesses report using databases for the aforementioned purpose while the European average is set at 51.7%.

Graph 9. Percentage of enterprises that suggest having databases where relevant-to-the-enterprise knowledge, experiences and documents are stored for subsequent use, comparison between the national and the European average



All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

Concerning the updating and accessibility of databases available within enterprises, the survey results reveal that databases are periodically updated in most of the surveyed businesses: 92.9% in Spain and 94.2% in the European average (see Table 25 below). Accessibility conditions, instead, seem to vary between both areas since a large majority of Spanish firms (89.9%) report that their databases are accessible through ICT-based systems, as opposed to 68.7% for the European average.

Building on data on accessibility, databases are generally accessible to allowed personnel only (including management board). This holds particularly for surveyed enterprises in Spain (77.6%), the European average reporting a slightly lower figure (64.1%). The main difference in terms of access to databases stems from the larger share of European firms that allow access to the entire workforce (23.4%), which in the case of Spanish firms is notable lower (7.6%).

Table 25. Characterisation (updating and accessibility) of databases available within enterprises, comparison between the national and the European average (% of enterprises)

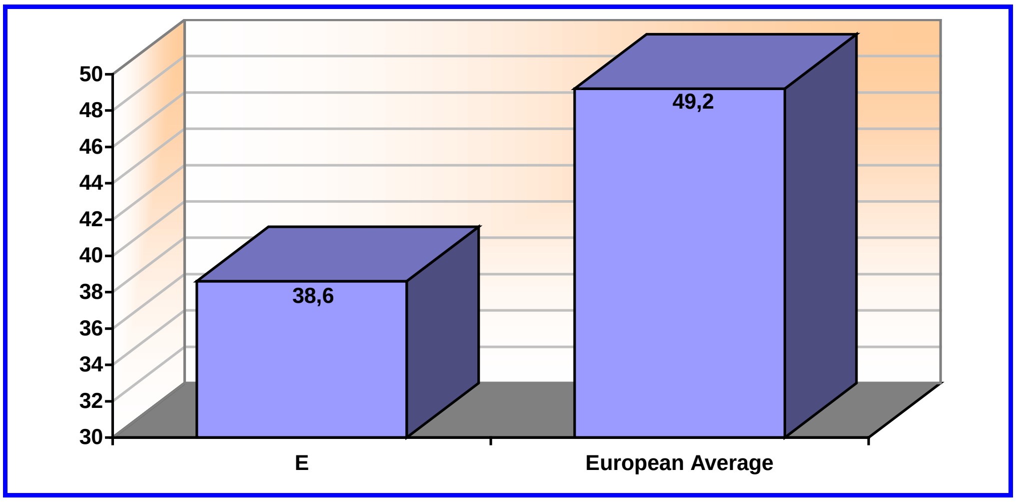
Variables	E	European Average
Databases are periodically updated	92.9	94.2
Databases are accessible through ICT-based systems (i.e. Intranet)	89.9	68.7
These databases are accessible to		
All the enterprise's workforce	7.6	23.4
Only allowed personnel (including management board)	77.6	64.1
Only the management board	14.8	11.7
Don't know/no answer	0.0	0.8

Data referred only to enterprises with databases
Source: Ikei and ENSR partners, CODE Leonardo project

3.10.6. Scanning competence development needs

As far as scanning competence development needs is concerned, 38.6% of surveyed enterprises in Spain suggest to have a special person or group responsible within the enterprise for identifying current or future skill needs (see Graph 10 below). This share goes up to almost half of enterprises (49.2%) for the European average.

Graph 10. Percentage of enterprises who suggest to have a special person or group responsible within the enterprise for identifying current or future skill needs, comparison between the national and the European average



All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

Focusing on those enterprises that report having a person or group carrying out the aforementioned scanning tasks, in Spain 32% of surveyed enterprises state that the human resources manager/training director is responsible for identifying current or future skill needs, followed closely by the management team (31.1%) (see Table 26 below).

As opposed to this, the European average reveals a 38.7% of firms where the management team is in charge of these tasks, while 30% point at the owner/general manager. Furthermore, only 16.2% of the European average state that the human resources manager/training director carries out these tasks, while in Spain this share is as high as 32%. A group formed by representatives of the management team and employees is the less common option in both areas, particularly in Spain (3.4% of surveyed enterprises).

Table 26. Percentage of enterprises according to the person/group(s) responsible of identifying current or future skill needs, comparison between the national and the European average

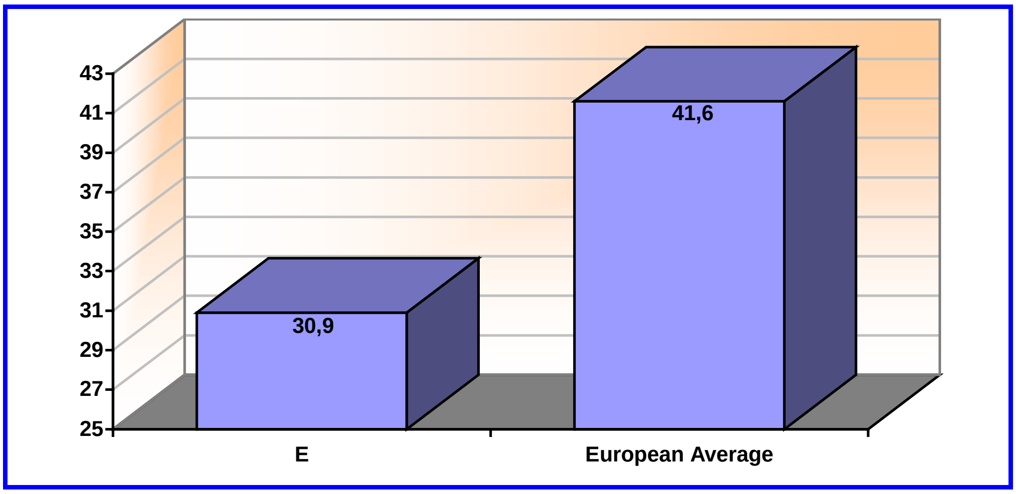
Variables	E	European Average
The owner/ the general manager	24.6	30.0
The human resources manager/training director (if different from above)	32.0	16.2
The management team	31.1	38.7
A group formed by representatives of the management team and employees	3.4	7.1
Other	9.0	8.1
Total	**100.0**	**100.0**

Only enterprises who have a special person or group for this task
Source: Ikei and ENSR partners, CODE Leonardo project.

3.10.7. Skill shortages/gaps identified by enterprises

The percentage of enterprises suggesting to suffer from a lack of skilled labour in Spain reaches almost one third of surveyed enterprises (30.9%), while this figure raises to 41.6% for the European average (see Graph 11 below). More specifically, this is the share of businesses that agrees or totally agrees with the statement that their enterprise is currently experiencing a lack (shortage) of skilled labour.

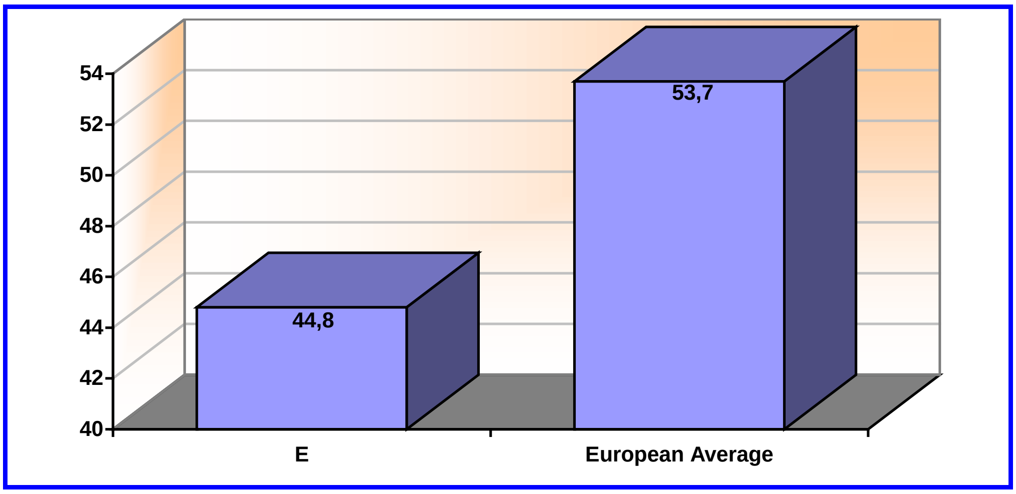
Graph 11. Percentage of enterprises agreeing or totally agreeing with the statement 'My enterprise is currently experiencing a lack (shortage) of skilled labour', comparison between the national and the European average



All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

In line with the previous result, the percentage of enterprises suggesting the need to upgrade the competencies and skills base of their workforces is higher among the European businesses than among their Spanish counterparts (see Graph 12 below). Again, this is the share of businesses that agrees or totally agrees with the statement that their enterprise currently needs to upgrade the competencies and skills base of its workforce. In this sense, European businesses report a 53.7% share of enterprises in need to upgrade the competencies and skills base of their workforce, while this figure in Spain drops to 44.8% of surveyed businesses. This finding could be expected to a certain extent since the share of European firms suffering from a lack of skilled labour was higher than the Spanish one.

Graph 12. Percentage of enterprises agreeing or totally agreeing with the statement 'My enterprise currently needs to upgrade the competencies and skills base of its workforce', comparison between the national and the European average



All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

According to the particular needs identified by the enterprises, the most relevant competence areas of both Spanish and European businesses are reported to be sales and marketing and engineering and manufacturing (see Table 27 below). In this sense, surveyed firms in Spain rate sales and marketing 2.6 points on a scale ranging from 1 (no need for my enterprise) to 4 (very urgent need for my enterprise), the European average reporting 2.4 points. As far as engineering and manufacturing are concerned, the Spanish and European scores are 2.4 and 2.2, respectively.

On the other hand, office work is granted with the lowest ratings in both areas, scoring 1.9 among Spanish firms and 1.8 by the European average. Environment protection appears to be the second less urgent area. Generally speaking though, it may be seen that except for personal skills and health and safety issues, all other areas receive a higher rating among Spanish enterprises than the European average, suggesting a greater perceived urge among the former.

Table 27. Relevance of different competence areas according to the enterprises' identified needs, comparison between the national and the European average

Variables	E	European Average
Engineering and manufacturing	2.4	2.2
Sales and Marketing	2.6	2.4
Management, finance	2.1	1.9
ICTs, computers	2.0	1.9
Office work	1.9	1.8
Personal skills	2.0	2.1
Language abilities	2.0	2.0
Environment protection	1.9	1.9
Health and safety issues	1.9	2.0

Results from '1'= no need for my enterprise to '4'= very urgent need for my enterprise
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

3.10.8. Barriers for enterprises to engage in competence development activities

The most relevant barriers for enterprises to engage themselves in competence development activities are the employees' workload, that makes these activities difficult to organise, and having an insufficient budget/costs being too high (see Table 28 below). On a scale ranging from 1 (it is not a barrier for my enterprise) to 3 (it is a big barrier for my enterprise), Spanish businesses rate the employees' workload at 1.9 points, the European average being set at 2.1. Having an insufficient budget/costs being too high are regarded to be as much of a barrier as the employees' workload by the European average (2.1), whereas Spanish firms rate it slightly lower (1.8).

By way of contrast, difficulty assessing the enterprise's skill needs, lack of information on the possible sources of skills and the available sources of skills being unsatisfactory are not regarded as barriers when engaging in competence development activities. The three variables score the lowest ratings both among Spanish businesses (1.3) and the European average (1.5).

It is worth pointing out that the observed ratings reveal higher scores of the European average than the Spanish firms. Therefore, it may be concluded that, in gen eral, European enterprises perceive these elements as more acute or relevant barriers than their Spanish counterparts.

Table 28. Relevance of different barriers for enterprises to engage themselves in competence development activities, comparison between the national and the European average

Variables	E	European Average
Insufficient budget/costs are too high	1.8	2.1
Employees' workload makes these activities difficult to organise	1.9	2.1
Too difficult for the enterprise to assess its own knowledge/skill needs	1.3	1.5
Lack of information on the possible sources of knowledge/skills	1.3	1.5
The available sources of skills and knowledge are unsatisfactory	1.3	1.5
Lack of motivation from the employees	1.6	1.8
Risk of trained employees being 'poached away' by competitors	1.4	1.6
Lack of support by the government (guidance, subsidies,...)	1.6	1.8

Results from '1'= It is not a barrier for my enterprise to '3'= it is a big barrier for my enterprise
All enterprises
Source: Ikei and ENSR partners, CODE Leonardo project

4. RESULTS FROM THE WORKING SESSIONS

This section presents the results from the working sessions held between October and December 2004 with the experts[33] on the following topics:

4.1. DEGREE AND EXTENT OF INVOLVEMENT OF SMES IN COMPETENCE DEVELOPMENT ACTIVITIES

When it comes to assessing the degree and extent of involvement of SMEs in competence development activities it is important to bear in mind size differences. In smallest enterprises all decisions revolve around the entrepreneur who, logically, is in charge of competence development activities too. It can be expected that s/he will be the one to take part in such practices, especially when it comes to external activities. As opposed to this, medium sized enterprises are more likely to offer their employees the chance to attend external training courses.

In general, Spanish SMEs report great difficulties to find qualified workers, the most acute ones being found across all manufacturing sectors and construction. More specifically, and concerning actual jobs, finding Heads of Works ('Jefes de Obra') is one of the greatest difficulties in construction, mainly because this job requires some kind of geographical mobility, to which workers are generally reluctant. As far as services are concerned, there is a great shortage of salespeople/commercial. It has to be added though that this particular finding holds for all activity sectors, representing the most notable competence need of SMEs. However, there is a lack of business management skills too. This stems mainly from the fact that many entrepreneurs may have started their business due to their specialised knowledge in one particular field (i.e., chemistry), but as their business grows they need to learn how to run it and keep it growing. They need to learn about accounting, management, etc,. In any case, when the need is highly specialised the option is generally to hire someone or turn to an external expert.

Many SMEs prefer relying on candidates they know (friends, relatives, acquaintances, etc.) rather than turning to the Public Employment Service for filling the competence gaps they have identified. In this sense, it is pointed out that entre

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[33] See Annex for details of contacted experts.

preneurs turn to family members with the needed academic background/qualifications to fill the vacancies that arise as a result of their increased business. It is also argued that SMEs in general are reluctant to adopting ICT, preferring 'traditional' ways of contact instead, such as phone calls or even personal visits. This holds mainly for relationships with clients and suppliers but also, as it has been mentioned, for recruitment purposes. Notwithstanding this, the situation is slowly changing with the apprenticeship/trainee programmes carried out jointly with universities and Vocational Training (VT) centres.

Another way for SMEs to overcome competence gaps is by demanding their suppliers of new machinery to provide them with the adequate training to use the equipment properly. This is generally included in the purchasing contract and it is becoming more common. Concerning other options, the role played by public continuing training in Spain[34] is questioned since it does not seem to have fulfilled its initial goal of providing training to SMEs, who have hardly made any use of this tool. Turning to educational centres in search of potential candidates is not a frequent option among Spanish SMEs either, which may be understandable to a certain extent since they regard universities as being very focused on theoretical approaches and modelling, rather than an applied and more practical sort of perspectives.

It is also mentioned that some SMEs turn to other enterprises for some kind of informal co-operation, especially with clients and suppliers. Co-operation with competitors is not common at all and, if it happens, it is likely to be with those that are geographically distant (and hence, not direct competitors). Nevertheless, there is some degree of reluctance to co-operate, which is found to be more acute among female entrepreneurs. In general, if enterprises turn to external helpers they rather rely on someone 'neutral' rather than on another business.

As far as the methods to improve competencies are concerned, external practices are more frequent among managers and directors but it should not be this way because it would probably be very motivating for all employees to have access to external activities. The most common external practices do not only comprise training courses but also attending trade fairs. It is added that the importance of

[34] Formerly FORCEM (Foundation for Continuing Training). There is no information available on the results of the current 'Fundación Tripartita para la Formación en el Empleo'.

trade fairs does not only stem from the actual sales/purchases that may be agreed but also from the informal information exchanges on, say, production techniques.

Finally, the importance of informal practices in SMEs needs to be stressed. Issues such as on-the-job learning, tacit knowledge, organisational routines, social networks, etc. are key in SMEs and should even be fostered due to the advantages that SMEs present for them, such as flexibility, smaller size and frequent informal contacts among employees.

4.2. IDENTIFICATION OF COMPETENCE NEEDS AND PLANNING

Contacted experts agree to point out that generally, there is no specific person/group devoted exclusively to these activities. Limited resources in SMEs prevent them from appointing someone to carry out this scanning, which is done by managers most of the times. In any case, it is worth bearing in mind that those SMEs that work as suppliers of big construction firms or automobile manufacturers are sometimes required by their clients to adopt a competence development plan. In a way, these big firms want to make sure that their suppliers meet the criteria, in terms of competence, that they believe they should have in the first place. These competence development plans are in accordance with the ones these large enterprises themselves have.

As far as systematic approaches are concerned (i.e., written plans), they are not a common option among small firms but probably more likely among their medium sized counterparts, which report having training plans and may regard periodical meetings to assess training needs of the personnel.

4.3. TOPICS AND EMPLOYMENT CATEGORIES BENEFITED BY THE COMPETENCE DEVELOPMENT ACTIVITIES

When looking for new employees, SMEs, as all enterprises, look for people who are both responsible (well-done job) and committed (regard enterprise as somewhere they belong to). It is suggested that workers' greatest skill shortages in general stem from behavioural and technological fields, rather than the actual job-specific skills, which can and will be learned at the job itself. As a matter of fact, job-specific demands and needs are generally well addressed by SMEs.

There is a tacit demand of new competencies (technological and behavioural), that SMEs themselves may not even be aware of. The problem is that they are not well assessed and consequently, decisions cannot be taken correctly. Concerning technological demands, the main problems arise from the actual shortages observed among Spanish SMEs: telephone systems are well covered but there are remarkable gaps in computer and software equipment. E-commerce reports problems, not only due to the low technological level but also to the reluctance among managers/owners who, despite acknowledging the need to adopt new technologies, feel a bit unconfident about them. Regarding behavioural skills, emphasis is placed on team-work, quality, etc. so that workers feel motivated at work and suggest measures geared towards continuing improvement.

In any case, and as suggested above, the biggest competence needs are to be found in the commercial/sales area. There is an obvious lack of good professionals in this area across all manufacturing sectors. According to the interviewed experts, SMEs complain that people stay in the office doing graphs (referring to young workers supposedly 'qualified' to work as salespersons) rather than going out and contacting potential clients. There are also problems regarding production/manufacturing, especially in maintenance (overall sense). That is, SMEs report the need for people responsible of keeping production machines working adequately. Another field where SMEs, particularly the smallest ones, report competence gaps is in general business management. As it has been pointed out already, many entrepreneurs that started-up a business based on their specialist knowledge need to learn how to run their enterprise and keep it going as it grows.

As it has been mentioned above, external activities, such as taking part in training courses and attending trade fairs, seem to be more frequent among managers and directors than among the rest of the workforce.

4.4. RATIONALE AND BARRIERS FOR SMES TO ENGAGE THEMSELVES IN COMPETENCE DEVELOPMENT ACTIVITIES

There is some degree of disagreement among the experts concerning the assessment of the knowledge of SMEs of competence development and the benefits it may bring to enterprises. One of them argues that there is no widespread knowledge of the actual benefits of competence development and that those SMEs that engage themselves in such activities do it mainly because others have done it too. It is pointed out as well that there is even a lack of knowledge of what 'competence' means, which could represent an actual barrier to their involvement in such activities. As opposed to this, another expert (academic) points out that SMEs are gradually more aware of competence development, both the meaning of the concept and the advantages brought about by these activities. There are entrepreneurs who are interested in new academic findings and how they may be implemented in their businesses. However, there is some distance between businesses and academics, the former arguing that the latter do not respond to their practical needs.

Nonetheless, experts agree that the most significant obstacle to the engagement of SMEs in competence development activities is the cost involved. One of them adds that there are cultural obstacles too that should be overcome with proper training. These prejudices stem principally from the reluctance and fears of small firms to open up themselves and co-operate with external agents.

4.5. ORGANISATIONAL LEARNING IN SMES

Knowledge management practices are very uncommon among SMEs, almost non-existent. However, experts stress the importance of informal practices that do take place in the daily activities, mainly through informal information sharing among work-mates and day-to-day learning. Therefore, it can be said that knowledge management practices among SMEs are featured by their low formalisation, especially among the smallest businesses, where informal communication flows more easily, since there are fewer departments and it is easier for the directors to manage existing knowledge within the organisation.

It is argued that this may be more complicated in medium-sized enterprises since as firms grow so do the organisation layers and even physical 'barriers' such as separated offices and distance, which may well hinder internal spontaneous communication. All this responds to the higher degree of specialisation of larger firms, that leads to a need to define specific procedures geared towards knowledge management and, consequently, a somewhat greater degree of formalisation. This may be backed up to a certain extent by the higher endowment of ICT equipment among medium sized firms.

Among the barriers to knowledge dissemination within the SMEs, experts suggest that the main obstacle is the daily work. Nevertheless, it is key at the same time for the actual dissemination and knowledge management, since the informal exchanges among workers represent a very effective method to disseminate knowledge and information. Another barrier might be the reluctance of some managers to share information with their employees. Concerning the role of ICT on knowledge management, it is argued that the main goal of ICT has been to foster relationships with clients and suppliers rather than helping knowledge management. It is suggested that ICT could have been used more efficiently on an internal level, for knowledge management purposes but their main use has been for commercial purposes. In any case, it is pointed out that the implementation of ICT equipment, which is growing considerably among all small firms, faces some kind of rejection among workers who are resistant to change.

4.6. PUBLIC INITIATIVES FOR FOSTERING THE DEVELOPMENT OF COMPETENCIES IN SMES

The experts mention that there is a variety of initiatives (both public and private) in some regional clusters (such as ceramics, in the province of Castellon) aimed at boasting a close contact among businesses, public institutions, training centres, chambers of commerce and employers' associations. Through these measures, SMEs benefit mainly from training courses on management, languages, ICT, environment, safety at work. It is suggested that enterprises and training/educational centres should be brought closer together and that steps should be taken (not only from public institutions) to make this connection stable.

As far as the measures fostering continuing training in the workplace are concerned, the role of the former institution in charge (FORCEM[35]) is questioned since, apparently, it has not fulfilled one of its goals, which was providing training to SMEs. However, the current public initiative, the Tripartite Foundation for Training in the Workplace[36], about which there are still no evaluation results, seems to be on track for good results. In any case, it is still criticised that up to 80% of training courses/actions do not respond to training needs. It also has to be borne in mind the role of the National Institute of Qualifications[37], that gathers the demands and interests of SMEs in the definition of qualifications that will eventually be approved by the General Council of Vocational Training.

Regarding specific measures, and as it will be shown in the case studies next, the Spanish High Council of Chambers of Commerce offers a programme called SIAP[38] that identifies activity sectors with employment needs and, within them, SMEs. The programme helps enterprises to pinpoint and define their employment needs and sets up some sort of a database with identified job offers. This database is next presented to the Public Employment Service, in order to find suitable candidates for such jobs. Then, the Chambers of Commerce focus on those candidates who could possibly fill the vacancies after some intensive and immediate training, which is geared towards overcoming (possible) lack of qualification. Results show that 50% of candidates are actually offered a job (vs. the 8-10% rate of the Public Employment Services) and it is argued that a higher employability rate would be achieved (around 70%) if the Chambers of Commerce were totally free to choose the candidates. Instead, they complain that the Public Employment Services, in pursuit of social integration goals, pre-select a number of candidates from some disadvantaged groups that may not necessarily be the ones with the highest chances to get one of the jobs on offer.

[35] Fundación para la Formación Continua, Foundation for Continuing Training.

[36] Fundación Tripartita para la Formación en el Empleo. See: http://www.fundaciontripartita.org

[37] Instituto Nacional de las Cualificaciones. See: wwwn.mec.es/educa/incual/index.html

[38] Servicio de Integración Activa en la PYME (Service for the Active Integration in SMEs).

4.6.1. Case studies: Public policy measures in support of competence development activities among Spanish SMEs

Two relevant public measures have been identified in Spain for the purpose of the study. The first one is the 'Device for the Assessment and Recognition of Competence', recently (October 2004) put in practice by the Basque regional government and selected because it represents the first action in Spain aimed at formally recognising competence acquired through professional experience. The second measure, the 'Service for Active Integration in SMEs', run jointly by the High Council of Spanish Chambers of Commerce and the National Employment Institute, identifies competence/skill needs among a group of SMEs and provides training in accordance with such needs to a series of prospective candidates. The relevance of this measure stems not only from its size scope (only SMEs are eligible to take part) but also from the fact that the whole process is initiated with the identification of those competence gaps identified among participant SMEs.

Measure 1. Device for the Assessment and Recognition of Competence.

Name of the policy measure (original name and translation into English)
Dispositivo de Evaluación y Reconocimiento de la Competencia (http://www.euskadi.net/agencia/disere) Device for the Assessment and Recognition of Competence
Name of the responsible organisation
Basque Agency for the Assessment of Competence and Quality of Vocational Training (Agencia Vasca para la Evaluación de la Competencia y la Calidad de la Formación Profesional) (http://www.euskadi.net/agencia). Dependant body of the Basque Regional Government.
Rationale / objectives of the policy measure
The goal of the measure is to formally recognise the competence and skills acquired at work through formal and informal practices, such as the actual on-the-job experience. Traditionally, only training acquired through formal learning systems has been recognised but people acquire and develop competence through many different ways: daily work, social and information networks and initial and continuing training. Under the new system, which aims to bring flexibility, participants will not only be granted with an official certificate recognising their competencies but they will also be given the opportunity to obtain a Vocational Training (VT) degree.
Time period / objectives of the policy measure (when it was set up, expected deadlines)
The measure recognising professional competence has been set up in October 2004 and

there are going to be two registration periods each year: one between October and mid November and another one in March.

The measure is going to be implemented gradually, initially focusing on five training areas: Mechanic production, Automotion, Catering and Tourism, Electricity and Electronics and Maintenance and Production Services. Nevertheless, all fields are expected to be included in the future.

Operational description of the policy measure: type of support (tax relief, counselling or advice, subsidies, etc.) and activities supported

The system is targeted at citizens, employed or unemployed, who have professional experience of at least two years. It aims to foster lifelong learning by granting them with a certificate acknowledging their skills and competence. Furthermore, as it has been mentioned above, they will also have a chance to be granted with an official VT degree.

Participants' skills will initially be assessed by a team of experts and, if there is some competence or knowledge gap, required training will be provided. Not only professional experience and training courses will be taken into account, but also attended seminars, workshops, self-learning, etc.

More specifically, the measure works as follows:

- Those workers willing to take part in the measure have to register at the nearest VT centre where they will hold a personal interview (or small group dynamics) with a counsellor who will advise them on the actual professional field they should aim for. The fees for this will amount to €24.
- The next step of the measure involves a team of experts, who assess the competencies of each worker and determine whether their experience and knowledge qualify for the granting of the certificate. Participants will pay a €12 fee for each competence unit they want to have officially recognised. The possible outcomes are the following:
  - If the competence level is very high, participants will be granted with the certificate and will be advised on the course/s to take towards an official VT degree.
  - As opposed to this, if the final evaluation is negative, the worker will be recommended to take part in a series of specific seminars aimed at increasing her/his competence level and, eventually, achieving the certificate.
  - If there are doubts and the assessment is unclear, participants will then carry out further competence tests (either at VT centres, if they are not working currently or at their businesses, if they are employed) in order to decide whether or not they are eligible for the certificate. If not, they will be given training in order to bridge the identified competence gap.

Target groups (employers, employees, both)

As it has been stated above, the target group of the measure is composed by all those citizens who want their competence to be officially recognised or to obtain a VT degree,

irrespectively of their labour market status (employed/unemployed). However, they must have worked for at least two years.
Eligibility requirements (national/regional coverage, size aspects, sectoral coverage) The system is to be applied only in the Basque Country, which becomes the first region in Spain to implement a measure in this domain. Concerning eligibility requirements, participants must have either worked for two years or have completed VT courses on the field they want their competencies to be acknowledged. All participants must be over 18 years of age.
Evaluation of the policy measure: General results and strong/weak points of the measure Due to the fact that measure is brand new and has only been set up in October 2004 there is still no evaluation available.
Recent changes (if any) and future prospects (if any) for the policy measure It is expected that very few workers will be granted straightforwardly with an official VT degree right after the initial competence assessment. The majority of them will probably have to attend some courses in order to be granted with a VT degree, if they wish. Other workers instead will be happy with their diploma acknowledging their experience and skills. It may well happen that some of the participants are willing to go on towards an official VT degree but do not have the educational requirement to do it, that is, the Secondary Education (Educación Secundaria) or High School Certificate (Bachillerato). In these cases, a series of basic courses on the most important subjects will be offered so that they can qualify for a VT degree.
Other relevant issues -

Measure 2. Service for Active Integration in SMEs.

Name of the policy measure (original name and translation into English) Servicio de Integración Activa en la PYME, SIAP (https://www.camaras.org/publicado/formacion/siap_512.html) (Service for Active Integration in SMEs)
Name of the responsible organisations High Council of Spanish Chambers of Commerce (Consejo Superior de Cámaras) (www.camaras.es) National Employment Institute (Instituto Nacional de Empleo, INEM) (www.inem.es)
Rationale / objectives of the policy measure The goal of the measure is to provide those SMEs in need of employment with prospective candidates who have a similar profile to that sought by the businesses in order to fill their vacancies. Hence, SIAP identifies competence needs among a particular group of SMEs in a geographical region and activity sector and finds suitable candidates for them. In other words, the objectives of SIAP are: ❒ Linking occupational training to SME needs. ❒ Fostering SME development by supporting their recruitment of qualified personnel. ❒ Establishing a closer link between labour supply and demand (by SMEs). ❒ Fostering the professional integration of those groups in search of employment in the framework of real SME needs.
Time period / objectives of the policy measure (when it was set up, expected deadlines) The measure is being gradually implemented in different waves. The first one took place in 2002-2003 across six different provinces of Spain (Albacete, Granada, Navarra, Palencia, Salamanca and Sevilla). Currently, the project has been extended to the remaining provinces of Andalucía and Ceuta (Spanish Territory in Northern Africa) and it is expected that in 2005 another wave of the measure will include Aragón, Asturias, Castilla y León and Galicia.
Operational description of the policy measure: type of support (tax relief, counselling or advice, subsidies, etc.) and activities supported The measure, which is brand new in Spain, identifies both SMEs in need of employment and unemployed workers registered within the National Employment Institute looking for a job. More specifically, a series of actions are regarded with both target groups. *With the SMEs:* ❒ Identification of employment needs among participant SMEs. ❒ Identification of sectorial employment needs. ❒ Incorporation of suitable candidates in participant SMEs.

Leonardo Programme

With job seekers:

- Selection of the most suitable candidates to fill the vacancies identified among participant SMEs.
- Improve employability of selected candidates by offering them training on three main areas: personal development (attitudes, behaviour), transversal training (including self-employment) and job-specific technical training.
- Individualised monitoring of each participant through a series of tutorials.

With both groups:

- Carrying out occupational practices in SMEs to foster employability of participants.
- Launching of a technical assistance centre aimed at dealing with questions and difficulties that may arise throughout the whole process.

The programme lasts for one year and regards three different stages. The **first** one initiates with the definition of the skill needs of a group of SMEs based on the results of a survey carried out by the Chamber of Commerce among the SMEs of the area. This stage is key since the questionnaire results provide information on the actual needs of SMEs. Once the profiles for the existing vacancies are formally set out, SIAP contacts the Public Employment Service for the identification of suitable prospective candidates already registered within the Public Employment Service.

Having in mind the survey results, the **second** stage follows, in which free training is given to all participants, which have been previously selected by the National Employment Institute according to the needed profiles. The training process starts with a 90-hour course at the Chamber of Commerce on personal development and transversal training, where participants learn about how to look for a job, prepare their CV and the use of IT among others. They are also given tutorials about self-employment. After the common training, there is individualised job-specific training lasting 120 hours, either at the Chamber of Commerce or at one of the SMEs (if training requires elements that are not available at the Chamber of Commerce). In any case, the intention is to make this specific training as similar to the actual job as possible. The training stage lasts approximately two months.

The **third** stage regards paid internships for all participants for a maximum of two months. Those who are actually offered a position after the internship are monitored by the Chambers of Commerce during the first months in order to make sure that they are carrying out the tasks for which they were trained and hired.
It has to be added that the Public Employment Institute, in addition of making the first selection of prospective candidates, is the main source of funds of the measure, providing around 70-75% of the total budget.

Leonardo Programme

Target groups (employers, employees, both)

SMEs and unemployed people registered within the National Employment Institute.

Eligibility requirements (national/regional coverage, size aspects, sectoral coverage)

The measure has taken place in different regions of Spain, but it is expected to be gradually implemented throughout the whole of the country.

Concerning business size, it is a key issue since only SMEs (businesses with no more than 250 employees) are included in the programme. No sector consideration.

As far as participant are concerned, they must be registered as unemployed within the National Employment Institute.

Evaluation of the policy measure: General results and strong/weak points of the measure

During the first wave of the measure in 2002-2003 over 1,500 SMEs were surveyed and training was provided to 1,005 participants, 482 of whom ended up being hired by SMEs. Those candidates who have not been selected are registered within the Chambers of Commerce for future job opportunities.

Among the weak points, the Chambers of Commerce point that they are not entitled to choose freely among the prospective candidates, but rather from a group previously selected by the National Employment Institute. It is argued that the criteria to choose these people respond more to social integration issues than the actual needs of firms or even their likelihood of actually getting a job.

Recent changes (if any) and future prospects (if any) for the policy measure

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Other relevant issues

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5. CONCLUSIONS AND RECOMMENDATIONS FROM THE WHOLE RESEARCH

This section presents the main conclusions to be drawn from the whole research on competence development among Spanish SMEs. As it has been mentioned, the literature review renders no studies dealing directly with competence development activities among Spanish SMEs, focusing instead on a series of issues closely linked with the topic, such as knowledge management, organisational learning and organisational knowledge. Nevertheless, Spanish literature[39] regards competencies as the factors upon which the competitive advantages of businesses rely, a finding that is backed up by the Spanish survey results, pointing that SMEs in Spain regard competence development as important for sustaining their competitiveness.

Clients are found to be the most significant external source of knowledge and competence by Spanish SMEs. Interviewed experts agree with this, arguing that it translates into some kind of informal co-operation of SMEs with their clients (and suppliers too). This finding is particularly relevant bearing in mind that SMEs are generally reluctant to co-operate, especially with competitors. As opposed to clients, universities and training centres and the government and public agencies are granted with the lowest scores when it comes to representing an external source of competence.

As far as actual practices are concerned, and regarding external ones, Spanish SMEs rate visiting expositions and trade fairs as the most relevant, followed by courses, information from trade and sector magazines and information from the Internet. Concerning internal practices, on-the-job learning is the most important, followed by meetings amongst personnel for knowledge exchange and the provision of internal training courses.

Participation in the aforementioned activities in Spanish SMEs shows a notable difference between external and internal practices. The former are more frequent among managers and directors, whereas the latter seem to be reserved for middle management/technicians and manual workers/operators.

[39] Ibero American Foundation of Knowledge, op. cit.

It is also found out that the majority of Spanish SMEs regard formal and informal training practices as equally important, not being possible to conclude what type of training they prefer. However, when it comes to the dissemination of relevant knowledge and information throughout their respective organisations, a majority of Spanish SMEs opts for informal tools, as it is the case with knowledge management practices, which are featured too by their low degree of formalisation.

The importance of informal practices that do take place in daily activities needs to be stressed, mainly through informal information sharing among work-mates and on-the-job learning. These issues, according to the experts, are key in SMEs, since they present structural advantages to benefit mostly of them, such as flexibility, smaller size and frequent informal contacts among employees. Literature on the topic too adds that business size seems to be positively correlated with the degree of formalisation of organisational knowledge.

Over one third of surveyed firms in Spain have a special person or group responsible within the enterprise for identifying current or future skill needs: 32% of them report that the human resources manager/training director is in charge of such tasks while 31.1% of them state that it is the management team. Experts add that limited resources prevent SMEs from appointing someone to carry out this scanning exclusively.

Almost one in three surveyed enterprises in Spain states that it suffers from a lack (shortage) of skilled labour, the problem being more acute among small firms. The main competence areas where skills need to be upgraded are sales and marketing and engineering and manufacturing. It may be added that shortage of salespeople/commercial holds for all activity sectors, representing the most notable competence need of SMEs. However, there is a lack of business management skills too.

When it comes to filling competence gaps, SMEs prefer relying on candidates they know (friends, relatives, acquaintances, etc.) rather than turning to the Public Employment Service. The role of educational centres for providing potential candidates is to be downplayed too, since Spanish SMEs seem to regard universities as being very focused on theoretical approaches and modelling rather than an applied and more practical perspective.

With regards to barriers for SMEs to engage themselves in competence development activities the most significant one is the employees' workload that makes these activities difficult to organise. In line with this, the reviewed literature points out at the lack of time followed by the lack of interest in the topic. Nonetheless, the experts are quick to pinpoint at the cost involved as the most relevant obstacle.

Finally, the activity of public support measures in Spain revolves mainly around training courses on management, languages, ICT, environment and safety at work, among others. The role of the former institution in charge of continuing training at work (FORCEM[40]) is questioned since, apparently, it has not fulfilled one of its goals, which was providing training to SMEs. However, the current public initiative, the Tripartite Foundation for Training in the Workplace[41] seems to be on track for good outcomes even though there are still no evaluation results. In any case, it is still criticised that up to 80% of training courses/actions do not respond to training needs.

[40] Fundación para la Formación Continua, Foundation for Continuing Training.
[41] Fundación Tripartita para la Formación en el Empleo. See: http://www.fundaciontripartita.org

6. ANNEX

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