# **panorama**



Co-operation in Research on Trends in the Development of Occupations and Qualifications in the European Union

Report on the current state, results and development of the CEDEFOP Ciretoq network

# CEDEFOP

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# Report

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<sup>&</sup>lt;sup>1</sup> Ciretoq: Circle for Research Co-operation in Europe on Trends in Occupations and Qualifications

### I. Aims and Tasks

Ciretoq was set up by CEDEFOP at the beginning of 1995 and commenced work the same year.

CEDEFOP and network participants wanted to make an evaluation of new approaches to surveying trends and to make a common assessment of the results through comparing several Member States, taking into consideration preliminary work and programmes at EU level<sup>2</sup>.

### 1. The intention of CEDEFOP

It was CEDEFOP's intention to create a network which would not compete with EU programmes (and in particular with the Leonardo da Vinci Programme which had been initiated at that time), but rather to supplement these and provide support through coupling the specific and methodological experience and knowledge of the research institutes and institutions involved (see list of members as of 1997). The network was intended to be a follow-up to the preliminary work of CEDEFOP in observing, presenting and making comparative surveys of qualification and certification systems, of supply and demand for qualifications, developments in occupations in view of new technologies, economic, socio-cultural and ecological challenges, the structural development of training levels in the Member States and, as far as possible, in comparing a number of countries at EU level. Ongoing cooperation between research institutes and participation of important sponsors, i.e. political and social partners in the form of those institutions involved (EU Commission, OECD, ILO, ETF, ETUC and UNICE) should lead not only to a balance of interest between the contractors and contracted parties but should also avoid a duplication of effort from the outset and facilitate supplementary activities.

These aims and criteria in principle still apply today (see the medium-term priorities of CEDEFOP and the 1997 Work Programme). The network is also an attempt to diverge from the structure of individual research and survey projects which characterised the CEDEFOP Work Programmes up to 1996 and to focus activities more closely on central issues: occupations and qualifications on the one hand and systems and their development on the other.

It was not and is not the intention of CEDEFOP to set up a network to directly promote research. The means at CEDEFOP's disposal for this did not and continue not to suffice even when projects are linked. There should be more preliminary surveys and accompanying assessment of research work which runs

<sup>&</sup>lt;sup>2</sup> Eurotecnet; surveys on skill needs, DGXXII; medium term employment forecasts and surveys on methods and tools for analysing vocational training policies, DGV; surveys within the 4<sup>th</sup> framework research programme's socio-economic strand, DG XII; etc.

concurrently in order to publicise and disseminate their findings and to improve their chances of having an impact on policy or the relation to policy and the needs of decision-makers including those working within the Social Dialogue. This intention concurred with the interest of the participating research institutes (see Newsletter 1/96). This aim was innovative in attempting to promote cooperation between the research institutes not only on an ad hoc basis but within the framework of specific subjects and projects and to involve them in discussions on new issues and methods which relate to the overall topic, to let these institutes create their own partnerships, and to examine certain topics in a largely autonomous way (see also the discussion document in Ciretoq Newsletter 2/96).

### 2. Methods

Plenary meetings of the some 45 individuals in the network take place annually. There are, in addition, three working groups: Groups A, B and C.

Group A is interested particularly in macro-economic trends. Group B examines qualitative socio-economic micro-surveys and Group C focuses on the sector approach to surveying trends.

All three groups examine phenomena which can provide indications (i) on the advantages and disadvantages of certain structures in education and training for work and employment and (ii) on recent developments on the labour market, and as far as labour organisation corporate staff policy is concerned, against the background of current and future challenges. These challenges can be of an economic, social, demographic, cultural or ecological-technological nature.

Comparisons between several countries facilitate identification of certain deficits in systems which elucidate the advantages and disadvantages of the supply structures in education and training, including the qualification processes, and result in recommendations for political and social protagonists in developing education and training systems. They also help elucidate convergent, divergent or even contradictory trends.

All three groups have set up teams and partnerships (approximately three per group per year) to survey particular topics and they are contracted in their work with CEDEFOP with clearly formulated contractual agreements. Membership in the network and in individual groups is voluntary. However when a contract is concluded the contracting parties are bound to the provisions of the contract and must conclude this within a certain period of time. These research projects are publicised within the whole network and, depending on their dimensions, even beyond in order to win new partners. The network is not a closed shop but is open to new research institutes or interested institutions which must, however, take the initiative. Meetings, travel costs and publications are funded by CEDEFOP as part of their annual Work Programme. The documents are published by CEDEFOP in the CEDEFOP documents series. In addition,

CEDEFOP publishes a special newspaper several times a year for members and interested experts or decision-makers. In the research projects the institutes involved are also expected to make a corresponding contribution. This form of cooperation can be regarded as a joint venture.

### II. Results and interim findings

Forecasting trends in occupations and qualifications, particularly through international and European comparison, is anything but easy and requires a differentiated approach. It is even a difficult task at regional or national level. However, both policy and the protagonists require indications and orientations from research and experts. All those involved directly and indirectly, particularly at times of instability, structural change and a change in paradigm (as is the case at the minute), require help in decision making: parents, teachers, career guidance counsellors and those involved in education and training are asking for orientation. Vocational training research is called upon to make every effort to supply such criteria.

Vocational training research is both labour market research and educational research. In principle it is interdisciplinary and in addition to economic and social dimensions, it also has to take into account attitudes and motivational or fashionable trends. Economists, social scientists, psychologists and technological experts work alongside teachers and trainers, legal experts and those involved in developing human resources. For management experts and engineers, involvement is as much required in vocational training research as for the representatives of associations, trade unions and employers.

The Ciretog network encompasses great interdisciplinary variety which in itself is an enrichment. Variety is extended through intercultural dimensions resulting from trans-national comparison. Such dimensions require a new approach of national experts and decision-makers involved in processing and assessing This nurtures a new approach to the systematic and institutional conditions and structures of their own country which facilitates a new perspective on these and clarifies new interrelationships which can then be bundled to draw certain conclusions. International and European comparisons are becoming increasingly indispensable if one wants to change structures within a country which are firmly anchored. Without a perspective beyond national boundaries scarcely any EU Member States can formulate educational and vocational training policy today. Systematic comparisons or even comparative surveys at EU level of the overall structures are more forceful through extending the perspective and through including even non-European developments than a purely comparative survey or picture of a current situation although they remain necessary. The comparison of systems for CIRETOQ is mainly a dependent variable, dependent on future oriented issues: in this case trends in the development of occupations and qualifications in view of the central challenges which almost all systems are facing. The problems are (almost) identical everywhere although the solutions in the different countries alter because of their state of development and on account of their priorities.

Central indicators and categories in the surveys are:

- the impact of demographic developments, i.e. most countries are experiencing increasing ageing of the population and in particular of the working population;
- the impact of the different levels of qualification between the younger and older generation, particularly in the transition from the education system to the labour market:
- the extent to which various groups are affected (differing qualifications and social, ethnic, gender, geographical origin) by unemployment or employment problems;
- the demand from companies of various categories for certain occupations and qualifications and their development;
- sector and regional differences and peculiarities;
- the transition and fate of trainees completing particular educational and training courses and the extent to which these can be substituted, their flexibility and productivity;
- the stratification/modularization of education and training and the interrelationship between initial and continuing vocational training;
- state and collective bargaining intervention mechanisms at the various levels which influence the supply of and demand for skilled labour;
- certain topical or popular attitudes and behaviour of those seeking education training and those seeking careers and qualifications;
- the cutting of occupations and training profiles and their efficiency.

On the basis of available surveys and the surveys which have been evaluated by us which were carried out within the Ciretoq group or on the basis of interim findings and taking into consideration some of the relevant parallel work of Cedefop, it is possible to make a cautious identification of a number of trends which seem to hold true for all Member States (see annex on pp. 9).

- 1. The phenomena to date in most of the Member States of over-proportional representation of women in unemployment will soon come to an end. Unskilled and semi-skilled male factory workers without formal qualifications and skilled workers in mainly manual occupations are those most strongly represented among the unemployed. An increased female employment is taking place mainly in service occupations both public and private. They seem to have more flexible qualifications including social, communication or linguistic competencies then men, for which the demand is raising.
- 2. Young people are still suffering from major difficulties to make the transition from school or initial training into stable employment, their career and employment prospects nevertheless tend to improve by comparison to elder people. However, it seems that companies do not want to recruit very young

people below 20 years of age, because they are prepared to an ever lesser extent to accord the necessary manpower needed to integrate them into the complex work organisation, which demands a higher degree of autonomy and responsability. This trend seems to be rather independent of the level of initial qualifications young people are holding.

- 3. The increase in demand for higher and highly qualified manpower (EU levels 3 to 5) is not generally true even though the less qualified (EU levels 1 and 2) are in absolute terms those most affected by unemployment. The proportion of those with differing qualifications in unemployment is equalising. The differences by sector and region are, however, substantial and thus require a more differentiated picture of the situation.
- 4. Depending on the structure and architecture of education and training systems, there are differing opportunities for substitution of those holding various qualifications in the labour market. Those education and training systems which are more vertically structured and have, relatively speaking, earlier guidance and selection show a greater degree of substitution. Those systems which are more horizontal in structure have a lower degree of substitution while the flexibility of trainees at the same formal level of qualification is greater. Early stratification in certain general, preparatory and vocational education and training courses seems to have greater disadvantages with regard to flexibility and adaptability of the trainees.
- 5. Within the same sector there are substantial differences in recruitment patterns and deployment of those with varying qualifications depending on the size of the company and the geographical location (villages, small town, city). Employers with lower qualifications recruit lesser qualified and employers with higher qualifications recruit those with higher qualifications.
- 6. The expansion of public service in all EU countries seems to have come to a standstill and is receding because of privatisation trends. The share of the public service in the past three decades in almost all EU countries is proportionally higher in comparison to the main competitors, Japan and the United States (see OECD 1995). From such a trend young graduates from universities may suffer comparatively more than less trained young people.
- 7. Private (both simple and complex) services are on the increase although here there are contradictory trends: banks and insurance companies are cutting down to a large degree on account of the use and spread of new information and communication technologies and allocating certain services to the customer. New profiles are being created which could lead to a polarisation of the workforce into the highly qualified and those with low qualifications. This danger exists especially in sectors like the retail trade, in the hotel and catering trade, in logistics, tourism and in the leisure industry.
- 8. Services closely related to production and manufacturing, research and development, design, marketing and distribution, consultancy and further training are on the increase as real production is decreasing or being transferred abroad

to countries where labour costs are lower. However, this latter is attributable not only to the lower wage costs abroad but also to the philosophy of keeping production close to the customer and to adapting this to the changing customer wishes on site. Only capital-intensive production which promises innovation is remaining in the EU. In services closely linked to production and which are becoming increasingly independent of the actual location of production, both highly and very highly-qualified manpower is required. The actual activity of producing and manufacturing, i.e. mainly manual activity, is being reduced in favour of planning, organising, designing, researching, drafting, communicating, teaching, and informing. This is being intensified on account of the international/European interrelationship. Such activities require higher formal qualifications in education and training and specific occupational experience.

- 9. Good in-depth initial training no longer suffices for accessing an occupation. Additional qualifications, practice and experience abroad are becoming increasingly important. There is a need for a flexible specialisation: this means maintaining a high degree of flexibility through successful completion of training and accompanying a subsequent increase in qualifications through practice and experience either at home or abroad. Such experience should cover several sectors and areas of activity.
- 10. Basic capabilities and skills (reading, writing, mathematics, languages and basic computer training) are increasing in importance. Editing complex texts, conducting negotiations and mastering group dynamic processes in a team, creativity and troubleshooting are becoming more important as are greater adaptability and flexibility with regard to occupational activities at all levels of qualification. In the 70s such skills were required only from graduates of universities and special colleges. To a larger degree, activity and initiative were seen as a disadvantage by the employer. Today the potential to take an active part is in demand with increasing pressure to being loyal to the aims of the company.
- 11. Premature vocational specialisation is becoming increasingly counter productive, although preparatory elements in conjunction with general education, practical periods of varying form and sampling training are to be welcomed in the last years of compulsory schooling. New forms of alternance training and new forms of combining places of learning and learning methods in schools, company training centres and in companies are important both for initial and continuing training. The decentralisation and individualisation of the supply structure, particularly in disadvantaged regions, which is indispensable for maintaining social and economic cohesion in the EU seems possible with the help of new technologies and in particular information and communication technologies. Learning on the job seems indispensable although not all activities can be simulated. Only real situations can develop skills and the ability to solve problems and can create links to the required learning of theory.
- 12. In choice of career objective, capabilities and inclinations are becoming more important and the desire to follow in the steps of one parent or a relation or acquaintance is on the decline. There is thus a greater need for occupational

and training guidance which, however, is seldom fully catered for (see the CEDEFOP surveys on the guidance needs of young people).

- 13. The material and organisational conditions of work and certain occupations also play a determining role in selecting an occupation or area of study. However, this is becoming less dominant with increasing unemployment. Modern places of work in industry and services are essentially becoming similar. Production work will decrease in favour of work at control panels and computers. Mastering such processes will replace taylorist activities, managing stress and flexibility will take priority over manual work and speed in acting and comprehending/communicating will predominate over work in isolation.
- 14. The greatest difficulty is in forecasting the future role and function of middle management and their perspectives. Here in relation to the sectors and to the corporate culture and national attitudes the greatest differences are to be found. With the reduction in hierarchies where there is a highly qualified and flexible team of skilled workers, the latter are upgraded to technicians. The traditional master-craftsmen should maintain his role in the trades and in small and very small enterprises. However they will decrease in number. In industry such a function, where it still exists, will become practically obsolete.
- 15. The overlapping and multiplicity of career and training profiles/curricular in initial training should decrease while they will increase in continuing training. The borders between initial training and continuing training will come more blurred and allow a smooth transition between both. New combinations of continuing training and employment, combined training and employment contracts, new forms of flexible employment, part-time work, and individual working time-account, teleworking will all increase. There will be an increasing modularization of the offer in continuing vocational training and initial training. Their systematisation and transparency should also increase with an expansion of career opportunities. The costs and funding of vocational training and continuing training will remain an issue particularly in relationship to the cost and funding of university training. The latter is usually funded by the taxpayer while the former is borne by the company or the trainee (CEDEFOP is currently making more detailed surveys of this issue).
- 16. The institutional structures of certification and corresponding provisions are too rigid and inflexible throughout the EU. They are linked too closely to formal education and training and in particular to initial training. Access through learning by practice and successful application of skills which have been acquired in personal or occupational life is being made unnecessarily difficult. This affects particularly foreigners and non-EU nationals who are confronted in the host country with deliberate or non-deliberate discrimination. Their economic and social integration can only succeed when they are treated equally with regard to access to an occupation and to continuing training. This also applies to those leaving school at an early age and more elderly manpower who had failed earlier to acquire sufficient initial training. New opportunities for training, continuing training and certification are required particularly for these target groups (see corresponding recommendations of the Commission White Paper on

Teaching and Learning, 1995). Presently CEDEFOP is co-ordinating a number of surveys on attaining qualifications at a later date and on the recognition of informal learning. We expect detailed results from these.

### III. New topics for surveys in 1997

The following issues are being actually discussed as part of preparations of the new survey topics for 1997/98. Decisions will be taken in the first half of the year in close consultation with the researchers themselves, at the latest following the plenary envisaged for the 12<sup>th</sup> and 13<sup>th</sup> of June next. The choice of themes will also be linked to the priorities expressed by the political and social actors linked with Cedefop, which are invited to comment the proposals made. Besides the established co-operation with the DGXXII and DGV from the Commission, a closer co-operation with activities under the 4<sup>th</sup> framework research program and more especially with its socio-economic research strand will be envisaged. Contacts have been made with the DGXII colleagues responsible in that respect.

- 1. Work started in 1996 continues on sector surveys and on certain branches and occupational groups or certain levels of qualification and their use. More detailed findings are expected in the course of the year. New information and communication technologies and the qualifications required for their occupational application are also being surveyed as are the consequences of ecological criteria on the development of qualifications.
- 2. There should be closer investigation of the structure of training levels in the Member States and at EU level (see the 1985 Council Decision on the comparability of vocational training qualifications between Member States of 1985 and the classification of institutes and certificates ISCED). To what extent are there new trends, for example in relationship to the compression of hierarchies? What role will those who are located in the middle of the qualification scale (European levels 3 and 4) assume? To what extent do these classifications reflect reality and cater for the measurement of foreseeable trends?
- 3. Other potential survey issues are: What are the perspectives for low skilled in forthcoming service industries? Are there new occupational activities and needs? What consequences will the European Economic and Monetary Union have for regional and sector/branch labour markets? What contribution can sector surveys and the involvement of the social partners and their institutions make in renewing the vocational training offer in the sector? These issues will be discussed as part of the preparations of the new survey topics for 1997/98. Decisions will be taken early in the year, at the latest at the plenary meeting in June.
- 4. The architecture of education and training systems, their structures and division (horizontal or vertical) seem to have a major influence on productivity and flexibility of trainees, the degree to which they can be substituted, etc.

Consideration will be given to a new survey on this inter-relationship through comparing several Member States.

5. Vocational training paths in the individual Member States differ against the backdrop of the specific architecture of the supply of education and training although there are admittedly certain assimilating aspects in the systems. Particularly apparent are the peculiarities of the type of link between initial and continuing vocational education/training. Current challenges seem to smudge the borders between both, also on account of the growing instability of training and occupational paths, between young people and adults. A comparative survey of this interface between initial and continuing training, the link between the corresponding occupational training paths, and could provide valuable indications for vocational training policy, including continuing training and adult training policies in the countries involved and at European/international level.

# IV. New orientation of the network and organisational questions?

The work of the network and its findings is justifiable when related to the cost/benefit factor as the institutions themselves bear a large part of the costs. However, narrowing issues down to those that are essential for decision-makers is problematic in nature. The instructions the latter give are sometimes not very clear and as the project manager, one usually has to make assumptions about their needs, something which is sometimes successful and sometimes not. There is a need for direct debate between research workers and decision makers, something which is desired by both sides. A number of political decision makers and social actors will be invited to the next plenary in June. document should be submitted to the Commission and to the Management Board in order to ascertain their reactions. Proposals, questions, and comments are very welcome in order to test the relevance of certain issues and findings. It is formulated in a language which is more common to decision makers than to research workers although the attempt was made to remain consistent in the A group of political and social protagonists could approach to the topic. accompany academics in developing a number of scenarios entitled Facing the Future in order to increase the relevance of their work for political debate.

A new orientation of the network should result from this feedback. Conclusions should be drawn on the orientation when this feedback is available and has been evaluated by CEDEFOP. In this, the content of the 1996 discussion paper (see Ciretoq Newsletter 2/96) will also be taken into consideration.

### V. Further Issues

The consequences of introducing the Single Market were estimated at that time to be of a major importance for the EU economy in the broadest sense of the word and for the European labour market, i.e. for the mobility of workers and their opportunities to move freely and to develop. A substantial increase in the mobility of the working population and citizens was expected. Does the fact that the Single Market has only been implemented to some 30-40% have negative consequences on this dynamism and on the employment situation?

The quantitative and qualitative supply of labour with certain qualifications seems, under certain circumstances, create in itself new work. An example is the increased demand of females to work full-time or at least part-time. The effects of demographic development, the migration and refugee flows, the return of immigrants and/or working immigrants to their home countries also has implications for the corresponding national, regional or developing European labour market depending on qualification/motivation and age structure. They can make these more dynamic as is currently the case in Ireland or they can impose a burden upon it, as for example, is the case in Germany. The analysis of the advantages and disadvantages for such migration trends on the corresponding labour markets and their resulting qualification structures and the recommendations for the developing EU joint (im)migration policy, with the required supplementary education and vocational training policy, could be an important subject of research.

The implications of globalization of the world economy, its integration with the help of modern information and communication technologies and the resulting qualification needs and occupational structures had only been researched in part. This could be another focal area for the future research work of Ciretog. The term A globalization is itself an ambiguous and problematic one as either on purpose or by coincidence it tends to intimidate people and not to motivate them to be involved in local context and in moulding the environment in which they live. This would be more of the socio-psychological survey of the fears created by the globalization discussion among people and the resulting negative attitudes and behaviour. The latter has direct and indirect consequences for social and economic activity which is the target of vocational training. Current overemphasis of such terms could increase protectionist, xenophobic, fundamentalist, or even racist tendencies which run counter to the intentions of those taking a positive stance towards the social and economic integration of the world and its sustainable development, i.e. what is understood as globalization. European year to combat exclusion and racism and xenophobia, such a survey would be suitable for identifying misunderstandings and diffusing fears in order to create a path for human understanding and an efficient education and vocational training policy which should not need to use such terms.

### **Annex**

I. Reports and products delivered so far

- CEDEFOP on Trends in the Development of Occupations and Qualifications: Network Ciretoq, a brochure presenting the objectives, methods and participants of the network, available in DE,EN,FR
- 2. Ciretoq newsletter 1 from February 1996
- 3. Ciretoq newsletter 2 from August 1996
- 4. Occupational forecasts for 1998 for Ireland and their implications for educational qualfications, paper submitted to Ciretoq by Angela Canny and Gerard Hughes from the Economic and Social Research Institute, Dublin, published as CEDEFOP Document, 31 pp.,Thessaloniki 1996
- Concepts and methodology for labour market forecasts by occupation and qualification in the context of a flexible labour market, paper submitted to Ciretoq by Lex Borghans, Andries de Grip, Hans Heijke from the Research Centre for Education and the Labour Market, Maastricht, published as CEDEFOP Document, 34 pp., Thessaloniki 1996
- 6. Evolution of employment and qualifications in motor vehicle repairs in France, paper submitted to Ciretoq by Richard Biegansky and Jean-Paul Cadet, CEREQ Marseille, published as CEDEFOP Document, 37 pp., Thessaloniki 1996
- Forecasting sectors, occupational activities and qualifications in the Federal Republic of Germany, a survey on research activities and recent findings, submitted to Ciretoq by Manfred Tessaring, Institute für Arbeitsmarkt- und Berufsforschung, Nuremberg, 84 pp., forthcoming by CEDEFOP in 1997
- 8. Strategies for an European Analysis of Occupations and Qualifications, paper presented to Ciretoq by Robert Lindley, Institute for Employment Research of the University of Warwick, mimeographed, see also Ciretoq newsletter 1/96 pp.3
- 9. Sector approach to training, synthesis report on trends and issues in six European countries, a report submitted by the Institute of Applied Social Sciences, Nijmegen, John Warmerdam and Harry van den Tillart, to be published by CEDEFOP in 1997
- The sector approach to qualification requirement studies, a summary of the development at DTI/HRD a paper submitted by DTI to Ciretoq in 1996, mimeographed by DTI/Copenhagen

## II. Research projects launched in 1996, intermediate and final outcomes will be presented in 1997

- Employment and service growth, a joint study covering Germany, Greece and the United Kingdom@, co-ordinated by the Institute of Employment Research, Warwick, Robert Lindley
- A comparison of the labour market structure by qualification between Ireland and The Netherlands@, co-ordinated by the Research Centre for Education and the Labour Market, Maastricht, Hans Heijke
- 3. Methodologies for forecasting the evolution of employment and qualification needs at sector level, co-ordinated by the Foundation Centre for European Initiatives and Research in the Medterranean, Oriol Homs
- 4. The impact of studies on trends in occupations and qualifications on vocational education and training in some Member States@, a survey covering Denmark, Germany and The Netherlands, co-ordinated by the Danish Technological Institute, Kopenhagen, Kej Olesen
- 5. New intermediate technical commercial skills, a joint study covering France, Scotland and Portugal, co-ordinated by the institut de recherche sur l'economie de l'education, CNRS, Dijon, M. Jean Jaques Paul
- 6. A Utilisation of new information and communication technologies and their effects on new forms of employment and qualifications@, a study covering France, United Kingdom and Luxemburg co-ordinated by INFPC, Luxemburg
- 7. New occupational profiles and their implementation in a given region, a joint study between Italy and Austria, co-ordinated by ISFOL, Rome, Mr. Jean Tagliaferro
- 8. The sector level approach a tool for analysing training and skill needs studies covering two sectors: health care and the printing industry and a number of Member States as well as Latvia