



**WEM-EMF AD-HOC WORKING GROUP
"SKILLS SHORTAGES IN THE METAL INDUSTRY"**

FINAL DOCUMENT

**MAJOR OUTCOME FROM THE EXCHANGE OF NATIONAL EXAMPLES
AT THE WEM-EMF AD HOC WORKING GROUP**

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I - EXECUTIVE SUMMARY

WEM is the employers' organisation of the metal trades¹ in Europe covering the engineering, manufacturing and technology based companies. WEM regroups national employer organisations from these trades in 15 European countries, covering some 200,000 companies which employ about 12 millions of workers.

EMF is the umbrella organisation representing 60 metalworkers' unions from 26 countries with a combined total of 6.5 million affiliates. EMF acts on behalf of representative metalworkers' unions from all the Member States of the European Union as well as from European countries like Norway and Switzerland, which have not yet joined the EU and also represents metalworkers' unions from the candidate countries.

WEM and EMF together with their affiliates from Finland, France, Germany, Italy, Spain, Sweden and the United-Kingdom, tackled the problem of "skills shortages" in their industries during five meetings which were held between October 2001 and October 2002. The result of their efforts is documented in this publication.

WEM and EMF see this document as a contribution for achieving the strategic goal of making the "European Union the most competitive and dynamic knowledge-based economy in the world, capable of economic growth with more and better jobs and greater social cohesion" agreed at the Lisbon Council in 2000.

The metal and electrical industries are the largest industrial sector in Europe in terms of employment and added value. Moreover the industry is one of Europe's prime exporters with a wide range of products, which are at the leading edge of technology. Skills shortages therefore have a significant impact on economic growth and employment. Finding solutions to this problem is not only a subject of current importance, but is to be seen as a long-term strategic subject.

WEM and EMF are aware that, despite still persisting high unemployment rates in most of the European countries, the shortage of skilled workers at all levels represents a problem to many companies. This phenomenon is partly explained by the "mismatch" between skills needed in the companies or on the labour market and the qualifications people actually offer.

Lack of skills has been highlighted as a problem for the IT sector for some time, but there is a large and growing shortage in most European countries of high calibre apprentices, qualified workers, technicians and engineers throughout the metal and electrical industry. Due to the demographical development, this phenomenon will become more pronounced in the future.

Skills shortages is a multi-faceted phenomenon with different reasons, scales and repercussions in the different countries. This explains why there is no generally acceptable universal solution to this problem that is highlighted by a huge variety of approaches taken at various levels, from the company to the national level. A number of examples to overcome and bridge the "skills gap", reaching from image campaigns to occupational guidance, are shown in the annex. Despite these, often huge differences several common findings have been identified by the EMF and WEM. Also they might serve as some kind of an orientation for the actors from the company to the European level.

WEM and EMF supported by the commitment of their national affiliates want to pursue this problem, thus also contributing to the implementation in concrete terms certain elements of the Lisbon Strategy and the Commission's Action Plan on Skills and Mobility. A great number of findings about difficulties of the European labour markets in general and skills shortages in particular does already exist. The present contribution shows concrete ways focusing on one aspect, which may be of practical help to overcome the current difficulties and to make Europe the most competitive and dynamic knowledge-based economy in the world.

¹ Metal trades covers the metalworking, mechanical, electrical and electronics engineering, the aerospace, automotive, computer, communications and shipbuilding industries. In some countries it even includes the steel industry.

II - INTRODUCTION

Preliminary Remarks: The WEM – EMF ad-hoc working group met five times between October 2001 and October 2002. On the employer side the following countries were represented: Finland, France, Germany, Italy, Sweden and the United Kingdom. On the trade union side Finland, France, Germany, Spain, Sweden and the United Kingdom were represented

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WEM and EMF are aware that, despite still persisting high unemployment rates in most of the European countries, the shortage of skilled labour represents a problem to many companies. This phenomenon is partly explained by the "mismatch" between the skills needed in the companies or on the labour market and the qualifications people actually offer. If lack of skills has been highlighted as a problem for the IT sector for some time, there is a large and growing shortage in most European countries of high calibre apprentices, qualified workers and engineers throughout the metal and electrical industry.

Although many efforts have been made to improve vocational education and training and further training, these efforts are not fully meeting the ever-changing challenges facing the metal sector.

In a world of increased internationalisation of economies and companies, skills shortages have an adverse effect on the competitiveness of European companies in globalised markets and economies. WEM and EMF want to contribute to attaining the aims of the Lisbon Summit, i.e. to make the European Union "*the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion*". WEM and EMF also want to support the aims of the Barcelona Summit to make European education and training systems a world reference by 2010.

Indeed, for companies to maintain and increase their competitiveness, it is essential to have a highly skilled, committed and adaptable workforce. In several countries, shortages of skilled workers occur only in certain geographical regions or in certain sub-sectors. However, such skills shortages have significant negative effects on competitiveness, technological development and innovative potential of engineering companies, the EU industry and on national economies.

The reasons why skills shortages emerge are multi-faceted. The discussion touched upon items such as, demographical changes, image of parts of our industry, motivation, the gap between educational systems and companies' needs, cyclical and structural problems.

Enlargement of the EU is seen as an opportunity also for reinforcing the reservoir of skilled personnel. However, WEM and EMF members are aware that this, like immigration policies for skilled workers, will only provide a partial and a short-term solution.

WEM and the EMF recognise that the long-term solution lies in the development of appropriate vocational training and further training, including lifelong learning and competence development measures. These measures come within the responsibilities that may range between companies, individuals, the social partners and the State and it is essential that there is increased co-operation between the parties.

In their discussions, WEM and EMF agreed to focus on a selected number of areas in the field of social policy falling in their area of responsibility:

1. Image
2. Motivation – for training, lifelong learning,
3. Anticipation – of skills requirements
4. Transparency of qualifications – comparability of national qualifications / certificates
5. New ways to deliver training and use of new technologies, e.g. distance learning, on-/ off the job learning
6. Responsibility for the funding of training.

For employers' organisations and trade unions of the metal industry, dealing with the subject of skills shortages, the qualifications of the workforce and employability, is not new. Past experience has shown that there is no generally acceptable universal solution to this problem. Solutions have to be developed on the basis of the education, training and guidance systems which have slowly evolved in a given national context and then on the basis of individual companies' needs and workers' interests. Such tailor-made solutions differ considerably from country to country and from sector to sector.

This document does not intend only to enumerate certain problems and deficits in connection with skills shortages, but in addition it wants to show some practical examples which have been taken at company, local, regional or national level to reduce and bridge the skills gap in our industries.

Despite the various difficulties to address the problem at European level, this document is partly dedicated to this level as a level where initiatives might be useful and feasible, especially in connection with the question of the image of our industries or the mobility of workers.

The present contribution shall be seen as one step into the direction to achieve the ambitious strategic goal of the European Union, "*to become the most competitive and dynamic knowledge-based economy in the world*".

The exchange and discussion of examples from different countries with different traditions, structures and legal systems between the experts from WEM and from EMF members showed that there is no one-size-fits-all approach or solution to overcoming the skills gap in the metal and electrical industry. The measures are as different as companies and persons are. Any solution has to be developed on the basis of the education, training and guidance system which have slowly evolved in a given national context and then on the basis of individual companies' needs and workers' interests. Such tailor-made solutions differ considerably from country to country, from sector to sector and from company to company. From the exchange of examples it became apparent that social partners at the various levels play an important role in this respect. At the same time, the exchange of views among the experts involved, the increased mutual understanding and broad common findings have been of added value at the European level.

It is possible to learn from each other, from country to country, from company to company. And ideally the outcome and selected initiatives presented here might serve as a stimulus for launching new such initiatives in the European metal and electrical industry.

However, it has to be borne in mind that the present document in no way has a binding or obligatory character. It is a contribution from social partners in the metal industry with a view to overcoming the shortage of skills whilst supporting competitiveness, thus contributing to employment and employability at all levels.

III - THE TOPICS IN DETAIL

1. IMAGE

Introductory remarks

The metal and electrical industry encounters problems that are stemming from a wrong negative image associated with "old economy" which affects part of the industry. Consequently, the metal and electrical industry has to face difficulties to attract bright – young – people to start their working life in its companies or to convince them to undergo technical and scientific studies. In order to overcome these problems, which are detrimental to the competitive situation of the companies, different actors, including social partners, have undertaken various initiatives at national level.

If it is difficult to do much about demographic trends, WEM and EMF member organisations are continuously and increasingly striving to improve the image of our industry and therefore its attractiveness to young people and to women.

Major, more or less common or at least familiar findings:

- In order to reach the **objective** of changing peoples' attitudes, a realistic picture of the metal and electric industry has to be presented, where a great number of sophisticated and responsible jobs are offered. Strenuous jobs only represent a part of work in our industries. The metal and electrical industry should instead show that it offers more and more workplaces with high health & safety standards, demanding job profiles, responsible jobs, at competitive salaries in combination with career prospects.
- The public in general does not appear to have a realistic picture of the work in our industries and the demand for highly qualified employees at whatever level. With new production methods, products and new forms of work organisation this demand is even to increase both, qualitatively and quantitatively. If employers and employees or social partners at the appropriate level were to act together in this respect, they would be in a position to give a better accepted "objective" view and message to the public, especially to young persons, schoolteachers, university professors and parents.
- It is important to focus on and distinguish between different **target groups**: Initiatives that target at **young people** of course are of utmost importance. They address **pupils** at secondary school age, and even before. However, it is equally important to address **teachers** (*offer them a realistic insight view into a company, invite them, with and without their classes to a company, establish partnerships with local schools, training centres for teachers, etc.*) and **parents**. Special initiatives have been launched to win over **women** to either start their career or change from their jobs in other branches into the engineering industry.

Initiatives taken:

- Promising initiatives seem to be particularly those where the **metal and electrical industry goes towards the people** in order to change their perception and attitudes. The underlying idea of such initiatives is that when you have an image problem, you should not expect people to come to you or to become active in this direction, but you have to actively approach or reach them (please refer to Annex I).
- First tools **to approach and reach people**: information folders, presentations at fairs, advertisements in media or videos, websites where information about companies and job vacancies in certain regions can be found. Such tools often comprise a section where interested persons may check their knowledge and aptitudes in relation to jobs in the engineering industry. Such means, of course, also do contain useful information for employers.
- **Further approaches** comprise a public industry museum that has been integrated into an operating company site. This combination offers the possibility to combine theoretical information with practical experience. It also offers a historical point of view showing how machinery and workers' contribution and professionalism changed.
- **Communicators**: Better results are achieved when young people / apprentices talk to young people or when women, who work in the metal and electrical industry, address women (*i.e. from the same peer group*).
- **Practical experience (“hands-on”)** is a far more effective means to achieve positive results. Thus people are stimulated, their awareness and interest are risen.
- **Companies should open themselves more** to the public in general and the local community (*e.g. schools, local authorities, including public labour offices, in particular*). Thus they overcome to be seen as a "closed world", e.g. by days of "open company".
- **Special initiatives** to attract **women** to start a professional career in the engineering industries are an important part of the strategy and can be found in nearly all countries. Actually the electronics industry is the sector where the highest ratios of women participation can be found. To a certain extent companies of the metal and electrical industry may consider a more flexible approach with regard to hiring women and their re-entry to work after career breaks.
- **Ethnic minorities** as well are an important group to target at.
- **Nevertheless, it is difficult to measure** the **concrete effects** image campaigns or initiatives have on attracting new people to work in the metal and electrical industry or to undergo technical studies.

A selection of national examples is set out in Annex I.

2. MOTIVATION – for training, lifelong learning,

Major, more or less common or at least familiar findings:

- Motivation for training and lifelong learning is important, because a link exists between competitiveness of companies, qualified employees and employment. Only competitive and profitable companies can survive on the market and thus maintain and create jobs. It is therefore important that the starting point for (occupational) training and up-skilling of employees is the individual situation of a given company.
- Employers' and workers' representatives either jointly or individually should try to explain and show to employees the opportunities (further) training and lifelong learning (LLL) may offer, such as employability or satisfaction. Employers as well will gain from a highly skilled and motivated workforce.
- A lack of motivation of employees for (further) training and LLL cannot be an excuse. On the contrary, it should be a reason to stimulate or improve motivation. This finding does not only apply to employed persons, but at the same time to young people, at school age and even before, and to unemployed. As far as youngsters are concerned, the considerations should include parents and teachers. Special means might be taken for ethnic minorities. Where necessary and possible, solutions should be adapted to the different target groups.
- It is a dangerous fallacy to maintain the "old mentality" which supposes that people who once have successfully passed through the school and / or vocational training or university system, have been equipped with the necessary knowledge and skills for their entire working life, not only but especially in high-technological jobs. With ever faster changing markets, production or work organisation patterns, learning has to be an ongoing process that has to be followed throughout the entire (working) life of any responsible person. Promising approaches to stimulate or improve the awareness for the need of tailored forms of appropriate LLL were seen in several company examples, social partners' initiatives with respect to information and guidance to individual persons. These initiatives have as an effect that individuals become aware of and take their responsibility for their personal development.
- On-the-job training should not only be improved and developed, but should also be recognised as a valuable contribution or part of occupational / further vocational training.
- Career guidance can be an important means to initiate and to further the motivation for LLL in general and occupational further training in particular. Guidance may be explained as support / help given to young people and adults by tools and / or qualified staff, designed to help them chose and successfully complete, for example programs of education and training most suited to their talents and interests, taking into account prior educational achievement and any future job or careers plan they may have.

- Where possible, all parties concerned, especially management and employees, should be involved in the appropriate way on the basis of the needs and the different local, regional or national rules / collective agreements and traditions. The acceptance of initiatives in the area of training and LLL by the general public might be increased if they are supported or launched jointly, by employers and employees at the appropriate level.
- Since the facets of LLL are so manifold and skill requirements change at an ever faster pace, education and training pathways should be flexible / adaptable, focused on companies' needs and individual's capacities and be evaluated.
- In a world of fast-changing technologies and increased competition, motivation for LLL is a shared responsibility between management and employees, partly, if deemed appropriate, together with public authorities. The lifelong development of skills and competencies is a precondition for competitiveness of companies and improved employability of workers. Individual employees have a responsibility in this respect which they should comply with. Management and employees have a shared responsibility for occupational training, further training and in a certain way also for LLL, thus also with respect to the motivation of training as mentioned before.
- It is also important to inform and teach school teachers, because they are a key to awaken and encourage the interest in mathematics, science or in engineering of young people in a better way. In many countries the situation is made all the more difficult, because there are too few teachers in general educational and vocational schools and professors at universities, who are sufficiently highly qualified and have the ability to teach pupils and students in a way which stimulates excitement and innovation.

A selection of national examples is set out in Annex I.

3. ANTICIPATION – of skills requirements

Major, more or less common or at least familiar findings:

- Anticipation of skills requirements is an important tool in the field of education and training. Anticipation puts companies in a position to adapt their (further) training strategies. Anticipation puts social partners / chambers / governments in a position to adapt education and training curricula and vocational training systems on time. Also schools and universities should benefit from it.
- Anticipation of qualitative future skills needs can be made in a relatively reliable and accurate way. Whereas until now forecasts for future skills needs were made over a short- and mid-term period, some countries have started to make projections of up to 20 years. The effort to anticipate skills needs in a quantitative way, i.e. concrete figures of future employees, is deemed to be too inaccurate as too many imponderables exist (e.g. demography, pre-retirement, changes in production / work organisation, development of technologies, economic situation). Nevertheless, accurate qualitative anticipation might be possible in smaller economies with less complex structures.
- The starting point for the anticipation of skills requirements is the company's needs or strategic orientation. However, this point is inevitably intertwined with the employees' needs to ensure their employability or motivation.
- Companies have to react at ever-shorter intervals to developments of the economy or the market and to adapt their strategies and policies. Consequently, national education and training systems should become more adaptable, especially less detailed and prescriptive. Thus, partnerships between companies and the respective authorities are of crucial importance.
- One promising starting-point in this respect could be the finding that across the different occupational professions across several branches within the metal and electrical industry, a group of common or generic skills has emerged. Most of these common skills are so-called soft skills (e.g. team-working, process- and cost orientation, problem solving etc.), however, there are also some generic skills which are more technical (e.g. capacity to read a technical text etc.).
- The various examples shown in Annex I illustrate the great bandwidth of actions taken and actors involved at various levels in order to overcome current and forthcoming skills shortages.
- Particular attention has to be paid to small and medium sized enterprises (SMEs). SMEs often do not have the resources to appropriately address this strategically important subject. In a majority of countries attempts have been undertaken to offer support / solutions to SMEs. Also here a huge variety of different measures exists – from pooling of SMEs in special service centres to tutorships of large companies, which might have also a direct interest to support smaller companies that are their suppliers.

- To an increasing extent "non-formal" experiences (e.g. teamwork, process oriented self-responsible working, project management) a person has gained, become important for working in private businesses. It is therefore desirable, if not necessary, to reliably describe such "non-formal experiences" in order to be able to recognise them.
- The competition between our industries and other sectors, especially the services sector for bright young people or experienced workers to start working or to stay in our industries will increase. This competition gets even a further dimension, taking into account that engineering companies to an increasing extent have and will become providers of various services.
- Finally, anticipation of skill requirements can only be a serious exercise if it is understood and carried out as a continuous process.

A selection of national examples is set out in Annex I.

4. TRANSPARENCY of qualifications – comparability of national qualifications / certificates

Major, more or less common or at least familiar findings:

- Transparency and comparability of occupational qualifications and skills are important tools for increasing the geographical and occupational mobility of workers, both at national and EU level. They contribute to releasing the full potential of the free movement of workers and the free provision of services. This is in the interest of both, employees and companies. Employees may show their capacities and skills, and employers have access to qualification profiles of individual persons.

At European level, however, this aim cannot be achieved via a mechanism of mutual recognition of professional qualifications, since national systems that are rooted in different national cultures and traditions show fundamental differences (from vocationally oriented school systems to dual systems). This diversity is also acknowledged in the EU Treaty, which guarantees the responsibilities of Member States in the field of education and training. Consequently, a transnational system of mutual recognition of occupational / professional skills is not deemed to be possible. However, in the future, the possibility of mutual recognition at European level, could be considered.

- Already in the **national context**, problems with a lack of transparency exist. They are mainly due to differences between national, regional / provincial and company levels in a given country. Further reasons are differences between professional job qualifications and vocational training qualifications.
- At the national level several promising and successful measures have been taken to overcome the lack of transparency and comparability. Such initiatives range from national qualification standards to occupational portfolios.

With regard to the "**definition**" of the contents of "occupational skills profiles" or "job profiles" the responsibilities varied from country to country, in some countries it is the responsibility of the employer, whereas in other countries social partners had agreed on the definitions.

As far as the **assignment** of a given worker **into a certain "category"** is concerned the responsibilities for taking such decisions vary considerably from country to country.

- Any tool to improve transparency of occupational professions should be based on the principle of **voluntariness**.
- Furthermore, occupational skill profiles must not be prescriptive, but only be **descriptive**. Skill profiles shall lay down only a common and simple frame. They shall offer a basis to give a current and accurate overview of the capacities and skills of an individual person, showing her / his acquired formal learning certificates (*school, education, or units / elements / modules of vocational schools or vocational training, further training, such as safety training, professional activities an individual person has undergone*) and non-formal skills (*from driving license, computer driving license to soft skills such as ability of solving problems or working in a team*). Finally, a skills profile should as well describe what an individual person actually did and does, e.g. via a brief description of the tasks they performed during their last jobs. On that basis, a worker may show

her/his skills and an employer may verify if an individual worker is suited for a given vacant position in a company.

- In general it can be noticed that the more detailed occupational skills profiles are, the less transparent and adaptable they are. Indeed are **flexibility** and **adaptability** important preconditions to put occupational vocational systems and skills profiles in a position to cope with ever faster changing demands of production methods and qualification needs.
- In general and where deemed appropriate and possible the involvement of **social partners** in such projects in the national context is deemed to be important, particularly since they have at least a co-responsibility to apply or implement the measures.
- Often, the **validation** of occupationally relevant skills and competencies is seen as an important means to make occupational skills profiles more reliable. However, the extent, the attitude and the procedures of validation show huge differences from country to country. These differences are somewhat corresponding to the huge differences that exist between national vocational and further training schemes. In some countries validation is carried out only by the employer, in other countries this is done by external assessors, whereas validation may also be carried out by social partners – where deemed appropriate in co-operation with public authorities.
- **WEM** is currently working on a project for setting up a frame of **occupational skill profiles**. These skill profiles meet the following preconditions: voluntary nature, descriptive, adaptable and need driven.

A selection of national examples is set out in Annex I.

5. NEW WAYS to deliver training and use of NEW TECHNOLOGIES, e.g. distance learning, on-/ off the job learning

Major, more or less common or at least familiar findings:

- The exchange of information showed that different approaches, with regard to the parties involved, forms, content or financing, do exist in the various countries. This diversity is due to different legal, conventional systems. They are deeply rooted in the different cultures and traditions, but also reflect the different situations and needs at company level.
- Distance learning, irrespective of its actual form, is just a tool or a way to deliver training. However, this fact does not at all diminish the importance of distance learning and the use of new technologies, including e-learning.
- One of the major advantages of using new technologies in learning, distance learning, incl. e-learning is that it (automatically) leads to an individualisation of occupational / vocational training. The needs of the company and the individual may be better analysed and thus be specifically tailored. The type of a course (path) and the pace at which it takes place may be attuned to the capacities of a person. Due to the fact that distance learning allows to respond to the individual's needs, it requires that guidance is offered to the apprentices / trainees or that training is "modulised". This, in combination with the fact that in principal new techniques are used for distance learning, render training more attractive, for both adult and young people. One important aspect mentioned in this respect is that distance learning tools have to be "user friendly".
- Distance learning facilitates the access to further training, which may be followed irrespective of a certain place. Its flexibility permits that further training or qualification to a certain extent may take place outside the regular working time.
- Since English is the most commonly used and understood language in the EU, knowledge and use of English should be spread and deepened. This would be a first step in the direction of establishing a common "distance or e-learning language".
- So far, the use of distance / e-learning is less widespread than initially expected. However, there are a lot of relatively new initiatives, indicating that new ways to deliver training, including distance learning are on their way to develop further. Therefore it is deemed to be too early for a comprehensive evaluation.
- Especially e-learning, in more concrete terms tools such as computer / web-based / CD-ROM supported, which even include tests for analysing individual wishes and aptitudes, are not only very cost intensive to be developed and implemented, but also very cost intensive to be properly maintained and up-dated. In the UK virtual universities offer accredited courses. Mainly big companies, often in co-operation with universities, set them up.

- In order to cope with ever-faster changing requirements (*technical, work-organisation, markets*), any learning course, including those in the area of occupational training, needs to be adaptable. This explains that several countries have deliberately chosen "modulized" tools. Modulized systems, the duration of which ranges from a few hours to several months, offer several further advantages. They may be separately certified, which sometimes is done by the employer alone, sometimes by external - sometimes quality assured - experts or jointly by companies and employees. Also virtual schools and a virtual politechnical universities have been created.
- Several countries report that particularly qualified workers make use of further training courses in general and of e-learning initiatives in particular. On the contrary, unqualified or not adequately qualified workers tend not to use the training opportunities offered to them. Guides, tutors or mentors may help hesitant persons to come over the first threshold and motivate them to complete a chosen course.
- To be in a position to adapt a distance learning tool to changing specific needs, it has to be monitored. Also, as indicated above, the users should to be monitored or guided.
- One important aspect for successful distance learning is the teaching of the trainers. In some countries positive experiences have been made with company practitioners as teachers.
- The content of e-learning in some countries it is laid down by companies only, in other countries this is done jointly, e.g. by companies and / or local (regional) employer organisations and / or worker representatives and / or local public authorities.
- Different new ways to deliver training have been pursued by social partners, e.g. via "collective agreements" / "guidelines" for qualification.
- Another approach is the initiative to provide a network of mobile "learning centres" that can be temporarily installed in individual companies, especially small and medium sized ones. Within this framework, and not only restricted to employed persons, "distance / e-learning hubs" are reported to have been installed in publicly accessible places, such as shopping centres or public libraries. These hubs offer the opportunity to join training courses also during spare time.
- Up to now, distance /e-learning courses mainly deal with issues such as management, basic skills, teamwork. Technical issues still represent the minority and should be fostered. However, attempts to develop technical issues have been made by some employer organisations.
- Small and medium sized enterprises often do not have the financial, organisational or human resources to set up and run sophisticated distance learning programmes. One means to allow those companies profiting as well from such measures is to pool resources, information and advice in specially created centres. Several employer organisations already provide such service to their member companies.
- The exchange of national examples and experience shows that a lot of innovative initiatives have been carried out, and worthwhile to mention, without any obligation.

More details and some further national examples are set out in Annex I.

6. RESPONSIBILITY for the FUNDING of training.

Major, more or less common or at least familiar findings:

- With a view to properly approach the difficult subject, the following general differentiation of responsibilities for the funding of training is made:
 - BASIC EDUCATION lies with the responsibility of the state – at the respective level(s) (national, regional, provincial).
 - VOCATIONAL / OCCUPATIONAL TRAINING lies with the responsibility of the state and/ or the employer.
 - FURTHER TRAINING
 - ✓ when it is *occupational / job- or company related*, mainly lies with the responsibility of the employer
 - ✓ when it aims at the *self-development*, mainly lies with the responsibility of the individual
 - RE-TRAINING of unemployed persons lies with the responsibility of the state – at the respective level(s).

However, it is evident that there exists no one-size-fits-all solution.

A brief presentation that is based on several WEM position papers and that explains the different categories of learning and education and the respectively different responsibilities is attached as per **Annex II**

- The funding of occupational training and further training is a *shared responsibility* of management and of employees – as described above -, where both could contribute in the form of time or money. Where appropriate the funding can be shared together with national authorities.
- Training is important for the *competitiveness* of the company and the *employability* of the individual worker. This illustrates that training, especially further training, is a shared responsibility.
- For companies, investment in training must be seen in the same way as any other investment.
- However, the differences in the national vocational / occupational training systems, as shown by national examples and experiences, are mirrored by the differences in the responsibility for the funding of initial vocational / occupational training, apprenticeship training or further training. Different solutions were found with regard to the financing of training, especially of further training.
- The situation of SMEs, which often do not have the financial, organisational or human resources to provide especially further training should be taken –more- into account. The ideas discussed ranged from the creation of special training centres for SMEs, mobile training hubs, to tax credits / deduction to be granted to them.

A selection of national examples is set out in Annex I.

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FINLAND – PROJECTS TO ATTRACT STUDENTS

For many years MET has had several actions to attract more students to the M + E industry. An ongoing attraction project contains the following:

1. Motivation and assistance of companies

MET will emphasize to the companies that the co-operation is continuous and goal-oriented. The main tasks of the co-operation are following

- Visits in companies for teachers, students and parents
- Orientation periods and summer jobs in companies for compulsory school students and teachers
- Company visits at schools
- Local communication with media
- Support of teaching of technical work
- Own "godfather" classes from schools

2. Co-operation with teachers

MET organises possibilities for teachers to get acquainted with the M + E - industry and activates teachers and companies to co-operation and gives help to it. The target groups are teachers in mathematics, technical work and other substance teachers, also study advisers, head masters and companies.

3. Local school contact persons

MET has hired about ten school contact persons. They activate co-operation between schools and companies, inform at schools about the future works and training possibilities. They also arrange students possibilities to get acquainted with companies - in different tasks and occupations.

4. Internet site Metropoliz.net

In internet site youngsters have the possibility to get acquainted with future jobs and possibilities in M + E -industry. Via the site they will also have the possibility to search out summer jobs. By now about 300 000 persons have visited the site.

5. Mathematics, natural science and technology education

The task of the project is to support the teaching of technology in lower level of compulsory school by making the study interesting. Other tasks are to develop co-operation between schools and companies, to collect and disseminate best practises and also to develop the education of teachers.

6. Challenging future working places

This project is an umbrella project in which companies have the possibility to join with their own projects.

FRANCE – “YOUTH- INDUSTRY” CAMPAIGN
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1. WHAT IS THE "YOUTH-INDUSTRY" CAMPAIGN ?

The "Youth-Industry" campaign was launched in 1991 to make secondary schools pupils discover the metal industry professions.

A - the project

This project consists in carrying out a work on a subject concerning the company for example, presentation leaflet, a display of its professions, a study on the manufacturing of a material, on quality controls, on safety, on environment. These are only samples of what can be done.

The work may be produced on video; on the web, during an exhibition etc... whatever the means, the report must be attractively presented.

B - the Partnership Contract

This meeting between pupils and the world of industry is formalised, at the beginning of the academic year, by the signature of a Partnership Contract which constitutes the first step of the project.

This Contract is a mutual commitment :

- the employer regularly welcomes in its company a group of 4 to 6 pupils aged 13 to 16 to carry this project through to a successful conclusion;
- the students realise their project all along the academic year.

2. WHY THIS CAMPAIGN ?

To help students choose on their own and with full knowledge of real working life.

3. TO WHOM IS THIS CAMPAIGN DEDICATED ?**A - to pupils aged 11 to 16**

It is at this age that the ideas on professional activities are built up and that young people start having a positive or negative image of their environment. In France, the industrial sector suffers from a bad image within the society. This is the reason why Youth-industry campaign was launched.

B - to industrial companies

By welcoming pupils, companies offer a more modern, accurate and current image of industry to coming generations, so that latter on, much more young people will think about industrial jobs when choosing a career. Their information and motivation is indeed based upon reality.

4. WHAT ARE THE TEACHING AID AVAILABLE ?

- The teacher's guide
- a booklet on the industry called "Industry: the heart of employment"
- The pupils' passport
- The pupils' road book
- three videotapes for Careers education sessions, and
- a collection of 10 booklets on the different professions of the metal industry

FRANCE – CD-ROM CALLED “I-MAIL - TODAY’S TECHNOLOGIES AND PRODUCTS, TOMORROW’S CAREERS”

In order to overcome the problems of skills shortages and the industry's need to improve its image, the French metal industry launched in 1991 a long term and dynamic campaign for young people. The success of this “Youth & Industry” campaign (Opération Bravo l'Industrie) has encouraged the metal industry to pursue in this way.

In order to hit most a greater number of young people, UIMM decided to develop new tools of information adapted to youngsters' tastes for new technology. It therefore proposes a new approach - through the use of a CD-ROM and Internet – to ensure a better knowledge and understanding of the skills and careers offered by the industry.

Thus, the recently developed CD ROM called “I-mail - Today’s technologies and products, tomorrow’s careers” displays products designed and manufactured within metal industry companies as well as the technology and skills actually required to work in the metal industry. This CD ROM also give access to over 800 websites of metal industry companies.

ITALY - MUSEUM OF MECHANICS AND BEARING AT RIV-SKF

In Italy the initiatives striving to improve the image of metal and electrical industry and its attractiveness to the young are several.

Some of them go towards the people like: a) videos either for pupils or for parents and teachers; b) meetings between industries' representatives and students + teachers in the schools. Others consist in spaces where people can go to have an hand-on experience: a) Project "fabbrica aperta" (open factory); b) Crafts' Exhibition; c) Museum.

WHY THE MUSEUM?

- In order to show the development of mechanical technology in its historical evolution, starting from the end of the nineteenth century when industrialisation started in Italy;
- To give teachers and pupils an educational tool that makes easy the understanding of technology, the social and economic changes.

How?

The Museum was opened in May 2001 following a joint action between AMMA and SKF. It is located in the RIV historical plant of ball bearing. Next door there is the working processing plant.

The materials used in the Museum are several:

- Show-room of machinery, tools etc.;
- Rebuilding of a typical working environment;
- Reproduction of larger equipment;
- Film and video library.

The Museum is composed of three sections:

1. Machine tool, with a wide range of "machines that build other machines" selected in order to show the main changes in their transformation;
2. Precision instruments for measuring, which represent a fundamental need for modern technology;
3. Ball bearing, that is the specific SKF product but it may also be understood as synthesis of the two preceding sections, for the mechanical working and the high precision required.

WHAT IS THE MESSAGE?

From the educational point of view, the Museum aims to point out how the technological innovation changes the social organisation and vice versa.

The educational method is implemented by:

- A big monitor broadcasting a non-stop sequences that show characteristics, use and working (running, operation) of the several machines exhibited;
- Rebuilding of a typical nineteenth-century working environment with genuine equipment that can be started as a demonstration.

<p>SWEDEN - ASPECT ON THE FUTURE: AN EXHIBITION CONCERNING ATTITUDES AND EMPLOYMENT</p>
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1. BACKGROUND AND CONCEPT

On the VI centenary in 1996, the organization decided to give priority to the work on the industry's long-term supply of competence. A new approach to communicating with young people was developed – the Technology Train. In the train visitors were invited to participate in a virtual development project. This concept was a success rendering clear and positive changes of attitude towards the industry.

These positive results paved the way for the sequels called the Technology Trip and Aspect on the Future, the latter being the latest exhibition that VI has toured the country with.

A – Purpose

The overall purpose of the campaign is to aid the Swedish engineering industry in securing the long-term supply of competence. We also aim to further emphasize the importance of this issue among educational personnel as well as member companies.

B – Objective

The aim is to meet with 30,000 upper secondary school pupils during a two-year period (1999-2001) and to achieve substantial changes of attitude towards the industry. We also want to create attention locally around the issue of the industry's supply of competence. Furthermore, we intend to contact teachers and vocational guidance officers to discuss with them the industry's competence requirements as well as its career opportunities.

C - Line of action

How to achieve the objectives can best be summarized in one word, i.e. experiences. We call on the students and, with the aid of computers, we arouse their interest to try out today's industry and how it operates. We also bring along young informants who discuss with the students their experiences. The discussions deal with jobs, training and the future. To get the true local touch in each place that we visit, local companies are invited to take part in the event and to bring their own young employees.

2. RESULTS

We met with 30,000 students, of whom more than 60 per cent reported a more positive attitude towards the industry after having participated in the events. We visited a total of 58 places. At all places we have appeared we have received positive media attention. We have also talked to teachers and vocational guidance officers at all of the 58 places. More than 300 companies have taken enthusiastic part in the events.

3. CONCLUSION

Aspect on the Future has been a project, which was competently and successfully carried out and which has paved the way for the future venture, which will also bear the name Aspect on the Future.

UNITED KINGDOM – WISE “WOMEN INTO SCIENCE AND ENGINEERING” PROGRAMME

INTRODUCTION

The aim of this programme is to create an awareness for 13 to 14 years old girls of a range of career opportunities for women in the engineering profession. The programme gives girls an opportunity to gain practical experience of engineering through a three-day event held at a Further Education College, supplemented by a visit to an engineering company and talks from ‘role models’ and other engineers. The programme is run and supported by the EEF (Engineering Employers’ Federation). EMTA, The Engineering Technology Board and the Department for Trade and Industry also contribute to the costs.

1 - BENEFITS TO FE COLLEGES

The main aim is to interest girls in technical courses and careers

With this programme, Colleges’ Technical and Engineering Departments have the opportunity to invite Year 9 girls from schools across the area to spend three days taking part in a structured “introduction to engineering” programme based at the College

It help girls to enjoy:

- Taking part in hands-on engineering projects to experience the satisfaction of designing and making something for themselves;
- Working in teams; developing presentation skills;
- Talking to women students and staff from technical and engineering courses; using the College facilities; experiencing College life; and
- Meeting women engineers to talk about their work, training and careers.

Colleges benefit from the opportunity to:

- Form links with local engineering companies for site visits to see plant and operating systems; find out about their design and production process; and
- Work with the Engineering Employers’ Federation Regional representative, strengthen contacts with local Industries, Schools and Education/Industry Link organizations to raise their College profile and awareness of their technical courses.

2 – THE INTEREST FOR GIRLS

The interest for girls is to find out what engineers – and particularly women engineers – are doing. The three day programme at a local College helps girls find out about all aspects of engineering, science and technical careers.

Thus, girls have the opportunity to:

- Talk with women engineers about their jobs; the companies they work in; the courses and qualifications they have chosen;
- Take part in Technical Projects to design and make something for themselves;
- Work as part of a team to solve problems and present ideas to other people;
- Visit an Engineering Company to see for themselves what goes on; and
- Find out more about the wide range of technical roles many people know little about – yet a lot of women enjoy interesting and well paid careers doing.

3 - THE ADVANTAGES TO INDUSTRY

The main advantage for the industry is to interest girls in engineering as their future recruits.

Within the course of the programme, companies:

- Take part in an event to help link local industry with Colleges and School students – their future recruits;
- Invite the girls to come and look round their company to get the inside story on engineering; what they do; why they do it; how they do it;
- Invite the girls to talk to the engineers who design the products; design and run the processes and systems; and who work with their customers to meet their needs;
- Invite the girls to talk to women engineers, about the work they do, the training they have, the choices they have and the courses they have taken since leaving school; and
- Invite girls to find out about careers in science, engineering and technology in their industry.

4 - SAMPLE THREE DAY PROGRAMME

Day 1	<p>WISE Outlook Welcome Introduction Ice breaker – form in groups ‘What’s My Line’ activity involving 5 women engineers – find out what they do Group present findings Discussion with women engineers Presentation skills briefing Lunch in student refectory Visit workshops; meet students Team ‘Building’ Activities – Judge designs Project planning; Health & Safety Mini project – CAD</p>
Day 2	<p>Visit to Company Meet engineers talk about the production process and the plant Tour of the plant Lunch with engineers and students Return to College Group presentations on company visit Introduction to project stages Start Project Design & Build</p>
Day 3	<p>Project Design & Build – Morning Lunch in student refectory Prepare for final presentations Complete Project Design & Build Presentation of projects Group presentations ‘What Engineers Do’ Guest speaker presents awards Photographs and close of programme</p>

2 - MOTIVATION

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FINLAND -THE WORKING PARTY FOR DEVELOPING THE M+E INDUSTRY (METKET)
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The Working Party for Developing the M+E Industry (METKET) consists of the reps of MET and ML (the Finnish employers' association of M+E industry and the Finnish Metalworkers Union). It was created in the 2001 based on the signing protocol of wage agreement 2001-02 negotiated by the above mentioned associations.

The task of the working party is based on the idea of continuing negotiation process which has become a practice in collective bargaining policy in M+E sector.

The aims of the working party are

(1) to promote training and influence on the contents of training by collecting the best practice on-the-job learning in companies and finding the ways to improve the image of M+E vocational training competing for competent work force,

(2) to focus on professional qualification, competence and lifelong learning by studying the visions of M+E industry and clarifying the need of work force and qualification in the future using workers' and unions' experience of the need for further training,

(3) to develop cooperation, working conditions and functions in the work community by coordinating projects believing that workers are interested in developing their jobs and the company,

(4) to facilitate the utilization of new technology and

(5) to coordinate common training of social partners (for instance common courses for time and motion studies, payroll system and local negotiations).

The working party was thus created as an umbrella for different projects and promotes the best practice in M+E sector.

As a result of the efforts of the working party there are now (1) an updated general view of the development projects in M+E sector, (2) report of survey about on-the job learning and a plan have to give the feed-back to parties involved, (3) conviction of the need of systematic cooperation in influencing on the vocational education systems, (4) a common circular letter for member companies and local unions encouraging them to take part in tests of competence and (5) a discovered need for common productivity training in M+E sector.

FRANCE - CAREER EDUCATION PROGRAMME (EDUCATION AUX CHOIX)
A GUIDANCE THROUGH EXPERIENCE

The French “Career Education Programme” is based on experimentation. During educative sessions, UIMM provides an active and actual approach to careers and industry. UIMM involvement enables young people to broaden their representation on careers and the economic world. Pupils are taught unacademically how to select, analyse and pick up an accurate item among the large field of available information. Career's education programme prepares actively to decision making. It is a part of the national curriculum and gives the pupils the means to elaborate their project and confront it to reality. Choice making is taught through exercises in which the pupil focuses on himself, his personality, his tastes, his aspirations, and the kind of life he wishes to live. Such a guidance programme leads the pupils to view their future as a genuine route, not a static goal.

1. WHAT IS THE CAREER EDUCATION PROGRAM?

Career education programme is a guidance educational process. Its goal is to help individuals in the development of their capacities to choose in coherence with their aspirations and their environment.

2. WHY PARTICIPATE IN A CAREER EDUCATION PROGRAM?

Decision-making can be learned as well as any other course. All along their academic pathway and their life, individuals have to face difficult choices, which implies that they should be trained to take decisions and to choose.

- **To be an actor of one's own career evolution**

All along educational sessions, professional and personal experiences come to enrich the reflection. Their analysis allows a better knowledge of oneself and of one's environment. Thanks to this reflection, the participants acquire a personal methodology in order to become actor of their own pathway.

- **To train generations to mobility and flexibility**

A healthy economy relies on a motivated, active and adaptable workforce. Career education programme appears very much appropriate to acquire mobility and flexibility. In addition to skills acquired all along their life, individuals are made to deal with their professional future in terms of pathway.

3. WHO DOES THE CAREER EDUCATION PROGRAM APPLY TO?

Career education programme is dedicated to pupils from 11 to 18, students and adults.

This educational guidance process can take different forms depending on people's age and level of development.

4. HOW TO IMPLEMENT THE CAREER EDUCATION PROGRAM,

Educational sessions are animated by a specific trainer who must not only deliver knowledge but also help the participants to deal with and integrate what is experienced at school or in among the family, or more generally in social life.

- **Implementation with pupils aged 11 to 14**

Career education programme sessions lasting one hour are scheduled every other week of the pupils' timetable. In the end, pupils totalise 80 hours distributed over their 4-year curriculum. Teachers animate these sessions. Parents and experts are also associated to this process and they benefit, with the teachers, from a specific training.

- **Implementation with pupils aged 15 to 18**

Pupils, headed by their teacher, lead enquiries in companies. They learn to use their personal network (friends, associations, family). During the sessions, they learn to expose and to defend the results of their surveys in front of the other pupils.

- **Implementation with students**

During the first two years, students are invited to follow, during one semester, a tutorial class on professional project. With a bibliographical research completed by some interviews of professionals, they are brought to writing a research note on the state of play of their professional project. Their research is concluded during an oral presentation. It gives the possibility to check the coherence between the student's personal aspirations and the economic and social constraints. Their work is marked and taken into account for their academic results.

GERMANY –INITIATIVES LAUNCHED TO MOTIVATE OLDER AND UNSKILLED WORKERS

The representation of how to motivate older/unskilled workers for team work (lifelong learning) started with general remarks about motivation as an result of socialisation, life and work experiences and was followed by an example (best practice) from the John Deere Company. Frequently personnel management's view on the subject "teamwork and older workers" is older workers refuse to participate in training measures and are in general resistant to change.

Instead of this, the presentation of IG Metall stressed if one wishes to arrive at practical solutions it is essential to understand the differences between ability, willingness and self-confidence.

The basic capability for further training is usually present in older workers. Within this context, willingness is the readiness and motivation for further training. It is often "hidden" or "submerged" in older workers. It is nevertheless still there if it is encouraged, supported and promoted appropriately. And the general refusal to undergo further training may hide fears and uncertainties -a lack of self-confidence.

It is also necessary to have a closer look at the reasons for the ability, willingness and (lacking) self confidence of older workers: the key to understanding such reasons may be an "open Sesame" when it comes to clarifying where and how to start qualifying older workers. This key may be described as the education- or work- biography of older workers.

There are many examples of teaching methods which are suitable for older adults. A convincing example was provided by the LEARNING ISLAND at the tractor factory of John Deere works, Mannheim. In the LEARNING ISLAND mixed age teams with six participants in each group assemble a complete tractor within a three-week work and learning unit.

ITALY - PROJECT 500 “TOGETHER TODAY FOR YOUR FUTURE JOB”

This project was promoted, financed and carried out by the industrial association of Turin and the Region Piemonte, in order to offer to 500 young people a guidance period and vocational training courses that match the needs of local companies.

- **Addresses:** young people not older than 25 who are looking for their first or a new job;
- **Objectives:** finding out individual vocations, developing potential resources, improving skills;
- **Method:** guidance period and vocational training courses, organized for the company's sectors/divisions and not for specific job profile, so that young people could understand and choose the job profile they prefer, having known the specific aspects of each job profile;
- **Activities:** the project involved 1000 young people and was organized in four steps:
 1. advertising the project
 2. selection of the students
 3. guidance : 80 hours:
 - analysing individual attitudes and expectations
 - comparing with the professional demands/needs of the labour market
 - knowing both the market and the job profiles
 - closing interview in order to define the aim of the vocational training course
 4. vocational training course;
- **Innovations:**
 - a. this is a model that might be used for people who could start working without any specific knowledge of the different job profiles and market demand;
 - b. this was a guidance process based on tutoring activities, which was addressed to people without any opportunity to choose or to evaluate their abilities.

Initially 1000 young people were involved, 350 of them attended to vocational courses in the fields of industrial planning, production and administration; at the end of the courses pupils had an in-company stage. For the remaining 65% of the people involved a guidance profile was elaborated in order to guide them towards training streams alternative to the ones for industry.

ITALY - LEARNING CENTER IN MELFI (FIAT)

The Learning Center was opened in March 1998. It was built by Fiat and it is financed completely by the company. The principal aim is to motivate people to life-long learning.

- **Addresses:** employees' company and people who belongs to the local community. The center, infact, is open to anyone, free of charge, and it is open out of working hours. In order to better fit the users the center has been projected with the help and suggestions of the users themselves who have expressed needs, wishes and expectations.
- **Objectives:**
 - to recognize and improve (value) all the employees;
 - to build an intermediate place between the plant and social life;
 - to develop basic competences;
 - to build a bridge with society: schools, universities, families, suppliers;
- **Method:** A new learning model has been experienced. It uses the integration of different technologies (videoconference, web based training, CD Rom) and different methods (real and virtual classroom, workshop, learning streams either individual or in small groups with the help of a tutor. the services provided by the center can be used in a real or virtual way. Career guidance services, tutoring services are provided in order to evaluate acquired competences.
- **Activities:**
 - 2.748 people have completed the 6-60 hour training courses;
 - 1.350 people have attended seminars and meetings with company experts and university professors. The issues developed in these seminars were connected to car building, but also to communications and interpersonal relations.
 - 120 people attended technical courses and used the laboratories (eg. electronics, photography etc.)
 - 17 people concluded a course to get a "Manufacturing + Logistics Engineering" degree
 - 40 people have gained the European Computer Certificate
 - 2000 people occasionally attended the center in order to participate in specific meetings and internet search
- **Who uses the Learning Center?**

80% are men, they are 30 years old in average and have high school qualification; the main motivation is individual interest; the most popular courses are IT and Languages.

- **Innovations:**
 - It was the first center that was opened for employees representing, also, a point of cultural enhancement and development. New training method has been experienced and then exploited in other company's branches.
 - The training process was thought and developed with the aim of making the individual to improve and in order to obtain not only the skills usefull for the production process but also the skills usefull out of the company.
 - The Learning Center is open out of the working time.
 - Learning is easy at the Center.
 - The tutoring system is geared towards "hands on" experience.

SWEDEN – TRADE UNION’S INITIATIVES TO INCREASE THE MOTIVATION OF INDIVIDUALS

1 - COMPETENCE DEVELOPMENT AGREEMENT BETWEEN THE ASSOCIATION OF SWEDISH ENGINEERING INDUSTRIES, SVENSKA METALL, SIF AND THE SWEDISH ASSOCIATION OF GRADUATE ENGINEERS (CF)

The agreement on partnership in issues regarding competence development recognises the trade unions as legitimate and important partners in a joint action of developing employees and companies.

As trade unions, we find it important to work together with employers in matters concerning the provision of competence within companies both in the short and the long term. This partnership also increases the motivation of employees to actually take part in the development schemes.

To us it is very important that all employees achieve both personal development and skills development based on current and future work tasks taking into account the perspective of both employers and employees. The agreement gives every employee the right to a personal development plan.

One of the major objectives from our union point of view is that once the intentions of the agreement have been fully implemented by the companies, no employee will be made redundant due to lack of competence.

2 - “VINK” – THE ENGINEERING INDUSTRY COMMITTEE FOR COMPETENCE ISSUES.

“VINK” is a joint committee, stipulated by the agreement, with the expressed purpose of actively promoting competence development activities within the engineering industry in accordance with the Competence Development Agreement. The committee consists of representatives from the partners involved: the Association of the Swedish Engineering Industries, Svenska Metall, SIF and CF.

The Committee holds regular meetings in order to be updated and to follow the development in this field.

The object of the Committee is to work actively for competence developments issues to be integrated in the daily work of the companies. Another object is to support companies on work place level to find ways to put the intentions of the agreement into practise. During the past year “VINK” has carried out three regional seminars, during which among other things some best practise examples from work place level were presented. Representatives from both companies and trade unions participated in the seminars.

UNITED KINGDOM – THE ENGINEERING SPECIALIST SCHOOLS PROGRAMME

INTRODUCTION

The UK has had specialist schools for a number of years, the first being in technology launched in 1994. In 1996 languages specialist schools were added and in 1997 sport and arts specialist schools were established. In 2001, the Secretary of State for Education and Employment announced the extension of the specialist schools into the areas of Engineering; Science; Maths & Computing; and Business and Enterprise – all to become operational in 2002.

In July 2001 there were 685 specialist schools and the number is to be extended to 1,500 within 5 years (1,000 by 2003). These schools are for young people aged 11 to 16 years.

WHAT DOES A SPECIALIST SCHOOL TEACH?

A specialist school must still teach a broad and balanced curriculum, meeting the requirements of the National Curriculum. They also provide enriched learning opportunities in their chosen specialist subject area. These could include a wider range of courses e.g. GCSE in Engineering, Systems Engineering and also include specialist orientated activities such as Young Engineers' Club, Formula 1 in Schools, WISE (Women into Science and Engineering) Outlook. The schools are expected to be innovative in their management and design of the curriculum as well as the type and range of activities they will offer.

HOW DO YOU BECOME A SPECIALIST SCHOOL?

To become a specialist school, at least £50,000 of unconditional private sector sponsorship must be given for the purpose of supporting the specialist school application. This must support the capital project. The school will then receive funding of £100K for the capital project to enhance the facilities in the subject related to the school's specialism.

They will also receive recurrent funding, typically around £123K per year for four years to implement the specialist school development plan. All specialist schools are expected to target around 1/3rd of their specialist school grant on sharing resources and expertise in the specialist curriculum area with other non-specialist schools and their local community.

The school makes a bid to the Government to receive their specialist status providing details of the changes they intend to make, the new educational targets they intend to achieve and details of the sponsorship pledges they have received. These bids are assessed and if accepted the schools are then inspected and the relevant Government minister announces the names of the successful schools.

SPONSORSHIP

The £50K from the private sector must be in cash or relevant goods. Time and consultancy, salaries or bursaries are disallowed as sponsorship. Sponsorship should preferably take the form of cash donation. The sponsorship money must be raised for the purpose of the application and be unconditional. It must be from the private sector (from companies or other bodies or individuals without a direct or indirect commercial interest in the school) and it must support the capital project.

ENGINEERING RESPONSE

A number of engineering organisations came together to form a 'consortium. These were: EEF, EMTA, Engineering Council, Royal Academy of Engineering, MTTA (Machine Tool Technologies Association), the Engineering Development Trust. They supplied sufficient funding to support the application of three schools to become Engineering Specialist Schools. In March 2002 the results of the bidding process to the Government were announced and four schools were successful in obtaining engineering specialist status, including the three schools supported by the consortium. These schools introduced their specialism in September 2002.

Schools are invited to bid twice a year and it is known that the trade union, Amicus will be supporting a number of engineering specialist schools, as will the company BAE Systems.

A new consortium is currently being set up with old and new partners to provide further support for the specialist engineering schools.

FUTURE DEVELOPMENTS

The Government is now encouraging schools to look at combined specialisms e.g. Engineering and Languages; Engineering and Business & Enterprise. This can only auger well for the future development of young people.

UNITED KINGDOM - THE WORKPLACE LEARNING REPRESENTATIVE

Background

The Workplace Learning Task Group report (1997) to the National Advisory Group for Continuing Education and Lifelong Learning emphasised the importance of trade union involvement in developing learning at the workplace. In particular, the task group recognised that trade unions have a key role to play in stimulating the motivation to learn amongst their membership. This can increase demand and encourage individuals to take ownership of their own lifelong learning leading to personal growth, the acquisition of new skills and continuing career development. One of the task group recommendations was the establishment of workplace learning representatives.

This recommendation was adopted by the TUC Learning Services Task Group in their report "Gateways to Learning" (1998). The Task Group proposed developing a national network of union learning representatives who would be trained to offer members advice and guidance on learning opportunities and to negotiate with employer and education providers for more workplace learning programmes.

The Learning Representative

Over 3000 union learning reps have been trained by the TUC and individual unions. Their role is new and innovative, and therefore is still developing, but the key activities undertaken by learning reps include:

- Creating a demand for learning, encouraging members to take advantage of learning opportunities and boosting their confidence
- Gathering and disseminating information about learning opportunities
- Providing advice and guidance, and 'signposting' members to specialist sources of advice
- Negotiating around a variety of learning issues, for example asserting the union's proposals for time off to learn new skills, or working to provide access to facilities for learning, such as resource rooms and learning centres. Learning reps may also meet with management to represent a member's individual learning needs.

How Learning Reps Make a Difference: the Benefits for Employers

The greatest added value for employers from working with union learning reps is that the reps are trusted by their fellow employees, particularly those that might otherwise be put off learning due to negative experiences in the past. As one Amicus - MSF Section learning rep puts it "People do tend to trust us; we don't represent the company, we don't represent a threat to them.

Learning reps also play an important role in helping maintain a broad range of learning, encouraging employers and employees to think beyond simply acquiring vocational skills. As another Amicus-MSF learning rep puts it "My company does have some fantastic training, but it tends to be on the technical side of jobs. I think with the pace of change in the industry overall, the softer skills become more important. It is the provision of these, if you like, that develops a 'learning mind' in individuals that the company is not particularly good at encouraging. Becoming a learning reps is one way of addressing that".

3– ANTICIPATION OF SKILLS REQUIREMENTS

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FINLAND – THE OUTOKUMPU ZINC OY CASE STUDY

A NEW STRATEGY OF THE COMPANY

In its new strategy building process in the end of 1995 the company found out inter alia that because of ageing of the work force and the pension scheme nearly the whole present personnel has to be renewed in the next 10 years.

According to the new strategy the company is focusing on the new way of working. Because of technological advantage, customer orientation and networking services systematic and continuous development of personnel is necessity. While experienced personnel will decrease from 600 to 100 in 2001-2010 there is absolute need to increase new personnel from 100 to 500 in the same time span.

SYSTEM OF RECRUITING

In order to acquire new workers the company build a system which made possible to recruit a greater amount of workers at the same time. So-called Zinc-course Procedure was established together with the employment authorities and the local adult education centre.

Zinc-course Procedure includes selection of students (using tests, interview and check up) for Zinc-course which takes 16 months time. Precondition for becoming a student is a basic vocational training or an adequate work experience.

SYSTEM OF VOCATIONAL TRAINING

To develop professional qualification of the work force OUTOKUMPU ZINC provided a system of further training which would help workers to enlarge their individual competence and to update the prevailing skills. Furthermore the company wanted this further training to be valuable to the worker him/herself.

This was enforced by a model of vocational training which is aiming an official vocational degree certification. This means that every worker in the company has a personal study plan. The plan determines the degree and the studies both in external courses and in learning at work. Each foreman has a responsibility to coach and support his workers to carry out the study plan.

The company also founded the system of levels of competence and continuous vocational training (vocational degree certification 40 months), specialist and zinc master (special vocational degree certification in 6 years).

The training systems are now closely related to the strategic guidelines of the company

GERMANY – SOCIAL PARTNERS AGREEMENT ON THE FUTURE ORGANISATION OF TRAINING

Gesamtmetall and IG Metall signed an agreement on how to organize training for the future. This agreement stresses the main competences/qualifications which Gesamtmetall and IG Metall think will be necessary in future and is linked to the idea of attractiveness to learn and work in the Metal Industry. The Social Partners (metal industry) in Germany agreed about the growing importance of qualifications/competences for both: companies and employees; about the concept of "profession" (Berufskonzept) as a leading principle of the future in the industrial training of the metal industry.

This principle aims to encourage and support mobility between professions, companies, branches and industries. Concrete targets of restructuring the training ordinances are: process orientation, IT-competence, planning competence, competence in business economics and altogether holistic acting and self responsibly planning, doing and acting.

This agreement is the frame within which the remodeling of the training ordinances will take place in 2003/2004. They will be used to guarantee employability and the workers' participation in social and structural change and should lead to life long learning.

ITALY - SOCIAL PARTNERS' JOINT NATIONAL RESEARCH ON COMPETENCE NEEDS

Social partners in Italy promoted and carried out a project aiming to identify and anticipate competence needs on a qualitative point of view and in order to give the “right” information to the educational system. The research involved 16 different production sectors.

The joint research can be traced back to the January 1993 national agreement on training in which the social partners called on the public authorities to introduce an integrated training policy. A paritetic observatory named OBNF, in which are jointly represented employers and trade unions, was set up in 1996 for the purpose of this research.

The objective is to identify companies' competence needs in 16 different sectors and to provide public authorities with accurate information on long term labour market trends.

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The objective is to identify companies' competence needs in 16 different sectors and to provide public authorities with accurate information on long term labour market trends. Competencies needed at company level were identified by means of a survey.

63 professional profiles were set up, 60% of which are considered “critical” or difficult to find on the labour market. The study also shows that 50% of identified competence needs are similar across all the sectors covered.

The results of the study will be taken into account by public authorities when setting up education and/or training programmes, in order to better match training offers with competence needs. The information gathered will also enable public authorities to anticipate competence needs by taking account of labour market changes and technological developments.

The complete succes of the implementation depends very much on local partnerships with public authorities. In certain regions, joint laboratories are established between social partners and representatives of the education sector, in order to draw up training programmes and to promote the results of the study.

SPAIN – SOCIAL PARTNERS' JOINT PROJECT “METAL 2000”
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This project, developed by MCA-UGT, FM-CC.OO. and CONFEMETAL has provided a new framework to know and analyse the metal sector in Spain regarding qualifications and future trends within the sector.

The starting key questions were the following ones:

- Which are the main trends regarding the evolution of qualifications in the metal sector? .How to promote the access to the new qualifications?. How to recognise the qualifications already obtained?
- Which is the role of experience in the new qualifications system? How to certificate them?
- What are the consequences on training?

The main objectives to achieve were:

- To know the new methods or working organisation in the sector and their impact on professions and qualifications;
- to define basic professional profiles (competences, sectors, related training and requirements) to establish qualifications within the sector;
- to get agreements on training recognition procedures;
- to generate guidance, promotion and professional career;
- to develop systems and criteria to recognise the experience and to certificate it.

The outcome raised is a handbook where the state of the art of the sector is defined, the needs to be matched in the future to improve qualifications and the definition of tools to be developed in the future. Specifically, in this material are underline the following results:

- Settlement of challenges (a higher level of competitiveness regarding quality and price) .To collect main technological innovations within each sector
- To arise new working organisation methods related to NT and market trends (flexibility, a shorter decisions making chain, autonomy, polyvalence, more interaction and interfunctional co-operation)
- Fixing new trends on qualifications within each sector
- Understanding the employment evolution
- Establishment of the professional profiles in each sector
- Determination of the competencies linked to developed by each professional profile .
- Sectorial proposal of activity for each professional profile
- Main profile feature:
 - training contents
 - qualification trends
 - companies
 - responsibility related to each job
- Development of the content of each professional profile

SWEDEN – THE INDUSTRY PROJECT KFY 2000+ (COMPETENCE DEVELOPMENT FOR THE WORKERS)

KFY 2000 + is a regional project in West Sweden carried out in partnership between among others Svenska Metall, The Association of Swedish Engineering industries (VI), SKF Sweden, Volvo PV (Cars), Volvo Buses, Business Region Gothenburg (representing SMEs), Chalmers University of Technology, University of Gothenburg and the regional labour market administration.

The project period was from November 1994 to December 2000.

The idea behind the industry project KFY 2000 + was to develop methods and tools in order to strengthen the skills among employees within the West Swedish engineering industry and to support the companies' adaptability to change. The core of the project was to initiate, test and conduct development projects regarding, above all, methods for competence analysis and guidance as well as different forms of learning close to the production of the company.

Another core objective was to promote networking between companies and employees to provide mutual support and inspiration.

The strategy of the project was to use the resources and capacity of big companies, Volvo and SKF, in order to develop and test methods and models. These methods and models were then modified to be adapted to various SMEs.

The project was based on the principle of partnership: By establishing the networks to create values greater than what can be achieved by each company/partner separately.

An important aim of the project was to find ways of continuously integrating competence development in the daily operations of companies.

The KFY Method

In short, the KFY method implies co-operation between the social partners on work place level to assess the strengths and weaknesses of the companies by the use of an assessment schedule. This analysis work comprises the entire situation of the company with the purpose of establishing competence development needs in the various areas of the operation, including the need for short as well as long term competence development among employees

The work method of KFY and the project results have attracted a great deal of interest around the country and have also resulted in discussions between the Association of Swedish Engineering Industries, VI, and Svenska Metall to start new partnership projects in two other regions of Sweden: Halland and Värmland.

SWEDEN - AGREEMENT CONCERNING TRAINING AND DEVELOPMENT IN THE COMPANY

1. COMMON VALUES AND REFERENCE POINTS

Companies within the engineering industry are operating in conditions of increasingly tough national and international competition. Possession of the required skills is important in order for companies to be able to run their operations. This requires development of work methods and organization and that the knowledge of all personnel is renewed and strengthened.

The company has a fundamental responsibility for ensuring that its requirements for skilled personnel continuously are met. The employee also has a personal responsibility to develop his or her skills in accordance with the demands set by the company's operations. In order to be appropriate and practical, the forms of training and development must be adjusted to the conditions ruling in each individual company and must be based on the company's business concept and long-term operations. A constructive and committed dialogue between company and local union representatives is positive for both the company's and the employees' opportunities of maintaining and renewing skills and for improvement of efficiency, profitability and competitive strength.

2 - GOALS

The local parties should cooperate to create an environment in which the personnel can satisfy new demands for knowledge and qualifications. The basis for this is continuous, systematic and goal-orientated development projects designed

- to increase the company's ability to adapt to new demands for greater competitive ability,
- to create operations profitable for the company,
- to extend the versatility, overall competence and skills of individual employees in order to improve flexibility and performance,
- to strengthen the security of the personnel in their employment,
- to ensure that the personnel have a good work environment and positive wage development,
- to develop the basis for equality between men and women within the company.

3 - COOPERATION WITHIN THE COMPANY

It is a very important joint task for the company and the local union organizations to establish active development activities and to create good conditions for utilization and development of the skills and competence of the personnel.

On the request of either party deliberations should be commenced with the goal to come to an agreement regarding methods of cooperating on training and other matters relating to development of the competence and skills of the personnel. If the local parties deem it appropriate, they may institute a joint committee² with the object of creating a forum for this cooperation. It is moreover of great importance that the local parties apply a system of wages and employment conditions which stimulates the personnel to work towards continuous development of work tasks and competence.

² *The purpose of this committee is to identify the need for new skills brought about by changes in job content or working practices and what is needed to bring about desired development of competence. Its work may be based on an analysis of future changes and knowledge requirements deriving from the long-term strategy and planning of the company. Follow-up of the effects of training schemes also lies within the aegis of this committee. If training schemes are developed, these may be discussed and assessed by the committee. Such training schemes may also be used as a basis for influencing training schemes provided by the public sector.*

4- PERSONAL DEVELOPMENT

All personnel, irrespective of educational background, should be given an opportunity of personal development at work, so that they can undertake more qualified and responsible tasks. Special attention should be given to those with short and – for the tasks performed within the company – insufficient training. Personal development may for example mean internal or external further education, the opportunity of taking part in project schemes, producing reports etc. or work rotation. It may also mean that employees are given the opportunity to try on other jobs at the firm. Individual development planning can be an important basis for the joint development of skills and competence of the personnel and the company. Such planning should be undertaken if requested by an employee. The form of individual planning may vary. It can be created, for example, through planning or development talks or work place meetings. The need for development should be discussed both from the point of view of the company's goals and the individual's needs and wishes. Measures should be agreed and followed up.

5 - COOPERATION BETWEEN THE PARTIES TO THE AGREEMENT

Matters concerning development of skills and competence are dealt with by the Engineering Industry Skills Development Council set up by the parties.

The object of the Council is

- *to* actively encourage the company to devote more attention to the development of competence and skills in its operations,
- *to* encourage, by means of exchange of experience and in other ways, the company's and its personnel's interest in the development of competence,
- *to* initiate development projects,
- *to* follow up and analyse the skills requirements in the industry,
- *to* examine specifically which measures should be taken to assist smaller companies with their identification of training requirements,
- *to* influence the contents and extent of public training schemes, on the basis of analyses of the competence and skills needed in the industry,
- *to* monitor and encourage the application and further development of this agreement, and
- *to* generally handle matters that are referred to the Council by the parties in agreement.

The Council consists of six members in total of which three are appointed by the employers' party and three by the employees' parties. The Council appoints a chairman and a deputy chairman from among its members. The members are appointed for a period of three years, and the parties are entitled to appoint a substitute when a member is absent.

The possibility of external financing of projects should always be explored. The activities of the Council shall otherwise be financed by the parties on an equal basis.

6 - NEGOTIATING PROCEDURE

Differences of opinion concerning the application of this agreement shall be treated in accordance with the negotiating procedure in force for the agreement area.

7 - TERM OF AGREEMENT

This agreement shall remain in effect until further notice, with a mutual period of notice of termination of six months.

UNITED KINGDOM – SKILLS IN ENGINEERING: THE LANDSCAPE OF CHANGE OVER THE NEXT 20 YEARS

INTRODUCTION

Over the past decade, the landscape of the UK engineering industry has changed dramatically, with the rapid rise of the technology, media and telecommunications sector and the relative decline of traditional engineering such as manufacturing. This growth combined with the impact of technology in all other sectors of business and commerce is changing the employment landscape in engineering. It is also clear that the rapid changes witnessed over the past decade are showing no signs of slowing down, making it reasonable to envisage an engineering sector which will look radically different in two decades. The EEF (Engineering Employers' Federation) commissioned Henley Management College to undertake a research project in order to investigate that future. The intention is to identify changes to education and training policy, qualifications, approaches, etc. that need to be made.

1 - AIMS AND OBJECTIVES

The research is in two parts. Stage One to look into the current intellectual capital position of the engineering industry and the changes that will be required in the future. The report of Stage One forms the basis for the Stage Two research into the skills needs of engineering over the next two decades.

The objectives are to:

- gain an understanding of the drivers of change currently impacting on the engineering industry as perceived by the industry itself.
- investigate where the industry is going and what challenges it will be faced with in the future.

2 - SCOPE

Although the focus is on the higher technology section of the industry, a wider view of engineering was taken in order to reflect the broad spectrum of firms represented by the EEF. Whilst the research has been largely centred on the future shape of the industry in the UK, account was also taken of the wider global context within which the industry operates, since an increasing proportion of the pressure for change comes from outside the UK.

3 - METHODOLOGY

Stage One was based around a qualitative study of industry leaders, senior civil servants, trade unionists and leading experts from think tanks, universities and research organisations. The study was based on interviewing these individuals who were from a broad range of sectors ranging from construction to advanced electronics and aerospace; a representative geographical spread; a good spread of company size and a range of positions with the supply chain.

Stage Two takes the results of Stage One and uses these in:

- a range of focus groups (e.g. small and medium sized enterprises; human resource directors)
- a Delphi study (virtual study)
- a qualitative survey of engineering companies, organisations and institutions.

4 - RESULTS TO DATE

Stage One has been completed and Stage Two is currently under way. The results of Stage One are available from the EEF.

From Stage One some of the indications are that 'Engineering Tomorrow' will be:

- a fragmented industry
- higher value added but not always high technology
- companies will be networked locally but connected globally
- there will be a need for T shaped skills and capabilities
- a 'just-in-time' world.

The characteristics of a successful company look likely to be those with the ability to:

- exploit existing knowledge
- develop new knowledge
- have the agility and flexibility to exploit that knowledge

4 – TRANSPARENCY OF QUALIFICATIONS

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FINLAND - CERTIFICATE OF VOCATIONAL PROFICIENCY

1. THE CERTIFICATE

Several years ago the National Board of Education launched with co-operation of the central labour market organisations the Certificate. It reminds on the outside of a passport. Students and adults have the possibility to get marked on the Certificate all information about their examinations, parts of examinations, working relationships and other education and training. The certificate is functioning as a kind of non obligatory portfolio. Concerning the education and training or examinations authorities who are arranging it will also give the label on the certificate. Concerning working relationships it is the employer who will do that. The general information in the certificate is in Finnish, Swedish, English and German.

2. THE COMPETENCE - BASED QUALIFICATIONS FOR ADULTS

The certificate has a near link to competence-based qualifications for adults. After performing a qualification one has the possibility to get a label to certificate. The competence-based qualifications system refers to flexible and individual schemes for obtaining vocational qualifications, irrespective of how the person has acquired it: at work, in training or in leisure pursuits. These may now be converted to an officially approved competence-based qualification. The vocational skills required for the qualification are not tied to any previous participation in a specific training.

3. THE LEVELS OF QUALIFICATIONS

- **Vocational qualifications** indicate the knowledge and skills required for acquiring professional skill.
- **Further vocational qualifications** indicate the skill required from a professional in the sector. The professional skill requirements have been defined so that they can only be acquired through further, advanced studies subsequent to basic training in the sector and a minimum of three years' work experience.
- **Specialist vocational qualifications** indicate a command of the most demanding tasks in the sector. The professional skill requirements have been defined so that they can only be acquired through further, advance studies subsequent to basic training in the sector and a minimum of five years' experience.

In metal, engineering and electrotechnical sector there are about 40 titles in these three levels.

4. A MODULIZED SYSTEM

There are three levels of competence-based qualifications. Competence-based qualifications are divided into modules according to the sets of tasks and core functions of a profession. As a candidate, you can make a selection from the modules defined in the requirements of a qualification. Tests of competence are designed so that you can complete on module a time. Modules can also be taken at different educational establishments.

5. THE ADMINISTRATION

Each competence-based qualification is administered either by a national or a regional qualification committee, which consists of representatives of employees, entrepreneurs and teachers in the field. The contribution of working life in the planning, execution and evaluation of the competence-based qualifications is strong. The duties of a qualification committee include, for example, signing the contracts for arranging the competence-based qualifications and issuing the qualification certificates or certificates of a passed qualification module.

FRANCE - JOINT QUALIFICATION CERTIFICATES IN THE METAL INDUSTRY (CQPM)

A sectoral certification process for companies and employees.

1 - WHAT ARE THESE JOINT QUALIFICATIONS?

The occupational qualifications in the metal industry were created via a branch agreement in August 1987. Their aim is to facilitate young people's access to qualification and employment within the framework of a "qualification working contract". In 1992, the 1987 agreement was revised and gave employees the possibility to prepare these qualifications in the frame of continuous vocational training.

The occupational qualifications of the metal industry are created by the National Joint Body of Employment (CPNE). The joint jury issues - in the name of the CPNE - a joint qualification certificate recognised on national level by all the companies coming under the metal industry collective agreement.

Each qualification is filed among the classification records of jobs in the sector. This classification - along with the guaranteed minimum wage corresponding - forms either the hiring thresholds or the minimum level granted to an employee who passed a joint certificate thanks to vocational training, from the moment the employee holds a job in relation with his new qualification.

Beside existing diplomas and approved degrees, the joint qualification certificates in the metal industry stand for an additional way for the qualification of young people and employees but also for the validation of this qualification.

2 - THE SETTING UP OF A JOINT QUALIFICATION IN METAL INDUSTRY

A company wishing to create its occupational qualification needs to ask the regional metal industry association. The latter applies to the CPNE. An opportunity report and an identity file enable the CPNE to place the needs (activity, job flows, public target, level, comparison with similar existing certifications...), and to picture the professional aims and the validation tests. In order to deal with the request, the CPNE takes three criteria into consideration: general aspects, to what extent the qualification is transposable, the clear distinction between the requested qualification and existing qualifications.

Joint qualifications are permanently controlled, notably by the CPNE which is allowed to revise or suppress some of them when a certificate needs to be adapted, if a certificate is insufficiently used or in case of the creation of a new similar certification.

Joint certificates refer to abilities as goals to reach but also refer to the validation of those abilities; however, the purpose is not to determine a training path in relation. Thus, joint certificates enables to adapt the training to the people taking a joint certificate, then the training content is specified by the training centre together with the company involved.

3 - THE CQPM IN FIGURES

Today 213 joint certificates of qualification have been created: they deal with all the professional specialties of the metal industry sector. The certificates are categorised into 5 levels of qualification: two for worker

level (152 joint certificates), two for technician level (56 joint certificates), and one for engineer level (1 joint certificate).

About 25 000 joint certificates have been issued. 4 000 are issued each year, 75% granted to young people and 25 % to employees on vocational training. Worker level represent 67 % of the joint certificates granted whereas technician level represent 32% of them.

Surveys conducted on request of the unions and management of the sector show both a very high rate of integration into the world of work and the same rate of satisfaction from the people (young and employees) who passed a joint certificate of qualification in the metal industry.

GERMANY - TRANSPARENCY WITHIN THE SYSTEM OF ADVANCED TRAINING FOR THE IT- SECTOR.

It is a new and very innovative system which was created within the industrial relations (labour-manager) including state representatives (Federal Institute of Vocational Training): the system allows trainees, having successfully completed vocational training (IT-sector), as well as late entrants (Seiteneinsteiger), to start an advanced training course, which may/can lead, in 3 steps, to the top of the enterprise.

The relevant certificates are comparable to bachelor and/or master degrees. The first step involves 29 so-called specialists, the second and third step leads to the so-called professionals, which are divided into planning and strategic professionals -the European system of credit points.

The IT-specialists alliance is part of the German "Job Alliance" between employers' Organisations, Unions and the Government. One important result is to build up a national system of further training for the IT-sector. Important aims for the new further education concept are internationally recognized standards of qualifications, and transparency of the certificates. Workplace-related further training, access for everybody, permeability between university training and company training.

The new structure, including different skill levels, is set according to the labour market situation and therefore to the situation inside the companies of the IT-sector. Part of the project is a central system of certification, linked to the German umbrella organisation for national certification within the economy.

ITALY - IFTS AND APPRENTICESHIP EXAMPLES OF INTEGRATED SYSTEM

In Italy the Regions are in charge of providing vocational training and of defining the curricula.

As a matter of fact, in the different Regions similar vocational qualifications can differ in courses, contents and title.

To solve this lack of comparability and transparency a new method of defining contents and curricula for IFTS and Apprenticeship has been experimented.

WHAT ARE IFTS AND APPRENTICESHIP?

IFTs (Istruzione Formazione Tecnica Superiore) are two-year courses of high technical Education and Training to which the young and adult are admitted provided that they got the secondary-school diploma.

Apprenticeship is an employment contract under which the apprentice either can complete the compulsory training, that in Italy is until age 18, or can get a professional qualification. The training includes both periods of practical work and periods of theoretical tuition.

MINIMUM STANDARD OF SKILLS FOR IFTS

The Ministries of Labour and of Education constituted a joint committee in which all the stakeholders took part. In fact, beside the ministries representatives, there were members of:

- Coordination of the Regions;
- Social partners.

The minimum standards defined within that committee represent the minimum common basis that pupils have to achieve at the end of the courses.

The minimum standards are the contact point between the professional needs of the production system and the pupils needs for traineeship in order to have a wide employability and a solid basis for lifelong learning.

They refer to job profiles expected to be needed in the medium term according to the national survey of industry needs (see example under “anticipation of skills requirements”).

CONTENTS FOR APPRENTICESHIP

The Labour Minister constituted a joint committee in which all the stakeholders took part. The participants were representatives of:

- Ministries of Labour and of Education;
- Coordination of the Regions;
- Social partners.

The method to define contents for apprenticeship was:

- Grouping homogeneous job profiles;
- Locating common job activities for each group;
- Locating skills needed to deal with these activities;
- Setting minimum traineeship standard.

This work was carried out on the basis of the survey on industry needs.

UNITED KINGDOM – NATIONAL VOCATIONAL QUALIFICATIONS (NVQS)

INTRODUCTION

In 1986 the National Council of Vocational Qualifications was set up to bring cohesion to the jungle of vocational qualifications. Its brief was to develop a structured framework offering clear progressive pathways

NVQs provide a competence based, performance related, output oriented system of vocational education and training. NVQs are work-related, competence based qualifications which reflect the skills, knowledge and understanding required by an individual to do a job effectively. They are based on National Occupational Standards which are statements of performance standards, which describe what competent people in a particular occupation are expected to be able to do and the background knowledge and understanding they are expected to have. National Occupational Standards are developed by Standards Setting Bodies, mainly employer led training organisations.

NVQs are organised into a coherent classification system (NVQ1-NVQ 5) of competence levels required and progressive levels of attainment (*see below*)

Each NVQ is made up of a set of units and each unit is broken down into a number of elements. Usually there are a number of compulsory core units and a number of units, which may be selected from a series of options (*see the example*).

NVQs are achieved through an assessment of evidence. To be awarded an NVQ, an individual has to demonstrate that they are competent in carrying out each element in each unit. Assessors assess candidates underpinning knowledge, understanding and work performance against a set of guidelines called performance indicators to decide whether they have reached the required level of competence.

NVQs are available to anyone at any stage of their career. There are no entry qualifications. Most people working towards an NVQ are in work but they are available to others through a number of initiatives:

- GNVQS and NVQS for young people still in full time education
- Modern Apprenticeships for young people training for work
- New Deal for young people who have been unemployed
- Work Based Training for Adults for unemployed adults

NVQs are designed as portable qualifications, which will be recognised by employers throughout the UK.

1 - THE DIFFERENT LEVELS OF THE NVQS

The definitions of the National Vocational Qualifications (NVQs) are not prescriptive.

The different levels of the NVQs build up on each other.

The NVQs are flexible: you do not have to start at level 1 and go up to level 5 but you take the levels depending on your capacities and competencies.

There are five levels of NVQs which can be described as follows:

• **Level 1 (lowest)**

Competence which involves the application of knowledge in the performance of a range of varied work activities, most of which may be routine and predictable.

• **Level 2**

Competence which involves the application of knowledge in a significant range of varied work activities, performed in a variety of contexts. Some of the activities are complex or non-routine and there is some individual responsibility or autonomy. Collaboration with others, perhaps through membership of a workgroup or team, may often be a requirement.

• **Level 3**

Competence which involves the application of knowledge in a broad range of varied work activities, performed in a wide variety of contexts, most of which are complex and non-routine. There is considerable responsibility and autonomy, and control or guidance of others is often required.

• **Level 4**

Competence which involves the application of knowledge in a broad range of complex, technical or professional work activities performed in a wide variety of contexts and with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and the allocation of resources is often present.

• **Level 5 (highest)**

Competence which involves the application of a significant range of fundamental principles across a wide and often unpredictable variety of contexts. Very substantial personal autonomy and often significant responsibility for the work of others and for the allocation of substantial resources feature strongly, as do personal accountabilities for analysis and diagnosis, design, planning, execution, and evaluation.

The different levels correspond to the following positions:

Level 1:	Foundation or basic skilled employees
Level 2:	Operators or semiskilled employees
Level 3:	Technicians, craft, skilled
Level 4:	Technical and junior management positions
Level 5:	Professional engineers and senior management positions

3 - THE BENEFITS OF NVQS

Benefits to Individuals

- Help prepare for work or help your career development;
- Achieved through the demonstration of skills;
- With NVQs the practice is as important as the theory;
- NVQs are flexible;
- There are virtually no limits with NVQs - no time limits, no age limits and no special entry requirements.

Benefits to Employers

- They really meet employers' needs; and
- They can help improve productivity and competitiveness. NVQs make sure your employees have the skills and knowledge to meet the company's business needs.

Many companies use NVQs and find them valuable tools for business and employee development. They report significant benefits in terms of improved employee performance and motivation; lower staff turnover; better staff-supervisor relations; improved staff recruitment and that NVQs give them the opportunity to benchmark standards and prove training which can be more specifically targeted to needs.

4 - THE SUCCESS OF NVQs IN ENGINEERING

In the engineering sector, since 1996, 27,500 Level 1; 216,100 Level 2; 114,000 Level 3; and 4,500 Level 4 were awarded which represents 10% of all NVQs delivered. This only includes the certificates awarded and not those who are in training.

5 - ONE EXAMPLE: THE MANAGEMENT NVQ

Key Purpose	The overall purpose of the occupational area	To achieve the organisation's objectives and to be continuously improving its performance
Key Roles	The different areas in which people in the occupation operate	Manage people
Units of competence	Broad descriptions of the different functions the people perform	Example of a unit: Lead the work of teams and individuals
Elements of competence	Detailed descriptions of the standard of performance expected	e.g. Plan the work of teams and individuals
Performance criteria	Criteria to assess if the candidate's performance meet the National Standard	<i>You must ensure that</i> <ul style="list-style-type: none"> - your plans are consistent with your team's objectives - your plans and schedules are realistic and achievable - your plans and the way you allocate work take full account of team members' abilities and development needs
Knowledge required	What the candidates need to know in order to perform to the National Standard	<i>You need to know and understand</i> <ul style="list-style-type: none"> - the importance of regularly reviewing work - the importance of planning work activities to organisational effectiveness and your role and responsibilities in relation to this
Evidence requirements	The evidence candidates must show to prove to an NVQ or SVQ assessor that they are competent	<i>You must show evidence that you develop both of the following types of plans :short-term medium term</i>
Examples of evidence	Examples of the sorts of evidence which can be used to show that candidates are competent	<i>Products or outcomes</i> <ul style="list-style-type: none"> - your plans and schedules for the work of your team - minutes of planning meetings in which you have been involved - briefing notes you have developed - your revised and updated plans

5 – WAYS TO DELIVER TRAINING

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FINLAND – E-LEARNING IN THE SCHOOL AND IN THE FACTORY

The first example comes from metal branch of the basic vocational school. In PC-file the process of manufacturing the key casing is divided in three levels each level consisting several serial phases shown as working pictures.

Learning is made possible to happen as a step by step procedure which is more efficient than just listening lectures. Learning is also easy to connect to students practice and experience. This all is especially good for beginner because it allows him/her to construct his/her own net of units of association. Besides you can always go back in the file and repeat any level or order of the steps. It's easy; just follow the pictures in work.

Using pictures is very justified, because for people visual memory is the most efficient format recording data. Video will also be available in re-learning, when moving pictures are needed for better understanding.

Though every student can learn in his/her own pace, guidance, support and feed-back are still necessarily to be offered by teacher.

The second example comes from a company called Imatra Steel. They have put in the internet a M-steel calculator, which can give you the values of cutting speed, motor power, chip stream and surface quality for your turning machine when you feed in your desired tool quality, shape and setting angle, corner radius and depth of cutting. You can have these machine tooling values for all different steel groups.

This kind of development helps us to overcome the limits of working memory which is the bottle-neck in the human data processing. Such a device can firstly decrease the load of memory and therefore cut down the mistakes in work. Secondly it allows more flexibility in the work and eases the adaptation in continuous change. Thirdly it opens new methods of learning giving a chance to understand and cover the entities of the working process instead of the details.

E-learning at work can help us to reorganize the units of association in long term memory in other words to learn which will lead to the enlargement and deepening of the cognitive aspects of work.

FRANCE - I-TRAINING INITIATIVE

INTRODUCTION

This French initiative – developed by the metal industry - is based on a comprehensive approach to training, using new technologies, and with the aim of implementing tailor-made trainings in link with companies' needs and individuals' capacities and motivation.

The approach is based on four pillars:

- 1 - information,
- 2 - evaluation of the individual's potential,
- 3 - individualised technical training courses and
- 4 - validation.

1. Information

The information part has been developed via a CD-ROM called ““I-mail - Today's technologies and products, tomorrow's careers” which contains information on the products, technologies, trades and careers available in the metal industry. It also provides with weblinks to more than 800 companies of the sector.

2. Evaluation of potential / of abilities

The second pillar on evaluation is based on the website called “I- Profil” - which should be on-line at the end of 2002 - which provides tools to evaluate the individual who does not know the trades of the industry and its ability to train or work in industry.

As a first step, this evaluation can be done on four trades: sheet metal work, fitting, CNC operator and engineering computing.

3. Individualized technical training

The project proposes individualised technical training hubs – followed and evaluated on-line - which are set up just- in time according to the companies' needs and the individual's capacities, interests and motivation.

The Individualized Technical Training Hubs (ITTH) are based on the following steps:

- analysis of companies' training needs
- pre-training evaluation of the competences and interests of the employee
- making of a tailor-made training path
- gathering training hub's pedagogic resources
- post-training evaluation

These ITTH may lead to a metal industry qualification (joint qualification certificate of the metal industry - CQPM) or to a degree.

Today, Individualized Technical Training Hubs (« *IFTI* ») deal with 3 trades: automation / mechanics, maintenance and welding / sheet metal work and 2 subjects: mathematics and French. Two other trades are currently being set up: piloting of automatised systems and telecommunications network.

4. On-line validation

The final goal – which constitutes the fourth pillar of the project – is to validate on-line the training and the experience, possibly by a CQPM.

CONCLUSIONS

Trainees and trainers are very satisfied with IFTI. Trainees enjoy individual learning rate, which prevents them from having to attend courses with trainees whose level is different, or the hesitation in asking questions because they feel they have to keep up with an expected level of knowledge which they have not. They are also happy with the easy access to training tools, including softwares they can use either to position themselves or for simulation. No specific knowledge is required in computing to be able to train quickly and easily on these softwares. Trainers do insist on the capacity they enjoy to bring to every trainee individual support. Even if it is demanding as for availability and as for the effort it requires to answer directly to the variety of questions, trainers enhance the positive aspect of more human relationships. One must add that individualised training also allows relationships and cooperation between trainees within a group.

Social partners involved encourage the development of training methods adapted to the people who are to be trained. IFTI seem to stand as a very interesting experiment in this context. Individualisation of training offers the possibility to adjust training contents to the needs. The time and money saved allows more employees to train. Tailored training based upon ICT make access to training easier for employees who are uncomfortable with traditional or more academic training. For employees who feel reluctant to train, tailored training may seem more attractive. More specifically, this method has also to be considered as possible means of validation of skills acquired through professional experience.

**GERMANY –COLLECTIVE AGREEMENT FOR QUALIFICATION IN THE REGION OF BADEN-
WÜRTTEMBERG.**

This agreement was signed by Metall-und Elektroindustrie Baden-Württemberg e. V. and IG Metall Bezirksleitung Baden-Württemberg.

This agreement is the follow-up of an already existing agreement between the same partners from 1987 - which in practice didn't work very well.

Therefore both partners tried to make the agreement more concrete and practical. The new collective agreement has been running since January 2002.

It describes the rights of employees concerning qualification as following: regular needs discussion within the company; agreement on qualification measures and conflict solutions.

Qualification contents focus on: refresher qualification, maintaining qualification and improvement qualification.

The partners also agreed about installing an "Agency for the promotion of further training".

Regulated are the basic conditions of the qualification, such as the differentiation between further training in company and in private. Basic conditions also include regulations about the costs (which usually have to be paid by the employer); about the qualification time, qualification needs and qualification measurements. Also agreed upon where special programs for older and/or unskilled employees.

The tasks of the "Agency for the promotion of vocational further training" are written out exactly, as well as the general intention of constructive handling and participation of employees and works council after the collective qualification agreement.

ITALY - LEARNING POINTS

WHAT IS IT?

It's a learning environment adopting a training model of assisted self-learning and making available e-learning tools not always present in the workplace/station.

It includes:

- A varied modular offer aimed at professional growth;
- Making individuals responsible for their own training paths;
- The possibility to personalise learning paths and fruition time;
- Constant assistance on behalf of a tutor in the role of facilitator of learning;
- Detailed monitoring and results verification system.

The Learning Points, which have been projected by ISVOR-FIAT, one of the main training centre in engineering sector, come from the successful experience of Learning Centre of Melfi (see example under motivation). The main difference is that the Learning Centre is open to the local community but the Learning Points are only for employees so they are more focused on continuous training.

Up till now we have 6 Learning Points in Fiat group of companies, included Ferrari which has one, and some municipality asked for a Learning Point for citizens.

THE VALUES

Learning Points are user-friendly and technologically-equipped places (*with PCs, videoconference, satellite TV, educational video library*) favouring study and individual concentration, but also a place where other users, tutors and experts can meet. It is open, free of charge and can be used either in or out of the working time. Great value is given to personal exchanges and socialising, limiting the risk of isolation that is often associated with distance learning; from this point of view the trainee can be considered a learning "prosumer" because he is both producer and consumer of knowledge. Great importance is attributed to guidance, tutorship and assessment of skills. The use of the Learning Point is organised on the basis of work shifts (the most chosen slot is from 4 p.m. to 5 p.m.)

THE GUIDANCE AND TUTORSHIP

The guidance service provides for a "made to measure" learning path, taking into account needs and expectations.

The guide and the user sign a contract in which the user commits himself to follow a training process and to reach the expected results.

The tutor:

- helps in understanding the issues and contents of the training process;
- puts the user in touch with experts if in depth study is needed or in order to give new contents;
- supports motivation;
- helps in using new technologies;
- gives the feedback of learning tests and of the evaluation of the skill level reached.

HOW IS IT GOING?

The Learning Point at Fiat Avio was opened in January 2002. During February and March an experimentation on a sample of 60 people was carried out. Since April the first courses for employees have been started. Up till now (June 2002): 77 English courses (equal to 829 hours); 45 IT courses (equal to 430 hours); 7 Economics courses (equal to 24 hours).

SWEDEN - SVENSKA METALL'S IT SCHOOL

Svenska Metall's IT School (MITS) started in the autumn of 1997. The aim of the project was to improve access to knowledge, technical competence and to prepare the members for the IT society. From the very beginning, MITS was a basic computer skills courses also involving the opportunity for members to buy a computer at an affordable price. The provision of computers for sale was discontinued at the turn of 1998/1999 when this function was taken over by LO (Confederation of Swedish blue collar workers' unions). Now, the aim of the IT School is to create opportunities for Svenska Metall's members and employees to improve both their professional skills and their personal competence.

The computer training comprises two parts. In part one, members meet in study circles to discuss the IT society and the IT opportunities and threats faced by individuals and unions. In part two, members learn basic computer skills and self-study technique via CD-ROM. The study circles, organised by the Swedish Worker's Education Association, are also supported by one of the big Swedish banks, Förenings-sparbanken. After the study circles, the students may progress to other courses offered by the IT School.

These courses are organised on three levels, starting with basic skills and including advanced courses on university level. The courses can be taken individually (self-studies via Internet) or in groups, e.g. in learning centres.

Members with good computer skills may start directly with a self-test. If they pass the test, they may progress to further studies without taking part in the initial study circles.

So far, in total about 8 500 members have taken part in 850 study circles and more than 16 000 members and union employees have been active in Metall's IT-school.

Courses on three levels

After the study circles and/or the self-test, members have about forty courses to choose between, for instance:

- ECDL –European Computer Driving Licence
- Courses in basic skills like English, Mathematics and Swedish – up to upper secondary school level
- Courses on university level – e.g. Production Efficiency
- Vocational further training – e.g. Welding English
- Personal development courses – e.g. Teamwork, Give up smoking, Be a good speaker
- Trade Union Education – e.g. Unemployment benefit funding, Meeting technique.

In order to manage the examination procedure we have trained union representatives in our local branch offices/work places to monitor the examination. When the members feel ready for examination, they call their local branch office and set up time for the examination procedure. If they pass, they get a certificate.

At present, all the courses are created for computer self studies, but we have experienced very clearly that these have to be supplemented by opportunities to meet fellow-students, to visit learning centres, to participate in study circles and/or to come in contact with teachers/specialists. Consequently, this is an important aspect in the further course development work.

Future plans

Inspired by Metall's IT-School, an increasing number of Swedish blue collar workers' unions have started or have plans to start IT-Schools. Recently, the Swedish Confederation – LO – has taken the role as umbrella organisation to coordinate the work and to enable us to be more cost effective concerning maintenance and development costs.

The benefits include:

- We can buy e-learning courses at a lower cost
- We can coordinate the local work – especially study circles in different subjects
- We can have a common server and platform
- We increase our possibilities to discuss with companies

Metall works in partnership with different actors, such as adult education organisations (e.g. ABF, SSVH), universities (e.g. Högskolan i Kalmar, KTH i Stockholm), and companies (e.g. Liber/Hermods, Svenska Test, The Welding Institute, Föreningsparbanken) to develop the IT-School.

UNITED-KINGDOM – UNIVERISTY FOR INDUSTRY / LEARNDIRECT

A - FROM THE TRADE UNIONS' POINT OF VIEW

1 – INTRODUCTION

The University for Industry (Ufi) is a government initiative for open and distance learning. It uses new technology to make learning opportunities more accessible, flexible, and attractive and to try to overcome some of the barriers to learning, such as time, cost, lack of information, lack of confidence and inconvenience. **Learndirect** is the official 'brandname' for the Ufi. The learndirect network offers a range of learning facilities and services including:

2 - A NETWORK OF LEARNING CENTRES

- Over 1,300 learndirect learning centres have already been set up in including shopping and leisure centres, colleges, schools, libraries and community centres.
- Learning centres provide learning facilities (especially PCs and access to the Internet) to those who don't have access to such facilities at home.
- They are also a place where people can go for advice and support about learning. Staff are trained to help and support learners.
- Learndirect centres are also being established in workplaces, often combined with existing training and development facilities.

3 - COURSES

- There are over 493 learndirect courses to choose from, 74% are online.
- To date, courses focus on business skills, ICT and basic skills
- There are also special business and management courses for retail, environmental practices, automotive and productivity improvement.

4 - LEARNDIRECT WEBSITE www.learndirect.co.uk

The learndirect website offers:

- Online learning
- a database of over 500,000 courses nationwide
- a careers package with a database of job profiles, called '**Learndirect-futures**
- online learner discussion groups and chat rooms.

5 - FREE TELEPHONE HELPLINE NUMBER: 0800 100 900

The learndirect helpline offers advice and guidance on a wide range of courses. Trained advisors help people decide what, when and how they want to learn - whether through learndirect or other national learning providers.

6 - SUPPORT FOR LEARNERS

Learners can access guidance and support about learning with learndirect in learning centres, or by calling the free telephone helpline. Online tutor support is also available for some advance courses.

7 - THE UNION ROLE

Unions are key partners in the UfI initiative.

- **Benefits for unions include:**

- New opportunities for employer/union partnerships
- The chance to create more workplace learning centres
- The opportunity to maximise members' job security and employability
- The opportunity to add value to the union card by making it an access card to learning

- **Benefits for members include:**

- More access to learning opportunities at all levels
- Chance to develop ICT and basic skills
- Chance to learn in own way and at own pace
- Opportunity to improve job security, employability and career prospects

- Amicus is working to ensure that workplaces are connected to learndirect and that members are informed about the new learning opportunities that are available:

- Negotiating agreements with employers incorporating learndirect access
- Working with employers on joint learning initiatives linked to learndirect.

8 - LEARNDIRECT SCOTLAND

- Scotland has its own UfI and learndirect service tailored to the distinctive Scottish education system, institutions and industrial structure. More information about learndirect Scotland is available from the freephone helpline: 0808 100 9000, or from the website: www.Learndirectscotland.com.

LEARNDIRECT - FACTS AND FIGURES

- Online learning, wherever a learner has Internet access
- Over 1,300 learndirect centres
- A portfolio of 493 learndirect courses, 74% of which are online
- Support for learners face to face in learning centres, and through a telephone helpline. Online tutoring for some advanced courses
- The option for learners to put their learndirect learning towards nationally recognised qualifications
- Online learner discussion groups and chat rooms
- An online careers package with a database of job profiles - **learndirect-futures**
- A Welsh language learndirect website
- A free telephone helpline - 0800 100 900 - with trained advisers to help people decide what, when and how they want to learn
- An online database of over 500,000 courses nationwide, searchable through the learndirect website (www.learndirect.co.uk)

B - FROM THE EMPLOYERS' POINT OF VIEW

The learndirect programme enables individuals to learn either at home, at work or in a variety of learning centres or access points.

The “learndirect” initiative is based on learning centres which can be open late at night and even on Sundays. To open such a centre, it is necessary to have at least 7 computers; with less than 7 computers, it is what we call an “access point”. There are two types of ‘hubs’ which support these learning centres and access points

- (i) geographical hubs which have centres and access points in places such as libraries, supermarkets, colleges, schools and
- (ii) sector hubs which concentrate on specific areas such as Engineering. There are around 60 “learndirect” centres/access points in the Engineering Sector Hub of which there are 9 in the EEF English Regional Associations,

The subjects are very diverse: they range from technical courses to “soft skills” but they mainly concentrate on management, basic skills and ICT. More technical skills are currently being developed. It is important to mention that a lot of material has been developed, and is being developed, to support the functioning of these centres.

The contents of the courses are developed by specialists. Before they can be delivered, all courses are tested and quality-assured.

The duration of the courses vary from 3 to 5 hours (for the shortest) to 300 to 400 hours (for the longest).

The financing of the training depends on what training is for. The government can pay up to 80% of the courses if it is an area they are supporting. Sometimes employers also bring financial support if the training is work-related. However, when the training is fulfilling an individual’s personal interests, the individual often pays for their own training.

Sometimes large companies set up a centre in their own premises however many SMEs (small and medium enterprises) are unable to do this. The local sector hub can provide stand-alone units which can be placed in an SME to assist them with helping their workforce to develop their skills.

6 – RESPONSIBILITY FOR THE FUNDING OF TRAINING

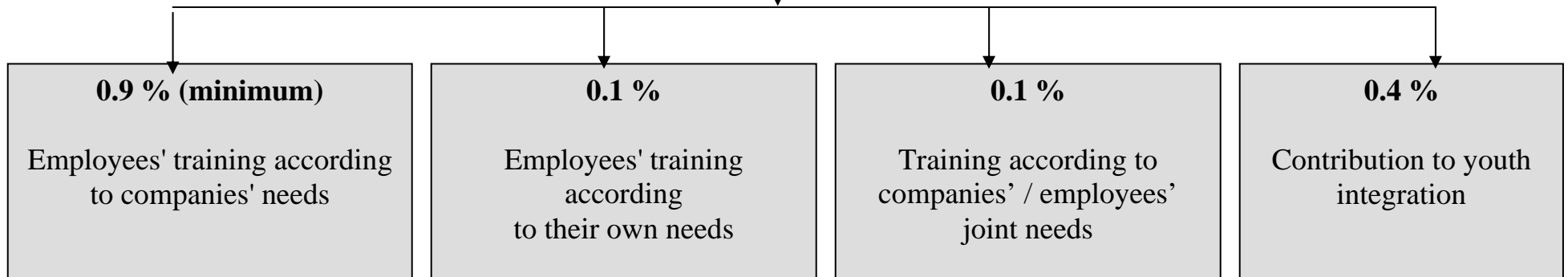
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FRANCE – THE FUNDING OF VOCATIONAL TRAINING

LEGAL OBLIGATIONS

FOR EMPLOYEES:

Minimum 1.5 % of the wage bill
managed by the social partners
(branch or intersectoral)



FOR YOUNG PEOPLE:

0.5 % of the wage bill managed by the social partners = apprenticeship tax

preparation to national degrees (worker, technician and engineers) and help to technological formations through apprenticeship

SPAIN – THE FUNDING OF VOCATIONAL TRAINING

Continuous training became a key element within the collective bargaining processes in the frame of the social dialogue focusing it on the acquisition of professional skills to adapt the workforce to new productive conditions.

The **main objectives achieved** throughout the development of systems to manage and organise vocational training in Spain are the following ones:

- The role of Social Agents after 10 years experience managing continuous training has been strengthened.
- Social Dialogue has been consolidated as the best way to increase competitiveness and employment.

The basis to set up this system are:

- Key element for integration, social cohesion and entrepreneurial competitiveness
- Centralisation of funding, state control, Social Agents' leadership, unity of labour market, articulation based on sector collective bargaining
- A permanent adaptation to improve competencies and qualifications, workers' employability, social and personal promotion, better integration and strength of companies.. .

The different funded programs are:

- Training programs for companies .Joint training programs
- Sector training programs
- Complementary and accompanying measures for training .Individual training leaves
- Social Economy programs

Our funding model is based on the following aspects:

- Quotation of 0,70% of VT (from the base of labour accidents and professional diseases). Minimum of 0.35% for continuous training (workers from public and private sector) .The rest will be focused on vocational training for unemployed
- The quotation will be determined every year regarding employment and unemployment rates and workers' training needs
- ESF (1/3)

SWEDEN – THE SWEDISH ADULT EDUCATION SYSTEM

The Swedish discussion on the funding of training must be seen on the basis of the very developed system for adult education in Sweden. This also includes legislation on the right to leave of absence and study financing.

1. ORGANISATION OF THE ADULT EDUCATION SYSTEM

The organisation of the Swedish adult education system can broadly be described in four parts:

1. **The municipal system** (Komvux), which is the backbone system of basic adult education, upper secondary level adult education and supplementary adult education. It also includes Swedish courses for immigrants (Sfi).
2. **The national system** includes the National Schools for adults and advanced vocational training (KY). The national system is primarily designed to supplement the municipal system.
3. **The System of liberal** (non-governmental) **education** provided by folk high schools (folkhögskolor) and adult education associations (studieförbund).
4. **Labour market training**
Training courses for unemployed people/people running the risk of unemployment.

2. LEGISLATION ON THE RIGHT TO LEAVE OF ABSENCE FOR STUDYING

An important background to understand the scope of adult education in Sweden is the law on individual right to leave of absence for studying. Since 1975 all employees are entitled by law to unpaid leave of absence for studying, providing they had the same employer the last six months or for a total of 12 months during the two previous years.

Each person has the right to choose the orientation of his or her studies. Neither the employer nor the trade union can give priority to persons opting for study programmes, which they consider important from the viewpoint of the company or union. Nor are there any restrictions on the duration of studies. The law, however, does not cover self-tuition. The employer may postpone giving leave of absence for six months.

The employee is also entitled to attend studies arranged by the trade unions irrespective of employment status (for union representatives usually without wage reduction).

3. CHARGES AND STUDY FINANCING

Municipal adult education is basically free of charge. The government has the main financial and administrative responsibility for the Study financing system. To create better opportunities for adults to be able to study, there are various forms of study financing.

There is a general system of study financing with grants and repayable loans. Additional grants may be allowed on certain conditions.

The study financing system is strongly targeting groups with the greatest needs, e.g. those with short formal education and a high risk of unemployment.

4. CERTIFICATES

Students who have achieved at least a pass in all the core subjects of a basic municipal adult education programme - Swedish/Swedish as a second language, English, mathematics and social studies - are entitled to a final certificate. Students may themselves decide which other subjects to include in the final certificate.

5. PARTICIPANT STATISTICS

a) The municipal system

In 1999/2000 there were about 332,064 students in municipal adult education. (Swedish population approx.9 Million) The overwhelming majority of these, 282,072, took part in upper secondary studies, whilst 42,273 were enrolled in basic adult education and 7,719 in supplementary education.

Approximately two-thirds of the students were women and barely a fifth were born abroad. The number of students with a foreign background was highest in basic adult education (58.9 percent).

b) The system of liberal (non-governmental education)

There are 147 folk high schools in Sweden. During spring 2000 around 112,000 persons took part in folk high school courses, and 120,000 during the autumn. Approximately 25 percent attend long courses (from one semester to one or several years). In the longer courses, the proportion of women was 64 percent and in the shorter courses 57 percent.

In the year 2000 the number of study circles was approximately 335,000 and the number of participants was estimated between 1.5 and 2 million individuals. About 57 percent of the participants were women.

ANNEX II - DIFFERENT CATEGORIES OF AND RESPONSIBILITIES FOR "LEARNING"

The funding of training is a 'three fold responsibility shared by public authorities, companies and individuals':

- Companies are responsible for the funding of work related training
- The Individuals have to take in charge their 'employability'
- The State finances labour market re-training

This "three-fold responsibility" can be summarised as followed:

Basic Education	Vocational Training	Further Training	Further Training	Re-training
Basic	Occupational	Occupational Specific	Self-development	Unemployed
State	State/Employer	Employer	Individual	State
MONEY AND/ OR TIME				