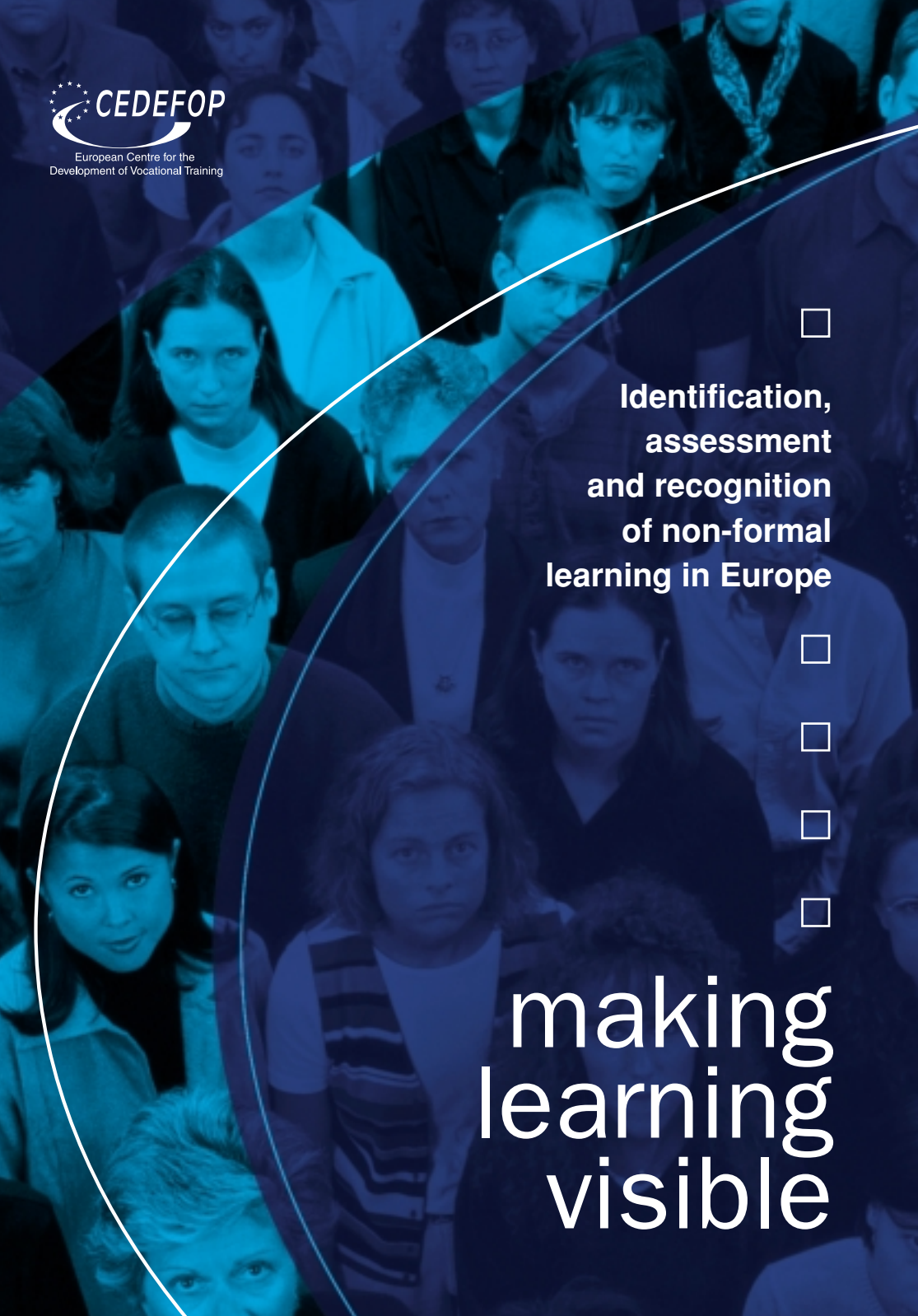

CEDEFOP

European Centre for the Development of Vocational Training

Identification, assessment and recognition of non-formal learning in Europe

making learning visible

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Jens Bjørnåvold

CEDEFOP
European Centre for the
Development of Vocational Training

A great deal of additional information
on the European Union is available on the Internet.
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preface

DURING THE PAST FEW YEARS the issue of identification, assessment and recognition of non-formal learning has been brought to the forefront of European debates on education, training and learning. At different levels, spanning from single enterprises to national ministries, initiatives have been taken to assess competences acquired outside formal education and training. In some cases, the main purpose has been to 'open up' existing systems of education and training for alternative learning pathways while trying to avoid unnecessary repeat learning sequences. In others, the purpose has been to support lifelong learning, to make it possible for individuals to capitalise on various learning forms and pathways, for example, through a combination of learning in school and at work. In yet other cases, the identification and assessment of non-formally acquired competences has been used as a tool for improving the quality of learning in enterprises and organisations.

This report presents an overview of European initiatives in this area. The presentation is based on 14 national reports commissioned by Cedefop during the period 1997-99. With the exception of Luxembourg, these reports cover all the Member States of the EU. In addition, a substantial amount of information has been gathered from other sources, including the EU Commission and various programmes supported by the EU. A draft version of the report was presented to an international conference on the topic arranged by Cedefop in cooperation with the Norwegian Ministry of Education and Research in May 2000. The feedback

received during this event, where representatives of 18 European countries were present, has been integrated into the current final version of the report.

The report should be read as one of several possible interpretations of developments in this area. The aim has been to draw attention to main trends as well as point to the most crucial challenges facing actors in this highly innovatory and still unsettled field.

We hope the report will contribute constructively to future European work on questions regarding methodologies and systems for identification, assessment and recognition of non-formal learning.

Stavros Stavrou
Deputy Director, Cedefop

executive summary

THIS CONTRIBUTION TREATS the question of how to make learning, which takes place outside formal education and training institutions, more *visible*. While learning in the formal education and training system is a distinct feature of modern societies, non-formal learning is far more difficult to detect and appreciate [1]. This invisibility is increasingly perceived as a problem affecting competence development at all levels from the individual to the society as a whole.

During the past few years, most Member States of the EU have emphasised the crucial role of learning that takes place outside of and in addition to, formal education and training. This emphasis has led to an increasing number of political and practical initiatives, gradually shifting the issue from the stage of pure experimentation to that of early implementation.

Identification, assessment and recognition of non-formal learning has to be based on simple and inexpensive methodologies and a clear notion of how institutional and political responsibilities are to be shared. But first and foremost, these methodologies have to be able to deliver what they promise, with the quality of 'measurement' being a crucial aspect. This report makes an effort to clarify, through an initial theoretical discussion, the requirements for reaching successful practical solutions.

(1) The term non-formal learning encompasses informal learning which can be described as unplanned learning in work situations and elsewhere, but also includes planned and explicit approaches to learning introduced in work organisations and elsewhere, not recognised within the formal education and training system.

The character of learning

When approaching the questions of how to identify and assess non-formal learning it is crucial to keep in mind that learning is *contextual* in its character. When taking place in social and material settings, knowledge and competences are very much the result of participation in 'communities of practice'. Learning cannot be reduced to passive reception of 'pieces' of knowledge. This perspective implies a focus not only on the relational side (the role of the individual within a social group) but also on the negotiable, concerned and engaging nature of learning (the communicative character of learning). The individual learner acquires the skill to perform by actually engaging in an ongoing process of learning. Learning is thus not only reproduction, but also reformulation and renewal of knowledge and competences.

The results of learning processes, what we call competences, are partly *tacit* (Polanyi 1967) in their character. This means that it is difficult to verbalise and delimit the single steps or rules intrinsic to a certain competence. In some cases, people are not even aware of being in possession of a competence. This is highly relevant to the task of assessing non-formal learning and has to be reflected by the methodologies. Much of the know-how which we possess was acquired through practice and painful experience. An experienced carpenter knows how to use a tool in ways that escapes verbalisation. Normally, we take this know-how so much for granted that we do not appreciate the extent to which it pervades our activities.

Methodological requirements

The important issue is whether it is possible to develop methodologies able to capture the (contextually specific and partly tacit) competences in

question? While specialised methodologies for assessment of non-formal learning still have a long way to go, testing and assessment within formal education and training can refer back to a long history of practice, research and theory. The ongoing expansion of assessment into work and leisure time is inevitably linked to this tradition. It may be assumed that new approaches rely heavily on the methodologies developed within the more structured learning areas presented by formal schooling. At least it may be assumed that some of the same challenges and problems are shared between the two learning domains.

Assessment in formal education and training can be said to serve two main purposes. *The formative purpose* is to aid the learning process. No system can function properly without frequent information on the actual working of the process. This is important in classrooms as well as in enterprises: the more variable and unpredictable the context, the more important the feedback. Ideally, assessment should provide short-term feedback so that learning deficits can be identified and tackled immediately. *The summative purpose* is to provide proof of an accomplished learning sequence. Although these proofs may take many forms (certificates, diplomas, reviews, etc.) the purpose is to facilitate transfer between different levels and contexts (from one class to another, from one school to another, from school to work). This role can also be formulated as one of selection and a way of guarding the entrance to levels, functions and profession.

The confidence attributed to a specific assessment approach is generally linked to the criteria of *reliability* and *validity*. The reliability of an assessment depends on whether results can be reproduced in a new test occasion and by new assessors conducting the test. Validity can, in many respects, be looked upon as a more complex concept and concern than

reliability. A starting point might be to consider whether an assessment measures what it was originally intended to measure by those preparing it. Authenticity is a primary concern; high reliability is of little value if the result of the assessment presents a distorted picture of the domain and candidate in question.

Reliability and validity are meaningless concepts, however, if not linked to *reference points, criteria for judgement and/or standards of achievement,* etc. We can identify two main principles used when setting these reference points and/or criteria. In formal education and training, norm referencing (according to the setting of a group) is commonly used. The second way of establishing a reference point is to relate a given performance to a given criterion. Criterion-referenced testing implies identifying a domain of knowledge and skills, then trying to develop general criteria on the basis of the performance observed within this specific domain.

The lessons from testing in the formal system can be used to raise a number of questions and topics relevant to the domain of non-formal learning:

(a) which functions, formative or summative, are to be fulfilled by the new methodologies (and institutional systems) for identification, assessment and recognition of non-formal learning?

(b) the diversity of learning processes and learning contexts raises the question of whether the same kind of reliability can be achieved in this area as in formal education and training.

(c) the contextual and (partly) tacit character of learning complicates the quest for validity and the question is whether methodologies are properly designed and constructed in order to deal with this issue.

(d) the matter of reference points ('standards') is a key issue which

needs to be addressed. The question is whether domain boundaries (including 'size' and content of competences) are defined in a proper way?

It is an open question whether assessments of non-formal learning implies the introduction of new tools and instruments or whether we speak of old approaches to new challenges. There is reason to believe that to a certain degree we at least face a transfer of traditional testing and assessment methodologies into this new domain.

Institutional and political requirements

The future role of systems for the assessment and recognition of non-formal learning cannot be limited to a question of methodological quality. While being important, reliable and valid methodologies are not sufficient to make individuals, enterprises and/or educational institutions trust and accept assessments. This is particularly the case if assessments are given a summative role, providing a competence proof to individuals competing for positions in the labour market and in educational institutions. A number of political and institutional preconditions have to be met to attribute some actual value to the assessments in question. This can be done partly through political decisions securing the legal basis for initiatives but should be supplemented by a process where questions of 'ownership' and 'control' as well as 'usefulness' must be clarified. In this way, assessments of non-formal learning would be judged according to technical and instrumental criteria (reliability and validity), as well as normative criteria (legality and legitimacy). Furthermore, acceptance of assessments of non-formal learning is not only a matter of their legal status but also of their legitimacy.

National and European experiences

The European situation is presented through examples of five country clusters and activities at EU level. Although countries within each cluster may differ somewhat in their methodological and institutional approaches and choices, geographical nearness as well as institutional closeness seem to motivate mutual learning and to a certain degree common solutions.

☐ Germany and Austria; the dual system approach

The German and Austrian approaches to the question of identification, assessment and recognition of non-formal learning are very similar. It is interesting to note that the two countries where work-based learning has been most systematically integrated into education and training (through the dual system) have so far been very reluctant to embrace this new trend. On the one hand, this reflects success; the dual system is generally viewed as successful both in terms of pedagogy (the combination of formal and experiential learning) and capacity (high proportions of the age groups covered). On the other hand, and reflecting the strong emphasis on initial training, the existing system seems only partly able to extend its functions to continuing vocational training and to the more diverse training requirements of adults. But, in spite of this, we can observe a substantial amount of project-based experimentation and the attention towards these questions is increasing. The discussion on recognition of non-formal learning in Germany and Austria is closely linked to the discussion on modularisation of education and training.

Greece, Italy, Spain and Portugal; the Mediterranean approach

The general attitude to the introduction of methodologies and systems for non-formal learning in Greece, Italy, Spain and Portugal is positive. Both in the public and private realms, the usefulness of such practices is clearly expressed. The huge reservoir of non-formal learning which creates the basis for important parts of the economies in these countries needs to be made visible. It is not only a question of making it easier to utilise existing competences, but also a question of how to improve the quality of these. Methodologies for the assessment and recognition of non-formal learning can be viewed as tools for quality improvement, encompassing not only single workers and enterprises but whole sections of the economy. These countries also illustrate that the step from intention to implementation is a long one. Legal and political moves have been made through educational reforms of varying scope but the actual introduction of assessment and recognition practices has not progressed very far. The coming years will show whether the positive intentions almost unanimously expressed in the four countries will be translated into practices which actually affect and serve individuals and enterprises.

Finland, Norway, Sweden and Denmark; the Nordic approach

It is not possible to speak of a 'Nordic model' at least not in any strict sense. Finland, Norway, Denmark and Sweden have chosen different approaches and are working according to somewhat different schedules. These differences do not change the fact that all four countries have taken practical steps through legislation and institutional initiatives, towards strengthening the link between formal education and training and learning

taking place outside schools. Despite the fact that some elements of this strategy have existed for some time, the most important initiatives have taken place in recent years, mostly since 1994-95. The mutual learning between these countries is strong and has become even stronger over the past two to three years. The influence of Finnish and Norwegian approaches on recent Swedish documents illustrates this effect. Finland and Norway are clearly opening up for the institutional integration of non-formal learning as part of a general lifelong learning strategy. The plans presented in Sweden and Denmark indicate that these two countries are moving in the same direction and that the issue of non-formal learning will become more focused in the coming years.

☐ UK, Ireland and the Netherlands; the NVQ approach

In the UK, Ireland and the Netherlands we can observe strong acceptance of an output-oriented, performance-based model of education and training. General acceptance of learning outside formal education and training institutions as a valid and important pathway to competences is a basic feature in these countries. What is questioned, however, is how such a system should be realised. The UK and Dutch experiences illustrate some of the institutional, methodological and practical problems associated with establishing a system able to integrate non-formal learning within its framework. The challenge of developing an acceptable qualification standard seems to represent the first and perhaps most serious obstacle. As long as assessments are supposed to be criterion-referenced, the quality of the standard is crucial. The UK experiences identify some of these difficulties balancing between too general and too specific descriptions and definitions of competences. The second important challenge illustrated in the UK and Dutch cases, but not reflected in our material on

the Irish experience, is related to the classical assessment challenges of reliability and validity. In our material the problems have been clearly demonstrated but the answers, if they exist, are not so clearly defined. All three countries base their vocational education and training on modularised systems, a factor which seems to support the rapid and large-scale introduction of methodologies and institutions in the field.

☐ France and Belgium; 'opening up' diplomas and certificates

In several respects, France can be characterised as one of the most advanced European countries in the area of identification, assessment and recognition of non-formal learning. Belgium has been less active, but a number of initiatives have been taken during recent years, partly influenced by the French experiences. The first French initiatives were taken as early as 1985 when the system of the bilan de competence was introduced. The aim of the bilan is to support the employer/employee in identifying and assessing professional competences; both to support career development and enterprise-internal utilisation of competences.

The second important French initiative was the 'opening up' of the national vocational education and training system for competences acquired outside formal institutions. Since 1992, vocational certificates (*Certificate d'aptitude professionelle*) can be achieved (to various degrees) on the basis of assessments of non-formal and prior learning. A third important initiative was taken by the French chambers of commerce and industry where the aim was to set up procedures and standards for assessment independent of the formal education and training system. Using the European norm EN45013 on procedures for certifying personnel as a point of departure, important experiences have been gained. Parallel activities based on EN 45013 are going on in Belgium.

EU approaches

Initiatives at European level have clearly been important in pushing the issue forward in the minds of the public and politicians. The white paper on teaching and learning (1995) helped to define the issue in a clear way and thus supported the processes at national and sector levels. The resulting programmes (mainly Leonardo da Vinci and Adapt) have initiated and financed unparalleled experimental activity. While not interfering directly in efforts to develop national systems, the EU has clearly increased interest in the issue and also contributed in a practical sense by supporting methodological and institutional experimentation. This does not mean that the particular strategy of the white paper, focusing on European standards and a European personal skills card (PSC), has been implemented. One important reason for this is the mixing of objectives in the original conception of the task. On the one hand, the PSC was presented as a summative approach; introducing new and more flexible proof of qualifications and competences. On the other hand, the need for new assessment methodologies was promoted on the basis of the need to identify and utilise a broader basis of competences; what we may term a formative objective basically addressing the support of learning processes.

Looking into the Leonardo da Vinci experiment, the first objective has only been elaborated and followed up to a limited degree. Where a summative element can be detected, it is normally with a clear reference to existing national qualification systems or linked to a limited sector or profession. The formative aspect, however, has turned out to be a main concern. Not in the form of extensive supranational systems, but in the form of practical tools for single employers and/or employees. Opening up for initiatives from a wide variety of actors, questions and methodologies have been initiated at a 'low' institutional level where formative issues and

concerns have dominated. Or, to put it another way, the activity of the projects illustrates the priorities of enterprises and sectors, not the priorities of national ministries.

Why focus on non-formal learning?

What has triggered this wave of activity affecting most European countries almost simultaneously? Answering this requires focusing on political and institutional objectives, developments and challenges. Below, we will emphasise three aspects.

☐ Reengineering education and training

To establish a system for learning throughout life requires a stronger focus on the link between different forms of learning in different learning domains at different stages of life. While the formal system is still very much focused on initial education and training, a lifelong learning system has to face the challenge of linking a variety of formal and non-formal learning areas together. This is necessary to meet the individual's need for continuous and varied renewal of knowledge and the enterprise's need for a broad array of knowledge and competences – a sort of knowledge reservoir to face the unexpected. The question of identification, assessment and recognition of competences is also crucial. Competences have to be made visible if they are to be fully integrated into such a broader strategy for knowledge reproduction and renewal.

Key qualifications

Although normally treated as two separate issues, the question of how to define, identify and develop key qualifications and the challenge of how to assess non-formal learning are closely related. We will argue that these two debates reflect different aspects of the same issue. In both cases we can observe increasing attention towards learning and knowledge requirements in a society characterised by unprecedented organisational and technological change. Methodologies and systems for identification, assessment and recognition of non-formal learning can be looked upon as practical tools for making key qualifications visible and stronger. The terms informal and non-formal learning are, however, not very helpful in this respect. Non-formal learning is a 'negative' concept in the sense that it is a negation of something else. It gives little positive indication of content, profile or quality. The concept is important, however, by drawing attention to the rich variety of learning areas and forms available outside formal education and training. A closer link to the key qualification issue might thus be useful and give the exercise more direction. The linking of formal and non-formal learning domains can be viewed as a way of realising and materialising the objectives expressed through key qualifications.

Solutions seeking problems; a supply driven development?

Only in a few cases can the development of measurement and assessment methodologies be described as driven by demand or by a push from the bottom up. If we study the last half of the 1990s when this trend gained momentum and strength the existence of programmes like Adapt and Leonardo da Vinci at European and sector levels have contributed to the setting and changing of 'the assessment agenda'. The availability of 'fresh

money,' linked to a limited set of specific priorities, inspired a high number of institutions to involve themselves in the development of instruments and tools. Although the results of these projects may be of varying quality, the long-term impact on the agenda of the organisations and institutions involved should not be underestimated. The coming period will show whether this supply driven movement will find users, for example at sector and enterprise levels, appreciating the effort put in.

How should we identify, assess and recognise non-formal learning?

Answering the question of why interest in non-formal learning has increased does not provide an answer to the question of how to support and strengthen the positive elements of these developments. Following the theoretical clarifications made in the first part of the report, the challenges ahead can be defined as both a methodological (how to measure) and a political/institutional one (how to secure acceptance and legitimacy).

☐ Methodological requirements

Which functions are to be fulfilled by new methodologies (and institutional systems) for identification, assessment and recognition of non-formal learning? Do we speak of a formative role where the instruments and tools are used to guide the learning processes of individuals and enterprises or do we speak of a more limited summative role where non-formal learning is tested for possible inclusion into the setting of formal education and training? *The purpose of the assessments, in the non-formal*

as well as in the formal domain, is decisive for the methodological choices to be made and for the ultimate success of the exercise. Successful development of methodologies and systems implies that these functions are clearly understood and combined and/or separated in a constructive and realistic way.

The diversity of learning processes and contexts makes it difficult to achieve the same kind of reliability as in standardised (for example, multiple choice) tests. The question is how (and which specific kind of) reliability should be sought in this new domain. *Reliability should be sought by seeking optimal transparency of the assessment process (standards, procedures, etc.). Reliability could also be supported through implementation of systematic and transparent quality assurance practices at all levels and in all functions.*

The highly contextual and (partly) tacit character of non-formal learning complicates the quest for validity. There is an acute danger of measuring something other than what is intended. The main thing is to avoid a distorted picture of the candidate and the domain and to strive for authenticity. *Methodologies have to reflect the complexity of the task at hand; methodologies must be able to capture what is individually and contextually specific.*

The question of reference points ('standards') is a major issue for assessment of formal as well as non-formal learning. While norm-referencing (using the performance of a group/population) has not been seriously discussed in the context of assessing non-formal learning (due to the diversity of competences involved), the issue of criterion or domain-referencing lies at the heart of the matter. *The definition of boundaries of competence-domains (their size and content) and the ways in which competences can be expressed within this domain is of critical importance.*

The wider the area, the greater the challenge in designing authentic assessment approaches. This reverts, in many ways, to the question of functions to be fulfilled; do we want to improve learning processes or do we want to produce proof (papers of value)? Both purposes are highly legitimate and useful. The setting up of reference points will, however, differ considerably according to the purposes selected.

Political and institutional requirements

As soon as the first methodological requirement has been met, by answering the questions of methodological purpose and function (see above), institutional and political implementation could be supported along two main strategies; one focusing on *'institutional design'* and the other on *'mutual learning'*.

Institutional design: some basic criteria must be fulfilled if proof of non-formal learning is to be accepted along with proof of formal education and training. First of all, participants must be heard when setting up and operating systems of this kind. Since systems for recognition of non-formal learning will have a direct effect upon the setting of wages as well as on the distribution of jobs and positions in the labour market, this matter clearly incorporates the balancing of interests. Although not emphasised very much until now, the question of who to involve and who to listen to will be of decisive importance in the coming period. Secondly, relevant information must be fed into the process. On the question of representation, the definition and articulation of standards and reference points (in particular) require sufficient and balanced information. Thirdly, the transparency of the structures and procedures are very important. It is possible to establish structures where the division of roles (setting of standards, assessment, appeal, quality control) is clearly defined and

presented. Transparency of procedures is 'a must' if acceptance and legitimacy are to be achieved. The attention of both researchers and policy-makers must be drawn to all these issues in the near future.

Mutual learning should be sought and supported between projects, institutions and countries. A substantial amount of learning is already taking place at various levels. As concluded in other parts of this report, and especially in relation to activity at European level, the potential for mutual learning is much greater than the actual and factual achievements thus far. Establishing such learning mechanisms must reflect the various purposes and functions to be fulfilled. Finally, it is very necessary to increase coordination and to support activities (at European and national levels) in order to capitalise on the experiences gained through numerous existing projects, programmes and institutional reforms.

making learning visible

Identification, assessment and recognition of non-formal learning in Europe

1 introduction

THIS CONTRIBUTION TREATS the question of how to make learning, which takes place outside formal education and training institutions, more *visible*. While learning in the formal education and training system is a distinct feature of modern societies, non-formal learning is far more difficult to detect and appreciate [2]. This invisibility is, however, increasingly being perceived as a problem affecting competence development at all levels, from the individual to society as a whole [3].

Our aim is to provide an overview of some of the main European trends in the area of identification, assessment and recognition of non-formal learning. This is a difficult yet challenging task. The task is difficult because the rate of change and innovation, both in terms of methodologies, institutions and policies, is very high. During the past few years most Member States of the EU have emphasised the crucial role of learning that takes place outside and in addition to, formal education and training. This emphasis has led to an increasing number of political and practical initiatives, gradually shifting the issue from the stage of pure experimentation to that of early implementation. The task is challenging because we speak of developments in a number of settings not only at European, national, regional levels but also sectoral and enterprise levels.

(2) The term non-formal learning encompasses informal learning which can be described as unplanned learning in work situations and elsewhere, but also includes planned and explicit approaches to learning introduced in work organisations and elsewhere, not recognised within the formal education and training system.

(3) See Annex, 'Glossary', for definitions of these and related terms.

The interplay between these levels has not been focused upon very much and the challenge is to see whether there is a common core to be extracted from this heterogeneous body of experimentation.

In the white paper on teaching and learning presented by the European Commission (EU Commission 1995), the idea of a common European approach in the area of identification, assessment and recognition of non-formal learning was presented. Consisting of a 'personal skills card' and operating within the framework of a 'European skills accreditation system', the ambition of this proposal was to develop an instrument and a structure making it possible to broaden the range of skills utilised by individuals, enterprises and in society at large. This ambition of creating one single instrument has not been fulfilled. Notwithstanding a high number of pilot projects focusing on technological and organisational issues at stake (in the Leonardo da Vinci, the Socrates and the Adapt programmes), neither the idea of 'personal skills card' nor the vision of a 'European skills accreditation system' have been developed into practical and permanent solutions. The main developmental thrust can be observed at national, and to a growing extent, at sectoral and enterprise levels. This may be looked upon as a reflection of the need to tailor methodological and institutional solutions to specific needs and specific users. The needs of an enterprise will differ entirely from those of national education and/or labour authorities and individual requirements will differ from those of branches and sectors. This leaves us with a paradox. Assessment methodologies are, for one reason, developed to make non-formal competences more visible and make it easier to transfer them from one context to another. The question is whether the development of national, sector-and enterprise-based methodologies tailored to specific and limited purposes contradicts this general objective of increased transferability? This paradox cannot be

fully solved at national, regional, sectoral or enterprise levels. Whether it is possible to find European solutions (through some form of common framework linking otherwise separate initiatives together), is an open question.

It is important to emphasise that challenges linked to identification, assessment and recognition of non-formal learning cannot be reduced or limited to purely technical or instrumental questions. A positive interpretation of the trends indicated above would be that this gives us access to a huge reservoir of knowledge and competence only marginally and unsystematically 'tapped' so far. A negative interpretation would, on the other hand, be that this is an intrusion of measuring and testing into social areas until now only marginally affected by such techniques. These ethical dimensions of the issue are rarely touched upon. There is a danger that we enter a 'grey zone' of privacy and humanity that should not be measured or assessed. Developing high quality methodologies and systems in this area implies that we are willing to reflect on these borders.

In addition to this introduction, the report is divided into five chapters. Chapter 2 treats basic theoretical issues such as the character of non-formal learning and the political implications of setting up systems in this area. We also present some lessons learned from assessing formal education and training. Chapter 3 outlines initiatives and developments in the Member States. Chapter 4 presents and discusses initiatives at EU level, concentrating on the message of the white paper on teaching and learning and on experiences from the Leonardo da Vinci programme. Chapter 5 tries to link together some of the pieces introduced in the previous chapters, presenting an interpretation of main actors, objectives and solutions at the different levels involved. Concluding remarks are presented in Chapter 6. The discussions in the five main chapters cover a

very broad scope in an effort to combine a theoretically-based understanding of the challenges ahead with an empirically-based description of developments and trends. While not going into detail on every initiative and approach, we hope that this broad approach will contribute to a better understanding of the challenges to be faced and choices to be made in the years to come.

2 theoretical pretext [4]

IDENTIFICATION, ASSESSMENT and recognition of non-formal learning is very much a practical issue. Methodologies have to be simple and inexpensive and they have to be based on a clear notion of how technical, institutional and political responsibilities are to be shared. But first and foremost they have to be able to deliver what they promise to deliver; the quality of 'measurements' being a crucial question. This requires a profound understanding of non-formal learning as such. By highlighting some of the theoretical aspects involved, we hope to be able to clarify some of the practical challenges we face.

2.1 The contextual and tacit character of non-formal learning

In order to develop methodologies actually able to capture the learning that takes place outside formal education and training institutions in a valid and reliable way, some basic characteristics of learning need to be explored. Firstly, learning is contextual in its character. When taking place

(4) The current chapter builds on two articles in the *European Journal on Vocational Training* (No 12, 1997). While the 1997 contributions focused on basic methodological and institutional challenges confronting the development and implementation of methodologies for assessment and recognition of non-formal learning, the aim of the current chapter is to establish a theoretical basis for a proper understanding of the initiatives taken at various levels. The contribution to the report *Training for a changing society* (Cedefop 1998) can also be consulted for a more detailed presentation of the theoretical issues at stake.

in social and material settings, knowledge and competences are very much the result of participation in 'communities of practice' (Lave and Wenger 1991). Frequently, learning has been conceived as a process by which the learner 'internalises' knowledge, whether 'discovered', 'transmitted' or 'experienced' in interaction with others. But learning cannot be reduced to passive reception of 'pieces' of knowledge. This focus on internalisation establishes a sharp division between inside and outside, and suggests that learning is exclusively something happening inside the brain in some cerebral process, and takes the individual as a non-problematic unit of analysis. Accordingly, learning is reduced to a process of absorption, a matter of transmission and assimilation. The alternative approach formulated by Lave and Wenger provides a potentially better basis for understanding and identifying various aspects of learning and knowledge formation. This shift in perspective implies a focus not only on the relational (the role of the individual within a social group) but also the negotiated, the concerned and the engaged nature of learning (the communicative character of learning). The individual learner is not gaining a discreet body of abstract knowledge that he or she will reapply in later contexts. Instead, he or she acquires the skill to perform by actually engaging in an ongoing process of learning. Learning is thus not only reproduction, but also reformulation and renewal of knowledge and competences. As Engeström (1993, 1994 and 1996) has underlined, when facing a new situation or unexpected problem, a learner cannot rely on only the established basis of competences, but must try to find new solutions and develop alternative practices. This corresponds to Herbert Simon (1973) who points out that ill-structured problems are much more common than well-structured problems in organisations. The most important ability is thus to be able to face the unexpected and understand

the inexplicable. The successful learner must not only be able to reproduce competences already existing in a community of practice, but must also be able to question and improve these practices. Following Engeström's 'expansive' learning model, we can identify a number of elements that should be reflected in assessment methodologies:

(a) the ability to question established facts;
(b) the ability to define and clarify problems;
(c) the ability to cooperate and find possible solutions; and,
(d) the ability to formulate and implement solutions.

These are important aspects of competent behaviour in a work setting. The ability to learn is thus emphasised as the most important quality, even more important than the specific bits and pieces of knowledge and experience being learned. Returning to the issue of developing assessment methodologies, this points to the need for balance between the attention given to learning abilities and factual competences. Learning how to learn, including learning how to approach unexpected problems, are key elements to be addressed by any methodology attempting to capture the essence of non-formal learning.

Secondly, competences are partly tacit (Polanyi, 1967) in their character. This means that it is difficult to verbalise and delimit the single steps or rules intrinsic to a certain competence. In some cases, people are not even aware of being in possession of a competence. This is an element of high relevance to the task of assessing non-formal learning, and has to be reflected in methodologies. Most of us know how to ride a bicycle but we face great difficulties when trying to formulate the specific rules intrinsic to this competence. The 'know-how' in question has been acquired through practice and painful experience. An experienced carpenter knows how to use a tool in ways that escape verbalisation.

Normally we take this know-how so much for granted that we do not appreciate the extent to which it pervades our activities. This is perhaps most apparent in situations where this know-how deserts us, when our intuitive and non-reflective attitude towards these activities for some reason or another is interrupted. An important part of what we include in the term non-formal learning belongs to this area of implicit know-how. An experienced worker facing a new situation or problem will normally, without giving it much thought, be able to make use of his or her accumulated reservoir of abstract knowledge and concrete experiences. To transform tacit, implicit and intuitive knowledge into officially-stamped elements of knowledge is difficult and full of risks. Difficult because we enter an area partly evading description, full of risks because we might end up with misconstructions of the know-how we intend to capture. In addition, whether the tacit know-how can be captured in formal descriptions is also a question of economic and practical feasibility: how much time and resources should be spent on assessing each individual? Furthermore, we risk intruding into areas not suited for measurement, entering into an ethically problematic activity where activities previously defined as 'work', 'hobbies' and 'family life' are being redefined as 'learning'. A critical interpretation of this would be that this is an intrusion of measuring and testing in social areas which, until now, were only marginally affected by such techniques.

Thus, the quality of assessments relies on a number of factors. Methodologies have to reflect and balance the individual and contextual as well as the tacit and implicit character of non-formal learning. Testing within a formal education and training setting is normally judged according to the criteria of reliability (consistency) and validity. These criteria are just as important within the setting of non-formal learning but in many ways

even more difficult to achieve than in the setting of formal education and training. The question of validity is crucial as methodologies have to be able to capture the variety and heterogeneity of learning paths and learning results. Surrounded by constraints imposed by limited time and resources, methodologies must be able to combine the need for standardisation and simplification with an open attitude towards the non-standard and what is specific to an individual or a group. Proper 'measurement' implies openness for the richness and complexity of learning; maps should be drawn according to the terrain, the terrain should not be described in order to fit the map. To find the balance between optimal validity and necessary standardisation and simplification is one of the basic challenges. The question of reliability (and consistency), is also of crucial importance. Users must be confident that results can be compared and that unfair variations in assessment practices have been avoided as far as possible. A situation where candidates are treated differently due to unclear procedures and varying interpretations of procedures by assessors, poses a threat to the legitimacy of the system.

Generally speaking, the challenge of assessing non-formal learning consists of capturing either on paper, or to an increasing degree, by electronic smart card, learning results specific to individuals and contexts. This has to be done within a procedural setting aimed at standardisation and simplification (due to limited resources and legitimate demands for consistency). This balance of seemingly opposing principles is what makes the task a challenge not only for policy-makers, but also for researchers and practitioners.

2.2 Testing and assessment in formal education and training: key issues and main challenges

Assessment lies at the core of this study. While methodologies for assessment of non-formal learning still have a long way to go, the same activity within formal education and training can refer to a long history of practice, research and theory. The ongoing expansion of assessment into work and leisure time is inevitably linked to this tradition. It may be assumed that new approaches rely heavily on the methodologies developed within the (relatively speaking) more structured learning areas presented by formal schooling. At least it may be assumed that some of the same challenges and problems are shared between the two learning domains. Before we enter into the discussion of European efforts to assess non-formal learning, we will try to summarise some of the assessment and testing lessons learned from formal education and training. To a certain degree this concentrated summary can be looked upon as an effort to establish a reference point for the discussion of 'new' approaches to assessment and testing. As questioned previously (Cedefop, Bjørnåvold and Brown, 2000), are we using old tools dressed in new robes to solve new problems?

Assessment in formal education and training can be said to serve several main purposes (Black, 1998). Feedback is an essential part of teaching and learning and assessment can play a formative role in aiding the learning process. No system can function properly without frequent information on the actual working of the process. This is important in classrooms as well as in enterprises: the more variable and unpredictable the context, the more important the feedback. Ideally, assessment should provide short-term feedback so that learning deficits can be identified and

tackled immediately. Formative assessments would normally be the responsibility of the person directly involved in the learning process but could be supported by others in various ways. Assessments also play a summation role by providing proof of an accomplished learning sequence. Although these proofs may take many forms (certificates, diplomas, reviews, etc.), the purpose is to facilitate transfer between different levels and contexts (from one class to another, from one school to another, from school to work). This role can also be formulated as one of selection and a way of guarding the entrance to levels, functions and professions. Finally, the accountability of public education and training systems is frequently based on the (summary) results of assessments. These systems have to meet certain performance and quality requirements and tests/assessments provide an opportunity to 'measure' whether objectives have been reached or not. These three main purposes (functions) of assessment are normally not separated from each other in a clear and unambiguous way. Often the formative and summation purposes coexist in the same approaches, often leading to tension.

Irrespective of the different and partly contradictory purposes served by assessment, factors like confidence, acceptance and trust largely determine their success. The confidence attributed to a specific assessment approach is generally linked to the criteria of reliability and validity. The reliability of an assessment depends on whether results can be reproduced in a new test occasion and by new assessors conducting the test. The objective character of the tests or assessment is a core concern and should not be easily affected or disturbed by external factors. The central concern is to avoid bias. Validity can, in many respects, be looked upon as a more complex concept and concern than reliability. A starting point might be to consider whether an assessment measures what it was originally intended

to measure by those preparing it. Authenticity is a primary concern; high reliability is of little value if the result of the assessment presents a distorted picture of the domain and candidate in question. Theory illustrates that there are many forms of validity. The quest for authenticity has to do with content validity, the objective being to reflect the performance of a certain task in a fair way. Construct validity, on the other hand, tries to measure, indirectly, some theoretically constructed entity, for example 'intelligence' (in intelligence testing). Many such constructs may be identified: 'creativity', 'numeracy', 'verbal reasoning', etc. In these cases it is necessary to clarify the meaning of the construct (for example 'intelligence') and explore empirically whether this can be treated as a common feature and entity.

Reliability and validity are meaningless concepts if not linked to reference points, criteria for judgement and/or standards of achievement, etc. We can identify two main principles used when setting these reference points and/or criteria. In formal education and training, norm referencing is commonly used. According to this principle, a test result is judged and expressed in relation to the distribution of results amongst a sample group [(5)]. Norm-referenced tests are characterised by two main concerns. Firstly, the sample used to establish the norm is of critical importance. It has to be big enough to be relevant and it has to be typical of the population to which it refers. Secondly, the selection of items used in the test is important. Test items where everybody would succeed have little informative value, likewise for test items where nobody would succeed.

(5) Intelligence tests illustrate this principle quite clearly. Such a test is based on a large sample of the population and the mean result is normally set to 100. The spread of scores is then adjusted so that the standard deviation is 15, meaning that two thirds of the population have scores in the range of 85 and 115. It is then possible to find the relative significance of any other score.

The challenge is thus to identify items giving maximum information, making it possible to differentiate according to the 'bell-shaped' curve of results (which follow from the statistical approach made). Norm-referenced tests can be subject to powerful methods of analysis. The problem is that while it may be possible to rank a whole population according to a mean value of 100, the informative value may turn out to be ambiguous; what does the rank order actually tell us? The second way of establishing a reference point is to relate a given performance to a given criterion. Criterion-referenced testing implies identifying a domain of knowledge and skills, then trying to develop general criteria on the basis of the performance observed within this specific domain. Although norm and criterion referenced tests may overlap to a substantial degree, some main differences can be observed. First, the criterion emphasis will mean that questions are selected for their relevance to the teaching and learning programme, whereas, this is unimportant and partly contrary to a norm-referenced test. A second difference relates to the success of the candidate. A test where 80-90 % succeeded would, in a criterion-referenced test, confirm that a basic understanding/command of the subject had been achieved. In a norm-referenced test, such a test would be useless, because it would not discriminate between the majority of the candidates. A further development of criterion-referenced testing is referencing according to domain (Popham, 1978). Experience indicates that drawing up the boundaries of a domain is a critical task and that both the boundaries and the size of the domain, matter.

> The definition of a domain can only be adequately expressed if it specifies the boundaries, including the content and the ways in which this content is to be expressed, manipulated or put to use by a candidate (Black, op.cit. p. 65)

Influential input to this challenge was made by Bloom in 1956. Bloom specifies six educational objectives that should be addressed when producing tests. These objectives are knowledge, comprehension, application, analysis, synthesis and evaluation. Bloom designed the six objectives to form a hierarchy, the latter categories assumed to be more demanding than the earlier ones. It was also assumed that the latter categories would include and assume the first ones. Empirical investigations into this hierarchy have not been able to confirm the existence of such a clear structure. What has been indicated, however, is a broad distinction between knowledge on the one hand and the synthesis/evaluation categories on the other. Although criticised and contested since its publication, Bloom's structure has been adapted and used in many testing approaches.

A wide range of tools and instruments has been developed to measure and assess the learning performance of pupils and students of the formal education and training system. These tools will, explicitly and implicitly, reflect the various purposes and principles outlined above (formative *v* summative, norm *v* criterion-referenced). They will also reflect considerations of capacity and cost. At one end of the spectrum we find what may be termed fixed response tests where candidates choose from a set of predefined options (multiple choice tests is a typical example of this form). Commonly, candidates are asked true/false or matching questions. An example of a matching question would be to ask the candidate to select from a list of five scientists the ones who made each of four well-known discoveries (Black, op.cit. p. 81). A more sophisticated version of the normal fixed choice (multiple choice) test has been developed through the use of computer-assisted methodologies. Computer adaptive testing offers the possibility of presenting questions to the candidate reflecting the

quality of prior answers. Several advantages explain the popularity of this approach. Firstly, they can achieve greater coverage than what is possible with other forms of questioning. Furthermore, achievements are not dependent on writing skills and reliability is not threatened by subjective marking. However, several disadvantages can be identified. Correct answers may be reached through guesswork, the test provides no evidence on the reasons behind the answers. Their value for formative purposes is therefore limited. Heavy reliance on such tests can affect the predominant way of learning and teaching, putting too strong an emphasis on an atomised approach to learning. Tests based on closed responses provide a somewhat wider range of options for the candidate. Common examples are tests where an item, in the form of a word or sentence, is to be supplied in order to arrive at the intended answer. Other variants ask the candidate to give reasons for multiple choice questions or to supply a reason in his or her own words for a given event or phenomenon. In some cases a candidate will be asked to answer a list of short questions designed to test understanding of a given set of data or text. This variant retains some of the advantages of fixed response tests (wide coverage, reliability), combining it with the possibility to provide more authentic challenges. But as in fixed response tests, this requires careful design and extensive pretesting to avoid misunderstandings due to the structure and formulations of the test. Assessment via essay leads to a wide range of different answers and individual interpretations. Essay questions will, in many cases, be capable of exploring a candidate's capacity to select, explain and integrate various elements of knowledge and understanding as well as ability to explain, evaluate and be creative with such material. In formative assessments these functions may be strengthened through the feedback of the candidate on the various elements covered by the test. While potentially scoring high on

the validity scale, reliability is a major disadvantage. Ensuring that the marking of the assessor is reliable is a basic problem with this form of testing. This is however only a problem as long as the essay is written for summative purposes. In formative setting essays may be developed in different directions, for example based on library research, etc. The next category of tests and assessments may be addressed under the heading 'performance assessments'. Although covering a wide variety of assessment variants, the unifying idea is to assess activities that can be direct models of reality rather than disconnected fragments or surrogates. Rather than asking candidates to say what they can do, ask them to show what they can do (Airasian, 1991, p. 252). Perhaps the most critical decision in this kind of test is the choice of task to be examined. Does the task provide the candidate with the possibility to demonstrate his or her skills and how should constraints in time and facilities be reckoned with? Furthermore, how are the boundaries of the task set and how is the judging criteria communicated to the candidate? Different forms of evidence can be used in this type of assessment; one is to observe the conduct of the candidate, and another is to focus on outcome criteria. Experience shows there is often an advantage in having the pupil give an oral presentation so there can be a dialogue on the process and the performance. Validity is clearly supported by this form of assessment so long as questions of tasks and boundaries are adequately treated. Validity also relies on the extent to which candidates are informed about the philosophy behind the test. Reliability may pose a major problem, scoring and marking is not easily solved in these forms of assessment. Although formal schemes may be developed, the skills and experience of the assessor is clearly very important. Experiences from the UK indicate that large numbers of performance tasks may be needed to ensure reliability (Black, op.cit.).

Apparently, no system in the UK has fully explored these problems. Portfolio assessment is an approach which, to a certain degree, has been integrated into some national education and training systems. A portfolio can be defined as a collection of pieces of work, some of which will be or have been used for performance assessments. Black comments, on the basis of UK experiences, that the efforts to include portfolio assessments have been marked by a clear tension between formative and summative assessment philosophies (Black, p. 97).

While presented in a very concentrated manner, this elaboration of testing and assessment in the context of formal education and training is highly relevant for our treatment of assessment outside the formal domain. Using the structure of our elaboration as a point of departure, a number of questions and topics can be raised.

(a) Which functions, formative or summative, are to be fulfilled by the new methodologies (and institutional systems) for identification, assessment and recognition of non-formal learning?

(b) The diversity of learning processes and learning contexts raises the question of whether the same kind of reliability can be achieved in this area as in formal education and training.

(c) The contextual and (partly) tacit character of learning complicates the quest for validity and the question is whether methodologies are properly designed and constructed in order to deal with this issue.

(d) The matter of reference points ('standards') is a key issue which needs to be addressed. The question is whether domain boundaries (including 'size' and content of competences) are defined in a proper way?

It is an open question whether assessment of non-formal learning implies the introduction of new tools and instruments or whether we speak of old approaches to new challenges? As indicated in the introduction to this chapter, there is reason to believe that to a certain degree we at least face a transfer of traditional testing and assessment methodologies into this new domain. If so, experiences from formal education and training will be highly valued. In addition, work-based measurement approaches should also be considered. However, we should avoid reinventing already known approaches. We will return to these questions in the final part of the report in an effort to see whether the actual developments at European, national, sectoral and enterprise levels, support this transfer hypothesis.

2.3 The need for legitimacy and social acceptance

The future role of systems for the assessment and recognition of non-formal learning cannot be limited to a question of methodological quality. While being important, reliable and valid methodologies are not sufficient to make individuals, enterprises and/or educational institutions trust and accept assessments. This is particularly the case if assessments are given a summative role, providing a competence proof to individuals competing for positions in the labour market and in educational institutions. A number of political and institutional preconditions have to be met to attribute some actual value to the assessments in question. This can be done partly through political decisions securing the legal basis for initiatives but should be supplemented by a process where questions of 'ownership' and 'control' as well as 'usefulness' must be clarified. In this way, assessments of non-formal learning would be judged according to technical and

instrumental criteria (reliability and validity), as well as normative criteria (legality and legitimacy). Furthermore, the acceptance of assessments of non-formal learning is not only a matter of their legal status but also of their legitimate status. As with ordinary certificates from the formal education and training system, the function of assessment of non-formal learning may be compared with money. Parsons has defined money as:

> '…a code, providing certain information from holder to receiver. Money is valid in a certain set of standard situations, it must be based on a generalised value, accepted not only in a legal sense, but also on a popular basis, and it must be measurable.'

If we apply this perspective to assessments of non-formal learning several parallels appear. As with money, assessments can be understood as a code, providing information from holder to receiver. An individual applying for a job using assessments exemplifies this. Information as such is not enough, it must be presented in a specific code to be acceptable. As with money, assessments are valid in a predefined set of standard situations, e.g. in the labour market, within the hierarchy of an enterprise or in the system of education and training. Like money, assessments must also be based on some form of generalised value not only legal but also legitimate. The competences in question must be accepted as potentially valid/useful outside their narrow context of origin. Only actual use can prove whether such a generalised value will be attributed to assessments of non-formal learning. Nobody can guarantee that the relative value of formal *versus* non-formal learning can be changed through the introduction of methodologies and systems for the assessment of non-formal learning. The strong links between formal education and social bargaining processes (which influence the setting of wages and access to jobs), illustrate the

complexity of such a process. Finally, as with money, assessments must be able to 'measure'. This means that both the quantitative (time, volume) and qualitative (content, profile) aspects of learning must be captured in as valid and reliable a way as possible.

Accordingly, assessments must be able to store information, measure the learning in question and signal the value attributed to it in the broader setting of the labour market, the education and training system and in society in general. Unlike money, assessments cannot operate on the basis of a one-dimensional, quantified code, rather, they have to use written texts in order to capture the complexity of individually-held competences. The metaphor of money highlights the challenges facing this new 'currency'. Firstly, interpreting assessments as a code transforming a complicated set of information (about learning) into a standardised and simplified language, points to the methodological paradoxes already discussed. If standardisation and simplification become too radical, the information value is reduced in such a way that the overall benefit is threatened. In this respect the difference between money and assessments is made clear. If the contextual, individual and tacit character of non-formal learning is lost during the 'measurement process', the information value is reduced in a way which threatens the legitimacy of the exercise. The strength of money lies in its ability to simplify and standardise what would otherwise be a complicated process of barter and exchange. The weakness of assessments of non-formal learning may very well lie in the same need to simplify and standardise. Furthermore, the legitimacy and value of assessments will be defined through their actual use. Theoretically, these standard situations are envisaged as arising when individuals try to enter the labour market, try to access certain levels of the education and training system or try to improve their position in the internal job hierarchy of an enterprise.

Questions of legitimacy and acceptance rely partly on political and legal actions by the State or some other authority. The setting up and 'design' of institutions and political processes are thus of equal importance to the methodological considerations outlined above. In other words, a perfect methodology is of no value if not working in tune within a legitimate institutional and political setting. It would be naïve to think that institutional design can provide a complete solution. It would, however, be equally naïve to overlook the potential importance of such an approach. The following criteria need to be considered when constructing the institutional basis for the new methodologies:

(a) relevant participants must be heard;
(b) relevant information must be delivered;
(c) different interests should be balanced;
(d) information on competence/qualification standards as well as on procedures for setting these up should be made public;
(e) transparent procedures securing the integrity of the candidate should be introduced.

Acceptance implies a shared and balanced ownership between representatives of the formal education and training system and representatives of enterprises and trade unions. So far, the institutional and political aspects of assessing non-formal learning have been left untouched to a large extent. This may be due to the fragmentary status and novelty of initiatives. The issue has been looked upon as not very controversial, something everybody can agree on. In a situation where methodologies and systems for the identification, assessment and recognition of non-formal learning mature, covering larger groups of the population, this may change. Such a situation could increase the general value of competences acquired outside formal education and training institutions and affect

collective bargaining, both in terms of setting wages and access to jobs.

Points (d) and (e) above are partly related to the ethical 'grey zone' mentioned in the introductory chapter. Systems should be as transparent as possible and everybody involved should be aware of the procedures, the basis for decisions and the possibility for making a complaint. Ownership and acceptance are intrinsically interlinked but true acceptance can only occur with openness. If this openness is achieved perhaps some of the potential ethical dilemmas can be avoided.

The question of legitimacy changes character according to the purpose of the assessments and the level at which they are conducted. A system highlighting the summative aspects, be it at European, national or sectoral levels, will clearly have to respond to the challenges listed above. Moreover, in cases where assessments are given a formative role, these issues are also of relevance. An approach operating at enterprise or sectoral levels has to consider issues of 'acceptance' and legitimacy to be successful. This applies in particular to the way in which 'institutional design' is conducted: which participants are involved and how transparent is the flow of information?

3 european trends: developments at national level

IN 1994, ACCORDING to Eurostat (1997), almost 25 % of the entire European population was enrolled in some form of education and training (all levels included). The growth of specialised and institutionalised training is one of the most distinct characteristics of European societies today. Against this background, growing interest in learning taking place outside the formal education and training domain may seem paradoxical. In a situation where national education and training systems (in some cases) face over capacity and where highly educated people face unemployment, the sense in putting resources into systems of 'assessment and recognition of informal and non-formal learning' may seem questionable. This is, however, what is happening. During the past decade, a majority of Member States in the EU, together with countries outside the EU, have initiated work to establish methodologies and institutions facilitating identification, assessment and recognition of learning taking place outside formal education and training institutions. Pioneered in France (the law on *Bilan de compétence* from 1985 and the law of 1992 on the 'validation of skills acquired by work experience'), attention on these issues has increased year by year. The purpose of this report is to provide an updated picture as well as an interpretation of this trend[6].

(6) Our presentation is based on material gathered within the framework of Cedefop's project on 'Identification, assessment and recognition of non-formal learning', initiated in 1997. A total of 15 studies were commissioned to research institutions in 14 countries and this report represents a first attempt to bring together the results of this work. See bibliography for detailed references to these studies and the resulting reports.

From the outset, it is possible to conclude that no common, unified European approach currently exists. The fact that initiatives have been taken at different points of time and within the context of different systems of education and training, leaves us with a heterogeneous mix of national, sectoral and enterprise approaches. This chapter will basically focus on the initiatives at national level, more or less as integrated parts of public education and training policies. What is important, is that most initiatives seem to focus on the same challenges. Firstly, the reorientation of formal (especially vocational) education and training, from strictly input-oriented to output or performance-oriented systems is important. In countries like the UK and Finland, it is emphasised that what matters are competences, not how you have acquired them. By accepting alternative pathways to learning, in addition to the ones provided within formal schemes, the question of assessment becomes central. Secondly, the growing emphasis on lifelong learning implies a stronger focus on the link between different forms of learning in different areas at different stages of life. While the formal system is still very much focused on initial education and training, a lifelong learning system has to face the challenge of linking a variety of formal as well as non-formal learning areas. This is necessary to meet the individual need for continuous and varied renewal of knowledge and the enterprise's need for a broad array of knowledge and competences – a sort of knowledge reservoir to face the unexpected. Also in this context, the question of identification, assessment and recognition presents itself as crucial. Competences have to be made visible if they are to be fully integrated into such a broader strategy for knowledge reproduction and renewal. In addition, economic factors may influence the decision to begin developing methodologies and systems. It would be highly motivating if public authorities were to introduce assessment systems where

unnecessary repetition of education and training sequences were avoided.

In some countries, methodologies for the identification, assessment and recognition of non-formal learning are looked upon as necessary tools to open up new pathways. But the issue should not be limited to a question of how to modernise and vitalise existing systems for education and training. Methodological and institutional experimentation may also be looked upon as a reflection of basic changes in our understanding of learning and competences. Closely related to the unprecedented growth in formal education and training is a growing scepticism towards the output of the formal system. It is questioned whether a harmonised system of mass education is able to serve the needs of societies becoming increasingly complex, both in the technological and organisational senses. Traditionally, formal education and training systems were important vehicles, not only for the reproduction and renewal of competences, but also for selection for jobs and positions. In a situation where many European countries combine mass education with mass unemployment, the role of education as a selection mechanism becomes more problematic. In many cases, we can observe that the amount of education and training needed to be successful in the labour market is increasing, whereas, at the same time, the relative value of formal education and training has been reduced. This problem is heightened by the fact that 'more of the same' is not necessarily what is sought by a labour market facing rapid changes and growing uncertainty. As long as the challenge is to select individuals with the most relevant competences, formal education and training systems may increasingly appear as insufficient and the need to utilise other sources becomes more urgent.

The initial focus of our work was a methodological one (Cedefop, 1997): is it possible to measure learning taking place outside formal education and training in a reliable and valid way? The introduction of

methodologies in this area can only be understood within a broader social and political context as a response to changing conceptions of education and training. This defines our main perspective when trying to get an overview of developments in the EU/EEA context. The European situation will be presented by looking at five country clusters. Even though countries within each cluster may differ somewhat in their methodological and institutional approaches and choices, geographical nearness as well as institutional closeness seem to motivate mutual learning. The overview presented in this chapter is limited in the sense that it basically focuses on initiatives at public level. As will be documented in later chapters, important additional initiatives have been taken at the level of enterprises and branches, partly on an autonomous basis and partly supported by European programmes like Leonardo da Vinci and Adapt.

We start by discussing the role of assessment and recognition of non-formal learning in Germany and Austria. Two basic questions define the scope of this presentation: why have so few initiatives been taken in these countries, and how does the dual system of vocational education and training influence work and initiatives. In the second cluster, the approaches of the Mediterranean countries Greece, Spain, Italy and Portugal are discussed. These are countries where, due to weak vocational education and training traditions and systems, non-formal learning has played, and still plays, a crucial role. In a situation where formal education and training is generally being strengthened, the role of non-formal learning is challenged and changed. In the third cluster of countries, Finland, Norway [7], Sweden and Denmark, we ask the question whether a Nordic model can be identified. The Nordic countries enjoy a long tradition

(7) Norway has been included as the only non-member of the European Union in this study.

of mutual learning in the area of education and training. Whether this applies to assessment and recognition of non-formal learning is another question. In the fourth cluster of countries, United Kingdom, Ireland, and the Netherlands, we reflect on experiences within, as well as the influence of, the UK NVQ system (national vocational qualifications). The NVQ system has received much attention, not least from abroad. As a high-profile system emphasising modularisation and output, the NVQ system has, in spite of domestic criticism, become an important reference point in the international debate. Ireland and the Netherlands can be looked upon as countries where this influence has been strong, especially in the field of assessment and recognition of non-formal learning. The fifth and last cluster, France and Belgium, is defined on the basis of geographical nearness rather than a common approach towards non-formal learning. As already indicated, the topic of non-formal learning has moved into the forefront of the French debate on education and training during the past decade. Both in legal and practical terms, the French experiences are important. In Belgium the issue of non-formal learning has only recently been introduced to the political agenda. In the Flemish part of the country, cooperation with the Netherlands has been initiated but it is still too early to say in which direction this country will move.

Due to differences between countries the scope of the presentations as well as the level of detail varies somewhat. We attempt to cover three aspects. Firstly, what is the role of non-formal learning within the existing political-institutional context? Secondly, is it possible to identify methodological and/or institutional initiatives in this area, established on a permanent basis? Thirdly, is it possible to identify experiments, for example, projects aimed at the development of methodologies or institutions for the assessment and recognition of non-formal learning?

3.1 Non-formal learning in the context of the dual system: Germany and Austria

In Germany and Austria the issue of non-formal learning is a new and unresolved one. Five years ago it was hardly discussed. Today, a debate on the role of non-formal learning is gradually evolving (see for example Dehnbostel, et.al.; 1999). A number of experimental projects (in particular focusing on the needs of the unemployed, people reentering the labour market, etc.), have also been initiated, testing various approaches to assessment. The longer-term political/institutional consequences of this debate and experimentation are difficult to predict. We think, however, that these two countries, despite their reluctance, are interesting 'learning cases,' illustrating the possibilities and potential as well as obstacles and problems.

☐ 3.1.1 Germany

A number of factors explain why the issue of non-formal learning has so far played a limited role in Germany.

First, direct demand for the assessment of non-formal learning has been low. The formal system of education and training is extensive and has, for a long time, covered substantial proportions of each age group. In this way we talk of a very strong education and training fundament, reducing the number of people likely to ask for recognition of non-formally-based competences. Second, the education and training system is highly focused on initial education and training. Within the vocational field, the status of the dual system has been and continues to be, very high. There is no tradition of following other pathways to learning, especially outside the formal system. Third, the fact that the dual system is based on a combination of school and work-based learning implies that the

experiential part of learning is somehow included in the official model, reducing the need to assess non-formal learning acquired outside the formal system. Fourth, the formal education and training system is based on *Berufsprofilen* (professional vocational profiles), representing a clearly defined set of qualifications/competences. Each *Berufsprofile* indicates what should be learned, how it should be learned and where this should take place. The profiles, which can be looked upon as the 'benchmark' of the system, can, to a certain degree, be seen as 'input-oriented'. By defining the 'correct' pathway to a certain qualification, they also exclude other pathways, for example (partly) based on non-formal learning. Fifth, the concept of *Beruf* (vocation), following a successful completion of formal education and training, does not only specify a certain training approach, but is also linked to certain wage levels and a set of rules defining rights and responsibilities. This implies that the formal system is not only about knowledge and competences, but also a mechanism for defining the distribution of rights and returns. Consequently it is a way of defining the implicit value of different kinds of learning.

All together, these factors contribute to the high value attributed to formal certificates from the formal system. Enterprises and branches have also been reluctant to consider other learning pathways because of high unemployment rates. The topic of non-formal learning has been (and still is), looked upon with indifference. This indifference also seems to be linked to the high complexity of the existing system, alternatives are difficult to conceive in a situation where all steps are planned and described in detail and where professional status as well as wage level depends on following these steps. But as indicated, a change of attitude is taking place and a growing awareness of non-formal learning can be explained through the following elements.

The traditional education and training system is accused of being too focused on initial training. The rigidity and inflexibility following this bias makes the system badly animated to support continuous training/ retraining. The inclusion of non-formal learning has been introduced as a necessity to balance the current and exclusive focus on initial training. Contrary to this, the development of the CVT system has not followed the highly structured and formalised model of initial training and education. This 'sector' is heterogeneous and subject to limited public or tripartite coordination. The link to the initial training system is weak and rather arbitrary. This state of affairs has underlined the importance of alternative pathways to learning; the fact that the need for competences cannot be entirely planned in advance, flexible learning models are prerequisites for successful learning. The described lack of complementarity in initial and continuous training/education systems stresses the need for 'bridging' solutions which, on the one hand, can utilise the growing CVT system in a more systematic way and on the other, can link these elements to the existing initial training 'colossus'. Assessment methodologies, and institutions able to provide valid and reliable assessments of a wide range of competences from different sources (formal as well as non-formal), are essential if this bridging function is to be developed and established.

Increased flexibility through modularisation has been introduced as a key approach. The main argument is that such a modularisation would link initial and continuing education and training in a better way. Candidates could enter and reenter education and training according to their own needs, and assessment and testing would be limited to the modules in a more output-oriented way leading to alternative paths to learning. A representative of one of the main social partner organisations stated recently (Görner, DGB, 1999):

> 'Das Prüfungswesen wird sich entsprechend verändern müssen. Teilqualificationen sind jeweils im Berufsbildungspass zu zertifizieren. Die Abschlussprüfung wird dadurch erheblich entschlacht, sogar überflüssig [8].'

This statement emphasises the need for a more flexible education and training approach where different levels and learning pathways can be linked together in a better way than is the case today. The German case is important in understanding the general context of non-formal learning. The starting point is not the methodologies, nor the questions of reliability and validity of measuring and assessing learning, but rather how overall change in education and training needs can be reflected within the existing education and training approaches. The dual system was not intended to be a lifelong learning instrument, but an initial training instrument. In a situation where retraining and renewal of competences is emphasised, the weaknesses of this (in other respects very efficient), model appears. The questions are: how to open up the existing model; how to link to CVT, how to allow for a greater variety of pathways to the same qualifications and competences. Such a shift demands systems for assessment and recognition of non-formal as well as formal learning.

Notwithstanding reluctance to embrace initiatives supporting assessment and recognition of non-formal learning, we find elements in the German system linked to this idea. These arrangements illustrate that the issue of non-formal learning has been considered but within a limited scope and framework. The *externenprüfung* is perhaps the most important single element 'bridging' non-formal and formal learning and is a

(8) The system of examinations will change. Partial qualifications will be individually certified and entered into a passport for vocational education and training. This will gradually make the final examinations less important, even superfluous.

permanent element of the dual system. This test provides experienced workers with the right to take part in the final craft examination (*Absclussprüfung*) together with those having followed the ordinary route through the dual system. Although important, the *externenprüfung* only provides access to a test, it does not provide any independent or particular methodology aimed at the identification and assessment of the specific experiences. In this respect, the *externenprüfung* is designed according to the content, principles and structure of the formal pathway. Put another way, the competences acquired outside the formal system, irrespective of how different they are from those produced in the formal system, have to be presented and restructured (by the candidate) according to the principles of the formal system. This does not reduce the importance of the *externenprüfung* as approximately 5% of all examinations within the German system are based on it annually.

In a number of experimental projects the needs of specific groups (unemployed, women trying to reenter employment, drop-outs from the formal system, etc.) were focused upon. A common objective shared by the majority of these projects is to improve access for these groups to continuing vocational education and training and in some cases make it possible for them to reenter the initial training system. The project *bildungspass-qualifizierungspass* of 1974 is an exception. Working on the basis of more general objectives the *bildungspass* can be described as a portfolio approach trying to 'paint', via description and documentation, a broader picture of the competences held by an employee. Together with formal education and training the idea was to include documentation of experience and practice, thus giving a more complete picture of the person in question. The *bildungspass* never became a success and was eventually abandoned. Descriptions of single projects can be found elsewhere

(Cedefop, 1998a, 1999), and it should be emphasised that projects brought to our attention were initiated and financed by public institutions at regional, national or European levels.

☐ 3.1.2 Austria

The topic of assessment and recognition of non-formal learning has not received very much attention in Austria and few practical initiatives can be identified. However, as in Germany, the issue is receiving growing attention. So far, the role of prior and non-formal learning has for the most part been touched upon in debates linked to the question of modularisation of education and training. While basically non-existent in initial education and training, modularisation has, to a limited degree, been introduced in continuing vocational training. These programmes (for example those organised by the *Berufsförderungsinsititut* (BFI) and the *Wirtschaftsförderungsinstitut* (WIFI)) have highlighted the need for alternative practices in the area of assessment and recognition of qualifications and competences. Following the trend observed in most European countries, this debate is closely linked to the overarching question of whether the existing system for education and training will be able to meet the requirements for a more 'flexible' system operating across traditional boundaries and levels. OECD commented on the Austrian education and training system in the following way (1995:84):

> 'In Austria, the idea that there is a time for acquiring knowledge and skills, if possible by obtaining formal qualifications, and a time for using this knowledge professionally, does not yet seem to be out of date.'

This statement reflects some basic characteristics of the Austrian approach to vocational education and training. Elements which explain why the

debate on non-formal learning has been a marginal one until now also indicate a future role for methodologies and systems for the assessment and recognition of non-formal learning. These characteristics can be summarised in the following way.

First, initial vocational education and training holds a very strong position. Based to a large extent on the dual system (40% of each age group still entering), the Austrian system can be described as highly specialised and highly formalised. Based also on a complex legal and administrative body, the content of each occupational profile *(Beruf)* is prescribed in detail. Prescriptions also cover assessment and testing procedures as well as regulations concerning link/transfer to other occupational profiles and levels. Second, the strong specialisation effect has resulted in rather narrow occupational profiles (currently, if all forms of education and training are included, approximately 700 profiles can be identified). Third, the system is hierarchical in its character. No system of 'credit points' exists, meaning that a partially completed training at one level is not recognised. Continuation has to take place from the lower level. Fourth, to a certain extent and due to the specialised nature of the system, 'career lock-ins' can be observed. A move from one career path to another, either in a horizontal or vertical fashion, is complicated. Fifth, in contrast to initial vocational education and training, continuing vocational education and training has not been subject to much political attention and is far less regulated. The 'system' is characterised through competition between private actors and uncoordinated actions from a number of public bodies.

Following these points, the Austrian system for vocational education and training can be described as very advanced in terms of initial education and training. The dual system clearly supports a close interlinkage between formal schooling and work-based learning. Potentially, this creates a strong

fundament for the linking of formal and non-formal competences at later stages in life; the importance of work-based learning is clearly understood and appreciated. This potential has yet to be fully released. The lack of bridging mechanisms between initial and continuing vocational education makes any horizontal or vertical move between occupations and/or educational levels complicated. In short, systems for the recognition of partial qualifications or comptences have not been developed very much. The only exception to this was the introduction of the *berufsreifeprüfung* in 1997. Candidates from the dual system can, by passing this test/assessment, gain access to higher education. The test focuses on general subjects like mathematics, English and German. Non-formal learning in the sense used here is not a part of this test.

On the basis of the above situation representatives of the social partners and various institutions dealing with continuing education and training were asked to comment on the future prospects of systems for assessment and recognition of non-formal learning (Cedefop, 1999a, op.cit.). This small survey reflects the main points made above but offers some interesting clues as to future developments. The employers' representative expressed the clearest yet pessimistic view. According to him, competences acquired outside the formal system and not integrated into a formally recognised certificate will hardly be accepted. He concluded by saying:

> 'We are, I'm sorry to say, big formalists and take as our point of departure that anything not certified is not formally learned, and thus does not exist.'

The same attitude was expressed by others with several having difficulty seeing any positive role for such a system. The high quality and legitimacy of the initial training system was mentioned as a reason why recognition of

partial and non-formal competences would be difficult to introduce in the Austrian context. This view was not, however, fully shared by the representatives of the employees, emphasising the potentially positive role of such systems for individuals applying for jobs. In general, recognition of non-formal learning is looked upon as a factor that can strengthen the position of the employee.

The general impression created by the interviews in Austria is one of reluctance: methodologies for the assessment of competences are partly looked upon as an Anglo-Saxon invention reflecting a situation where a relatively large part of the population has no proper vocational qualification basis. This, it was commented, is not the case in Austria where a completely different education and training approach has dominated for decades. However, almost all commentators are aware of the need for more flexible continuing vocational education and training. The need for a certain modularisation and thus new approaches to assessment and recognition seems to be partly accepted but clearly limited to the area of continuing vocational education and training.

To conclude, Austria can be described as one of the EU Member States were we find the most clearly expressed scepticism towards introducing methodologies and systems. The paradoxes identified within the initial vocational education and training system, as well as between initial and continuing education and training, may lead to a stronger debate and to practical experimentation. For the time being, it is difficult to predict in which direction Austrian developments will go.

3.1.3 Opening up for non-formal learning through the dual system?

As seen above, the German and Austrian approaches to the question of identification, assessment and recognition of non-formal learning are closely linked. It is interesting to note that the two countries where work-based learning has been most systematically integrated into education and training (through the dual system) have so far been very reluctant to embrace this new trend. On the one hand this reflects success; the dual system is generally viewed as successful both in terms of pedagogy (the combination of formal and experiential learning) and capacity (high proportions of the age groups covered). The need for new assessment methodologies is not acknowledged. The success of the dual system may further be seen as the source from where increasing attention to assessment and recognition of non-formal learning springs. The dual system has clearly succeeded in linking learning at school and learning at work. The question is, how to go from a model for initial training to one for lifelong learning. Focusing mainly on young people however, and the reproduction of knowledge and competences, the existing system is only partly able to meet the increasing demand for renewal of knowledge and competences among adults. The need for a more open education and training system where less complicated and better links between occupations and levels of education are opened up, cannot be met exclusively by the dual system. This is the context of the ongoing and growing debate on non-formal learning within the two countries.

3.2 Non-formal learning in the Mediterranean context: Greece, Italy, Spain and Portugal

There are certain common features linking together the Mediterranean countries of Greece, Italy, Spain and Portugal in the area of identification, assessment and recognition of non-formal learning. Compared to northern Europe, these countries (or at least certain regions of these countries), have a much weaker tradition in the area of vocational education and training. Only recently, over the past decade or so, have initiatives been taken to remedy this. Firstly, the relative weakness of vocational education and training in the past has been paralleled by the strength of academic and theoretically based education. Even though academic education in these countries no longer represents any guarantee of employment, high income or high status, the value attributed to formal certificates in general, and academic certificates in particular, is still substantial. In Greece, research indicates that 70% of all youths prefer academic education to vocational education (Cedefop, Turner, op.cit.), despite a serious mismatch between the output of higher education institutions and the labour market demand. Secondly, the relative weakness until recent years of the formal vocational education and training system has established non-formal learning (in particular through work experience), as the domineering form of (vocational) competence reproduction and renewal. This means, and is probably of specific importance in Greece, the southern regions of Italy, and the less developed areas of Spain and Portugal, that a vast reservoir of non-formal, experienced-based competences exists. If this reservoir is going to be 'tapped', and renewed (quantitatively and qualitatively), it is necessary to identify and assess its strengths and weaknesses. The quality of competences based on non-formal learning cannot and should not be

taken for granted. Proper systems for identification and assessment could be one way to face this quality problem, and if necessary, point to the supplementary actions needed to improve quality and entitlement to recognition. Perhaps more than is the case in northern Europe, this illustrates the need for identification and assessment of non-formal learning. Although building on relative weak traditions in the field of vocational education and training, and facing a deep-rooted underrating of vocational competences in general, and non-formal vocational competences in particular, a growing willingness towards change can be observed. Throughout the past decade, all four countries have been reforming their vocational education and training systems and specifically Spain, Greece (with the KEK system) and Italy are now entering decisive stages of these reforms. The consequences in terms of methodologies and systems for the 'identification, assessment and recognition of non-formal learning,' are important, and of relevance to countries outside the Mediterranean area. The four countries, despite their common challenges, have treated the methodological and institutional aspects in different ways and with varying commitment and intensity.

3.2.1 Greece

Greece may be described as the country within the EU where the role of non-formal learning is most dominant (competing with Portugal in this respect to a certain extent). The General Confederation of Greek Workers estimates that only 30% of the Greek workforce has some type of formal vocational qualifications[9]. This means that a significant part of vocational

(9) Research in SMEs shows that 66% of these enterprises do not have a specialised technician; 13% of SME owners had a technical school degree; 44% completed three years of secondary school; 59% would not feel they had any particular need for vocational training.

competences in Greece has been and continues to be reproduced and renewed outside formal institutions. Nevertheless, few initiatives have been taken to identify and assess these competences. In 1994, the Organisation for Education and Vocational Training (OEEK), set up a working group to study the 'accreditation of (non-formal) vocational training of adults'. This work, which represents the most practical initiative in Greece so far, has put forward proposals for the creation of a system for the evaluation of experience, the assessment of gaps in knowledge, and a procedure securing access to appropriate assessment and recognition. While focusing on the aspect of experience, the emphasis of the group was put more on the question of equivalence between different parts of the formal system. Some paths are officially recognised, others are not; many individuals face a lack of consistency and are unable to build on prior training in non-recognised parts of the training system. Pilot studies of a sample of professions (four) were important aspects of the OEEK initiative. In these professions, individuals were assessed and tested, illustrating how formal and non-formal learning is mixed and combined. Thus far, these experiences have not been integrated into the Greek system on a permanent basis.

There has, however, been an ongoing political dialogue on these questions over the past five years and the Ministerial Council is supervising a dialogue between the relevant bodies (Ministry of Labour and Employment, OEEK, EKEPIS [10], and OAED [11]). A main concern is the creation of a national and comprehensive system of qualification profiles

(10) Greek accreditation centre (Elliniko Kentro Pistopiisis).

(11) In the context of the third CSF, a series of targets have been set concerning accreditation of structures, trainers, programmes and competences, and during the period 2000-01 the government has pledged to complete an integrated system for the coordinated recognition of formal and non-formal learning.

and standards which is presently lacking. The future system is being tested through pilot projects in different sectors, including use of the UK NVQ system as an example. The aim is to develop job profiles (and training packages reflecting these) which will make it possible to specify the content, type and level of competence to be met by a candidate. Job profiles will be established at different levels specifying required competences for each specific profession and specialisation both at entry as well as advanced level. Profiles will be established with the participation of sectoral bodies and the social partners. For example, in the case of the hotel sector, job descriptions will be developed with the involvement of the respective unions of hotel employees and the national sectoral body (in this case, the national tourism board). This will provide the framework for a national system on which assessment and recognition can be based and where prior formal as well as non-formal learning can be taken into account. The plan is to open this system up to everybody, the emphasis being on the content and level of competences, not on where and how they have been acquired.

Details on how these competences will be 'tested' have not yet (autumn of 1999) been released. It is possible that the assessment and testing approach applied within the IEK (Instituta Epangelmatikis Katartissis/ vocational training institutes) might be considered. This approach is based on a combination of theoretical and practical testing by 'tripartite' committees. Although elements from the IEK system might be used within a future system, it will not be possible to build on the system as such. Operating on a post-secondary level, assessment is directly linked to the completion of a course and is thus closed to individuals having followed other learning routes. Some doubt has also been cast on the quality of the assessment procedure: while the inclusion of social partner representatives

in the committees can be looked upon as positive, they have not received any particular training, making it difficult to harmonise assessment practices.

The investigation done by Cedefop (Cedefop, Turner, op.cit.) illustrates that broad support exists for the introduction of methodologies and institutional arrangements to assist in this area. There is a certain reluctance among unions of regulated degree-holding professions and among university degree-holders, and this is partly linked to the question of wages and protected rights challenged by new forms of recognition. It is interesting to note that the scepticism identified in the Austrian context is not so clearly expressed among the Greek players in this field. Contrary to the Austrian situation, the Greek vocational education and training system, initial as well as continuing, is, relatively speaking, much weaker; the need for recognition of partial competences, formal and non-formal is seen as more relevant.

3.2.2 Italy

The Italian education and training system and in particular, vocational and continuing training, is currently undergoing a remarkable process of reform. Based on agreements between the government and the social partners (1993 and 1996), the outline of a more comprehensive and national Italian system can be detected. This is particularly clear in the law on 'promotion of employment' (1996-97), in which the basic principles of a (vocational) lifelong learning system is described. The 1996-97 law introduces the principle that competences can be certified irrespective of the way in which they were acquired. Competences acquired through work should be assessed and potentially recognised in the same way as competences acquired through formal training institutions. This is a system

where 'the partial achievements of individuals in their own life paths' can be assessed and recognised. The new law thus adopts a combination of measures: a modular system of training; a system of training credits; and tailored assessment and certification procedures. The aim is to integrate and interconnect the various systems (initial vocational education and training and continuing vocational training) and achieve 'a personalisation' of learning routes. Instruments developed to realise these aims include an 'individual training record book' (can be combined with formal attestations /certificates to form a portfolio), and a 'skills audit'. The training record book can be combined with formal attestations and certificates and form a portfolio. The 'skills audit' is not based on one centralised model applied to the whole country, but differs according to the various regions.

Though still at an early stage of implementation, certain tensions have already occurred. If a 'personalisation of learning routes' is going to be successful, procedures and methodologies for assessment and recognition of competences will be of crucial importance. The question of who is going to measure what, with the help of which methodologies, is at the core of current reforms, while various interest groups (school, employers, employees) cautiously watch initiatives and progress. Observers (Cedefop, Di Fransesco, 1999) point to the predominance of academic content and curricula in proposed assessment procedures. This makes it difficult to treat the non-formal learning elements (e.g. from the workplace), in a fair and valid way. As long as assessments are exclusively based on reference points defined within the formal system, learning experiences following a different logic and leading to a different content (for example based on work experience) can easily be overlooked or given too little attention. It is also commented (Cedefop, Di Fransesco, op.cit.) that these approaches are seriously hampered for the time being by lack of clear-cut

definitions/regulations of the tools in question, and furthermore, the lack of a system of national standards to promote consistent and comparable practices. While being the most important obstacle to reliable and valid assessments, the lack of a national standard is not the only obstacle to be dealt with. Lack of resources limit the feasibility of the approach; a problem that can be linked to the low social esteem associated with this field of education and training. The tripartite basis of the current Italian reforms may however prove important to move from political decisions to actual institutionalised practices.

As in Greece, the general attitude towards these questions is positive. This is illustrated in a recent study (Isfol 1998) where Italian managers were asked what they see as the most crucial elements for managing competences and developing continuing training. This study, it turns out, is closely linked to the question of non-formal learning and how to develop methodologies and institutions in this area. The investigation focuses to a large degree on how to measure competences in such a way that they can be managed and utilised in the best possible way. Some of the points made were:

(a) who should assess the competences acquired by individual workers and how? This already happens in many enterprises but based on internal and not easily transferable standards. Some employers fear that more visible competences would lead to the loss of core competences in the enterprise. Hence, a common framework balancing the interests of the individual and the enterprise is requested;

(b) firm public control over systems for the assessment of competences is seen as necessary. The aim should be to uphold standards and to secure proper representation of the social partners. If the rules and

procedures are clear, a strategy towards the recognition of non-formal learning is seen as feasible and useful;

(c) systems for the recognition of non-formal learning should be linked to general standards open to comparisons. Standards should not be too specific due to the need to take into account the context of the learning in question and the wide variety of learning paths and learning forms involved;

(d) there is a great deal of goodwill and preparedness to try out procedures and instruments to promote visibility and transparency of competences. As indicated earlier, this must be done within a common publicly-controlled framework. This interest is linked to the question of flexibility of the education and training system as such, emphasising that the opening up for transfer of competences between education and work and between different levels of education is a crucial objective which has to be met;

(e) the idea of a portfolio in the sense of recognition of 'experience credits' is looked upon as a potentially promising way to go.

This study clearly indicates that there is a shared conviction among Italian managers that work-based learning is important and that these competences should be made more visible and attributed equivalent value to qualifications and competences acquired in formal settings. The Italian situation is partly contradictory. On the one hand, we can observe a clear development in the direction of a competence-based system for education and training, where various learning pathways, both inside and outside the formal training institutions, can lead to formal qualification. On the other hand, we can observe obstacles of a practical/economic, as well as of a more general character. The lack of a national reference point (standard)

clearly belongs to the last category and future developments must in some way or other provide an answer to this challenge.

3.2.3 Spain

The Italian reform movement in the area of vocational and continuing education and training is paralleled, albeit in an even more comprehensive way, by Spain. Since 1990, three important legal/political initiatives have been taken. A law on 'the general regulation of the education system', was introduced by the Ministry of Education in 1990, and two interlinked 'national vocational training programmes' (I and II), were introduced by the Ministry of Labour in 1993 and 1997. The purpose of all these initiatives, which are linked, is to integrate the different subsystems of training and different forms of acquisition of competences (i.e. combine 'regulated, occupational, continuing training and work experience' with each other). This bridging effort is clearly based on an output-oriented, competence-based view of vocational training education. It can also be said to aim at a lifelong learning system. Until now, the role of non-formal learning has been weak in the Spanish formal system. Confined to the level of enterprises, the transfer of non-formally based competences has been difficult. The restructuring of the education and training system, however, implies that this may change. Two initiatives are of particular interest. Firstly, the integrated service plans for employment (SIPE), establish procedures for the competence assessment of the unemployed. Using a combination of 'occupational interviews', to identify the vocational and competence profile of the individual, and 'occupational qualification tests', this procedure aims to improve the basis of guidance and improve the self-understanding of the individual's own strengths and limitations. The procedure does not, however, lead to any formal recognition. Secondly,

certificates of occupational proficiency represent an effort to certify non-formal learning. Set up in 1995 (Royal Decree 787/1995), the system currently covers 185 vocational titles in 22 sectors/areas. A certificate of occupational proficiency can be obtained through two main pathways. The 'training pathway' is the dominant one, whereas the 'work experience pathway' is still of minor importance. The Ministry of Labour, responsible for the scheme, has identified the following aims:

(a) identify the characteristics of vocational competence and thus objectify accreditation;
(b) integrate vocational training in a system which will guarantee the acquisition of vocational competences;
(c) increase the minimum training content of workers;
(d) give certification national validity;
(e) accredit, through work experience, the qualifications of workers who do not have a formal title.

The practical testing is conducted by an assessment committee of seven provincial or sectoral-based external observers. Observers (Cedefop, Castillo, et.al., 1999) suggest that developmental work within this field is biased through the overemphasising of the formal training path. Although the legal base ascribes the same value to formal and non-formal routes, there is an impression that those attempting to be certified on the basis of experience face a growing number of obstacles. Currently, the establishment of methodologies and arrangements to assess and recognise non-formal learning in Spain depends on the parallel development of 'national systems for qualifications', a reference point which could provide a better basis for integration and interconnection of the various forms of competence acquisition. This system or standard was foreseen in the first

'national vocational training programme' of 1993, and has been under development since then. The 'national institute of qualifications', established in 1999, supports this system and is seen as being of vital importance in the future.

In addition to the elements mentioned herein, collective bargaining is increasingly used as an instrument for the regulation of the occupational classification system. Collective bargaining at sectoral level has led to some progress in the area of occupational classification. Agreement on general classifications, thus doing away with purely company-specific reference frameworks, has made it possible to start work on procedures where workers can be assessed and paid according to these categories. Specifically in the chemical and construction sectors some progress has been made. Though still not very widely used, a professional skills card has been introduced in the construction sector. The trade union organisations responsible for issuing these cards are already complaining about the practical problems faced.

3.2.4 Portugal

Like Greece, Italy and Spain, the economic role of non-formal learning is important in key sectors of the Portuguese economy. In a recently published article, Carneiro (1998) compares two Portuguese industrial sectors: the shoe industry and electronic-component industry. The latter is new in the Portuguese context and consists of employees with a relatively high level of formal education and training. Shoe production, on the other hand, is based on a very low level of formal education and training and is described as a sector reproducing and renewing itself through 'on-the-job learning', or non-formal learning in our context. Carneiro uses the success story of the Portuguese shoe industry, in which the ability to renew and

grow has been very strong, to emphasise the huge potential of non-formal learning. The conclusion is that this form of learning and the resulting competences is a resource that has to be exploited in a more conscious and systematic way in the future.

An overall strategy for the systematic utilisation of these competences is still under development. Within the domain of the Ministry of Labour and Welfare and the Ministry of Education, arrangements have been introduced during recent years to make it possible for individuals lacking formal qualifications to have their actual competences assessed. Based on agreements between the social partners and the government (Economic and Social Agreement 1991, Vocational Training Policy Agreement 1991), the Ministry of Labour and Social Welfare has put into place a vocational qualification system which in principle is open to competences acquired outside the formal education and training institutions. These general agreements, which can be looked upon as efforts to link education and training policies to broader economic and social policy, resulted in three laws on vocational education (401/91, 405/91 and 95/92). The foundation of the vocational training system (SNCP) was laid through these laws, the aim being to establish 'the conditions for effective attainment of vocational certification'. Commissions at national (the Standing Committee on Certification, CPC) and sectoral level (CTE) coordinate the actual implementation of the system. The social partners are represented in both these committees. The institute of employment and vocational training provides technical and professional support to this process. These bodies are responsible for the development and issuance of vocational profiles defining the scope, content and level of a specific qualification. A certificate (CAP) can be achieved either through traditional school-based vocational training, through recognition of qualifications acquired in other

systems (equivalence) or through assessment and recognition of vocational experience.

The last possibility and of particular interest is based on a regulatory decree (68/94) and puts forward the general conditions for issuing a certificate. A procedure containing three main steps is indicated. This procedure is still being tested with the main elements being:

(a) 'application procedure and the prior identification of skills'. At this stage, the vocational file of the candidate is studied. The aim is to establish an overview of the work history of the candidate, including details of formal and non-formal training and learning. Immediate training needs should also be identified. The candidate should provide relevant proof of training and work experience according to the demands set by the certification system. Following this 'paper-based' stage, a stage of assisted self-assessment is foreseen. Specialists supplied by the social partners (we do not have documentation on how this is going to be solved in practical terms) will explain the activities and the competences required by the vocational profile. It is expected that this will identify the match or the mismatch between the competences held by the candidate and the requirements set forth by the profiles. Guidance will be a crucial element of this stage;

(b) 'assessment'. It is stated that assessments can take different forms, the main elements being a formal analysis of the CV drawn up in stage one, the second being a technical interview and the third consisting of tests drawn up in accordance with the certification manual. The technical team (three members) who check the files carry out the interview and supervise the practical tests and may include members of the social partners ('where required');

(c) 'certification'. This is the formal act of issuing a vocational aptitude certificate proving that the holder has the competences needed to carry out the relevant job.

Following the standards set by the job profiles, a vocational certification manual instructs on how to proceed in each specific job area. In this way, an opening up of the system occurs where the importance of vocational learning outside the formal education and training system in work or elsewhere is acknowledged. Practical experience is limited however. In a few cases (trainers of vocational training, hairdressing and beauty services, taxi drivers, occupational health safety services and engineers) processes of assessment and recognition of experientially-based competences have begun or will begin in the near future (2000). For example, engineers can, from 1999 onwards, have their vocational experience assessed through the procedure referred to above.

Within the area of responsibility of the Ministry of Education two main forms of assessment/recognition of non-formal learning can be identified. Firstly, assessment and recognition of informal 'school type learning' can be granted for purely vocational purposes. This means part-recognition can be granted to enable candidates to improve their job situation either through internal promotion or change of career. This recognition is not sufficient, however, to grant access to further education or studies. Secondly, recognition can be granted to individuals to make it possible for them to continue or complete their education at primary or secondary levels. At both levels, candidates are interviewed and tested. If it is concluded that an applicant already has knowledge of some units of one or more subjects, equivalence will be granted and he or she will be placed at an appropriate level. Following a successful assessment/recognition

procedure, candidates follow individual paths, at their own pace, and ask to be assessed when they feel ready for it. A substantial number of individuals have taken advantage of this possibility. In 1997-98, more than 10 000 individuals were assessed for fourth grade primary school, 8 500 for sixth grade and 41 000 for ninth grade. Fifty percent (50%) of this group of almost 60 000 were over 20 years of age. At secondary level, 35 000 were assessed during 1997-98. The vocational experiences of candidates are not covered by this arrangement. School subjects define the focus of the assessment. Competences not covered by the school curricula will not be treated in any explicit way. The assessments should not consider where knowledge has been acquired, but if it has been acquired.

In addition to the assessment and recognition efforts covered by the systems mentioned above (under the responsibility of the Ministry of Labour and Welfare and the Ministry of Education), a number of initiatives have been taken outside these structured systems. The plan is to integrate gradually these autonomous initiatives into the overall framework of the national vocational certification system. CTSs (sectoral commissions) have recently been set up in a number of sectors to prepare integration into the certification system. Examples of groups covered by these initiatives are transport workers, journalists, civil aviation employees, low-voltage electricity workers, merchant seamen and hotel/restaurant and tourism workers. Common to all these groups is that they are covered by sector-internal procedures for recognition of work experience. In the case of transport workers, for example, the general directory on road transportation has issued a 'professional card' to workers with more than five years in a relevant position and having passed a written test. In journalism, one to two years of experience is sufficient (length according to prior education), to give the individual a right to hold a 'professional card' as a journalist.

The Portuguese approach to identification, assessment and recognition of non-formal learning can be characterised as unfinished. A number of elements have been put into place which will eventually make it easier for individuals to make use of competences acquired outside formal education and training institutions. The national vocational certification system is clearly the most important in this setting, potentially opening up for alternative pathways. The social partners will have to play a crucial role in this setting, their roles having been emphasised and clearly defined through the laws regulating the reforms. At all stages of the process, from the definition of the job profiles to the actual assessment, social partners are required and supposed to participate.

3.2.5 A Mediterranean approach?

As shown in the discussion of the southern EU Member States, the general attitude to the introduction of methodologies and systems for non-formal learning is positive. Both in the public and private realms, the usefulness of such practices is clearly expressed. The huge reservoir of non-formal learning which creates the basis for important parts of the economies in these countries needs to be made visible. It is not only a question of making it easier to utilise this reservoir, but also a question of how to improve the quality of these competences. So long as an important part of the competence base in a society is invisible, it is practically impossible to indicate where improvements should be made. In this way, methodologies for the assessment and recognition of non-formal learning can be viewed as tools in a quality campaign, encompassing not only single workers and enterprises but whole sections of the economy.

This line of argument illustrates the possible tension between the use of assessments in formative *versus* summative roles. The reforms of the

education and training system tend to emphasise the summative role more than the formative one. The basic focus is directed towards the issue of proofs (of a certain learning sequence and result) rather than towards the issue of feedback (in order to make it possible to expand and improve a certain competence basis). While this focus is an important one, addressing the need for more open and flexible training systems, methodologies developed within this context do not necessarily offer the solutions required at other levels (for example at enterprise and branch levels).

This group of countries also illustrates that the step from intention to implementation is a long one. Legal and political moves have been made through educational reforms of varying scope but the actual introduction of assessment and recognition practices has not progressed very far. Some countries are actually at a planning stage. The coming years will show whether the positive intentions almost unanimously expressed in the four countries will be translated into practices which actually affect and serve individuals and enterprises.

A striking aspect common to the four Mediterranean countries is the important role played by projects and programmes financed at European level. The examples of Greece, Italy, Spain and Portugal illustrate the importance of EU initiatives and support. A high number of individuals and institutions from all countries have participated in projects and programmes focusing on questions of assessment and recognition of non-formal learning, contributing somewhat to attitudes identified within this area. To take Italy as an example, a substantial amount of experience has been gained through such projects and programmes especially since 1996-97. This 'project approach' can be described as 'bottom-up' in the sense that no centrally established direction or objective has been found. The projects in question seem to be based on the interests and needs of those

individuals and institutions involved and not on the general national policies in the area. While supporting innovative practices and widening the scope of experimentation, the problem may be one of implementation and dissemination. Avoiding a detailed examination of all projects concerned [12], the majority of them focus on three main groups: women, long-term unemployed and employed at risk. In one case, young school dropouts were covered. An impressive variety of identification and assessment methodologies and instruments were suggested/developed in these projects, essentially based on three systems:

(a) fairly structured individual discussions in which the person's own statements prevail;

(b) self-assessment of personal characteristics using ad hoc instruments;

(c) self-assessment through group exercises.

Since no system framework and no formal reference points exist, the assessment systems developed for these groups are left 'on their own', with the resulting assessments receiving varying degrees of acceptance and legitimacy. The main value of these projects, it seems, is to serve as a reservoir of experiences, potentially supporting the more system-integrated assessment tools introduced on a permanent basis. We will return to this issue in Chapter 4.

(12) In 1997, 24 of the Italian Leonardo and 27 of the Italian Adapt projects covered, at least in theory, subjects of certification/recognition (Cedefop, 1999b).

3.3 Non-formal learning in the Nordic context: Finland, Norway, Sweden and Denmark [13]

In two of the four countries discussed in this section, Finland and Norway, the issue of non-formal learning has moved into the forefront of public education and training debates as well as become the subject of important and far-reaching institutional experimentation and reform. In the two other countries, Sweden and Denmark, interest has so far been limited. This seems to be changing, notably in Sweden, where a number of initiatives, both from the government and social partners, have been taken during 1999. The four countries in question share important common traditions in the area of education and training. Mutual learning has been an important aspect of the development of national systems and a shared Nordic labour market has made cross-border transfer of competences a normal and accepted matter of fact. Two things in particular should be mentioned:

(a) education and training is highly institutionalised and formalised, covering major parts of each age group;

(b) education, and especially vocational education and training, is very much a tripartite matter of concern. The steering of training is based on the participation and influence of state employers as well as employees.

During the past three to four decades, however, these countries have chosen different approaches to education and training. This applies in particular to vocational education and training at upper secondary level, where today we can distinguish between four distinct models. The various institutional and organisational choices in the four countries may be linked

(13) Iceland, the fifth Nordic country has, for reasons of capacity, not been included in the Cedefop study.

to a different emphasis on the importance of work-based learning. Recent Finnish and Norwegian reforms very much underline the importance of work-based learning by introducing institutional changes supporting this form of learning. This emphasis has not been so clearly expressed in the Swedish context. The Danish perspective can largely be compared to that of Germany and Austria. The focus has predominantly been on initial education and training within a dual model, generally considered as sufficient to cover the aspect of learning through experience.

3.3.1 Norway

In the Norwegian system for vocational education and training, the apprenticeship element has recently been strengthened. Work experience is now an obligatory and integrated component of all courses in the vocational part of upper secondary education (since 1994). Vocational training in Norway is based on an initial (general) introduction to subjects in the form of two years of school-based education and training. After this, two years in an enterprise or institution follows, aimed at specialisation and development of competences through work experience (Cedefop, Pape, 1999). Currently, a reform of the system of continuing education and training is being introduced. Within this system, methodologies and institutions for the assessment and recognition of non-formal learning (*realkompetanse*) will be integrated. The work on this reform started in 1996 and a committee forwarded their suggestions in 1997, emphasising the importance of establishing broad-ranging methodologies and initiatives for the assessment and recognition of non-formal learning in general and not only in relation to the apprenticeship scheme. This was followed by the parliament proposing and deciding (late spring 1999) on a general reform of the CVT system. The Ministry of Education and Research has been made

responsible for developing a national system for identification, assessment and recognition of non-formal learning (or *realkompetanse*) in the coming two-year period. A broad range of projects has been initiated at national and regional levels in an effort to outline the requirements for a full-scale system of assessment and recognition of non-formal learning. This includes both the methodological and institutional sides of the issue. Social partners are heavily involved in the process and *realkompetanse* has in many ways become a focal point in the Norwegian debate on education and training. In the proposal to parliament which formed the basis for formal decisions and ongoing research and experimentation, it was stated that two types of 'documentation' (identification, assessment and recognition) should be developed. One, documentation should focus on the needs of work in specific occupations or branches, and two, it should focus on the link to the formal education and training systems and give individuals the possibility to apply on the basis of non-formally acquired competences. This explicit focus on the different needs to be met is interesting and not found in many other countries. It might be looked upon as a reflection of the strong social partner involvement in the debate on non-formal learning in Norway. Both employers and employees have emphasised the need to develop methodologies not only following the logic of the education and training system, but also meeting the needs of employees and enterprises. Consequently, the system is supposed to cover competences acquired through different learning paths, including prior formal learning, learning through work experience, experience through the care of children and/or elders, cultural and social activities, etc. Another interesting point made in the proposal to parliament is the emphasis on legal rights. Individuals will be given the right to make formal complaints on assessment decisions (to a regional body). The formal objectives are listed below:

(a) the system should give adults the right to document their competences relative to the curricula of formal education and training (with the aim of certification);
(b) the system should open up for access to formal education on the basis of non-formally acquired competences (the aim of continued training);
(c) the system should provide the basis for exemption of parts of formal education and training courses (the aim of avoiding double work);
(d) the system should provide access to certain professions and occupations stating that non-formal learning is not inferior to formal learning so long as the same quality and competence level is achieved.

It is stated that the system should be autonomous and not only an 'annex' to the traditional testing procedures within formal education and training. More than in most other countries, recent reforms can be linked to a certain tradition. The right to have non-formal competences acquired outside the formal education and training system formally certified, was stated as a general right in the Norwegian Adult Education Act of 1976. However, little progress has been made when it comes to the development of procedures and institutional arrangements. The law of 1976 has served as a symbol of intention, but not as a tool to realise this objective. The single most important form of identification, assessment and recognition of non-formal learning in Norway, is that in which a candidate may take a final examination for apprentices (crafts examination) on the basis of his/her practical work experience. This arrangement was introduced as early as 1952 in the Act concerning vocational training. In Section 20 of this Act, it is stipulated that 'the craft examination may be taken without any

contract of apprenticeship by those who have not less than 25% longer general practice in the craft, than the period of apprenticeship'. During the 1970s and 1980s the utilisation of the scheme was moderate. During the 1990s this has changed and almost exploded during the period 1997-98. Approximately 14 000 candidates attended in each of those years, double for a 'normal year'. Since an average age group comprises approximately 60 000, these numbers are extremely high. Branches such as construction, transport, electro-mechanical industry and health-social care dominate. The popularity of the scheme may be seen as a reflection of the relatively low level of formal training in these areas. It also reflects the general pressure towards formalising qualifications, the most important of these being wages and security of employment.

As illustrated by the Section 20 scheme, non-formal learning has moved to the forefront of the Norwegian debate on competence development. In a recently published report by FAFO (Skule and Reichborn, 2000), four out of 10 Norwegian workers express a need for having their non-formally acquired competences assessed and recognised. Not surprisingly, employees with, relatively speaking, low formal education and training are overrepresented in this group. The need for assessment and recognition is mostly articulated by the 30 to 40 age group (private sector employees) and the 40 to 50 age group (public sector employees). It is interesting to note that those expressing a strong need for documentation of non-formal learning also express a need for formal training, emphasising the role of these systems in bridging work and education and, moreover, wanting to avoid unnecessary repetition of learning sequences.

3.3.2 Denmark

The Danish vocational education and training system can be described as dual in its character being very much based on an apprenticeship approach to training. This initial education and training is supplemented by a system of continuing vocational education and training and highly integrated into labour market policies. Currently, a broad reform of adult education is being discussed (*Undervisningsministeriet* 1997 and Cedefop, Nielsen, 1999). This reform links up with the general trends described in the Norwegian and Finnish cases, emphasising that the role of non-formal learning has to be revised to establish an education and training system linking levels and various learning paths.

Although the debate on non-formal learning has been limited in Denmark, we find elements in the existing system attempting to integrate this kind of learning. The first example is the apprenticeship programme for adults (*Voksenerhvervsuddannelsen*, VEUD). This scheme makes it possible for adults to be exempt from certain parts of formal initial training on the basis of prior educational or occupational experience. The relevant trade committee decides on questions of exemption. The VEUD programme operates according to an individualised approach which identifies the experience of each candidate and sets up a training plan accordingly. Assessment of prior learning is an integrated part of the VEUD scheme. For each adult apprentice, an educational plan must be drawn up which gives proper credit for competences already acquired. The sectoral trade committees are responsible thereby involving the social partners.

Since 1992, approximately 6 000 adults have started training under the VEUD programme. Also, within ordinary initial vocational education and training schemes, exemption can be granted on the basis of prior work experience. If the application for exemption concerns a school subject, the

school in question handles the request. If the reduction of training time is more than four weeks, the trade committee is consulted. The same applies if the exemption concerns practical parts of the programme. Rules for the recognition of prior learning are formulated in the regulations of each single vocational subject. In the health and care programmes, which are regulated through separate legislation, the county or municipality decides on matters of exemption. Having received a recommendation from the school, practical work experience can result in part exemption. The public authority is required to take all possible competences into consideration.

It should be mentioned that the Labour Market Training Act of 1995 provides a clearer focus on the role of learning through experience at work. Following this Act, courses to assist individuals in identifying their competences were introduced and aimed at subsequent training. These courses have a duration of one to three weeks and can be characterised as a combination of assessment and vocational guidance.

An additional Danish approach, not directly linked to the schemes discussed above, should be mentioned. This is the SUM system (strategic development of employees) set up by the social partners (the Confederation of Danish Industries and the central organisation of employees within industry) in the industrial sector in the early 1990s. The aim of the system is to identify ('measure') competences within enterprises and is linked to the central agreement between the social partners that each employee shall attend CVT for at least two weeks every year. When this agreement was made in the late 1980s, the social partners were unable to agree on the content and profile of this training component: who should decide on which courses to attend? To avoid a conflict, a toolbox (the SUM system) was created whereby the enterprises themselves were equipped to analyse and describe their own competences and competence needs. The

idea was that potential conflict would be solved if discussions took place at 'grassroots level'. SUM builds on three fundamental principles:

(a) the companies themselves are the users of the methodology, no external parties (experts) are involved;

(b) the dialogue between employers and employees is the basic principle followed when using this methodology;

(c) a 'modular' approach is used so that enterprises may choose from a selection of methodological elements according to the exact needs of the individual company.

The SUM approach covers identification and assessment of competences. It does not, however, cover recognition in the sense that a link to formal qualification is established. The purpose of SUM is clearly formative, providing enterprises with an instrument to map and validate their own competence resources. The experiences from SUM have illustrated some of the problems likely to be encountered by such an approach. Frequently, the description of competences does not follow the suggested vocabulary, thus making transparency and transfer difficult. It is interesting to note that neither employees nor employers have expressed clear wishes (according to the SUM secretariat) to develop this system further so that it may link up to the formal certification systems. As stated, employees expect to stay in the enterprise and do not see the relevance of tools supporting transfer; employers are afraid of losing their most competent workers and are thus reluctant to establish transparent systems, making transfer too easy.

3.3.3 Finland

The Finnish vocational education and training system is characterised as competence-based (output-based) and operates according to a modularised structure. A core element of this system is that 'vocational competence, independent of the way that it has been acquired, can be demonstrated in skills tests'. A system of 'national qualification guidelines', defining the standards to be achieved, was set up. In 1999, a total of 66 initial vocational qualifications, 146 further vocational qualifications and 107 specialist vocational qualifications were described and defined through this system.

The system was made operational through a new law on vocational education in 1994 (L306/1994) and as indicated above, three qualification categories are involved: an initial vocational qualification, a further vocational qualification and lastly, a specialist vocational education (Cedefop, Haltia, et.al., 1999).

Candidates must be able to demonstrate that they have the basic professional skills required in the field concerned. The candidate will normally be given the following assessment choices:

(a) an assessment based on a portfolio (samples of work products, project works, partial evidence, including employers' descriptions of work tasks, and competence);

(b) an 'authentic' assessment at his/her workplace, supplemented by written/oral interviews;

(c) an assessment at the educational institution which organises the test.

The assessment is closely linked to the national 'vocational qualification guidelines' referred to above. Each qualification is presented in a small booklet consisting of the following parts. First, the qualification structure as such; the relationship between competence-based qualifications and the

rest of the educational system. Second, the objectives of the qualification system. Third, a description of the occupational area; indicating the general abilities required from workers. Fourth, a description of the vocational competences required for the qualification and for the parts/modules forming this qualification (normally four to eight modules). Fifth, a description of ways to demonstrate vocational competences and the criteria to be used in assessing these. Criteria like 'efficiency,' 'quality of work result', etc. These criteria vary strongly from area to area. Finally, a description of how possible preparatory training could be organised.

In the tests of initial vocational qualifications, assessments are graded. This is not the case in tests of further or specialised qualifications where tests are either passed or failed. Although the national guidelines follow the structure outlined above, no strict format has been adopted. In contrast to the UK system, where a rather detailed set-up of units, elements, performance criteria and range statements is presented, the Finnish approach is by comparison less structured and centrally controlled. In the original description of the system it was stated that each occupational area should prepare guidelines from its own basis. This reflects an appreciation of important differences between various occupational areas; to implement one strict and unified model was looked upon as potentially negative. Observers (Cedefop, Haltia, et.al, op.cit., p.18) point to the fact that examination boards have not been given very detailed instructions:

> 'What the examination boards have done has much depended on their own activity. For example, regarding participation in arrangements of skills tests and their supervision, the examination boards have had much freedom of action.'

Furthermore:

> 'Altogether, the national guidelines for qualifications give quite loose instructions for the organisation of skills tests and the assessment of performances. For instance, in the part describing the criteria for assessment, these include expeditiousness and quality of work but without any detailed instructions on how quickly something should be done or how the quality should be examined. The more detailed definition of the requirements is thus much left to the examination boards and the educational organisation organising the skill test.'

This indicates that the introduction of national guidelines for each qualification has not been sufficient to avoid a certain variation in the way assessments have been carried out. Research indicates that assessors often tend to mix the official 'criterion referenced approach' (see also Chapter 2.2) with judgements of competence levels within the specific group being assessed. Or, as it is said:

> 'The assessors are sometimes somewhat hesitant in making their decisions, and they like to see the performances or work samples of all the candidates before they make their judgements.' (Cedefop, Haltia, et.al,.op.cit, p. 42).

The overall skills level of a group of candidates may thus affect decisions determining where (for example) the boundary between pass and fail is to be set. This points to the fundamental problem of how to assure consistency and reliability. Although guidelines in general have been considered to be of relatively high quality, some members of examination boards have requested more detailed and exact guidelines.

In order to 'combat' this problem, a national project (ALVAR)[14] has been initiated to ensure that the tests in certain occupational areas are nationally comparable and that the requirement levels correspond to appropriate needs in working life. ALVAR gathers and trains experts for the preparation of the test task. Training for organisations conducting tests is also organised. Finally, ALVAR develops and maintains a 'test bank' to support the general search for reliable, criterion-referenced testing and assessment. The ALVAR project, financially supported by the European Social Fund, is an interesting example of quality assurance within the area of testing and assessment. The underlying perspective is that it is impossible to specify beforehand in detail, how an assessment is going to be conducted. The most sensible way of assuring reliability and hopefully validity, is to support training of assessors and networking of assessors. Although this process is still too recent to evaluate in concept, it is promising.

Returning to the different assessment options available to candidates, existing data and experiences indicate that most assessments are carried out by the educational institutions. The 'portfolio' option is rarely used. Research (Haltia and Hämäläinen, 1999) point to the difficulties involved in organising assessments at the workplace. Many enterprises refer to 'lack of time' and show little willingness to allow assessments to take place. Representatives from educational institutions seem to support this trend emphasising the difficulties of ensuring uniformity and reliability. The restraint from employers can be read as a reflection of the rather time-consuming model applied. Normally an 'authentic' assessment at the workplace will take two to five days if the whole qualification is to be covered.

(14) *Ammattitutkintojen laadunen VARmistus*, or, quality control of competence-based qualifications).

Competence-based qualifications have clearly become official and intrinsic parts of the regular system for vocational education and training. In 1998, more than 10 000 candidates used this option. The different tasks involved are divided between different administrative bodies and levels. Apart from the top level, including the Ministry and national social partner organisations, the following division of work has been established. Expert groups, administered by the National Board of Education, conduct the actual preparations for the national guidelines, that is, the requirements/ achievements of the qualification in question. Within the expert group, at least the social partners, teachers and preferably self-employed professionals, should be represented. Examination boards (250 in all) are responsible for the organisation and supervision of the tests. They approve the accomplishments of the qualifications and sign certificates. The examination board also has supervisory status, making contracts for the organisation of tests/assessments with educational institutions (or other institutions) that have the necessary expertise. Contracts for the organisation of skill tests involve assessors of the test performance, maintenance and development of the vocational competence of the assessors and a number of other elements.

The Finnish competence-based qualification system is still in its initial phase. This does not alter the fact that it has become an integrated and permanent part of the national system for vocational education and training. The importance of Finnish experiences in relation to the consistency of assessments for example, is underlined by the fact that we speak of a national system operating on a full-scale basis.

3.3.4 Sweden

The Swedish model of vocational education and training can be described as 'school based'. Though gradually becoming more open to apprenticeships, the vast majority of candidates receive their vocational training through instruction in specialised schools. Officially, one aim is to provide a certain practical-oriented training in enterprises (approximately 20% of the time), but this has proven difficult to realise (Cedefop, Forssen, et. al., 1999). As indicated in the introduction to this section, Swedish initiatives in the past have been few, and more related to specific groups (immigrants, disabled, unemployed), than to the general public. The project 'immigrants as a resource', initiated in 1988, developed a testing programme for immigrants with vocational qualifications. This scheme (PTVI), was divided into practical and theoretical parts, taking between two to 12 weeks to complete. After testing, the candidate received a written description of equivalent Swedish education and training requirements. Until 1992, the national labour market board was responsible for organising vocational tests for all the unemployed who wished to be tested. Since then this service has been decentralised to the local employment offices resulting in a sharp decline in testing. Nowadays, the local offices are forced to choose when and to what extent testing should be carried out. The reasons for the decline are complex but the costs and the complexity of the testing itself are mentioned as possible explanations.

Recognising the problems caused by this situation, the Swedish Ministry of Education initiated (in 1998) an investigation on how to assess and recognise 'foreign' qualifications. Following this investigation, a number of recommendations were forwarded (SOU 1998:165), pointing to the need for clarifying responsibilities at national and regional levels. It was suggested that upper secondary school curricula (*Gymnasieskolans*

styrdokument för yrkesutbildning) should be used as benchmarks, defining the appropriate requirements and levels to be met by candidates. The approach is output-based in the sense that no prior, formal schooling or certification is required. Not limited to the issue of 'foreign' qualifications, the report suggests in its final chapter that a system for assessment and recognition of prior and non-formal learning should be open to all adults and not just immigrants. The Ministry has decided to follow up these suggestions by initiating experimental projects in different branches and regions. The discussions following the investigation of the Ministry might prove important. One of the major trade union confederations (*Tjänstmännens Centralorganisation*/TCO) responded by issuing their own report (TCO: 1999) wherein they stated that Sweden needs a system for assessment and recognition of non-formal learning. The ministerial approach is, however, judged as unsatisfactory and far too narrow. TCO suggests initiating a tripartite effort towards a Swedish system for assessment and recognition of non-formal learning, using experiences and best practices from neighbouring Nordic countries as well as from the EU in general.

So far, the main purpose of the methodologies being tested in various regions is to increase the flexibility of upper secondary school. Both at central and regional levels it is frequently repeated that the purpose of the activity is to save time and resources. Adults should not have to repeat learning sequences; schools should not waste resources on teaching adults what they already know. The strong link to upper secondary school is both a strength and a weakness. As illustrated by the experimental project in the municipality of Gothenburg, the direct link to *Gymnasieskolan* makes it possible to build on already established approaches to assessment (only teachers take part in the assessment itself), thus covering a large number of

candidates during a relatively short period of time. The fact that the Swedish vocational education and training system is highly modularised has played a positive role. According to those involved in the project, no major problems have yet been encountered in the application of the formal 'standards' to candidates who have acquired competences through non-formal learning. The weakness may lie in too close a relation to the school. If non-formally acquired competences are supposed to be similar to those developed in formal education and training, there is a certain risk that important competences are defined as irrelevant. The challenge is to develop an assessment approach where equivalance rather than similarity is supported, thus accepting the fact that formal and non-formal learning are different and may have different, though equally valuable outcomes.

Swedish approaches to assessment and recognition of non-formal learning should not be limited to these centrally-initiated projects and experiments. We see a number of other assessment approaches initiated by public as well as private players. These initiatives are more focused on work-related competences and only marginally linked to formal education and training. The Swedish IT programme (SWIT) is an interesting example of high volume assessment of prior and non-formal competences. SWIT (1997-2000) was financed by the Ministry of Labour and Industry and aimed at filling some of the labour shortages in the field of IT. Nearly SEK 1 billion was spent and more than 10 000 individuals trained. More than 80 000 individuals applied for training within this setting, emphasising the need for a high capacity assessment and selection methodology. The purpose of the methodology was to identify persons capable of completing the training in question as well as to identify persons suitable for the various IT functions. Eventually, a methodology, based on a combination of interviews and highly formalised tests (individual numerical/

logical/language skills as well as social/relational skills) was used. The formal tests were given to establish a basis for more personalised interviews aimed at the final selection of candidates.

Without going into further detail on the specific testing involved and methodologies applied, SWIT illustrates that it is possible to introduce high-capacity systems for assessment with a reasonably high level of success, at least if we accept the internal evaluations of the programme. It should be noted, however, that the SWIT assessment was tailored to the specific needs of Swedish IT enterprises and developed in close cooperation with them. Unlike many of the national approaches discussed in this report, SWIT was able to work according to a rather limited set of criteria and to a reference point established by working life.

Identification of prior and non-formal learning is indirectly demonstrated by some of the local and regional initiatives in the 'adult education initiative' (*Kunnskapslyftet*). In the region of Gothenburg, efforts to coordinate guidance and counselling resources have led to the introduction of systematic mapping of an adult's experiences and abilities. While not leading to any formal recognition, the process of identifying more or less hidden competences is seen as crucial for counselling. Teams consisting of teachers, psychologists and other professionals, work together with the candidate to set up a tailored study plan. This illustrates that the link between guidance/counselling and assessment is not always easy to make and underlines the formative role of assessments.

☐ 3.3.5 A Nordic model?

It is not possible to speak of a 'Nordic model' at least not in any strict sense. Finland, Norway, Denmark and Sweden have chosen different approaches and are working according to somewhat different schedules. These

differences do not change the fact that all four countries are taking practical steps, through legislation and institutional initiatives, towards strengthening the link between formal education and training and the learning taking place outside schools. Despite the fact that some elements of this strategy have existed for some time (notably the Section 20 scheme of Norway), the most important initiatives have taken place in recent years, mostly since 1994-95. The mutual learning between these countries is strong and has become even stronger over the past two to three years. The influence of Finnish and Norwegian approaches on recent Swedish documents illustrates this effect.

The rapid changes in the Nordic context contrasts the reluctance encountered in the Austrian and (partly) German contexts. Like these, the Nordic countries have developed very strong and highly structured systems for formal vocational education and training. And as in Germany and Austria, the apprenticeship path is an important and integrated part of these systems (most clearly expressed in Denmark and Norway, less so in Finland and especially Sweden). These similarities have not led to the same conclusions. The willingness to link non-formal learning processes into the formal system is much stronger in the Nordic setting than in the German or Austrian contexts.

The Danish report on 'Identification, assessment and recognition of non-formal learning' (Cedefop, Nielsen 1999) presents some interesting reflections on the specific Nordic approach to education and training and in particular to adult education. The strong influence of the educational philosophy of Grundtvig on adult education especially in the Scandinavian countries Denmark, Norway and Sweden during the past 150 years is probably relevant for the understanding of current developments. Grundtvig's philosophy, focusing on broad and general 'popular

enlightenment' through a system of 'folk high schools', has created a positive attitude towards adult education and learning. The 'folk high schools' have deliberately avoided formal testing and certification and instead focused on the learning process as a value in itself, something which is important in all layers of the population and at all stages of life. To use the language of the EU white paper, this movement has from its early beginnings operated by looking to broaden the individual and societal competence base. This 'popular enlightenment' strategy has gradually been built into the educational systems of the Nordic countries and is currently to a great extent financed by public budgets. The notion that non-certified learning is as important as the certified variety has thus been supported and developed over a long period of time. Being one of many factors, this may offer a partial explanation of why the Nordic countries move faster in this area than is the case in Germany and Austria.

Finland and Norway are clearly opening up for the institutional integration of non-formal learning as part of a general lifelong learning strategy. The plans presented in Sweden and Denmark indicate that these two countries are moving in the same direction and that the issue of non-formal learning will become more focused in the coming years.

3.4 The influence of the NVQs; UK, Ireland and the Netherlands

The national vocational qualifications (NVQs) introduced in the UK in the late 1980s [15] have become a central point around which an interesting process of international learning evolves. Presenting itself as modularised and flexible, meeting the needs of the public and private realms as well as

(15) In Scotland: SNVQs.

individuals and enterprises, many countries have looked towards the UK to see if this system, or rather elements of it, could be implemented into their own context. Furthermore, a number of experimental projects (not least within the Leonardo da Vinci programme) have used elements from the NVQ system as points of departure. Other countries tend to use the NVQ system as an indicator of what they want to avoid, pointing to the problems involved in too radical a modularisation. From the beginning, the system had to face the challenges of accrediting a variety of learning paths, resulting in approaches like accreditation of prior learning (APL) and accreditation of prior experiential learning (APEL). These developments have influenced the European development of methodologies for the identification, assessment and recognition of non-formal learning in a profound way. While including only the UK, the Netherlands and Ireland in our 'NVQ cluster' it should be noted that for the above reasons the NVQ experiences have been considered in a number of other countries as well.

3.4.1 United Kingdom

The UK system of national vocational qualifications (NVQs) has, since its inception, served as the most outspoken and clear example of a competence-based, performance-related, output-oriented system of vocational education and training. Although controversial in the UK, the NVQ system has served as an example of an alternative to the traditional school-based model of education and training. The system is, in principle, open to any learning path and learning form with particular emphasis on experience-based learning at work. As stated in the presentations of the system (and repeated by those countries embracing similar thinking), it does not matter how or where you have learned, what matters is what you have learned. Such a system, if it follows its own principles, is of course

open to learning taking place outside formal education and training institutions, that is, what we in this context have termed non-formal learning. This learning has to be identified and judged, so it is no coincidence that questions of assessment and recognition have become crucial in the debate on the current status of the NVQ system and its future prospects.

While the NVQ system as such dates back to 1989, the actual introduction of 'new' assessment methodologies can be dated to 1991. This was the year the National Council for Vocational Qualifications (NCVQ) and its Scottish equivalent, Scotvec, required that 'accreditation of prior learning' should be available for all qualifications accredited by these bodies (NVQs and general national qualifications, GNVQs). The introduction of a specialised assessment approach to supplement the ordinary assessment and testing procedures used when following traditional and formal pathways, was motivated by the following factors (Cedefop, Perker, et.al., 1994):

(a) to give formal recognition to the knowledge and skills which people already possess, as a route to new employment;
(b) to increase the number of people with formal qualifications;
(c) to reduce training time by avoiding repetition of what candidates already know.

The actual procedure applied can be divided into the following steps. The first step consists of providing general information about the APL process, normally by advisers who are not subject specialists, often supported by printed material or videos. The second and most crucial step includes the gathering and preparation of a portfolio. No fixed format for the portfolio has been established but all evidence must be related to the requirements of the target qualification. The portfolio should include

statements of job tasks and responsibilities from past or present employers as well as examples (proofs) of relevant 'products'. Results of tests or specifically-undertaken projects should also be included. Thirdly, the actual assessment of the candidate takes place. As it is stated (Cedefop, Perker, op.cit., p. 51):

> 'The assessment process is substantially the same as that which is used for any candidate for an NVQ. The APL differs from the normal assessment process in that the candidate is providing evidence largely of past activity rather than of skills acquired during the current training course.'

The result of the assessment can lead to full recognition, although only a minority of candidates have sufficient prior experience to achieve this. In most cases, the portfolio assessment leads to exemption from parts of a programme or course. The attention towards specialised APL methodologies has diminished somewhat in the UK during recent years. It is argued that there is a danger of isolating APL, and rather, it should be integrated into normal assessments as one of several sources of evidence (Cedefop, SVQ 1997, op. cit., p. 9).

> 'The view that APL is different and separate has resulted in evidence of prior learning and achievement being used less widely than anticipated. Assessors have taken steps to avoid this source of evidence or at least become over-anxious about its inclusion in the overall evidence a candidate may have to offer.'

We can thus observe a situation where responsible bodies have tried to strike a balance between evidence of prior and current learning as well as between informal and formal learning. This has not been a straightforward task as several findings suggest that APL is perceived as a 'short cut', less

rigorously applied than traditional assessment approaches. The actual use of this kind of evidence, either through explicit APL procedures or in other, more integrated ways, is difficult to overview. Awarding bodies are not required to list alternative learning routes, including APL, on the certificate of a candidate. This makes it almost impossible to identify where prior or informal learning has been used as evidence [16].

As mentioned in the discussions of the Mediterranean and Nordic experiences, the question of assessment methodologies cannot be separated from the question of qualification standards. Whatever evidence is gathered, some sort of reference point must be established. This has become the most challenging part of the NVQ exercise in general and the assessment exercise in particular.

We will approach this question indirectly by addressing some of the underlying assumptions of the NVQ system and its translation into practical measures. Currently the system relies heavily on the following basic assumptions: legitimacy is to be assured through the assumed match between the national vocational standards and competences gained at work. The involvement of industry in defining and setting up standards has been a crucial part of this struggle for acceptance. Validity is supposed to be assured through the linking and location of both training and

(16) It should be mentioned that systems for accreditation of prior and informal learning have been established and are used within higher education in the UK. The purposes are the following: to provide entry into a course or programme and to issue credit that will count towards an award of some kind. Two main types of accreditation are used. Firstly, 'accreditation of prior certified learning' (APCL) and secondly, 'accreditation of prior experiential learning' (APEL) which cover what we in this context term non-formal learning, gained from experience but not certified. In some cases APEL is referred to as 'recognition of prior learning' (RPEL). Although some of the work of higher education institutions in the are of APL/APEL links into the NVQ system, most seems to be isolated at the higher education institutions themselves. Data showing the extent to which APL/APEL is used in higher education have not been made available to us.

assessment, to the workplace. The intention is to strengthen the authenticity of both processes, avoiding simulated training and assessment situations where validity is threatened. Reliability is assured through detailed specifications of each single qualification (and module). Together with extensive training of the assessors, this is supposed to secure the consistency of assessments and eventually lead to an acceptable level of reliability.

A number of observers (Wolf 1995, Eraut et. al. 1996) have argued that these assumptions are difficult to defend. When it comes to legitimacy, it is true that employers are represented in the above-mentioned leading bodies and standards councils, but several weaknesses of both a practical and fundamental character have appeared. Firstly, there are limits to what a relatively small group of employer representatives can contribute, often on the basis of scarce resources and limited time. Secondly, the more powerful and more technically knowledgeable organisations usually represent large companies with good training records and wield the greatest influence. Smaller, less influential organisations obtain less relevant results. Thirdly, disagreements in committees, irrespective of who is represented, are more easily resolved by inclusion than exclusion, inflating the scope of the qualifications. Generally speaking, there is a conflict of interest built into the national standards between the commitment to describe competences valid on a universal level and the commitment to create as specific and precise standards as possible. As to the questions of validity and reliability, our discussion in Chapter 2 touches upon drawing up the boundaries of the domain to be assessed and tested. High quality assessments depend on the existence of clear competence domains; validity and reliability depend on clear-cut definitions, domain-boundaries, domain-content and ways whereby this content can be expressed.

As in the Finnish case, the UK approach immediately faced a problem in this area. While early efforts concentrated on narrow task-analysis, a gradual shift towards broader function-analysis had taken place. This shift reflects the need to create national standards describing transferable competences. Observers have noted that the introduction of functions was paralleled by detailed descriptions of every element in each function, prescribing performance criteria and the range of conditions for successful performance. The length and complexity of NVQs, currently a much criticised factor, stems from this 'dynamic'. As Wolf (op.cit.) says, we seem to have entered a 'never ending spiral of specifications'. Researchers at the University of Sussex (Eraut, op.cit.) have concluded on the challenges facing NVQ-based assessments: pursuing perfect reliability leads to meaningless assessment. Pursuing perfect validity leads towards assessments which cover everything relevant, but take too much time, and leave too little time for learning. This statement reflects the challenges faced by all countries introducing output or performance-based systems relying heavily on assessments.

'Measurement of competences' is first and foremost a question of establishing reference points and less a question of instruments and tools. This is clearly illustrated by the NVQ system where questions of standards clearly stand out as more important than the specific tools developed during the past decade. And as stated, specific approaches like 'accreditation of prior learning' (APL), and 'accreditation of prior experiential learning' (APEL), have become less visible as the NVQ system has settled. This is an understandable and fully reasonable development since all assessment approaches in the NVQ system in principle have to face the challenge of experientially-based learning, i.e., learning outside the formal school context. The experiences from APL and APEL are thus

being integrated into the NVQ system albeit to an extent that is difficult to judge. In a way, this is an example of the maturing of the system. The UK system, being one of the first to try to construct a performance-based system, linking various formal and non-formal learning paths, illustrates the dilemmas of assessing and recognising non-formal learning better than most other systems because there has been time to observe and study systematically the problems and possibilities. The future challenge facing the UK system can be summarised as follows: who should take part in the definition of standards, how should competence domains be described and how should boundaries be set? When these questions are answered, high quality assessments can materialise.

☐ 3.4.2 Ireland

The Irish accreditation of prior learning (APL) approach is clearly based on the same performance-based approach to assessment as found in the UK. This is hardly surprising, since mutual learning between these countries has been strong and remains so. The Irish experience, however, is of a more limited character than the British. FÁS, the Irish training and employment authority, has been the main promoter and initiator in this field to date. The 'accreditation of prior learning' (APL) is integrated into the general certification framework. The following principles are emphasised. Firstly, FÁS applies a 'competence focus' where the intention is to certify skills and skill levels, not courses. The performance-based output-orientated perspective found in the NVQs and elsewhere, is thus central to the Irish model. Secondly, a modular training programme is matched by modular assessment. Thirdly, emphasis is put on practical and personal skills as well as related knowledge. Fourthly, industrial standards have been established through cooperation and participation with relevant

interest groups (employers, employees). This is to ensure that current industrial practices are reflected in the occupational standards of performances (Cedefop, Lambkin et.al., 1998). Lastly, assessment should be criterion referenced, and each assessment should be linked to key objectives identifying the skills and knowledge to be demonstrated.

However, actual experience with APL in Ireland has been limited. Since 1992, projects in the retail, construction, childcare and electricity supply sectors have been carried out, tailoring the general assessment model developed by FÁS according to the needs of each particular sector. This general model can be described in the following way:

> The model is generic in the sense that 'a common core' has been developed, supposedly to be applied irrespective of differences between occupational areas. Three common stages have been defined. (Cedefop, Lambkin, op.cit., pp.12-14).

The first stage consists of a skills audit. The candidate must identify a qualification for which he or she wishes to claim competence and will undertake an audit of the skill (standard) of his or her occupation and identify the areas where competence can be claimed. Various methodologies can be used at this stage. FÁS offers both a paper-based and computer-based approach (based on the the FÁS Euroform project). The outcome of these approaches are the same: the candidate generates a list of claims which can be worked on for accreditation and perhaps a list of unclaimed areas which require further, 'top-up', training. The second stage involves formal documentation of the claims forwarded by the candidate. At this stage, methodologies vary somewhat. This is due to the differences between various occupational areas, proving work experience in retail, childcare and construction clearly implies different things. In spite of the differences, FÁS states that portfolio building has proved effective in the

sectors where it has been tested. In the FÁS project for the electricity supply sector ('linesmen'), a combination of portfolio building and traditional testing has been used. The third stage of the process builds on the documentation provided through the portfolio (or other evidence) and the assessor judges whether the candidate actually meets the relevant standards. An assessor is generally a subject matter expert qualified in the specific occupational area. The assessor is also supposed to be trained and acquainted with the training standards. The assessment itself is described in the following way (Cedefop, Lambkin, op.cit. p. 14):

> 'An assessor judges the application in respect of the satisfactory meeting of standards. The methodology is a checking of the evidence provided against each training objective for relevance, authenticity, currency and validity.'

Assessments may include an interview with the candidate and a visit to his or her place of work. This depends on the particular case and the characteristics of the occupational area in question.

The future development of assessment and recognition of non-formal learning in Ireland is not clear. While being important, FÁS represents only one part of the Irish certification landscape and it has yet to be seen whether the establishment of Teastas, a national body intended to nationalise certification of vocational education and training programmes, will make a difference[17]. It should also be noted that the 'project approach'

(17) In addition to the initiatives of FÁS, the National Council for Educational Awards (NCEA) has developed policies related to APL. An access scheme has been developed to provide students with the opportunity to accumulate credits outside the context of formal education institutions, for example based on work experience. This can be used to gain an award or to support reenrolling at later stages. Another approach is linked to a part-time study option where students provide evidence in portfolio format to gain exemption from modules or courses of study. Students must demonstrate 50% knowledge of a module and exemptions are possible for up to 50% from any stage or course.

of FÁS, promoting APL in time-limited projects towards limited areas/branches, does not guarantee the permanent introduction of these methodologies. It is fair to say, however, that a certain amount of experience has been gained from these APL projects, supplemented by active participation in a variety of European programmes and projects. It is interesting to observe Irish efforts to 'export' their experiences in the area of APL. In 1995, a project was started in South Africa where FÁS cooperated with relevant authorities in laying the foundation for a system of 'recognition of prior learning' (RPL).

☐ 3.4.3 The Netherlands

The Dutch approach to assessment and recognition of non-formal learning can, in some respects, be compared to the Irish. The influence of the UK NVQ system is evident, but the general performance-based modular system has been translated into a specific Dutch variant of the British.

The Dutch development of systems for assessment of non-formal learning can be traced back to 1993, when the Ministry of Education set up a commission on *Erkenning Verworven Kwalificaties* (EVK) [18]. The work of this commission led to the report *Kwaliteiten erkennen* ('to recognise qualities') where recommendations for the development of a future system were presented. The following three points were indicated:

(a) an infrastructure for methodologies has to be developed;

(b) social acceptance of EVK has to be supported;

(c) methodologies should be developed through pilot studies.

The actual development of methodologies was largely delegated to CINOP [19], and followed the pilot-study approach recommended by the

(18) Recognition of acquired qualifications.

(19) Centrum voor innovatie van opleidingen.

commission, being developed and tested in a limited number of sectors (for example childcare, construction industry). The approach was closely linked, and depended on, the new structure of vocational requirements ('standards') introduced in the Vocational Education and Training Act (WEB) of 1996. The methodology itself can be described in the following way: a candidate wishing to have his or her non-formal learning recognised has to pass through two stages. In the first stage, all available documentation is gathered in a portfolio (formal certificates, statements from employers, examples of work carried out, etc.). This documentation is then compared to the requirements listed in the national qualification structure and a decision on partial qualifications may be reached. Normally, this portfolio stage is followed by a practically-oriented assessment, aiming at formal certification. The methodology is centred on a practical task to be solved and consists of three distinct steps:

(a) planning,
(b) execution,
(c) evaluation.

Within these steps different assessment methodologies are used and a number of aspects focused upon. In the first step, planning, the aim is to assess the candidate's methodological competences and his or her ability to plan the task ahead. Criterion-referenced interviews are used, together with observation of work preparation.

The second step focuses on the actual execution of the task, attempting to assess execution as well as reflective skills. Assessment is based on a combination of observations (of process and result) and a criterion-oriented interview.

In the third step, evaluating/adjusting, the aim is to assess the reflective skills of the candidate. The candidate is asked to reflect on the task

performed, to identify alternative ways of doing it, and to indicate how the chosen approach could be transferred to other working situations. The table below illustrates this process in greater detail.

Figure 1. Aspects of assessment

Sequences of work	Aspects of assessment	Methodologies of assessment	Education strategy
Planning	Methodological competence/ planning skills	Criterion-referenced interview	Problem analysis
		Evaluation of work experiences	
Execution	Execution/ action skills	Observation of process and/or product	Problem solving
Evaluation and Adjustment	Reflective skills	Criterion oriented interview, assessment of result	Determination of learning results, planning and follow up

Source: Klarus and Nieskens, Cedefop, 2000.

The emphasis on evaluation and reflection is an interesting aspect of the Dutch approach. This part of the assessment is conducted according to four strands of questioning. Firstly, and related to the preparations, why did the candidate act in a certain way and were other options available. Secondly, and related to the process itself, why did the candidate act as he or she did and were other options envisaged? Thirdly, and related to the

product (or service), how could the candidate tell that he or she complied with requirements? Fourthly, and related to the completion of the task, why did the candidate act the way he or she did and would other options be possible? This illustrates the strong dialogue-character of the approach; success relying not only on formal procedures and descriptions but also on the abilities and experiences of the assessors as well.

As previously indicated, CINOP's approach is linked to the qualification structure introduced in 1996 through the Educational and Vocational Training Act (WEB). The Dutch qualification standard is based on job and task analysis and it can also be characterised as industry driven (social partners participate, at all levels, in the definition of the standards). A qualification has to be derived from a well-described occupational profile or similar legitimate source of information (Broekhoven and Herwijnen, 1999). These profiles reflect qualification requirements in industries and branches and are divided into five levels: assistant, skilled worker, professional and middle manager/specialist. The fifth level, focusing on higher professional education, is planned, but not yet implemented. Each of these five levels are sub-divided into partial qualifications where objectives concerning required knowledge, skills and attitudes are described. As documented in the UK (Eraut 1996), problems related to the formulation of qualification requirements and standards immediately became one of the main concerns facing the Dutch approach. On the one hand, standards have to be broad enough to cover the huge variety of practices existing even within one occupational area, and on the other, specifications which are too broad run the risk of becoming irrelevant. This problem, referred to as 'criterion' and 'domain referencing' in general assessment theory (Popham 1978, Black 1998), has been faced by all the different countries in their attempt to develop and implement systems for

the assessment and recognition of non-formal learning. Black describes the challenge in this way:

> 'The definition of a domain can only be adequately specific if it can express the boundaries, both of the content and of the ways in which this content is to be expressed, or manipulated or put to use by a candidate.' (p. 65)

Black states that the wider the domain, the more difficult the assessment task. This applies, of course, to the new outcome and performance-based systems for education and training where the definition of qualification domains (part-qualifications and/or modules) is a crucial part of the exercise. These systems can be seen as ambitious efforts to link together different learning areas, notably, formal education and training and learning at work. Such a link, where knowledge and competences are recognised irrespective of origin, relies heavily on a proper methodologies able to capture the qualities of a wide variety of learning paths.

A biased definition, reflecting one area of learning more than another, runs the risk of illegitimacy. This illustrates that the challenge of designing assessment methodologies at national level cannot be reduced to a (narrow) question of tools and instruments, but must include an understanding of the political/institutional framework wherein these tools are supposed to function.

☐ 3.4.4 An NVQ model?

Concluding our discussion of the three countries covered in this section, the overwhelming acceptance of an output-oriented, performance-based model of education and training is most striking. The general acceptance of learning outside formal education and training institutions as a valid and important pathway to competences, seems to go without saying. What is

questioned, however, is how such a system should be realised. The UK and Dutch experiences illustrate some of the institutional, methodological and practical problems associated with establishing a system able to integrate non-formal learning within its framework. The challenge of developing an acceptable qualification standard seems to represent the first and perhaps most serious obstacle. As long as assessments are supposed to be criterion-referenced, the quality of the standard is crucial. The UK experiences identify some of these difficulties balancing between too general and too specific descriptions and definitions of competences. The second important challenge illustrated in the UK and Dutch cases, but not reflected in our material on the Irish experience, is related to the classical assessment challenges of reliability and validity. In our material the problems have been clearly demonstrated but the answers, if they exist, not so clearly defined. The Finns, by networking and training assessors and relevant institutions, have probably identified one possible strategy. Concluding that qualification standards can never achieve a perfect balance between general and specific descriptions, the Finns focus on the competences of the assessors.

3.5 France and Belgium [20]

Like the UK NVQ system, the French experimentation and experiences have influenced the general European debate and development in this area. The *bilan de compétance* can be described as the first effort to introduce a full-scale system for the identification and assessment of non-

(20) Luxembourg would normally have been presented in this chapter but after consultations with representatives of the educational authorities of Luxembourg, Cedefop concluded that the level of activity in this area was too low to defend an independent national study.

formal and experiential learning. Since the introduction of the *bilan* in 1985, attention to these issues has been very strong. Belgium, by contrast, is still at the very early stage of developments and has not yet decided on a clear strategy.

3.5.1 France

In several respects, France can be characterised as the most advanced European country in the area of identification, assessment and recognition of non-formal learning. The reason for this is to be found in national legislation, in the way financing of continuing vocational training is funded, in reforms in the education and training system, and, not least, through initiatives from the private sector.

This emphasis on non-formal learning may seem paradoxical in light of the traditionally strong position of formal education and training. France has been characterised as having an extreme case of 'certificate fixation' (Merle 1998). As in Italy and Greece (see Section 3.3), a certificate not only reflects a formal level of achievement, but the qualities of a person and the rank he or she is entitled to. Mehaut (1977) points to three functions met by French certificates: firstly, as an internal standard of the education system; secondly, as an external standard for the labour market; and, thirdly, as a personal and hierarchical identifier. This 'certificate fixation' is perhaps best reflected in the system of the *grandes écoles*, but influences behaviour in other areas as well, including vocational education and training. The high value attributed to certificates in France is very much linked to the national and homogeneous character of the education and training systems. Education, including vocational education and training, has been provided within predefined, complete national routes, leaving little room for personal or institutional experimentation. Although changes

have occurred during the past decade, the stability of the system has contributed to its transparency; individuals and employers are, in the main, familiar with the various qualifications awarded at national level.

During the past 10 to 15 years, these systems have increasingly been questioned. Stability, it is emphasised, can also be interpreted as rigidity. The homogeneity of the system may easily turn into an obstacle to the renewal of knowledge and competences with alternative forms of learning not accepted because they do not fit into the prescribed routes defined by the national systems. This criticism has been expressed in a number of contexts, gradually 'spilling over' into legal and institutional reforms aimed at a closer link between formal education and training and the learning that takes place at work. Basically, we speak of two sets of legal initiatives with somewhat different profiles and objectives. First, the 1985 law on the *bilan de compétence* permits the validation of professional competences acquired outside formal education. The initiative may come from the enterprise or from the worker him/herself. This right was strengthened through the law of December 1991, which states that employees are entitled to educational leave for the *bilan*. The second legal initiative, the Law of July 1992 on the validation of skills acquired by work experience, is directly linked to the national framework of diplomas and certificates and thus recognises the legal equality between competences acquired inside and outside formal education and training. This framework can, to a certain extent, be looked upon as a parallel to the competence and output-based systems presented above, at least in the sense that a qualification can be achieved on the basis of different learning pathways.

3.5.1.1 The bilan de compétence

The 1985 law on the *bilan de competence* introduces a system for the validation of professional competences acquired outside formal education. The initiative may come from the enterprise or from the worker him/herself. This right was strengthened through the Law of December 1991 which states that employees are entitled to educational leave (24 hours or three working days) for the *bilan*. The aim of the *bilan de compétence* is, according to the Law of 1991, to permit the employee to understand his or her professional and personal competences as well their motivation and aptitudes in order to facilitate their professional as well as their educational plans and careers. As with the approaches discussed above, the *bilan de compétence* is a national system defined and administered according to national law. But while the 'external tests' as well as outcome-based assessments (like the Dutch), are intrinsically linked to the national systems of formal education and training, the *bilan de compétence* is focused on the labour market and on enterprises. As it is said in an official statement on the purpose of the *bilan*:

> 'The user of the *bilan* should, through confrontation with the occupational context (the context of the enterprise or the labour market in general) and his or her own abilities, be enabled to make occupational priorities, make better use of own strengths in career developments. In general make maximum use of own resources.' (cited and translated from Drexler 1997, p. 229).

Officially, the *bilan* has a clear formative role. The idea is to give feedback to the employer or employee on questions of competence to support further learning or career development. More than 700 organisations and institutions have been accredited as *centres de bilan*, competing with each

other over available requests for assessments [21]. The profile and professional basis of these organisations vary strongly. As a consequence of the huge number of organisations involved, and the somewhat general outlines provided by national law, the methodological approach varies considerably too [22]. The following examples show how two different centres have approached the process.

One centre, a public training organisation, divided the process into three phases. Firstly, a preliminary interview, where the motivation and needs of the employee were clarified and where the procedures/ methodologies of the *bilan* were presented. The voluntary character of the process was also emphasised. Secondly, an investigative phase, where motivation, personal and professional interests as well as personal and professional competences were analysed and mapped out. This specific centre used a set of standardised tests to decide on matters like 'temperament' and 'preferences'. A core business was to reconstruct the background of the individual to see whether there was a competence 'core' to be built on. Finally, in the third phase, the results of the analyses were

(21) In 1994, these centres served 125 000 individuals at an estimated cost of FFR 340 million. Three quarters of all requests were made by unemployed workers, 52% of these being women, 44% in the age group 16-25 and 47% in the age group 26-44. Almost 50% of those asking for a *bilan* indicated that *elaboration d'un project professionel* was their main objective, 20% *recherche d'emploi*, 21% *recherche de formation*. Only a very small percentage, 1.9%, indicated that the bilan was a first step taken in order to be validated relative to a certificate or diploma in the formal education and training system.

(22) Ingrid Drexel (1997) illustrates this through the story of a major French enterprise organising *a bilan de compétence* for all its employees. Following an open call for tender, nearly 700 replies were received. The price per assessment varied between FFR 5 000 and 50 000; the estimated time per candidate varied between two to 16 hours; the methodological emphasis varied between neuro-lingustic, psychological, and pedagogical approaches; and the professional background of the assessors varied between psychologists (the majority), teachers and former managers of enterprises.

presented to the candidate and used as a basis for dialogue on future training and career plans. To a certain extent, this part of the process may be compared to occupational guidance, though based on stronger information on the competences of the individual in question. After this process, the candidate received a synthesis document intended to identify clearly his or her personal and professional competences, thus helping to pinpoint the necessary steps to be taken to realise future plans. According to the formal regulations surrounding the *bilan*, this document should normally contain the following elements:

(a) information on the context of the bilan (who initiated it, how was it realised)?

(b) information on the competences and abilities of the person being assessed in the light of occupational aims;

(c) information on the prospects for realising these occupational aims, as well as aims concerning education and training;

(d) information on what is foreseen in order to realise these aims.

The document then becomes the property of the candidate and cannot be used by others without the consent of the person in question.

A second centre, a private enterprise, divided the process into six phases (five if the customer is an individual). The first (enterprise) phase consists of an interview with representatives of the management to present the process of the bilan and clarify the objectives of the enterprise. During this interview the centre tries to get an overview of potential career development plans and training pathways in the enterprise. In the second phase the actual 'mapping' of individual competences begins. This process operates according to a number of criteria; description of own working situation, network, problems/tensions at the workplace, etc. The idea is to capture the main characteristics of the person and his/her situation at work.

At the end of this interview, the candidate is given the task of working out an overview of his or her own formal or non-formal competences. The fourth phase uses this 'homework' as a point of departure and tries to establish whether existing competences are fully utilised. The idea is to define more precisely the potential of the person and clarify where improvements could be made. At the end of this phase, the candidate is given the opportunity to take part in a standardised test covering the most important elements of his or her competences. In the fourth and the fifth phases, the analytical part is used as a basis for guidance. The candidate is given different kinds of 'homework' between these phases and the objective is to increase consciousness of his or her own potential and possibilities. The sixth phase, actual receipt of the written *bilan*, finalises the process. Normally, this document contains three to four alternative but interlinked proposals for further development. How successful the various approaches to the *bilan de compétence* were, and whether some were more successful than others is difficult to judge. There is no institutionalised control of the results of the *bilan*, the criteria for such control would in any event be very difficult to settle. Some criticisms have been presented:

(a) the formative role of the *bilan* is not strong enough. The synthesis document is rarely able to point to occupational projects or prospects and normally only general recommendations for further training are given;

(b) despite efforts to analyse the competence of each candidate, formally and non-formally, many synthesis documents stick to formal elements, i.e., that which can be documented through certificates and diplomas;

(c) in some cases, a 'blind faith' in standardised and automated instruments seems to exist; preventing 'tailored' analyses.

This weakness does not alter the fact that the *bilan de compétence* is one of the few operative competence measurement systems on a large scale. It is also one of the few systems operating on the basis of a clear formative basis; the main idea being to clarify the potential of individuals. This, it is hoped, will then further aid learning and strengthen career possibilities.

The fact that the *bilan de compétence* does not aim at formal recognition of competences according to a qualification standard, makes it distinctly different from the systems presented above. The main reference points are individuals and enterprises; other external references are not referred to, at least not formally (as indicated above, there might very well be informal standards reflecting the professional background of the *centres de bilan*). Following this we can say that the summative role of the *bilan* is weak. If we use summative in the sense of 'summative for accountability to the public' (Black 1998), which is a central feature of traditional assessments and testing in France leading to a diploma, this is not a role meant to be played by this system.

3.5.1.2 'Opening up' diplomas and certificates

The law of July 1992 on the validation of skills acquired through work experience is directly linked to the national framework of diplomas and certificates and thus recognises the legal equality between competences acquired outside and inside formal education and training. This law, administered by the Ministry of Education and linked to the initial training system (leading to a *certificat d'aptitude professionelle* (CAP) or a certain level of the *brevet de technicien supérieur* (BTS), is paralleled by a system for 'assessment of competences and skills acquired through work

experience' (EVAP), developed by the Ministry of Labour. This system is linked to the certificates issued by the Ministry based on continuing training. Certificates issued by both the Ministries of Education and Labour are based on specifications (standards) drawn up in agreement with the social partners in consultative committees (CPSs). Normally, the work of the CPSs is closely linked to a specific training course but acceptance of experiential learning as a legitimate qualification pathway implies that the specifications also have to consider this aspect. Unlike the *bilan de competence*, the potential of the 1992 law has yet to be realised. Merle (op.cit.) is of the opinion that the system for acquiring formal qualifications through validation of skills acquired on the job '…has been slow to get under way and is far from meeting workers' expectations'. It is estimated (Colardyn 1999) that approximately 90% of the requirements for every educational diploma awarded by the Minsitry of Education can be met through recognition of prior non-formal learning. This means that all diplomas are accessible via this route, but also that no diploma can be achieved entirely through assessment of non-formal learning. At some point or another, anybody wishing to have their competences assessed within this framework must acquire a diploma.

While the laws of 1985, 1991 and 1992 are important indicators of a changing attitude towards non-formal learning in France, the qualifications awarded by the *centres d'etudes thermiques et energiques* (CTH) and certificates of vocational qualifications (CQP) can be seen as an alternative to the traditional certification system because they relate to (practical) skills used in firms and are less linked to following courses. So far, industries have been very cautious in creating CQPs, the number awarded annually is rarely in excess of 4 000. Originally, CQPs were designed to certify qualifications of young people who had followed a course of alternating

on-the-job and off-the-job training. Today, industries developing CQPs have given them very different functions: certification complementing the national education system, recognition leading to career advancement and a system of industry certification parallel to that of the national education system.

As already mentioned, France can be viewed as the country in Europe with the longest and broadest experience in the area of identification, assessment and recognition of non-formal learning. The legal base established through the laws of 1985, 1991 and 1992, indicates clearly that non-formal learning is important and that its place, relative to that of formal learning, should be clarified and strengthened. Furthermore, the practical experience gained from the system of *bilan de compétence* is important. Between experiences related to the balancing of capacity and costs and methodological approaches, the *bilan* is also important outside of France. Non-formal learning has, in many other European countries, become an important part of the political debate on education, training and work. The topic is integrated into the national political discourse among social partners and has also led to initiatives from the private sector. The ongoing experimentation of the French Assembly of Commerce and Industry (since 1998) on a system for 'measurement and recognition of competences' deserves to be treated in some detail.

3.5.1.3 A 'bottom up approach' to the measurement of competences

In a note on 'steps towards reliable measurement and recognition of skills and competences of workers' (Colardyn 1999) the somewhat paradoxical character of existing systems for the assessment of prior and non-formal learning in France are discussed. During the 1990s, all diplomas at all levels

were made accessible through recognition of prior learning outside formal education and training institutions. However, a diploma can never be achieved entirely through assessment of prior learning. At some point, which varies from diploma to diploma, the person in question has to sit formal exams. So, while the system has been made more flexible, in the same manner as in the UK, the Netherlands, Finland etc., the reference point is still the formal education and training system. Or as it is said:

> '…recognition of learning is completely linked to the content of diplomas. Prior learning or experience cannot be recognised as such; they are recognised as part of a diploma, as part of an input process leading to formal education degrees. This means that individuals, and in particular adult and experienced workers, not interested in passing an additional diploma cannot get their prior learning or experience recognised.' (Colardyn, op.cit., p. 4)

In a project started in 1998, the objective was to develop a methodology and a system for the assessment and recognition of what an individual can actually do in a work situation, independently of any teaching setting. It aims to capture the results of various learning processes undergone by an individual in a working environment. Furthermore:

> 'Certification of competences is not concerned with assessment of performance. There could be considerable debate on that subject as it is mainly a question of how competences and performance are defined. Assessment of competences implies no judgement on how well an employee performs his actual job. This judgement is to be left to the internal functioning of the enterprise.' (Colardyn, op.cit. p. 6)

From the start, a total of 15 local chambers of commerce and industry and 24 enterprises were involved in the experiment. An independent certification body, the 'Association for the certification of vocational competences,' was set up. The various chambers are represented in the governing board of this association. In addition, and to include all involved parties (employers and employees), a 'Committee for certification' was set up. The role of this committee is important because all elements concerning the assessment process, including assessment standards and proofs, are submitted to it. This committee, operating at national level, is envisaged as playing an important role in securing quality and legitimacy of the approach. As mentioned, this system has been linked to a European norm (EN 45013) outlining 'standards for bodies operating certification of personnel'. Developed by the European cooperation for accreditation (EA), this norm is supported by all the nationally recognised accreditation bodies of the EEA. Traditionally, these bodies have focused on testing, inspection, calibration of technical/administrative systems, and have gradually included certification of personnel in their activities. The objective of the EN45013 is to establish a process for specifying what will be assessed, ensuring that the assessment is transparent to all involved parties, impartial as well as reliable and valid. When translating this norm into the French context, the chambers of commerce and industry emphasised three major principles:

(a) representation of all interested parties;
(b) separation of training and certification;
(c) assessment and certification by a third party.

The setting up of the 'committee for certification' was an effort to meet this first principle. The second principle is to be met by focusing on results and outcomes:

> '..not on the processes to get to the results. The assessment and certification process for certification of competences is separate from any kind of training, regardless of its length or the setting in which it occurs.' (Colardyn, op.cit.,p.7)

The third principle, assessment by a third party, is a crucial part of the approach, linking into the quality, reliability as well as validity of the assessment process itself. An assessment of an employee cannot be conducted by his or her direct supervisor but must be done by an expert in the particular domain who has been trained and certified as an assessor. The work of the assessor will be checked by a *vérificateur* responsible for monitoring the work of a group of assessors. This check and control system also consists of a third and a fourth level. At national level the accreditation office is involved (and serves as an appeals office), at international level the activities at national level are monitored by a team following ISO procedures. The institutional set up, crucial for the legitimacy of the exercise, cannot fully solve the fundamental question of assessment standards or reference points. The standards to be developed and issued by the 'committee for certification' are based on the following elements:

(a) characterisation of the competences and their elements;
(b) a non-exhaustive list of examples of proofs extracted from the work situation in enterprises;
(c) a duration of validity;
(d) reference to the job-descriptions created by the national agency for employment;
(e) reference to the diplomas accessible through prior learning assessment.

Standards are submitted for approval to the committee for certification and then published. Updates are supposed to take place at regular

intervals. For the time being, the main experimentation (and concern) is directed towards how to collect individual competence proofs. A total of 15 different domains (standards) were covered during 1998 and 1999. For each assessment standard, nine enterprises were involved, working on the competence standards and proofs. Three main types of proofs were foreseen:

(a) proofs extracted from the work situation of each enterprise. These form the core of the proof. certification of competences and must reflect activities in the work situation, there is no question of inferring external elements. It is stated that proofs have to exist prior to the setting up of the portfolio;

(b) complementary information, mainly testemonies from supervisors and colleagues, and if appropriate, tests can be used;

(c) additional information, for example, observation or interviews to verify the authenticity of proofs.

The emphasis on proofs has led to what we may describe as a 'bottom-up approach' to the development of standards. The enterprises involved in the experiment have brought forward lists of proofs stemming from their own contexts. The final (but non-exhaustive) list of examples presented in every standard reflected this variety. Although collected in single enterprises, the same proofs tend to appear again and again, in spite of contextual differences. As it is said:

> 'The nature of the proofs extracted from the work situation contribute to support the idea that certified competences are transferable from one work situation to another.' (Colardyn, op.cit., p.11).

The focus on quality assurance and quality control, link into the question of reliability. Avoiding bias, and emphasising sufficient objectivity of the

test, is at the heart of the reliability matter. Due to the highly diverse character of non-formal learning, it will be difficult to achieve the same kind of reliability as in, for example, fixed-response or multiple-choice tests. By introducing quality assurance at all levels (and between levels) the confidence in the methodological procedures may be strengthened considerably. The reliability of assessment of non-formal learning must be based on a high degree of transparency and all steps taken clearly communicated to all participants.

3.5.2 Belgium

While existing institutions and laws in Belgium acknowledge, to a certain degree, the importance of non-formal learning in the overall educational setting, the emphasis on and interest in questions related to assessment and recognition of non-formal learning has been relatively weak. Compared with many other European countries, the Belgian vocational education and training system is weakly linked to the workplace as exemplified by the small proportion of young people receiving vocational training through apprenticeships. The predominantly school-oriented approach to training may have led to a somewhat weaker focus on the issues of recognising non-formal learning than in comparable countries. However, this seems to be changing and in both the French and Flemish parts of the country we can see a growing interest in the topic followed by new initiatives.

In the same way as in several other countries (see Germany, Norway, etc.) a certain flexibility has been introduced, so that individuals having acquired competences at work or elsewhere, may get exemption from at least parts of formal education and training. The system of 'boards of examiners of the French community' (*jury de la Communauté française*), operated by the Ministry of the French Community, provides alternative

exams for those who have followed other 'learning routes' than formal schooling. These exams are predominantly intended for 'autodidacts,' or for 'those having given up study' (Eurydice 1998). To prepare for these exams, individuals have access to necessary facilities in public or private schools and through arrangements for distance learning. Executive orders *(des arrêtes de l'Executif)* determine the rules and regulations governing the organisation and functioning of the assessment boards (juries). These boards are responsible for organising examinations. In secondary education, a number of qualifications may be obtained through this route:

(a) fourth year of secondary education certificate *(certificat d'enseignement secondaire du deuxième degré)* in either general, technical, artistic or vocational forms of secondary education;

(b) upper secondary education certificate (*certificat d'enseignement secondaire supérieur*) in either general, technical, artistic, or vocational forms of secondary education;

(c) DAES (*diplôme d'aptitude à accéder à l'enseignement supérieur*) for students having completed the seventh year of vocational training, and foreign students having obtained official recognition of their national diploma equivalent to the upper secondary education certificate, which only grants access to short-term tertiary education;

(d) diploma for admission to the exam in civil engineering.

Moreover, it is still possible, in accordance with the provisions of former regulations, to sit preparatory examinations leading to admission to training as a hospital care assistant (vocational supplementary secondary education) and to certain tertiary health educations.

Partly relevant to our context are the procedures organised by the *'commission d'homologation'* (acknowledgement committee) responsible

for examining certificates gained through partial studies or qualifications acquired in secondary schools abroad. Before taking any decision, the committee is supplied with all students' documents on the basis of which they can verify whether:

(a) the curricula followed are set and approved by the minister or equivalent standards;
(b) the standard level of instruction was provided;
(c) the student meets the legal requirements with regard to the duration of studies and admission.

The upper secondary education certificates (CESS) form the basis upon which decisions are taken. The committee includes members from public schools (*écoles officielles*) and private (grant aided) schools (*écoles libres*) in equal numbers.

In the Flemish community, a certain degree of flexibility has been built into the system. By taking special examinations, adults can (on the basis of individual learning at work or elsewhere) obtain the same qualification as those having followed traditional pathways. This applies to primary education, lower and upper secondary school and higher education. Another option for adults is to follow the continuing education schemes set up by the Flemish Department of Education and Training. These schemes give adults the possibility to follow courses in the evenings and weekends leading to the same qualifications as upper secondary schools (and parts of higher education). Following a reform in 1999 (Decree of 2 March 1999, OJ 21.8.1999), a reduction of study periods can be granted if relevant work experience is proven. The director of the school decides on the question of exemption while taking into account advice from the teachers involved. It is worth noting that in contrast to the ordinary system, a major part of the Flemish continuing education scheme is modularised.

An initiative taken by the *Conseil de l'education et de la formation* of the French community in 1998 suggests reforming and harmonising the entire system of validation linked to vocational and professional competences, both at initial and continuing levels. A broader concept of qualifications compared to that of the existing system is emphasised and proposed. According to this proposal a qualification must be defined as the totality of those competences necessary to execute a task or those interlinked tasks necessary to have a vocation. This is what we previously characterised as a performance or output-based approach to vocational standards. Competences acquired through work experience are underlined in the proposal pointing to the potential inclusion of non-formal learning in the assessment practices of Belgian education and training. This particular proposal is not explicitly linked to French or other 'foreign' models, the change in perspective from an input to an output-based approach is, however, apparent.

Furthermore, the Flemish authorities are currently working on a reform of the vocational training system trying to implement a modularised, 'output-based' model. In this context, the isssue of assessment and recognition of non-formal learning has been raised, and for the first time introduced on the national (Flemish) political agenda. This project is an effort to link the different providers of vocational training in Flanders (Department of Education and Training, Department of Labour and the Department of Small and Medium-sized Enterprises). For the time being, these three systems are not mutually recognised. The modularisation project aims at establishing such a link through the development of a common set of competence standards. The social partners are heavily involved in this work. If successful, this reform will make it possible for an individual to go from one system to another without restarting everything.

The Flemish work, though still at an early stage, has so far leaned strongly towards the experiences gained in the Netherlands. Both the Dutch system of qualification standards and the APL methodologies developed over recent years are important points of reference. A recent agreement (GENT 5 Agreement, 7 February 2000) between the Ministry of Education in the Netherlands and the Flemish Department of Education gives priority to the exchange of information on the issue of identification, assessment and recognition of non-formal learning. The aim is that steps should be taken towards cooperation, coordination and learning from each other.

In addition to the practices mentioned above, we find several links to the European norm EN45013 (see also Section 3.5.1.3 regarding French experiences in this field). The norm is administered by Belgcert, a body of the Federal Ministry of Economic Affairs. Belgcert was set up during the 1990s and a number of different institutions/organisations are involved (federal and regional departments, etc.) The role of EN45013 can be illustrated through the example of the Belgian Institute of Welding Techniques. The qualifications provided by this institute will be accredited according to the rules of Belgcert and EN4501. Similar approaches can also be observed within the construction, heating, refrigeration, metal, as well as the food and catering sectors.

☐ 3.5.3 A challenge to formal certificates?

Both France and Belgium are countries where formal qualifications and nationally approved certificates play an important role. Merle (op. cit.) has, in the case of France, described this as a 'certificate fixation.' The introduction of a variety of measures to identify, assess and recognise non-formal learning poses a challenge to the role and status of traditional

certificates and diplomas. While a lot of experience has been gained over the past 10 to 15 years, non-formal learning pathways do not represent any serious alternative to the formal education and training system. The role of the *bilan de compétence* is strictly formative; an offer of guidance and feedback rather than an official recognition of competences. The system established in 1992 by the Ministry of Education should be understood as an opening up of the formal education and training system for non-formally acquired competences. This is a limited approach in the sense that standards are defined and set by the formal system. The experimentation of the French chambers of commerce and industry, paralleled by Belgian initiatives, may lead to an approach developed independently from formal education and training but more on the basis of the needs and practices of working life. Whether it is possible or indeed useful to try to link these various approaches within a single national system, is an open question. Whatever the answer, the French and Belgian experiences show that solutions to the identification, assessment and recognition of non-formal learning have to be found through a variety of approaches, applying a mixture of methodologies in response to diverse purposes.

3.6 National systems for identification, assessment and recognition of non-formal learning; determinants and preconditions

At first glance the various national approaches to identification, assessment and recognition of non-formal learning differ widely from each other and might be seen as isolated reflections of national traditions and peculiarities rather than as representatives of a common European trend. A closer look,

however, reveals a limited number of factors influencing the setting up and development of national methodologies and systems. Two factors in particular should be emphasised:

(a) any effort to establish national systems for identification, assessment and recognition of non-formal learning has to start at some form of reference point or standard;

(b) any effort to establish national systems for identification, assessment and recognition of non-formal learning has to face the question of modularisation in some form or another.

The way these factors are treated at national level are highly influential on the setting up of methodologies and systems for identification, assessment and recognition of non-formal learning.

Qualification standards, for example in the form of a general curriculum and/or a more specific syllabus, have traditionally been constructed according to four criteria: *what* (content); *where* (location); *when* (duration); and, *how* (methodology). Partly exemplified by the German and Austrian *Berufsprofilen*, this can be looked upon as a sophisticated yet limited approach. If requirements regarding content, location, duration and methodology are to be fulfilled, only those institutions particularly tailored to 'deliver' these kinds of qualifications will be able to do so. Competences acquired outside the official and approved pathways will probably fail to meet one or more of the above requirements. This approach is contrasted by the competence or performance-based approaches where the number of 'control criteria' has been radically reduced. The questions of where, when and how are defined as of less relevance (and in extreme cases as irrelevant), whereas the question of what (content) is the decisive one. These efforts to 'liberate' competence standards from institutional restraints have, more than anything else, pushed forward the issue of non-formal

learning at national level. Reducing the number of control criteria from four to one, i.e., content, clearly opens up new learning avenues and increased institutional flexibility.

The credibility of this new institutional freedom, however, builds on the ability to specify the boundaries and characteristics of the competences in question. It is obvious that such specification is impossible if the 'size' (scope, depth and complexity) of the competences is too large. Thus, unit-based education and training systems (modularised) are an additional factor influencing the introduction of methodologies and systems for the identification, assessment and recognition of non-formal learning. Most national approaches professing a competence-based approach have combined the setting up of new standards with the setting up of unit-based systems. Those countries having put both these elements into place are generally among the forerunners in the area of integrating non-formal learning into their systems. Sweden is an example. While being reluctant to embrace this particular area (compared to Finland and Norway), strong progress has been made during 1999 and 2000. This can be explained through the highly modularised (more than 800 units) and standardised character of the national vocational education and training system. The experimental projects set up during 1999 have been able to use existing standards/units as their point of departure and there has been no need to enter into more basic discussions regarding the structure of the system or the procedures for setting up standards.

Based on the national experiences presented above, competence standards and a certain degree of modularisation can be looked upon as preconditions for launching permanent systems for the identification, assessment and recognition of non-formal learning. It is clear that each national system has to develop its own tailored form of standard and unit

model. It seems also clear that the competence-based models introduced in the UK and Ireland, thanks to greater institutional flexibility, show a strong incentive towards developing new assessment and recognition approaches. Further, some of the qualities built into the more 'holistic' education and training models (represented by the dual system in particular), could easily be lost if the emphasis on institutional openness and flexibility is the only concern. Theer is a need to combine the present emphasis on learning content with an emphasis on learning forms (where) and learning methodologies (how). While assessment methodologies may help us in utilising the results of learning taking place outside formal institutions they cannot substitute the continuous struggle to improve learning conditions and learning methodologies in the formal as well as in the non-formal setting.

4 european trends: developments at EU level

AS NOTED THROUGHOUT our discussion on various national approaches, the role of the European Union in the area of non-formal learning is interesting and important. First of all, the Commission white paper on 'teaching and learning: towards a learning society', has contributed in drawing attention to the issue, emphasising the importance of making competences acquired outside formal education and training institutions visible. Further, the Leonardo da Vinci and Adapt programmes are important tools for initiating experimentation on methodological and institutional questions. These programmes, through the involvement of a high number of individual project partners, also support an international learning process of potentially high importance, the results of which will only be possible to detect in the long-term.

Notwithstanding the relatively high political priority given to the topic of non-formal learning at Community level, few attempts have been made to summarise efforts so far. The ambitious proposals of the white paper have, to a large extent, remained as general policy proposals with few tangible effects on practical policies at EU or national levels. The various action programmes, of which Leonardo da Vinci is by far the most important, are exceptions to this general statement. Since 1995, the Leonardo programme alone has supported several hundred projects working directly or indirectly on questions related to the identification, assessment and recognition of non-formal or experiential learning. Whether, and to what degree, this activity (experimental and at project

level), will affect learning systems at national, sector and enterprise levels is a difficult question to answer. Such answer will partly depend on the link between the experimental activity in the programmes and the general policy objectives at European and national levels. Thus, the general purpose of this chapter is to reflect on the link between policy objectives and programme activity.

The first subchapter will focus on the objectives presented in the white paper and how these have been followed up through linked documents. The second part of the chapter will deal with the direct follow up of the White paper through projects on 'automated assessment'. These projects have been given high priority, and indicate to a certain degree, the priorities of the European Commission. The third part of the chapter will provide an overview of those projects in the Leonardo da Vinci programme not included in the group of 'automated assessment' projects. This is by far the largest group (we have already come across some of these projects in the presentation of national initiatives, for example in the cases of Germany and Italy).

4.1 The white paper on 'Teaching and learning: towards the learning society'

In November 1995, the European Commission adopted the white paper on education and training entitled 'Teaching and learning: towards the learning society'. Of the five objectives set out in the paper the first is to encourage 'the acquisition of new knowledge'. Several positive effects of 'opening up avenues for validating skills' (p. 35) are foreseen. Such a strategy may:

(a) generate education and training demand from young people or adults unable or not wishing to enter either a formal system leading to paper qualifications or to undergo vocational training;
(b) render it possible for each individual to have partial skills recognised under a flexible and permanent system for validating knowledge units;
(c) identify, assess and reach common agreement on such knowledge units;
(d) encourage individuals to assemble their qualifications themselves, notably through accreditation of such knowledge units.

The introduction of a 'personal skills card' (PSC) is the basic methodology proposed to realise this objective. A PSC providing a record of skills and knowledge should, according to the white paper, be available to all those who want one. The card should be applied to certain fundamental areas of knowledge and even to occupational areas which adhere to a number of different disciplines. The white paper presents the PSC as a 'tool' or a 'lever' in the effort to introduce such standards in the Member States. As stated:

> 'The aim is not to devise a uniform card and impose it on Europe but to contribute to the development of such tools, so as to progressively arrive at joint standards, including standards that cut across a number of occupations' (p. 34).

This statement reflects the political realities within the EU. Questions related to education and training are national responsibilities, any harmonisation of the laws and regulations of the Member States in the area of education and training is excluded. Any development of a European tool in this area must be based on a gradual and voluntary process. The statement also reflects the clear ambitions of the Commission. It is

recognised that many European countries are attempting to identify 'key skills' and the best ways of acquiring, assessing and validating them. However, national initiatives will be of limited value within a context of increased European mobility. The PSC must be understood as a core element in a European system designed to compare and disseminate validation methods and practices. While not commented upon in any detail, it is assumed that the PSC will depend on broad recognition and acceptance:

> 'A European accreditation system covering technical and vocational skills will be set up based on a cooperative venture involving higher education establishments, businesses, vocational sectors, local chambers of commerce and the social partners. Finally, support will be given to concluding a whole range of agreements – at company, branch and regional levels, etc. – incorporating the principle of the PSC' (p. 34).

The white paper did not present detailed plans for the introduction of the PSC. Some details were supplied in a document prepared by the Commission shortly after the presentation of the white paper (EU Commission 1996). With reference to Objective 1 in the white paper, it states that the aim is to set up a European skills accreditation system over the course of a few years which will enable everybody to have his or her knowledge and know-how validated on a PSC. This requires the identification of a number of areas of core knowledge, vocational/ technical knowledge and key skills (cutting across a number of disciplines). These areas must be clearly defined and broken down into coherent basic units classified in increasing order of difficulty. This should, in the words of the author, make it possible to assess an area of knowledge from the most elementary to the highest level. It is admitted that there is no fixed list of

knowledge and skills areas which could be tested at European level. However, the subject should be relatively well established (no major doctrinal controversies) and should leave very little room for national or cultural subjectivity. The following examples are given:

(i) core knowledge areas like mathematics, science, informatics, geography, foreign languages;

(ii) vocational/technical skills in marketing, business management techniques, accounting, etc;

(iii) key skills related to logistics, organisational techniques, communication, decision-making ability, risk assessment and risk management ability, negotiating skills and interpersonal skills.

The accomplishment of this task at European level should be based on the following elements. Firstly, skills assessment and validation should encompass a range of user-friendly validation software packages linked by telematic network (internet) to a central server which will deliver interactive tests on demand, process the result and validate skills at the level tested. Secondly, candidates wishing to validate their skills should be able to take these tests anywhere in Europe, and as many times as necessary in order to pass. The skills level will be registered on a PSC, which people will be able to build up at the pace and in the manner which suits them. As the system eventually gains recognition, the skills card will complement paper qualifications and become real passports to employment. The aim, it is stated, is to establish a system which all Member States can agree on, so that the PSC can become a European tool to enable people to put their skills to use anywhere in Europe. The point is not to create a single European test (national differentiation should be acknowledged), but the methodology used should be the same throughout Europe and everyone should be able to sit all the tests in all

EU languages. Following this line of argument, the PSC is looked upon as a system which will eventually deliver summative assessments; proofs of knowledge and experience to be used in a labour market context. This is not necessarily in line with the broader formulations of the white paper where the formative aspects of assessing competences are given a much more prominent place.

The presentation of the PSC and the European skills accreditation system focuses more on the instrumental and technological rather than on the political and institutional challenges ahead. This is most apparent in the elaboration of the European skills accreditation system where the focus is very much limited to the development of software and telematic networks. The political, institutional and social basis of methodologies is hardly elaborated at all (see also the discussion in Chapter 2). While it is necessary to investigate the potential of new technologies, the weak focus on political and social prerequisites may potentially have a negative influence.

This limited perspective is repeated and confirmed in a recently published report of the Commission (EU Commission 2000) in summarising the follow-up of the white paper. The issue of 'opening up avenues for validating skills' is exclusively linked to the results of the 'automated assessment' projects supported through the Leonardo da Vinci and Socrates programmes (see below, Section 4.2). Apart from repeating the general vision of the white paper (a tool for individuals as well as enterprises, for employed as well as unemployed, for initial training as well as lifelong learning), the Commission is currently trying to assure consolidation of the tests (content and technology), pretesting as well as elaboration of candidate guides. It is acknowledged, however, that 'the socioeconomic world has to be made aware of this new approach…' The contrast between the original visions of the white paper in 1995 and the

2000 summary of actual initiatives taken, may seem disappointing. Before drawing this conclusion, however, we will look a little closer at the 'automated assessment projects'.

4.2 Automated assessment

As indicated, the most direct follow-up of the PSC proposal has been the setting up of an experimental framework where a total of 18 different projects (10 from the Leonardo da Vinci and eight from the Socrates programme) have been (and still are) working on 'automated assessments'. These projects can be divided into three main groups. One group focuses on the testing/assessment of basic knowledge in mathematics, physics, biology, chemistry, statistics and geography [(23)]. A second group focuses on needs in specific sectors, such as banking, business administration, process industry, water supply and food industry [(24)]. The third group focuses on assessing cross-sectoral competences such as computer skills, written expression, languages and key skills [(25)]. The main emphasis, in line with the white paper, is to see how far computer-supported solutions can be used for 'auto-assessment' (the Commission applies different concepts in this context; in addition to 'assessment', terms like 'validation' and

(23) These projects are: AEVEM (LdV, mathematics), Mac (LdV, physics), Tebe (LdV, biology), EACC (Socrates, chemistry), statistics for engineers (Socrates) and validation of geographical knowledge and skills (Socrates).

(24) These projects are: MESAS (LdV, marketing), *Carte des competences bancaires* (LdV), MECAM (LdV, fitters), Media-Eval (LdV, industrial processes), Isocrates (Socrates, law), Test-Water (Socrates, environment-water) and food and environment sciences (Socrates, food industry).

(25) These projects are: Evaling (LdV, written expression), ECDL (LdV, computer technology), MAPS (LdV, key skills), Reperes (Socrates, client services) and Dialang (Socrates, languages).

'evaluation' are much used, see also Annex to this report). The purpose is to provide various users with a tool that will permit them to identify and structure their competences in a better way and thus enable them to plan future training and careers. Another concern is to provide enterprises with a tool for human resource management. As noted earlier, the basic purpose of the Commission approach to assessment is not very clear; generally we observe a wish to combine a system for recognition of competences (providing cross-European proofs) with a tool supporting the learning processes of individuals and enterprises. While not entirely contradictory to each other, the methodological implications of summative and formative approaches, respectively, should not be underestimated. It is important to underline that these remarks are directed towards the general approach at European level, not necessarily towards the projects as such. Several of the 18 'automated-assessment projects' have produced interesting and promising results. We will use one of the most successful of these, the European computer driving licence (ECDL) to illustrate this 'automated approach'.

The idea of a computer driving licence originated in Finland in 1988. The scheme was introduced in 1994 and the ECDL foundation, currently consisting of 14 national computer/data associations, was set up in 1997. A computer driving licence is awarded to candidates who pass tests in seven modules. One of the modules tests theoretical understanding of the issue, while the remaining six assess the practical abilities to use different types of software (operating systems, word processing and spread sheets). Currently, two different versions, a manual and one computer-based, are used in parallel, the manual version being somewhat more flexible as different versions of software can be used. An external evaluation of the project (see below) concludes that the ECDL in several respects has been

successful. Candidate numbers have been steadily growing and had reached 146 000 by mid-1998. This success, according to an external evaluation conducted in 1999 (Guildford Educational Services, 1999), is based on a functioning structure for administering tests in the different countries. The involvement and link to the national computer associations seems also to have been instrumental in this respect. The following strengths are emphasised by the evaluators:

(a) the ECDL has a defined purpose and a defined target group and is clearly meeting a need;
(b) the link to existing test centres has been important;
(c) there is a clear syllabus specifying the knowledge and skills to be assessed (although more work is needed on this point);
(d) the option to use two versions of the test is judged as sensible, and gives the possibility of serving smaller groups with particular needs.

Some criticism was voiced, basically linked to weaknesses in formulation and design of individual questions. The ECDL is alone among the 'automated assessment projects' to have achieved such popularity and widespread use. This might partly be due to the tasks tested, which in many ways are well suited for this kind of computer-based approach. Other factors mentioned by the evaluator may, however, be just as important. A clear purpose and task, a well-defined domain of testing, a clear specification of the skills to be addressed and, not least, a strong link to an institutional setting generally recognised as legitimate (the national computer associations).

The external evaluation provides us with a mixed picture as to the success and quality of projects. Of the more general conclusions, the following points are interesting relative to the challenge of establishing a European PSC and a European skills accreditation system (ESAS):

(a) it is judged as generally difficult to develop computer-delivered tests which are valid and reliable to a number of different countries at the same time. It is difficult to agree on a common core of content appropriate to all countries, especially in vocational areas (banking is mentioned as an example), and in academic subjects like mathematics and physics (curricula differ between countries);

(b) even where an agreed common core had been identified, the test questions had to be 'localised' (or according to Chapter 2 above, 'contextualised') to take into account the differing conditions in the various countries;

(c) properly functioning software is crucial, as wide a range of users as possible should be able to access the tests and security facilities must be developed. Current technology, especially the internet, still poses some problems for users of the systems;

(d) there is a need for an administrative infrastructure supporting the tests. If assessments are going to lead to some form of official certification and/or recognition, this is a fundamental demand not covered within the current scope off the experiment;

(e) the legitimacy of assessments poses a problem. They should therefore be developed on clear expressions of demand/need, be linked to some professional organisation providing an official stamp to the process and, if possible, linked to some accepted European standard. Finally, it is stated that users have to have confidence in the validity and the reliability of the tests/assessments, a requirement not fully met in all cases.

These conclusions are supported by other research findings. Closely linked to the setting up of an experimental framework on 'automated

assessment', the Tavistock Institute of London was asked to look into US experiences on 'accreditation of competences through automated cards' (Cullen and Jones 1997) and use this as a basis for discussion on the feasibility of a European PSC and ESAS. The conclusion of this work is that US experiences, in some aspects far ahead of their European counterparts, only in part can be directly transferred to the European context. Tavistock points to fundamental socio-cultural, institutional, economic and legal differences making direct transfer of US theory and practice into Europe difficult.

Thus early results from pilot projects the study evaluated are highlighting cultural differences in the ways in which skills are defined and utilised in the different locales involved. These are articulated primarily in different interpretations of the skills required to do a particular job, and in the terminology used to describe skills (p. 7).

It is stated that the main obstacles are not to be found in the technological area, according to Tavistock the development of a PSC or ESAS face no major technical obstacles; technical infrastructure exists and the required software has basically been developed. The main challenge is to be found in the 'socio-technical contextualisation' of such systems. Embedding technologies within appropriate institutional and organisational frameworks is the most difficult task ahead. The system will stand or fail, Tavistock concludes, on the putting into place of appropriate partnership between government, industry and representatives of worker organisations. Furthermore, such partnerships should be supported by innovations in areas such as occupational classifications and accreditation/assessment networks. In conclusion, the researchers from Tavistock present two 'scenarios' to illustrate the different directions the PSC and the ESAS may take in the future.

The first scenario is titled 'the big bang' and envisages a comprehensive pan-European skills accreditation system. Such a system would be based on an evolving database of occupational titles, descriptors and competence definitions. It would be structured according to a content-model corresponding to the organisation of the European workplace. This system would be a variant of the US efforts to create federal qualification standard frameworks (26). A European competence standardisation agency, responsible for the collection of data on various skills is envisaged in this scenario, together with a European accreditation agency, responsible for high level management of activities at national, regional and sectoral levels.

The second alternative is titled the 'evolutionary scenario' and opposes the 'top-down' approach of the 'big bang'. Instead, it proposes to build on existing, national and local initiatives, to test to what extent a pan-European initiative like the ESAS can be transferred to different socio-cultural settings and, finally, through the implementation of pilot projects in a limited number of sectors (to gain experience). The major advantage of the 'evolutionary scenario,' it is stated, is that it is workable and that it is embedded in existing socio-cultural settings. This scenario is in many ways more in line with actual developments in the period 1995-2000 (whether this is a result of a conscious choice and clear policy objectives can be questioned, some would say it is a result of a weak follow-up and lack of

(26) Traditionally US activities in the field of qualification standards have been fragmented and not coordinated at federal level. This situation changed somewhat in 1994 when the National Skills Standards Board was established. This board is business-led and supposed to stimulate the development and adoption of a voluntary national system of skills standards. These standards are looked upon as guidelines covering broad economic sectors, created by groups called 'voluntary partnerships.' Partly within the framework of this 'umbrella', efforts to develop taxonomies of occupational clusters have been initiated, O*Net is one of these. O*Net is an electronic adaptation of the *Dictionary of occupational titles*. Efforts to link the various US systems are being made, under the direction of America's labour market information system (ALMIS) and US Department of Labour.

policy objectives. The emphasis on experimentation at a low institutional level is clearly in line with such a 'bottom-up' scenario).

Both the Guildford and the Tavistock studies criticise explicitly the tendency to develop assessment methodologies isolated from their socio-cultural context. Of particular interest is the conclusion from Guildford on the difficulties encountered when trying to identify a 'common core' of content appropriate to all countries. The fact that this problem was encountered in academic subjects like mathematics and physics, described by the Commission in their follow up of the white paper as 'objective areas' of knowledge, underlines the seriousness of the challenge. This does not change the fact that both Tavistock and Guildford point to interesting and promising technological developments. The speed of these developments is increasing and the ongoing experimentation through the Leonardo da Vinci and Socrates programmes will undoubtedly bring forward useful experiences.

'Isolated' tests like the ECDL as well as other 'automated assessment' projects provoke reflection on future strategies. Will the development of a multitude of isolated assessment methodologies, linked to narrow tasks and technologies, provide a better solution than the development of general methodologies at national and European levels? The ability to define the boundaries of the domain to be tested has been presented (Black op.cit.) as a prerequisite for reliable and valid testing. Can the example of the ECDL, and other task or technology-specific approaches, having followed this principle, give rise to a 'bottom-up' approach to the identification, assessment and recognition of non-formal learning? An increasing activity at sector and enterprise levels certainly supports this kind of development; pushing competence measurements forward, but to a great extent outside the control of public authorities, and in particular

outside the control of formal education and training. It would not be surprising if these developments provoked a debate on the role of national (and European) public authorities regarding assessment of competences. Although the advantages of a 'bottom-up' approach may be considerable, a certain danger of 'fragmentation' should not be overlooked. It is a question of whether this fragmentation can be avoided without the existence of a minimum of frameworks, either addressing the standards themselves or the procedures to follow when developing and defining standards (see also the experimentation of the French chambers of commerce).

Furthermore, it might be argued that approaches like the ECDL only operate in 'the periphery' of the huge reservoir of competences developed through non-formal learning, 'measuring' only easily-accessible fragments of knowledge and experience. Such criticism implies that crucial competences, for example related to communication, cooperation and problem solving, remain invisible.

4.3 The Leonardo da Vinci approach to identification, assessment and recognition of non-formal learning

The issue of developing methodologies and systems for the assessment of non-formal learning is not explicitly mentioned among the (19) objectives listed in the original Council Decision (94/819/EC) establishing the Leonardo da Vinci programme. In spite of this, and clearly linked to the emphasis of the white paper, the actual call for proposals (which follows the same structure during the period 1995-99) reflects this field of activity well. As it is said in the 1996 call for proposals (OJ 60/61, 29.2.1996):

> 'Proposals should seek to improve employment prospects by adapting methods and content of vocational training to changes in work organisation, technological developments and social change (…) promoting the acquisition and transparency of vocational qualifications including core/key skills; developing assessment methodologies to validate core/key skills, prior learning, work experience, and informal training; and by examining ways of bringing informal and formal learning arrangements closer together in the context of promoting lifelong learning and access to it…'

These formulations have attracted considerable attention throughout Europe and resulted in a wide variety of projects focusing on the challenges of identifying and assessing competences. With the exception of the 10 projects included in the group officially dealing with 'automated assessment', few initiatives to overview or link these projects together have been taken. To a certain extent these projects represent an untapped reservoir of knowledge and experience on these issues. Although well known to the project partners, results are generally difficult to overview, and consequently, to utilise. To get an impression of the scope and content of experimentation in this area, an electronic search of all Leonardo da Vinci projects initiated during the period 1995-97 was conducted [(27)]. This search, where the most common key words in the area were applied [(28)], provided us with a list of 598 different projects. Following a first sorting of

(27) This search, as well as the follow-up of projects by letter and telephone, was conducted by Litza Papadimitriou in the period June to September 1999.

(28) The following key words and concepts were used: assessment, validation, accreditation, testing, informal and non-formal learning, experiential learning, work-based learning, work assessment and work experience. The wide scope of the search reflects the lack of a clear conceptual approach in this area, a situation further complicated through the diversity of languages applied in the programme. See Annex, Glossary, for further elaboration of this problem.

this group according to relevant categories [29], an individual examination of 388 projects was conducted. By looking into the profiles and objectives of these projects it was possible to create an overview of projects dealing directly and/or mainly with questions concerning identification, assessment and recognition of non-formal learning. A total of 118 projects (36 from 1995, 42 from 1996 and 41 from 1997) were identified. These projects were basically distributed according to four different categories. Firstly, and including 29 projects, a group of projects focusing on the development, testing and implementation of methodologies for assessment and testing of qualifications and competences were identified. In the majority of cases these projects were linked to specific sectors and branches and tried to develop methodologies as a part of broader approach to training and competence development. Secondly, a group of 24 projects aimed at the development and implementation of new learning and training systems. In most of these cases, assessment methodologies were introduced to measure existing competences within a certain professional domain and to build feedback mechanisms into the training processes being planned and developed. A third group of 14 projects worked according to an explicit focus on training modules. In these cases, various assessment instruments were supposed to support the introduction of modules at European level. A fourth group emphasised qualification and competence standards, seeking to develop and introduce appropriate reference points for assessment and certification within specific areas. A majority of projects emphasised the need for European or international qualification or competence-standards, reflecting a growing attention towards qualifications and competences transferable across borders. A

(29) 210 projects belonging to the category 'exchange and placement projects' were excluded from this original sample, leaving us with 388 projects.

total of 15 projects belonged to this group. In addition to the projects in these four main groups, a number of projects combine two or more of these aspects in various ways.

To get a more precise impression of the actual results of the projects, the original list of 118 was analysed to identify 'core projects' suitable for closer follow up. In addition to projects working according to the four main issues listed above, attention was also given to the user and/or customer aspect: who is to be served by the instruments, systems, standards or modules in question? Project managers were invited to report and reflect directly on the results of their work as well as on issues of implementation and dissemination.

It soon became clear that results varied considerably between the different projects. This was partly due to the fact that not all projects had concluded their work (having begun between 1995 and 1997) and also due to varying quality and success of work [30]. In many cases, cooperation between project partners had turned out more difficult than expected and several projects were forced to replace inactive partners. In addition, several projects commented that overcoming the difference between various national systems for training and certification represented a big problem. In projects where a specific national methodology or system had been used as starting points (the UK NVQ system is a typical example of such a 'starting point'), cross-national solutions were generally difficult to find. In spite of these problems, an impressive range of solutions were prepared and proposed in the projects. In most cases, projects point to the problem of dissemination of results. Even in cases where promising

(30) Four of the projects selected for closer study were impossible to reach despite repeated and systematic efforts over a four-month period.

solutions were developed, the step from limited experimentation to permanent implementation remains a difficult one. We can observe a tendency, especially in those projects working at sector or branch level, to 'jump' from programme to programme, 'adjusting' objectives according to the new financing context. Some projects have been started in the Commett programme, moved through the Adapt programme, then to Leonardo da Vinci. In some cases, plans to move on to the second stage of Leonardo da Vinci exist. These strategies may prove valuable as a way of supporting long-term developmental work, but do not solve the basic problem of implementation.

The majority of core projects were defined according to the needs of specific sectors or branches. The following project examples illustrate this:

(a) development of methodologies for assessment of qualifications in the food and drink industry (GR1258);

(b) validation of professional skills in sales and distribution sector (F467);

(c) study of the process of skills validation in motor car sales and repair (F526);

(d) development of methodologies for accreditation of IT skills (GR281729);

(e) development of skills card for the hotel sector, inspired by the PSC-idea;

(f) development of methodologies for identification of maintenance competences, to be able to integrate these into national and European contexts (IRL2086).

Projects were not only defined according to the needs of the specific sectors but in most cases by central players in the sectors: enterprises, social partner representatives, specialised training organisations, etc. In some cases, work had been initiated by sectors and branches themselves, without any public financial support from national or European programmes. Generally speaking, the introduction of funding opportunities seems to motivate activity, a phenomenon that will be discussed in the final part of this report.

The second main group of projects ran according to a more general focus, not limiting themselves to a specific sector, branch or technology. Most of these focused on methodological developments, illustrated by the following examples:

(i) analysis of existing tools for assessment in enterprises (L 3905);
(ii) development of assessment/evaluation tools for enterprises (UK 3890);
(iii) development of systems for assessment and recognition of competences based on experience (F 3914);
(iv) creation of an overview on existing electronic tools for enterprise-internal assessment (UK1188);
(v) development of a European skills passport, partly inspired by the PSC idea (IT4883);
(vi) development of a skills portfolio (F303).

Almost all projects share an interest in developing methodologies/instruments for enterprise-internal assessments. They also share a clear formative perspective by viewing assessment methodologies as a way of providing information and feedback on competence resources and competence development. This feedback is considered necessary to succeed in human resource development and/or quality assurance. A few

projects, like the Irish 'maintenance project', combine a formative and a summative approach, using the assessment as a lever to integrate these specific competences into national qualification frameworks. Two projects will be used to illustrate the rich and varied results produced by this strand of the Leonardo da Vinci programme.

The intention behind the UK project 'Promoting added value through evaluation' (UK 3890, 'Pave') was to give practical and systematic advice to enterprises wanting to use evaluation and assessment methodologies to improve internal training and competence development. This advice (a computer based 'resource pack' and a handbook) is based on extensive research on how employers have treated this question up to now and what their preferences are. On the basis of a survey in the five countries taking part in the project, a total of 1 645 replies were received from enterprises. In addition to this, 125 telephone interviews were conducted and 20 enterprise cases elaborated in detail. This material was used to develop checklists (University of Plymouth, 1998) to be used in enterprise settings. These checklists cover four stages of training and competence development, spanning from early preparations to final reflections on the result of activities. These lists give precise although simple recommendations on which aspects to emphasise and which questions to ask. While primarily focusing on evaluation and assessment of explicit training efforts, the 'Pave' project is relevant in a wider context. The solid empirical basis of the recommendations combined with the simplicity of the recommendation make it well worth considering on a broader scale. It is interesting to note, on the basis of the replies from European enterprises, that an overwhelming majority (95%) emphasises the need for better evaluation and assessment tools. It is also interesting to note, on the basis of the 20 'case studies', that enterprises already have developed a multitude

of internal approaches; reflecting the centrality of the issue in day to day operations.

The second project to be mentioned in this context was also managed from the UK (UK1188: 'Computer assisted assessment at the workplace') and aimed at encouraging the use of computer-assisted tools for testing and assessments at the workplace. To accomplish this general objective, a number of different products have been developed. An assessment-guide for enterprises, various distance learning material and an 'item bank' consisting of assessment questions for a number of areas and sectors being the most important. In this respect the project can be compared to the 'Pave project' mentioned above, the general idea being to give practical advice on assessment issues to enterprises. In addition, and of particular interest in this context, the project has produced a CD-ROM where more than 250 computer-assisted assessments/tests (mainly) developed in the UK, Germany, France, Spain and Italy is presented. This is probably the most comprehensive presentation of 'electronic' assessment tools in Europe until now. For each test, information on producer, price, required hardware and software, type of test and main user group(s) are listed. In addition a detailed description of the scope and potential is provided. Searches can be made according to all these aspects. Two sections of the CD-ROM list products of specific relevance to the area of non-formal learning. A total of 26 products are listed under the heading 'Accreditation of prior learning'. The majority of these are closely linked to the UK NVQ system, covering a variety of subject fields (IBM and the National Extension College being responsible for 17 out of 26 tests). Only one programme has been developed by a non-UK organisation (a Spanish programme focusing on the needs of enterprises, supporting the setting up of training records and general assessment of competences). A total of 96 programmes are

listed under the heading of 'computer delivered tests/assessments of knowledge or skills'. Within this category we find most of the 'automated assessments' projects presented above. In addition we find a number of programmes on specific subjects, either closely linked to specific sectors or (formal) subjects. We also find a few tests aiming at basic skills, key skills, etc. One UK firm has developed a 'key skills profiler' which is presented as a simple system for assessing individual key skills. A bank of 400 questions is supposed to cover 'all accredited key skills' (listed as communication, numbers, information technologies, working with others and improving own learning). By answering 'straightforward questions' candidates will be linked to the 'appropriate levels' within the UK NVQ system.

This specific test invites comments on the testing of aspects of competence like 'communication' and 'cooperation.' As our discussions in Chapter 2 indicated, computer-assisted assessments of communication and cooperation will easily face an authenticity problem, leading to a questioning of the validity of results. While being potentially helpful, a computer-assisted tool cannot fully reproduce an authentic communication and cooperation setting.

The number and range of products listed in the above mentioned CD-ROM reflect the commercial potential of these products. This is a well known feature of the US situation where testing and assessment has attracted considerable commercial attention (and profit) during the past decade. But as mentioned earlier, major differences still exist between the USA and Europe, the role of commercial testing and assessment in the USA being far more established and important. Most of the European tests referred to in the CD-ROM play a limited role not directly linked to formal (summative) certification processes. At most they serve as helping tools for individuals preparing for such certification. And as already mentioned, the

majority are designed to serve formative purposes in enterprise internal settings. Compared to this, US tests are much more strongly linked to certification procedures at national, regional, sectoral and professional levels (as an example, the methodologies used to test US nurses have been developed and are being managed by one of the major US assessment firms. This is a model almost unknown in a Europe dominated by publicly controlled systems for assessment and certification).

Returning to the Leonardo da Vinci programme, the most striking feature is the lack of links between projects. With a few exceptions, all projects approached by us have put a lot of energy and effort into the experimentation, in many cases leading to interesting and partly innovative results, but are not aware of parallel and related projects. Apart from the framework of 'automated assessment' and a meeting in Brussels in November 1996 (where some of the 1995 projects were invited), steps have not been taken at European level to bring together related projects. During 1999/2000, some initiatives have been taken at national level to summarise project results. Primarily focusing on 'their' (nationally managed) projects, the opportunity to explore the whole range of opportunities presented by the 118 projects identified in our electronic search (projects initiated from 1998 and onwards must of course be added) has not been explored. The Leonardo da Vinci programme illustrates both the strengths and the weaknesses intrinsic to the project form. Projects may be instrumental in bringing together new combinations of partners (and thus ideas), in breaking away from established working forms and in focusing on particular problems and challenges. Within a broad programme like the Leonardo da Vinci, a unique and broad form of experimentation may be accomplished. The weaknesses of 'the project way of working' are illustrated when projects reach their final stages, when results have been

produced and project partners leave to return to their ordinary and permanent activities. Following our small survey it is clear that many of the results produced through the Leonardo da Vinci assessment 'strand' will not be spread to interested partners outside the projects themselves, neither will they be implemented as parts of permanent public or private solutions. This can in some cases be justified on the basis of failure to reach expected objectives, in others not. A lot of emphasis has been put on the initial phases of the programme and the projects, less on the final stages and the utilisation of projects and the results of the programme.

The main thrust of the projects presented in this chapter seems to be towards formative assessments at enterprise and organisation levels. The Leonardo da Vinci programme can clearly make a valuable contribution to the development of tools and instruments at this level, although this will require a much stronger emphasis on the link (synergy) between projects and on the dissemination and implementation of projects results.

4.4 A new practical and political commitment?

The March 2000 summit of the Council of the European Union (Lisbon) decided to introduce two new instruments at European level, both relevant to the question of identification, assessment and recognition of non-formal learning. First, and clearly linked to the experiences from the European computer driving licence, agreement on the introduction of a 'European diploma for basic IT skills' was reached. This diploma will be based on 'decentralised certification procedures' and the aim is to 'promote digital literacy' throughout the Union (Summit conclusions, point 26, fourth section). Second, and pointing in a somewhat different direction, a

common European format will be developed for curriculum vitae (cv), to be used on a voluntary basis to facilitate mobility by 'helping the assessment of knowledge acquired, both by education and training establishments and by employers' (point 26, sixth section).

If actually implemented, this decision can be looked upon as a first commitment towards permanent and European-wide follow up of elements from the white paper. The scope and purpose of the initiative is, however, narrower than the original personal skills card approach. First presented in the document 'Strategies for jobs in the information society' (European Commission, 2000b) it is stated that all workers will need new 'information society skills for their continuing or changing role in the workplace' (European Commission, p.15). These skills do not only refer to technical operations but also to professional knowledge, social and organisational capabilities as well as cognitive and strategic skills. But in order to promote and develop these new skills the need for standardised and recognised certification is emphasised. Observing that 'information-society literacy' is something largely acquired outside formal education and training, at work and during leisure time, systematic benchmarking is presented as a necessary step to take. This general conclusion is followed by two practical recommendations. By the end of 2002, it should be 'ensured (that) all teachers are verifiably competent in 'information-society skills'. Furthermore, by the end of 2003, 'every worker (should be) provided with the opportunity to achieve information-society literacy'. While clearly indicating a stronger commitment from the European Union, the question of how actually to solve this challenge by the end of 2002 (for teachers) and 2003 (for workers) is still somewhat open. The role of the ECDL, as an established system combining low cost and high capacity, will be crucial. Whether the ECDL will be able to address the social,

organisational, cognitive and strategic skills referred to by the Commission document is another question. Inclusion of these aspects in a new European diploma will require major changes in the existing ECDL approach; highlighting the problems of establishing adequate reference points as well as achieving validity and reliability. Whatever practical solutions are chosen, a full-scale implementation of the IT skills diploma will provide us with important experiences in the area of assessment and recognition of non-formal learning. The implicit tension between summative (certification) and formative (learning) purposes is clearly present in the initiative. Or, in other words, how much will the investment of resources into testing and assessment increase competences and, not least, in which direction will competences be developed? Teaching and training will inevitably be affected by the introduction of such large-scale testing procedures. Thus, we do not speak of a neutral instrument, but rather of a 'hidden curricula' influencing what is considered important and not so important in the area of IT.

The suggestion of a common European format for curriculum vitae is presented in the context of 'support for mobility'. As has been repeatedly stated during the past decades, supporting and securing the visibility (transparency) of qualifications and competences is crucial to allow people to settle and work in other Member States. Normally, a cv (European or otherwise) is an instrument to present existing qualifications and experiences in as clear a manner as possible. The decision of the Council seems to go one step further by indicating that the cv should help assess already acquired knowledge, both from education and training and from work. It is not clear how this is going to be achieved or which procedures are going to be implemented in support of such a function.

The conclusions of the Lisbon Summit could take the issue of

assessment and recognition of non-formal learning one step further. How this will be done in practical terms has not been clarified in the preparatory papers or in the decisions themselves. Irrespective of the approaches chosen in the near future, they will provide the European level with an opportunity to clarify purposes, reflect on the implicit tensions built into their proposals and strive for the best possible balance between high quality, high capacity and low cost.

4.5 An EU approach to identification, assessment and recognition of non-formal learning?

Irrespective of the 'lost opportunity' to utilise results of the Leonardo da Vinci projects (again with the exception of the 'automated assessment' projects), initiatives at European level have clearly been important to 'push' the issue forward in the minds of the public and the politicians. The white paper helped to define the issue in a clear way and thus supported the processes at national and sectoral levels. The programmes (mainly Leonardo da Vinci and Adapt) have initiated and financed an unparalleled experimental activity. Although not interfering directly in the efforts to develop national systems, the influence of the EU level is clearly detectable. This does not mean that the particular strategy of the white paper, focusing on European standards and a European skills card has been implemented. An important reason is the mixing of objectives in the original conception of the task. On the one hand, the PSC was presented as a summative approach; introducing a new and more flexible proof of qualifications and competences. On the other hand the need for new assessment methodologies were promoted on the basis of the need to

identify and utilise a broader basis of competences; what we may term a formative objective basically addressing the support of learning processes. Looking into the Leonardo da Vinci experimentation, the first objective has only to a limited degree been elaborated and followed up. Where a summative element can be detected, it is normally with a clear reference to existing national qualification systems or linked to a limited sector or profession. The formative aspect, however, has turned out to become a main concern. Not in the form of extensive supranational systems, but in the form of practical tools for single employers and/or employees. We can thus observe a certain division of labour: the national initiatives presented in Chapter 3 are mainly concerned with the summative aspects, the question of proofs. The EU initiatives presented in this chapter are mainly concerned with the formative aspects, the question of feedback and support to ongoing learning processes. This is not so much a result of conscious policy decisions at EU or Member State levels as it is a consequence of the 'bottom-up' character of the programmes. Opening up initiatives from a wide variety of actors, questions and methodologies have been initiated at a 'low' institutional level where formative issues and concerns have dominated. To put it another way; the activity of the projects illustrates the priorities of enterprises and sectors, not the priorities of ministries or the Commission.

This division of labour may be disrupted by the decision at the Lisbon Summit to introduce a European IT diploma. Even though the main arguments presented for this diploma are formative, to develop IT skills, the actual function seems to become more summative. This is of course an interesting turn of events as it will be the first time an EU-initiated diploma will be introduced full scale. Perhaps this is a first sign that the traditionally strong national control over certification will be challenged in time to come.

5 putting the pieces together: actors, objectives and solutions

THE PRESENTATION OF INITIATIVES at national and European levels provides us with a somewhat confusing picture of the 'state of the art' in the area of assessment and recognition of non-formal learning. Apart from the fact that these questions currently receive much political and practical attention, it is not immediately obvious in which direction we are moving. In fact, the number of actors is growing by the day and they work according to a heterogeneous mix of objectives and solutions. However, this is not surprising. The material presented in previous chapters illustrates that no single solution can (nor indeed should) cover all purposes and needs at the same time. There are also clear indications that success depends on a precise understanding of the purpose to be fulfilled as well as of an ability to tailor methodological and institutional solutions to this purpose. This chapter will attempt a more systematic interpretation of the diversity of actors, objectives and solutions that we have observed so far. While not wishing to risk simplifying matters too much, we hope that this will help highlight some of the main achievements as well as challenges. The analytical strategy is simple and straightforward. We ask:

(a) who are the main actors at the different levels, which institutions and organisations are active?

(b) according to which (main) objectives are these actors working?

(c) what solutions are these actors proposing?

Asking the question of who is involved, why are they involved and what are they doing will hopefuly help link methodological and

institutional/political issues. We will discuss four different institutional/organisational levels:

(a) European,
(b) national,
(c) the sector/branch, and
(d) the enterprise level.

5.1 Actors, objectives and solutions at European level

The role of the European Commission in promoting assessment and recognition of non-formal learning has already been described as important. Both the white paper and the Leonardo da Vinci programme have influenced political and practical developments. The European Commission cannot, however, be described as one homogeneous body pursuing one single purpose in this area. A main distinction should be drawn between the DG (Directorate General) 'Education and Culture' (previously DG22) and the DG 'Employment' (previously DG5).

The agenda of the DG Education and Culture (DG EAC) is very much reflected in the proposals of the white paper where the issue of assessment and recognition of non-formal learning is linked to a variety of purposes (lifelong learning, mobility, employment, social inclusion and technical/organisational change). Although easy to criticise as being too wide and vague, these objectives reflect a legitimate appreciation of the multiple responsibilities of education, training and learning policies. The objectives of citizenship and social inclusion are just as important as those of employment and economic growth. The same broad agenda is reflected in the Leonardo da Vinci programme, also the responsibility of DG EAC.

Opening up for an unparalleled experimentation, Leonardo projects have been working according to most of these objectives during the past four to five years. But as indicated above (Section 4.2), only a small fraction of this experimentation has been selected for follow up (the 'automated assessment projects'). Although useful in their own right, these projects can hardly be said to supply appropriate answers to the above agenda. Applying almost exclusively fixed-response and computer-adaptive multiple-choice tests, it is difficult to see how the general objectives related to the linking of education and work and to the the promotion of competences acquired through experience can be met by these very restricted and closed methodologies.

The involvement of DG Employment in issues concerning identification, assessment and recognition of non-formal learning has been less visible than that of DG EAC. However, being responsible for the Adapt programme, this part of the Commission has supported experimental activity, although not as extensively as the Leonardo da Vinci programme. It was not until recently, most notably through the publication of the document 'Strategies for jobs in the information society' (European Commission, 2000b) that methodologies and systems for the recognition of non-formal learning were introduced as integrated and explicit parts of overall employment policies. The IT skills diploma (Section 4.4) proposed in this context is intended as 'a proof' for individuals trying to improve their labour market position. Operating according to this more limited summative objective, the methodologies of the new IT certification (probably building on the experiences of the ECDL) seem more likely to succeed.

The recent involvement of the Council of the EU in this area is interesting. As already mentioned, this is the first time the Union

unanimously decided to proceed in the direction of a common, European 'diploma'. This might indicate a somewhat different balance between the Commission and the Council in questions related to education and competences. It is also a sign that the competence issues have become integrated parts of general employment policies.

The social partner organisations at European level have so far not taken major initiatives. Some of the joint opinions agreed upon by the major employer and employee organisations (UNICE and ETUC) have emphaisied the importance of recognising non-formal learning but actual initiatives to take matters forward have not been presented so far.

5.2 Actors, objectives and solutions at national level

In most countries we can observe a division of labour between authorities responsible for educational issues and those responsible for employment issues. Where separate ministries are responsible for policies in these two areas, a tendency to develop separate methodologies and systems for the identification, assessment and recognition of non-formal learning can be observed. This is a reflection of the different tasks fulfilled and in many ways a parallel to the distinction between DG EAC and DG Employment.

The main objective followed by national educational authorities (ministries and certification bodies) can be described as one of 'reengineering' formal education and training systems. Responding to the critique of formal education and training as inward-looking and closed, policies are frequently addressing subobjectives like flexibility (to accept alternative learning pathways), openness (to broader groups of students) and responsiveness (to the needs of working life). Assessment and

recognition of non-formal learning is an element intrinsically linked to all these reengineering efforts. In contrast to the situation at European level, where a considerable distance between official objectives and proposed solutions can be observed, existing national approaches seem generally better suited to respond to the tasks they are confronted with. In most cases methodologies at national level tend to combine dialogue-supported performance assessments and portfolio methodologies. If we reflect on the methodological alternatives presented in Chapter 2.2, these approaches are not only the most complex to implement and operate, but also the ones promising the most valid results. It should also be noted that most of these national methodologies and systems serve a summative function. Recognition of prior learning and informal learning is supported to make access to formal education and training more flexible and of course improve the labour market position of the individual.

National labour and employment authorities have so far, with the notable exception of France, been less active. Based on the French experiences of the *bilan de compétence* and ongoing discussions in several countries, it is probable that the formative role of assessment methodologies will receive more attention in the coming period. Identification and assessment of prior and non-formal learning can be used as first step in the retraining process, indicating where and how training should be conducted in order to strengthen employment chances. These methodologies can thus be looked upon as integrated parts of vocational guidance practices. If relevant actors at national level formulate this as an explicit objective, methodologies could be designed in such a way that the aspect of identification (not recognition) is highlighted and in such a way that feedback (rather than formal judgement) is emphasised.

The extent to which social partners have been integrated in the setting

up of methodologies and systems at national level varies. As a consequence of the corporate principles applied to the steering of many national systems for vocational education and training, social partners are generally involved in the setting up of qualification standards. We also see a number of cases where social partners are directly involved in the actual assessments, on examination boards, etc. It is, however, difficult to point to countries where the social partners have played a decisive role initiating or setting up the methodologies and systems. More surprising is the fact that the consequences of recognising non-formal learning has hardly been touched upon by labour relations (wages, distribution of positions). This might be due to the 'embryonic' character of existing systems, where the consequences are difficult to overview.

5.3 Actors, objectives and solutions at sector and branch levels

As far as we have been able to confirm, most efforts to develop methodologies and systems for the assessment of non-formal learning at the level of sectors and/or branches have been initiated and financed within the framework of programmes financed by the European Union[31]. We have identified very few cases limited to one national context alone, most approaches operate on an international/European level. The experimentation of the French chambers of commerce and industry can be seen as an exeption, but even this was originally started as a Leonardo da Vinci project including other European partners. This reflects two things.

(31) A simple survey was conducted during spring/summer of 1999 where approximately 100 sector and branch organisations at European level were asked to report back any developments towards the setting up of assessment methodlogies and/or qualification/competence standards. It was empahsised that any initiative, irrespective of level of operation, would be interesting.

Firstly, the European programmes have provided an opportunity for cooperation which has not existed previously. Secondly, and perhaps more important, the development of new competences tends to disrespect national borders (and national educational authorities). Emerging 'international competences' (in many cases based on non-formal learning), highlight the need for other kinds of assessment and recognition than those defined and provided by traditional national certification systems. So far, few (permanent) solutions have been implemented at this level. In most cases we can observe a certain experimental activity linked to the definition of cross-national standards and to the development of testing methodologies. Objectives are very often formulated in a broad manner, indicating that an integration of technical and social competences has to be supported. The choice of assessment and testing methodologies can in many ways be compared to those described at European level. Computer-assisted fixed-response and multiple choice tests are frequently applied, emphasising the summative rather than the formative aspects of the testing. In some cases we get the impression that prefixes like 'computer-assisted' or 'automated' are looked upon as proofs of quality and 'modernity'. Whether these standardised and relatively narrow methodologies will be able to meet the expectations they are confronted with is another matter. Considerations on capacity and cost will, on the other hand, support the introduction of these instruments.

5.4 Actors, objectives and solutions at enterprise level

The enterprise level is not very well covered by this report. This is a weakness which can only be corrected at a later stage[32]. Some reflections on the role of enterprises are, however, possible to present. Keeping stock of competence resources is a natural part of the activity of any enterprise, big or small. In most cases this is not conducted in a formal and systematic manner, for example by the use of testing or assessment methodologies, but as a natural part of the ongoing coordination of work operations. There are clear indications that this informal and unsystematic approach is gradually giving way to more methodologies and systems. Any enterprise recruiting new members of staff will, to a certain extent, have to assess the non-formal competences of the candidate. Enterprises introducing systems for quality assurance will, as another example, have to 'map' the competences of staff and determine whether these form an appropriate level for the new functions to be fulfilled. This means that a number of techniques developed under headings like 'quality assurance', 'total quality management', 'human resource development' and 'work rotation' (to mention a few) will include important elements of identification and assessment of competences. These instruments have almost exclusively been developed for formative reasons, as a way of reporting on and improving existing competences. To ensure quality or to reorganise a production process it is essential to assess the strengths and weaknesses of existing competences. It is only on the basis of such an overview that sensible sugestions for changes and improvements can be made.

(32) Cedefop has initiated a project in cooperation with BMW and (former) Rover to look into ceratin aspects of enterprise-internal assessment practices. This project will gradually be enlarged so that experiences from sectors other than the car industry will be included.

Existing evidence shows, not surprisingly, that larger enterprises are more likely to apply systematic 'competence measurement'. The methodologies developed by Mercedes Benz when setting up a new manufacturing plant in the USA in the mid-1990s, provide us with a good example. Operating in Alabama, an area without any previous traditions in car manufacturing, a totally new workforce had to be created. A total of 60 000 applicatons were received and a specially-tailored methodology for selection was developed. In addition to a judgement of formal qualifications and prior experiences, a complicated arsenal of theoretical and practical tests (a total of 10 steps) was set up in order to be able to choose the 1 200 individuals best suited. It is interesting to note that 'organisational' and 'soft skills' like cooperation and communication were emphasised more than traditional 'hard' skills related to the actual manufacturing process.

The Mercedes Benz case is important in illustrating that high-quality competence measurement requires a certain amount of resources (money and time) and methodological complexity/sophistication. Contary to the pretentions of some of the commercial testing tools presented lately (see Section 4.3), there is no evidence that exclusive reliance on standardised, closed response or multiple choice methodologies will give a valid picture of the competences acquired through individually-shaped experiences. For enterprises, the formative objective will be the most important when considering the introduction of systematic measurement methodologies. If these formative objectives are to be met, methodologies have to be able to provide something more than a representation of what anybody would see even without advanced tools and instruments. While computer assisted methodologies can be of help, more performance-oriented and dialogue-

supported methodologies are probably inevitable if high quality feedback to the learning processes of enterprises is to be delivered.

5.5 Defining a starting point

Development of methodologies and systems for the identification, assessment and recognition of non-formal learning has to start with the question of 'why'. It is our clear impression, based on the discussions of national and European approaches, that methodological and political/institutional initiatives operate according to too many and too vague objectives. Few doubt the importance of making better use of non-formal learning. But if such a broadening of the competence base is to take pace a more precise strategy has to be introduced. A starting point for such a strategy will be to formulate and rearrange the three questions presented at the beginning of this chapter:

(a) what do we want to achieve?
(b) which methodological solutions can provide an answer?
(c) who, at political and institutonal levels, has to be involved to support these solutions?

6 conclusion

THE DISCUSSION SO FAR illustrates that we face a concentrated but highly diversified push towards the introduction of methodologies and systems for identification, assessment and recognition of non-formal learning. While still at an experimental stage, we can observe a clear motivation among actors at European, national, sector and enterprise levels to move in this direction. Any conclusion at this stage must be preliminary. Bearing this in mind, we will summarise the discussion so far in two elements. Firstly, *why* this sudden burst of activity and interest in questions linked to non-formal learning? And, secondly, *how* can the positive elements of this activity be supported, both in methodological and political/institutional terms?

6.1 Why?

Why have most European countries, followed by the European Union and numerous industry sectors and enterprises, started to focus on non-formal learning? What has triggered this wave of activity affecting most European countries almost simultaneously? Answering this requires focus on political and institutional objectives, developments and challenges. We will emphasise three aspects. The first will dwell on what we characterise as the 'search for key qualifications', the search for the 'magic potion' that will enable us to deal with rapid technological and organisational change and survive in the global market. The second will focus on the need for

'institutional reengineering', the link between measuring competences and redesigning learning systems. The third will discuss whether we are in a situation where solutions are seeking problems; whether methodologies and systems are being developed in an institutional vacuum, not responding to actual needs?

6.1.1 In search of the magic potion; the identification, assessment and recognition of key qualifications

Although normally treated as two separate issues, the question of how to define, identify and develop key qualifications and the challenge of how to assess non-formal learning are closely related. We will argue that these two debates reflect different aspects of the same issue. In both cases we can observe increasing attention towards learning and knowledge requirements in a society characterised by unprecedented organisational and technological change. Irrespective of the many and partly conflicting interpretations of key qualifications (Kamarainen 1999) as well as non-formal learning (Bjørnåvold 1998), a common concern among those working with these questions is the search for elements of knowledge and competence transcending specific organisations and/or technologies. The ability to face new settings and unexpected problems is presented as of particular interest, the objective being to prepare people for uncertainty by broadening their basis of knowledge and experience. Dieter Mertens formulates this concern in the following way (1972):

> 'The mental capacity should not only be used to gather factual knowledge, but rather be looked upon as a transfer point (*Schaltzentrale*) for intelligent reactions. In this context, education should first and foremost support handling and solving of problems.' (p.15).

In his effort to define and delimit key qualifications, Mertens identifies a number of elements, thus adding substance to this common concern. Basic qualifications include abilities like analytical and critical thinking as well as the ability to cooperate and communicate. The ability to sort, interpret and make use of existing information in various settings is defined as horizontal qualifications. As many situations and most problems are highly unstructured (Simon 1973), the ability to structure information and sort important from unimportant is of decisive importance. The command of practical skills relevant across enterprise or sector boundaries is defined as transversal knowledge elements (*Breitenelemente*). This last category can be exemplified through the use of basic computer tools in a variety of work settings and through the implementation and follow up of quality systems (for example following ISO standards) in enterprises[33]. Following this, key qualifications are less about knowing facts, theories and rules (knowing what) than about applying them in social, organisational and technological settings (knowing how)[34]. In the decades since publication of the work of Mertens, this emphasis on basic, horizontal and transversal knowledge has been transformed into policy statements[35] in most European countries as well as at EU level. As already indicated in Chapter 4, one of the most important examples of this is the European Commission's white paper on teaching and learning from 1995. Motivated by the difficulties in predicting

(33) Mertens also introduces a fourth element into his definition of key qualifications, *vintage factors*. These are linked to the qualification gaps developing between generations in a context of rapid organisational and technological change. The vintage factors can be looked upon as a 'negative' key qualification indicating knowledge and abilities *not present* in a specific group.

(34) Key qualifications are thus related to the development from novice to expert described by Dreyfus and Dreyfus (1986) and can be described as a transition towards intuitive and involved skilled behaviour based on accumulation of concrete experiences (p. 35).

(35) This does not necessarily imply that policy statements are followed up through actual policies leading to changes in this direction.

future knowledge needs in detail, the white paper warns against a too narrow approach to education and learning:

> 'In the future, individuals will be called upon to understand complex situations which will change in unforeseeable ways … they will also be confronted with an increasing variety of physical objects, social situations and geographical and cultural contexts … the development of a broad knowledge base, namely the ability to grasp the meaning of things, to comprehend and to make judgements, is the first factor in adapting to economic and labour market change.' (p. 9).

The answer to this challenge, according to the white paper, is to develop and support a broader knowledge base through the combination of formal and non-formal learning. Formal education, it is stated, must be systematically supplemented through learning taking place outside formal education -in the family, at work and during leisure time. Such a diversified approach, combining the qualities of different learning areas, is necessary in order to avoid a one-dimensional and too narrow approach to learning. As it is stated:

> 'In fact an excessive standardisation of knowledge prevails. It tends to give the impression that everything has to be taught in a strictly logical order and that … identifying quality is a question of mastering a deductive reasoning system based on abstract concepts, in which mathematics play a predominant role. In certain cases deductive approaches can thus make students passive and restrict the imagination.' (p. 11).

The attention given to the issues of key qualifications and non-formal learning can be interpreted as a reflection of this general demand for a broader, multidimensional knowledge basis. Applying this perspective to

the two issues, their interlinked roles become apparent:

(a) key qualifications can be looked upon as a set of learning objectives, applicable at various levels and thus relevant both to individuals, enterprises and schools. Key qualifications are intangible in the sense that they are 'metaphors' or 'theoretical constructs' drawing our attention to certain aspects of human action, communication and learning. Instead of looking upon key qualifications as 'packages' of knowledge to be listed wherever appropriate, they should be looked upon as guiding principles for learning. If key qualifications are to become something more than topics for academic debate, this guiding role is of critical importance. By drawing attention to these less visible aspects of human competences, practically oriented support strategies may be developed;

(b) methodologies and systems for identification, assessment and recognition of non-formal learning can be looked upon as tools for realising such a practical strategy. The terms informal and non-formal learning are however not very helpful in this respect. Non-formal learning is a 'negative' concept in the sense that it is a negation of something else, – covering what is not included in formal education and training. It gives little positive indication of content, profile or quality. The concept is important, however, by drawing attention to the rich variety of learning areas and forms available outside formal education and training. A closer link to the key qualification issue might thus be useful and give the exercise more direction. The linking of formal and non-formal learning domains can thus be viewed as a way of realising and materialising the objectives expressed through key qualifications.

Learning outside the formal education and training institutions is increasingly presented as a prerequisite for a learning strategy aiming at a broader knowledge and competence base, transcending specific organisations, technologies, contexts and problems. Measurement and assessment techniques have clearly been given a central role in transforming this issue from a rhetorical to a practical level.

6.1.2 Identification, assessment and recognition of non-formal learning as an element in the reengineering of education, training and learning systems

As illustrated in the discussions in Chapter 3 and elsewhere, a substantial reorientation of vocational education and training is currently taking place. This is basically initiated at public level as a reorientation of formal (especially vocational) education and training from strictly input to output-oriented systems. In a number of countries it is emphasised that competences matter, not how or where they have been acquired. Having left the learning processes themselves outside of the control of the certifying authority, the final test assumes a dramatically increased importance. This change of focus is currently taking place in national education and training systems differing considerably from each other. While many look upon the UK as the main representative (and propagator) of this approach, a number of other European countries have to varying degrees integrated this principle into their systems. In some cases, this has not reached much further than the rhetoric level, in most cases we see that legal and practical actions have been taken to make such a change possible. Modularisation is normally an integrated part of these reengineering efforts. Dividing an education and training sequence into smaller entities is intrinsically linked to the assessment challenge. Too

broad competence domains makes reliable and valid testing almost impossible. It is therefore necessary to define smaller and more homogeneous domains that can be assessed in a sensible way.

This reengineering can be linked to the growing emphasis on lifelong learning. To establish a system for learning throughout life implies a stronger focus on the link between different forms of learning in different learning domains at different stages of life. While the formal system is still very much focused on initial education and training, a lifelong learning system has to face the challenge of linking a variety of formal as well as non-formal learning areas together. This is necessary to meet the individual's need for continuous and varied renewal of knowledge and the enterprise's need for a broad array of knowledge and competences – a sort of knowledge reservoir to face the unexpected. Also, the question of identification, assessment and recognition of competences presents itself as crucial. Competences have to be made visible if they are to be fully integrated into such a broader strategy for knowledge reproduction and renewal.

The setting up of flexible, performance-oriented systems and the efforts to support lifelong learning are normally closely interwoven. Rhetorically (although not always in practical terms), these challenges are emphasised in all the countries studied. And without exception, methodologies for the identification, assessment and recognition of non-formal learning are looked upon as necessary tools to open up these new learning pathways.

6.1.3 Solutions seeking problems and suppliers seeking customers

The area of identification, assessment and recognition of non-formal learning is characterised through highly articulated suppliers of solutions (at European, national and sector levels) and very quiet users (individuals and most enterprises). The development of measurement and assessment methodologies can only in a few cases be described as driven by demand or as a push from the bottom up. If we study the last half of the 1990s when this trend gained momentum and strength, the existence of programmes like the Adapt and the Leonardo da Vinci at European and sector levels have contributed to the setting and changing of 'the assessment agenda'. The availability of 'fresh money', linked to a limited set of specific priorities, inspired a high number of institutions to involve themselves in the development of instruments and tools. Although the results from these projects may be of varying quality, the long-term impact on the agenda of the organisations and institutions involved should not be underestimated. The coming period will show whether this supply driven movement will find users, for example at sector and enterprise levels, appreciating the effort put in.

At national level we can observe how clusters of countries learn from each other and how the existence of a methodological instrument in one country almost immediately attracts attention from neighbours. For example, the Irish approach to accreditation of prior learning is a very close relative to UK efforts and would probably not have taken place without this inspiration from the neighbour to the east. Furthermore, the Finnish system for competence-based assessment has, during a period of three to four years, attracted considerable attention in the other Nordic countries. To a certain extent it is possible to follow how policy formulations 'travel' from

the documents of one country to the documents of another (in this case from Finland to Norway and Denmark and finally to Sweden). The fact that these policy documents to a great extent have led to experimentation and reform makes the phenomenon even more important.

Mutual learning is generally positive. Although a substantial transfer/copying of methodologies and approaches has taken place, the degree of local adaptation and change is also considerable. The dominating 'top down' character of the initiatives is however striking; it is still an open system whether the proposed solutions will find proper problems and users (not to mention customers).

6.2 How?

Answering the question of why, does not, however, provide an answer to the question of how to support and strengthen the positive elements of these developments. Following our efforts to comprehend and define the challenges ahead (Chapter 2), the question of how is both a methodological one (how to measure) and a political institutional one (how to secure acceptance and legitimacy). In practical terms, these aspects are obviously interrelated. In this context, and due to the need for analytical clarity, we treat them separately.

6.2.1 Methodological requirements

Having indicated some possible answers to the question of why, the question of how remains open. Or, to put it in another way: are current methodological and institutional approaches to the assessment of non-formal learning able to respond to expectations, be it as an instrument in

the search for key qualifications or as a tool in reengineering education and training systems?

In the different cases presented above we have seen all known variants of testing and assessment methodologies used: from computer-assisted fixed response (multiple choice) methodologies in the personal skills card experimentation to authentic work-based assessment involving planning, observation and evaluation in the Dutch case. The German and Norwegian cases combine performance assessments with traditional essay-type testing while the computer driving licence leans heavily on closed response assessments. *The bilan de compétence* exemplifies an approach where the whole range of traditional testing methodologies is utilised, the actual solutions depending on the institution in charge. Compared to the state of the art of testing and assessment in formal education and training (see Black 1998), the focus on non-formal learning has (so far) not lead to major methodological innovations. The complexity of the task has, on the other hand, resulted in diversity. A positive interpretation would be that this diversity secures a richness of approach necessary to deal with the highly contextual and partly tacit character of non-formal learning. A negative interpretation would be that diversity leads to heterogeneity and lack of consistency. Both interpretations are possible.

It is our impression, based on the experiences treated so far, that too many of these initiatives try to meet too many objectives at the same time. Sometimes methodologies are chosen before a clear understanding of the task ahead has been reached. In a number of cases methodologies support summative and formative purposes at the same time, without having clarified potential tensions between these functions. This may lead to the conclusion that it is not so much the methodologies themselves, what matters is an appreciation of the task ahead. It seems clear, from the

discussion so far, that identification, assessment and recognition of non-formal learning has to rely on a multitude of methodological approaches, combined in various ways according to the specific task being addressed. There is no single innovative methodology that can solve all the challenges ahead; not at European, national, sector or enterprise levels. Instead, the following questions, already introduced in the presentation of assessment and testing in formal education and training in Chapter 2 can be used. It provides some indication on where clarification has to be made and where quality can be improved. This might help us in achieving richness rather than fragmentation:

(a) which functions are to be fulfilled by the new methodologies (and institutional systems) for identification, assessment and recognition of non-formal learning? Do we talk of a formative role where the instruments and tools are used to guide the learning processes of individuals and enterprises or do we talk of a more limited summative role where non-formal learning is tested for possible inclusion in the setting of formal education and training? Or do we talk of a summative role where accountability is at stake, focusing on the utilisation of competence resources at various levels? The purpose of the assessments, in the non-formal as well as in the formal domain, is decisive for the methodological choices to be made and for the ultimate success of the exercise. As illustrated in our discussion, these functions are not always clearly separated. In many cases we see a wish to combine the formative and summative roles, the European personal skills card being a good example. A successful development of methodologies and systems implies that these functions are clearly understood and combined/separated in a constructive and realistic way;

(b) the diversity of the learning processes and contexts makes it difficult to achieve the same kind of reliability as in standardised (for example multiple choice) tests. The question is how (and which specific kind of) reliability should be sought in this new domain. Is it possible to envisage reliability based on optimal transparency of the assessment process as well as on the implementation of systematic quality assurance at all levels and in all functions? The experimentation conducted by the French chambers of commerce is interesting in this context, emphasising the importance of procedures for quality assurance and quality control. This kind of thinking has not been given much priority in the various approaches to assessment of non-formal learning, a deficit that eventually may threaten the legitimacy of the approaches as such;

(c) the highly contextual and (partly) tacit character of non-formal learning complicates the quest for validity. There is an acute danger of measuring something other than what is intended. The main thing is to avoid a distorted picture of the candidate and the domain and to strive for authenticity. An intriguing question is whether new methodologies are working according to content or construct validity. In the first case, the objective would be to represent a precisely defined task in the best possible way. In the second case, the objective would be to capture some constructed entity, for example key qualifications, communicative skills or cooperative abilities. As these are theoretical constructs rather than empirical entities, assessments must be based on indirect evidence. As indicated in Chapter 3, the search for key qualifications is indeed an important part of the exercise. In the same way that intelligence

testing has become subject to close scrutiny (what is the entity 'intelligence'), constructs like key qualifications and communicative skills should also be subject to the same constructive criticism. This is necessary to achieve sufficient validity;

(d) the question of reference points ('standards') is a major issue for assessment of formal as well as non-formal learning. While norm-referencing (using the performance of a group/population as point of reference) has not been seriously discussed in the context of assessing non-formal learning (due to the diversity of the competences in question), the issue of criterion or domain-referencing, lies at the heart of the matter. The definition of boundaries of competence-domains (their size and content) and the ways in which competences can be expressed within this domain is of critical importance. The wider the area, the greater the challenge in designing authentic assessment approaches. It is also a question of whether the purpose is to test a minimum performance or a precise marking of different levels of performance. Assessment of non-formal learning cannot succeed without the development of these reference points. This reverts, in many ways, to the question of functions to be fulfilled; do we want to improve learning processes or do we want to produce proofs (papers of value)? Both purposes are highly legitimate and useful. The setting up of reference points will, however, differ considerably according to the purposes selected.

☐ 6.2.2 Political and institutional requirements for developing systems for identification, assessment and recognition of non-formal learning

The question of how to support the political and institutional implementation of systems for the recognition of non-formal learning cannot be answered without a strong emphasis on context. It does not make sense to develop methodologies or instruments for identification, assessment and recognition of non-formal learning without considering the cultural, social and political context in which they are going to operate. As soon as the first methodological requirement has been met, by answering the questions of methodological purpose and function (see above), institutional and political implementation could be supported along two main strategies; one focusing on *'institutional design'* and the other on *'mutual learning'*. A third point, indicating principles for a practical initiative in the field, concludes the report:

(a) *institutional design*: as indicated in Chapter 2.3, and also touched upon in the discussion of various national 'cases', some basic criteria must be fulfilled if proof of non-formal learning is to be accepted along with proof of formal education and training. First of all, relevant participants must be heard when setting up and operating systems of this kind. This is closely linked to the balancing of interests. Systems for the recognition of non-formal learning may have a direct effect upon the setting of wages as well as on the distribution of jobs and positions in the labour market. Although not emphasised very much until now, the question of who to involve and who to listen to will be of decisive importance in the coming period. Secondly, relevant information must be fed into the process. Closely linked to the question of representation,

definition and articulation of standards and reference points (in particular) require sufficient and balanced information. Thirdly, and as illustrated in the experimentation of the French chambers of commerce and industry, the transparency of the structures and procedures are of importance. It is possible to establish structures where the division of roles (setting of standards, assessment, appeal, quality control) is clearly defined and presented. Transparency of procedures is 'a must' if acceptance and legitimacy are to be achieved. In the coming period, the attention of both researchers and policy-makers must be drawn towards all these issues;

(b) *mutual learning*: between projects, institutions and countries, has to be strengthened and improved in the coming period. As illustrated in Section 5.1.3, a substantial amount of learning is already taking place at various levels. But as concluded in other parts, and especially in relation to the activity at European level, the potential for mutual learning is much larger than actual and factual achievements. Establishing such learning mechanisms must reflect the various purposes and functions to be fulfilled, as well as the various levels of activity. It is, however, necessary to increase coordination and support activities (at European and national levels) to capitalise on the experiences gained through numerous projects, programmes and institutional reforms. One possibility might be to set up and develop some form of meeting place (network, forum, etc.) with the help and support of the Member States of the EU/EEA and the Commission. If political agreement for such cooperation could be established the following practical guidelines and objectives could be used as a starting point[36];

(c) a European forum or network in the area of identification, assessment and recognition of non-formal learning should work on a long-term basis, gradually trying to improve the international overview and consistency within the field. Its basis should be as broad as possible, seeking to include different perspectives and represented by governments, social partners and others. The aim should be to establish a meeting place where information and ideas linked to the area of identification, assessment and recognition of non-formal learning can be gathered and exchanged. The work should be organised according to the following four objectives:

(i) to contribute to mutual understanding of the strengths and weaknesses of methodologies and systems for the identification, assessment and recognition of non-formal learning;

(ii) to support overview of the area and thus establish a basis for improvement of methodologies and systems;

(iii) to stimulate innovation in the area; and,

(iv) to aim at presenting practical advice to national and European authorities.

The emphasis on overview is very important; the gathering and exchange of experiences is crucial to improving the quality of methodologies and the legitimacy of institutions and systems.

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(36) Presented in a note written by Jens Bjørnåvold, European Centre for the Development of Vocational Training (Cedefop), Ruud Duvekot, Ministry of Economic Affairs, Dept. Technology Policy, the Netherlands and Jef van Raepenbusch, Ministry of the Flemish Community, Department of Education, service for vocational training, Belgium, and presented to the conference on 'identification, assessment and recognition of non-formal learning' arranged by the Norwegian Ministry of Education and Research together with Cedefop in May 2000.

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annex - glossary

Glossary
on
identification, assessment and recognition
of qualifications and competences
and
transparency and transferability of qualifications

introduction

CONCEPTS ARE SOCIAL constructs, which always reflect a certain language, culture and level of knowledge and experience. At the same time, concepts shape our comprehension of the world and influence what we do and do not see. It is important to keep this in mind when reading this glossary, in which all the concepts deal with learning and products of learning.

This glossary is divided into five parts:

The basic concepts defined below are perceived as potential obstacles to effective communication between those working in the specific area. The aim of this short glossary is to propose definitions whose scope can be generally accepted, irrespective of the various national or regional contexts. *We are fully aware that the choices made here are open to discussion; it is not possible to propose universally accepted definitions of key concepts such as* competence*,* qualification *or* skill. We would welcome comments and suggestions on its content. Please submit your proposals for alternative or new terms to

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I. defining knowledge and learning

Introduction

Knowledge

In this glossary, knowledge is used as a general point of departure. It is important to emphasise the heterogeneous character of human knowledge. Knowledge is not only about what is true and false (in nature), it is also about what is right and wrong (in society, among humans) and what is authentic or not (in art, etc.). This implies that the criteria used to judge knowledge will vary. The definitions proposed also underline that expressions of knowledge also vary. They can be explicit through speech or writing, but they can also be implicit or tacit. The concepts of competence, qualification and skill (see Part II, below) may be understood as different ways of expressing how knowledge is linked to a social context, for example education, work, etc.

Learning

Learning is commonly perceived as a cumulative process by which individuals acquire and internalise units of knowledge (see def. (a) below). Following this perception, definitions of learning frequently focus on the processes linked to individual encoding, storage and retrieval of knowledge. Conceiving learning (see def. (b) below) as a social practice or, as Lave (1991) formulates it, as *changing participation in changing practices* increasingly challenges this approach. This perception emphasises the importance of the learning context. Professional learning, for example, is not only a question of internalising abstract units of knowledge, it is also about the forming of a social identity, through participation in a professional context. While the former approach tends to reduce learning to a mental process, the latter underlines the intrinsic relationship between subject and society, between individual and context.

NB: In this chapter, several definitions are proposed for the terms *knowledge*, *explicit knowledge* and *tacit knowledge*. These definitions are open for discussion. Do not hesitate to submit any comments you may have. Furthermore, the word *'learning'* designates both the learning process and its outcome.

knowledge

DE: **Wissen / Kenntnis**
FR: **savoir / connaissance**

Definitions of knowledge are legion; nevertheless, modern conceptions of knowledge rest broadly on a number of basic distinctions:

(a) Aristotle distinguished between theoretical and practical logic. In line with this distinction, modern theoreticians (Alexander *et al.*, 1991) distinguish *declarative (*theoretical*)* knowledge from *procedural* (practical) knowledge. *Declarative knowledge* includes assertions about specific events, facts and empirical generalisations, as well as deeper principles about the nature of reality. *Procedural knowledge* includes heuristics, methods, plans, practices, procedures, routines, strategies, tactics, techniques and tricks (Ohlsson, 1994);

(b) it is possible to differentiate various forms of knowledge which represent *different ways of learning about the world*: various attempts have been made to compile such lists, the following categories seem to be frequently represented:

(i) objective (natural/scientific) knowledge, judged on the basis of certainty;

(ii) subjective (literary/aesthetic) knowledge judged on the basis of authenticity;

(iii) moral (human/normative) knowledge judged on the basis of collective acceptance (right/wrong);

(iv) religious/divine knowledge judged on the basis of reference to a divine authority (God). This basic understanding of knowledge underpins the questions we ask, the methodologies we use and the answers we give in our search for knowledge;

(c) knowledge encompasses *tacit* and *explicit* knowledge. Tacit knowledge (Polanyi, 1966) is knowledge that the learner possesses which influences cognitive processing but that he or she does not necessarily express and/or is not aware of. Explicit knowledge is knowledge a learner can consciously inspect, including tacit knowledge that converts into an explicit form by becoming an 'object of thought' (Prawat, 1989).

Comments: (Def. 1.) *Declarative knowledge* is descriptive; since it is independent of particular goals or situations, it can be applied in any context in which it might be useful: it is conscious and reportable; *procedural knowledge* may be implicit (that is tacit and not reportable). In the field of vocational training, the scope of knowledge covers all the basic and technical skills and/or information an individual must master in order to perform a task properly (adapted from AFPA, 1992).

explicit knowledge

DE: **Explizites Wissen**
FR: **savoir explicite**

The consciously accessible knowledge that can be verbalised or expressed in some other ways (through actions or avoidance of actions).

Or

Knowledge about the object or phenomenon that is being focused on (focal knowledge).

Comments: The distinction between *tacit* knowledge and *explicit* knowledge has sometimes been expressed in terms of 'knowing-how' and 'knowing-that', respectively (Ryle, 1949) or in terms of a corresponding distinction between embodied knowledge and theoretical knowledge.

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tacit knowledge

DE: **Implizites Wissen**
FR: **savoir tacite**

(a) the knowledge learned in an explicit mode which is made 'tacit' when practised (i.e. use of a tool);

(b) any practical or theoretical knowledge that results from a familiarity with a form of life.

Or

The type of knowledge possessed by people who have immersed themselves in a subject so deeply that they appear to understand aspects of it implicitly as well as explicitly.

Or

The knowledge that enters into the production of behaviours and/or the constitution of mental states but is not ordinarily accessible to consciousness (Chris Eliasmith, 1998).

Or

The knowledge used as a tool to handle or improve what is being focused on.

Comments: Polanyi (1966) introduced the expression 'tacit knowledge'.

learning

DE: **Lernen**
FR: **apprentissage/ acquisition (de connaissances)**

A cumulative process where individuals gradually internalise more and more complex and abstract entities (concepts, categories, and patterns of behaviour or models) (Lave, 1997).

Comments: 'Learning is much more an evolutionary, sense-making, experiential process of development than a process of simple acquisition' (Brown, 1990 in *The International encyclopaedia of education*). In French, the term *'apprentissage'* is often used in the sense of vocational apprenticeship.

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formal learning

DE: **formales Lernen/Formelles Lernen**
FR: **apprentissage formel**

Learning that occurs within an organised and structured context (formal education, in-company training, etc.), and that is designated as learning.

Comment: Formal learning may lead to a formal recognition (diploma, certificate).

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non-formal learning

DE: **nicht-formales Lernen**
FR: **apprentissage non formel**

Learning which is embedded in planned activities that are not explicitly designated as learning, but which contain an important learning element.

Comments: as opposed to formal learning, non-formal learning encompasses (a) what is sometimes described as *semi-structured learning*, that is learning embedded in environments containing a learning component (i.e. quality management); and (b) accidental learning resulting from daily life situations (including at the workplace) and defined below as *informal learning*.

informal learning

DE: **informelles Lernen**
FR: **apprentissage informel**

Learning resulting from daily life activities related to work, family, or leisure.

Comments: Informal learning is part of *non-formal learning* (see def. above). It is often referred to as *experiential learning* and can to a certain degree be understood as *accidental learning*.

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learning-by-doing

DE: **learning-by-doing /**
Lernen durch Praxis / Praxislernen
FR: **apprentissage par la pratique**

Learning acquired by repeated practice of a task, but without instruction.

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learning-by-using

DE: **learning-by-using**
FR: **apprentissage par l'utilisation**

Learning acquired by repeated use of tools or facilities, but without instruction.

II. defining task, skill, qualification and competence

Introduction

The scope of basic concepts such as *skill, qualification* and *competence* is not always clear. In English for example, the term *skill* is used:

(a) either to describe the capacity of an individual to perform a given task (narrow acceptation); or

(b) to indicate his/her level of expertise (broad acceptation).

To avoid confusion in the use of these terms (and their translation), we propose to adopt a common language by limiting the scope of these three terms following a three-tier hierarchy in which:

(a) the scope of *skill* is limited to a job-related approach, including both acquired capabilities/forms of knowledge and abilities required by a specific job or task;

(b) the scope of *qualification* is broader and may include entry requirements for a job and/or official recognition of formal education or training;

(c) the concept of *competence* is more comprehensive and encompasses the actual capacity of an individual to use acquired abilities/knowledge and/or aptitudes in usual or changing occupational situations. In the literature, we can observe an increasing use of *competence* (instead of *qualification*).

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task

DE: **Arbeitsaufgabe**
FR: **tâche**

(a) a discrete piece of work (ETF);

(b) a set of activities for the completion of a specific work (AFPA);

(c) a piece of work which has to be done as a duty or as part of a regular routine (Collin Cobuild).

Comment: The concept of task may cover both the *work process* (the different stages to be followed for the production of a distinct piece of work) and the function (coordination, communication, organisation, etc.).

skill

DE: **spezifische bzw. berufliche Fähigkeiten und/oder Fach-/Sachkenntnisse**
FR: **savoir-faire professionnel / capacité**

The relevant knowledge and experience needed to perform a specific task or job and/or the product of education, training and experience which, together with relevant know-how, is the characteristic of technical knowledge.

Comment: The notion of skill is sometimes ill defined. It refers to (and partly overlaps with) other basic concepts such as competence, qualification and knowledge. The imprecise scope of this concept makes its translation into other languages anything but easy (in French: *qualification*? *savoir-faire professionnel*? *aptitudes*? *capacités*? ; in German : *Berufliche Fertigkeiten*? *Sachkenntnisse*? – see the definition of *qualification* and *competence)*.

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qualification

DE: **Qualifikation**
FR: **qualification**

(a) the requirements for an individual to enter, or progress within an occupation; and/or
(b) an official record (certificate, diploma) of achievement which recognises successful completion of education or training, or satisfactory performance in a test or examination.

Comment: The concept of qualification varies from one country to another. It may express the ability – formally defined in work contracts or collective agreements – to do a certain job or meet the requirements of the workplace; the term qualification may also refer to the individual's level of education/training or to his/her ability to cope with occupational challenges, and defined below as competence. A qualification gives rise to a number of rights and prerogatives which determine the individual's position within the hierarchy of his/her occupational context.

competence

DE: **Kompetenz**
FR: **compétence**

The 'proven/demonstrated' –and individual– capacity to use know-how, skills, qualifications or knowledge in order to meet usual –and changing– occupational situations and requirements.

Comment: the notion of competence may include formal qualification as well as elements such as the capacity to transfer skills and knowledge to a new occupational situation, or capacity to innovate. The level –or kind– of competence may be assessed by evaluating the individual's ability to use his/her skills. Competences can be *specialised* (e.g. the control of computerised processes), *methodological* (ability to think and decide, capacity to innovate), or *social* (language and communication skills, teamwork).

"Realkompetenz / realkompetanse"

DE: **Realkompetenz**

The competence resulting from non-formal learning.

Comment: This concept is basically used in the German and Scandinavian contexts.

III. defining basic skills and key/core competences

Introduction

As stated in Part II, basic concepts such as *skill, qualification* and *competence* are not always well defined. Thus, the concepts describing key/core competences partly overlap. A Eurotecnet survey conducted in 1991 in several Member States showed that even though these concepts were referred to by different names, there is a general consensus about the essential nature of these competences. Key/core competences include attitudes/motivation, skills, know-how and knowledge (i.e. data processing) that can be transferred from one work situation to another and be looked upon as requirements and prerequisites for succeeding in these work situations.

The following list shows the different terms used in several Member States (European Commission, 1994):

France *Compétences transversales* ('Crossing or transferable competences')
UK *Key/core skills*
Germany *Schlüsselqualifikationen* ('Key qualifications').

We are fully aware that the content of *generic skills*, *transferable skills* or *key/core skills* partly overlaps. Nevertheless, the definition of key/core competences proposed below attempts to cover all aspects of these 'implicit' capacities.

The validation of these competences is a key factor for the mobility of workers. In this regard, the European accreditation system, suggested by the European Commission (cf. white paper 'Teaching and learning – Towards the learning society'), is an attempt to help individuals assess their competences and transferability to different occupational contexts.

basic skills

DE: **Grundfähigkeiten / Basis-, Kernqualifikationen**
FR: **savoirs de base**

The skills needed to function in contemporary society, e.g. listening, speaking, reading, writing and mathematics.

---

key/core competences

DE: **Schlüsselqualifikationen / Schlüsselkompetenzen**
FR: **compétences clés**

The sets of competences which are complementary to basic skills and which prepare individuals to:

(a) acquire new knowledge and adjust their own knowledge to new demands;
(b) adjust their own knowledge and skills to the demands of 'learning organisations' and to contribute to emerging patterns of 'organisational learning';
(c) adjust themselves to changing career prospects and to enhance their own mobility by means of lifelong learning.

Comments: In the official terminology of the UK, the concept of 'core skills' has recently been renamed 'key skills'; it includes communication, use of numbers, application of information and communication technology (ICT), decision-making, team-working and improving self-learning.

Constant change in the modern economy requires a culture of 'organisational learning' to master more difficult situations, take more responsibility in adjusting to new patterns of work and to new forms of work organisation.

The aspect of mobility imbedded in the concept of key qualifications can be seen either as a positive feature (flexibility) or as a negative development (due to job insecurity).

Related terms:

Various concepts partly overlap the field of the above definition, for instance:

(a) **generic skills** (skills that support learning throughout life, including not only reading, writing and numeracy (basic skills), but also communication, problem solving, team work, decision making, creative thinking, computer and continuous learning skills);

(b) **transferable competences** (competences relevant to jobs and occupations other than the ones individuals currently have, or have recently had) (adapted from European Training Foundation, 1997).

IV. defining identification, assessment and recognition of competences

Introduction

Review of the literature shows a clear lack of consistency concerning the use of terminology linked to the ***recognition of competences***. Two main approaches can be differentiated:

(a) the aspect of ***formal recognition*** covers identification, assessment as well as accreditation of competences. In this context, the aim of recognition is to make individuals' competences as visible as possible, both formally (through diplomas or certificates) and institutionally/socially (recognition on the labour market);

(b) the aspects of ***social/vocational recognition*** (de facto) facilitates professional guidance, job seeking, career development, or supports vocational promotion. This form of recognition takes into account training-based competences and alternance training. Social/vocational recognition facilitates the transferability of competences in organisations.

Identification of competences

Identification of competences aims to specify/define the elements of competence either imbedded in a (group of) individual(s) or specific to a job/training, irrespective of the way these competences have been acquired.

Assessment of competences

Assessment of competences can be carried out through different procedures:

(a) competences gained through ***non-formal/informal learning*** (see Part I above) can be appraised through different methods and using different criteria or points of reference according to the level of operation (company/sector/public authority) and control (labour market or education system);

(b) competences acquired through ***formal learning*** are identified in the framework of assessment procedures (testing/examination) leading to certification (i.e. awarding of a diploma, degree or certificate).

Accreditation of competences

Competences can be accredited in two ways:

(a) ***validation of non-formal or informal competences*** consists of attesting that an individual has acquired the competences required for a particular occupation, irrespective of the context (validation can be followed by a more formal form of accreditation, i.e. by granting equivalence or credit units for individuals entering a formal training action, or by issuing certificates);

(b) ***certification of formally gained competences,*** a process by which training institutions or education authorities give a formal value to competences acquired by individuals in the framework of formal training actions by awarding them certificates, titles or diplomas.

identification (of competences)

DE: **Ermittlung (von Kompetenzen)**
FR: **identification (des compétences)**

The process of specifying and defining the boundaries and content of competences.

Comments: this term applies both to formally acquired competences (in the framework of training leading to a certification) and to informal or non-formal competences.

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assessment (of competences)

DE: **Bewertung,**
Evaluation (von Kompetenzen)
FR: **évaluation (des compétences)**

A general term embracing all methods used to appraise/judge performance of an individual or a group.

Comments: Assessment is a form of judgement that may concern either the student or the trainer/teacher, but also the training methods (assessment of training methods is sometimes referred to as evaluation). The related term *test* is normally used to describe an assessment conducted within formal and specified procedures designed to ensure high reliability.

Related terms: **test, examination, evaluation**

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recognition (of competences)

DE: **Anerkennung (von Kompetenzen)**
FR: **reconnaissance (des compétences)**

(a) the overall process of granting official status to competences, gained either formally (by awarding certificates) or informally (by granting equivalence, credit units, validation of gained competences) (formal recognition);

and/or

(b) the acknowledgement of the value of competences by economic and social stakeholders (social recognition).

Comments: *recognition of competences* is distinct from *recognition of qualifications* (which refers to the recognition of diplomas awarded in another country).

accreditation (of competences)

DE: '**Akkreditierung' (von Kompetenzen)**
FR: '**accréditation' / validation (des compétences)**

The process of attributing/providing formal evidence of value to competences, irrespective of the way these competences have been gained.

Comments: the process of accreditation applies to both non-formal and formal competences. As mentioned in the introduction, accreditation of formal learning may lead to *certification* whereas accreditation of non-formal/informal (e.g. work-based) learning may lead to *validation* (issuing of documents such as portfolios of competences) or to a more formal way of accreditation (granting of equivalence, credit units, validation of gained competences, etc.). A certification process (see definition below) may follow accreditation of non-formal or informal learning. The concept of 'accreditation of competences', is mainly used in the UK, as well as by the European Commission.

certification (of competences)

DE: **Zertifizierung (von Kompetenzen)**
FR: **certification (des compétences)**

The process of issuing certificates or diplomas which formally recognise the achievements of an individual (adapted from European Training Foundation).

validation (of non-formal learning)

DE: **Validierung nicht-formalen Lernens**
FR: **validation de l'apprentissage non formel**

As opposed to formal certification, validation of non-formal learning refers to the process of assessing and recognising a wide range of skills and competences which people develop through their lives and in different contexts, for example through education, work and leisure activities (adapted from *The International encyclopaedia of education*, p. 663).

Comments: validation usually refers to the process of recognising a wider range of skills and competences than is normally the case within formal certification, which does not rule out a formal certification (Bjørnåvold, 1997). Accreditation of non-formal learning, carried out by an independent body, can lead to formal (or partial) qualification, or entitle individuals to credit units. In the UK and Ireland, the concept of accreditation of prior learning (APL) is broadly used.

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certificate (of qualification)/ diploma/degree

DE: **Abschlußzertifikat / Befähigungsnachweis / Diplom**
FR: **diplôme / titre homologué / certificat de qualification professionnelle de branche**

An official document which formally records the achievements of an individual (European Training Foundation).

Or

The official proof of a qualification acquired by a pupil or student after passing an examination.

Note: in English, some authors distinguish between three levels of hierarchy for academic awards : ***degree*** – full university (normally graduate but also post-graduate Masters or Ph.D.) qualification – e. g. Bachelor of Arts – normally entails three or four years

study; ***diploma*** – inferior to a degree (even though it can be a post-graduate qualification) – one or two years study normally, and; ***certificate*** – lowest level (can be just one year study).

accreditation (of training/ of a training organisation)

DE: **(Staatliche) Anerkennung von Bildungsabschlüssen / Anerkennung von Ausbildungsinstitutionen**
FR: **homologation des titres et des diplômes / habilitation, agrément ou reconnaissance des établissements**

The process of granting accredited status to a training organisation and/or to training.

V. defining comparability, employability, mobility, transferability and transparency

Introduction

Transparency, as defined below, is a prerequisite for the assessment and validation procedures necessary to reach a decision on the recognition/non-recognition (see Part IV) of qualifications at sectoral as well as regional, national and international levels.

Transparency facilitates:

(a) ***transferability*** of qualifications, both on the labour market and within the education system (i.e. by building bridges between general and vocational education);

(b) ***mobility*** and ***employability*** of workers;

(c) ***transparency/visibility*** and ***comparability*** of qualifications on the labour market.

transparency (of qualifications)

DE: **Transparenz der Qualifikationen**
FR: **transparence des qualifications**

The degree of visibility necessary to identify and compare the value of qualifications at sectoral as well as regional, national and international levels.

Comments: Transparency of qualifications enables individuals, enterprises, training course developers and public authorities to identify differences and similarities among regional, national and sectoral training systems (for example by identifying the sets of tasks linked to a given job or profession). Transparency of qualifications facilitates rational decisions about investment in training.

Related term: visibility (of qualifications)

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comparability (of qualifications)

DE: **Vergleichbarkeit der Qualifikationen**
FR: **comparabilité des qualifications**

The extent to which it is possible to establish equivalence between the level and content of qualifications at sectoral, regional, national or international levels.

Comments: Comparability of qualifications enhances individuals' employability and mobility. This term must not be confused with equivalence of qualifications (which refers to the similarity of value of diplomas).

employability (of individuals)

DE: **Beschäftigungsfähigkeit (der Personen)**
FR: **employabilité (des individus)**

The degree of mobility an individual can demonstrate to get a job, keep it and update occupational competences.

Comments: Employability results from both the rational criteria (job profile, skills, know-how) and the irrational/implicit criteria used by employers for recruitment. The employability of an individual is linked to his/her qualification level and his/her ability to acquire new competences, in other words, to his/her 'educability'. This latter concept stresses the ability of the individual to achieve his/her personal development, whereas the concept of employability stresses the capacity of the individual to adapt to market needs in terms of profitability.

Related term: 'educability'

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mobility (of individuals)

DE: **Mobilität (der Personen)**
FR: **mobilité des individus**

The ability of an individual to move – and to adapt – to a new occupational environment.

Comments: Mobility can be geographical or 'functional' (a move to a new function within a company). Mobility enables individuals to acquire new competences and thus to increase their employability.

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transferability (of competences)

DE: **Übertragbarkeit von Kompetenzen**
FR: **transferabilité des compétences**

The capacity (of competences) to be transferred to a new context, either occupational or educational.

Comments: Transferability of competences is a key element of individuals' mobility; it represents a real asset on the labour market. Transferability of competences can be promoted by different means, including the modularisation of training curricula, the creation of *centres de bilan* (France) or portfolios of competences, the validation of non-formal learning. This may facilitate the transition from vocational training to academic and/or higher education, as well as transfer of competences from one occupational sector to another.

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European Centre for the Development
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making learning visible

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