

EDUCATION
TRAINING
YOUTH

Le Magazine

FOR EDUCATION, TRAINING AND YOUTH IN EUROPE

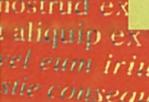
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Education and training for the 21st century

1996 European Year of Lifelong Learning

White Paper
on teaching and learning

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Information technology: devil or saviour?

We are in the midst of a new industrial revolution: that of information technology. We are entering into what has been called the information society and we can fairly confidently predict that the content and organisation of work – and our very way of life – are set to undergo profound changes. Through education we must equip Europe to adapt to these changes.

There are two extremist views of technology to be avoided: it is neither an ogre nor a god.

Multimedia, for instance, is not a magic wand. It can help to revitalise education or act as a teaching aid but, however useful, it is only an instrument. Like any new means of expression it provokes debates, but these should not be turned into theological quarrels. We must make use of new technologies, not idealise them; nor should we underestimate them.

We should use them, first, because of the very real educational opportunities they offer. Second, because we need to prepare young people for a world in which technology will become increasingly important. Finally, we should recognise that these new technological tools are particularly suited to certain sectors of the population, especially young people from the most disadvantaged backgrounds. These young people often have no interest in books and literature but they revel in the world of images. **This is a key issue of equal opportunities.**

Still less is multimedia a teaching machine. However much interaction they allow, the new technologies will never replace the relationship between pupil and teacher, which has proved the best form of interactivity ever since the time of Socrates.

Multimedia does not dispense with the need for hard work, but it introduces new developments for both teachers and pupils.

Teacher training is vital to the successful introduction of multimedia into schools, and we cannot expect teachers to cope with new technology unprepared. Once again, intangible investment – teacher training – is as important as capital investment in computers and software.

Finally, the question of content is, of course, of prime importance. This is an area in which Europe is lagging behind, especially compared to the United States.

It is with this problem in mind that my colleague Martin Bangemann, who is responsible for industry at the Commission, and I created a working group, a 'task force' in Brussels parlance, specialising in multimedia educational software.

This group brings together researchers, manufacturers and users. Its first task was to assess the situation, an exercise which, among other points, has clearly borne out the crucial importance of providing training for teachers in the use of new forms of technology.

On the basis of this assessment, the task force has been looking into means of supporting the design and production of multimedia packages, again on the basis of cooperation between all the parties concerned. Teachers play an essential role in this respect, helping to create products that genuinely meet our educational needs.

This issue is as much cultural as industrial. Not only must Europe defend its interests, it also has an identity to preserve. By pooling our efforts we can meet the challenge of globalisation, which not only affects capital and goods but could lead to a standardisation of ideas and cultures to the detriment of the wealth and diversity of our languages and civilisations. "Europe is a cultural ideal which should be promoted," in the words of French historian Fernand Braudel. That is the real issue.

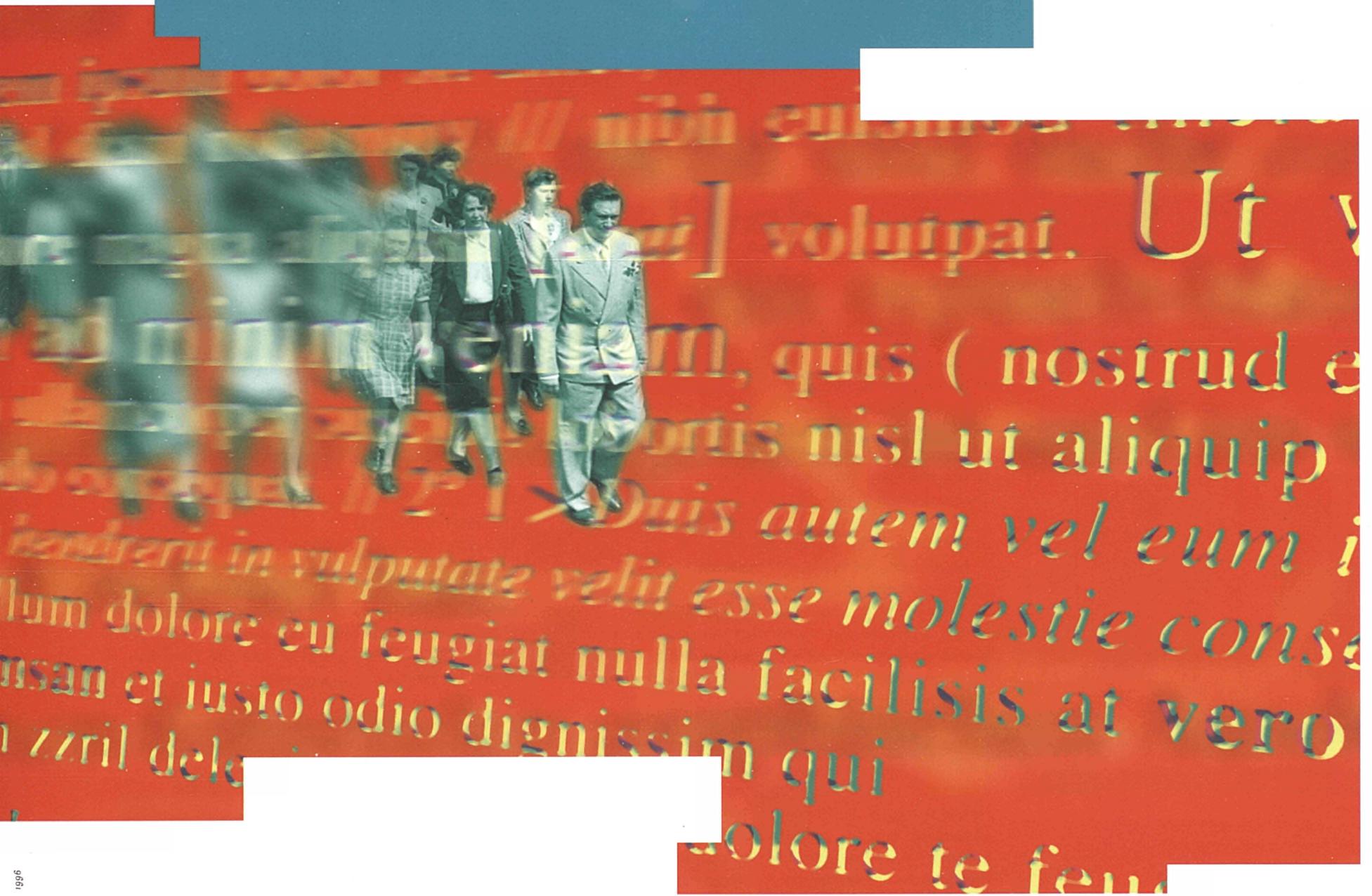
Edith Cresson

Note from the editor

This issue of *Le Magazine* does not have a news section or a special feature – a "dossier" – on a particular topic. Instead we have restructured the contents into five main sections, covering European policies and programmes in education, training, youth, cooperation with non-EU countries, and research and technology development. Their common denominator is investing in intelligence, in the human resources that are the basis for future economic and social development in Europe.

Education and training are increasingly in the news. While strong feelings accompany national debates on these issues, the quieter process of discussion and cooperation at European level seldom makes headlines. *Le Magazine* aims to reflect this process. We begin with the European Commission's White Paper on teaching and learning, followed by an overview of the current European Year of Lifelong Learning.

European Commission White Paper on



education and training

Arguments for a learning society

Opportunities for everyone to gain access to information and knowledge have increased. At the same time, new skills and working methods are needed. The forces of change lead to uncertainty and, for some, to situations of great difficulty. Increasingly, the position of each individual in society will be determined by the knowledge that he or she has been able to acquire. The society of the future will therefore be one that invests in intelligence, based on education and learning, in which individuals can build up their own personal educational profiles; in other words, a learning society.

In this context the Commission has drawn up a White Paper on the initiative of Edith Cresson, Commissioner for research, education and training, and Pádraig Flynn, Commissioner for employment and social affairs, in cooperation with Martin Bangemann, Commissioner for industry, telecommunications and information technology. The White Paper is intended to serve as a document for analysis, reflection and debate. Its main themes are:

Three driving forces of change

First, the White Paper analyses the changes taking place in our societies, in particular three driving forces of change:

- **The information society** is transforming the nature of work and the organisation of production, forcing everyone to adapt not only to new technical tools but also to drastic changes in working conditions:
- **Globalisation** is radically changing the picture of job creation. Having previously been limited to trade and exchanges in goods, technology and finance, globalisation is now blurring the dividing lines between job markets. This makes it essential to raise the general level of qualifications, to prevent widening social division or a deeper sense of general insecurity.
- **Science and technology** are increasingly being developed and applied to production methods. The increasingly sophisticated products that have resulted from this have given rise to a paradox: despite its generally beneficial effects, scientific and technical progress is seen as a threat to society.

Innovative responses

How can we eliminate the anticipated harmful consequences of these three forces of change? The White Paper proposes three types of response.

- **The first** course of action is a **re-evaluation of general culture**. In a society where the individual will have to understand complex situations, there is a risk of a gap opening up between "those who can and those who can't". The fundamental role of a school is to increase its pupils' ability to grasp the significance of things, to understand and to create. This is also the most important way of adapting to changes in the economy or workplace.
- **The second** course consists of **developing work skills**. How can education and training enable the European countries to create long-term jobs in numbers comparable to those destroyed by new technology? Most people follow the conventional route to qualifications via traditional exams. Without questioning this as such, the White Paper proposes linking it to a more open and flexible approach. The information society does not just change the way a business works, it also opens up new horizons for education and training. This increased flexibility in acquiring knowledge provides an opportunity to consider new ways of **recognising skills**, whether these have been acquired by studying for a qualification or through another route.

Courses of action

The learning society will not be created by decree. It will be a continuous process. While in no way claiming to be a substitute for national responsibilities, the White Paper (in its second section) proposes that each course of action should have **five general objectives** and that for each of these objectives, one or more support projects should be set up at Community level:

1. **Encouraging people to broaden their knowledge:** in other words, raising the general level of knowledge. With this aim the Commission invites proposals on new ways of recognising skills, not necessarily in terms of qualifications. At European level the White Paper proposes a new way of accrediting technical and vocational skills.
2. **Strengthening links between schools and companies: developing apprenticeship in Europe.** The White Paper proposes the creation of a network of training establishments in different European countries, assistance for trainee mobility based on the Erasmus model and the establishment of a European apprenticeship, as part of the follow-up to the forthcoming Green Paper on obstacles to the transnational mobility of people in training.
3. **Fighting social exclusion: creating second opportunities through schools.** In big cities and their suburbs, tens of thousands of young people can be shut out from the school system. The aim is to provide high quality educational resources to help them to break out of the exclusion trap.
4. **Fluency in three Community languages: a 'quality label'.** Knowledge of languages is becoming more and more important for getting a job. This is even more true in a single European market without frontiers. But language is also an asset that allows us to interact more easily with other people, to discover different cultures and attitudes and to stimulate our intellectual agility.
5. **Equal treatment for capital investment and investment in training.** We should encourage provisions favouring companies that make particular efforts to provide training; for example, by allowing them to enter some of the money invested for training purposes as intangible assets in their accounts. At the same time, schemes for "training savings plans" should be created to benefit people who want to update their skills or return to education after interrupting their studies.

Of course, the White Paper does not claim to have an answer to all the outstanding questions. Its aim is more modest: to open up a broad debate and, via Member States' education and training policies, to help put Europe on the road to a learning society.



Questions to open up the debate

In adopting the White Paper on education and training, *Teaching and learning: towards the learning society*, the Commission's aim was to open up an in-depth discussion on the current and future place of education and training in social relations. Are we giving too much priority to the economy? What significance is accorded to general culture? Why is the fight against exclusion so important? How can we reconcile the search for common European goals while at the same time recognising diversity? We make a preliminary contribution to this fundamental debate by asking a few questions.

"Education and training should be looked at from the point of view of both social values and economic objectives."

Why a single White Paper on education and training?

It is true that the founding Treaty of the European Community addresses education and training in two separate articles. The White Paper does not, however, constitute a Commission proposal in the legislative sense of the term. Instead it is primarily intended to be a document of ideas and proposals designed to contribute to the debate. From this point of view it is fair to take a joint approach to education and training. This involves asking questions about the function of education in the broad sense, without distinguishing between different fields or systems.

The European Union's systems of education and training have a long history and represent one of the fundamental values on which the very notions of Community and citizenship have been built. This history is an asset, but at the same time we should recognise that these systems must adapt to new challenges, in particular those relating to skills and employment and to the new information society. Undertaking an in-depth analysis of the "function of education" today, as the White Paper does, provides a useful opportunity to take a step back from the day-to-day running of our education and training systems.

Education and training should be looked at from the point of view of both social values and economic objectives. This is fundamental if we genuinely want to invest in people and enable everyone to play an active role in the changes. We need to re-examine the idea of lifelong education and training from the point of view of choosing the type of society we want to build in Europe.

The White Paper has been criticised for putting too much emphasis on purely economic issues. Is that really the case?

The White Paper identifies three driving forces for change in our societies: the globalisation of our economies, the establishment of the information society and the acceleration of the scientific and technical revolution. Some of those involved in education have certainly found themselves out

of step with this approach and fear that the traditional values of our society, such as humanism, culture or citizenship, are taking a back seat. The White Paper, however, clearly stresses the role of the school as an irreplaceable instrument for personal development.

The issues outlined, in fact, closely affect the transformation of our societies. What social model do we want to promote? What place is given to education and training in order to manage the changes? How can we include everyone in these developments? How can we make our societies and education systems easier to govern? How can we create a form of citizenship based on participation rather than simply delegation?

This aim is evident in the choice of the White Paper's title. *Teaching and learning: towards the learning society* reflects the idea that we are in a transitional phase leading to a different type of society, one which as yet is difficult to outline or describe. The expression "learning society" refers to social relations based on knowledge and learning. This position is consistent with the information society, which, as its name implies, gives individuals direct access to information.

We should also draw attention to the part of the White Paper devoted to general culture. As our societies become increasingly complex, the White Paper stresses the need for us to be able to grasp the significance of things and make judgements. Enhancing this "critical sense" is an objective that goes beyond the framework of initial training and one that is worth pursuing throughout life.

Why hasn't the White Paper made a more complete analysis of the changes within the education and training systems?

The White Paper does not ignore the issue of education systems and their necessary development. It takes the position that the only way to really rethink the way these systems work is by starting from a deeper analysis of the function of education. This involves taking a step back from the traditional debates and asking questions about the ways in which our societies facilitate access to, and use, knowledge and learning. In doing so, it proposes very demanding guidelines for the systems themselves, such as access for everyone to general education and new skills, and the elimination of failure in schools.

Of course, every EU country is always looking for better ways to educate and train its citizens. **But failure in school, a lack of qualifications and their effects in terms of marginalisation are a waste of funds and represent a considerable social cost that must be eliminated.** All our fellow citizens, and in particular young people, should be equipped with the



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basic knowledge they need to be able to integrate successfully into the labour market and society as a whole. Failure at school is often at the root of other types of exclusion. It is up to society as a whole to fight against this. The result will help improve social cohesion and economic competitiveness.

It has been said that the approach is too focused on the individual and that the role of qualifications is being called into question. Is this true?

It is true that the idea is being advanced of the individual as a player, builder and architect responsible for building up his own skills. The White Paper reminds us that there are three ways of acquiring skills: knowledge transferred through the formal systems of education and training; skills acquired through work experience; and skills gradually acquired by individuals themselves using the tools of the information society. The current systems are very largely dominated by the first of these three methods. However, because of the ageing of the population, the nature of the skills demanded and the increased importance of information and communication technologies, we are now seeing a move towards the second and third methods. The systems should, therefore, be developed in this direction, particularly through recognition of informal skills.

By proposing this course of action, the White Paper is also opening up the debate on lifelong training as a response or counterbalance to the greater flexibility of the labour and employment market. By providing individuals with the means to build up their own skills and have them formally recognised, we are helping them to cope with jobs for which there are no hard-and-fast job descriptions, and with ways of managing a workforce that demand greater flexibility. The White Paper thus asks the question that will prove vital in the future: about the organisation of the different periods of time devoted to training, skills acquisition and productive labour. In the learning society, teaching must be different but learning itself will also be different. Individuals can take control of when, where and how fast they learn.

The White Paper is arguing for the relevance of a European approach to developing new educational solutions. In what way can Europe contribute that "extra"?

Education and training are at the heart of the debate on European citizenship and this is what distinguishes Europe from the rest of the world. There is a need to gain a better understanding of what the intercultural objective covers, what is implied by the development of a European dimension in educational and training activities, and what constitutes European citizenship. The problem of social cohesion must be linked much more closely to the question of European citizenship.

Education is the basic lever in this construction. This is a difficult context in which we are facing a crisis in terms of the long-term vision of the European project; a crisis which is particularly acute in the area of education.

The relevance of the European level should also be examined in the context of the broader introduction of new educational technologies and their widespread use. **No national market is capable, on its own, of developing a European industry of inventors, designers and manufacturers of educational software.** In this situation, thinking and acting on a European scale is the only solution.

Moreover, in our efforts to achieve cohesion and the existence of common objectives we must not ignore the differences between our education and training systems.

Employment is the main concern in Europe. Does the White Paper suggest any solutions?

Skills and access to new skills are top of the list of factors which may have a positive effect on employment. Employment systems in all advanced countries are changing rapidly. Increasingly higher qualifications are in demand, and they will need to be updated continuously.

Our labour markets are becoming increasingly ruthless in their treatment of unskilled or under-skilled workers. **Having no qualifications means a much higher risk of being unemployed, and of being unemployed for a much longer time.** The White Paper therefore proposes far more active education and training policies.

The Commission is in the process of drawing up a confidence pact on employment. Education and training, together with the question of access to new skills, should form a significant part of this pact.

The capacity of our economies to create new jobs is being challenged by some rival economies. Several factors are working against us, such as the inflexibility of our labour market and our comparatively high labour costs. Developing our abilities, acquiring new skills and improving access to lifelong training could play a positive and decisive role in facing these challenges.

The White Paper is presented as a document of ideas and debates. What does the Commission expect from these debates?

First, as usual for a document of this type, it will give rise to a whole series of recommendations and position statements within the different EU authorities: the Council of Ministers for Education under the Italian Presidency, the European Parliament in September, the Economic and Social Committee and the Committee of the Regions. Various specialist authorities will also express their views, including the Consultative Committee for Vocational Training, the specialist Social Dialogue group and the IRDAC Committee.

These institutional exchanges are not formalities; they should lead to a deeper analysis of the issues in question and the proposed courses of action.

"Failure in school, a lack of qualifications and their effects in terms of marginalisation are a waste of funds and represent a considerable social cost that must be eliminated."

How will the White Paper be followed up?

The follow-up will assume two forms, each as important as the institutional debates:

First, with those working on the ground: the teachers, parents, students and pupils themselves. This is a good opportunity, with 1996 designated the European Year of Lifelong Learning. Numerous debates have been organised during which the issues outlined in the White Paper will be discussed and expanded upon by all the people involved, including the general public;

Second, with the experts; the scientific world, the professionals. Some of the schemes outlined in the White Paper (e.g. the plans discussed in the second part, such as the proposal for a European skills accreditation system or the European network of schools offering a second chance) have to be examined in more detail to outline the conditions for their successful implementation.

"Having no qualifications means a much higher risk of being unemployed and for a much longer time."

With this aim in mind, the Commission is organising five thematic conferences to take place in the second half of 1996, to look at the five objectives set out in the second part of the White Paper. These conferences will provide an opportunity to bring together European experts on the relevant subjects, to compare existing or planned experiments and, with the politicians, to consider what conditions need to be in place to give the proposed projects the best chance of succeeding.

By the end of this year we will have a rich fund of material. This will enable us to make an overall assessment and specify appropriate ways of applying the courses of action outlined in the White Paper.

From 1996, experimental actions will be drawn directly from the White Paper. Why and how?

The White Paper addresses some difficult questions which could lead to opposing or contradictory approaches. The Commission did not want to limit itself to academic or institutional debates. Experimentation is vital in order to test the objectives described in the second part of the White Paper. It is only by devising and implementing innovative solutions that we can judge their relevance and potential for widespread use.

Therefore, within the framework of the Socrates programme for education and the Leonardo programme for training, we will be supporting transnational actions which implement the five approaches outlined by the White Paper.



European Year of Lifelong Learning

Questions

Following a decision by the European Parliament and the Council, 1996 has been designated the European Year of Lifelong Learning. Why this initiative, on the eve of the third millennium? What is it expected to achieve? One thing at least is certain: the debates begun this year touch on fundamental questions and directly affect every citizen.

So why this "European Year of Lifelong Learning"? And why now?

For 20 years or so the Commission has regularly dedicated years to themes of particular interest. But this is the first time education and training have been the subject of an initiative of this kind.

The decision of the European Parliament and the Council is intended, on the eve of the third millennium and throughout the territory of the European Union and the countries of the European Economic Area, to open up a debate at every level - European, national, regional and local - on this concept of lifelong education and training.

The world has entered a transitional phase, in which there is considerable pressure on the structures of society to adapt. The traditional places in which knowledge is passed on - school, the family, the workplace - are finding it increasingly difficult to meet an ever more pressing and diverse demand. At the same time the idea that an individual's life can be divided neatly into three successive phases - education, work and retirement - has become obsolete.

These developments have significant consequences for education and training, in terms of both supply and demand. The debate opened up by the European Year will explore these themes and also help to anticipate future needs and ways in which these needs might be addressed.

This concept of lifelong education and training is not new, but it does seem to be becoming more widespread. What is the reason for this?

Accelerating scientific and technological innovation requires an increasingly rapid and systematic adaptation of knowledge and skills. As the information society becomes a reality, the advances being made in methods of knowledge acquisition are creating new opportunities that can contribute to the personal fulfilment of every individual. This progress must be made available to as many people as possible. We have been talking about it for years. Now it is time for action, Europe-wide.

The current interest in this concept is therefore the result of several factors coming together: the need to meet the diversity of demand for continuing education and training; changes in work structures; the appearance of new types of occupations and new types of learning; and the need to promote greater personal responsibility for the acquisition of knowledge and skills, in order to respond to the diversification of educational needs at every stage of life.

What are the objectives of the European Year?

The European Year of Lifelong Learning has five main objectives:

- to underline the importance of continuing education and training throughout one's life in a world which is undergoing great social and economic upheaval;
- to promote individuals' personal development and sense of initiative, their integration into working life and society, their participation in the process of democratic decision-making and their ability to adapt to economic, technological and social change;
- to introduce Europeans to new knowledge transmission methods, in particular educational software and multimedia;
- to boost education and training programmes set up by the European Union (Leonardo da Vinci, Socrates and Youth for Europe III), particularly in terms of their ability to promote continuing education and training;
- to provide a framework for discussion of the proposals set out in the Commission's White Papers *Growth, Competitiveness and Employment* (December 1993) and *Learning and Teaching: Towards The Learning Society* (November 1995).

So the European Year is not just about education and training...

That's right. The year forms part of a whole series of discussions currently taking place within the Commission and in the Member States.

What do these discussions involve?

They touch on a number of fundamental issues. How should links be forged between education and training systems and the employment market? How should we prepare ourselves for the information society in Europe? What is the best way of taking into account new continuing education and training needs (within companies or for certain sections of the population, such as senior citizens)? How should working hours be reorganised? What effect will this reorganisation have on the lifestyles and working practices of individuals?

Who is this European Year for?

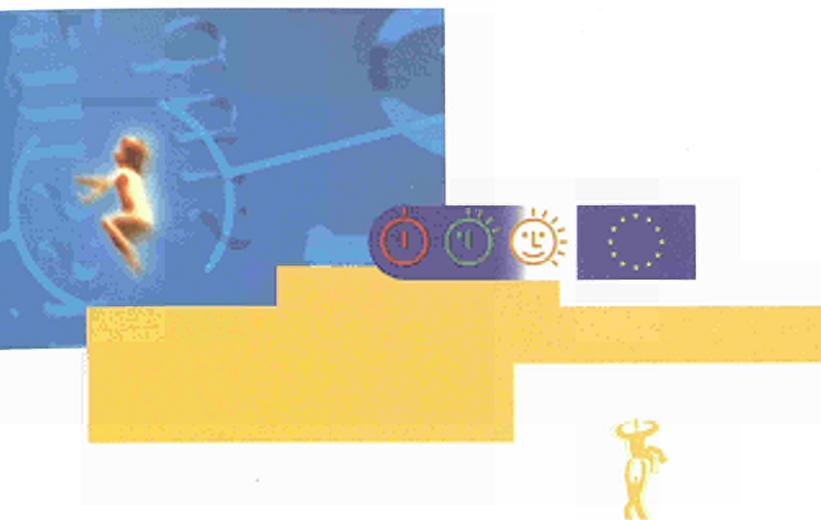
Lifelong education and training affects **every citizen**. So any progress made in terms of access to the opportunities offered in this area, particularly by new knowledge transmission tools, will actively contribute to the promotion of equal opportunities in Europe.

Certain target groups have been identified as being more directly affected by the year's themes: the world of education and training; organisations working with young people, women and the elderly; equal opportunities organisations; small and medium-sized enterprises; public bodies, politicians and opinion-leaders; social partners, local and regional authorities; and organisations catering for the disadvantaged, in particular the unemployed and socially excluded.

During the year, special emphasis will be placed on the exchange of experiences and success stories. Consequently, particular attention will be paid to projects submitted by bodies and associations working in the field. In other words, each citizen is not only affected by this year's themes, but will also have the chance to participate actively in a number of ways.

Who is organising the European Year?

The European Year is being coordinated Europe-wide by Directorate General XXII of the European Commission, which is responsible for education, training and youth work. Meanwhile, each Member State has appointed one or more national coordination units. These national units are respon-



that affect us all

sible for raising awareness of the year's themes; channelling projects nationally, regionally and locally; distributing information; and helping to evaluate and monitor the year as it unfolds at national level.

Other bodies are closely linked to the year's events - in particular, the European Parliament, several Directorates General within the Commission, the Economic and Social Committee and the Committee of the Regions, together with the Council of Europe, the OECD and UNESCO.

How will the year work?

Throughout 1996, events of many different kinds are being held in every country and region of the European Economic Area: conferences, seminars, multimedia development workshops, design and distribution of educational software, fairs and exhibitions, open days, television programmes, competitions and presentation of examples of good practices. In total, around 1,500 events will be held throughout the year.

In addition, a number of pilot projects will be launched to promote access by particular sectors of the population (in particular schoolchildren and their teachers) to the new opportunities offered by technological developments in the field of education and training. For example, a European competition in the field of educational software and multimedia was launched in schools in April 1996.

Further information

European Year and a calendar of events

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or consult the European Year World Wide Web site directly at:
<http://www.cec.lu/en/comm/dg22/eyinet.html>

Lifelong, Europe-wide...

The 1996 European Year involves over 1,500 events taking place in every country of the European Economic Area. *Le Magazine* has space to outline only a few of these projects. To give an idea of their ingenuity and diversity, here are eight examples of initiatives inspired by the European Year.

Rebuilding La Fenice

Some 40 young apprentices from three European towns are helping to rebuild the Venetian theatre of La Fenice.

Le Phare - the employment information unit in Auxerre - and the city of Auxerre set the ball rolling when they decided to join forces to help rebuild La Fenice after a serious fire. In partnership with the towns of Worms in Germany and Redditch in Great Britain, they set up a project that combines restoration work with skills acquisition. The city of Venice has been involved in planning the project from the outset.

This project falls directly within the remit of the European Year. It is a high-profile exercise designed to bring together 40 to 50 young apprentices from the three partner towns. They are learning the specialist disciplines involved in rebuilding this monument: carpentry, masonry, roofing, moulding, tapestry, painting, gilding and cabinet-making. A training centre for Italian apprentices will also be linked to the school site.

Over a period of four to six weeks the young people in this group will benefit greatly from training in their chosen crafts, the exchange of experiences, exposure to a major site and an introduction to Italian.

The site will also be the focus for a series of exchanges which demonstrate both the European dimension of the project and the importance of sharing and updating skills and training in these sectors.

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Portraits of women fighting social exclusion

In Paris, a photographic exhibition is devoted to the training route followed by 10 women who escaped the poverty trap.

A communications company has decided to use photographs to focus on 10 women, aged between 19 and 60, battling against poverty and social exclusion. The women, who all come from disadvantaged neighbourhoods, have embarked on a process of acquiring new knowledge and skills.

The exhibition follows these women as they fight against situations of family, geographical and social exclusion. The women, who come from all kinds of backgrounds, have, each in their own way, learned or re-learned what they needed in order to move on. Some became involved with groups, or followed adult literacy courses. Others aimed to make the most of their domestic skills (for instance, by setting up local ironing services) or created play areas for local children.

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Radio Telefis Eireann: *Live at 3*

An Irish TV programme on learning opportunities for women who work at home.

As part of its *Live at 3* programme the Irish state broadcaster, Radio Telefis Eireann, has chosen to focus on women who successfully combine their lives at home with studying. The programme, which will run throughout 1996, consists of a weekly report 10 to 13 minutes in length. Viewers can phone or write for information on the education opportunities available to them in their region through AONTAS (the National Adult Education Association), which is partnering the operation.

The programme has made a very large impact in Ireland, a country with around 750,000 housewives. The average audience of *Live at 3* has been 300,000 people.

The first programmes showed that, for women who had followed a particular education and training route, life as a housewife – a role that they would not or could not give up – had become more satisfying.

The programme revealed that the initiative taken by these women arose more from a desire for personal development and fulfilment than a need for vocational training.

It also highlighted the obstacles that lie in the way of such personal education projects. The problems mostly centred on psychological barriers, lack of information, few child-care options and the difficulty of accessing educational structures.

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Ligérius, a lifetime of learning

Two rural regions of France and Italy are joining forces...

As part of the European Year, the regions of the Pays de la Loire (France) and Emilia-Romagna (Italy) have come together to run the *Ligérius* project.

Ligérius aims to discover and publicise significant actions and experiences in the field of lifelong education and training as they apply to rural life, which is of key importance in these two regions.

Four major themes will be covered: "individual initiative", "networks and the collective approach", "learning to be and to do", and "distance no object".

The project involves two phases. The first involves the organisation of a regional competition open to projects that relate to one of the four themes and apply to rural communities (10 prize winners per region). After the competition a closing event is being planned for the Pays de la Loire region.

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Wester Hailes - a learning centre for all ages

A Scottish school provides 'comprehensive' education in a different sense.

During her visit to the UK in February for the launch of the European Year in Edinburgh, European Commissioner Edith Cresson visited a Scottish community school which really puts the concept of lifelong learning into practice under one roof.

Wester Hailes Education Centre (WHEC), to the west of Edinburgh, is a college serving the needs of every age group, from the under-fives to the most senior members of the population. It acts as an education centre for adults, a secondary school, and a sports and leisure centre for the whole community.

At WHEC adults can take advantage of a range of courses catering for every need. Starter courses such as *Second Chance to Learn* or *Study Skills* help adults, often without any previous qualifications, to return to education. Wester Hailes also offers courses for senior citizens. A successful art club for the over-50s has been up and running for several years, offering the elderly a chance to meet people of their own age whilst learning a new skill or hobby.

Returning to education can be daunting for people whose previous experience of teaching was negative, so Wester Hailes is careful to create a friendly atmosphere and provide real support for the adults it welcomes to the centre.

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Multimedia in the classroom Schoolchildren in Espoo, Finland are taking part in a pilot multimedia learning programme.

Sixteen students at the Mankaa School, a pioneering institute in Espoo, Finland, have chosen virtual reality as their preferred teaching method. The pupils, whose ages range from 13 to 16, have elected to spend a year studying the normal curriculum through the everyday use of modern communications systems.

The students make extensive use of computers, telephones, CD-Rom, fax and e-mail to communicate with their teachers, hand in homework, ask for help, work with other pupils and exchange information with contacts on other continents.

This teaching programme is closely monitored by teachers and parents, who have been an integral part of this initiative.

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Learning at the "local" in Leeds Leeds in the UK is a city where going to the pub can improve your general knowledge and even earn you a new qualification.

"Inn-Tuition", as this highly original initiative is known, is the work of Airedale and Wharfedale College of Further Education,

in collaboration with the brewers Joshua Tetley & Son. Its aim is to take education to the parts it cannot normally reach.

The project is designed for people who would not normally attend evening classes or other courses, but who are still interested in learning a subject. It is based on the principle that people will find it easier and pleasanter to learn in the local pub.

Early in 1995, the college carried out a survey to discover whether or not there was a real need for "Inn-Tuition". A questionnaire sent to six inner-city Leeds pubs showed that 40% of respondents had not followed any courses in the last five years, 21% had not done so since leaving school, and 56% found the idea of lessons in pubs to be an "excellent" one.

The pilot project met with such success that it has been expanded, and other organisations are now becoming involved in and around Leeds.

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Go shopping for a job... An unusual shopping experiment is under way in three Danish towns.

"Learning Boutiques" are eye-catching advice centres that serve the needs of people in Horsens, Aarhus and Frederikshavn, three medium-sized towns in Jutland, Denmark.

A learning boutique brings together on one site several different training and advice agencies, including adult education and vocational training organisations, businesses and job centres. The boutiques thus provide people with easy access to all the information resources they require. One objective of this initiative is to help socially excluded and poorly qualified young people by promoting the idea of lifelong learning.

As part of the European Year of Lifelong Learning, a film on the work of the learning boutiques will be produced and distributed to all interested bodies in order to promote the development of similar initiatives in other regions or countries of Europe.

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Put yourself to the test

The European skills validation and accreditation project

The skills level of the workforce is an essential factor in the competitiveness of the European economy. Therefore, every possible means that allow skills to be upgraded and highlighted should be implemented. The Commission's White Paper on education and training emphasises the need to encourage individuals to acquire new knowledge throughout their lives (general objective no 1). The desire to learn will be all the greater if what is achieved can be easily recognised. Any person with a particular skill should be able, if they so wish, to have it evaluated and validated, however it was acquired. This is the objective of the skills accreditation programme launched by the Commission.

Rewarding the training effort

In most Member States, skills are primarily validated by means of certificates, giving a recognised vocational qualification. This system is clearly irreplaceable, but should it remain the only way in which society recognises skills? The nature of employment is changing, the labour market is growing more flexible and opportunities to acquire skills and know-how are increasing. Against this background, a flexible complementary system of validation is all the more desirable.

The aim of the project, which is to be the starting-point for more general development, is to put in place accessible, permanent accreditation systems that allow knowledge to be validated, however it was acquired. Credit will be given for the training effort, meaning that everyone will see an immediate return on their investment in learning.

A personal skills card?

The ultimate goal is to create a European system of skills accreditation throughout the Union within a few years. This should allow individuals to have their knowledge and know-how validated on a *personal skills card*. For this to be feasible, a number of core areas of vocational knowledge and key skills need to be identified. These areas of knowledge will be broken down into clear elementary units graded on a scale basis. It should thus be possible to validate knowledge from the most elementary level to the highest.

An open-ended list

The list of areas of knowledge and skills which could form the basis of a European test is an open-ended one. However, it would seem that two conditions need to be met to make it possible to evaluate and validate knowledge satisfactorily: the subject must be relatively standardised (no major controversy over different approaches), and it must have little scope for national or cultural subjectivity.

Will it soon be possible to check and validate, in a flexible way and on your own terms, your own level of knowledge and experience? This is, in any case, the objective set by the Commission with its European accreditation project. The idea is not to replace the traditional system of paper qualifications, but to develop more flexible, complementary means of accrediting skills. This type of system could do a lot to help the employment prospects of every individual.

A number of standardised areas of knowledge that can be broken down into several levels and are relevant to the needs of the labour market have already been identified: core knowledge (mathematics, sciences, computing, geography, written expression, languages); vocational knowledge (marketing, management and other skills identified within the service sector and industry); and finally, key skills (logistics, organisational skills, communications, decision-making, risk assessment and risk management, negotiating skills and, more generally, interpersonal skills).

Software: the soundest approach

Such an innovative and flexible system for validating knowledge and skills must be reliable, readily accessible and user-friendly. Consequently, the choice of validation using software seems to be the soundest approach. Only a neutral software package, however fine its assessment capability may be, can guarantee total objectivity in evaluation and validation.

For skills that can be evaluated only by observing the individual in action rather than by means of software, one possibility is to set up an evaluation and validation monitoring system. This is a complex question requiring detailed discussion.

Accessibility of tests

The use of on-line technology will demonstrate the flexibility of the testing process and guarantee the widest possible accessibility (e.g. an Internet connection should be sufficient). An individual might even be able to take the test in the comfort of his or her own home. Of course, in order to safeguard the value of the validation and equality among those taking the test, it will be necessary to implement a system of regular sessions to check candidates' identity and ensure that the test is being conducted properly. The sessions could be held in a wide range of different locations.

All of those interested in the project will be invited to participate as fully as possible: universities, learned societies, professional sectors, chambers of commerce, etc. It will involve those wishing to contribute their own expertise to the success of this initiative in discussion on the content of units of knowledge, development of the accreditation methodology, distribution of tests, and so on.

A European approach...

This European project will, by definition, have a transnational impact. It will be necessary to develop an approach that is acceptable to all the Member States so that the personal card is sufficiently well-known, enabling an individual to cross borders and make full use of his skills anywhere in Europe.

It will not simply be a question of devising a single European test for each unit of knowledge or skill, because the actual content of an area of knowledge can vary from one Member State to another. German accountancy may differ from Irish accountancy! It will, therefore, be possible to validate a skill in any language, while its content will be adapted to the circumstances of each country. However, subject permitting, it will be possible to validate genuinely European skill units in an identical way (in mathematics, foreign languages or word processing, for example).

The European dimension will take two forms. First, the methodology used will be the same throughout Europe and, second, each individual will have the option of taking any test in any language.

...which respects the subsidiarity principle

This system is not designed to replace existing diplomas or certificates. Nor is the intention to create Community Certificates. Governed by the principle of subsidiarity, the European Community's role is to support and complement the activities of the Member States, fully respecting the content and organisation of their individual education and vocational training systems.

The aim is, rather, to encourage the development and expansion of innovative methods of validating skills, to provide a platform on which the European learning society is able to develop fully. These instruments are also designed to find a natural role as fixed reference points in the progressive stages of training and work.

A series of initiatives will be undertaken in the coming months, and the various aspects of the system will be studied in depth. A wide-ranging discussion between all those concerned by the project will be launched. The social partners will also be widely involved in setting up the system.

Nine countries in summary

An overview of the main recent reforms in nine European countries provided by Eurydice, the European education information network. Vocational training, secondary, higher, primary and even nursery education are all involved in the far-reaching changes sweeping through the education systems in most European countries.

Germany

Special programme for the *Hochschule*

The Federal Government and the *Länder* are negotiating a new joint special higher education programme which aims to change the internal structures of the *Hochschulen* (higher education institutions) and to promote innovation in them and in research. The special higher education programme will incorporate measures found in previous programmes, developing them further to improve quality and enabling them to contribute to the continuing implementation of the necessary structural reforms in higher education, help maintain capacities for innovation and competitiveness, and increase the proportion of women working in research and teaching.

The programme seeks, in particular, to promote measures aiming to:

- improve higher education structures, e.g. through post-graduate colleges;
- improve teaching quality, use multimedia, improve student counselling and introduce measures to accelerate the transfer of innovatory practices between university and industry;
- continue the development of the *Fachhochschule* sector (technical universities);
- strengthen European and international cooperation, e.g. through foreign study grants and visiting lecturers;
- promote young academic talent, e.g. by supporting doctoral and post-doctoral level work (*Promotion* and *Habilitation*) and early appointments;
- promote academic careers for women.

Greece

Evaluation of the quality of higher education

A pilot programme to evaluate the quality of higher education is now drawing to a close. Sections of both types of higher education institutions (AEI and TEI) took part on a voluntary basis. The result will serve as a basis for evaluating all higher education institutions in Greece.

A special department of the National Council of Education (ESYP) will coordinate the evaluation procedures.

A number of important provisions have been introduced, including:

- a bill on the status of academic staff in higher education;
- proposals put forward by the Ministry of Education and Religious Affairs regarding the new legislative framework governing the operation of these institutions;
- proposals regarding access to a large number of works (theses);
- reform of the system of student support (currently under review by the relevant ministries);
- a proposal of the Ministry of Education and Religious Affairs in relation to the national secondary school leaving certificate (*Apolyttrio*), which would alter the higher education admission procedures;
- institutionalization of the National Council of Education (ESYP) and its operations;
- the proposals of the AEI and TEI concerning libraries, networks, practical exercises and liaison offices with the working world;
- establishment of a national budget for higher education.

This completes the thorough reform of higher education in Greece.

Luxembourg

Preparation of a bill on higher education

Luxembourg's education system has been undergoing a number of structural and institutional reforms since 1989.

Currently, the Ministry of Education is planning to complete these basic reforms with a new bill on the reform of higher education; this will be submitted to the Chamber of Deputies shortly.

This proposed legislation on higher education has three main objectives:

- The legislation outlines the framework for public higher education in Luxembourg and defines the missions of the four higher education institutions.
- The legislation gives new status to the *Centre universitaire* and the *Institut supérieur de technologie*. These two institutions will acquire legal personality and, although they will remain under the control of the Ministry of Education, will

enjoy autonomy in administrative, financial, educational and scientific matters.

- The legislation redefines the missions of these two institutions.

The bill does not propose to establish a full university, but rather to facilitate inter-university cooperation in the "Grande Région" (which includes the province of Luxembourg in Belgium, the Rhineland-Palatinate and the Saarland in Germany and Lorraine in France).

As regards the *Institut supérieur de technologie*, the draft legislation aims to extend the duration of studies from three to four years as well as to inaugurate a final diploma in industrial engineering.

Netherlands

Wide-ranging debate on "Knowledge for tomorrow"

At the end of March 1996, Mr Ritzen, the Dutch Minister for Education, Culture and Sciences, launched a debate on the topic "Knowledge for tomorrow". This is a public debate, initiated by the education, science and culture authorities on the role knowledge will play in society in the new millennium.

All Dutch citizens have been given one year to submit their opinions on the subject, using classic media as well as more recent technologies such as the Internet.

Before the debate started, an opinion poll was carried out among "typical" Dutch people, and six well-known Dutch figures were asked to write articles on the role of knowledge in society.

This debate will end on 17 March 1997.

Finland

Major reforms in the immediate future

The AMK institutions

The most significant reform in the Finnish education structure in the 1990s is the founding of the AMK institutions. These institutions of vocational higher education can be seen as a Finnish version of the German *Fachhochschulen* or the Dutch *HBO instituten*. The aim is to have around 30 multi-disciplinary AMK institutions by the turn of the millennium. The AMK institutions offer high

quality education oriented towards working life in the technical and commercial fields as well as in most fields of the service sector and primary production. The AMK-degree will be a three or four year higher education degree in accordance with the European higher education standard (bac+3).

The AMK institutions will not all be new. Approximately 150 of the present vocational institutions or parts of them will be formed into new, high quality units by raising the level of education and the quality of activities.

Education legislation

Finland intends to reform its legislation on education. The reform will cover all levels of education from nursery to higher education. Central issues will be included in a small number of acts drafted on the basis of uniform principles. The number of issues covered by this legislation will be considerably reduced. The objective is, on the one hand, to transfer more responsibility from the state to the municipalities and other providers of education and, on the other hand, to give pupils and students more freedom of choice within the educational institutions.

Proposals for the new legislation, made by a committee consisting of representatives of all the major parties, were published in April 1996. The government aims to present the reforms to parliament next autumn. The new legislation will come into force in autumn 1997 at the earliest.

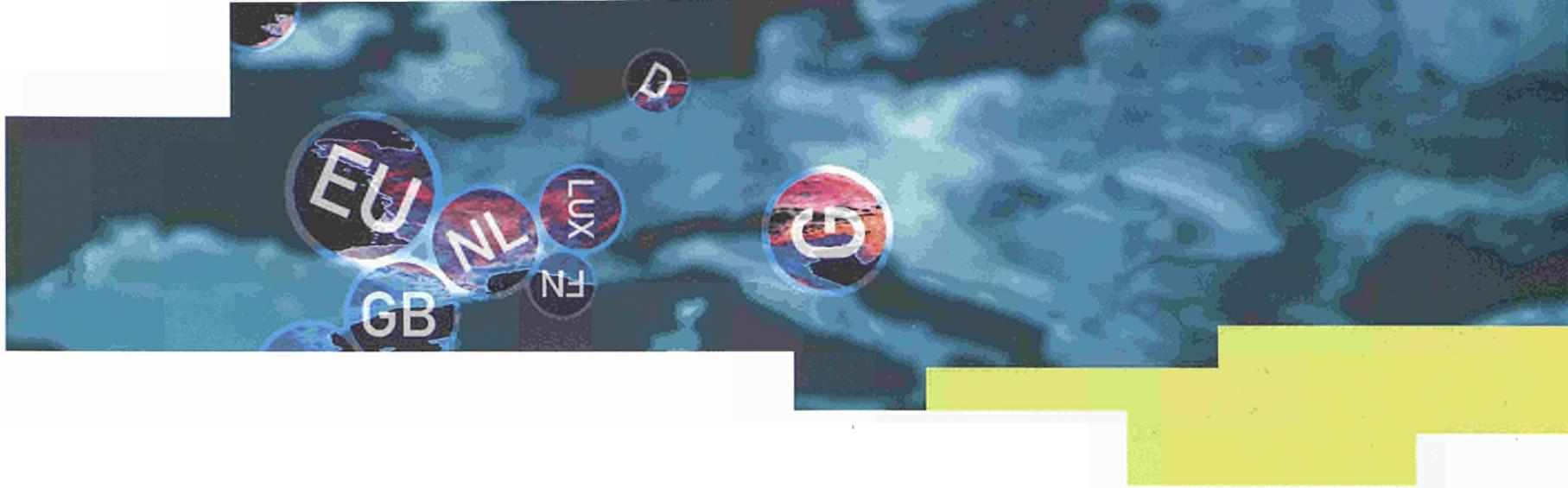
At the same time, the government is reforming the relationships between the state and the municipalities so that the system of partial state funding will be simplified and the municipalities will be given more freedom.

Sweden

Major changes under way

During the 1990s, major parts of the Swedish education system have been reformed, i.e. the compulsory school, the upper secondary school and the higher education system.

The alterations to the legislative framework for the school system have involved fundamental changes in the control and organisation of the schools, as well as in the conditions under which individual schools



operate. In 1993, new guidelines for the whole school system were adopted by Parliament. The guidelines were geared to a new objective- and result-related system of school management, which meant extensive changes in the curriculum, syllabi and timetables as well as in the marking system, which are still in course of implementation.

In **compulsory education (7-16)** the new system will be fully implemented as from the 1997/98 school year. The new curriculum sets out the basic values of the school and its tasks and provides objectives and guidelines for the school.

In the reformed **upper secondary education (16-19)**, fully implemented in the school year 1995/96, all education is organised in terms of 16 different national curricula. These all take three years and all include the same eight core subjects – Swedish, English, social studies, religious studies, mathematics, science, sport and health, and artistic activities.

In addition to these core subjects, pupils study subjects specific to a programme.

Pupils who have requirements other than those provided for within the national curricula can opt to follow a specially designed programme, an individual programme or an apprenticeship training programme.

United Kingdom

England and Wales

Pre-school education

Finance In July 1995, the government announced an initiative to provide a pre-school education place for every four-year-old in the country whose parents wish it. Parents will be able to exchange vouchers for up to three terms of nursery education in participating nursery institutions in the state, voluntary and private sectors.

Curriculum After extensive consultation, the School Curriculum and Assessment Authority (SCAA) has published its report *Nursery Education: Desirable Outcomes for Children's Learning on Entering Compulsory Education*. The report emphasises the importance of developing early literacy, numeracy and personal and social skills in pre-school children.

Further education

Educational qualifications for 16- to 19-year-olds

The Secretary of State for Education and Employment has announced action to clarify and strengthen the qualifications framework for this group. In addition to improvements in the existing Advanced Level, General National Vocational and National Vocational Qualifications, new national certificates, including a demanding National Diploma, will be introduced. There will also be opportunities to develop the core skills of literacy, numeracy and information technology in the academic, applied and vocational qualification routes. It is intended that the new framework should be substantially in place by September 1997.

Higher education

In February 1996, a committee chaired by Sir Ron Dearing was commissioned by the Secretary of State for Education and Employment to make recommendations on how the shape, structure, size and funding of higher education should develop to meet the needs of the UK over the next two decades. The committee will report by summer 1997.

Northern Ireland

Further education

It is planned to remove further education colleges from the control of the Education and Library Boards, to establish them as corporate bodies, each of which will own its premises and employ its staff, and to plan and fund further education on a Province-wide basis.

Scotland

Modular courses below level of Highers

For 100 years, the Higher Grade examinations in Scotland have been the final school assessment for the majority of pupils staying on past the compulsory education period. They have been the benchmark for both higher education and the labour market. However, events in education have highlighted weaknesses in the structure of the Higher Grade examinations, and reforms are now in progress.

A key aspect of the reform is the development of modular courses at levels below Higher for those for whom Highers at age 17 would be too demanding. Students may select their own free-standing programme of courses and units. However, they may opt to follow particular combinations of courses and units which comprise National Certificates. These will be available at varying levels of difficulty to provide a ladder of progression for all.

The Higher Still reforms attempt to maintain the strengths of the current system, including the traditional breadth of the Scottish curriculum, while allowing for a wider range of abilities in the pupil population. The changes are structural in nature, intended to unify the vocational and academic features of the curriculum and to set relevant attainment targets. To this end, a unified Scottish Qualifications Authority is being created.

Iceland

New law on compulsory education

The greatest change in the new law on compulsory education passed by the Althing in 1995 is that as of 1 August 1996, local municipalities are to take over and finance instruction, administration, and specialist services at this school level. The state will finance the publication of educational materials and continue to monitor compliance with educational laws and ordinances. Part of the new legislation came into force in 1995.

The new law provides that, from 1995, the state will be in charge of nationally co-ordinated examinations in core subjects in years 4 and 7, and is to issue standardised proficiency examinations and be responsible for assessing individual schools and the educational work that is carried out there to ensure that all such activities comply with existing laws and the National Curriculum Guidelines.

A bill on upper secondary education

A bill on upper secondary education was laid before the Althing in autumn 1995. This bill provides, among other things, for varied admission requirements to different branches of study at this level, according to the demands made by the branch of study in question. However, all pupils will have the

right to education at this school level. According to the bill, the academic branches of study leading to the matriculation examination are to be cut from six to three, but there will be possibilities for specialisation within each branch of study.

Provisions concerning the national curriculum guidelines in the bill stipulate, among other things, that the guidelines are to define the aims of individual subjects and branches of study. Furthermore, there will also be guidelines for school working guides and for assessment of school work.

The bill provides means for increased emphasis on vocational training at upper secondary level and for greater influence of unions and the labour market in the organisation and execution of vocational training.

Liechtenstein

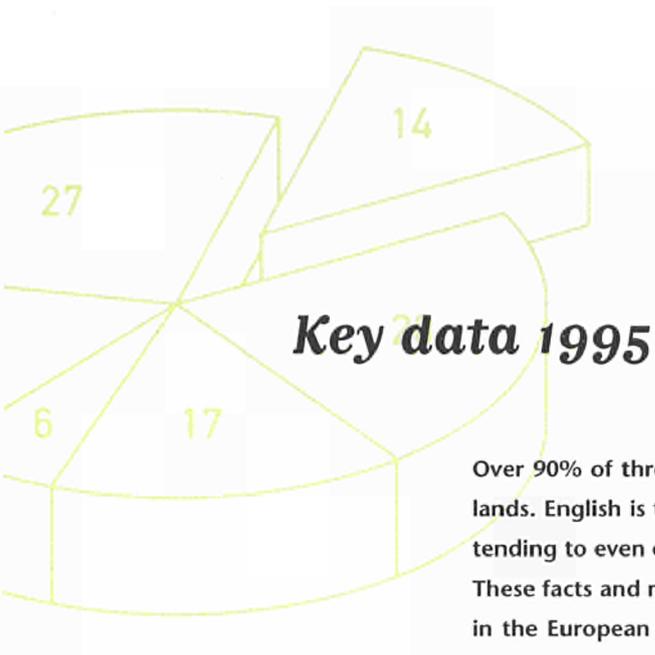
New programme for teaching English in primary schools

This year, Liechtenstein is launching a new English language teaching scheme in primary schools. It is intended to start with nine-year-olds in the third year. Language learning will also be linked to subject teaching. This decision to choose English was not easy, as Liechtenstein's first foreign language has always been French.

Pupil assessment in primary schools

This school year sees the introduction of new methods of pupil assessment at all levels of the primary school. Marks in the traditional form will be replaced by pupil assessment based on learning objectives. Account is taken of the learning objectives in various subjects and of the pupil's work and social behaviour.

The above contributions have been provided by the respective National Units in the Eurydice network.



Key data on education in the European Union, 1995 is on sale at the Office for Official Publications of the European Communities in Luxembourg and its national sales points (price: ECU 25).

This report is being published in the 11 official languages.

Over 90% of three-year-olds go to school in Belgium, France and Italy; less than 2% in Ireland, Luxembourg and the Netherlands. English is the most taught language in primary schools. Salary differences between primary and secondary teachers are tending to even out. More than half the school teachers in the EU are over 40 years old.

These facts and many more can be found in *Key data on education 1995*, a detailed and original report on the state of education in the European Union. This report, recently published by DG XXII as part of the Socrates programme, has been edited and coordinated by the Eurydice European Unit in close collaboration with Eurostat.

A close-up of education

The number of students attending higher education has practically doubled in 15 years within the European Union

With the publication of *Key data on education*, the European Union marks an important stage in the comparative analysis of the education systems and their development. Its aim is the regular production of data at the service of the public debate going on in the various bodies involved in education in Europe, in response to the increasing needs of policy-makers and all those working in the field of education. The emergence of an open education and training area at European level in a context marked by great diversity in the education systems has increased the need for more in-depth knowledge of the organisation and functioning of the education systems and for reliable comparative data to shed light on the educational stakes confronting Europe.

The 1995 edition of *Key data* is simultaneously a continuation, an updating and an extension of the information contained in the first publication in 1994. Data on the three new Member States (Austria, Finland and Sweden) are included, a number of gaps have been filled and the statistics this time are in relation to 1993 as the base year. New indicators have been added, for example, on youth unemployment, levels of decision-making in relation to the allocation of budgets and their use at school level, and a comparison of the rates of attendance of three-year-olds at nursery institutions with the percentages of mothers in paid work.

A wide range of indicators linking qualitative and quantitative aspects

The first point that should be mentioned is the original feature of this document compared with other publications available on education indicators. Its entire structure is based on a combination of statistics and a wealth of qualitative data on the patterns of organisation of the education systems. *Key data* combines the rigour of data covering a very wide range of indicators with accessibility to the widest possible readership through a lively presentation which facili-

tates consultation. It includes numerous graphical illustrations alternating with comment highlighting the essential elements which emerge from the data and comparisons. All technical and explanatory notes contributing to the reader's understanding appear immediately below the graphs. In each chapter, the document thus provides readers with the clarification required to understand the wide variety of situations and to enable them to arrive at an appropriately nuanced interpretation of the data presented.

In each of the chapters dealing with a specific level of education, the topics dealt with are quite varied. Apart from the detailed descriptions of the school structures, which are presented on a comparative basis, the reader will find information on annual teaching time and the relative importance given to the compulsory subjects taught at each stage of the school career.

The provision made for teaching foreign languages from the primary school level is set out in a diagram illustrating both the ages at which pupils start such courses and whether these are compulsory or optional. It transpires that a major effort is being made by almost all Member States in this respect. Only Irish pupils do not have the opportunity of learning a foreign language at primary school, even on an experimental basis. The quantitative data confirm that English is the most taught foreign language practically everywhere in the EU.

Amongst the various forms of financial assistance available to students in higher education, the award of a grant is the most common. In a majority of the Member States, eligibility for a grant is related to the student's financial situation and the income ceilings above which no grants are awarded vary from country to country. This explains the differences observed in the percentages of students who receive grants. The cases of the Netherlands and Denmark are particularly noteworthy, as all students can obtain state financing in these countries.

Indicators highlighting regional as well as national disparities

As far as possible, data are given for the regional level, which is often more indicative of economic, social and cultural differences. The information available at the NUTS 1 level (standardised nomenclature of territorial units for statistical purposes) shows that there are inequalities, which are obscured in the statistics at national level, between certain regions in relation to access to education.

It also emerges that on average 15% of all those in education in the European Union are in higher education. The proportions vary between 11 and 18% according to the Member State and analysis at regional level indicates even greater divergences.

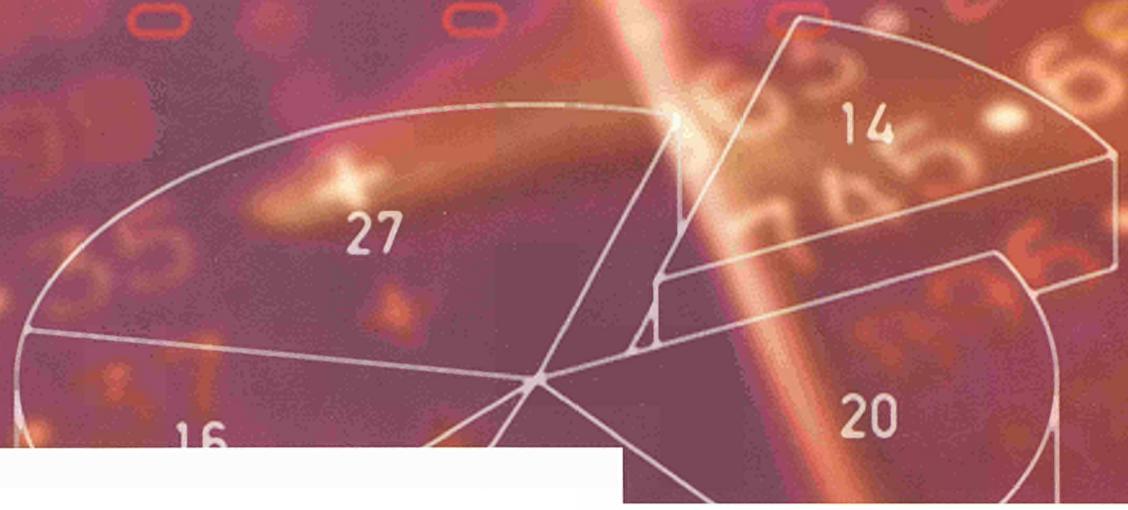
As regards the provision for three-year-olds in education-oriented nursery institutions, Belgium, France and Italy are the bastions of nursery school attendance at age 3. It also appears that the greatest variation between regions is found in countries where national attendance rates fall below 50%. In Spain, the south has 16% of children attending at this age while the north-east has 82%. In Germany, the high rate of nursery attendance is particularly evident in the new *Länder* and contrasts with the low rates in the regions of Bavaria (28%) and North Rhine-Westphalia (20%), for example. In Austria, 15% of children aged 3 attend a *Kindergarten* in the south while the corresponding figure for the east region is 46%.

A picture of the development of the education systems over a quarter of a century

Time series have been added to provide the dynamic dimension needed for the analysis of trends and to ensure fuller understanding of the development of the systems. From a reading of the information on some of the indicators in their historical context, the following points appear.



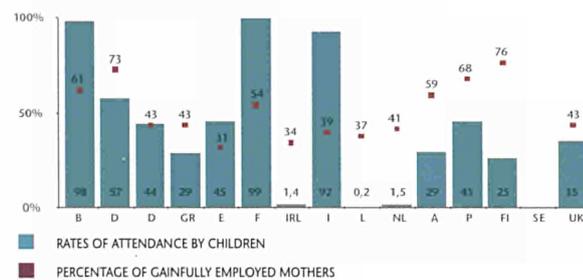
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in the European Union

- Overall, the participation of girls in secondary education has shown a slight increase in the last 20 years. Finland differs from the other Member States, having greater numbers of girls than boys since the beginning of the time series. In addition, the graphs illustrating the breakdown between upper secondary general and vocational education demonstrate clearly that the participation of girls in general education today is still very much higher than in vocational education, with the exception of three countries, Spain, Portugal and the United Kingdom.
- Women are increasingly numerous in higher education. Some 25 years ago, women were not in a majority in higher education in any Member State. At the present time, their participation is still generally lower than that of men but there are some countries in which the proportions have been reversed (Denmark, Spain, France, Portugal, Finland and Sweden).

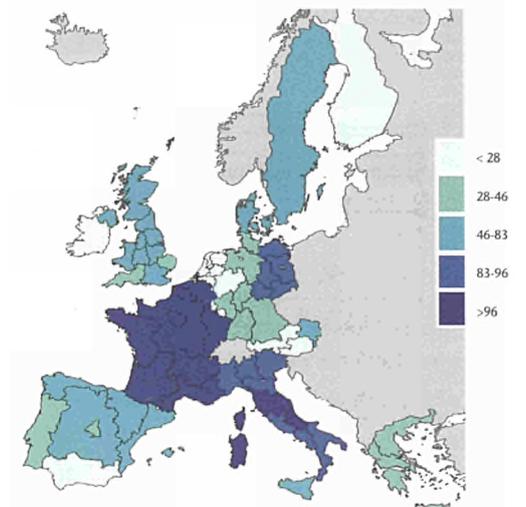
Percentage of gainfully employed mothers of 3-year-olds and attendance of 3-year-olds at education-oriented pre-school establishments, 1992/93



Source: Eurostat labour force survey, 1993.

Greece: The percentage attendance at pre-school establishments includes children aged 3 to 4 1/2 years. - Ireland: Data refer to private primary schools only. - Austria and Finland: The data are taken from national studies. They are not taken into account in calculating the European average. - Sweden: Data not available.

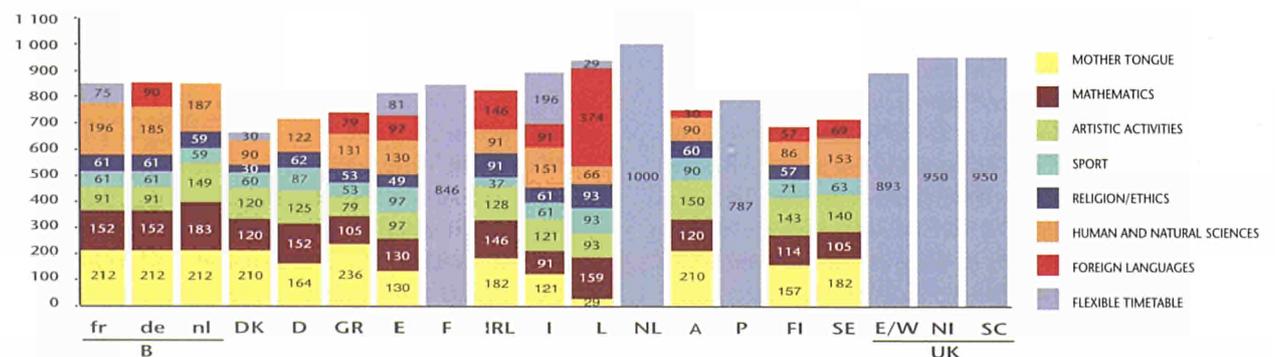
Pre-school attendance rates at 3 years of age, by NUTS 1 region, 1992/93



Source: Eurostat

Greece: The statistics group together children between 3 and 4 years old. The population figures by region have had to be estimated. The only information available is the number of children by region and by age band (0-4 and 5-9 years). The method used to estimate numbers by region was as follows: the number of 3-year-olds + half the number of 4-year-olds (155 950) was multiplied by the ratio of 0- to 4-year-olds in a region to 0- to 4-year-olds in Greece. - Ireland: Data refer to private primary schools only. - Italy: Figures are available only in relation to the public sector. Estimated rates have been arrived at on the basis of the breakdown of public and private sector schools by region. - Finland: The available data relate only to the situation on the Finnish mainland. - United Kingdom: The statistics available include 3- and 4-year-olds together in all regions.

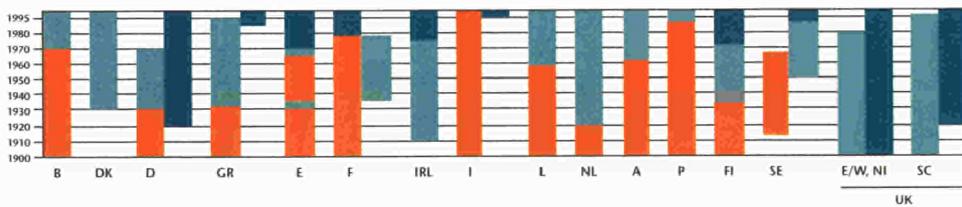
Annual hours of teaching of each subject during the course of primary education (around age 9), 1994/95



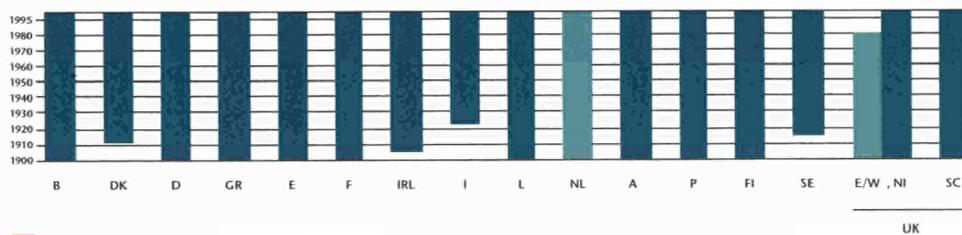
Source: Eurydice.

Germany: The situation varies according to the Land. Nine-year-olds have the opportunity to learn a foreign language as a separate subject in only two Länder. In the other Länder, language learning is integrated with other subjects. - France: Subjects are divided into three categories; there is flexibility of timetabling within these fixed categories. - Italy: This is the minimum; the final allocation of time is decided by the teachers. - Finland: Figures are approximations as there are differences between schools. Calculations are based on a 24-hour week.

Changes in the course of the century in the education level at which initial training has been provided for primary school teachers



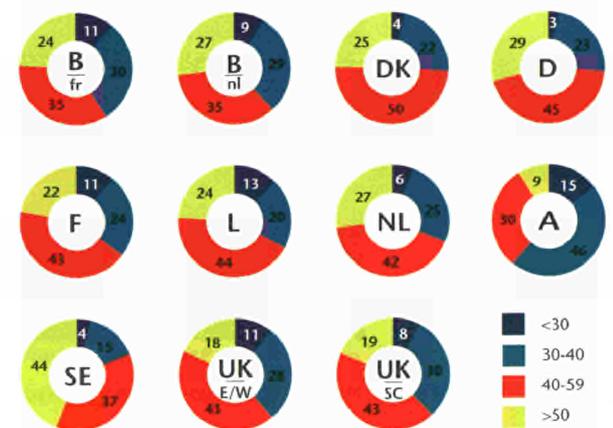
Changes in the course of the century in the education level at which initial training has been provided for upper secondary school teachers



■ NON-HIGHER EDUCATION
■ NON-UNIVERSITY HIGHER EDUCATION
■ UNIVERSITY EDUCATION

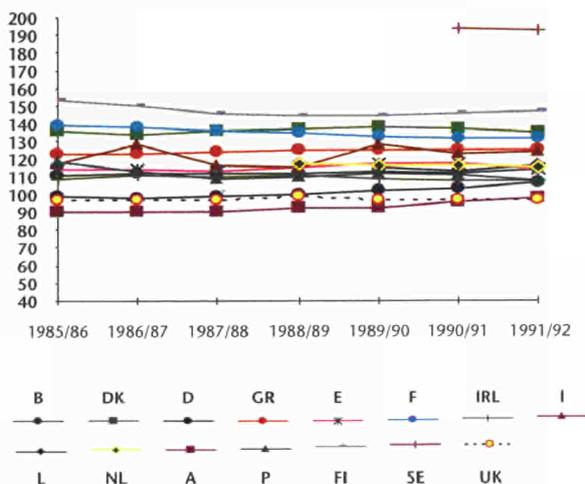
Source: Eurydice.
 Germany: The graph shows the development in the old Länder.
 Portugal: The first graph illustrates the changes in the training of primary teachers for the current first four years of Ensino b-sico.

Distribution of secondary teachers by age band, public and private sectors combined, 1992/93

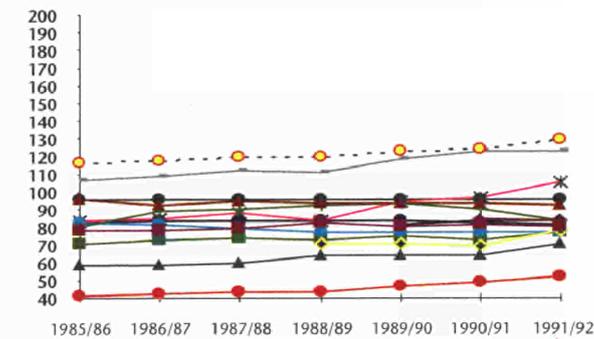


Source: Eurydice.
 Greece, Spain, Portugal and Finland: Data for 1992/93 not available.
 Ireland: Data for 1992/93 not available for secondary level.

Changes in the numbers of girls per 100 boys in upper secondary general education (ISCED 3), 1985-91

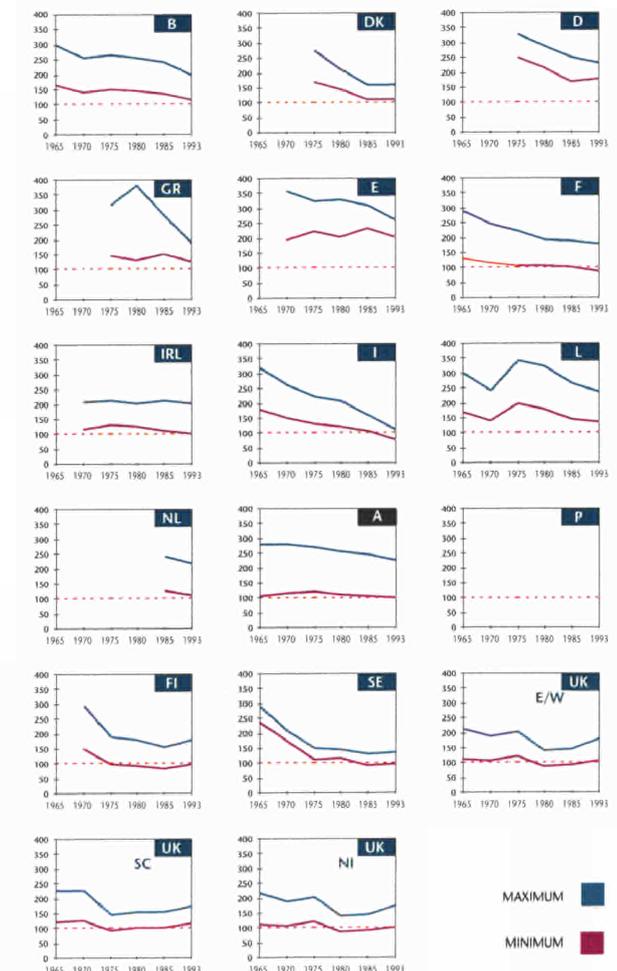


Changes in the numbers of girls per 100 boys in upper secondary vocational education (ISCED 3), 1985-91



Source: Eurostat.
 Germany: The data refer to the Federal Republic of Germany before 3 October 1990.
 United Kingdom (E/W and NI): There is no separate upper secondary vocational education. This represents post-compulsory vocational education.

Movement of maximum and minimum salaries (all levels of education combined) relative to per capita GDP, 1965-93



Source: Eurostat, OCDE.
 Belgium: In 1989, teachers' salaries, which had hitherto been a national responsibility, became a 'Community' responsibility. Consequently, the salaries for 1993 are the average of the 'Community' salaries. - Germany: The salaries covered here are those in the old Länder. The gross salaries of teachers (government civil servants practising in state schools) were not harmonized across all the Länder until 1971. - Netherlands: Until 1985, the system of remuneration of teachers was age-related and included a considerable number of salary scales depending on the qualification held. - Portugal: Data not available. - United Kingdom: A considerable number of teachers have specific responsibilities and therefore receive higher salaries than those shown here. - United Kingdom (E/W): These salaries are exclusive of London allowances, the amount of which varies.

The many facets of the teaching profession

As in the previous edition, this report is in two parts. The first part, which sets out general information, is constructed by level of education. The thematic dossier which constitutes the second part is devoted this year to the teaching profession. Several aspects of it are examined here; the teacher's career is studied from initial training to retirement and the main features of the teaching population are described.

The history of the initial training of all teachers except those in higher education testifies to the increasing attention being given to, and demands being made on, teachers throughout this century. Numerous changes have been brought about in this field in all the Member States over the past 100 years. This is particularly the case at the level of primary education, for which the number of years of training has increased and in which the level has been raised considerably.

The indicators relating to salary movements demonstrate that the differentials between primary and secondary school teachers' salaries have been tending to disappear practically everywhere in the EU over the past 30 years. Similarly, salary scales are becoming shorter, from the starting point to the maximum, except in Ireland, Luxembourg and Sweden where their length has been maintained. This indicator,

which has been calculated on the basis of per capita GDP, points to a policy on salary increases which favours the start rather than the end of the career. This is found in a majority of the Member States.

Analysis of the movement of the age bands within the teaching profession reveals a gradual trend towards an ageing profession. Of over four million teachers in EU primary and secondary schools, more than half are over 40 years old. Three countries (Denmark, Germany and Sweden) are good examples of this, almost three quarters of the teachers in these countries being over the age of 40. Since 1985, young teachers in the under-30 band have not been strongly represented there.

Since all the parameters presented are treated individually, they should be related to each other. Taking, for example, the examination of the data on working time, this shows that the teaching time of secondary teachers is generally less than that of primary teachers. This fact is worth stressing, not for itself but because it may be an element to be taken into account to explain in part why pupil:teacher ratios are lower at secondary level. To this end, some keys to reading are provided in the summary of the dossier to enable the reader to pursue comparisons further.



Socrates

a passport to the 21st century

Following a decision by the European Parliament and Council, the Socrates programme came into being in March 1995 to launch the second generation of European cooperation programmes in education. In both conception and development Socrates draws on experience gained from the first Community programmes – Erasmus, Lingua and Comett – which were the pioneers of transnational cooperation in the field of education.

The aim of Socrates is to develop European cooperation in education on a large scale, thereby contributing to the creation of a European educational area within reach of everyone, from pre-school to adult education.

Socrates draws on the experiences of a first generation of European programmes. It is important to recall that these programmes revealed genuine European benefits and led to positive knock-on effects, at the same time working towards the social and economic cohesion of the European Union.

The achievements of the first generation

This first generation of programmes played an innovative and catalytic role in developing themes relating to education. They contributed to the strategic improvement of the level of education and qualifications of part of Europe's population, brought about an improvement in the quality of the education systems, removed obstacles to transnational cooperation and mobility and promoted language teaching, while facilitating European cooperation and a

deeper knowledge and understanding of the real nature of European partnerships. The earlier programmes encouraged individuals and establishments to conclude a large number of European partnerships, and led to the progressive recognition of study periods abroad.

New impetus for European cooperation in education

deeper knowledge and understanding of the real nature of European partnerships. The earlier programmes encouraged individuals and establishments to conclude a large number of European partnerships, and led to the progressive recognition of study periods abroad.

There is no doubt that this first generation of programmes brought about a remarkable change of mood. It is true that some institutions' policies already included a European dimension. But with these programmes a qualitative leap was made; European cooperation moved from being a marginal activity to launching larger-scale actions, sometimes taken up by additional national or regional funding. This took place without undermining respect for the subsidiarity principle or the protection of diversity.

Thus, these first Community programmes pragmatically sketched the first outlines, laid the first markers, perhaps even drew the first map of a Community area of education and training opportunities available across the EU.

The second generation innovations

In representing the second generation of Community programmes in the field of education, Socrates consists of two main innovative elements:

The first relates to the Erasmus chapter. In its first two phases the Erasmus programme increased student and teacher mobility. Socrates takes up this aspect but goes even further, now developing a truly European strategy within every higher education establishment. This involves encouraging the strategic management of universities, by including the European element as one of the key factors in their development, at the same time preserving the commitment of cooperation networks among faculties, departments and teachers. This is the purpose of the "institutional contract" in Socrates.

Socrates

The second innovative element of Socrates, the Comenius chapter, relates to the consistent development of European cooperation in schools. This cooperation, which is open to all those involved in school education, will act as a framework for the emergence of school partnerships, intercultural education projects and teacher training.

The Socrates programme also pays particular attention to open and distance learning, as well as adult education. In the first case it is important to make the methods and techniques work towards a more flexible and varied educational supply. In the second, the aim is to offer European citizens an educational and formative environment to enable them to make the most of living and working in Europe.

The value lies in the content of the projects

Socrates is a gold mine of human resources. Universities, students, teachers, pupils, parents, adults and linguists will all be

the prospectors in this mine represented by the Europe of education, a mine that is still so under-exploited. But the gold is not to be found in subsidies from the Commission. It lies in the content of the projects, which benefit the whole educational community. This is the timeless and eternal wealth of Europe: variety, learning, intelligence, imagination, creativity and skills.

This mine of resources will not be restricted to the 18 countries of the European Economic Area. It will soon be enriched by the opening up of the programme to the countries of Central and Eastern Europe. With Socrates, true entrepreneurs of learning and knowledge will enthusiastically invest their efforts in taking up, together, the great challenges of the future.

The main objectives of Socrates

1. To put Europe within reach of everyone and give it a human dimension.
2. To prepare today's young Europeans for the jobs of the future.
3. To integrate the European dimension into all levels of educational practice.
4. Through European cooperation, to increase quality, creativity and innovation in education.
5. To develop the use, in daily educational reality, of opportunities offered by the information society.

A new start for Erasmus

What is the difference between the new generation of Erasmus activities and phases I and II of the old programme?

The new approach is characterised by two very important changes: the development and integration of a European dimension in the full range of university programmes, and the implementation of these activities within the framework of an institutional contract.

The institutional contract

The innovative aspect of the institutional contract is that of the partnership effect, until recently created by the many inter-university cooperation programmes (ICPs) but now resulting in the institutional commitment of every higher education establishment to a sounder, more coordinated and viable approach. One application, one contract, one link for each establishment; that is the rule now.

Any future application for the institutional contract will have to include a European strategy declaration and a description of the cooperation activities that the establishment wishes to undertake with its European partners. One important detail is that the partnership structures already in place, for instance in the form of ICPs, will continue to play a crucial role in the organisa-

tion of the new European cooperation activities. Transnational cooperation between universities will naturally have to be based on cooperation agreements between the relevant partners.

Transitional measures

Implementation of the institutional contract has been postponed until the academic year 1997-1998. Hence there is a need to put in place certain transitional measures to form the link between phase II of the Erasmus programme and the Socrates programme.

Since June 1995 a number of assessment and selection processes have taken place or are currently under way. These include the activities listed in the Miniguide I: the renewal of 1996-1997 ICPs, involving 140,000 students and 13,000 teachers from 1,800 higher education establishments, as well as the selection of preparatory visits. In addition, various pilot projects have been proposed to the establishments via the Miniguide II: joint development of Master's degrees, European modules and integrated languages courses in a limited number of specific subject areas.

Thematic networks

Finally, certain types of cooperation activities outside the framework of the institutional contract have already started during 1996. These are the "university cooperation projects on subjects of mutual interest", generally called thematic networks. Their aim is to define and develop a European dimension in a range of university disciplines or other academic or administrative questions, by means of cooperation between university faculties or departments and university associations (including professional associations). These activities are due to begin after the 1996 summer break.

The development of a common Master's in psychology

The thematic network on cognitive psychology has made it possible to identify certain educational gaps in this discipline. Many psychology students are unable to continue their academic careers unless they become researchers, because there are not enough advanced-level teaching courses. Another problem that has emerged is the inability of

graduates to make the most of rapid advances in information technology and, more generally, research findings in other fields which may have significant consequences for cognitive psychology. This inability is linked to a lack of technical and information skills.

From these observations came the idea of a programme of European advanced-level studies to promote the transfer of knowledge and experience during studies and in professional life. The programme will be called the European Master's in Knowledge Transfer Processes.

This project has been prepared by a working group consisting of five partners specialising in different fields. It will also involve two European professional organisations, a software design company and an educational software company. The teaching staff will come from a dozen countries and will hold courses, in turn, in five centres. A tutorial system via the Internet will also be set up to facilitate exchanges between students and teachers based in different countries.

A version of this programme has also been adapted for distance learning. In this way people who are already working will also be able to benefit from the project.

Comenius is the chapter of the Socrates programme devoted to schoolchildren: from their entry into nursery school until the end of their secondary education. Imagination, creativity and teaching efficiency are stimulated by three specific actions, based on the principle of transnational partnerships and aimed at both the pupils and the staff.

Comenius goes to school



Action 1 groups together European education projects: true, multilateral school partnerships in which pupils and teachers work together, in complete freedom and all over Europe, on multidisciplinary activities of their choice. Heritage, the environment, art, sciences, solidarity, democracy, tolerance and European citizenship are examples of the topics that will form the basis for original teaching "symphonies" enriched by a diversity of individuals, cultures and know-how.

Action 2 addresses the teaching of the children of gypsies and migrant workers. The intention is that educational systems should respect cultural differences and make efforts to fight the exclusion often suffered by these children, who experience great difficulties, particularly on the outskirts of big cities. Very broad transnational projects, often initiated by non-governmental organisations with a European dimension, make it possible for children to have access to the language of the host country whilst maintaining the connection with their languages and cultures of origin. There should be a constant concern for recognition and integration.

Action 3 is an opportunity for institutes concerned with continuing teacher training to work on transnational projects with a European dimension. This involves, first of all, carrying out a study and pooling know-how to create courses with real European "added value", improved and enhanced through comparison, emulation and diversity among the partners. Second, it means offering training courses to teachers from various countries in Europe, so that the teachers can in turn pass on the benefits to their pupils.

For the 1995-1996 academic year, the year in which Comenius was launched, 1,600 school establishments, grouped into 500 action partnerships under the programme's action 1 (ECU 6 million of joint Community funding), applied Community assistance.

Pilot action for multilateral school partnerships

"Returning to the roots of Europe": strength through diversity

Schools united in the *Returning to the roots of Europe* partnership have produced a file presenting their projects with the aim of helping and encouraging other schools to form partnerships for European educational projects in the context of Comenius (1992-1994 pilot action).

The objective is not so much to propose the activities achieved by way of example as to demonstrate the diversity of themes which can be tackled by such partnerships.

A folder entitled *At the school of Minos* contains six files, each presenting a single project under 10 headings: description, objectives, intended impact on the school community, subjects covered, people involved, schedule, organisation, obstacles and solutions, assessment and suggestions.

There are five partners in this project: *Les Sources College in le Mans (France); E. Marelli Scuola Media Statale in Milan (Italy); Jeanne d'Arc school in Piraeus (Greece); Realschule am Niesenteich in Paderborn (Germany); and Borgerskolen in Taastrup (Denmark).*

Continuing education

Training European coordinators for schools

The successful involvement of a school in the European programmes depends largely on the presence of a teacher who is clearly identified as a contact partner, so it is therefore very important to develop a framework for training European coordinators within each establishment. A project for training coordinators has therefore been launched under Comenius.

The project consists of several stages. The first stage will draw up a training programme, taking into account the different needs of the partner countries, and produce a handbook that can be tested in schools. The handbook, revised and amended on the basis of teachers' comments, will then be published for the whole of Europe. It will help European teacher-coordinators find out about – and learn how to find out about – European programmes. In addition to practical elements (fax and e-mail details and information points) it will include a large amount of information on how to form and conduct partnerships with other European schools.

The partners in this project are: *Curriculum Development, Hull (United Kingdom); Col·legi Oficial de Doctors i Llicenciats en Filosofia i Lletres, Barcelona (Spain); Landcommanderij Alden Biesen, Bilzen Rijkhoven (Belgium); Abbaye Royale, Saint Jean d'Angely (France).*

Erasmus

Before and after

Retained activities

- physical mobility of students
- short-term mobility of teachers
- preparatory visits
- intensive programmes
- jointly developing curricula at initial or intermediate level
- teaching grants allowing longer stays (two to six months) for a select number of teachers.

New activities

- integrating the European perspective into courses followed by students not directly taking part in mobility programmes
- jointly developing advanced or specialist-level university programmes (Master's type)
- creating new postgraduate courses in fields in which there is a lack of highly qualified human resources
- developing European modules focusing on the history, society, culture, policy and economy of other European countries, the various aspects of European integration, such as Community law, the European economy or approaches to a given subject in different participating countries
- developing integrated language courses which will make it possible to extend opportunities to learn other European languages to a wider population of university students, including those not specialising in languages
- opening up the European Community Course Credit Transfer System (ECTS) to all the establishments that want to implement it. This system is an excellent tool for academic recognition, based on the openness of the programmes, studies followed and qualifications obtained by the students.

Lingua lifts the language barriers

The Lingua programme is contributing both qualitative and quantitative improvements to the teaching and learning of foreign languages. All the actions carried out by Lingua since its creation in 1990 can be found in the new Socrates programme with the exception of the one concerning the economic sector, which is covered by the Leonardo da Vinci programme. This does not rule out a whole series of other innovations.

Lingua now covers 15 languages (the 11 official EU languages plus Irish, Luxembourgish, Icelandic and Norwegian) and has opened the way for future language teachers. A new initiative called a "language assistantship" enables them to spend a 3 to 8-month training period in an establishment abroad. This gives them the opportunity to introduce their language and culture into a foreign context, at the same time allowing them to benefit from total immersion in the language and culture of their hosts.

Teaching materials

As well as the language assistantships Lingua continues to work on measures for young people and teachers, plus the development of teaching materials. The programme's joint educational projects enable groups of young people to work together, at a distance and face to face, in the context of exchanges relating to specific projects. Language teachers, and now also teachers in other subjects, can take training courses in a country where the language they teach is spoken as the mother tongue. Lingua's European cooperation programmes (ECPs) are continuing their action to expand and improve training opportunities for language teacher trainers, teachers and future teachers. This opening up of ECPs to future teachers is another new aspect of Lingua in Socrates.

All the Lingua actions in Socrates give absolute priority to projects that encourage the promotion of less widespread and less frequently taught languages. In this way Lingua is continuing its work of helping to maintain linguistic pluralism in Europe.

First result: twice as many applications

The first Lingua selection round in the context of the Socrates programme was dedicated to the development of teaching material. 144 applications were received – almost twice as many as the previous year, and evidence of the project organisers' interest in the Socrates programme. Of these, 35 projects were recommended, involving the par-

ticipation of 152 institutions in 16 countries and a total proposed funding of almost ECU 3 million. The selection covered 13 of the 15 eligible languages and, for the most part, the accepted projects included elements of new educational technologies. One of them proposed a particularly significant initiative in the area of certification; the theme of two of the projects was intercultural promotion and mutual understanding; and the remainder concerned various initiatives for developing teaching aids.

A personal account Camilla, a Swedish trainee teacher in the UK

Birchwood Community High School in Warrington, UK, welcomed a young Swedish graduate, Camilla Andersson, as a Lingua assistant. She is one of the 200 young people who were the first to receive a Lingua grant to spend a training period in an overseas school.

Neil Harris, Deputy Head at Birchwood, views this assistantship project with enthusiasm: "In just a few months, Camilla has really helped us to liven up the language lessons", he says. "Without her, most of our pupils would never have learned a word of Swedish or discovered the cultural wealth of Sweden. Camilla has taught pupils aged from 12 to 15, adults following courses at our school, as well as children from a neighbouring primary school".

In addition to her work with the pupils, Camilla has also built up links between the school and two Swedish companies based in Warrington. She has helped secondary school teachers to set up a joint educational project with a Swedish school (under Lingua action E) and primary school teachers to set up a European educational project (under Comenius action 1).

"The school has benefited a great deal from this Lingua assistantship. Through it we have been able to go into language learning in greater depth, expand the choice of language courses, introduce the European dimension into almost all aspects of the curriculum and make direct contacts with other countries, which will continue when Camilla leaves", says Neil Harris.

For Camilla too this assistantship has proved beneficial. It has given her the opportunity to perfect her English, to get to know the British way of life better, to find out about and practice various teaching methods and to experience teaching in a variety of different contexts. And all this even before embarking on her career.

Partners in the project: Birchwood Community High School, Warrington (United Kingdom) - Camilla Andersson, graduate of the Universitet i Linköping (Sweden)

Open and distance

How can new technology and multimedia help to meet the great challenges facing our education systems? The open and distance learning (ODL) action, another element of the Socrates programme, promotes the European exchange of information and supports the setting-up of pilot projects.

The ODL part of the Socrates programme aims to develop and promote methods and techniques designed to increase the quality, efficiency and flexibility of education.

Technological innovation working for education

ODL is to be understood here in two senses: on the one hand, the improvement and development of teaching methods in the educational system, and on the other, the supply of distance learning services using information technology.

The inclusion of new technologies and multimedia should make it possible to meet the major challenges facing the educational systems, whether by providing solutions to meet a growing and varied demand in higher education, supporting the European dimension of education or facilitating systems of lifelong education and training.

Facilitating access to education

The development and availability of high-quality equipment and software, the service environments in which these tools are used, and teacher training are just some of the many conditions studied in European countries. The use of distance learning technologies makes it possible to promote

Further information

More information on the Socrates programme can be found at the European Commission's Europa site
<http://europa.eu.int/en/comm/dg22/dg22.html>

or obtained from the following addresses:
Gabriel de Santana - DG XXII
7, rue Belliard - B-1049 Brussels - T +32.2 296 10 15

European Commission Technical Assistance Office
for the Socrates Programme
70, rue Montoyer - B-1000 Brussels
T +32.2 233 01 11 - F+32.2 233 01 50

learning

widespread access to educational services. It also makes virtual mobility possible. This means that the greatest possible number of pupils, students or adults in education will eventually be able to benefit from an intercultural and multilingual education as part of their personal and professional development.

Synergies

The aim of Socrates here is to facilitate the exchange of information and experience using systems that have either already been tried and tested or are currently being validated. The programme will facilitate contact between people working in this field, allowing them to develop synergies and promoting better practices in the use of new technologies. In coordination with other Community programmes, Socrates will also contribute to the implementation of pilot projects to network educational establishments and towards the design and distribution of multimedia educational software.

Cooperation

One of the priorities is consolidation of the cooperation between the European organisations and institutions which play a major role in these fields. Another priority is the very broad introduction of better practices and skills acquired at European level in the use of information and communication technologies in educational practices and distance learning. Among other things this means use of the World Wide Web (WWW), as well as publishing and updating guides and directories.

Adult education: for a better understanding of Europe

One element of Socrates is the promotion of adult education for people who have been left out of the traditional systems of continuing or vocational training.

Despite the development of continuing and vocational education, from the moment they leave school many people are still left without access to educational resources. The variety of demand, the difficulties of developing a stable and appropriate supply, and funding problems are some of the many obstacles to the enthusiastic involvement of individuals in educational career paths that meet their needs.

Yet many organisations are working on the ground to put in place both original and tried-and-tested solutions to meet the needs of general education. Some European coun-

tries have already implemented innovative solutions to encourage people into general education career paths.

The Socrates adult education initiative sets out to promote cooperation between all the organisations, especially adult education associations, working in this field in Europe, with the aim of creating and exchanging suitable solutions. These exchanges cover very varied fields. They include, for example, teaching tolerance and solidarity, the fight against racism, knowledge of others and learning about social programmes.

To achieve these objectives the new initiative provides project organisers with two sets of measures: European partnership projects (involving organisations from at least three different Member States) and observation projects. Erasmus and Comenius also provide specific measures to promote open and distance learning.

33 initial projects

At the beginning of the year 33 projects were launched, involving 183 organisations in 15 countries. The Community contribution amounts to ECU 4 million in 1996. These projects cover a wide range of activities: the development of innovative methods and models, drawing up inventories of better practices, holding seminars and conferences, the formation of human networks with the aim of pooling and transferring experiences at European level, and the development of models of good practice with the objective of inter-university cooperation and teacher training. Some 40 new projects are due to begin in September 1996, following the results of the call to tender which closed in February.

Four objectives

The open and distance learning action has four main objectives:

- to develop teaching frameworks and methods suitable for the use of technologies in different educational environments;
- to improve the organisational environment in which these new methods of education are applied, as well as the quality and user-friendliness of multimedia applications and on-line services;
- to increase the skills of teachers and trainers in devising and using models for training relevant partners at all levels;
- to encourage the recognition of qualifications obtained via multimedia materials and distance learning services.

BASE

| an overview of the products available |

BASE is the simplified name of a project officially entitled *Database of multimedia pedagogical resources and their suppliers in Europe*. In other words, this project offers national and European professionals in the sector, and sponsors, an overview of the supply of multimedia training products, solutions to searches for products, suppliers, customers and partners.

Three products will be available in December 1996:

- a printed international directory of suppliers and products of interest;
- a CD-Rom containing a more detailed version of the printed database (language versions: DE, EN, FR, IT, ES, PO);
- a service accessible on the Internet.

Five partners are collecting the information from 16 countries: FIM-Psychologie (DE, A, DK, SF, S), Guildford Educational Services Limited (IRL, UK, NL), FUNDETEC (E, GR, P), ORAVEP (B, F, LUX, CH), and SCIENTER (I).

Adult education in Socrates, for many bodies and associations from all over Europe, is an opportunity to work together on original transnational projects to meet the needs of all those who have left school, including projects in the field of education about Europe.

These are some of the many projects through which European citizens can not only discover the cultures, traditions and languages of Europe, but also gain a better understanding of the political, economic and administrative issues of the European Union.

| First results |

In 1995, of the 58 projects submitted, 19 were given joint funding from the European Commission (ECU 2 million in total); 88 projects were submitted for selection in March 1996.

Forming one's own opinion on Europe

A project bringing together 25 European adult education associations to devise a European civic education programme.

The objective is to enable every individual to form his own opinion about the construction of Europe by giving him the necessary knowledge to do so. The program sets out, in particular, to encourage critical thinking on the political constitution and functioning of each state.

The content of the program will be widely circulated by two important companies in the multimedia industry. Three types of educational software will be produced in the 11 official languages of the European Union: a basic civic education package in cooperation with the regional and national television channels, an advanced package with an assessment system, and a package for trainers.

The Erasmus chamber orchestra, pictured during a week of intensive rehearsals held last year at Dartington College of Arts in the south of England.



Photo: Kate Mount

Polyphonia strikes a chord

Music schools and European mobility

Since the creation in 1992 of an Erasmus inter-university cooperation programme (ICP) known as Polyphonia, student mobility in the European Union has also applied to the field of music. Previously, music academies and conservatories had generally not felt that the Erasmus formula was suited to their needs. The dynamic development of this initiative has since shown that it can be applied very effectively to higher education in music.

Polyphonia currently involves institutions in Germany (Hamburg), France (Lyons and Paris), Austria (Vienna and Salzburg), Portugal (Lisbon), the United Kingdom (London, Dartington, Ripon and York), Belgium (Brussels), Sweden (Malmo) and the Netherlands, from where the ICP is co-ordinated at the Utrecht School of the Arts.

Most of the partners in Polyphonia are also active members of the special Tempus project for musical interpretation, which is jointly coordinated by Utrecht and the Prague Academy of Music. In other words, this network is truly pan-European.

Participants make music as well as studying it. The initiative has led to the creation of an Erasmus brass ensemble and an Erasmus chamber orchestra. This year the members of the Erasmus chamber orchestra will assemble at the Mozarteum in Salzburg.

Mobility of students and teachers

Polyphonia is one of a number of ICPs in the field of artistic education to have been active in all four parts of Erasmus: not only in the intensive projects, which resulted in the brass and string ensembles, but also in student mobility, teacher mobility and the development of a joint teaching programme.

Student mobility is increasing rapidly, and 1995/1996 is proving to be a particularly popular year for exchanges. In some cases these have involved the European course credit transfer system ECTS, which is currently the subject of detailed study in the Polyphonia network.

The mobility of teaching staff has also received special attention, resulting in exciting new links between institutions. These have led not only to regular exchanges of students and teaching staff, but also to the creation of joint exam juries.

The joint curriculum development group constitutes the network's think-tank. The innovative ideas hit upon by this small group include the development of an educational programme called *Communicating Music*. This deals with such topics as marketing, management, communications and performance skills.

A joint educational programme

Although incorporation into the Socrates programme will mark the formal end of the Polyphonia ICP, its current partners have decided to continue their collaboration through intensive projects like the brass ensemble and the chamber orchestra.

Now that student and teacher exchanges are well established, the partners in the Socrates programme have set themselves another objective: the development of a joint educational programme, an area into which musical education, with its countless individual approaches, has never really ventured before.

This initiative should lead to closer and even better organised collaboration. It will offer talented students and teaching staff the chance to benefit from contact with others, in the universal language of music.

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Helios II



Further information

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Disabled people

challenging hearts and minds

Some 10 years ago the United Nations designated the coming period as the International Decade of Disabled Persons. Instead of a traditional response to disability the European Union opted for an approach based on equal opportunities. With the Helios II programme the Commission is encouraging good practices and seeking ripple effects at every level.

The last few years have seen some advances in equal opportunities. Now, though, economic recession could jeopardise these achievements. Disabled people in the European Union are finding themselves in danger of social exclusion because of unemployment, budgetary constraints and, above all, the pressure being placed on social security systems. Avoiding the exclusion of disabled people is an issue at the heart of EU social policy.

No economic integration without education

Investment in high-quality education and training for disabled people is vital if their position in the labour market is to be improved. Educational integration goes hand in hand with economic integration.

The EU countries each have their own success stories to tell. The Helios II programme, for example, has dramatically increased the number of exchanges and the amount of information. Innovative solutions have been identified and now need to be developed in close alliance with representatives of national governments, non-governmental organisations, employers and unions, professionals, carers, and, most important of all, disabled people and their families.

Respecting differences: a key to integration

Quality education, respect for differences, flexible programmes and *innovation* are the four watchwords of the Helios II educational integration sector, which involves more than 190 partners from every EU Member State as well as Iceland and Norway. These four concepts were clearly visible in Helios's new areas of action, early intervention and higher education, but they were also a major functional result of the main themes of the previous year: adult education and teacher training.

Putting these four concepts into practice is a major challenge when it comes to providing access to mainstream education for pupils and students with special needs. With this objective in mind, particular emphasis is also being placed on developing educational projects in ordinary classes, on the role of support teachers, new technology and resource centres, as well as on cooperation between mainstream and special education systems.

The open labour market: bridges to cross

All Member States have a tradition of policies and practices designed to promote the economic integration of disabled people. The remaining obstacles are nevertheless apparent. They include psychological barriers, lack of information among employers, lack of coordination between services and

a lack of suitable qualifications among disabled people. Similarly, in many cases vocational training for disabled people is not geared to the demands of the labour market.

In the Helios II economic integration sector, the transition from working in training centres for the disabled to the open labour market remains a priority, with the active participation of employers and social partners an integral part of the process. Employment back-up, self-determination of disabled people in their working environment, and the creation of small and medium-sized enterprises are the areas that need to be further developed in the future. This should be in parallel with an active, alternative labour market policy.

Preparation is now well under way for the participation of some of the Helios partners involved in the educational integration sector of the Socrates education programme. The economic integration sector is strengthening its links with the Leonardo da Vinci vocational training programme. These are encouraging developments, which meet one of the main objectives of Helios II: the creation of synergies with other Community action programmes and initiatives affecting disabled people.

Encouraging job creation rather than managing unemployment

In the Member States of the European Union a growing number of positive measures are being implemented to improve access to, and the quality of, education and vocational training for disabled people as a key to independence. However, much remains to be done. The future strategy within the Union for improving the opportunities of all its citizens will be based on the Commission's White Paper on *Growth, Competitiveness and Employment* and *Social Policy - A Way Forward For The Union*, along with its medium-term social action programme. All three documents recommend economic and social policies which, rather than concentrating on simply managing unemployment, actively promote job creation and investment in human resources as a top priority - an idea which is also expressed in the Commission's White Paper on education and training.

When they devise measures for improving education and training systems, national governments and European institutions need to take account of the abilities and aspirations of disabled people as individuals with civil rights and economic and social potential.

Good practice guides

The Helios II programme brings together numerous partners. The results of the work carried out both by the Helios partners designated by the Member States and by NGOs will serve as the basis for the production of a series of good practice guides published from now till the end of 1996. These guides, intended for political decision-makers and the general public, will draw on the experience of the different strands of Helios II to illustrate examples of positive, innovative practices throughout the European Union. These publications will fuel the political debate and perhaps even prompt fresh legislative action in the Member States.

Business card

The Helios II (1993-1996) Community action programme aims to promote equal opportunities for, and the integration of, disabled people through exchange and information activities. These activities involve 832 partners throughout the Member States of the European Union, together with Iceland and Norway, designated by their national governments. There is also cooperation with European non-governmental organisations.

Helios II comprises four sectors: functional rehabilitation, educational integration, economic integration, and social integration and independent living.

The European Forum for Disabled People, an important consultative body for the programme, comprises 12 European NGOs and 15 national disability councils, as well as representatives of management and labour. Alongside the partners in the Helios exchange and information activities, almost 100 NGOs across the Union hold meetings or Europrogrammes in their specific fields of expertise.

An unemployment level twice as high

The International Labour Organisation estimates that the level of unemployment among disabled people is two to three times higher than it is in the non-disabled population. This represents a huge waste of assets. Disabled people frequently have many useful skills to offer and can make an active contribution to their local economies and that of Europe in general, not least as consumers and taxpayers.



Intercultural education

A challenge for European cities

The true framework of modern society, the city, is both a pool of human resources and a patchwork of ethnic communities, each with its own cultural or linguistic credentials. In the front line of economic and social integration and educational exclusion, the city has a key role to play. Urban cooperation at European level is the function of DIECEC (Developing Intercultural Education Cooperation between European Cities), an initiative in which 14 major European centres are currently involved.

From being a "web of settlements" at the end of the 18th century, Europe today has become a network of cities, or indeed metropolises. The cities are Europe's lifeblood. The predominant element of modern society, the urban phenomenon, is vast and complex. It involves a multiplicity of players with very diverse interests, a mosaic of territories of widely varying sizes, and highly diverse population mixes and ethnic groupings with their own cultural and linguistic credentials.

The opportunity for a Europe of diversity

As a melting pot of peoples and cultural, intellectual and technical intercourse, cities are a reflection of the diversity of Europe. Their major challenge today is to manage their diverse cultural and social components to enable them to fulfil their role as centres of development within the Union. This means that the integration of immigrant populations into the cities is a major concern. The issue of education is a key element in this process.

Diversity has become the norm for schools in major European cities. According to the statistics, a pupil in Rotterdam has more in common with a pupil in Berlin or London than with someone from the Dutch countryside. The same is true of the variety of school locations within a single conurbation.

Whilst each retains its own individuality, cities face the same types of difficulties. The state has the final say regarding their autonomy and scope for initiative. In most cases they do not enjoy true autonomy in matters of education and, even when changes are made, it is rare for these to affect the content or nature of the curriculum. But in order

to address questions of urban segregation and racism, which are of particular concern to immigrant populations, schools often have to exceed their areas of competence. Thus, for example, a number of schools have drawn up action plans to assist the integration of immigrant children.

Although teaching the language and culture of both the host country and the country of origin is a central focus of intercultural education, it is not the whole story. Intercultural action aims to extend to the whole school curriculum and population, as well as to the whole city, and foster harmonious sociocultural relations. This has been the driving force behind a specific approach to the problem adopted by the cities.

Cities in the front line

As the front line in the battle against social division, cities must, out of necessity, be innovative. Many of them have decided to promote intercultural action within a multilayer system embracing education and training, housing, renewal of inner cities and public areas, social policies and occupational integration.

This has raised the question of exchanging experiences in a European context, with the clear objective of improving practices and spreading know-how in the field of intercultural education.

For the European cities which are members of DIECEC the results are already evident. They know the value of education, particularly for disadvantaged groups and immigrants, in securing their future as effective resource centres within the Union against a background of fierce international

competition, and in shaping the future of younger generations. As the political, institutional and physical entities most easily able to reach those in difficulty, the cities have been able to set up appropriate support structures in the field of intercultural education.

The pilot phase of DIECEC took place in 1994. This included exchanges of information and experiences through educational visits to schools and other institutions, together with meetings between administrators, political representatives, school heads, teachers, school inspectors and educationalists.

The cities which hosted these visits all saw a sharp rise in the number of children from immigrant communities attending school, though the varying criteria used to gather the data make a more accurate comparison difficult. In Turin and Marseilles pupils in this category are primarily of North African origin, while in Birmingham the majority come from communities originating in the Commonwealth. In Berlin there is greater diversity, with the largest group being Turkish; in Rotterdam the four main groups are children from Surinam, Turkey, Morocco and the Cape Verde islands.

Each city has its own immigration story to tell. Immigration may be well established or recent, but in each case it occurs within a particular national context, with a school system which is more or less centralised or decentralised. Each city is part of the current trend towards involving several different levels of government in education: state, regional, local, school and others. This kind of multilayer development is important for intercultural education.

Further information

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A panel of working groups

A number of working groups have been set up to cover different topics. Each city's degree of involvement depends on its particular priorities:

- ▶ the culture of success;
- ▶ collection, use and evaluation of statistical data;
- ▶ language learning;
- ▶ teacher training;
- ▶ changes in school management;
- ▶ the development of an integrated policy;
- ▶ the influence of the city through partnerships;
- ▶ the partnership between family and school;
- ▶ the development of programmes;
- ▶ links between town and university.



Diecec

five objectives

- ▶ to contribute to a better understanding of appropriate responses to linguistic and cultural diversity;
- ▶ to address the need of pupils from immigrant communities to learn a second language;
- ▶ to share successful experiences in this area, in terms of studying and teaching strategies, support strategies, the creation of an intercultural urban policy and that of educational and non-educational policy;
- ▶ to collect and distribute information on success stories to partners involved in the educational process in cities and elsewhere,
- ▶ to promote the transfer of successful practices, which may be adapted to suit a variety of circumstances and the particular infrastructure of the city.

Only by integrating the work of these different authorities, with horizontal and vertical synergy between all the local partners, will it be possible to improve school performance and prevent exclusion. This is the aim of initiatives both outside schools and in association with them.

From initial awareness to a consolidated network

The pilot stage of DIECEC made the partner cities realise that this cooperation was an intercultural experiment in itself. DIECEC provided an opportunity to explore different ways of approaching integration, relationships between learning the mother tongue and that of the host country, the best approach to equal opportunities and ways to improve not just the school system but the whole urban approach to intercultural education. The project thus demonstrated the reality and value of an urban approach – an approach which brings together intervention in the social and educational fields to ensure the best possible educational standards and avoid the exclusion of young people.

Cooperation between cities brings new ideas and original, stimulating approaches to the fore. It increases the value and authority of locally organised intercultural education initiatives. The partner cities, which understand that cooperation is a real driving force for progress, have pledged to continue and intensify their experiments.

In 1995 a second phase began with the support of the Commission. New aspects emerged and were consolidated: DIECEC now has a genuine coordination structure and is becoming established as a network for cooperation between cities.

DIECEC is guided by two major factors.

- First, the criterion of quality in cooperation needs to be preserved and developed through a range of activities. These include increasing political involvement in such cooperation, improving the visibility of DIECEC activities at the European level, organising seminars between local administrators and fact-finding tours of new member cities.

- Second, the existing network needs to be opened up to new cities. The core group has already expanded and the current network unites 14 cities: Antwerp, Athens, Barcelona, Birmingham, Bologna, Bradford, Cork, Helsinki, Marseilles, Odense, Oslo, Rotterdam, Sheffield and Turin. Florence, Frankfurt, Liège, Lille, Lisbon, Manchester and Rome have also expressed a keen interest.

Providing a "second chance"

In April 1996 the DIECEC experiment was the subject of discussion at a conference on the theme of *Cultural diversity and social integration*, held in Turin under the Italian presidency, in partnership with the Commission, the Italian Ministry of Education, the city of Turin and Eurocities. The round-table discussion, which involved elected representatives, officials from the education ministries of the Member States, and representatives from the Commission and European Parliament, emphasised the role of the city as an essential focus for socio-cultural and economic integration policies.

Commissioner Edith Cresson expressed her intention to form direct partnerships with the cities for the purpose of creating "second chance" mechanisms for disadvantaged young people in problem areas. The conference represents an important step for DIECEC, with inter-city cooperation being backed by officials at both national and European level. In addition it provides a springboard for new areas of activity by members of the office.

Acting in unison

DIECEC highlighted the need for an interactive, multilevel approach to intercultural education, inside and outside school. Isolated initiatives aimed at integrating immigrant children and fighting social exclusion and racism are fundamentally inadequate. Genuine synergy is needed between all the players at the closest possible level - in other words, at local level. The cities have a role to play in working on a dynamic, coordinated approach to intercultural education, as well as cooperation at European level.

Cities have a major challenge to offer intercultural education and an environment capable of promoting the integration of populations with foreign roots, who are all too often excluded and marginalised, and thus to move towards the harmonious cohabitation of their populations as a whole. This is particularly true since cities are microcosms of European citizenship in the broadest sense. Promoting such exercises in cooperation contributes to the broader process of European construction.

| Some experiments |

Marseilles is investing in help with reading and homework support for schoolchildren, along with French tuition for parents.

Birmingham is concentrating on links between school and home, and extra lessons in the mother tongue provided by teachers from the immigrant communities.

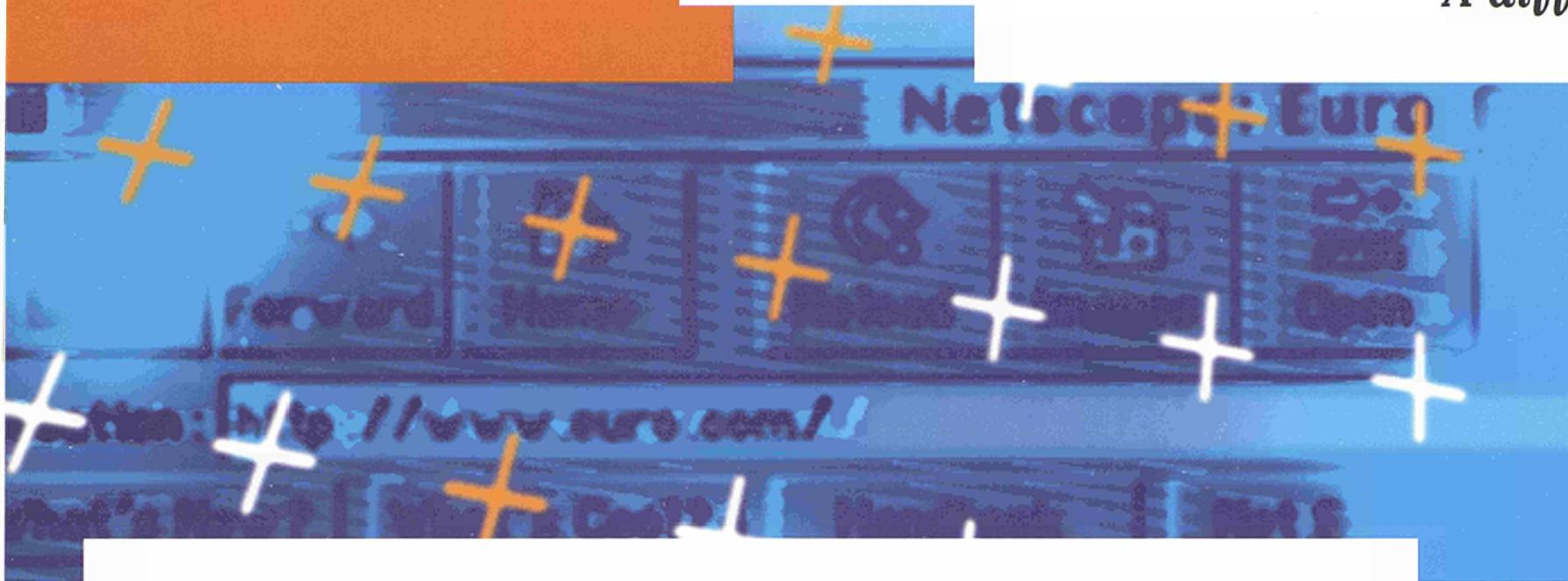
Turin is promoting the teaching of languages and multicultural education, and making various social services available to pupils and their families.

Rotterdam is prioritising information for parents of pupils from immigrant communities to encourage them to play a direct role in the academic success of their children. A policy of integration of the various aspects of language learning is also being pursued.

Berlin is setting up cooperation projects between pupils from immigrant communities and artists, to encourage academic education.

Leonardo da Vinci, one year on...

A different look at



The 1995 call for proposals was a great success, bringing in a total of 4,542 project proposals. By the end of the selection procedure, 749 of these had been accepted, including 555 transnational pilot projects, 121 transnational placement and exchange programmes, 26 projects to expand on existing results and 47 survey and analysis projects. Total funding for all these projects is ECU 89.7 million.

The large number of applications demonstrates how well Leonardo da Vinci meets the needs of both the world of work and of all those involved in vocational training in Europe: businesses, training organisations and establishments, universities, sectoral organisations, management and labour, government authorities and research centres and institutes.

An analysis of the results of the call for proposals also provides a representative picture of the dynamics of vocational training in Europe and of its most innovative developments. The programme is already proving to be a European laboratory of innovation, a top priority focus of investment in human resources and intelligence and a means of mobilising innovative forces beyond national borders and social categories.

Here are some of the main trends revealed by the Leonardo da Vinci programme, one year later.

The advent of the new information and communication technologies

One of the most striking features of the 1995 Leonardo da Vinci call for proposals was the introduction of new information and communications technologies to the world of vocational training in Europe.

The extremely rapid development of the 'information society' and the technological innovations that accompany it have fundamentally changed not only the economic but also the social and cultural landscape of Europe today.

Similarly, the globalisation of telematics networks and the development of virtual reality have profoundly affected our view of space and time. So the advent of real-time communications is helping to remove, in practical terms, the distances and barriers which began to break down with the creation of the Union and the development of European citizenship.

The challenge of training for the age of information technology needs to be placed in this context.

New fields of application

This training concerns various fields: the electronic imaging industries, virtual reality technology, the computerisation of production methods and cybernetics, and the use of remote communications such as videoconferencing, the Internet and teleworking.

However, these new technologies should not be seen just as something that needs to be learned, but as an effective stimulant to training which is both flexible and powerful and offers real potential for personal interaction.

In this respect, the projects selected following the 1995 call for proposals make use of two main types of technology.

CD-Rom and the Internet

Multimedia platforms with a CD-Rom disc drive and sound card, with the capability of displaying a video sequence on screen, are used by many projects as teaching tools. This hardware enables the user to develop working methods based on simulating an actual vocational activity and offers a great deal of flexibility for use within the workplace or at home, either independently or remotely and with or without regular tutoring. Multimedia is an excellent tool because it combines key skills in the form of **cognitive approaches** that can be transferred to different target groups or sectors.

The use of the Internet telematics network is another significant phenomenon of the 1995 call for proposals. Projects using the Internet fall into two categories. Several projects use the network to provide information, in the form of databases, to a wide audience. This information is used for promotional purposes or raising awareness. Other products use the network as a tool for training and communicating with the student, using open and distance teaching techniques.

Increasing the number of training products

The Leonardo da Vinci programme also devotes a special measure to setting up projects designed to increase the number of training products (measure III.3.a). The objective of these 'multiplier' projects is to update the content, working methods or material aids for training products set up within the framework of earlier Community programmes (Comett, Eurotecnet, Force, Lingua and Petra), to ensure a more widespread introduction and transferability.

For example, the Italian project *TILE* (lifelong training for tilers) makes use of a wide variety of teaching aids, including a multimedia CD-Rom. Workers can thus acquire know-how and skills which can be transferred to other industrial sectors connected to ceramics, such as the building industry or the glues and adhesives chemicals industry.

The local level and local jobs

The revival of interest in local sectors that generate employment seems to indicate that proximity and social links can act as a counterbalance to the technological advance towards globalisation.

Such local projects take a long-term approach to the development of job skills, by identifying the new or unsatisfied needs of local communities and creating new areas of employ-

made towards implementing a vocational training policy in Europe?

vocational training in Europe

1996
Leonardo da Vinci

The priorities

The call for proposals for Leonardo da Vinci 1996 (published in the OJ C60 and S42), also set in the context of the European Year of Lifelong Learning, is based on the ideas and policy directions discussed in the White Paper on education and training (COM(95)590 final), *Teaching and Learning: towards the learning society*, and in the Green Paper on innovation (COM(95)688 final).

Five priorities have been set for the 1996 Leonardo da Vinci call for proposals:

- 1. The acquisition of new skills** which can open up new employment prospects, particularly by adapting training to changes in labour organisation, to technological developments or social changes; by improving language skills, and by acquiring and validating key skills.
- 2. Closer cooperation between educational or vocational training establishments and business** including creating study and conversion courses supporting all types of work-based learning, transferring technology and promoting new forms of tutorials and monitoring.

- 3. Combating exclusion**, including promoting access to training for the disadvantaged on the job market, by improving job prospects, as well as through training routes and career opportunities.
- 4. Promoting investment in human resources**, including improving skills in planning resources, guidance and advice, and by working out individual career plans and drawing up new methodologies designed to remove obstacles to training in SMEs.
- 5. Ensuring more widespread access to knowledge by using the tools of the information society with the view to lifelong learning**, in particular by encouraging the production and use of open and distance learning materials and multimedia software; recourse to virtual mobility; the innovative use of training materials, and teacher training in these fields.

In addition to the 15 Member States of the European Union and the 3 EFTA countries which belong to the European Economic Area, beginning in 1996 the Leonardo da Vinci programme allows for the association, with no legal or financial impact, of partner organisations from the following 12 countries: Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, Rumania, the Czech Republic, Slovakia and Slovenia, Cyprus and Malta.

ment such as assistance for individuals, rural redevelopment and the environment. This long-term approach is primarily adopted by associative or cooperative organisations.

A long-term approach

For example, the aim of the Franco-Italian-Spanish pilot project *Integration of Gypsies* is to create a European observatory of the Gypsy world and to assess the job sectors that are compatible with their traditions. Another pilot project, *Welcome and Tradition*, run by a partnership of five EU Member States, aims to create training tools for the tourism sector, for use by workers in small or micro-enterprises in rural areas.

This type of long-term method contrasts with the functional approach, which consists of adapting training to the direct needs of the labour market and redefining jobs and qualifications according to these demands. This latter approach "functionalises" training and attempts to respond to technological advances and industrial change.

Linking career guidance to training and employment

Career guidance is an essential part of vocational training and a decisive factor in obtaining a job. The 1995 call for proposals includes several projects relating to career guidance services. These projects cover a wide range of fields including: the creation of tools for use by specialists and end

users, the development of training materials designed to introduce a European dimension to career advice and updating open and distance learning products making occasional use of videoconferencing technology, as in the case of the transnational Sindiàlexi or Start projects.

Finally, European networks of career guidance centres are growing continuously. Similarly, innovative approaches have emerged linking career guidance more closely with training and access to employment. This has helped to create more multifaceted partnerships than in the past.

Using training to prevent exclusion

More than 50 million people in the European Union live below the poverty line and more than 18 million men and women are seeking work. Exclusion persists despite the democratic principles on which our societies are based.

A significant number of projects selected in 1995 target those disadvantaged in the job market.

These projects clearly reflect the divisions currently existing between social integration and qualification, despite their attempts to try to bridge this gap by seeking an approach that involves a complete process of learning and social support.

The projects selected in 1995 for disadvantaged people involve activities aimed at a wide variety of sectors of the population (marginalised young people, disabled youths and adults, prisoners, migrants, the unemployed, etc.) as well as training for the teachers of these different groups.

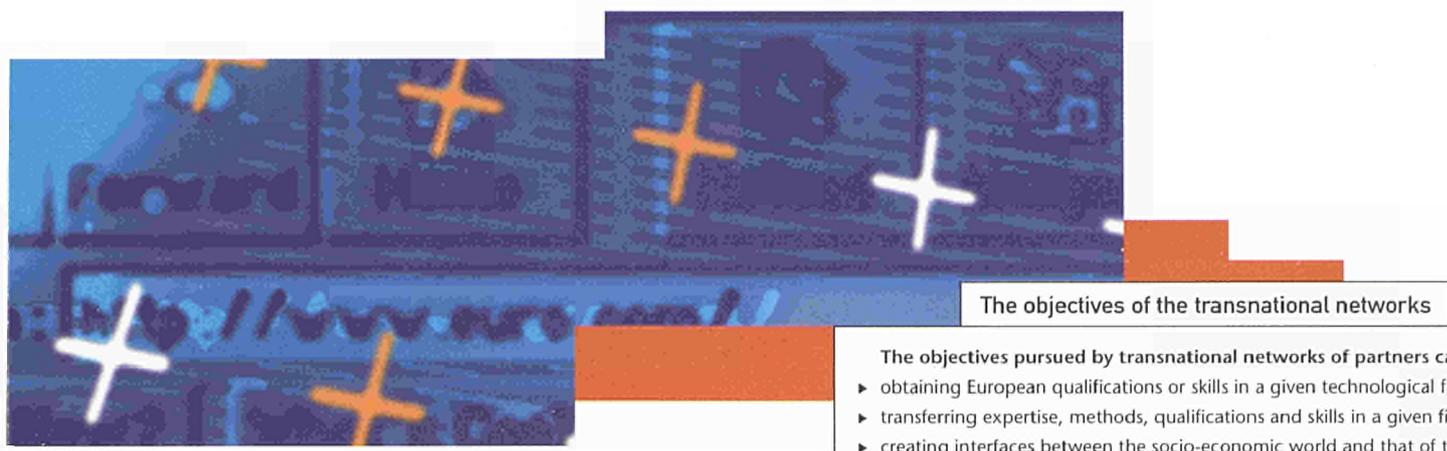
An exemplary Spanish project

A project set up by Spain's Justice Ministry clearly illustrates this two-pronged approach. The project, run in partnership with German, French and Portuguese organisations, aims to reintegrate young people in difficulty on their release from penal establishments. These young people are guaranteed training both inside prison and on their release. The project also provides for the training of social workers. Young offenders are thus being offered a complete back-up programme throughout the release process. This ensures not only that they gain the qualifications they need to find a job, but also that they receive the necessary psychological support to help them successfully reintegrate into society.

Do men and women receive equal training?

The Leonardo da Vinci programme pays particular attention to equal training opportunities for men and women, with two measures devoted specifically to this problem (*measures I.1.1.d and II.1.1.d*).

Nevertheless, despite being the subject of obvious concern, equal opportunities have been tackled by only a limited number of projects and very few companies have really taken action in this area. This is regrettable because the gap between men and women in terms of skills and qualifications represents a major obstacle to the development of a competitive European market. As women represent the largest sector



The objectives of the transnational networks

The objectives pursued by transnational networks of partners can be regrouped into seven categories:

- ▶ obtaining European qualifications or skills in a given technological field;
- ▶ transferring expertise, methods, qualifications and skills in a given field;
- ▶ creating interfaces between the socio-economic world and that of training;
- ▶ contributing towards regional development through close cooperation between all the actors concerned;
- ▶ creating regional consortia at transnational, cross-border and sectoral level;
- ▶ developing vocational training programmes for regional and local developers; and
- ▶ developing industrial relations within the framework of vocational training

of the population entering the job market, it is important to provide them with a satisfactory standard of education which will facilitate their access to vocational training.

Promoting equal opportunities between men and women is, therefore, an important objective of any vocational training policy in Europe. Now, more than ever, it is time to make the world of work aware of this.

Industrial changes in the new occupations

More than 40% of the projects selected following the 1995 Leonardo da Vinci call for proposals are concerned with adapting to industrial change and to new forms of production and organisation of labour. This striking phenomenon is a good illustration of the key role played by training in the search for new social and economic harmony in Europe. These projects target both initial and continuing training.

Proper training routes

A process of continuing adaptation is even more important. This can be achieved by establishing proper lifelong training routes. Rapid technological advances have led to a reorganisation of production and working methods, ensuring increased productivity. Businesses wishing to adapt to these changes will, therefore, endeavour to train their workers in the use of new technologies and retrain them in new methods of organisation.

In this respect, dialogue between management and labour assumes vital importance. The very real shock caused by the prospects of the mass dissemination of information, together with the dematerialisation and globalisation of the economy, raise, more acutely than ever before, the question of investment in intelligence as a way of meeting the challenges of employment and productivity.

SMEs are the primary beneficiaries of this type of project, while it is the most highly qualified workers who are most often targeted, because they are the ones who are most affected by technological advances. These workers are also more inclined to anticipate the training needs of tomorrow.

Great diversity

There is still a huge diversity in approaches to adjustment. Projects either try to give a specific response to a given problem created by technological and scientific advances or they adopt a more anticipatory approach, aimed at developing key skills and multidisciplinary abilities.

Several particularly innovative projects combine different areas of activity in order to develop new skills. For example,

the green tourism industry combines know-how from the tourism and environmental sectors with the redevelopment of rural areas and business creation. These same projects can then go on to develop new occupational profiles in the following fields: quality as applied to food manufacturing, environmental audits, waste reprocessing and the conservation of beauty spots.

Another example concerns the building sector and the introduction of new qualifications in home automation. Here too, the need for training has come about due to technological innovation, such as the intelligent management of large buildings to meet stricter criteria in terms of profitability and environmental friendliness.

Quality standards

More generally, changes in production methods and labour organisation are often geared towards obtaining the ISO 9000 standard or seeking total quality, even in the craft industry sectors. One Belgian project illustrates this approach. In partnership with French, Dutch and Spanish organisations, this project aims to introduce European quality standards in the wheat-flour bread sector.

Training methods are mainly based on analyses and assessments of skill requirements. They make extensive use of the self-training techniques (in the workplace or through distance learning with regular tutorials) offered by the new information and communication technologies.

The aim is to continuously improve employees' skills and adapt their abilities to new challenges. The strategy implemented to achieve this is usually based on the mechanics of training and has a long-term outlook, thus returning to the idea of the lifelong training route.

Network-linking the key actors

One of the main benefits of the Leonardo da Vinci programme is the network-linking of key actors in vocational training in Europe.

This networking has several advantages. It creates the conditions for the interactive flow of information on training initiatives taken; it helps to substantially increase the impact of project results; it makes systematic and full use of experience and, more generally, it supports the creation of continuing synergies among those involved.

One specific measure of the Leonardo da Vinci programme is dedicated to networks which anticipate needs, monitor technological advances and transfer technology at sectoral or regional level (*measure II.1.1.c*).

The various actors involved in the networks can be regrouped into sectoral or regional networks, networks for cooperation between universities and business, as well as manager and labour networks.

With 25 sectoral networks participating in the 1995 call for proposals, the Leonardo da Vinci programme tapped the energies of the most important actors in vocational training in Europe and re-mapped out a true European training area.

The most varied economic sectors committed themselves to implementing transnational training projects: cars, food manufacturing, molecular biology, information technology, textiles, general medicine and genetic engineering in particular, the environment, etc.

The project submitted by the Association of European Car Manufacturers (ACEA) is an example of this. The partners in this project (manufacturers, subcontractors, management and labour, and universities) work together to produce tools suitable for each specific situation. This enhances the competitiveness of businesses, at the same time taking into account the personal development of the workers into account. Another project initiated by the Liaison Committee for the Manufacturing of Car Parts and Accessories (CLEPA) has two aims: to develop new forms of work which integrate a training area, and create new training partnerships between car and car accessory manufacturers.

Regional networks also took a significant part in the 1995 call for proposals. Their aim is to promote regional development through training or establishing European joint ventures for training employees in areas that are particularly vital for the regional economy.

The networks for cooperation between universities and business, which focus on training, are one of the cornerstones of a European training area in which the transfer of skills and technologies for the benefit of SMEs assumes its full dimension.

The main aims of the projects of the 1995 call for proposals based on such networks are: to adapt businesses to industrial changes in state-of-the-art sectors; improve the technological skills of the workforce; adapt traditional sector businesses suffering from structural backwardness so that they can master technological tools; and transfer the result of research and development activities to businesses.

The *Perpetuum Mobile* project, submitted by a transnational university-enterprise training association, is a good example of this type of network. It will consolidate the transfer of new technology from research centres to businesses where needs for skills have already been identified.



*a knowledge of languages is one of the essential conditions
for constructing a 'citizen's Europe'*



The project submitted by the Scottish Aquaculture Training Association has similar aims in the field of aquaculture.

Finally, **management and labour networks** accounted for a very large portion of projects selected at the end of the 1995 Leonardo da Vinci call for proposals. This participation clearly reflects the importance of developing management-labour dialogue in industrial relations and, more specifically, the importance of vocational training.

One notable example is the European UNICE, ESC and CEEP network (workers' and employers' representatives), whose project proposes to establish management-labour dialogue training modules, geared to both trade union representatives and management.

The long-term issue

The transnational networking of key actors in vocational training opens up a much broader perspective. The issue is to make these networks part of the long-term picture to achieve a bigger impact on training policies and systems in Europe.

Knowledge of languages: for new jobs and new markets

An excellent multipurpose skill, a knowledge of languages, is one of the essential conditions for constructing a 'citizen's Europe'. It is also a decisive factor in the growth of businesses, particularly SMEs. Finally, it is a popular lifelong training route and clearly helps to improve the employability and mobility of the workforce.

Language education is the purpose of two specific measures of the Leonardo da Vinci programme.

One provides for assistance to pilot projects for producing teaching material and carrying out linguistic audits, developing certification frameworks or recognising achievements or training curricula (*measure III.1.a*). The other assists exchanges for language trainers (*measure III.1.b*).

At the end of the 1995 call for proposals, 43 pilot projects for language education were selected. It is important to emphasise that almost all the eligible languages under measure III.1.a. are covered by at least one project. This is a remarkable result, considering the limited number of languages traditionally used in business contacts (usually English, French and German).

It is, therefore, realistic to expect that the economic sector, which is anxious to open up to new markets and aware of the growing importance of a mobile workforce in a Europe without borders, will appreciate even more the significance of language diversification.

As far as the different sectors targeted by projects are concerned, language training in a professional context must be considered in the light of cognitive abilities and of **language actions** to be applied in the relevant occupation.

In this way, language projects can focus on a given sector and on the receptive (comprehension) and productive (expression) abilities associated with that sector. Careers in tourism, for example, require, among other things, the abilities to *persuade, describe or reassure*, in addition to cognitive skills generally used in the language learning process (*observing, reproducing, associating, transferring*).

Examples include: the British *Vislang* project, aimed at both teaching languages to young blind or partially-sighted people and teacher training; and the French *Recolingua* project, which offers interactive training in six Community languages on CD-Rom multimedia with a voice recognition system as the user-software interface.

Mobility: new experiences, new skills

Transnational placement and exchange programmes were particularly successful in the 1995 call for proposals. Some 20,000 people will benefit from a mobility grant under the Leonardo da Vinci programme, taking into consideration all measures and categories.

The Leonardo da Vinci programme offers assistance to transnational placement and exchange programmes aimed at three main categories of beneficiaries: young trainees and workers (*measures I.1.2.a and I.1.2.b*); students and young graduates (*measure II.1.2.a*); those responsible for training or human resources, training planners and administrators, as well as the trainers themselves (*measures II.1.2.b, II.1.2.c and III.1.b*).

Mobility under the programme has two complementary objectives: the transfer of technology from training establishments to businesses (mainly SMEs) and skills acquisition (particularly key skills) by individuals.

Bringing Europe together

As far as the acquisition of key or multipurpose skills is concerned, mobility contributes to the personal development of young beneficiaries by preparing them more fully for entering the labour market in terms of flexibility, adaptability or the ability to communicate in a foreign language. Additional individual benefits of mobility include a better understanding of different cultures and improved job prospects abroad as well as in their own country.

Some placement programmes, designed for the transfer of technology to businesses, are particularly ambitious in terms of the number of countries (12 on average) and partner organisations (90 on average) per programme.

The role of students or young graduates on work placement schemes for a given period varies from case to case. Either they are integrated into a company organisation and assume the work tasks of other employees or they concentrate on specific projects to be successfully completed, on which they write a report.

The experience of transnational mobility has a profound effect on individual and collective attitudes. In this respect, it assumes particular significance within the framework of the Leonardo da Vinci programme in that it genuinely cements the Union and is a lead in to the European training society.

The four strands of the Leonardo da Vinci programme

The Leonardo da Vinci programme funds three types of transnational projects: pilot projects and multiplier-effect projects, placement and exchange programmes, and surveys and analyses. Its main objective is to promote new approaches in the policies and practices of initial and continuing vocational training.

The actions or measures are divided into four strands:

Strand I: support for the improvement of vocational training systems and arrangements in the Member States. This is principally for people with responsibility for vocational training systems.

Strand II: support for the improvement of vocational training actions, including through university-entreprise cooperation, for businesses and workers. This is mainly for economic and social partners, active in vocational training.

Strand III: support for the development of language skills, knowledge and dissemination of innovation in vocational training. This strand is for all the partners in the programme.

Strand IV: support measures. This aspect concerns, in particular, the organisation and monitoring of the programme.

Further information

More detailed information on the Leonardo da Vinci programme is available on the Europa server of the European Commission
<http://europa.eu.int/en/comm/dg22/Leonardo.html>

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Tempus



Tempus: opening up to the outside world

From technical assistance to genuine partnership

Tacis

a mammoth task

Tempus/Tacis is still in the early stages of its development (preparatory activities began in 1993-1994), particularly when compared to the 2,000 common European projects (CEPs) that have been launched as part of Tempus/Phare since 1990. (Tacis: 200 pre-CEPs and 50 CEPs, on a very limited budget).

The challenges faced by the Tacis countries are very considerable. A recent report by the European Bank for Reconstruction and Development stated that the "size of the task involved in creating institutional, legal and human bases for the market economy (in these countries) has generally been underestimated".

As for the reform of higher education, the size of the task that lies ahead is illustrated by the fact that, in Russia alone, "there are some 700 universities, institutes and other higher education institutions, many of which have existed for several centuries and enjoy an international reputation. They bring together some six million teaching staff, researchers, students and postgraduates". The needs are so great that it is difficult for us, in the European Union, to picture them.

These factors provide a great deal of food for thought on the future of Tempus/Tacis.

In terms of structure, one of the major objectives in the Tacis countries is to implement and manage the process of diversification, decentralisation and autonomy of higher education institutions.

This diversification is accelerating, due, among other things, to the growing number of private higher education institutions in several Tacis countries. It is also due, to a lesser degree, to the public sector feeling the need to respond to the need for legislative reforms, financial constraints and a rapidly changing labour market. In addition, it is linked to the trend towards the decentralisation of funding and the control of institutions.

The events of 1989 and 1990 in Central and Eastern Europe had a considerable impact on the European Community. It was vital to act quickly and provide emergency support to help countries moving towards democracy to face the political and economical challenges ahead. But it was just as essential to develop fresh outlooks and objectives based on a different concept of Europe.

With this in mind, a programme was created under the broad umbrella of Phare (and later Tacis) which was specially designed to address higher education and vocational training needs. Today, this programme - Tempus - covers the whole of Central and Eastern Europe and has grown, since 1994, to cover the states of the former USSR and Mongolia. All of which goes to show the European Union's influence far exceeding its current borders.

Tempus covers three groups of countries

The **first group** is the Phare associate countries of Central and Eastern Europe, which are preparing to integrate the internal market of the European Union as part of a pre-membership strategy adopted by the European Council in Essen in December 1994. This entails rapid change in the education and training systems.

By 1999, the programme in some of these countries will have been underway for almost 10 years, and its impact will have been considerable. The countries in this group will progress from the Tempus programme to the Socrates programme as part of the process of joining the European Union.

The **second group** consists of non-associate Phare countries, currently limited to Albania but soon to include the countries of the former Yugoslavia, with the exception of Slovenia, which is included in the first group. Albania has suffered from a long period of almost total isolation, in which even cooperation with other communist countries was very limited. Given its lack of economic advancement and the inherent problems of its education system, Albania will continue to need extensive help in all areas. As a result, it is possible that the programme will be extended beyond 1999 for this country.

The **third group** consists of the newly independent states (ex-USSR) and Mongolia, which are covered by the Tacis programme and which have been introduced only gradually to the programme since 1993. The programme needs to be viewed in the context of the enormous challenges facing these countries in terms of political and economic reform, with a Tacis budget that is, at present, limited.

The programme has evolved

After five years, a number of patterns have become apparent during the evolution of the Tempus programme.

Four major trends are:

1. There is a movement away from a structure in which exchanges and mobility were seen by beneficiaries as an end in themselves.
2. Growing approval of the programme is coming from the partner countries as national Tempus offices grow increasingly active and professional from year to year and act as both catalysts, advisors and conduits for the reform process.
3. Projects are increasingly determined by national priorities. These priorities are increasingly chosen as part of a more general move to reform higher education.
4. There is growing interest in horizontal objectives, such as links between universities and businesses, multidisciplinary courses and quality in the management of higher education institutions. In other words, there is a general opening-up of universities to the outside world and to other universities in the same country and elsewhere in Europe. At the same time, there is an increasingly evident desire to replicate the results of the various Tempus projects in other areas.

Improved understanding between partners

According to a recent report by the Committee of European Directors of Education, Tempus has played and continues to play a key role in fostering international cooperation between higher education institutions in Central and Eastern Europe and the newly independent states, and network-linking. This naturally leads to the internationalisation of these institutions, greater flexibility of structures and outlooks, enhanced mutual understanding between partners in the East and West and consolidation of the democratic principle.

The Tempus programme is promoting more rapid and efficient adaptation to the needs of the labour market by setting up courses specifically designed to serve a new legal system, new management approaches, a new economy and a transformed public administration.

When necessary as a complement to relevant educational activities, teaching material development and communications between partners, Tempus supplies limited stocks of books, periodicals, computer equipment, photocopiers, fax machines, language laboratories, etc. Tempus is there to facilitate the modernisation of universities at every level and, in doing so, to create partnerships at every level.

One relevant solution to the needs of institutions is provided by the mobility of both students and university staff; administrators as well as teachers. Tens of thousands of trips have regularly resulted in updated knowledge, adoption of new teaching techniques, improved course structuring and greater confidence and ability to face the challenges of a rapidly changing world.

Further information

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Town planners from Milan and Brussels explore Samarkand

Tempus in action in Uzbekistan

The city of Samarkand, in Uzbekistan, faces major problems in terms of transport, the environment and tourism. To address these problems, a new town planning initiative needs to be put in place. As part of Tempus, a model project has been launched, bringing together teachers and teaching assistants from architecture and geography schools in Milan, Brussels and Samarkand.

Samarkand, once known as the Paradise of the East, goes back over 2,500 years. Today, with a population of over 400,000, it has an important role to play in the economic, cultural and scientific life of Uzbekistan.

Economic and political change has opened up a host of new possibilities in terms of commerce and tourism, which will have a major impact on towns such as this.

"In terms of architecture, this town is a unique cocktail of very distinct areas, each reflecting a particular period and illustrating its development through the ages," explains Arzimurad Rahmatullaev, Dean of the Department of Geography at the Samarkand State University. "Samarkand has everything it needs to become a major tourist destination, and, as such, a potential source of wealth for Uzbekistan".

Logistical and environmental problems

Following an initial influx of around 40,000 tourists last year, the city needs to respond quickly to enormous logistical and environmental problems. A consortium of higher education establishments has been formed to set up a teaching reform project, under the aegis of Tempus, to develop this new approach. Teachers and assistants will study the possible repercussions of the overall development of the town in terms of transport, the environment and social change.

The group plans to draw on the findings of this study to develop a special course to train town planners who will be able to adapt to present-day needs.

This project brings together teachers and assistants from the Higher Institute of Architecture in Brussels, the Department of Geography in Samarkand and the Centre for International Relations at the architecture faculty of the Polytechnic University of Milan. "Town planning is an area in which geographers and architects often have opposing objectives," says Renato Girelli, one of the project's coordinators. "But, as far as we are concerned, different visions are very useful."



Identifying strategies

The European universities will help to identify strategies which Samarkand can apply to local circumstances. For example, the increase in traffic due to tourism will be controlled by improving the existing trolleybus system linking the main tourist sites. Once the individual needs of visitors have been identified, the partners will develop a network of bed and breakfast establishments to help the locals benefit directly from this influx.

According to Renato Girelli, "in seeking to resolve the problems associated with developing the tourist industry, the project is highlighting the need for management of the actual structure of the town. Serious long-term planning will ensure that the town's development is steady and structured."

Like all Tempus projects, the Samarkand town planning project was born out of a preliminary common European project (pre-CEP) lasting one year. This may subsequently be turned into a CEP lasting three years, with a budget of up to ECU 1 million.

Tempus, mon amour

What is it like to be involved in Tempus? A first-hand account by Jean-Claude Andricq, Director of International Relations at Bethune Polytechnic

"I was living happily, close to my tree" sang the French folk musician, Georges Brassens. So it was with me and my little polytechnic in northern France: a few flirtations with Erasmus, two or three passing fancies with Comett, the odd period of OFAJ cohabitation across the Rhine. In other words, the happiness of complete peace and contentment, with barely a whiff of Community exoticism.

And then passion wreaked havoc upon my life. At first, I suspected nothing. One day in May 1990, like a jack-in-the-box, a little goateed Hungarian, animated and polyglot, burst into my office, muttering some arcane incantations (the only intelligible word was Tempus) and thrusting an impressive list of electrical equipment under my nose. A few months later, I found myself in a hotel room in Budapest, writing a 30-page letter intended to list the delights of a three-year liaison which had been arranged with a beautiful, unknown party from Brussels. She was far from indifferent to my advances and granted me some favours; the offspring of our liaison, christened "2702", was showered with ECU by the guardians of this beauty, who had been careful to have me put my signature to a marriage certificate.

All the joys and anguishes of being a father for the first time, I lived them every one. Oh, those first steps, those first tumbles, those first words, but also those first fibs. On my side of the family, my German, Spanish and Finnish cousins helped me to dream up lavish playrooms, full of cables and machines of which I understood nothing but which were deemed to be best for the little one's education. On the other side, my beauty's guardians paid for almost everything, but demanded that I should deliver a detailed report, each year, on the child's progress and the expenses that I had run up on its behalf. I'm sure I made every mistake in the book in educating a first child. But at least the child was born in the first place and is growing up healthy and spirited. Yes, I think there is much to be said for the principle that "love conquers all".

This marriage by correspondence, passionate and administrative (passionately administrative?) produced seven other offspring (timidly christened 3517, 3757, 7324, 7415, 9498, 9502 and 9561 - you give up bothering after the first!) of different nationalities, conceived during sojourns in Hungary, Poland, Lithuania and Romania. The Tempus children were a little unusual, being fed almost exclusively on computers, software and vitamins T2, T3, T4, S1 or S2, coming of age and being expected to fend for themselves at the age of three. Such rapid growth requires a very wide family circle. And so, over the years, I've called upon every single member of my university family (37 European cousins) and worn out my address book of industrial contacts.

To this day, my passion is unabated.

Of course, there are still those gloomy Saturday nights and pallid Sunday mornings known only to the APEX traveller who is neither tourist nor businessman, a hybrid from a John Le Carré novel, haunting shabby waiting-rooms, awaiting unlikely connections.

There is, of course, that implacable timetable of the Tempus tutors, which turn the seasons of my life upside down: spring comes in January, when the applications blossom; summer comes in March, with the heat generated by checks on the management of my little family; winter arrives in October, when my activities for the previous year are immortalised on paper. What words can express the horror of those afternoons of 31 January, when the final letter of intention has still not arrived, and 31 October, when the final mobility report has not been signed? And that cursed postmark that never lies!

Of course, there is that mountain of papers: receive, read, complete, return... I have sometimes felt I was neglecting my children, being so tied up with describing all the things I was going to do for them or all the things I had done or how I had done them. But one day, hope arrived; the governors informed me that they were moving house to Turin. In a flash, a wild hope that some of the papers would go astray, their calendar would fall apart, they would just leave me alone for a few weeks, months even... Not a chance! Here I am once again, frantic on the evening of 31 January, zonked out at midnight on 31 October, staked out in front of this abominable post office whose postmark never lies.

Of course, our children have all these godfathers and godmothers to help them at the start of a painful development, which should end with them being fully-fledged partners where once they were only candidates. They continue to count in dollars, while I have only just discovered the Brussels ECU. They come up with some funny schemes, in their lives of funny habits, but why should I impose mine on them?

Yes, there's all that to deal with.

But there is also 1 February and 1 November, when it's all done and dusted (for a few hours), the "clear conscience" of a job well done, the "cigarette after lovemaking" as Charles Dumont sang. It is the gentle whirring of the fax machine spewing out its transmission report after it has sent a three-page letter (in the space of three hours!!!) It is this portrait gallery of incredible diversity on its way to becoming my family photo album: 200 to 300 offspring of every size and shape, every culture, language, temperament, discipline, artful or innocent, whom I love and hate, praise and curse by turns. There is the smile of a Lithuanian student who, at last, will get to know the West and its wonders, Chopin's house near Warsaw, the Riesling of Lake Balaton and the painted monastery of Moldavia. There are those thousands of human and intellectual riches that I have collected on my travels: a word, a moment of silence, a fleeting image of beauty, an emotion - life.

My little Hungarian jack-in-the-box seems a million miles away now. Six years have passed and that little wizard - or demon? - has cast a spell on me once and for all. I often think of him, with irritation and fondness; of the things he has put me through! But what an adventure!

The European Commission launched its new European Voluntary Service pilot action this year, which will give 18 to 25-year-olds the chance to spend six to 12 months in another Member State. Through voluntary service, young participants will contribute to the local community. At the same time, they will acquire new skills and experiences in a European context. Some 2,500 young people are expected to participate in this pilot action, which has been allocated ECU 15 million for 1996.

Volunteers *sans frontières*

A new opportunity for young people in Europe

What makes this initiative so important is its educational value. By acting as volunteers, young people will acquire general life skills to help them face the challenges of a rapidly changing world. As the European Year of Lifelong Learning reminds us, in the future, general life skills will be at least as important as specific skills or technical knowledge.

Learning citizenship

Voluntary service offers young people the opportunity to develop self-confidence and broaden their horizons by having to adjust to and survive in a new social and cultural environment. It gives them a chance to put their creativity, enthusiasm and energy to good use, to take personal responsibility and to become involved in the organisation and running of a grassroots project. It is a hands-on experience of solidarity and active citizenship.

Today, many young people are trapped in a 'catch 22' situation: if you don't have any experience, you won't be offered a job; if you can't find a job, you won't gain any experience. Voluntary service offers young people an escape route. The Commission hopes the European Voluntary Service pilot action will open new paths towards the social and professional integration of young people. It will also examine the possible cross-over between this new approach and existing projects and programmes in the fields of education, training and work experience.

The link with local development

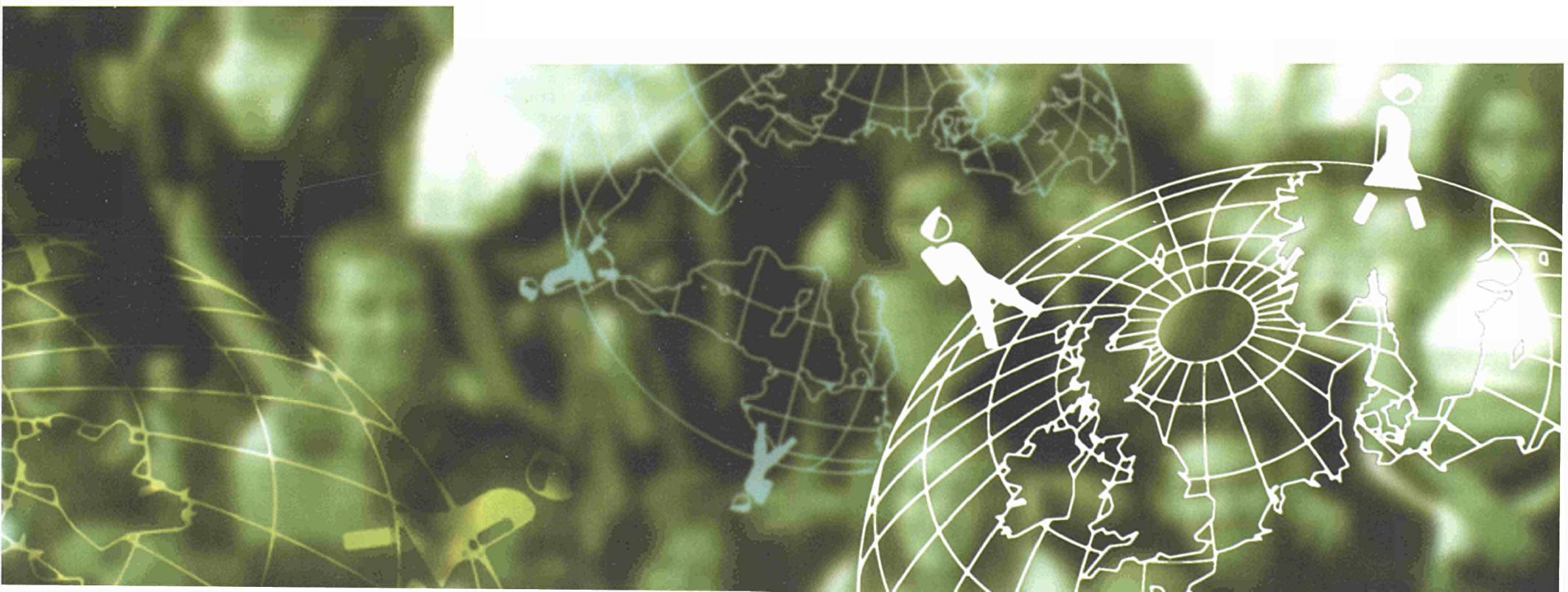
Another important dimension of this pilot action is the strong links that will be forged between voluntary service and local development. In order to be accepted, projects will need to be firmly rooted in the needs of the local community. Activities being encouraged include support for elderly people living alone and the disabled, helping out in a drop-in centre for the homeless, renovating a local youth club, transforming a plot of unused ground into a city garden and organising cultural activities with young people who have dropped out of school.

This link between voluntary service and local development is vital. It will ensure that the volunteers are fully integrated into the host community during their period of service and that the activities in which they participate have a tangible impact at the local level.

A three-way partnership

One of the keys to the success of European Voluntary Service will be the three-way partnership between each young volunteer, a host organisation and a sender organisation. These partners will be expected to fulfil a number of responsibilities in order to ensure the success of the overall project.

Naturally, the young volunteers should have their say, particularly in determining where they spend their period of voluntary service and the kind of activities in which they



Further information

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will be involved. They should also have someone to turn to if they encounter difficulties. The responsibilities of the sender and host projects will include the selection, preparation, support and follow-up of the volunteers.

What's in it for the local authorities?

There are many potential benefits for a local authority or a non-profit organisation. These projects will both promote and recognise a wide range of interesting activities, while making an important and innovative contribution towards meeting various social needs at the local level.

European Voluntary Service will provide an opportunity for cooperation with new partners both at the local level and in another Member State. The young volunteers will bring fresh enthusiasm and a new perspective to the host project. In addition, working with and giving support to a volunteer from another Member State will be an educational experience for all of those involved.

Cooperation with NGOs

Voluntary service is not a new idea by any means. A number of Member States have gained experience through national schemes, such as the *Freiwilliges Soziales Jahr* in Germany. Further possibilities are currently offered to young people by non-governmental voluntary service organisations (1).

Millions of Europeans are involved in voluntary work in a broader sense, often devoting a considerable number of hours a week to an association or organisation at the local or national level. Since 1992, the European Community has been able to test the waters of cross-border voluntary service activities for young people through the Youth for Europe programme.

The European Voluntary Service pilot action certainly does not call into question the value of the rich and varied experience which exists across the Community. The Commission's aim is to build on this experience and to offer new opportunities by adding a European dimension. In other words, the European Voluntary Service should help to stimulate the growth of voluntary service in countries which have a less-developed tradition in this area, promote the creation of new partnerships, reinforce existing networks and provide opportunities for transfers of experience and best practices.

The Commission will encourage a wide range of different partners to contribute to the success of this initiative, including local authorities, voluntary service organisations, youth organisations, local associations and existing European networks.

A world away from military service

The European Voluntary Service pilot action does not aim to replace existing military service or alternative civilian service schemes which exist in several Member States; national governments have exclusive responsibility in this area. It is based on the principle of active citizenship. The young people who participate will do so voluntarily, driven by their own enthusiasm and motivation.

Access for people from every background

The Commission is keen to make this action accessible to young people from a wide range of different backgrounds. In preparation, the young volunteers will receive language and intercultural awareness training before their departure. This learning process will continue during the voluntary service period. The Commission will ensure that the activities offered to young volunteers are suited to their motivations and abilities. Additional support measures will be set up to assist young people who might otherwise find it difficult to participate in a transnational programme.

Financial support

The Commission will co-finance projects which are selected as part of the European Voluntary Service pilot action. This funding will go towards the basic costs directly associated with the voluntary service activity - travel costs, training and preparation costs, extra insurance coverage, lodging, board and a volunteer's allowance.

However, the Commission's contribution will not be limited to the injection of cash. The pilot action will help to establish a broader European framework for cross-border voluntary service activities. This will involve a comprehensive information distribution strategy, assistance with the identification and matching of partners, the development of training methods for volunteers and project leaders, and so on. Support will also be available to the young volunteers and to host projects in the event of problems. In this context, the Commission will be working closely with national structures in each Member State.

On track

The European Voluntary Service is already on track. By the end of June 1996, the first series of projects were to be selected from among proposals submitted by European voluntary service organisations. This process enables these organisations to come forward with new proposals which reflect the innovative approach initiated by the Commission. It will also be an opportunity to closely study the expertise these organisations have developed in the preparation and support mechanisms for volunteers, and to see

reinforce existing networks and provide opportunities for transfers of experience and best practices

how such techniques might be transferred to other organisations which would like to get involved in transnational voluntary service activities.

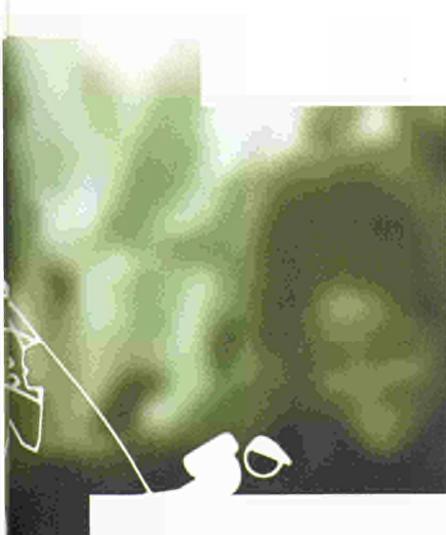
The Commission is also identifying a number of flagship projects organising innovative voluntary service activities for young people in a number of key areas, such as environmental protection, cultural activities or the development of new methods to help young people from disadvantaged backgrounds participate in voluntary service. Special attention will be paid to the lessons that can be learnt from innovative projects such as these.

A decentralised approach

In order to effectively reach out to parties at both the national and the local level, the Commission will take a decentralised approach to a significant part of the implementation of the pilot action. In conjunction with the national structures in each Member State, it is issuing a call for expressions of interest from organisations interested in hosting volunteers. A call for projects is due to be issued in July 1996, on the basis of these initial expressions of interest.

Parallel to implementation, the Commission is preparing the ground for the future. Proposals for a multi-annual European Voluntary Service programme should be published before the end of this year. A number of issues are currently under consideration. Steps will need to be taken in order to facilitate the free movement of volunteers within the framework of the pilot action and to overcome a number of potential obstacles relating to right of residence, social security and taxation. The Commission is also studying how this initiative could be extended to include voluntary service activities in non-member countries.

(1) It is interesting to note that some of these organisations date back to projects involving young people in the reconstruction of Europe in the aftermath of the two world wars.





What's new? What's cool?

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European Youth Information

Young people need more, and more accessible, information about what the European Union has to offer them and about their involvement, actual and potential, in shaping a society very much "under construction". Under the Youth for Europe III programme, new impetus is now being given to developing European cooperation in youth information.

Agreeing on the basic principle is not difficult. However, putting a European scheme into place is no easy task because of different traditions, national perceptions, cultural differences and, of course, language barriers.

Not the least of the language barriers is the difficulty young (and not-so-young) people have in understanding texts generally addressed to EU experts. The word 'youth' in this article, for instance, does not refer to everything that has to do with a particular age group – it implies a domain, outside formal education and training, where measures and activities are designed to help young people become active and responsible citizens.

Now the Youth for Europe III programme includes a specific action devoted to youth information, which shares the programme's general objectives: to enable young people to have a better understanding of the EU; to strengthen their awareness of the value of democracy and tolerance, and of the dangers of marginalization; to encourage their independence and creativity; and to develop their sense of active citizenship.

Who provides what in youth information?

In all Member States, bodies exist, sometimes public, sometimes private, for the purpose of providing information to young people about what are commonly known as 'out-of-school activities' – for example, youth exchanges, voluntary service, work camps, accommodation and travel at home and abroad, cultural events, and, to a greater or lesser extent, about where to study, how to find a job, how get advice on health matters, how to rent an apartment and many other issues of possible interest. Some focus on the local context, some have a broader outlook. Most importantly, all should provide guidance to young people on how to use the information in question.

Alongside these bodies, regardless of their area of activity, youth organizations also play a role, providing not only their members but all interested parties with information on their own activities and the possible involvement of young people. To give some examples, such activities may concern youth work with a social focus (drug prevention, work with minority groups, anti-racism, social integration and young people, etc.), the protection of the local environment and cultural activities in the youth field. Sometimes, of course, groups of young people themselves set information initiatives in motion.

Some youth organizations have made providing information to their peers a field of activity in its own right; some have specialized, e.g. in anti-racism or the environment, and others deal with information in a broader sense. Radio stations for young people are a good example. Along with a broader professional sector, they fall within the category of youth media.

The Youth for Europe programme provides a framework for supporting all the above types of information providers and activities.

European youth information cooperation

The aim of cooperation in this field is to make the information described above more widely available throughout Europe, regardless of where it comes from; to help information providers to work in a European environment for a European public; and to encourage active use of this information by young people. This can only be achieved if cultural perceptions and language differences cease to be an obstacle and become a strength when working together to produce and disseminate the information in question.

Encouraging the exchange of experiences with regard to information methods, new technologies used, particular approaches to delicate questions such as drug-prevention; supporting the extra cost of coming together in transnational projects for producing and disseminating information material for young people; funding the transnational dimension of setting up thematic information networks: these are the measures proposed under the Youth for Europe programme, which provides a structure of support for those who want to take such initiatives.

Achievements so far

The new initiative builds on past experience. A great variety of youth information projects have already been funded through action II of the Priority Actions in the Youth Field and under action E.I of the Youth for Europe programme.

| Some project examples |

Travellin'Light 1995: a guide to cultural events of interest to young people produced as a European Youth Card Association project.

Summer University on youth information: an event organized by ERYICA (European Youth Information and Counselling Association) that brought together more than 200 youth information professionals.

Manual on youth-media initiatives: developed by CSV Media to make young people involved in the media more aware of racist behaviour.

Virtual youth club for Europe: a 'high tech/low cost' info-network for young people in need of continuous medical care; a good example of what virtual mobility is about.

Information resource centre for youth organizations in the Mediterranean area: an initiative involving the collection and distribution of information for the promotion of youth exchanges and other activities.

The Youth Information Network and other developments

As the institution responsible for the implementation of European actions and programmes in the youth field, the Commission intervenes in these areas in order to encourage cooperation whenever necessary. A good example of a major project stemming from a Commission initiative is the Youth Information or Eurodesk Network.

The Eurodesk Network is developing into a European information service to provide information on the programmes and actions in the field of education, training and youth to young people or those who work with young people. It operates or will operate as an answering service linked to networks in Member States. Partners – Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Luxembourg, The Netherlands, Portugal, Spain, Sweden, the United Kingdom, Iceland and Norway – share European as well as national information on education, training and youth.

The Commission is encouraging further cooperation among existing networks, particularly those able to reach many young people. Youth media, and in particular youth radios, are among the main targets.

High among the Commission's priorities is to ensure that cooperation serves to echo young people's views -their interests and needs as well as their criticism- back to the European institutions.

Shaping European Youth Information has to be a joint effort involving European institutions, Member States and all actors in the field. Youth for Europe is an excellent instrument that offers wide possibilities for support, and the challenge is worth the effort.

Vocational training for women 'returners'

Further information

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One half of the sky can be interesting to the other...

After taking time out for family or other reasons, women tend to face difficulties in finding reasonably paid employment with good career prospects. These difficulties are not peculiar to women returners to the labour market. As patterns of work shift away from the traditional idea of a steady job for life, career breaks and sharing family responsibilities at home, career changes become increasingly common for both sexes. In many ways, then, women returners' vocational training needs are a prototype for the future.

Modern labour markets are complex. For many people seeking to enter them, impartial academic guidance and/or employment counselling for adults are already proving essential. These are gaining an increasingly high profile. For example, they are specific priority areas in the Leonardo da Vinci programme. Linked to but clearly distinct from vocational training, this kind of guidance and counselling both provides information and advice on training and employment and facilitates client-centred personal development.

A vague definition

A study (1) recently commissioned by DG XXII examined the existing and potential role of vocational guidance and counselling in responding to women returners' needs for training, qualifications and employment opportunities in five countries: Germany, France, Ireland, Spain and the UK. This study takes as its starting point the principle that providing good services for women means promoting quality guidance and counselling for all. Its conclusions are of broad relevance to the prospect of a lifelong learning society involving cycles of educational and occupational development for both men and women.

But who exactly are these *women returners*? The team which carried out the study found that the definition is far from clear. For such women, who are very diverse in terms of age, qualifications, employment history and personal circumstances, no clear definition exists within the European Union. In France, the category is not even formally recognised. Career guidance counsellors apply a range of definitions, from the classic "completely absent from the labour market for at least two years for family reasons" to "any woman entering, re-entering, upgrading her skills or contemplating a career change in the labour market".

If women with an unbroken employment history since ending continuous full-time education are excluded from the definition, this still means that nearly all economically active women can be categorised as returners.

The needs of women returners also differ widely but, broadly speaking, they may be seeking to **get into** the labour market on the best possible terms, **climb up** the qualification and employment ladders, or **break through** the glass ceiling to career advancement. Hence the title of the study.

A close study

In the first phase of the study, each national partner surveyed the kinds of provisions that were already available. The result was a series of case studies of services noteworthy for their innovative practices. The findings were discussed, together with the methodological and theoretical issues. The second phase of the project will involve interviewing experts on the current services and their recommendations for the future.

As well as developing transnational links, each participant learnt about the various attempts to redress the problems common to women returners (and indeed returners in general) in all the EU countries.

Initial leads

For the most part, women need no encouragement to enter training and employment; good, women-friendly services and courses are oversubscribed. But the diversification of provisions is underdeveloped and implementation of good-practice criteria (such as child care, training allowances, flexible access/working hours, quality of the service environment, advancement routes) is patchy.

Grassroots/local community initiatives are an essential complement to large-scale public services, but they suffer from poor and insecure funding. All services recognise the need to respond more effectively to women returners' needs and demands, but they need more information, expertise and support in order to do so effectively.

Open professional models of guidance and counselling practice, which are oriented towards the whole person, work in flexible institutional contexts, are able to reach users effectively and make good use of collegial teamwork and inter-agency networking, offer the greatest potential for optimising service provision. These principles are not, however, as widely and as firmly established as they might be, whether in terms of initial courses or in professional practice itself.

Economic sluggishness coupled with unwilling employers

Performance indicators in vocational guidance and counselling need to be considered in the light of the social and economic context in which they are applied. The problems faced by women returners have less to do with their own qualifications and experience profiles, or motivation to retrain and upgrade, than with the inability of the labour market and the unwillingness of employers to integrate women at appropriate levels and in ways that enable them to combine family responsibilities with paid work. Many existing vocational guidance and counselling services may be of high quality, but assessment tasks are, as a rule, underdeveloped; this situation is related to shortages of staffing and resources.

Escaping from the low status trap

There was a consensus that impartial vocational guidance and counselling could help women to escape the trap of low pay, low status, insecure work and, at the very least, begin to rebuild confidence and provide information about education, training and the job-seeking process.

Ultimately, however, local labour market conditions and the gender-specific nature of paid work set the boundaries for opportunities open to women.

A report devoted to career counselling and guidance for women returning to work – *Getting In, Climbing Up and Breaking Through* – highlights the fact that many of the innovative practices discovered would also benefit men returners and the long-term unemployed. In other words, as the Chinese so poetically put it, "one half of the sky" - women - is also relevant to the other half - men.

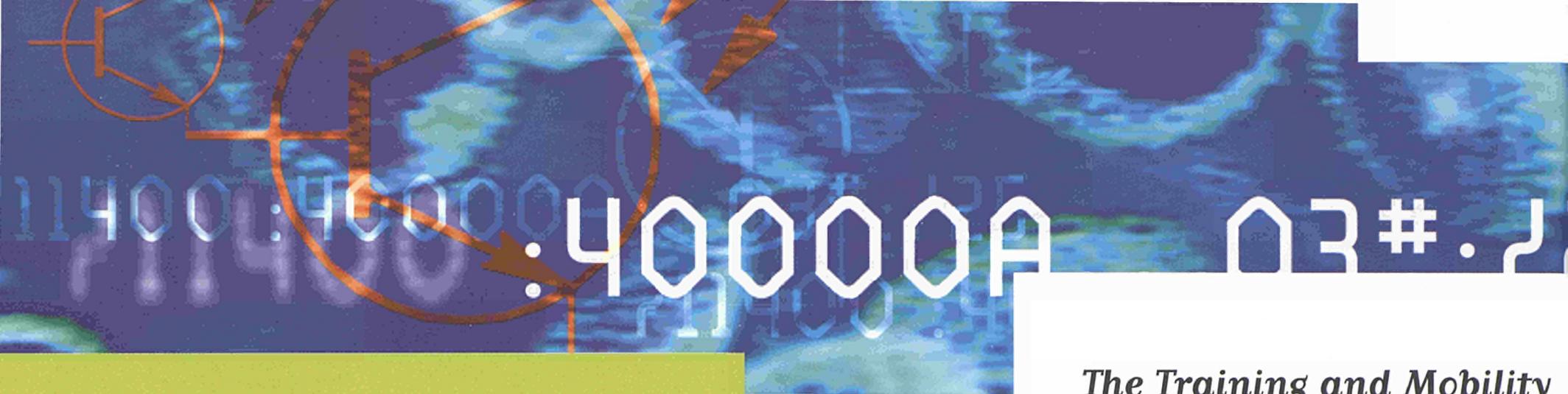
An unexpected but important perception that emerged from the survey and the interviews with both practitioners and experts was that many of the innovative practices discovered would also benefit men returners, such as the long-term unemployed. Although men need confidence-building as well, it was pointed out that they are less amenable than women to considering a change in career and retraining, even though these are prerequisites in today's labour markets.

Reviewing concepts

It is high time, therefore, to move away from the traditional concepts of vocational training. Qualifications do not automatically guarantee an individual a lifelong, straight career path. Rather, appropriate and effective principles of access and participation mean that age, personal circumstances and existing qualification profiles do not determine, once and for all time, what individuals can and may decide to do next or at some time in the future. This report, therefore, gives a direct impetus to actions that could be pursued in the light of the White Paper on teaching and learning and within the Leonardo da Vinci programme. Its findings also clearly fit within the concepts being promoted by the European Year of Lifelong Learning.

1. *Women Returners and Vocational Guidance and Counselling - Getting In, Climbing Up and Breaking Through.*

Study team led by Dr Lynne Chisholm, Cyrc e.v. - University of Marburg. The report will be published towards the end of this year by Policy Press, University of Bristol, Rodney Lodge, Grange Road, Bristol RS8 4EA, tel. 00 44 117 973 73 08.



The Training and Mobility

The *missing* link between education and RTD

The fourth Framework Programme for research and technological development (RTD) includes an important specific programme entitled Training and Mobility of Researchers. It is designed to give a boost to young researchers in a number of different ways: support for training networks, access to large-scale research facilities, awarding of grants, participation in high-level scientific meetings and the organisation of European competitions designed to promote interest in RTD among young people.

In recent years, the European Commission has offered Europe's schools and universities a host of educational opportunities which have helped them transform the educational landscape of Europe. School children and university students are crossing borders, learning and interacting with their fellow Europeans in a way that was inconceivable 20 or perhaps even 10 years ago.

Beyond the school and university sector, training performs an important twofold function in the specialised world of research and technological development. It keeps researchers abreast of the latest developments in their specialised fields and gives them the flexibility to adapt readily to any new emerging areas of science and technology.

Training is now a crucial element not only in the Commission's educational programmes but also in the development of all the Community's RTD programmes. Without training, Europe would quite simply be incapable of strengthening its scientific and technical potential.

ECU 792 million over four years

Training and mobility of researchers (TMR) is the fourth of the four principal activities that make up the ECU 13.1 billion Framework Programme (1994-1998). This activity has been given an overall budget of ECU 792 million over four years.

The TMR programme aims to develop human resources in Europe, both qualitatively and quantitatively, in order to provide the Community with top-level scientific and technical personnel. TMR is open to virtually all scientific disciplines, from the exact and natural sciences to certain aspects of economic, social and human sciences. No discipline is given priority over any other. Projects are selected solely on the basis of scientific quality and the proposals' compliance with the objectives of the fourth Framework Programme.

A bridge programme

TMR is seen as a bridge between specific educational and early training programmes and the more advanced research training programmes which the Commission supports as part of its RTD Framework Programme. Its bridging role extends the Commission's range of research training from the senior school sector right through to enabling European research teams to push back scientific and technological frontiers.

Research training networks

TMR's first action involves supporting training networks for researchers. These networks are designed to encourage teams of researchers around Europe to collaborate on high-quality projects. Therefore, promotion of the training and mobility

of researchers and, in particular, the training of young researchers at post-doctoral level is key in this process.

All networks receive funding which permits network partners to invite young researchers to join the project as visiting researchers. These networks also have a role to play in strengthening cooperation between universities and companies and in disseminating the results of the research.

The research training network aspect of the TMR programme has attracted the most attention across Europe and in other countries. This is perhaps not very surprising. It remains the only Commission research programme that provides researchers in any field with a completely free hand to prepare and initiate whatever actions they consider to be most appropriate in order to meet today's scientific challenges.

702 teams of European researchers

The first call for proposals resulted in over 1,400 eligible proposals being received, 91 of which were selected for funding. There were successful candidates from all 15 Member States. As a result, 702 European research teams will soon commence work on a TMR Network. The average network consists of eight project partners and involves researchers from all 15 Member States of the European Union as well as from Iceland, Liechtenstein and Norway.

Once all the contracts have returned and signed, every selected TMR network will feature on the Cordis WWW server at: <http://www.cordis.lu/tmr/home.html>. In addition, because more than 2,200 young researchers' years are to be financed, the Cordis WWW server will advertise the vacant posts that are to be linked with successful networks.

New call for proposals

The Commission has set aside ECU 356 million for research training networks. A new call for network proposals will be launched in September with a submission deadline of 3 February 1997. Projects may last up to three years and research teams will receive, on average, between ECU 40,000 and 70,000 per partner per annum, primarily to cover the costs of the visiting researchers and network-linking costs. The networks can expect to receive up to ECU 1.5 million in total.

The setting up of an additional 150 European research networks is planned. In order to qualify, each network needs to consist of at least five research teams from at least three countries. The networks will be selected on the basis of the scientific quality of the project, the strength of the combined expertise of the teams involved and the impact the project has on the training of researchers.

Further information**The TMR programme**

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European Commission - 200 rue de la Loi - B-1049 Brussels - F +32.2 296 32 70

Details of the TMR programme can be obtained on the Internet: <http://www.cordis.lu/tmr/home.html>

For very specific TMR details, please contact the relevant activity directly:

Research training grants - F +32.2 296 21 33 - E-mail: grants.tmr@mhsg.cec.be

Research training networks - F +32.2 296 21 36 - E-mail: msf.tmr@mhsg.cec.be

Access to large-scale facilities - F +32.2 296 69 95 - E-mail: info.tmr@mhsg.cec.be

Euroconferences, summer schools and practical training courses - F +32.2 296 69 95 - E-mail: info.tmr@mhsg.cec.be

of Researchers programme

Access to large-scale facilities

The purpose of the second strand of TMR is to provide European researchers with easier access to large-scale research facilities throughout Europe. Access to these facilities, which are scarce and in some cases unique, enables researchers to carry out specialised experiments and thus helps to enhance the scientific and technical quality of their work.

Since the first call for proposals, 75 national research facilities have each been awarded access to large-scale facility (LSF) support, worth an average of ECU 840,000. Researchers from all over Europe have been afforded unparalleled opportunities of free access to such major nationally-owned facilities as astronomical observatories, synchrotron light sources, neutron beam sources, earthquake simulators, supercomputers and facilities for environmental research.

65% of the budget committed...

Following the first call for proposals which closed in April 1995, nine transnational RTD projects worth, on average, ECU 1 million have been awarded. The selected projects involve many of the 75 selected facilities. These RTD projects will concentrate on enhancing the instrumentation and research capabilities to be found at a range of similar large-scale experimentation facilities. Examples of projects that should assist the future work of researchers include a 10-partner network working on neutron instrumentation, a seven-partner project which is producing a prototype 100 Tesla magnet and a three-partner project developing new detectors for polarised synchrotron X-ray radiation.

The sum of ECU 118 million has been set aside for the LSF activity; 65% of the budget was committed following the first selection round and further ECU 2 million have been earmarked for the second call for proposals, which will be launched in September 1996. This, however, will be limited to supporting actions. The balance will be spent on the third and final call for proposals, scheduled for March 1997. This will be limited to researcher access and RTD projects.

Research training grants - the Marie Curie Fellowships

The third aspect of TMR involves the training of young European researchers who wish to carry out research in a laboratory in a foreign country, mainly following their doctorate. To limit the 'brain drain' from Europe's less developed regions, return grants are available to enable researchers from these regions to return to their country of origin after they have benefited from a post-doctoral training grant.

More than 3,000 research training grant applications were received following the first call for proposals, some 2,000 following the second call and 2,200 after the third. In the first two rounds, almost 4,000 proposals were deemed to be eligible and submitted to the relevant panels for scientific evaluation before 863 were selected for financing.

The sum of ECU 277 million has been set aside for the research training grants, representing the equivalent of some 5,000 years of research potential. These grants, which are now known as Marie Curie Fellowships, fall into three major categories: training grants are for researchers with a doctorate wishing to undertake training in a foreign country; return grants are for researchers from the less-developed regions of the Community who, having received a Marie Curie research grant, wish to return to their country of origin; and finally, grants for established researchers are intended for those who have, at the very least, eight years' research experience and wish to join a research team based in one of the less-developed regions of the Community as a visiting professor.

There are three more chances to apply for a Marie Curie Fellowship. Applications should be received by the following deadlines: 16 December, 1996; 16 June, 1997 and 15 December, 1997.

Euroconferences, summer schools and practical training courses

The goal of the fourth strand of TMR is to contribute to the training of young researchers by enabling them to participate in high-level scientific meetings. This activity will, among other things, improve communication among researchers on the one hand, and the scientific community and industry on the other.

Results from the Euroconferences, summer schools and practical training courses second selection round projects show that almost one third of the eligible proposals received a positive evaluation and were recommended for funding. In almost every case, the proposed support is intended to cover a series of scientific meetings rather than just a single event.

Young researchers are the principal beneficiaries of this TMR activity. Event organisers are provided with funds to enable the broadest cross-section of interested European researchers to attend their chosen event. Young researchers wishing to attend a particular activity have only to approach the contact person for the particular event that interests them for further information. Almost ECU 34 million has been set aside for this activity.

- **Euroconferences:** To strengthen links between young researchers and experienced researchers (30-100 participants).
- **Summer schools:** To advance the training of researchers at doctoral and post-doctoral level (30-100 participants).
- **Practical training courses:** To enable small groups of researchers (10 to 30) to familiarise themselves with specific hands-on techniques. These are held in the laboratory, within companies or in the field.

There are four more chances to apply for Euroconference assistance. Applications should be received by the following deadlines: 30 September 1996; 1 April 1997; 30 September 1997 and 31 March 1998.

The European Contest for Young Scientists

The fourth activity of TMR includes the smallest part of the programme and the most visible link between the Commission's educational programmes and research training programmes: the European Contest for Young Scientists.

The contest was set up to promote the interest of young people in RTD and, within this field, to raise their awareness of the European dimension. It is the annual showcase of the best of scientific achievement by European students and, as such, attracts widespread media interest.

The EU Contest gives science students the opportunity to compete with the best of their contemporaries at the European level. The young scientists also have the opportunity to meet other young people with similar abilities and interests, and to receive guidance from some of the most prominent scientists in Europe. In this way, the Commission seeks to strengthen the efforts made in each participating country to attract young people to careers in science and technology.

The EU Contest Finals this year will be held in Helsinki in September, before moving on to Milan in September 1997 and then to Portugal in 1998.

The EU Contest is the ultimate goal for more than 12,000 young scientists aged between 15 and 20 who compete annually in their national contests.

Conditions of entry

Participation in the TMR programme is open to all researchers in the 15 Member States of the European Union and the countries associated with the programme (i.e., as of 1 May 1996, Iceland, Israel, Liechtenstein and Norway). However, a researcher in an associated country will be eligible for a Marie Curie Fellowship only if the host institution is located in a Member State.

Multimedia educational software:



The use of multimedia educational software has much to offer in encouraging learning. But in order to exploit this potential fully, a series of barriers still needs to be lifted with regard to the definition of the programs, improved access to them and teacher training. All these issues are being tackled head on by the Community programmes Socrates and Leonardo. In May, the European Council of education ministers also adopted a resolution which should further the development of multimedia educational software.

Catching up with the USA

The overall situation in the USA is better than in any other country in terms of the number of computers available per student. According to a report from the OTA (Office of Technology Assessment, which reports to the US Congress), the average pupil-to-computer ratio was 9 to 1, while in Europe (according to Eurydice figures), it ranged from six pupils per computer (secondary education in Scotland) to 60 pupils per computer (primary education in French-speaking Belgium). These statistical averages also hide a high degree of disparity as regards access to equipment in Europe, depending on the country or region.

Multimedia educational software offers numerous technical advantages. But in order to realise these advantages, a solid grasp of the design problems involved is needed. The whole idea is to combine different technical effects in electronic environments and then adjust the various levels of interactivity with other media or other learning tools. Designing the most basic of programs involves clearly anticipating the respective roles of the student, computer and teacher, in order to propose options for interaction between the students and the multimedia resources.

What is the best way of involving teachers?

Another challenge is that the teacher will need to learn to make full use of educational software's potential or on-line services in order to manage the different learning techniques (individual or group, inside or outside the classroom). The teacher becomes a manager of increasingly disparate resources and situations.

There is certainly no shortage of teachers and trainers who are prepared to introduce new information and communication technology into their teaching methods. But they still need to be convinced of the educational value of multimedia.

Teachers are looking for a better understanding of their role in the process of integrating these programs. Teachers and trainers fulfil a series of functions which can never be taken over by the machine. They engage in exchanges and discussions with their students on the initial design of the software and the various designs

possible in terms of content and function. They assess the educational paths which are most appropriate to the individuals they deal with. They provide students with the opportunity to act and interact with resources linked to the subject at hand. Teachers use their own experience to assess what adaptations are needed. They help students to reflect on their working methods, to select, sort and analyse. They develop together with their students and enhance their teaching practices by interacting with their environment.

Improving access

Other pressing problems remain, such as those relating to access to software and support services. The current situation is characterised by an extreme disparity in levels of equipment and, in particular, by an acute shortage of equipment in most schools in terms of machine/pupil ratio and access to on-line services.

In the field of education, the data gathered by the Eurydice network and by the IEA (International Association for the Evaluation of Educational Achievement) in all the Member States shows that, in a number of countries, equipment in schools is still quite inadequate for there to be any really widespread use of multimedia.

Improved equipment for educational establishments would reduce the risk of domestic equipment stealing a lead over school equipment, leaving children from less well-off families marginalised by the current experiments.

The use of multimedia educational software should, eventually, respond to new educational demands without the need for major investment in equipment.

Other priorities should not be sacrificed

Just as much attention should be devoted to the development of software and teacher training as to the development of equipment. In this context, there has been some speculation concerning necessary resource distribution, along the lines of: "for every ECU spent on buying and maintaining equipment, at least 1 ECU needs to be spent on software and 1 ECU on training".

Furthermore, it would be a pity if hasty increases in the sums invested in such new equipment were made at the cost of other areas such as libraries, books, salaries, number of teachers, training and equipment.

In the light of this, one of the major challenges to be met is that of costs. Cooperation between users and producers at the European level would certainly allow savings to be made, through pooling of experiences and developments and the adoption of new arrangements for the use of jointly-produced resources.

Intense European demand

With 67 million schoolchildren, 4.5 million teachers and 35 million adults receiving training each year, the EU has an enormous potential demand. Satisfying this demand depends on the development of products and services in the field of educational software which reflect the diversity of educational and training programmes.

For example, different market segments will appear in the area of modern languages or that of music tuition. Beyond these markets, jobs and professions of various kinds are now required. Educational software makes use of many different skills: graphic artists, designers, educational engineering specialists, scriptwriters, tutors, etc.

An Education Council resolution

A resolution on multimedia educational software was adopted by the Education Council on 6 May 1996. This resolution covers several strands, such as research, development of an environment conducive to design, the production and use of educational software, as well as the exchange of information and experiences relating to educational software and its evaluation.

All these moves should make Europe's strengths and weaknesses more apparent so that it is possible to go further in developing software adapted to our diverse identities and cultures. More emphasis will thus be placed on the European dimension of education.

Through Socrates and Leonardo

The various issues described above will also be analysed more closely within the framework of education and training programmes in the field of education, with the open and distance learning strand of Socrates; and, in the area of vocational training, with the Leonardo da Vinci programme. These two programmes will work in even closer collaboration with the various relevant Community programmes: the education sector of the Telematics programme, the New Information Technologies programme, the MEDIA II programme and the INFO 2000 programme.

Therefore, 1997 should be marked by a closer coordination of the various calls for tender with a view to increasing the visibility of the European cooperation opportunities that these programmes can offer potential 'customers'.

No magic formula

Beyond these institutional issues, it is often the logic of the market that decides what works. At the end of the day, the success of personal computing has been tied to software such as Visicalc, one of the first spreadsheets, which proved very popular with users because it really offered something unique.

In the case of education, the same story has yet to be written - there is no magic formula. Here, as elsewhere, it is the users who will write this story through their personal and collective involvement. There is, nonetheless, a difference of scale, in that users do not necessarily have the means to pay, and those who decide how much should be spent are not necessarily the end users of what is being bought. Very often, the users are not the purchasers and vice versa.

One of the conditions for a better dialogue between purchasers and users will doubtless be the introduction of information systems relating to software and its use, at the European level. This will be one of the goals of the Commission's work in the future.

potential to be tapped

Further information

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Technical assets

Educational software offers a whole range of technical opportunities.

1. Image manipulation and graphic representations, particularly with simulations or the conducting of experiments, whether it involves dissecting a frog, launching a balloon, scientific simulations or the use of animation, for example to explain how an engine works.
2. Sound processing, for example, with the computer acting as a speech processor to name objects in different languages, to provide musical instruction or to record the user and play his or her contribution back.
3. The ability to alter the parameters of complex models, for example, running an imaginary town or theme park.
4. Managing long-distance interaction between pupils, between teachers or with partners outside the teaching system.
5. Driving simple or complex machinery such as educational robots or simulators.
6. Automatic compiling of user results, for example, reading times for comprehension tests, enabling the user to measure his own progress, even if it is minimal.

Which software?

In addition to the more traditional professional tools such as spreadsheets, databases, word processors, graphics packages and so on, new types of software are used in primary and secondary teaching, for example:

- key skills software for reading, writing and arithmetic;
- other content-based software, for example, in disciplines such as chemistry, physics and the natural sciences;
- tools specific to particular disciplines, such as graph plotters in mathematics, modern language exercises or graphics software able to show molecules in chemistry; and
- information bases, such as encyclopedias or databases, on CD-Rom or other media (for example, Hypercard batteries).

From the board game to the educational guide...

Creative school partnerships

The pilot action by the multilateral school partnerships, which prepared the ground for Comenius, resulted in a whole range of original products. From the board game to the educational guide, the multilateral school partnerships showed great creative diversity in what was produced as a result of the joint work of young people in various countries. The educational establishments that took part proved to be dynamic and efficient in bringing the European dimension to education systems. The result of their work represents the best possible showcase for Comenius.



This is Europe

Are you a board games enthusiast? The partnership coordinated by the Lycée Hubert-Clément in Esch-sur-Alzette, Luxembourg has just the thing. Packaged in a very professional-looking box, it provides a board, a die, pieces and no fewer than 384 multiple-choice question-and-answer cards designed to test your knowledge of the four partnership countries (Luxembourg, Denmark, Spain and Ireland). The objective is to be the first to reach the European flag in the middle and be declared the winner by an independent referee. An effective way of making learning fun (Polyprint SA, L-4050 Esch-sur-Alzette).



The joy of sharing

A wonderful programme title for a publication resulting from a school partnership with the theme of integration and multiculturalism in Europe. Coordinated by the Istituto Magistrale Cairoli in Pavia, Italy, this project has led to the production of a manual sharing the ideas of the reflections of teachers and students on multiculturalism.

This manual is also a mine of highly practical methodological information on how to set up

and expand a European school partnership. The paths are numerous, the sources rich and varied. The element of concern for others and the respect due to them is always very much in evidence (Editore Ibis, I-Como-Pavia, 1995).

War and Peace

Using Tolstoy's title, the partnership coordinated by Sint-Josefscollège in Tiel, Belgium, provides a reminder that Europe's founders sought to build the Union on peace, following the fratricidal wars that ravaged our continent and the world in the first half of the century. The teachers and pupils decided to explore war

monuments and art relating to the European "civil" wars. They have produced an interesting booklet, in which they outline their approach and offer their thoughts, in which poetry mingles with research, the interpretation of monuments, posters, contemporary comic strips, etc.

Thus the memory of the past is examined in order to build a future of peace (Belgium, Germany and Denmark).

Environmental protection: an urgent necessity

Raising pupils' awareness of the protection of species threatened by tourism, pollution and other human activities, and acquainting them with methods of conserving the aquatic environment near the pupils' homes are the objectives of the partnership coordinated by the Greek school in Rethymu, Crete.

Its final report, the cover brightly illustrated with a child's drawing in which an otter and turtle frolic in water filled with human detritus, offers the reader a detailed plan of action, a series of questionnaires with their results in the form of diagrams and the contribution of each partner establishment in the project. It is left to other schools to reflect together, on the basis of this striking example, on the flora and fauna of other regions of Europe (Greece, Portugal, Belgium).

Columbus

With such a name, there must be discovery in the air! Discovering the port cities of Europe is the subtitle of the project coordinated by the Civico Liceo G. Deledda in Genoa, birthplace of Christopher Columbus. Genoa joined forces with Antwerp in Belgium, Barcelona in Spain, Lisbon in Portugal and Palermo in Italy, to carry out a comparative study of these port cities, from a historical and cultural as well as economic and geographical perspective.

The result is a summary document, published in 1995, which compiles interesting methodological and thematic facts.

Innovative training products

If you want a video on how to improve your golf swing or a book on furniture restoring, the nearest shopping centre can probably provide a selection. But where do you go for the latest training material related to work rather than hobbies?

One answer is the training products catalogue produced for the Leonardo da Vinci programme. The first such catalogue was compiled this April to accompany an exhibition of CD-Roms, videos, audio cassettes, workbooks and other new training materials developed by European vocational training partnerships.

The *Innovative Training for Europe* exhibition was organised in Brussels by DG XXII and the national Belgian agency responsible for coordinating the Leonardo programme in the country's Flemish community. It provided a showcase for 86 products developed under previous programmes, such as Comett, Lingua, Petra and Force, classified under 15 headings ranging from the transport and manufacturing sectors to medical services, environmental issues and language learning.

The following examples give some idea of the variety of innovative training products increasingly being developed under the Leonardo programme.

STORM

An oil rig can be a dangerous place to work. This product - Statutory Training for Offshore Rigs Medics - offers a UK Health and Safety Executive certificate of competence course and a recertification course for nurses in an offshore environment. The certificate course is based on a study guide, 41 distance learning workbooks, five video programmes, eight assignments, practical training and assessment.

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Internationalisation of SMEs

How can small and medium-sized enterprises best go about doing business abroad? This multimedia kit is designed to help small firms with the analysis, planning, organisation and control of international commercial ventures. It includes an entrepreneur's manual; a trainer's manual; a one-hour video and audio cassettes on international business strategies; useful addresses in EU countries; discs detailing macroeconomics statistics in EU, EFTA and Eastern European countries; and a simulation plan for investments and profits.

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Europa Lingua Surda

How do you learn a foreign language if you are deaf? This multimedia, multiskills, interactive package aims to help the deaf and hard-of-hearing to learn French and English at secondary and post-secondary level with the goal of helping integrate them into the world of work. British and French sign languages are incorporated.

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Capital Business Dictionary

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