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ABSTRACT

Until the present, in those countries where it exists, a craft apprenticeship is a precondition for access to a profession or authorization to set up one's own business. With the spread of advanced technical training schools, technical colleges, and universities in the Member States of the European Community, a decline in the attractiveness of apprenticeship training has been observed. It has developed into the second-best alternative for young persons who cannot continue their schooling or undergo further training for social or material reasons. Companies seem to be retreating from involvement in training at the same time that the number of training opportunities is decreasing. If apprenticeship training is to be maintained and extended, a number of prerequisites must be fulfilled including: parallel systematic training in intercompany group training centers or in part-time vocational schools; constant observation of new occupational requirements and the permanent modernization of the occupational profiles or standards to prevent outdated knowledge and skills; and the making of apprenticeship more attractive with certificates equivalent to the corresponding school qualifications. (Table 1 provides legal bases and definition of apprenticeship training in Member States. Table 2 illustrates number of occupations/branches, type of certification, and equivalence in the Member States.) (YLB)

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## The present situation and the future prospects of apprenticeship training in the European Union

### Contribution for the FORCE Seminar in Dublin on 30.09.94 with participants from Northern Ireland and the Republic of Ireland

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**The present situation and the future prospects of apprenticeship training in the European Union**

**Contribution for the FORCE Seminar in Dublin on 30.09.94 with participants from Northern Ireland and the Republic of Ireland**

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The present situation and the future prospects of apprenticeship training in the European Union

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#### 1. Definition of apprenticeship training

Apprenticeship training goes back to the Middle Ages when - primarily in the crafts sector - Master Craftsmen or owners of enterprises trained young persons as future employees or as their successors, mostly in practical skills. Demonstrating, explaining and emulating - that was the pedagogical principle. Reading, writing and arithmetic were not required. A handshake set the seal on contracts.

With the emergence of manufacturing, i.e. the production of small series and the growing division of labour, and in particular with industrialization in the 19th and 20th centuries, new professional activities and occupations developed, and a new division of work and internal hierarchy arose. The increasingly complex organization of industrial production, and the provision of services for company administration and marketing called for more extensive knowledge and technical skills which were increasingly difficult to acquire through a more or less unsystematic practice of on-the-job learning.

Compulsory schooling was introduced and served as a basis for technical and vocational schools - both part-time and full-time - which were set up for the training of skilled labour and medium or higher management. In a number of EU countries apprenticeship training was transferred to companies with industrial production, to wholesale and retail enterprises and

to the public and private services sector. These countries included the United Kingdom, Germany, Denmark, the Netherlands and Luxembourg.

In other Member States apprenticeship training was mostly left to the crafts sector or small retail enterprises and private services: e.g. Italy, France, Belgium and Greece where, until very recently, they hardly catered to industrial requirements and do not even do so today in the case of Italy.

In Spain and Portugal this form of apprenticeship training was mostly neglected even though it did continue at informal level.

Apprenticeship training is characterized by a written or oral contract concluded between the apprentice or his parents and the owner of the firm; it sets out the rights and duties of both sides. It is a modified work contract where the low remuneration for the work performed by the apprentice is compensated by the training he receives from the owner of the enterprise, the master craftsman or in-company trainers or from trainers provided for this specific purpose. Large and modern companies have their own separate training departments or training workshops where in-company training is carried out systematically on a full-time or part-time basis. In addition to this, in most Member States part-time vocational schools have been set up which apprentices and, in some cases, even all young persons are obliged to attend. The companies have to release their apprentices so that they are able to attend these schools; this is either on 1 or 2 days per week or there is block attendance for several weeks in the year. This parallel existence of two learning sites has led to the concept of dual or alternance training. Italy and the United Kingdom are the only countries which do not envisage or enforce attendance of these part-time vocational schools with general subjects and technical/vocational training.

Up to the present day, in those countries where it exists, a craft apprenticeship is a pre-condition for access to the profession or authorization to set up one's own business. For the latter, in some countries, an additional qualification, e.g. training as a master craftsman, is required.

## 2. The development of apprenticeship training in the 1990s

The importance of apprenticeship training, i.e. the development of the number of training places and the attractiveness of apprenticeship is highly contradictory in the different Member States. With the spread of advanced technical training schools, technical colleges and universities, a decline in the attractiveness of

apprenticeship training has been observed. On the other hand, in those countries where apprenticeship training has sunk into oblivion or lost its attraction, great efforts are being undertaken to awaken it to new life or to make it more attractive. However there seems to be some doubt whether such efforts will be successful.

The companies with their increasingly complex work organization and more capital-intensive workplaces are finding it more and more difficult to invest in initial training and to release staff for this purpose. They have enough difficulty in constantly preparing their workers for the new challenges which is why they prefer to focus on continuing training. On the other hand, the graduates of universities and technical colleges are pushing the skilled workers in the companies out of the jobs which were formerly open to them through promotion; in other words, middle management jobs or supervisory and specialized posts are preferentially filled with purely school-trained skilled workers. This is why apprenticeship has developed into the second-best alternative for young persons and their parents. Young persons who, for social or material reasons, cannot continue their schooling or undergo further training, consider the completion of an apprenticeship to be the only means of acquiring a recognized vocational training.

The attractiveness of apprenticeship should be preserved or regained by

- making its certificates equivalent to pure in-school certificates;
- preferably filling posts with promotion prospects in the companies with persons who have completed an apprenticeship;
- making it possible to obtain higher qualifications which correspond to those of college or university graduates through new forms of alternance training;
- raising the remuneration in the apprenticeship contracts.

Apprenticeship seems to be losing its importance as a form of initial training for youth. However, in a modified, more flexible and more personalized form it can acquire new importance for young adults and for the continuing training or re-training of adults as an element of an active and forward-looking labour market policy. Forms of alternance training are gaining ground as part of adult education for the re-integration of unemployed persons or of women after their family phase, e.g. in connection with employment-creating measures and local employment initiatives. Modular training

concepts<sup>1</sup> permit a personalization of training provision adapted to the needs and aptitudes of the participant and geared to specific labour market perspectives. Apprenticeship training mostly lacks this flexibility because it is based on comparatively rigid occupational and training concepts and not on broader or transferable occupational and training profiles. However, it is important for the initial training of youth because it can compensate for failure in school or can provide a genuine alternative to the full-time school for young persons who are tired of school. By learning through doing they are motivated to acquire the basic knowledge and skills which are indispensable for the exercise of a profession. Many young persons begin to understand the necessity of a technical/practical and theoretical foundation only after acquiring some practical experience, which means that alternance training merits priority because of its pedagogical effects.

If apprenticeship training and new forms of alternance training are to remain or become attractive, the Member States will have to undertake even more strenuous efforts, in coordination with the social partners, to offer financial incentives and set up clear legal or regulatory foundations, (see Section 5). Only by enhancing its attractiveness or reviving and renewing alternance training will it be possible to attain the goal of providing a recognized vocational training for all young persons who wish to get it. This also includes the upgrading and re-structuring of the part-time vocational school or the vocational school accompanying practical training, and requires a better coordination of the two learning sites, the school and the company. The equivalence of school and alternance training certificates can also help to strengthen in-company training and allow re-entry into the educational system for further training. This could prevent vocational training and the professional career from ending in a dead end and thus overcome the fear of parents and young persons which often keeps them from choosing this path.

### 3. Magnitude of apprenticeship training in the individual Member States

In Belgium there has been a decline in the number of apprentices and training places. The apprenticeship in industrial production which was introduced at the end of the 1970s seems to be of little interest for companies and for youth and has remained virtually insignificant. In the small

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<sup>1</sup> See B. Sellin: Vocational Training in Europe: Towards a Modular Form? - Discussion Paper - CEDEFOP 1994 (to be published shortly).



firms and in crafts enterprises, i.e. in the SME sector for which there is a separate ministry in Belgium, the importance of apprenticeship seems to have survived as the young successors of business owners are trained here and the running or the opening of a business depends on the successful completion of apprenticeship. There are practically no new forms of alternance training in Belgium, however there are a number of public and private vocational and technical schools which use this pedagogical concept and provide on-the-job training.

In Denmark apprenticeship is the predominant form of training in both the small and medium enterprises in the crafts and commercial sectors and in a number of small and medium enterprises with industrial production. But here too, the importance of apprenticeship is declining and being replaced by longer school and technical school attendance. Denmark is the only country which has a formal training for semi-skilled workers whose vocational training prepares them for areas which are not covered by apprenticeship training. It is based on similar principles but has a shorter duration of 1 to 2 years. After this short training course it is possible to move on to further training which leads to other or higher qualifications which are comparable to the certificate obtained at the end of an apprenticeship. In the last few years the training of apprentices was modernized and the number of occupational categories in which training is given, was radically compressed.

In Germany training in the so-called dual system has continued to be an essential part of the vocational training system. Over 50% of youth undergo apprenticeship. But a growing number is changing the company or the occupation after apprenticeship or embarking on further training in technical schools, technical colleges or universities because career and promotion opportunities for this group have tended to deteriorate in the last few years. In addition to this, the age of entry into apprenticeship has shifted from 16 to 17 years in the 1960s to 18 to 20 years in the 1980s; this is probably due to the extension of secondary education and the difficulty of obtaining a training place in the desired occupation. In order to maintain the attractiveness of training and to ensure its quality, inter-company group training centres have been set up with the aid of public funds in many areas, especially in the territory of the former GDR; their training follows the principles of the dual system, but the practical training is given in the training centre and not directly on the job in a company. In the last few years special training facilities were also created for certain groups of young persons who are at a disadvantage in the search for training places, in order to ensure they are not excluded from the labour market. In this context the funding

is often obtained from municipal, regional and national grants to private youth and social welfare institutions - often in combination with EU resources.

In **Greece** apprenticeship training is organized by the Labour Administration and is given in group training centres parallel to vocational training. As a rule there is no systematic training in the company. Apprenticeship is not widely extended, especially as it is possible to get access to recognized professions through work experience alone. It has a certain importance in small crafts enterprises, in private industry and in public corporations, but the main method is on-the-job training of young workers.

In **Spain** the first steps to promote apprenticeship were taken only in 1994. It remains to be seen what effect the new laws of 1993 will have and the extent to which the companies will accept this new instrument of apprenticeship. Apparently, the trade unions and older workers tend to oppose it.

Despite the great efforts which have been made in **France** since decades to make apprenticeship more attractive and to get it recognized, no outstanding success has been achieved in this field. In-school vocational training continues to be the attractive option, especially as it enables a progression to promising occupational activities and training courses. However, new forms of alternance training which also lead to higher certificates comparable to those of the schools, have gained ground in the last few years. They have a growing influence on the well-organized and systematic continuing vocational training system.

In **Ireland** efforts have been made since the early 1990s to thoroughly modernize the apprenticeship system by improving its quality and making it available to new target groups and for new professions. However, no visible success has been achieved up to now. Its importance is still negligible in comparison to in-school training courses and informal qualification routes. It remains to be seen whether the intensive efforts undertaken by companies and by youth will make apprenticeship more attractive.

In **Italy** apprenticeship continues to be quite important in an informal context. There is no evidence of efforts to make it more modern and systematic. New forms of alternance training for young adults have been created by introducing combined work/training contracts which are replacing traditional apprenticeship. Regional differences and their respective importance are quite great. In some regions traditional crafts still offer good opportunities, in others they have practically no weight at all.

In Luxembourg the importance of apprenticeship has stabilized at a low level and attempts are being made to improve its attractiveness through constant modernization, but with little success as the recruitment of foreign workers as low-level skilled workforce seems to offset the insufficient numbers of persons trained in Luxembourg.

Netherlands has succeeded in stopping the fall in the number of training places for apprentices and even raising the figure. This is an exception which seems to confirm the rule of declining attraction. Extensive modernization and the introduction of new occupations in the apprenticeship system, particularly those relating to commerce and administration in the private services sector, led to this expansion which doubled the number of apprenticeship contracts from 1983 to 1992.

In Portugal the number of apprentices is relatively low. Only in the last few years have attempts been made to systematically extend apprenticeship training. Occupational profiles are still traditional and the first steps to regulate them have only been taken recently.

In the United Kingdom apprenticeship was mostly neglected in the 1980s, only in a few sectors like Engineering and Construction did it remain predominant. The quality fluctuates in line with the commitment of the persons concerned and the number of training places has decreased dramatically. Parallel schooling and the assurance of quality standards are not guaranteed. Given this situation, there are plans to modernize apprenticeship in the near future.

#### 4. Challenges to modern apprenticeship

If apprenticeship training is to be maintained and extended, a number of basic pre-requisites have to be fulfilled:

- parallel systematic training in inter-company group training centres and/or in part-time vocational schools should be ensured, as it is becoming less feasible to train on-the-job alone and to teach only practical skills without the necessary theoretical, general and technical instruction;
- only the constant observation of new occupational requirements and the permanent modernization of the occupational profiles or standards can prevent the knowledge and skills taught in the course of initial training from becoming rapidly outdated; all actors including the social partners and the training organizations must work together and make more use of

research findings to give trainers the appropriate training, etc.;

- the costs of training outside the company are sometimes tremendously high but are worth it in the long run in macro-economic terms as this will help to save social welfare, unemployment indemnities and sick pay on the one hand, and will raise productivity at the individual workplace and in companies as a whole on the other;
- the companies will accumulate a potential of loyal and highly motivated workers which they will not be able to find so easily on the general labour market, thus, despite high short-term costs, they can get a high medium-term benefit from their commitment to training;
- in order to make apprenticeship and the alternance forms of continuing training more attractive in the eyes of young persons and their parents, their certificates should be equivalent to the corresponding school qualifications and should open different channels to further education including access to university. They should be embedded in a coherent and transparent qualification system with clearly defined phases and transitions which will enable EU-wide cooperation in the field of training institutions and recognition of qualifications.

##### 5. Costs and financing of apprenticeship

A forward-looking and active labour market policy for the integration and/or re-integration of young and older persons cannot afford to relinquish the instrument of alternance training where periods of work alternate with periods of learning. Given the challenges mentioned above, apprenticeship is developing more and more into the first phase of permanent continuing training in order to safeguard the choice of occupation and to ascertain the aptitudes and inclinations of the persons concerned. Since career development is becoming more unstable and the process of vocational choice and vocational guidance is being prolonged, the first stage of continuing training acquires tremendous weight, which means that special care must be taken to see that it maintains good quality standards and applies the appropriate teaching methods which will satisfy modern demands and requirements. This justifies the investment of a high volume of resources by all the parties concerned: the company, the State and the apprentices themselves. This cost burden is not equally distributed between all parties in all countries of the EU: sometimes it is too high for the companies, sometimes too high for the apprentices whose work inputs exceed the compensation

they receive, and sometimes too high for the State, i.e. the taxpayer, because the companies or the apprentices have to be strongly subsidized. More balanced funding systems and mechanisms have to be introduced, especially to involve those companies who profit from the training given by others but do not participate in the training themselves. Tax incentives or shared contributions could be one solution if the companies continue to be intractable and have only short-term profits in mind without giving any thought to their medium-term competitiveness and the safeguarding of employment as a whole.

TABLE 1: Legal Bases and Definition of Apprenticeship Training

Member State	Legal Bases	Definition
Belgium	<ol style="list-style-type: none"> <li>1. Decree of 1947 on apprenticeship training.</li> <li>2. Law of 20.6.83 on the extension of compulsory schooling.</li> <li>3. Decrees of 1991 on the establishment of the Institutes for Small and Medium Enterprises, one in the Flemish-speaking and one in the French-speaking region of Belgium.</li> <li>4. The law on industrial apprenticeship of 1983 and the Decree of 1987 on combined work/training contracts have only led to some 2000 or 1000 contracts and therefore have virtually no significance.</li> </ol>	<p>As part of SME training there are 4 days per week of practical training in crafts and retail enterprises. Theoretical instruction is given for 1 day per week in the institutes established in 1991. The apprenticeship contract is concluded with the owner of the firm for a specific occupation. Duration: 3 years</p>
Denmark	<ol style="list-style-type: none"> <li>1. Law concerning vocational schools No. 210/89, and</li> <li>2. Law concerning vocational education and training No. 211/89, which replaces the Law concerning apprenticeship training of 1956 and the EFG-Law (vocational training) of 1977.</li> </ol>	<p>1-year initial vocational training (full-time) followed by 2 1/2 years of training in the company and the vocational school at a ratio of 2/3 to 1/3 of weekly working hours.</p>
Germany	<ol style="list-style-type: none"> <li>1. Vocational Training Law of 1969</li> <li>2. Promotion of Vocational Training Law of 1992 on the tasks of the Federal Institute for Vocational Training</li> <li>3. Crafts Code, amended in 1993</li> <li>4. School legislation of the Federal States</li> </ol>	<p>Training in the company on the basis of apprenticeship contracts and standardized training regulations applicable all over Germany, together with attendance of the part-time vocational school. Duration: 2 to 3 1/2 years, of this 2/3 in the company and 1/3 in the vocational school.</p>

TABLE 1: Legal Bases and Definition of Apprenticeship Training

Member State	Legal Bases	Definition
Greece	<ol style="list-style-type: none"> <li>1. Royal Decree of 3.6.52 on the education of apprentice technicians.</li> <li>2. Law No. 1836 of 14.3.89 on the promotion of vocational training and employment</li> <li>3. Other decrees and laws on professional access and professional requirements.</li> </ol>	<p>2 semesters of full-time instruction in apprentice training centres followed by up to 4 semesters of in-company training accompanied by 1 day per week part-time instruction in the same centres of the labour administration.</p>
Spain	<ol style="list-style-type: none"> <li>1. Law and Order No. 18 of 3.12.1993 on priority measures for vocational promotion.</li> <li>2. Royal Decree 2317 of 29.12.1993 on work experience, apprenticeship and part-time contracts.</li> </ol>	<p>Formal apprenticeship training was established by law only in 1993. It fixes the duration of apprenticeship contracts at a minimum of 6 months and a maximum of 3 years. Instruction of theory should take up at least 15% of working hours and should be given in in-company, inter-company, private or public centres.</p>
France	<ol style="list-style-type: none"> <li>1. "Astier" Law of 25 July 1919 amending the Law of 22.2.1851 which only regulated the contractual relationship between the apprentice and his master.</li> <li>2. Financing law of 10.3.1925 on the levy for apprentice training</li> <li>3. Law of 10.3.1937 on apprenticeship in crafts enterprises</li> <li>4. Law of 24 May 1938 on apprenticeship in commerce and industry</li> <li>5. Law 71-516 of 16.7.71 on the financing of continuing vocational training with the inclusion of the apprentice training levy and the introduction of apprentice training centres</li> <li>6. Decree of 2.2.77 on a precise definition of the contractual relationship</li> </ol>	<p>Apprenticeship is initial vocational training founded on a specific working contract. Here, skills are taught in the company and supplemented by theoretical instruction in apprentice training centres. Its status is equivalent to that of full-time in-school vocational training. Duration: 2 years, in certain cases 3 years.</p>

TABLE 1: Legal Bases and Definition of Apprenticeship Training

Member State	Legal Bases	Definition
	<p>7. Laws of 3.1.79 and 10.7.79 on the financing of measures for the employment of youth</p> <p>8. Law 87-572 of 23 July 1987 on the equivalence of apprenticeship training to other forms of vocational training at different levels of qualification</p> <p>9. Law 92-675 of 17 July 1992 on increasing the attractiveness of apprenticeship and mobilizing the companies</p> <p>10. Law 93-1313 of 20.12.93 on the improvement of apprenticeship training, the establishment of apprenticeship departments in public and private vocational training institutions and the introduction of the training supervisor</p>	
Ireland	<p>1. Industrial Training Act of 1967.</p> <p>2. Labour Services Act of 1987.</p> <p>3. Apprenticeship Rules of 1993 which specify the minimum entry requirements for apprenticeship, the compulsory nature of training, and assessment and the requirements for attendance by apprentices at off-the-job phases of the apprenticeship.</p>	<p>Craft apprenticeship has traditionally been of the time-served type with a duration of up to 4 years.</p> <p>However, through the establishment of a new standards-based system, some 40 designated trades and certificates have been introduced since 1991. The duration is 4 years, of this 3 off-the-job phases not normally exceeding 40 weeks in FAS Training Centres.</p>
Italy	<p>Law of 1954 on apprenticeship.</p>	<p>Traditional apprenticeship lasting for 2 years with training exclusively in the company on the basis of a special apprenticeship contract.</p>



TABLE 1: Legal Bases and Definition of Apprenticeship Training

Member State	Legal Bases	Definition
Luxembourg	<p>1. Grand-Ducal Decree of 8 October 1945 on the revision of the law of 1929 on apprenticeship.</p> <p>2. Law of 4.9.1990 on the reform of technical secondary education and continuing vocational training.</p>	<p>Contract-based in-company training in crafts, commerce and industry combined with general and vocational education in a higher technical secondary school.</p> <p>Duration: 3 years with different periods of theoretical instruction depending on the occupation.</p>
Netherlands	<p>1. Industrial Act of 1921.</p> <p>2. Cursory Vocational Training Act (WCBO) OF 1993.</p>	<p>In-company and/or practical training combined with part-time instruction (1 to 2 days per week) at the skilled worker level, EU Level 2 and/or Levels 3 and 4.</p> <p>Duration: 2, in some cases 3 years.</p>
Portugal	<p>1. Decree-Laws No. 102/84 and No. 436/88 on apprenticeship.</p> <p>2. Decree-Law 383/91 on pre-apprenticeship.</p>	<p>In-company training and instruction in vocational training centres.</p> <p>Depending on the previous level of education pre-apprenticeship lasts for 1 to 2 years, and the duration of the apprenticeship is 1 to 4 years.</p>
United Kingdom	<p>No specific laws.</p> <p>A government initiative to modernize apprenticeship is planned for 1995.</p>	<p>Contracts, written or not, which oblige the apprentice to work in the service of an employer who trains him for a specific occupation.</p> <p>Duration: 2 to 4 years.</p> <p>About 2/3 of the apprentices get additional instruction in training centres.</p>

Table 2: Number of occupations or branches, type of certification, equivalence to school certificates

Member State	Occupations/Branches	Certification	Equivalence
Belgium	1. Food industry 22 trades <sup>1</sup>	In 1993 in the Flemish part: 2,849 out of 3,297 apprentices passed the final examinations, i.e. 86% of the apprentices after the 2nd or 3rd year of apprenticeship. About 3% of the 16 years age-group did an apprenticeship, i.e. some 10,000 new apprenticeship contracts were signed per year in Belgium	Apprenticeship is equivalent to compulsory schooling up to the age of 18.
	2. Textiles/ Clothing 25 trades		
	3. Wood 6 trades		
	4. Leather 5 trades		
	5. Metal 21 trades		
	6. Gold/silver 3 trades		
	7. Machinery 21 trades		
	8. Electricity/ Electronics 17 trades		
	9. Precision mechanics 2 trades		
	10. Construction 15 trades		
	11. Painter/Decorator 11 trades		
	12. Printing/Media 8 trades		
	13. Glass 4 trades		
	14. Health/Beauty care 10 trades		
	15. Plastics 7 trades		
	16. Horticulture and Forestry 8 trades		
	17. Music instruments 6 trades		
	18. Animal breeding 11 trades		
	19. Retail sector 39 trades		
	20. Wholesale sector 2 trades		
	21. Others 15 trades		
	TOTAL: 268 trades		

<sup>1</sup> The figures refer to the year 1992

Table 2: Number of occupations or branches, type of certification, equivalence to school certificates

Member State	Occupations/Branches	Certification	Equivalence
Denmark	<ol style="list-style-type: none"> <li>1. Commerce and administration 22,500 apprentices<sup>2</sup></li> <li>2. Industry/Crafts 26,600 apprentices</li> <li>3. Maritime 450 apprentices</li> <li>4. Agriculture 1,750 apprentices</li> <li>5. Health/Social sector 6,100 apprentices</li> </ol> <p>TOTAL: 86 trade categories with more than 200 specializations</p>	<p>Written and oral examinations including practical tests before Trade Committees to acquire the skilled worker certificate.</p>	<p>Access to higher vocational training possible, after that, access to university.</p>
<p><sup>2</sup> The figures refer to the year 1991.</p>			
Germany	<p>A. <u>Occupational categories:</u></p> <ol style="list-style-type: none"> <li>1. Industry, commerce and administration</li> <li>2. Metal trades</li> <li>3. Electrical trades</li> <li>4. Construction</li> <li>5. Woodworking</li> <li>6. Textiles/clothing</li> <li>7. Chemistry, physics and biology</li> <li>8. Printing</li> <li>9. Painting and decorating</li> <li>10. Beauty care</li> <li>11. Health</li> <li>12. Nutrition and home economics</li> <li>13. Agriculture</li> </ol> <p>B. <u>Training sectors:</u></p> <ol style="list-style-type: none"> <li>1. Industry and commerce<sup>3</sup>: 51.3%</li> <li>2. Crafts: 32.2%</li> <li>3. Agriculture: 1.9%</li> <li>4. Public services: 4.3%</li> <li>5. Liberal professions: 9.6%</li> </ol>	<p>In 1992 495,000 new training contracts were signed and 453,000 final examinations were passed, i.e. some 60% of the persons in the age-group get training in the dual system, of which 80% complete it successfully.</p>	<p>The certificates recognized all over the country permit re-access to advanced training in technical schools, technical colleges and universities; for this, the candidate has to attend different and sometimes additional preparatory courses. The second stage of apprenticeship leads to the qualification of master craftsman in industry or crafts.</p>

Table 2: Number of occupations or branches, type of certification, equivalence to school certificates

Member State	Occupations/Branches	Certification	Equivalence
	6. Home economics:		
	0.6%		
	7. Maritime: 0.04%		
	C. <u>Total skilled occupations:</u>		
	approx. 370 in 1994		
<p>The percentage figures refer to the total number of apprentices in 1991.</p>			
Greece	<ol style="list-style-type: none"> <li>1. Potters and ceramics</li> <li>2. Gold and silversmith</li> <li>3. Electrical technician</li> <li>4. Motor electricals technician</li> <li>5. Hairdressing</li> <li>6. Textiles/clothing</li> <li>7. Machine technician</li> <li>8. Motor engine technician</li> <li>9. Internal combustion engines technician</li> <li>10. Carpentry and furniture making</li> <li>11. Metal constructions and welding</li> <li>12. Bodywork technician</li> <li>13. Graphic arts technician - Printing direction</li> <li>14. Shipbuilding industry technician</li> <li>15. Refrigeration</li> <li>16. Watch and clock making</li> <li>17. Plumbing and heating</li> <li>18. Electronic appliances technician</li> <li>19. Commercial higher employee</li> <li>20. Technician furrier</li> </ol>	<p>In the school year 1993/94 there were 4,765 apprentices; the trades with the highest number were No. 8 with 18.3%, Nos. 3 and 7 with 15-16% each; they were followed by Hairdressing and Plumbing and Heating, i.e. Nos. 5 and 17, with 8.6% each, and No. 10 with 5.6%. The other trades are at the bottom of the list with some 1% or so.</p>	<p>After acquiring the certificate and undergoing at least 1 year of work experience in the trained subject the person can apply for permission to exercise the occupation concerned. After passing an examination held by a Committee of the Ministry in charge, authorization to exercise the occupation is given. Further training in a technical school or at university without the required school certificates is not possible at present.</p>

Table 2: Number of occupations or branches, type of certification, equivalence to school certificates

Member State	Occupations/Branches	Certification	Equivalence
	21. Mechanical, electrical and electronic draughtsmanship 22. Electronic automation technician 23. Maintenance and tool machine operation mechanic 24. Baking and cakes with flour 25. Fish farming		
Spain	<p>At the moment apprenticeship training is being set up on the basis of the new law. There are no binding occupational or training regulations yet, but there is a strong orientation towards the occupational profiles which have been defined by CEDEFOP as part of the EU comparability procedure and have been published by the Commission in the EC Official Journal.</p>	<p>The type of certification is still open.</p>	<p>No equivalence to education and training certificates is foreseeable.</p>
France	<p>A. <u>Industry and commerce:</u></p> <ol style="list-style-type: none"> <li>1. Building: 7,550<sup>4</sup></li> <li>2. Roofing, plumbing and heating: 8,665</li> <li>3. Painter: 7,712</li> <li>4. Metal construction: 9,555</li> <li>5. Precision mechanics: 18,343</li> <li>6. Electrical/Electro-mechanical: 7,900</li> </ol>	<p>The CAP and BEP certificates are recognized nation-wide, but for formal acceptance as skilled worker a certain period of in-service experience is generally required.</p>	<p>Persons who have completed their apprenticeship can undergo continuing training to prepare themselves for the higher levels; there are some 20,000 additional alternance training contracts for this purpose.</p>

Table 2: Number of occupations or branches, type of certification, equivalence to school certificates

Member State	Occupations/Branches	Certification	Equivalence
	7. Electronics: 903		
	8. Printing, graphic industry, photography: 2,517		
	9. Bakery, pastry making: 17,418		
	10. Butcher/Abattoir operator: 8,111		
	11. Other foods: 1,496		
	12. Woodworking: 9,334		
	13. Other trades: 3,367		
	<b>TOTAL:</b>		<b>102,871</b>
	<b>B. Services</b>		
	1. Office/administration: 620		
	2. Accounting: 315		
	3. Wholesale and retail: 23,896		
	4. Arts and industrial design: 1,184		
	5. Health and social services: 9,491		
	6. Beauty care: 18,652		
	7. Hotel/Restaurant: 23,679		
	8. Other services: 143		
	<b>TOTAL:</b>		<b>77,980</b>
	<b>A: AND B:</b>		
	<b>TOTAL<sup>5</sup>:</b>		<b>180,851</b>

<sup>4</sup> Number of apprentices in the school year 1992/93 for CAP and BEP certificates (Level 2).

<sup>5</sup> In 1992/93 about 2/3 of the apprentices were given part-time training in the company or in inter-company group training centres; 1/3 were given full-time training in technical/vocational schools (lycées professionnels).

Table 2: Number of occupations or branches, type of certification, equivalence to school certificates

Member State	Occupations/Branches	Certification	Equivalence
Ireland	1. <u>Furniture:</u> Cabinetmaker: 93 <sup>6</sup> Woodmachinist: 44 Upholsterer: 5 <b>Total: 142</b>	On successful completion of training and after passing a theoretical and practical examination, the National Craft Certificate, recognized all over the country, is awarded. The proposed new National Education and Training Certification Board (NETCB) will award the certificates on successful completion of the examination or modular assessment.	At present there is no possibility of qualifying for further levels of training. After the new Apprenticeship system is introduced, provision will be made for progression to technician and other qualifications. New training possibilities are also being envisaged in the retail and hairdressing sectors where a large proportion of women are employed.
	2. <u>Construction:</u> Carpenter/Joiner: 605 Bricklayer: 121 Glazier: 5 Painter/Decorator: 114 Plasterer: 104 Plumber: 286 Construction Plant Fitter: 46 Electrician (Installation): 294 <b>Total: 1,575</b>		
	3. <u>Engineering:</u> Electrician (Maintenance): 448 Instrumentation Craftsperson: 36 Fitter: 373 Toolmaker: 113 Sheet Metal Worker: 66 Metal Fabricator: 129 Welder: 5 Refrigeration Craftsperson: 30 Aircraft Mechanic: 73 Motor Mechanic: 419 Agricultural Mechanic: 37 Heavy Vehicle Mechanic: 62 Vehicle Body Repairer: 35 <b>Total: 1,476</b>		

Table 2: Number of occupations or branches, type of certification, equivalence to school certificates

Member State	Occupations/Branches	Certification	Equivalence
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4. Printing:

Printer: 38  
 Originator: 17  
 Carton Maker: 5  
 Bookbinder: 11

Total: 71

TOTAL 1..4.: 3,264

In September 1993 the new Apprenticeship system was introduced for 15 trades and it was decided to phase in the remaining trades during 1994 and 1995

<sup>6</sup> New training contracts per year.

Italy	<p>Training facilities in the form of apprenticeship can be found mainly in crafts and small firms but also in the manufacturing industry, in retail trade and in the services sector. It is estimated that some 200,000 apprenticeship contracts are concluded every year. The number of training contracts fell from approx. 600,000 in 1983 to some 450,000 in 1993. Of these 450,000, about one half, are trained in small and very small crafts enterprises.</p>	<p>After completing the apprenticeship skilled workers can take part in an examination organized by the Board of the regional labour administration concerned, which is also open to all other workers with the required professional experience. However, there is little guarantee that the companies will recognize this attestation of qualification, which is why only a fraction of the persons concerned</p>	<p>At present there is no equivalence to school certificates and also no formal possibility of progressing to further qualification.</p>
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Table 2: Number of occupations or branches, type of certification, equivalence to school certificates

Member State	Occupations/Branches	Certification	Equivalence
		participate in such examinations.	
Luxembourg	<p>Training is given in the following sectors:</p> <ol style="list-style-type: none"> <li>1. Agriculture and horticulture</li> <li>2. Crafts</li> <li>3. Commerce</li> <li>4. Hotel trade and tourism</li> <li>5. Manufacturing industry</li> <li>6. Home economics</li> </ol> <p>In 1993/94 547 contracts or occupied training places were registered.</p> <p>A distinction was made between the following occupations under the Chamber of Crafts:</p> <ol style="list-style-type: none"> <li>1. Food industry: 5 trades<sup>7</sup></li> <li>2. Textile/Clothing, Health, Beauty care: 18 trades</li> <li>3. Engineering: 20 trades</li> <li>4. Construction: 23 trades</li> <li>5. Others, in particular Printing, Technical drawing, Driving instructor, etc.: 13 trades</li> </ol> <p>Re. II.: 19 industrial trades</p> <p>Re. III.: 10 service trades (Chambers of Commerce)</p>	<p>After 3 years of training and passing the final examinations, a technical/vocational certificate (CATP) is awarded. Apprentices who, after at least 1 year, can prove their practical skills but not necessarily the required theoretical knowledge, receive a certificate attesting the corresponding skills (CCM). After 2 years of practical training a CITP can be acquired which is equivalent to a semi-skilled status. The Chambers participate in the examinations together with representatives of the Ministry of Education, i.e. the vocational school teachers and technical teachers.</p> <p>There are 5 types of</p>	<p>At present a further qualification is only possible to a limited extent.</p>

Table 2: Number of occupations or branches, type of certification, equivalence to school certificates

Member State	Occupations/Branches	Certification	Equivalence
	Re. IV.: 5 trades in hotel sector	Chambers: 1. Chamber of Commerce 2. Chamber of Crafts 3. Chamber of Agriculture 4. Chamber of Private Employees 5. Chamber of Workers, which register the training places and supervise in-company training.	
	Re. V.: 1 trade in home economics		
	Re. VI.: 6 agricultural or horticultural trades		
	<b>TOTAL: 114 trades</b>		

Situation in May 1994.

Netherlands	New training contracts (Level 2) per sector <sup>8</sup> : 1. Engineering: 16,309 2. Process industry: (Primary materials and chemicals): 1,384 3. Building: 6,052 4. Care and services: 5,510 5. Food and semi-luxuries: 2,526 6. Commerce and office: 6,691 7. Hotel/Restaurant/Catering: 2,542 8. Printing/Graphic industry: 866 9. Wood and furniture: 1,007 10. Harbour and transport: 2,610 11. Textiles/clothing: 578 12. Agriculture: 4,706 <b>TOTAL: 50,781</b>	The sector-specific vocational training committees supervise the proper delivery of training and hold the examinations or set up Examination Boards for this purpose. The vocational qualification for the occupation is recognized nation-wide and is issued by the committees mentioned above. Successful candidates receive a diploma, partially successful candidates get a	Access to the higher levels of apprenticeship training, levels 3 and 4, is possible, but not a re-entry into the Secondary Level II full-time schools or the university level: one exception is the Open University in Heerlen in the south of the Netherlands.
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Table 2: Number of occupations or branches, type of certification, equivalence to school certificates

Member State	Occupations/Branches	Certification	Equivalence
	There are approx. 31 occupational categories, of these the most popular are the metal, electrical, building, commerce and office, motor vehicle repair and care and services sectors.	certificate and those who have only passed the practical part of the examination get a practical training certificate.	
<p><sup>8</sup> Figures from 1992. From 1983 to 1992 the number of training contracts almost doubled, the rise was most striking in the commerce and office/ administration sector: from 1,772 to 6,691 training places!</p>			
Portugal	<ol style="list-style-type: none"> <li>1. Small enterprises with less than 10 employees: <ul style="list-style-type: none"> <li>- Agriculture</li> <li>- Construction</li> <li>- Hotel/Restaurant</li> <li>- Banks/Insurance</li> <li>- Real estate</li> <li>- Private services</li> </ul> </li> <li>2. Industry and firms with 10 to 400 employees: <ul style="list-style-type: none"> <li>- Leather and shoe industry</li> <li>- Food industry</li> <li>- Textiles/Clothing</li> <li>- Chemical industry</li> <li>- Engineering</li> <li>- Civil engineering</li> </ul> </li> <li>3. Industry with over 400 employees: <ul style="list-style-type: none"> <li>- Primary materials</li> <li>- Food industry</li> <li>- Engineering</li> <li>- Transport</li> </ul> </li> </ol>	The Institute for Vocational Training in the Ministry of Labour organizes the examinations and holds them.	At present there is no further vocational training which is built up on apprenticeship. The importance of these certificates is still low.
United Kingdom	<p>Apprentices according to sectors:</p> <ol style="list-style-type: none"> <li>1. Engineering: 58,000<sup>9</sup></li> </ol>	As a written training contract is not absolutely necessary and a	There is no equivalence to the NVQs or other school certificates

Table 2: Number of occupations or branches, type of certification, equivalence to school certificates

Member State	Occupations/Branches	Certification	Equivalence
	2. Construction: 66,000	formal examination is not the rule, a certificate is not always issued. The performance at the place of work is assessed, there is less teaching and assessment of theoretical knowledge in the colleges. There is no national centralized body to define the general criteria relating to basic skill and knowledge requirements. Even the NCVQ <sup>10</sup> and the Scottish equivalent do not set the standards but only check the actual performance at the place of work according to the different levels, or they recognize the examinations of performance and assessment centres, colleges, vocational training committees and professional associations.	issued by the Boards, so that an attendance of higher technical schools and universities is only possible after completing some preparatory courses and passing entrance examinations. Recognition by the companies is, however, more or less ensured.
	3. Hotel/Restaurant and Commerce: 57,000		
	4. Transport and communication: 11,000		
	5. Banking and insurance: 21,000		
	<b>TOTAL: 213,000</b>		

<sup>9</sup> Number of training places in 1992.

<sup>10</sup> National Council for Vocational Qualifications.

CEDEFOP - European Centre for the Development of Vocational Training

**The present situation and the future prospects of apprenticeship  
training in the European Union**

**Contribution for the FORCE Seminar in Dublin on 30.09.94 with  
participants from Northern Ireland and the Republic of Ireland**

Burkart Sellin

CEDEFOP Berlin

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This document is based on the author's many years of experience with the issue as a project coordinator in CEDEFOP. It is a product of his assessment of trends in alternance training in the EU.

The article was prepared at quite short notice for a seminar in Ireland with the help of documentation supplied in the course of 1994 by the national information and documentation centres which are part of the CEDEFOP network. Readers who detect errors or omissions are requested through their comments and additional information to help CEDEFOP update the document. We would be particularly grateful for reliable statistically or empirically based data and information on current trends.

From the information available in the various countries in which apprentice training was a real alternative to subsequent training in technical colleges and universities, it is becoming a second best alternative for school-leavers or their parents. Companies, with the exception of small and medium-sized trades and retail companies seem to be retreating from involvement in training. On the other hand, the number of training places is decreasing in almost all Member States. In view of this trend, which is threatening for a number of reasons, the author wishes to contribute to maintaining and enhancing the attractiveness of alternance training and in so doing lists a number of tangible pre-requisites.