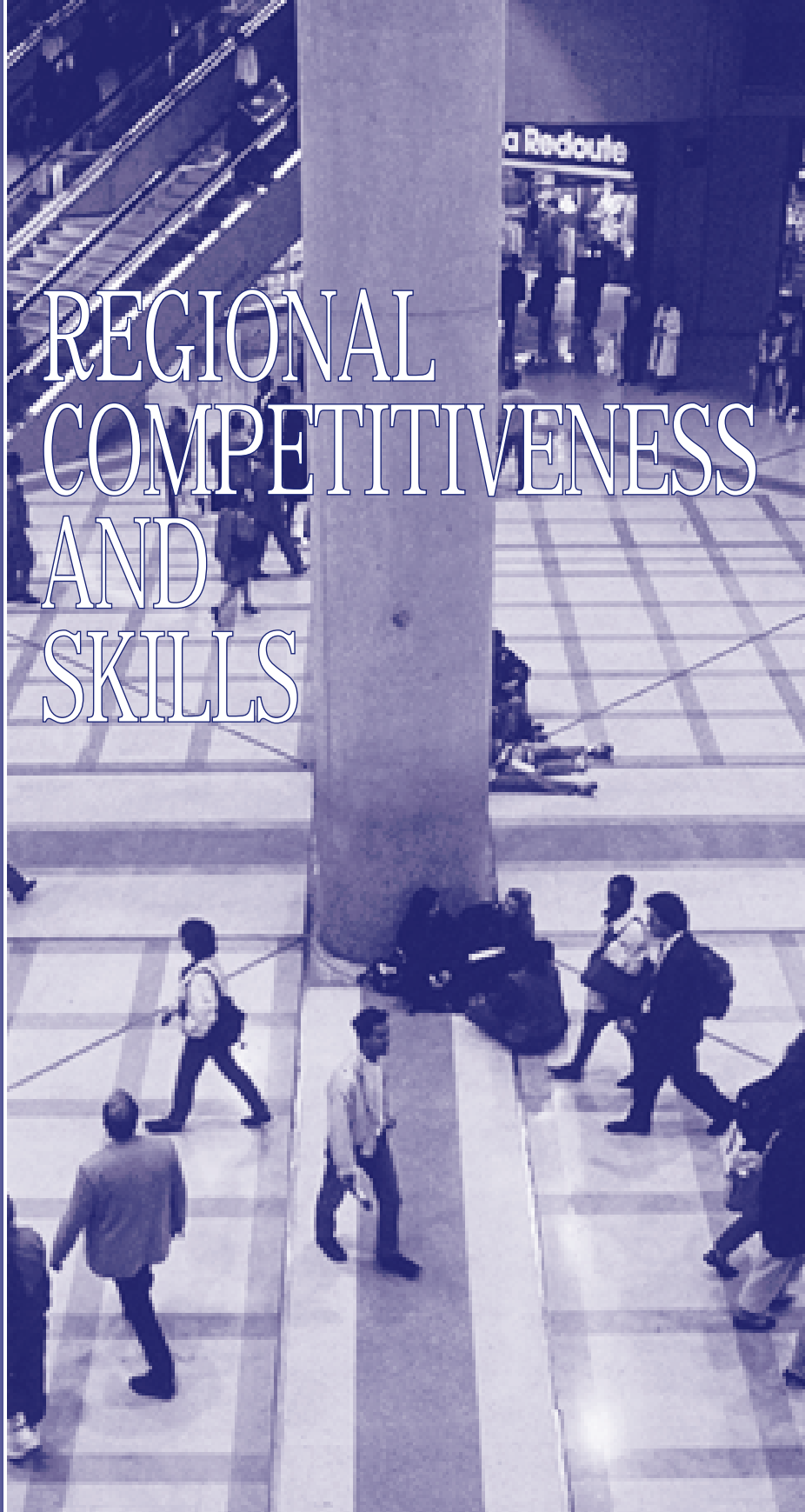


TERRITORIAL DEVELOPMENT

REGIONAL COMPETITIVENESS AND SKILLS



REGIONAL COMPETITIVENESS AND SKILLS

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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FOREWORD

The problems of regional development, disparities and competitiveness today occupy an increasingly important place in the priorities of governments. The globalisation of activities and rapid development of technology have accentuated the advantages of some territories such as major cities and areas with high potential competitiveness. Other territories have fared less well from the expansion of international trade and the opportunities given to them by external inputs. Economists have been led, therefore, to consider ways of reinforcing the contribution of these regions to overall growth. The exploitation of human resource development in this context is attracting increasing attention as the means of improving economic performance and job-creation capacities in certain regions.

At a time when our societies are evolving towards learning economies, the value of the concept of “learning regions” becomes self-evident. Human resources, and the human factor in general, are playing an increasingly important role in the economic competitiveness of regions. The necessary frame of reference for developing human capital is being enlarged. It is taking more and more account of the formal qualification system, and the presence of the non-formal sector. The latter has a more significant role as public budgetary constraints become tighter. Even more fundamentally, our societies can no longer face up to technical and organisational challenges by relying only on the formal education system. Thus, enterprises, associations and networks occupy a more and more central place in maintaining and developing the skills of the labour force. In this connection, regions have much to contribute as partnerships develop and local networks exercise maximum effects.

However, expanding the capacity and skills of local communities is a slow process. In order to bring about the growth of a region it is indispensable to rely on the people who actually live and work there. The benefits are long-term and cannot be guaranteed nor are they easy to measure. The temptation is strong, therefore, to choose the easiest of options and to promote programmes in favour of investing in physical infrastructures. Nevertheless, the commitment of public authorities and partners to improve skills and competences is on the increase, despite the difficulties that emerge. Improving skills in enterprises and offering

aid to the unemployed and those at risk are also contributing to reinforce the viability and competitiveness of regional economies.

The theme of improving human capital was at the heart of the efforts of the OECD Working Party on Regional Development Policies. In collaboration with the German authorities, the OECD participated in the organisation of an international meeting on the question, which took the form of a conference on "Skills, Training and Regional Competitiveness". Its aim was to clarify, to debate and to propose an orientation for future policies to enhance the quality of human resources in regions. It was organised on 13 and 14 January 1997 at the invitation of the Federal Ministry of the Economy with the co-operation of the Federal Ministry of Education, Science and Research and of the Ministry of Technology in Berlin, with the support of the European Commission. With 23 OECD Member countries, the European Commission, the Committee of the Regions, BIAC and TUAC, and the Federation of Russia as an observer participating, it assembled some 120 persons who debated integrating policies for human resource development into regional competitiveness.

This volume presents the debates and some of the case studies. The first part touches on key matters concerning the "learning region". How do links between the national and regional authorities affect policies for enhancing human resources in a region? What are the lessons to be drawn from experiences and programmes designed to improve future policies for regional development? How can the links between the regional public authorities and the actors be reinforced in order to promote the development of human resources in a region?

The second part describes policies and practices already implemented in a number of Member countries. The principal theories and the main issues of economic development are examined as well as several precise aspects of the improvement of human resources and their effect on regional competitiveness. Co-ordination between the various public and private actors offers a framework for evaluating the contribution of several programmes and specific initiatives. Schemes and programmes for improving human resources implemented or being implemented in nine OECD countries are analysed.

The third part is devoted to the strategic roles of regions in their links with the national frameworks, in elaborating future policies and partnerships between regional authorities and the public and private actors. Regional and national links are examined by means of four contributions illustrating: "flexible" relationships (United Kingdom); dominance of the regional level (United States); creation of a regional policy (the Czech Republic); the current move towards decentralisation in a centralised country (France). The assessment of policies raises the question of the level of analysis: local, regional or a combination of both? This question is posed notably in the case of Germany, where the links between levels are complex, and in Italy in the urban and industrial context of small and medium-

sized enterprises in Modena. The issue of the contribution of research and education to regional development is examined for higher education institutions (Conference of European Rectors) and for expert centres forging close links with the local and regional SMEs (Finland and Switzerland).

The concluding section puts forward five recommendations for the attention of regional authorities: give policies for human resource development a demand-driven focus; base competitiveness on the development of partnerships; reinforce economic efficiency by policies of equity; develop regional governance to consolidate national policies. The region is the appropriate level for improving policies to enhance skills and qualifications. It is also the level where policies are integrated and where the various stakeholders can become complementary.

The conference was organised in close collaboration with the German authorities, particularly with Dieter Drerup, Bundesministerium für Wirtschaft (Bonn) and Klaus Peter Schmidt, Senatverwaltung für Arbeit, berufliche Bildung und Frauen (Berlin). The publication has been prepared by Hans Schuetze, Center for Policy Studies in Education, University of British Columbia (Vancouver, Canada) and, for the OECD Secretariat, by Danielle Colardyn, and Patrick Dubarle. This volume is published on the responsibility of the Secretary-General of the OECD.

TABLE OF CONTENTS

Part I

REGIONS AND HUMAN RESOURCES – POLICY ISSUES

Key issues for the learning region	11
Policy perspectives	15
Economic growth and the importance of people in regional competitiveness, <i>by Ms. J.R. Shelton, Deputy Secretary-General, OECD, Paris</i>	15
Federal policies and regional issues, <i>by Dr. H.L. Kolb, Parliamentary State Secretary, Federal Ministry of Economy, Bonn</i>	21
Labour market and economic issues for Berlin, <i>by Mr. P. Haupt, State Secretary, Berlin</i>	25

Part II

POLICY AND PRACTICES

Introduction	31
Regional development and competitiveness	35
Regional development and the human factor	41
Human resources in regional development and competitiveness	49
Co-ordination of policies and partnerships	55
Approaches, policies and practices – models and examples	61
Notes	102

Part III

STRATEGIC ROLES OF REGIONS

Introduction	107
National and regional co-ordination	109
Assessment for future regional policies	135
Interactions between regional authorities and partners	155
Notes	173

Part IV
CONCLUSIONS AND POLICY IMPLICATIONS

Conclusions, <i>by Professor J. Goddard, University of Newcastle upon Tyne, United Kingdom</i>	177
Policy implications, <i>by Ms. M.-Th. Geffroy, President, Comité de coordination des programmes régionaux d'apprentissage et de formation professionnelle continue, France</i>	185
Bibliography	202

Tables

1. Percentage of the population 25 to 64 years of age that has attained a specific highest level of education, 1992	192
2. Persons having attained at least upper secondary education, by age group (in per cent), 1992	192
3. Net enrolment in all public and private secondary education (full-time enrolments), 1992	193
4. Consistency of theories and policy approaches	193
5. Regional economic development and human resources: policies and actors . .	194
6. Selected regional training initiatives (Germany)	195
7. Main differences between selected French regions, 1996	197
8. Characteristics of the three groups of lycées	197
9. Establishment in full-time jobs in information technology	197

Figures

1. The Project "Learning Region" in Bavaria and Saxony (regional network of the textile industry, NETTEX) – Germany	200
2. Centralisation and national standards in the 1990s	201

Part I

**REGIONS AND HUMAN RESOURCES
POLICY ISSUES**

KEY ISSUES FOR THE LEARNING REGION

INTRODUCTION

Regional policy has traditionally attempted to redress disparities among regions by allocating additional resources to disadvantaged areas, typically those characterised by high unemployment, low income levels or high out-migration. Recent initiatives to reduce disparities have focused increasingly on providing regions with the means to improve the incentives for enterprises by improving, for example, the stock of qualified labour, improving technology transfer or providing infrastructures conducive to the creation of new enterprises and economic growth. In general, many factors influence regional competitiveness such as the level of industrial and technological development, migration flows between regions and human resource policies.

The realisation that competitiveness and economic growth call for a skilled labour force has given such programmes a high ranking on the regional policy agenda. As underlined in the *OECD Jobs Study* (OECD, 1994a), policies for developing skills are national as well as regional priorities. Three issues are of particular relevance:

- i) How and by what means can education and training contribute to enhancing the quality of human resources of a region and thereby contributing to more effective and competitive development?
- ii) How can regions improve the effectiveness and efficiency of education and training systems and policies to enhance human resource development (HRD)?
- iii) How can the transparency of the processes of education and training be ensured both at national and regional levels?

It is evident that policies for HRD rely on both the education system and overall training opportunities. Ministries of Education are responsible for initial education and in certain countries initial vocational education. This provision constitutes the formal sector defined as that which depends on the public authorities responsible for education. But many other training opportunities are available at national and regional level as, for example, in enterprises, professional associations, profit and non-profit associations, labour market programmes.

Broadly defined as the non-formal sector, this provision includes education and training beyond the competence of education ministries responsibilities.

In order to make the best use of its human resources a region must take into account both the formal and the non-formal sector of education and training within the framework of nationally or federally agreed policies. The formulation of a consolidated approach to HRD policies for improving regional competitiveness raises several issues:

- i)* How does the link between the central and the regional public authorities vary in relation to differing types of regional HRD ?
- ii)* What lessons can be drawn from success stories, particularly with regard to defining regional needs, and ensuring a broad range of education, training and learning opportunities while improving their cost-effectiveness?
- iii)* How can the links between regional public authorities and their partners be reinforced in different political contexts? What are the implications for the roles of the private sector and enterprises?

HUMAN RESOURCE POLICIES AND REGIONAL DEVELOPMENT

The role of HRD policies in enhancing the potential of a region by improving its competitiveness and combating unemployment needs to be analysed. The respective efficiency of national and regional policies in HRD have to be discussed. Regional systems are of three types: decentralised with no tradition of national education and training frameworks (Australia, Canada, United States); decentralised but characterised by a national education and training framework (Austria, Denmark, Germany); centralised and typified by a national framework (France, Japan). Policies for each category have to be examined. This analysis includes the design of national policies and their regional implementation, the recognition of skills and competences and the co-ordination between the regional and national levels. The key issue is: how are regional' policies, which respond to regional needs, to be co-ordinated with fiscal and other national policies which are formulated within nation-wide or federal frameworks?

ASSESSING REGIONAL NEEDS FOR REGIONAL POLICIES

As a consequence of the growth of education and training, a body of practical experience has emerged and several evaluations of education and training programmes have been completed. Regional centres have been created in a number of countries (Belgium, Canada, France, Italy) and at the European level. Several questions have to be examined concerning the assessment of regional needs,

creation of appropriate structures, public and private linkages, and programme effectiveness:

- i) *Assessing regional needs.* How can local or regional governments best improve their knowledge of local and regional training needs? What lessons could be distilled from studying examples of HRD?
- ii) *Appropriate structures.* Do regional actors provide inputs to regional policy? What resources and structures exist for defining common strategies and negotiated objectives? Which types of “infrastructures” can contribute to a process that is fundamental to the learning region? Are there any examples of co-operation among regional actors that can be considered as models for the learning region?
- iii) *Public and private linkages.* Do the public and private roles differ – and, if so, how – between different types of rural areas (economically integrated, intermediate and remote) and urban areas or cities?
- iv) *Programme effectiveness.* What are the options with regard to training methods and course content that enhance the effectiveness of the programme? What are the trade-offs between cost and effectiveness? What stages and obstacles are involved in implementing a HRD policy linking the public and private sectors and combining all the public and private initiatives within a region?

INTERACTIONS BETWEEN REGIONAL AUTHORITIES AND THEIR PARTNERS

The crucial necessity of interactions between public authorities and their partners, especially those in the non-formal sector, is frequently highlighted. The private sector is taking part in the design and delivery of training programmes to maximise the effectiveness of the programmes. Contrasted policies or distinctive regional practices will be examined (Denmark, Strategic Development of Employees known as SUM; Australia, partnerships; Germany, dual system; United-Kingdom, Training Enterprise Councils; United States, school-to-work programmes).

These interactions raise questions related to the mutual benefits to be obtained from relations between partners; recognition mechanisms; research and education linkages; above all, innovative experiments.

- i) *Mutual benefits from relations between partners.* How can all the public and private actors be involved in the design, delivery and recognition of training? How can the input from the social partners and regional partners be best incorporated into public-sector training decisions while minimising possible conflicts of interest? Are partnerships useful for clarifying the objectives of enterprises and identifying a region’s skill requirements? In

what ways should the pro-active roles of secondary and tertiary institutions be promoted?

- ii) *Benefits of recognition mechanisms.* Does the creation and use of mechanisms for the recognition of skills and competences acquired in formal and non-formal settings contribute to better circulation of information among partners as well as between the regional and central or federal authorities? Does the machinery for recognising skills and competences serve to facilitate individual learning pathways, for example through the transfer of credits or by taking job experience into account in designing training courses?
- iii) *Research and education linkages.* How are the results of research integrated into education and training provision? How and by whom is the training for applying new technologies to be organised?
- iv) *Innovative experiments.* Have initiatives such as creating “employment centres”, which bring together various bodies (for training, work experience, housing and employment), been sufficiently tested and could they be the regional answer to problems relating to the guidance and monitoring of individual learning paths?

PEOPLE IN LEARNING REGIONS

The link between regions and central levels, feedback to improve HRD policies, and partnerships are three key issues around which the conference debates revolved. Results and major trends were presented, with emphasis upon their relationship with conceptual frameworks, especially the concept of the Learning Region which is rapidly gaining ground.

POLICY PERSPECTIVES

This chapter reproduces the presentations made by Ms. J.R. Shelton, Deputy Secretary-General of the OECD, Dr. H.L. Kolb, Parliamentary State Secretary and by Mr. P. Haupt, State Secretary.

Economic growth and the importance of people in regional competitiveness

by

Ms. J.R. Shelton, Deputy Secretary-General, OECD, Paris

We usually think of our economies in terms of national systems. Frequent references to national accounts and regulations reinforce this view of economies as nations. Increasingly, however, the economic well-being of nations is recognised as the sum of the economic vitality and competitiveness of their regions. More and more, successful regions are specialising in particular sectors of the economy: industrial districts in Italy in areas such as glass, ceramics and machine tools; precision engineering in Bavaria; information technology in Silicone Valley or Highway 128 in the United States; or the carpet industry in the State of Georgia (United States). These specialisations need to be reinforced by education and training systems that are not only of high quality but clearly reinforce regional competitiveness and capacity for innovation.

REGIONS AS MOTORS OF ECONOMIC GROWTH

Some regions are dynamic and can readily attract new investment, generate wealth, and create jobs. Others have to cope with mismatches between industry and institutions and lack the resources and enterprise to adjust to the new environment of international competition. The differences between strong and struggling regions can be explained by any number of factors – the level of infrastructure; the ability to develop and diffuse technologies; the type of indus-

trial base; the degree of outside or foreign investment. But there is another factor that explains the economic success of regions and that is, people. Governments and the private sector alike are putting new emphasis on the role of human capital and its importance in maintaining and generating employment. They increasingly recognise the region as an appropriate level for enhancing the performance of the training system to raise skills and develop people's productivity. The region is the level that best monitors business conditions, provides important infrastructure, and puts workers together with industry and government to provide the training and skills best adapted to the job market and economic development. So it works two ways: regions are well adapted to developing productive people; productive people are the key to dynamic regional economies, that in turn result in strong national economies.

Links between regional competitiveness, trade and national performance

There is another important element to keep in mind as we consider the importance of regions in the national economy. Along with the growth in world trade and the liberalisation of the world trading system, there has been increasing harmonisation of fiscal and monetary policies among countries, largely due to the discipline imposed by global financial markets. Therefore, whether they like it or not, regions find themselves competing directly in international markets. Their success in doing so is critical to ensuring successful national economic performance. Thus, the links between regional competitiveness, trade and national performance are increasingly important. This underscores the importance of educational and training measures aimed at ensuring that the necessary technical skills, language skills, and cultural outlook are encouraged, so that large, as well as small and medium-sized firms, can compete effectively in the global market place.

The importance of people to economic development

Experience proves that people, along with the skills and knowledge they bring to the job, are an essential element of economic development. In the United States, progress in education has accounted for an estimated one-fourth of economic growth over the past fifty years. In Australia, investment in human capital has taken over from physical infrastructure as the main driving force behind economic expansion in the period since 1930. Human resources will play an even more significant role in development in the future as industrial societies become increasingly knowledge-based. Innovation and new products and processes will increasingly give a competitive edge to companies that embrace them. The research and knowledge content of trade is rising, meaning that firms have a growing need for skilled researchers, engineers, and technical and sales staff. By the same token, skill shortages weaken economies, limiting their ability

to expand and increasing the threat of unemployment, as the *OECD Jobs Study* (OECD, 1994a) pointed out. This finding is particularly relevant at the regional level. Since the least skilled workers are the first to be affected by unemployment and underemployment, skill acquisition and training must be a priority.

Upgrading through training

Clearly then policy-makers are working to strengthen the knowledge and skills base of people in order to strengthen economies. Increased investment in human capital can be accomplished in a number of ways. One way is through training either in schools or on-the-job. In fact, training needs to be a lifelong process in order to ensure that workers' skills and qualifications more effectively match the changing needs of business and new requirements in the labour market. This expanded definition of training must be matched by new approaches. And, indeed, new trends are emerging. Educational institutions, particularly higher education, are tightening links with local governments and enterprises to assure that their programmes and curricula provide greater "employability" of graduates than they do at present. Equally, there are new efforts to identify skills acquired at work more precisely and to co-ordinate definitions and policies between regions.

Private sector involvement in training

The private sector plays a major role in the development of human resources. This is not at all surprising. Firms have a strong self-interest in assuring that the workers they hire are well-equipped to handle the demands of their current jobs and to adapt to the new demands that globalisation inevitably forces upon businesses and workers. What are some of the ways that firms work to upgrade the skills of their employees? Firms produce their own training programmes, often devoting large sums to in-house courses and on-the-job training. In the United States, for example, firms devote a large share of their training budget to management training, but they are also giving a higher priority to improving the intermediate qualifications of their workforce. Firms contribute funds to vocational training bodies run jointly by labour and employers. Substantial amounts are involved – over FF 50 billion in France in 1993, and around DM 70 billion in Germany.

Firms may also develop schemes of co-operation with the public sector. Alternating classroom/workplace training is a good example. This dual system of education has proved effective, and often leads to employment. In Germany, the tradition of providing secondary vocational training in co-operation with private enterprises is solidly established. It enjoys national recognition and helps to strengthen the competitiveness of regions by increasing the portability of skills.

In France, since professional training was decentralised, these co-operative educational programmes have been increasingly supported by both national and regional authorities. As a result, the number of apprenticeships has grown by 25 per cent over the last two years. And finally, research is another field in which partnerships between private enterprises and educational institutions are particularly promising. Universities and technical schools have major R&D capabilities that firms can call upon to achieve their market objectives.

THE ROLE OF REGIONS

Although training needs are never easy to assess, the regional level is particularly appropriate when seeking a more effective response to market requirements. The devolution of education and training programmes will involve individual citizens and firms more closely with their design and implementation. In addition, the greater decision-making power given to regions encourages local initiative and allows education and training courses to be better tailored to meet demand. A major advantage of regional levels of government in this sphere is their knowledge of local enterprises. The appropriate authorities can more easily forge links with business at this level. These links may be informal and *ad hoc* or formalised in a management board for public training programmes, in which the private sector is broadly represented. This is the case with the Private Industry Councils in the United States and the Training Enterprise Councils in the United Kingdom. These decentralised boards can benefit from their co-operation with the business world to target their training programmes more effectively. The City and Land of Berlin also are taking impressive steps to work co-operatively with a variety of partners to improve prospects for employment and growth.

Need for co-ordination

The regional approach provides for diversity of local circumstances, but there is a risk that programmes developed in isolation from one another can lead to fragmentation or costly duplication of effort, as well as vastly differing levels of skills and knowledge between workers in different regions. This in turn may hamper labour mobility and contribute to rigid labour markets. Thus, a national framework is necessary in order to set universally accepted norms, standards and arrangements for skill recognition. Various ministries need to be involved in such co-ordination – ministries of education, employment, health – and, of course, economics – to name just a few. Enterprises, trade unions, and trade associations also have an important role to play. There already are many examples of successful consultation and co-operation between these various actors. Many countries have education and training boards or associations, with representatives of a

range of partners, where they can work together to define a consensus that will serve as a guidepost for a national framework and its future development.

Co-ordination between such national boards and regional authorities is essential to the success of this process – although it is not always simple. There may be differences – often pronounced – between one region and another: a fast-developing region will see the skills and qualifications of its population change more quickly than a region which is in decline. An impoverished region will lack the institutional and financial capability to formulate and introduce new programmes for investment in human capital. So while the division of responsibilities between national and regional authorities must be clear, co-operation between them is needed to ensure that such authorities act as guarantors of the quality and value of courses provided at the regional level. There are many sources of knowledge. Education and training are not the sole source; but they are an important factor in preparing our citizens and workers to succeed in an increasingly competitive world economy. The role of education and training in job creation and competitiveness is now more clearly understood, but still requires more analysis and reflection.

EUROPEAN ECONOMIC INTEGRATION AND REGIONAL COMPETITIVENESS

The construction of the European Monetary Union and the deepening of European integration is one of the major economic objectives of Europe at the moment. However, it would be remiss not to indicate the importance of ensuring an adequate balance between regions of the European Union and the importance of ensuring that regional inequalities do not become so pronounced as to threaten the public and political support for further European integration. In this sense, education and training in the context of regional competitiveness have an especially important role to play, not only in providing the skills necessary for existing firms, but also in providing an educational orientation which encourages creativity and entrepreneurship and reinforces the region's capacity to create small and medium-sized firms as the basis for new products, new wealth, and new employment.

Federal policies and regional issues

by

Dr. H.L. Kolb,
Parliamentary State Secretary, Federal Ministry of Economy, Bonn

More and more, the economy is becoming organised at a global level. Advances in technology around the world, and particularly in Asia, are increasing the pressure of international competition, and the relocation of production facilities is creating more intense competition to attract investment. At the same time, European unification and the move towards monetary union are bringing new challenges. Here in Germany our priority is to rebuild and integrate the new Länder. We are prepared to do our utmost to complete this task.

There are also many opportunities for individual regions and for those people who wish to take advantage of them. In this time of change, we must bank on people who believe they can build the economy of tomorrow and are not the victims of processes which have to be accepted but cannot be directed. We need people who see themselves as driving the change and who are convinced that they can work towards it. To ensure that I am not misunderstood, I would like to add that tomorrow's industry and commerce will exist not only for those who are stronger and have access to the information and data which define the new economic and social environment. All our policies, and particularly those to promote economic growth, serve the good of the whole of society, and, not least, to sustain our social system at the highest possible level. There is a place for everyone in tomorrow's society, but the opportunities that exist must be exploited today. We therefore need an efficient education and training system, as it alone can enable people to recognise their opportunities and find their place.

PRIORITY FOR SAFEGUARDING GROWTH AND EMPLOYMENT

We all know how important is meaningful and sufficiently paid employment for the individual and the dangers of erosion that exist within our societies if we fail to reduce unemployment. We are currently lacking some five million competitive jobs in Germany. This situation is intolerable for everyone. For this reason,

the federal government's priority is to safeguard growth and employment and create new jobs. Although our economy is growing again, the growth is still insufficient to bring about lasting relief on the labour market. It is obvious that our employment problems reach well beyond cyclical weaknesses. With the Action Programme for Jobs and Investment and the Programme for More Growth and Employment, the federal government has adopted measures to tackle these problems. Above all, we must make Germany more attractive to domestic and foreign investors. We need to deregulate.

Secondly, we must take account of the long-term trend in jobs towards the service and information society. Many new fields of employment are developing in areas like household and caring services, new media, biotechnology, trade, transport, environment or energy. It will not be easy for these new fields of employment to replace the jobs lost in manufacturing. Government policy must therefore aim at fostering them and improving the climate for them, so that more jobs and training places will be created in these areas.

Thirdly, we must promote innovation. If our enterprises are to thrive in competition, they must develop new products, services and new production processes. They must continuously acquire new technical and organisational skills. We need to support enterprises in this process. There are possibilities for improvement in the way academic research findings are translated into marketable products. However, this is not sufficient to bring about greater dynamism on the job market, because, in order to improve their competitive position, the larger enterprises, where staff levels play a major role, are increasingly shedding personnel.

Fourthly, we need to encourage the establishment of more new businesses. On average, every new business in Germany creates four jobs. Of course, we realise that not all of them will survive. But, on balance, new enterprises create new jobs. We need a large number of new enterprises and must strengthen the culture of self-employment and innovation. We have therefore launched a campaign to encourage new start-ups and have taken measures to boost their equity base. The obvious need is to improve the climate for new enterprises. We must encourage people, particularly the young, to dare to start up for themselves and offer them greater scope for private initiative.

My description of policy objectives at the federal level also applies at the *Länder* level. Regional policy supplements the federal policies aimed at growth and employment and clearly boosts their impact. It is important to determine the economic strengths and weaknesses at regional level and to develop a regional strategy. In Germany, as a federal country, this is a traditional practice; the sixteen *Länder* and the local authorities are primarily responsible for offering tax relief to new enterprises and improving their access – not least small and medium-size enterprises (SMEs) – to venture capital and new sources of finance. The training

which is a leading issue at this conference, is regarded as one of the key factors. After all, there can be no dynamic development in the regions unless there are people with the skill to foster and promote it.

PEOPLE: FOSTERING DYNAMIC DEVELOPMENT

Education, training and the rapid adaptation of skills to the needs of economy have never been as important, particularly in our regions, for the competitiveness of enterprises as today. These are also the factors which determine how prosperous an economy is and thus how many jobs are available in the long term. The main question is: how can our education system best give every worker the chance to prepare for the future?

The first answer lies in close co-operation between enterprises and the education system. The “dual” vocational training system is one of our traditional strengths. We have a long history of enterprises demonstrating responsibility and initiative in training young people. The figures speak for themselves: in European Union countries, average unemployment among under 25-year-olds at the beginning of 1996 ranged between 10 and 30 per cent, while it stood at about 9.5 per cent in Germany in 1995. We are naturally proud of such an efficient system, which provided about 1.6 million young people with a training place in 1995. If the system is to remain efficient, it must continuously adapt. In particular, this means revising and developing new training courses in line with the needs of the new types of jobs. In 1996, we updated the training rules for eleven occupations. Since August, it has been possible to obtain training in three new media occupations. Fourteen completely new job definitions will enter into force in summer 1997, four of them in the burgeoning information and communications field.

The second answer is to achieve more differentiated training opportunities and higher-quality qualifications. The aim must be to train each young person as best suits his talents and to help him obtain a meaningful qualification. Primarily, it means that new training places need to be created, particularly in the East. It is therefore vital to stimulate a willingness on the part of as many enterprises as possible to train more people than they need themselves. The federal government is also in favour of making vocational training more attractive, so that higher achievers will also be interested in it. For the latter, it is vital that enterprises succeed in indicating potential career prospects for those who have completed a training course. If the quality of teaching is to improve, institutions, particularly the universities, must perceive themselves in a new light. Only if universities are made more independent and responsible for their own funding and organisation will they develop in qualitative terms and take on responsibility for their own performance in a competitive environment.

The third, and perhaps the most important, answer is to stimulate entrepreneurship and the readiness of individuals to set up on their own. The education and training system should play a key role here by placing greater value on developing independent personalities and on training young people to be innovative and flexible. A readiness to set up independently, with all the opportunities and risks involved, must be inculcated in every educational institution in future. Nearly every American university has a so-called entrepreneurship centre which provides across-the-board information on setting up in business. Since the rate of start-ups by university graduates is very low in Germany, we need to stimulate personal initiatives. Universities and colleges must provide more training targeted at the needs of new enterprises and the managers of small companies. We are only at the outset of this development. But I am convinced that we shall succeed in establishing a country-wide range of study courses tailored to the needs of SMEs.

To conclude: if we are to create the enterprises of tomorrow, we must rely on people and their ability to innovate and show flexibility. We wish to help these people by means of a highly efficient educational system and to give them more scope for acting on their own initiatives. I hope exchanges of views will lead to new policy approaches in OECD Member countries, to an intensification of appropriate training, and thus to greater competitiveness in our regions. In Germany, the federal government will not fail to provide the help that people need to help themselves move forward.

Labour market and economic issues for Berlin

by

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The theme of this conference is of great significance for Berlin, precisely with a view towards the praxis required to secure sustainable growth. The fall of the Berlin wall and the continuous structural change in the economy that followed demanded, from a very early stage, that we re-think the connections between education, training and further education, the labour market and the economic position of the Berlin-Brandenburg region and pursue an appropriate economic and labour-market policy.

Many of you must be wondering: how can there be a job crisis in the capital city of one of the largest and richest industrial countries? Of course, Berlin has a large number of assets upon which we can build. Of course, it also has in many respects a promising future. Yet the clash between the problems of both East and West Germany, which in part mutually strengthen each other, is not felt so intensely in any other German city as here, even six years after reunification. Elements of uncertainty in the economy have a harsh effect upon the lives of Berlin's citizens. The transition brought about by the events of 1989 have led to a radical breakdown of the system in the city's eastern districts, a breakdown whose consequence was fundamental change associated with a massive devaluation of the citizens' store of knowledge. Only those who went through the experience – and here I am speaking from my own experience – know what the consequences of this break have meant for many, including a completely new social orientation. Without a high level of skills, many citizens of former East Germany would have had no chance of finding a new job.

Today, in the former East Germany every second citizen has a job different from the one he or she had six years ago. This transformation has also been due to the enormous amount of energy with which many people have tackled the new challenges. New learning objectives and education perspectives were, and still are, of decisive importance for the social and economic process of transformation

in East Germany. The citizens of East Germany know full well just how invaluable and indispensable is the education and knowledge factor for securing employment and social integration. In the past few years they have come to see how necessary is lifelong learning.

In Berlin's western districts the situation is very different. The need for readjustment and modernisation was ignored for far too long, with the result that we now have to carry the difficult burden caused by this neglect. In Kreuzberg, the unemployment rate stands at around 27 per cent and tops the list for all the districts of Berlin.

On the whole, the city has yet to overcome the drastic reduction in employment and production in the processing industries. Although the number of jobs in the service industries is constantly on the increase, reaction to the development of a service-dominated society is far too slow. Nevertheless, training and qualification in this sector are required for this restructuring. In this regard young people deserve our special attention. We have to improve their educational opportunities and flexibly and swiftly adjust the training regulations in our dual system to the new challenges. New vocational fields, which are especially numerous in the service sector, have to be anchored into the system.

FORGING A CONSENSUS ON KEY SOCIAL OBJECTIVES

In the age of globalisation, competition entails intensive transformation, that has social as well as other consequences that cannot be dealt with unless the social partners are strong and work together. At present, we rely upon trade unions and employers' associations. Social partnerships are not, as some have recently wished to interpret them, a burdensome relic that has become superfluous in the globalisation process. On the contrary, social partnerships are an important factor in securing a stable position for Berlin and Germany. Associations not only assume responsibility for their own members but think of the interests of society as a whole. The responsibility of the social partners is clearly evident in free collective bargaining.

At the same time, the social partners must consider why more and more young persons are excluded from the labour market from the time they leave school. In my opinion, the dual training system is an important factor in the development of an economic area. Throughout the world, society in general, the economy and the State profit from this exemplary system, although it is at present being thoughtlessly written off. However, responsibility which many associations now appear to underestimate does not just mean rising profits at the cost of rising unemployment, but rather of orientation towards the common good. Solidarity vis-à-vis the position of Germany is called for ethical as well as economic reasons.

ployment, then we must seriously consider the connection between education and the labour market.

What is the role of politics in this connection? Politicians have the difficult task of forging a consensus on the most important social objectives. In Berlin for example, we have thus formed a working group at the senate level, the “Alliance for Employment, Training and Development of Berlin’s Position”. Trade unions, enterprises and politicians sit down together and seek solutions to our current problems. We must develop long-term strategies for securing Berlin’s position and employment, strategies which address problems affecting the whole of society, and not only the problems of interest groups.

LABOUR MARKET AND ECONOMIC POLICIES: NEW CONNECTIONS

Politicians are obliged to develop economic and labour market policies that can be implemented effectively. In Berlin, given its special situation, all the measures adopted must also fulfil the integrative function of bringing together living standards in east and west. This means mobilising all possible resources to create the same economic and social conditions in both sectors of this formerly divided city.

From a political point of view the structural transformation described must be accompanied by complementary labour market programmes. For this reason labour market policy has already outgrown its traditionally purely social policy objectives. Above all, labour market policy today must do justice to structural considerations. With the emergence of long-term unemployment, whose base is becoming broader, the classical instrument of labour market policy, qualification or temporary employment in a sector separated from the market, has become questionable for Berlin.

Often this approach is heavily criticised from the neo-liberal side, which asserts that this is an inadmissible intervention by the State into the market place. This is said to lead to distortions in competition and, in the long term to a weakening of the national economy, and, ultimately, even to higher unemployment. The praxis teaches the opposite, however. Above all, the new states in Germany have had to experience a rapid rise in unemployment in completely new qualitative conditions. At the same time, it has been obvious that the traditional methods of labour market policy and the stark compulsion to deploy limited resources in such a way as to exert an effect beyond assistance to the individual, were simply not capable of meeting the challenge. Concretely, for labour market policy in the State of Berlin, this means that we are directing our programmes towards the needs of the regional economic structure; we understand our policy as a conscious offer of assistance and support to companies; we oblige these companies, on the other hand, to undertake independent contribu-

tions. In all phases of evaluating need, programme development, realisation and adjustment, we call in external experts, we practise a broad and in-depth dialogue with a wide array of social groups.

Part II

POLICY AND PRACTICES

INTRODUCTION

Regional policy is concerned with regional disparities and regional development. It is the concern of two levels of government – three in the case of the countries belonging to the European Union – that try to address disparities and promote development through a variety of policies, programmes and instruments. Some of these are called “regional policies” while others come under the guise or as a part of other policies whose objectives or impact are explicitly or implicitly regional. The particular objectives vary depending on the level, mandate, and general goals of government. For national governments, regional policy means the promotion of economic growth by encouraging and supporting regional competitiveness and self-sufficiency (Prud’homme, 1995). For larger geopolitical organisations such as the European Union, the primary objective is to eliminate or reduce apparent economic disparities among countries since these can be the cause of major upheavals in the social and political cohesion of, and massive immigration flows within, the larger region. For regional policies determined by administrative units below the national level, the objective is somewhat different from that pursued at the national and supranational level. Regions less developed than the national average will strive to catch up with those that are better off, but the latter will strive in turn to maintain their position and increase their competitive edge. Thus, objectives are not only variable but also partly incompatible and potentially conflictual with one another.

This overview concentrates on the particular cluster of policies concerned with HRD. It focuses specifically on formal and non-formal education and training policies¹ as well as labour market policies having to do with training and retraining as a means of addressing skill shortages, unemployment, the need for upgrading and mobility. As such, it does not attempt to describe or analyse the whole panoply of measures – health and social policies, housing, family and youth – that governments and other public bodies have at their disposal to address regional disparities and competitiveness.

Disparities exist among countries and regions not only with respect to economic development but also to HRD: educational levels of populations vary as do access to and participation in education and training. These characteristics of HRD

are worth mentioning as they provide background information on development and competitiveness: first, the percentage of persons having attained upper secondary education at national level; second, the nature of skills and competences; third, the role of the upper secondary level. Only the formal sector is taken into account in these statistics. This means that many skills and competences acquired in non-formal settings are overlooked.

Over recent decades, there has been a general upgrading in the educational attainment of the working-age population. As measured by the percentage of persons (25-64 years old) having completed upper secondary education, there has been a steady increase from one generation to the other (see Tables 1, 2 and 3 in Annex 1). For the youngest generation (25-34 years old), in many countries, the percentage having completed upper secondary education is now above 80 per cent (Canada, 81; Germany, 89; United States, 87).² Some countries remain lower (Australia, 57 and France, 67). There are important differences across countries in the content of the skills and competences acquired. Germany reaches that level thanks to the dual system which enables the population to acquire a high degree of vocational and technical competences whereas in Canada and the United States, the secondary education curriculum is largely general. This has consequences for employment and further training or higher education.

However, national considerations can mask important regional disparities. For example, in Portugal, the proportion of the adult population without secondary education is 69 per cent in the region of Lisbon and the Tejo valley but 85 per cent in Madeira; in Greece, the respective figures are 38 per cent in the capital region of Attiki but 71 per cent in Eastern Macedonia (European Commission, 1993).

Similar disparities appear in higher education. Within OECD Member countries, the participation of the cohort of 18-21 year-olds ranges from almost 39 per cent in the United States to 8 per cent in Turkey (OECD, 1993). In the European Union, the proportion of higher education students among all those in education ranges between 11 and 18 per cent (average rate: 15 per cent), but regions well endowed with facilities draw considerable numbers of students from adjacent regions and abroad. For example, the highest participation rates in Europe are found in the regions of Hamburg (27 per cent) and Berlin (26 per cent). Interestingly, the regions with the lowest rate of participation are situated next door: Brandenburg (4 per cent) which is Berlin's immediate hinterland, and Mecklenburg (5 per cent) which is part of Hamburg's hinterland and close to Berlin as well (European Union, 1995). While the German example may appear to be somewhat atypical because of historical circumstances – Brandenburg and Mecklenburg belonged to the former German Democratic Republic, which had far fewer higher education institutions than the old Federal Republic, whereas both Berlin and Hamburg have a long-standing reputation as

leading centres of higher education, sciences and the arts. Nevertheless, as a general rule, there are differences between larger metropolitan or urban centres and rural areas with regard to higher education and opportunities.

As shown in the "Report on the Structural Funds" (European Commission, 1996), regions with development deficits (objective 1), 5.4 per cent of total funds go to education and 19.1 per cent to training, representing a total of 22 938 M ECU. While the overall spending on education and training is considerable, training measures are still more popular with national governments than educational ones. In regions suffering from industrial decline (objective 2), 24.2 per cent of the total funds are spent on training; as for measures to fight long-term unemployment and to integrate young people into the labour market (objective 3), which cover entire countries and not specific regions, all funds go to human resources in one form or another. The same holds true for measures adopted under objective 4, the adaptation of workers to industrial change. In rural areas of objective 5b, an average of 10.75 per cent of the total available funds go to the development of human resources and training. As for sparsely populated regions (objective 6), the qualifying countries Finland and Sweden spend an average of 15 per cent on training-related measures.

The structural policy of the European Union aims at reducing the disparities among the different regions of Europe by investing in infrastructures and human capital. Analysis of the funding shows that education and training measures play an important, if not the most important, role in structural policies. The contribution of education and training towards economic and social cohesion is considerable. Future developments in structural policy, local development, and education and training policies promise to strengthen investment in human capital even further, which should surely reflect positively on regional competitiveness (Rigler, 1997). Viewed in the context of economic development, such regional disparities in human resource and education and training opportunities are becoming a more important issue for regional policy. As the focus of policy switches from exogenous factors to endogenous development, and from an emphasis on physical capital to other, more intangible forms of investment (Prud'homme, 1995), HRD is coming to the fore with respect to regional policy-making.

That skills and knowledge play an important role in all economic activity has been known, of course, for a long time. However, it is only recently that human capital theory has provided a conceptual framework for the validation and measurement of their significant impact on national economies alongside production factors such as raw materials and physical capital, in generating personal income and economic growth. Now, with the continuing massive transformation into information societies and knowledge-based economies, the role of human capital is further increasing in importance.

Part II attempts to clarify the benefits to regional competitiveness of HRD understood as education, training and learning opportunities in the formal and non-formal sectors available to the entire range of the population. The benefits of focusing on learning opportunities or on a lifelong learning approach (OECD, 1996a) will be examined from theoretical and policy points of view. The question is how to link the various HRD opportunities so as to provide a coherent education and training regional policy which is in accordance with the general policy framework for development and competitiveness which can enhance skills and competences for the young and adults? Enterprises will benefit from a clarification of the existing supply and demand of education, training and learning opportunities including the one they provide. These aspects will be examined in the following chapters.

Chapter 3 gives a brief overview of the changing economy and its implications for economic development and regional competitiveness. In Chapter 4, the role of innovation and the human factor – knowledge, skills, the ability to learn – will be discussed in light of the main theories of regional economic development. Chapter 5 will then focus on a number of practical and policy issues of HRD and their role in regional development. Chapter 6 will concentrate on the interaction between the various actors and stakeholders from the public, private and voluntary sectors and discuss issues of co-ordination and partnerships. Chapter 7 will present a number of selected approaches and practices to illustrate how successful HRD contributes to regional economic development.

REGIONAL DEVELOPMENT AND COMPETITIVENESS

New “intelligent” products and production systems affect the levels of employment, work patterns, skills and competences profiles of the labour force (OECD, 1994a), with far-reaching implications for individuals’ education and training – levels of education, curricula, forms of delivery, continuing education and training – and for institutional learning. The recent focus of research on “learning organisations”, innovation systems as “learning systems” (Lundvall, 1992), and the “learning economy” indicates a radically changing understanding of the role of knowledge and learning in the economic process. This new paradigm no longer sees the “market” or, alternatively, “the State” as the sole or prime agents of organising economic innovation and growth. Rather, innovation is seen as a continuous process based on inter-organisational flows of information and knowledge, that is, so-called “learning networks” that work most efficiently at a regional level (Morgan, 1995).

LEARNING SYSTEMS AND COMPETITIVENESS

Regional competitiveness is closely linked to successful economic development and performance. Like distinct development “philosophies” or strategies, the term “competitiveness” has different meanings. In the definition adopted by the United States Competitiveness Policy Council³ it means the ability to produce goods and services that meet the test of national and international markets while citizens earn a standard of living that is both rising and sustainable over the long run. In another sense, it is defined as the ability to attract inward investment in the form of new production plants or service facilities of large and mostly multinational companies. A more recent sense emphasises increased indigenous development by promoting policies to support and nurture small, locally-grown and based businesses primarily by enhancing their innovative potential. In this approach, competitiveness means institutional capacity, networks of public institutions and private organisations, and a number of intangible factors that foster innovation by learning and synergy. Regional competitiveness is thus based on a number of factors which are quite different from reliance on cheap labour or

convenient transportation routes: the extent to which a region is called a “learning” or “intelligent” region defines its competitiveness with others. This difference in approach and strategy profoundly affects the way human resources are seen as central or peripheral to the development process.

The focus on issues of HRD includes vocational education, post-secondary education, and training and lifelong learning. This chapter examines the role of knowledge, skills and competences in the context of regional development. As well as applying a theoretical approach, it will cite some examples from Member countries to illustrate innovative approaches and successful practices. A clarification of terminology is required since the issues focus on how regional development and competitiveness relate to education and training policies which emanate from various levels of government and involve actors at various levels. “Region” can be understood in two different ways:

- i) As the administrative level from which emanate “regional policies”.* In this sense it means primarily the government or the administrative level between the national and the municipal levels, for example, States in the United States and Australia, or *Länder* in Germany (corresponding to NUTS 1 level as defined by the European Union⁴). In France and in Spain, however, where responsibilities for vocational education and training previously used to be exercised by the central government, these competences have been devolved respectively to “*les régions*” and the “*comunidades autonomas*”, which are classified as NUTS 2. Similar problems are sometimes encountered when trying to distinguish “regional” and “local” levels. In Germany, for example, the three “*Stadtstaaten*” (Berlin, Bremen and Hamburg) are at the same time large cities and federal *Länder* (in the case of the latter two, a historical reminder of their position within the medieval Hanseatic League). Likewise, but for different reasons, it is sometimes difficult for outside observers to distinguish in the United Kingdom between regional and urban industrial policy, even if in principle the objectives and implementation of the two policies are distinct (OCDE, 1994b);
- ii) As an area independent of precise administrative boundaries.* In this sense a region is a geographical, cultural, social and economic unit, based on particular features which contribute to the creation of a particular “development dynamic”.

In fact, disparities exist not only among “administrative regions” but also within them. Most well-off regions have problem areas – large cities in some countries; rural areas in others which suffer from out-migration and sole reliance on agricultural production. Regional policies must often become therefore sub-regional and can sometimes not be divorced from urban policy (Prud’homme, 1995).

Technological advancements, changing demand for goods and services, the globalisation of markets, in particular for goods, changing trade patterns are all factors of change which affect and significantly alter economic activity (OECD, 1996b). As a result, new industrial sectors arise, while others decline and existing ones are transformed. In the face of massive change, firms shift and restructure in response to the new economic conditions, revising the way they design, produce, deliver, and market their products and services. New technologies and innovative management techniques have led to new structures of production. In the case of services, new forms of delivery are characterised by a higher degree of decentralisation and disintegration. “Decentralised decision-making”, “lean production”, “outsourcing” and “just-in-time” inventories are key concepts in re-structured production systems.

For regional economies, the possibility of disintegrating larger production processes and localising different parts in different places, entails both opportunities and threats. Normally, the development and production of technologically sophisticated products will be located in “innovative regions”. However, the production of more standardised goods, those typically manufactured by traditional industries in advanced industrial countries, can and increasingly will be relocated to newly industrialised countries where wages and non-wage costs are lower. Regions with a weaker innovative potential, *i.e.* those regions that have traditionally relied on standardised mass production, will be particularly affected by this relocation.

Regional competitiveness, however defined, is influenced by a variety of factors, ranging from tangibles like the level of industrial and technological development, degree of infrastructure, development, and ease of access to energy, transportation and communication, to more intangible elements. These may include clusters of firms, the availability of qualified and adaptable workforces, as well as training and learning opportunities that enable people continually to develop their qualifications and competences. Some of these factors can be influenced by public policy, others cannot or only in an indirect way. Policies which improve regional economic development and competitiveness concern the labour market, the promotion of research and development and, more generally, innovation, public assistance to small and medium sized firms (SMEs), and measures to strengthen vocational education, training and lifelong learning.

As a specific instrument to redress disparities, regional policy has traditionally attempted to transfer resources to disadvantaged areas, typically those characterised by high unemployment, low income levels or high out-migration. More recently, the focus has been on providing regions with the means to improve the environment for innovation and entrepreneurship, for example by improving the stock of qualified labour, promoting technology transfer or provid-

ing infrastructure conducive to the creation of new enterprises and economic growth.

COMPETITIVENESS AND LIFELONG LEARNING

Innovation, competitiveness and economic growth necessitate an appropriately skilled and adaptable labour force. This realisation has raised HRD to a higher priority on the policy agenda of both national and regional governments. More generally, experts and most policy-makers agree that there is a strong link between education, training and economic development. That link promoted massive expansion of education systems in the 1960s and 1970s driven by the theoretical concept of "human capital". Since then the importance of the human factor in the knowledge economy has emphasised the need for increased efforts, both by public authorities and the private sector, to improve the human resources base as the foundation for economic development.

At the same time, a consensus has emerged on the need for lifelong learning (OECD, 1996a). A strategy for lifelong learning, such as that examined by the Education Committee at their Ministerial level meeting in January 1996, is based on three broad concerns: improving the foundations for lifelong learning; facilitating pathways and progressions through lifelong learning and work, and clarifying the roles and responsibilities of all partners. The Ministers underlined the increasing variety of settings, both formal and non-formal, in which learning takes place. Hence, the sharing of responsibilities between governments, both central and local, employers, educational institutions, teachers and trainers and individuals has been underlined. There is a need for governments to play a more strategic role, bringing together other ministries than education. Partnerships have to be strengthened, for example by establishing clear goals for the system in terms of norms and standards, by developing career guidance and counselling services especially for adult learners, and by recognising the skills and competences gained outside the formal system.

In spite of, and in some instances because of, massive efforts and investments in HRD over the last three or four decades, there are marked disparities between regions within the same country in the general level of educational attainment of the workforce. These disparities result from a variety of factors, such as history, location, regional identity and culture, as well as industrial structures and public infrastructures (de Gaudemar, 1991). They are a matter of serious policy concern for both the education authorities and institutions as well as for those responsible for the economic development and competitiveness of a region.

Regional and even national variations in the skills and competences structure of the workforce are not a new phenomenon. In the past, they led occasionally to

the massive migration of workers from rural areas to the cities, and across regional and national boundaries. But one of the important differences between the “new” and the “old” economy is the mobility of resources. In the old economy, the major factors of economic activity, namely raw materials, energy supply and access to transportation, were dependent on geography and hence immobile. In the knowledge-based economy, these factors have lost their key role as physical capital has become much more “footloose” and invested wherever the highest returns can be expected. Knowledge, skills and competences have become key resources and major factors of competitive advantage. While somewhat less “footloose” than physical capital and therefore more geographically anchored, human capital is seen, in fact, as the principal factor of competitive advantage, both on a national (Reich, 1991) and a regional scale.

REGIONAL DEVELOPMENT AND THE HUMAN FACTOR

Regional policies, whether designed and implemented by national governments or by the regions themselves, have undergone a change in emphasis based partly on changing economic and social conditions and partly on a deeper understanding of the process of economic development and of the principal factors that drive it. In this chapter, four major theoretical approaches to regional economic development will be discussed with regard to the role that they accord to HRD. Five major policy strategies will also be examined both with regard to their theoretical foundation and their implication for education and training. Not surprisingly, owing to the different factors emphasised by the different approaches, HRD is assigned quite different roles and weights in the process of regional economic development.

MAJOR THEORETICAL APPROACHES

Four main concepts or perspectives on regional development and competitiveness can be distinguished. They affect the understanding of the role that HRD plays: they belong to neo-classical economic theory; stage or wave theory; the theory of production organisation; and the concept of learning regions.

The neo-classical theory focuses on market mechanisms and responses to differences in prices for inputs such as capital, labour, energy, raw materials, information, productivity. If capital investment and labour flow freely, then differences in the growth rate and wage levels between regions result from lower prices either for raw materials or transportation – thus, the older theory of comparative advantage and trade with its emphasis on natural endowments (Goldstein and Luger, 1993). A modern version of this approach puts the emphasis on knowledge resources, such as high-quality research or education institutions, stressing their importance for competitive advantage (Porter, 1990). The neo-classical theory is limited to explaining the role of innovation, knowledge, skills and competences in economic development. It treats them as exogenous rather than endogenous factors and thus does not recognise that they result from a cumulative process of learning that can be influenced by policy.

The stage or wave theory suggests that economic development depends on the production and dissemination of key technologies which occur in stages, waves or cycles with recognisable patterns. The *stage theory* emphasises the steps of economic development and identifies the preconditions for entering each new stage. The *long waves or cycle theories*, often associated with Kondratiev's work in the 1920s, were refined and conceptualised in the 1930s and 1940s by Schumpeter, who focused on clusters of innovation, and the role of entrepreneurship in economic development, laying the groundwork for a better understanding of *product cycles*. This view states that products pass through three phases: new, matured and standardised, each being associated with different markets and production processes and having consequences for the production process and its location (Goldstein and Luger, 1993).

Theories of production organisations, with a disciplinary base in political economy and economic geography, view the form of production, the conditions and consequences of organisation, and the interaction among various agents, as the main explanation of regional clusters and growth patterns. Thus, new technology-based growth centres are seen as developing into production complexes through vertical disintegration rather than through the vertical integration characteristic of enterprises. The emphasis here is on local labour markets, on clusters of enterprises in related businesses and on trust through geographical proximity. This approach is related to Post-Fordist theories which stress new production patterns such as "just-in-time", small batch, and customer-oriented production, with related consequences for the collaboration and location of the main actors in the manufacturing process. Another variation of this perspective is the *disequilibrium model* which underlines the presence of certain key locational factors that, in spite of the free flow of capital, labour and information and hence the trend towards an equilibrium in principle, tend to foster continued in-migration and investment in a growing region. Similar emphasis on key factors that induce economic growth at the regional level is found in the *growth-pole theory*, whereby investment in propulsive industries ("poles") in strategically located centres is viewed as inducing growth in other related industries and services, through the mechanism of linkages and the effects of physical proximity and agglomeration.

The concept of the learning region, partly based on theories of production organisation, represents a fourth strand in the theory of economic development. Concentrating on "innovative", "creative" or "learning regions", it focuses on those factors that make regions economically dynamic and emphasises the nature of innovation and the factors and conditions that enhance it. Silicon Valley and Route 128 in the United States are examples of intelligent, creative regions characterised by the presence of a highly educated workforce, cutting-edge research and educational institutions, high-tech industry clusters, and levels of interaction between enterprises and various institutional actors that synergisti-

cally benefit the entire region. Closely related theories emphasise the interaction of various elements in regional systems of innovation (Ernste and Meier, 1992; Nauwelaers and Reid, 1995; Stahl, 1994; Saxenian, 1994) and the importance of innovative milieux – a mix of social perceptions and values, technical culture and know-how, entrepreneurship, and skills (Cooke and Morgan, 1994; Crevoisier and Maillat, 1991). Such theories stress the importance of social interaction between the various agents within the system and of a continuous learning process involving all of them (Lundvall, 1992, 1993).

The last two groups of theories, *i.e.* production organisation and the learning region, view learning and innovation as the key determinants of the competitiveness both of enterprises and of regions or nations. Knowledge, skills, competences and learning are viewed as the main ingredients of innovation. Economic competitiveness is dependent on the innovative capability of the various actors such as private enterprises and public institutions to accumulate knowledge, know-how, and skills. This is achieved partly through formal and partly through non-formal learning such as work experience that leads to the acquisition of non-codified or “tacit” knowledge by means of collaboration and interaction with others. This view has consequences for the way in which human resources are validated and recognised – the topic to be addressed in the following chapter – since it focuses on education and training in formal institutions as well as on the non-formal sector in the workplace or elsewhere. It also highlights the importance of local and regional networks for innovation and learning (Chapter 7).

MAJOR POLICY STRATEGIES

When trying to link these four main theoretical directions of regional development to the policies actually applied it is found, unsurprisingly, that there is no tight fit. This is partly because theories are too abstract to be “translated” into application at the policy level and partly because the empirical evidence for testing them is not easily replicated in other jurisdictions. Nevertheless, some correlation can be observed between these major theoretical concepts and the approaches to be found in policy. Policy approaches to regional development can be roughly classified into five categories (Goldstein and Luger, 1993):

i) Recruitment of business to locate in the region

This “inward investment” strategy successfully pursued by some European and North American regions primarily uses cost incentives as investment inducements. These include not only capital investment and tax reduction, but also access at reasonable cost to information, R&D, a good transportation infrastructure, as well as labour. Inward investment policies thus consist of a variety of incentives and programmes that reduce some of the main cost factors, including subsidies for investment: subsidised job training; employment and R&D tax cred-

its; publicly provided telecommunication hook-ups; and other public infrastructures that can be accessed at no or low cost. Primarily, these are strategies successfully pursued by larger municipalities and regions as exemplified by Scotland in the United Kingdom, the Midwest in Ireland, Bavaria and Baden Württemberg in Germany, North Carolina and Tennessee in the United States. The strategy is also pursued by national governments as part of both their own economic strategy and their regional policy. Ireland, Portugal, Spain and the United Kingdom are examples of countries with such national policies.

ii) Modernisation of existing facilities

Assistance to enterprises investing in new production-technology or other facilities and in related activities is a popular instrument of regional policy used both by national and regional governments to increase the viability and competitiveness of local enterprises and industries. Assistance includes not only grants or loans for new equipment or buildings, but also technical support and, in some cases, assistance with continuing training of the labour force. Examples from the United States are Michigan's Modernisation Service and Pennsylvania's PENNTAP programme. In Germany, the framework plan for the improvement of regional economic structures (*Rahmenplan der Gemeinschaftsaufgabe "Verbesserung des regionalen Wirtschaftsstruktur"*) provides capital subsidies for modernisation and, as a new initiative in the form of a pilot programme, subsidies for outlays by SMEs for R&D and HRD measures. In Canada, the Western Diversification Program supports innovative manufacturing by way of interest-free loans (OECD, 1994c) for new products, new technologies, new markets, import replacement or the enhancement of competitiveness.

iii) Incubating and nurturing of new, "home-grown" business

This strategy, like the previous one, builds on indigenous strengths by promoting entrepreneurship and assisting start-up enterprises, operating often but not exclusively in technical fields. Again, such assistance can take a variety of forms. Incubator facilities and science or technology parks are the most visible forms of assistance. Other forms are the provision of seed or venture capital or assistance with management and marketing. There are many examples in Member countries of such assistance: in the United States, the Mass Technology Development Co-operation is a model that has been emulated by other states; in Scotland, the Scottish Enterprise (former Scottish Development Agency) has used all these approaches.

iv) Stimulation of innovation in the region

This strategy places priority on incentives for increased R&D activities by enterprises in the regions themselves or by collaborating with R&D institutions, primarily universities. Investments include R&D grants, tax credits or subsidies for employing science and technology personnel. The objective of such a strategy,

which is twofold, partly overlaps with the foregoing approaches: it tries to intensify the scientific knowledge base of the regional economy and, at the same time, attract knowledge-based business from outside the region. The broadening of the knowledge base of the region's economy will lead, it is expected, to innovative products and processes that will increase the region's competitive advantage. Examples from the United States are The Ben Franklin Partnership in Pennsylvania and the Edison Program in Ohio.

v) Creation of a favourable milieu for entrepreneurial activity and regional synergy

Based on the fourth theoretical frame proposed above, this strategy targets not the primary inputs into the innovation and development process such as subsidies, tax incentives or other forms of direct assistance to business but a wide range of programmes not often associated with economic activity. The main objective of this strategy is to create a milieu conducive to innovation, entrepreneurship and creativity. Policies are thus primarily concerned with a high-quality civic and cultural infrastructure, the quality of the environment and of life generally, the development of institutional networks, and effective leadership and social and political cohesion. Such milieus and cultures are often associated with excellent academic institutions that provide, simultaneously, first-rate graduates, business-relevant R&D, and an intellectual and cultural centre. In the United States, for example, Silicon Valley is closely connected with the Universities of Stanford and Berkeley; Route 128 with MIT and Harvard University. Examples from Europe include the "four motors" region of Baden-Württemberg, Catalonia, Lombardy and Rhône-Alpes. Each has first-rate universities and other research institutions, together with a mix of the other elements which collectively create a milieu conducive to dynamism, creativity and regional synergy.

This "theory-policy nexus" (Goldstein and Luger, 1993) is necessarily relatively crude as the four theoretical concepts are based on a simplified categorisation and the policy models overlap considerably. Nevertheless, it is useful to see to what extent the policies and approaches are consistent with the theoretical models and how much they are associated with the existence of qualified human resources and their development. Table 4 (Annex 1) is an attempt to link theoretical concepts and policy approaches.

To the extent that it is consistent with active government intervention which is, of course, in principle incompatible with the rule of the market, neo-classical theory "accords with strategies of modernisation and R&D investment (innovation) due to its emphasis on investment to increase productivity as a means to gain comparative advantage" (Goldstein and Luger, 1993, p. 163). The authors also see the long wave/stage/product cycle theories as consistent with programmes to stimulate R&D innovation and entrepreneurial milieus. Likewise, theories of production organisation accord most with modernisation because they emphasise changes both in technology and the organisation of the workplace.

Theories of entrepreneurship and regional creativity are found to be consistent with modernisation and incubation but are most in line with policies of innovation-based R&D and of milieu-building. Most important is what both theory and policy approaches mean for HRD.

In contrast with most other neo-classical theories, the theory of stages and waves or comparative advantage and trade includes “knowledge resources” in the range of factors that create comparative advantage for regions and/or countries. According to this view, regions that are not endowed with natural resources or location advantages such as waterways for the cheap transportation of goods, can create advantages through a policy that invests in knowledge resources, such as R&D, universities, schools and other information and knowledge infrastructure. For the stage, wave and production cycle theories, technology, entrepreneurship, and innovation tend to be central factors for economic development, but in general “human resources” are not identified as a major element. On the other hand, both production organisation and innovative/creative region theories put human resources centre stage. In general, the theories that emphasise the importance of a qualified workforce are the ones that stress linkages between innovation and economic development, interaction, and mutual learning among the main players in the local and regional economy, and the development of innovative enterprises as “learning organisations”.

Turning to the main policies towards regional economic development, it appears that the five approaches mentioned all place different emphasis on the skills and competences required of the labour force. The inward investment approach is based not only on tax incentives, loan programmes, and relief from some regulations, but also on the promise of an available pool of labour. The degree of formal qualification beyond minimum literacy levels depends on the nature of the business recruited, the organisation of work at the firm, and the extent to which the firm recruits locally and regionally. As money grants and tax relief are justified mostly by the creation of jobs for the locality or the region, there is an expectation that the majority of jobs will indeed be filled from the local or regional labour market.

Modernisation of traditional manufacturing and service enterprises – the second type of policy approach – relies heavily on grants or loans for capital investment and technical assistance. If the manufacturing or service provision process changes, upskilling of the firm’s workforce is often entailed. While modernisation may require some new hiring, it primarily involves the adaptation of the existing workforce to new equipment and processes of production. Some upskilling will be done internally through on-the-job training and informal learning; another part will be achieved by vendor training. However, the adaptation process may also involve local or regional institutions such as further education or

community colleges, private training institutions, or university extension services in the provision of some customised training.

Incubation and nurturing of start-up and growing small enterprises – another endogenous policy-strategy for regional economic development – might require the provision of training opportunities for entrepreneurs to acquire a particular set of skills and competences. Often the tenants of incubator facilities, especially those in science and technology centres or parks, are building a business based on an idea, invention, product, or process for which they have the necessary scientific and technical background but lack the entrepreneurial skills (such as marketing, business planning, cost accounting, knowledge of the legal and regulatory framework) to exploit. For new entrepreneurs, learning business basics on-the-job is frustrating, costly and often extremely risky. Thus, systematic learning opportunities are required from local and regional educational institutions, or from intermediary organisations such as chambers of commerce or professional associations. If such learning opportunities are provided, and the business prospers as a result, the expanding young enterprises will need to hire new employees, who will often come from the local or regional labour market.

The implications for labour, skills and training requirements of the fourth of the policy strategies mentioned – stimulation of innovation, especially by encouraging increased R&D activities – are not quite so straightforward. To the extent that enterprises already employ scientific and technical (S&T) personnel, these will engage more intensively in R&D, either in enterprise laboratories, universities and other publicly funded research settings, or jointly with industry. Often, however, such policies subsidise the hiring of additional personnel, such as graduates from schools of management, marketing or design, either for R&D, or for other tasks associated with innovation. In most cases such scientific and technical personnel and other innovation personnel will come from local or regional education institutions.

The last of the policy strategies – the creation of a favourable milieu for entrepreneurial activity and regional synergy – is too complex an approach to assess the resulting impacts on labour and skills with any precision. Generally speaking, one can assume that the people associated with such an approach – creative, talented, entrepreneurial individuals – possess a solid educational base, and a certain fondness of, or familiarity with, the region's particular culture. If Silicon Valley or Route 128 are prototypes of such creative entrepreneurial milieus, the role and importance of research and educational institutions as places of innovation and learning are obvious.

In summary, HRD roles vary greatly depending on the theoretical approaches and the policy strategies. In fact, as it will be discussed in the following chapter, roles and responsibilities of the public authorities – national and regional – and the social partners or other stakeholders will vary from country to country due to

the tradition of decentralisation; consensus on norms and standards, specially at the secondary level and recognition of skills and competences (at least at the secondary level).

HUMAN RESOURCES IN REGIONAL DEVELOPMENT AND COMPETITIVENESS

Countries can be grouped according to the coherence and the flexibility of their HRD practices in the formal system and the non-formal sector. According to Colardyn (1996), the search for transparency in the links between the formal and non-formal sectors can be usefully characterised by a tension between coherence and flexibility.

Coherence depends on nationally accepted norms and standards; on the integration of an initial vocational education within secondary education; on the involvement of the social partners in defining vocational initial education, and a link with collective agreements. Although quite coherent, such systems can also prove to be rigid because of their interdependence and slow to evolve because of the need for joint decision-making processes. Most of the continental European countries can be loosely grouped in this way. A flexible dynamic features decentralised norms (local or institutional norms and standards); secondary education is general in nature and the social partners are therefore not involved in it; the link with collective agreement is diffuse because negotiation mostly takes place at enterprise level. Although quite flexible, this dynamic is searching for more coherence in the form of a consensus over national outcomes, standards or national curricula. Most of the Anglo-Saxon countries could be grouped under this category.

Germany and France illustrate the dynamic based on coherence. Germany provides an example of a country with decentralisation mechanisms, nationally accepted norms and recognition mechanisms as demonstrated by the dual system. Links between the diplomas and collective agreements exist. France, by contrast, despite the considerable decentralisation processes taking place since the Loi quinquennale of 1993, is centralised: it has nationally accepted or defined norms and recognition mechanisms (national diplomas). Links exist between the diplomas and the collective bargaining agreements. In these examples, the roles and responsibilities of regions differ. Nevertheless, for HRD issues, the region

accepts nationally but not centralised consensual norms, standards and recognition as a basis for their own policies and programmes.

One of the conclusions is that all endogenous approaches to development require a qualified, competent and adaptable workforce. Modernisation, incubation and innovation cannot be successfully realised without an appropriate competence level in the workforce. The innovative capacity of enterprises is dependent upon the way competences are acquired, maintained, enlarged, and utilised (OECD, 1988, 1992). In other words, an appropriately skilled workforce and the way work is organised and managed are crucial to successful change and innovation within individual enterprises, and hence to the innovative capability of regions in which these enterprises are operating.

In spite of the seemingly straightforward propositions of human capital theory in its various forms, the role of human resources in economic development is very complex, raising a host of issues some of which will be summarised:

i) What is the meaning of an “appropriately skilled” workforce?

What are the skills and competences required of workers in a knowledge economy? According to the OECD (1992), the principal characteristic of the emerging skills and competences structure is an increased emphasis on multi-skilling, communication, problem-solving, and entrepreneurial skills. Knowledge-intensive enterprises are seen to be partially in need of workers thus trained, but eventually other, more conventionally operating, enterprises have the same need.

What constitutes an “appropriately skilled” workforce depends on the particular kind of development pattern prevalent in a region. A strategy emphasising inward investment requires different skills and competences, and therefore training and learning opportunities, than one that promotes endogenous development by supporting start-up and small enterprises in knowledge-based industries, regional research and development, and technology-transfer institutions. However, the evidence is not unambiguous. According to a European Union survey (European Commission, 1993) of 87 enterprises, including 17 multinationals, which had recently opened a business or plant in the European Union, the “quality and availability of labour” was the second most important criterion for the choice of location after “access to the European market”, and before “suitable infrastructure and quality of life factors”. On the other hand, evidence from case studies of three major inward investment enterprises in Wales has shown that professional and managerial personnel were recruited nationally or even internationally rather than regionally. In contrast, at technician and crafts levels, most and, in the case of semi-skilled workers, all personnel were recruited regionally and locally. Rees and Thomas (1994, p. 54) concluded that “the availability within the region of highly-skilled and/or qualified labour is not in itself a crucial issue in

location decisions. Researchers found that the inward investors needed to be assured that the regional vocational education and training system is capable of delivering, in the longer term, not only a supply of intermediate skills, but also continuing training over a wide range of the occupational spectrum, from technicians and craft-workers down to even basic operative grades". Notwithstanding the results of the survey, this finding shows that the market for higher skilled personnel is normally larger than that for the region and occasionally even for the country.

ii) New roles and responsibilities

A second issue concerns the role of public policies. What kind of policies are in place or are required to ensure that there are adequate education and training opportunities, both at the initial and post-initial and lifelong learning levels? Are these opportunities meeting the needs of regional enterprises in the context of innovative, knowledge-based economies? There is little disagreement on the general principle that there should be adequate training opportunities for the mainstream skills in demand by the regional economy, and that everybody willing and able should have access to them. But the types of education and training institutions and programmes best suited to the particular structures and development objectives of the region are often unclear. Not only is this an issue of funding levels and mechanisms but also of potential or actual competition among the various providers of education and training. Moreover, it raises the further question as to which types of programmes should be available at the regional or sub-regional level (*e.g.* post-secondary training institutions such as community colleges and colleges of further education) and which are considered accessible even when located outside the region (*e.g.* specialised institutions of higher education).

In designing education and training systems, public authorities have to strike a balance among several objectives which are partly at odds with one another. Economic efficiency as a basis for employment and high standards of living appears in some cases to be in conflict with the objectives of social cohesion and equity which require more or better training and retraining opportunities for the unemployed and remedial education and training for those who were not successful in school. It has been argued that, in fact, this conflict may be smaller than perceived since it is based on cost-benefit ratios that are too narrowly defined within time perspectives that are too short to capture longer-term benefits from measures for disadvantaged groups. While this analysis appears to be correct, the claim that demographic developments and changing economic patterns "make what had been merely equitable outcomes, economically efficient" (OECD, 1993, p. 43) seems optimistic. However, the problem may lie not so much in the analysis but in the efficiency or inefficiency of most training measures targeted at the unemployed and other disadvantaged groups. This inefficiency raises ques-

tions about the process of planning and design of such programmes as well as that of the quality of training and the problem of evaluation.

Aspects of these problems are more efficiently dealt with at the regional rather than the national level. This is the principal reason in some countries for regionalising employment-related education and training policies. Because of the close connection between HRD and the specific employer demand for labour which can be better assessed regionally and locally than at a more national level, regional education and labour market authorities are in the best position to plan, design, and provide appropriate training opportunities. Moreover, co-operation with employers and other actors such as chambers of commerce and unions is more efficient when organised at the local and regional level.

iii) The role of education and training providers

What are the roles of institutions and other providers of education and training in the process of determining the most appropriate training programmes? Leaving aside the primary and secondary education stages, this question concerns primarily formal post-secondary education and training and non-formal providers, *i.e.* enterprises providing training for their personnel, professional associations and profit- or non-profit-making agencies. What are their sources of information concerning the labour-market demand for skills and competences? When deciding what type and level of programme and courses to offer, how much do they depend on existing funding mechanisms? In many higher education systems, these are based on enrolments, that is student choices, rather than on regional needs, that is development of “appropriate skills” in the workforce.

iv) Skills: the supply and demand mismatch

The mismatch between the supply of and demand for skills and competences is not simply between the numbers of students or trainees who complete their education or training on the one hand, and the number of job openings on the other. It is also between the type of skills available and demanded. There is often the paradoxical phenomenon of jobs remaining vacant because enterprises cannot find people with appropriate skills while, at the same time, there is considerable unemployment. This has to do with the disparity between labour-market demand and student choice, namely that individual “consumer preferences” in education often do not coincide with the established objectives for HRD and thus do not necessarily produce socially desired outcomes. The choice of hairdressing rather than technical training, or of a sociology or law degree rather than of one in engineering, computer sciences or management exemplifies such sub-optimal student preferences.

The question for policy-makers, then, is what mechanisms would influence students’ choices and direct them to those programmes of greatest relevance for future workforce requirements? Such policy initiatives range from increased infor-

mation about job opportunities and wage levels to direct financial or other incentives. Individual choice is often influenced by the values and attitudes of parents, partners, or peer groups. In turn, these are dependent on conceptions, partly misinformed, of social prestige and income. Therefore, options for direct public policy aimed at influencing training decisions are limited. The issue of the relationship between individual choice and social and economic needs will not be further discussed here since it raises fundamental issues about the role of government in educational planning and finance.

v) Absorbing qualified graduates

It is unreasonable to provide abundant education and training opportunities if the demand for skills and competences is such that graduates cannot find adequate employment in a region (de Gaudemar, 1991). In other words, a region's capacity to absorb the majority of graduates is of great concern. Regions which provide training for large numbers of students or trainees without providing commensurate job opportunities either are net exporters of skilled manpower to other regions or countries, which is a costly financial burden, or have to cope with the unemployment or underemployment of qualified workers, which can be expensive both financially and socially. The absorptive capacity is not static. It can be influenced by the right "climate" and by adequate policy measures of various types such as "incubators", where young entrepreneurs can receive support when developing and marketing a new product, or temporary wage subsidies for the employment of recent graduates who are hired by SMEs to increase their innovative capacity. Highly-educated and enterprising people are one of the basic ingredients of an innovative or learning region.

vi) Shifting demand and learning foundations

The difficulty in projecting regional requirements for skills and competences because of structural disequilibria and hence strong variations in demand is another issue. Earlier attempts to forecast manpower needs and labour-market demand for different categories of workers or various levels of skills failed. Some regions, with more success, have developed mechanisms to anticipate changes in employment and skill demand, in particular through linkages and partnerships between policy-making bodies, the labour market, educational institutions and the private sector. The problems with mismatching skills and demand projections point to a more general problem: skill requirements are subject to constant evolution in a rapidly changing work environment responding to the emergence of new technologies, new management styles, and organisational change. This phenomenon has led to calls for workers who are flexible with respect to their specific work assignment. For the individual worker this entails less predictable employment and career patterns and the ability to cope with change. For education and training providers, greater emphasis must be placed on providing a broader foundation of skills and competences while, at the same time, ensuring that these

have a high degree of relevance in the workplace. It also means that more accessible lifelong opportunities must be provided at all levels.

vii) The realities of labour markets

The direct link between workers' qualifications and job requirements, inherent in most assumptions about hiring practices, is based on a model of economically rational employers who select their employees on the basis of technical competences generated through various types of training. This model may not be realistic in the majority of cases. As Rees and Thomas (1994) have argued, recruitment is a social process in which formal training and recognised competences may be but one factor, often less important than the social attributes and behavioural characteristics that applicants bring to the job. Findings of this kind imply that short-term, stop-gap training measures may be an ill-advised strategy for addressing the problems of perceived skill shortages and unemployment and are largely consistent with the macro-level assessment of shorter-term training schemes to combat unemployment. As one review of various broadly-based training programmes for unemployed adults concluded, "there is remarkably meagre support for the hypothesis that such programmes are effective" (OECD, 1994a). Such findings raise important questions about HRD policies and planning at both the national and regional levels. To infer from them that qualifications are useless and all kinds of training inefficient would be quite unreasonable, but they do suggest that training, as such, is no panacea. In order to contribute to employment and regional development, HRD must not only be co-ordinated with other policies and measures but also closely related to the needs of enterprises.

To sum up: there is widespread agreement that the development of an appropriately skilled and adaptable workforce is a crucial element of any endogenous strategy for regional development and for the competitiveness of regions. It is not the supply of skills *per se* that is the key element, but rather the mix of skills and competences, which must fit the region's economic profile and development needs. It is also the way skills and competences are used and further developed that makes them indispensable assets for regional viability and expenditures on HRD a profitable investment.

CO-ORDINATION OF POLICIES AND PARTNERSHIPS

Regional policy, until recently, was the responsibility of central government, although in federal countries the regions have their own responsibilities for economic development. Even in formerly centralised countries such as France and Spain, decentralisation means that regional and local governments now have a larger role to play. "Regional policy must, therefore, be the result of the combined action of two, three or four levels of government, plus, in the European Community, the Community level. The problem is to harmonise, co-ordinate and organise the action of these various levels of government" (de Gaudemar, 1991). This need for harmonisation, co-ordination and collaboration⁵ with the private partners is even more pronounced when it comes to HRD. The private sector sometimes shares responsibility for training with the public authorities. Responsibilities for HRD are divided among different actors at the national, regional and local levels of government or are exercised by two or all three of them, depending on the constitutional and legal traditions of a given country.

As far as HRD is concerned, various approaches can be distinguished. Decentralised approaches exist in which the federal level is not involved in education policies (Canada, United States). Therefore, there is no national education and training framework. Decentralised approaches can also be defined by a federal level which has responsibilities in the education policies (Austria, Denmark, Germany). Therefore, there is a national education and training framework. Recent decentralisation in traditionally centralised countries has taken place (France). A national framework exists and regions have a role in its implementation (France, Australia). Finally, centralised approaches are predominant (Japan, Portugal). A national framework exists and regions are not included in a major way in the process of its implementation.

By tradition and by law some countries have very decentralised education and training policies. For example, in the United States and Canada, education is the constitutional responsibility of the states or the provinces. There are no nationally agreed norms and standards, no nationally accepted assessments and no national recognition of skills and competences. In addition, collective bargain-

ing takes place at the enterprise level and puts more emphasis on the individual in negotiating the value of skills and competences. In these countries, the norms and the recognition are self-contained in the region and a more flexible dynamic can take place between the various actors and the public authorities. Nevertheless, problems of comparability and of mobility from one region to another arise.

Other decentralised countries follow a different pattern: for example, regional policies operate within an agreed framework as in Germany (OECD, 1994*d*). An example of a multi-level system with shared responsibilities between the public and the private sector is the German system of apprenticeship training, regulated at both the federal and *Länder* levels and administered locally by quasi-public bodies (the Chambers) of which all local enterprises are mandatory members. While the system is based on a differentiated framework of legal and administrative provisions and rules at all three levels, there are established mechanisms for consultation between them and for public-private collaboration. Although the regulatory framework is seen by some as too rigid, the system performs relatively well and is seen by many as the main source of German competitiveness and economic success. With respect to regional and local policy integration, apprenticeship training is closely connected to labour market requirements and employers' needs due to the fact that it is part and parcel of the collective bargaining process and predicated on employers offering training places in their enterprises. The system must also be understood as part of an active labour market policy: the Labour Promotion Act (dating from 1969 but still in force, although in an amended form) sees training and retraining as the principal instruments for preserving the stability of employment and preventing unemployment (Shackleton, 1995, pp. 126-127).

A recent pattern of decentralisation operates in France where a strong centralisation model was put in place after the French Revolution. The recent *Loi quinquennale* (1993) gave considerably more role and responsibilities to the regions, giving them responsibility for promoting economic development and employment, and extending the regions' authority over education and vocational training, in particular school-based initial training, apprenticeship training and continuing vocational education and training. This legislation not only transfers to the regions the power to organise training that was hitherto the responsibility of the central authorities, but also stipulates that regions and the national government must agree on regional development plans for vocational education and training of young people, based on regional training and employment needs. National norms and standards remain common. They are established with the social partners in the *Commissions professionnelles consultatives* (CPC). With decentralisation, the social partners are involved in defining regional training needs and standards in several ways and at several levels, ranging from the role of Chambers of Trade and Commerce in the funding and control of apprenticeship colleges

(CFAs), to the involvement of employer organisations in the definition and oversight of units of alternation training.

Recent Australian training policy provides another example of the way in which national policy has triggered new regional and local responses to the problem of linking HRD to economic development and, in doing so generating new forms of public-private co-operation. The Commonwealth's White Paper, "Working Nation" (1994) consists of a set of initiatives aimed at achieving economic growth and HRD. While some of these initiatives are national in scope and nature, the thrust of others is regional, adopting a co-operative approach to regional planning, development and delivery of labour market services.

Under a centralised model policy is designed without regional participation. This applies to countries that make efforts to formulate policy integration or, at least, a certain degree of policy co-ordination primarily at the national level. An example is Portugal. Although reference is made in various laws to the need to reduce regional discrepancies in development by mobilising regional potential (Instituto do Emprego e Formação Profissional, Departamento de Formação Profissional, 1996), it does not appear that there is a major regional role in the formulation of vocational education and training policies. Thus, there is little vertical co-ordination or joint policy-making involving the regions with regard to vocational education and training; decisions as to the design of training, types of courses and programmes, the monitoring of training activities, and funding are made centrally. Although increased concern has been expressed recently about regional needs in the provision of vocational training, policy-making is still centralised (Ferro *et al.*, 1992).

In Greece, since the beginning of the 1960s, the authorities have realised that serious inefficiencies characterise the public administration in charge of regional and local development planning, programming and implementing training courses at a time when regional development gaps have been growing fast, especially those among the Capital region and peripheral regions. In the 1980s, special measures were proposed in application of which the Law on "public administration, local government and democratic and active planning" introduced new institutions aiming at the activation of regional and local authorities and interested groups. It promoted partnerships among the various administrations and public and private actors. A first response to the inefficiencies was to launch training programmes for public employees involved in the new structures. An overall positive effect can be mentioned in terms of easing the traditional drawbacks of the administration (Katochianou, 1997).

Whatever the particular locus of responsibility, there is a host of mechanisms by which co-ordination between the various levels of government action can be achieved, for example in the design of national policies and their regional concretisation and implementation or the recognition of skills and competences.

Examples are joint standing federal-state commissions of educational planning and standing conferences of ministers of education, such as in Germany and many other federal countries. In addition to education ministries, labour market authorities exercise responsibilities. This concerns not only the role of assessing regional demand for skills and competences, but also of financing, or, in some cases, actually operating training and retraining programmes. For all these tasks, but in particular the assessment of human resources needs, regional or local labour market organisations require first-hand information, suggestions for policy initiatives and feedback from employers and intermediate bodies such as local or regional chambers of commerce, craft or industrial associations, regional and local development agencies.

The actual implementation of vocational education and training programmes requires also the co-operation and co-ordination of various agents – providers of different training programmes, placement agencies, and sometimes housing authorities, youth and other social services. An example is provided in some jurisdictions of “employment centres”, which are jointly operated by agencies responsible for work experience schemes, training, housing and employment. This process of dialogue, co-ordination and synchronisation between public and private actors at the regional and local level is an essential element of the “innovative” or “learning region”. The lifelong learning perspective also gives a frame of reference in which regions could play a central role in improving the foundations for lifelong learning (pre-primary and primary education are concerned as well as secondary education) and in facilitating transitions through lifelong learning and work (more flexible pathways, guidance and counselling; recognition of skills and competences).

The responsibilities of regions vary also with regard to the nature of partnerships. A wide range of alternative policy orientations requires close analysis: direct management, control and regulation; steering and framework setting for accountability; establishing or intervening in education and training markets (OECD, 1996*b*). Regions are best placed to offer non-formal learning. As underlined by the OECD Education Committee at ministerial level, ministers responsible for national education policy have an important role to play in reviewing the results of regional strategies within national and international frameworks (OECD, 1996*a*). A main objective for the coming years is to foster a consensus in favour of lifelong learning among the various actors. By the consensus-building process, transparency of needs, norms and recognition should be reached. Transparency will have different meanings in each of the dynamics previously mentioned: the search for flexibility will be on the agenda as well as coherence. Policies and programmes will differ but the advantages of one group of countries can be looked upon and examined by others: the purpose is mutual enrichment based on sharing experiences rather than harmonisation. In that respect, regions have

much to propose, to discuss and to exchange: how to relate to the national level, how to benefit from assessment to improve further policies and how to rethink partnerships within the region?

APPROACHES, POLICIES AND PRACTICES – MODELS AND EXAMPLES

Efforts are being made in many Member countries to bring about closer co-operation among different levels of government, non-governmental organisations, and the private sector, or, where such co-operative mechanisms already exist, to strengthen their efficiency. New forms of collaboration have emerged, particularly in economic development, labour market policies and HRD, including education and training. This new emphasis on co-operation and co-ordination of policies and programmes and on public-private partnerships has led to a great number of initiatives and innovations in the delivery of services. A variety of approaches can be discerned.

TYPES OF STRATEGIC INTEGRATION

The redesign of existing programmes and delivery mechanisms is often prompted by regional and local stakeholders who are dissatisfied with the traditional arrangements. It may also be triggered by a policy change or action of the government as in the United States, where the states are “rethinking and redirecting the roles and responsibilities of state government” in order to plan for anticipated changes in the federal role in several policy areas, including welfare, workforce development, housing and other human services (National Governors Association, 1996a). Continuing reforms, particularly the devolution and integration of many public responsibilities, are driven by public dissatisfaction with the effectiveness of programmes which are seen to be very isolated from one another and unconcerned about achieving their objectives. Thus, the National Governors Association found that traditional mechanisms of government had been organised around narrowly defined problems or special target groups. This “siloiing” reflects the compartmentalised nature of government structures and the accumulation of years of piecemeal attempts to solve problems without systemic restructuring. Most federal efforts are channelled into conventional categorical programmes that

define “success” in terms of input measures – resources and how they are used – and output measures – the level of activity or partial result produced by the programme or service provider. These measures and the accompanying incentives and sanctions direct attention away from addressing problems and making changes towards “counting beans” and ensuring compliance. Meanwhile, some of the broader conditions people care about, such as long-term welfare dependency, have often worsened despite significant public investments (National Governors Association, 1996a).

Many regional and local governments have therefore turned to outcome- or client-oriented systems concerned with final results rather than the efforts to achieve them. The emphasis of this outcome approach is thus on a vision of desirable and measurable results, and progress in the direction of this vision through the co-operation and integration of policies, programmes, and services of the various agencies and stakeholders. The objectives of such reforms appear often to be geared to the general improvement of public services, in response to public demand for more efficient and effective government, customer-orientation, accountability in achieving results, and responsiveness to community needs and priorities. The larger underlying objective is to integrate HRD with economic development to achieve competitiveness and thereby create jobs and wealth. For example, many state governments in the United States are working towards the so-called strategic integration of workforce, economic, and technological development (National Governors Association, 1996a). The “Working Nation” policy in Australia, based heavily on a co-operative approach to the regional economic growth and development of human resources, is another example (Commonwealth Department of Employment, Education and Training, 1995). These reforms streamline and improve the efficiency of policies and delivery mechanisms of the various government agencies and programmes. They also redefine the role of government, stakeholders and agents. Thus, in many if not all instances, the redefinition and reorganisation of public services entail a greater role for the private sector, that is, employers and their associations, and sometimes trade unions, public and private educational institutions, and various intermediary organisations ranging from Chambers of Commerce to profit-making or non-profit-making agencies.

This chapter reviews national, state, and local initiatives towards policy-making, programme co-ordination and co-operation between the public and private sectors. It reveals a wide variety of ways of implementing the outcome approach. Examples from Germany and from several other Member countries illustrate efforts at integration and co-operation, the involvement of non-governmental agents and the private sector, and the role that regional policies play in making everything happen.

CO-ORDINATION AND CO-OPERATION: THE CASE OF GERMANY⁶

In the current debate about the challenges of globalisation faced by Germany in terms of economic activity regional policy occupies centre stage. In the past, the regional policy in response to actual or perceived locational weaknesses was to propose measures to upgrade the infrastructure in an attempt to create new incentives for the accumulation of physical capital and the expansion of employment opportunities. In the so-called Information Age, in which the accumulation of human capital and the production and diffusion of technology govern economic growth in industrial countries, a different approach seems to be required. Training as a means of adding to the stock of human capital can contribute to Germany's regional policy by increasing the attractiveness of regions for investment and employment.

Regional competitiveness

Regional competitiveness shall be taken to denote a region's attractiveness in regard to mobile factors relating to production such as physical capital, technology and highly-qualified labour. According to neo-classical theory, enterprises invest in places where they can achieve the highest productivity. That is often the case when a location offers a set of favourable conditions both in terms of quantity and quality. The endowment of regions with less mobile factors, such as various classes of skilled labour, also plays a key role in determining where enterprises choose locations. From a regional perspective, however, it is not sufficient to focus exclusively on the static aspects of the supply of less mobile factors. In addition, consideration has to be given to the development over time of that endowment, especially the ability of regions to continuously adjust that supply to the demands of structural change and globalisation. To secure an appropriate supply of production factors and to adjust it over time are both tasks that require the active participation of all the regional agents. Assuming that the behaviour of economic agents follows the pattern of incentives and disincentives resulting from regional and national economic policies and regulations, regional policy can increase the appeal of a given region or location by creating the necessary incentives for the less mobile factors to adjust to the changing needs of the mobile factors.

The greatest dilemma faced by policy-makers is that while regions can readily benefit from locational advantages derived from national policies and regulations, they can neither correct nor adequately compensate for locational disadvantages that are national. In many cases, national locational disadvantages substantially reduce the scope for policy formulated at the regional level. The employer's share of social security contributions and the level of the effective rate of corporate taxes, for example, are both part of the cost burden that enterprises

located in Germany have to bear and that are entirely owed to national policies and legislation. Since these factors cannot be satisfactorily addressed below the national level, regional policy-making is confined to improving regional attractiveness, in spite of the impact that national locational disadvantages may have on the outcomes. On the other hand, national disadvantages equally affect all regions of a country and can hardly be blamed therefore for the persistence of differences in regional growth and employment within a country.

For regional policy-making the cluster model of regional development could be quite useful (Krugman, 1991 and Porter, 1990). Clusters of industries can be found in such places as Silicon Valley, California, and along Route 128, Massachusetts, in the United States (semiconductor and software industry), in Sassuolo, Italy, and in Germany in the region Offenbach-Frankenthal-Heidelberg-Würzburg (printing machines). The regional concentration of enterprises belonging to the same or connected industries can be related to the local availability of qualified labour, technology and suppliers. In addition, such clusters benefit from external factors and the knowledge spillover occurring between firms. Thus, cluster enterprises learn from, and interact in many ways with, one another. Such external factors are usually called "agglomeration economics" in regional science. Regional policy has the task of creating incentives for mobile factors of production to locate in the area and to keep less mobile factors operational by adjusting them, particularly in quality, to the needs of the mobile factors. The first task involves securing an appropriate supply of skilled labour and the second securing the continuous adjustment of skill profiles. In both tasks the region's training capacity plays a key role. By encouraging structural change and adjustment, regional policy can actively contribute to maintaining and increasing income and employment levels. Enterprises tend to form clusters in regions with a good supply of less mobile factors. In turn, clusters facilitate communication and technology transfer between enterprises as well as between enterprises and other regional agents. The competitive strategy of individual cluster enterprises ultimately determines the level and composition of a region's demand for skilled labour.

Regional policy is expected to create favourable conditions for accelerating the transformation process in the eastern part of the country and structural change in the western part. Germany shares with other industrial countries a growing concern that the acquisition of skills by the workforce is lagging behind. In countries with more labour market flexibility such as the United States, the mounting wage differentials between skilled and unskilled workers observed over the last fifteen years seem to indicate that the supply of the former has not been meeting the rising demand. In Germany, as well as in other highly regulated European labour markets, adjustment to the shifting demand for skilled labour is not reflected in wage differentials but rather in the skill composition of the unem-

ployed: the problem of unemployment tends to be concentrated among the unskilled, suggesting that the supply of jobs for them has diminished. Forecasts for Germany show that the demand for unskilled labour will decrease to half its level in the early 1990s by the year 2010, when it is expected to amount to only 10 per cent of the demand for all jobs (Institut der Deutschen Wirtschaft, 1993, 1995). There seems to be a strong case, therefore, for training, especially taking into account the challenges of economic transformation in the eastern *Länder* and the challenges of structural change in the western *Länder*.

Education and training

Training generally takes place at the regional level, which is why training measures are bound to have a certain significance for regional policy. The supply of and demand for training, however, reflects both regional and national characteristics. Training denotes the transfer of knowledge and skills to trainees by qualified trainers. In this sense it concerns the process of learning theoretical foundations and acquiring practical skills, both of which are strongly oriented towards the requirements of the workplace in a number of occupations. Training should be clearly distinguished therefore from general education or schooling. The system of general education begins with primary school (*Grundschule*) for all children aged 6 to 10 years and continues in one of the three following categories of secondary schools to which the pupils are sent as a result of their performance in primary school: the lower level secondary school (*Hauptschule*, age 10 to 16 years), the intermediate level secondary school (*Realschule*; age 10 to 16 years) and the upper level secondary school (*Gymnasium*, age 10 to 19 years). Alternatively, in some regions the possibility exists of attending a comprehensive school (*Gesamtschule*, age 10 to 16 or 19 years).

For most pupils the normal path involves attending secondary school until age 16. After that they can either compete for a vacancy in a firm offering apprenticeships as a form of vocational training or begin vocational training in a vocational school (*Berufsschule*). However, they can also decide to start to work right away as unskilled labour, if they find an opportunity to do so. After serving an apprenticeship it is possible to stay with the firm where one has been trained, to look for a job in other enterprises or to continue training in upper vocational schools (*Berufsfachschule*, *Fachschule*) and eventually engage in higher education. Graduates from the *Gesamtschule* or the *Gymnasium* (*Abiturienten*, generally at age 19 or 20 years) may choose to serve an apprenticeship instead of enrolling in tertiary education (*Fachhochschule*, *Gesamthochschule*, *Technische Hochschule*, *Universität*); they often go on to tertiary education as post-apprentices.

While the overall aim of general education is to teach the basic skills of reading, writing and arithmetic, vocational training deepens those basic skills and,

in addition, extends teaching to other areas of knowledge which are of particular importance for the workplace. It is common practice to divide vocational training into first vocational training (apprenticeship) and further vocational training. Estimates show that about $\frac{3}{4}$ of each cohort participate in apprenticeships, including a third of those that decide to enter tertiary education (Wagner, 1995). In 1995, about 600 000 graduates from the different levels of secondary school chose to be trained in the apprenticeship system. It is interesting to note that the number of foreign trainees increases every year. An apprenticeship constitutes a formal labour contract between the firm and the apprentice with a total duration of two to three and a half years, depending on the industry, and stipulating an initial probationary period of four to twelve weeks. It is known as the “dual system” because training is imparted both in the firm and at a vocational school (*Berufsschule*). Apprentices are expected either to attend school once or twice a week or to concentrate school attendance in several months of the year in order to learn the theoretical foundations of their occupations. The rest of the time is spent learning on the job, where they are introduced to the specific processes of the enterprise but also to the machine-tools and other physical capital used. At the end of the training period apprentices have to take an external exam in which both theoretical and practical skills are tested. Successful candidates obtain the skilled worker’s certificate, which enjoys nation-wide recognition thanks to the high degree of standardisation of the skills considered necessary for engaging in a number of legally recognised occupations.

Benefits and limits of the dual system

The dual system is governed by several regional and federal institutions: the part of the training programme pertaining to vocational schools – usually public schools – is subject to the government at the level of the *Länder*. The enterprise’s share of the training programme is regulated by the federal government, especially by the federal Ministry of Education and other federal ministries depending on the type of occupation. In addition, the rules of the game and the outcomes are influenced by the regional chambers of commerce and industry, the regional chambers of crafts, the local government (*Gemeinden*), the trade unions, the employers’ associations and by other institutions. Regional chambers play a key role in monitoring vocational training, giving advice to enterprises willing to engage in training and by preparing and carrying out all interim and final exams as well as by acting as an arbitrator in case of conflicts between apprentices and enterprises or schools. The legal framework embraces a large number of laws and regulations, reflecting the interests of a great number of social groups at the national and regional levels. Due to the adherence to the principle of dealing exclusively with occupations which have been legally established, a programme of training, examinations and certificates has evolved in which national and

regional interests are well balanced. The apprenticeship system seems to benefit those who pass through it as shown by recent estimates of the internal rate of return earned by apprentices of the order of 25 per cent (Dicke *et al.*, 1994). This result, which appears to be excessive compared to estimates of the rate of return to training in the United States of around 10 per cent (Heckman, 1993), could help explain why apprentices are prepared to invest in vocational training by accepting low wages for a period of up to three and a half years. Other explanations than the return on investment have to be mentioned, such as the role of the apprenticeship as the main port of entry to internal labour markets, the insurance effect of the skilled worker's certificate on the labour market and the limited future prospects for unskilled workers (Soskice, 1994).

Enterprises seem to carry the bulk of the costs related to the dual system of vocational training. The reason for this is still the object of a great deal of research and speculative thinking. At least *a priori*, it is possible to identify some potential benefits from the system accruing to enterprises. First, by offering training, enterprises are able to employ unskilled workers at a wage which is much lower than the average wage for regular unskilled workers. Second, after a part of the training period has elapsed varying from 1.5 to 2 years and the trainees have acquired some specific knowledge about the firm, the productivity of trainees tends to increase almost to the same level as that of regular skilled workers, although their wages remain much lower. Third, the firm may use the training period to screen the trainees and select potential candidates for established jobs after finishing their apprenticeship, thereby economising on the search costs for personnel and reducing the risk of employing workers who might not meet the firm's long-run expectations. Fourth, the firm saves the cost of introducing workers trained elsewhere to the specific conditions prevailing in the firm, *i.e.* it can reduce the period in which new workers earn a full wage but are relatively unproductive owing to their lack of specific knowledge and skills.

Although the potential benefits listed above are plausible, the empirical evidence does not support them. In the first place, benefits related to the retention of post-apprentices may not be as high as expected, for the estimated retention rates are not the same across enterprises and tend to vary especially with the size of the firm and the branch to which it belongs (Soskice, 1994). This means that, in view of the standardisation of certificates, the mobility of post-apprentices is an intended outcome of the system and that screening during the training period seems to play a minor role. It is obvious that enterprises try to retain the best post-apprentices, at least to the extent that they have openings for them. This is not the case, however, in crafts (*Handwerk*), where post-apprentices traditionally move to a new enterprise. By contrast, major enterprises show the highest retention rates with the probability of staying on being quite high even for weaker candidates. Big enterprises possibly represent a special

case, in which negotiations between employers and trade unions influence retention rates. However, their behaviour departs from the average since the great majority of enterprises are SMEs (Franz and Soskice, 1994). Furthermore, recent findings indicate that the net impact of vocational training on a firm resembles a tax on income. Estimates of the net present value of the dual system for each one of the participants and for the economy as a whole, assuming that the funds allocated to training could have earned a rate of interest of 6.5 per cent per annum if invested in low-risk financial assets, reveal that the economy, the apprentices and the government each stand to gain, while the enterprises lose (Dicke *et al.*, 1994). Assuming that an inverse relationship between the rate of interest and the level of the net present value prevails, the valid conclusion is that a higher rate of interest of, say, 10 per cent, would yield a still lower net present value of the investment in apprenticeships for the enterprises under the same circumstances. A similar outcome for the enterprises, albeit based on a different method, namely on an estimate of costs and benefits, is reported by other authors. The conclusion from research is that under present conditions it does not pay enterprises to train apprentices.

Preliminary explanations for those estimates suggest that the actual productivity of apprentices might be lower than normally assumed and that the compensation paid to the trainees might be somewhat too high. The therapy that can be recommended involves a revision of apprentice compensation schemes and an outright extension of the time spent on training on the job, even if it were necessary for the latter to reduce the time spent at the vocational school. Moreover, there seems to be no support for the claim that enterprises offering training should be eligible for a subsidy or a corresponding tax cut, for such a claim would be at odds with the observed fact that enterprises voluntarily choose to offer training and that it is reasonable to assume that they do so because somehow they expect to increase their profits in the long run. The latter assumption gives some backing to the casual observation that the supply of training is to a certain extent related to an enterprise's performance and to the business cycle. Furthermore, criticism has been made of the time needed to adjust curricula and occupations to technical progress. Here too, some action would be desirable, particularly a simplification of the procedures for adjusting the system to current requirements.

Assessment of further training

Further vocational training embraces all the organised training that takes place after the first phase of vocational training has been completed and minimum work experience has been obtained. Further training can be classified, according to the source of funds, into training paid for by individuals, firm-financed training and government-sponsored training. Recent estimates of

expenditures for further vocational training reveal that in 1992 a total amount of DM 83.1 billion was spent for this purpose (Institut der Deutschen Wirtschaft, 1994). The share of enterprise-financed training was 52 per cent, government-sponsored training 36 per cent and training paid for by individuals 12 per cent. In spite of the impressive amount of funds channelled every year into enterprise-financed training, private enterprises do not report their activities on a regular and comparable basis. Training may take place in-house or in the premises of specialised training institutions or enterprises. Only employees of the corresponding firm are trained in in-house courses, while in the latter employees from several enterprises are trained together. One of the forms of further training is called *Aufstiegsfortbildung* and denotes measures that lead to a certificate after passing an examination. An example of this is the master (*Meister*) certificate for occupations such as auto mechanic, electrician, hairdresser, butcher, baker, blacksmith. Similarly, training for which individuals pay for themselves is not regularly recorded either for the employed or for the unemployed. Individual training can also extend to *Aufstiegsfortbildung*.

Government-sponsored training mainly arises from the Employment Promotion Act (*Arbeitsförderungsgesetz*), which is currently under review, and the active labour market policies pursued under the responsibility of the Federal Employment Agency (*Bundesanstalt für Arbeit*) and its regional dependencies (*Arbeitsämter*). Training is largely oriented towards the unemployed and carried out by public providers and private enterprises specialising in supplying training services. The measures endorsed by the Employment Promotion Act are *Fortbildung*, *Umschulung* and *Einarbeitung*. The first type accounted for 76 per cent of all government-sponsored measures in West Germany and 62 per cent of those in East Germany in 1993 (Scherer, 1996). If it leads to a certificate, the measure is called *Aufstiegsfortbildung*, if not, it is called *Anpassungsfortbildung*. In 1993, the latter accounted for 58 per cent of the first category of measures carried out in West Germany and for 93 per cent of those carried out in East Germany. The second type (*Umschulung*) aims at persons whose occupations have become obsolete in the wake of technical progress and who must prepare for a new occupation in order to match the skills demanded in the labour market. The 1993 shares of this type in total measures were 21 and 28 per cent in West and East Germany, respectively. The third category of measures (*Einarbeitung*) refers to introductory training whereby a new employee starts work in a firm and must accumulate specific basic skills. In essence, it represents a wage subsidy. In 1993 it amounted to 3 per cent of total measures in West Germany and 10 per cent in East Germany (Scherer, 1996). From 1996 onwards measures labelled *Aufstiegsfortbildung* are no longer supported under the Employment Promotion Act, but regulated by a new Act (*Aufstiegsfortbildungsförderungsgesetz*). The German government's latest draft proposal for a new Employment Promotion Act no longer includes the labels *Fortbildung*,

Umschulung and *Einarbeitung* which have been replaced by the general label of “further vocational training” (*berufliche Weiterbildung*).

Empirical evaluations of further training measures from an economic point of view using appropriate methods do not exist. Most studies on the market for further vocational training focus on several aspects of the supply of and demand for training. They generally conclude that individuals and enterprises interested in further training face information-related problems and deficits in competition policy (Dicke *et al.*, 1995). Information problems arise with respect to the information available to the potential consumer about the services offered by training providers. First, it is difficult to get a complete overview of the providers and their services at the regional and supra-regional level. Second, it is difficult to find information about the quality of the provision. Third, many providers offer certificates to successful candidates which are not generally recognised by private enterprises and government agencies. Fourth, it is difficult to find detailed information about the contents of the training courses in order to compare the services on offer. Fifth, the potential trainee seldom knows what skills are being demanded by the market at a particular point in time and what the current trends are. As to competition policy, the deficits that have been detected refer to the structure of supply which is characterised by a mix of private (profit and non-profit) providers and public providers. Providers receiving finance from the federal and regional budgets are public schools, which seem to engage increasingly in further vocational training as a way of compensating for the decreasing number of regular pupils in the wake of demographic developments. These providers directly compete with private providers and the general feeling is that unfair competition prevails.

Answers to the problem of imperfect information can be found in regional and supra-regional initiatives. In many regions, both in the East and the West, a number of training service centres have been established that aim at supplying information, advice, projections of local skill demand, quality control and curriculum development. These services are mostly complemented by business development and labour market instruments (Table 6 in Annex 1). One of the most interesting regional initiatives is the “Co-ordination Centre for a Learning Region in Bavaria and Saxony” (Figure 1 in Annex 2). The centre has been created on the joint initiative of two non-profit training providers owned by employers’ associations and aimed at complementing traditional training measures with new instruments. The original working hypothesis was that the objectives of the enterprises and those of the labour market authorities very much influenced the supply of training and that regional aspects had been largely neglected. Because this region is under heavy pressure to adjust its industrial structure, the centre pursues a co-ordinated strategy at the regional level. Participants are local government agencies, employers’ associations, training providers, enterprises, unions, universities,

i.e. all the agents having an interest in regional development. By subscribing to the idea of close co-operation and co-ordination, the centre hopes to make efficient use of the resources available in order to bring about structural change. The focus is on the textile industry, which consists mostly of small enterprises in both regions. The overall aim is not to maintain the textile industry as such but rather to search for new products, for example high-tech ceramics, and to keep the regional labour force employed. The centre acts as a clearing house for information on the demand for and supply of training. It is expected that this will produce valuable information for all agents. Furthermore, the centre engages in skill demand projections, curriculum development, quality control and advisory services. This is a pilot project. If successful, it plans to undertake similar projects together with other regions of the European Union, probably with a textile industry region in Portugal. The project has yet to be evaluated.

Other initiatives are designed to produce local quality standards as a partial way of solving the information problem. While it is certainly right to try to establish standards in order to detect deficiencies in the services as early as possible, the policy of developing local or regional standards could have adverse consequences for inter-regional labour mobility. What is needed here, as for the dual system, is a system of control that is conceived at the regional level and recognised by the federal authorities. Furthermore, regional chambers of commerce, industry and the crafts offer information, advice, skill demand projections and curriculum development services. In addition, publicly accessible data banks with information on training opportunities are supplied by the chambers (WIS), the Federal Employment Agency (EBB) and the Institut der deutschen Wirtschaft (KURS-DIREKT), the latter on behalf of the Federal Employment Agency. These initiatives are complemented by efforts of the European Commission to establish regional training data banks within the framework of the FORCE programme.

Macro and micro approaches to training and regional competitiveness

The German experience reveals that agents at the regional level attach a great importance to training measures in connection with regional economic development. In order to draw conclusions for regional policy it is necessary first to take a look at the scientific evaluations of the training experience. Generally, the economic evaluation of training measures has evolved along two distinct lines of research: a macro approach based on neo-classical growth theory and a micro approach based on human capital theory and labour economics. While the macro approach yields direct estimates of the net impact of training on regional growth and income, the micro approach yields indirect evidence by estimating the impact of training on the earnings of individuals employed in a given region. Both approaches also differ in their ability to identify all the relevant effects associated

with regional training, because the macro approach is based on general equilibrium theory and the micro approach on partial equilibrium theory.

To the extent that the rate of economic growth can be used as an indicator of regional competitiveness, only a few German regions – defined as *Länder* – have been able to foster competitiveness during the period 1970-1995. The highest growth rates of real GDP per capita were registered in Bavaria and Hesse and the lowest in North-Rhein-Westfalia and Bremen (Statistisches Landesamt SLBW, 1996). Moreover, Bavaria and Hesse also had the lowest unemployment rates and the highest export shares in 1996. North-Rhein-Westfalia and Bremen showed the highest unemployment rates and with the exception of Bremen the lowest export share (Statistisches Landesamt, SLSH, 1996; Statistisches Bundesamt, SB, 1996). In order to analyse the relative performance of regions from a macro-economic point of view the question remains of the convergence of German regions to higher income levels and the less uneven distribution of per capita income among regions. Hypotheses to answer these questions can be derived from neo-classical growth theory where models developed during the last decade include human capital as a key factor of production. Available empirical estimates (Sala-I-Martin, 1996) reveal that in the period 1950-1990 regions have converged with a speed between 1.4 and 1.6 per cent per annum, depending on the regression method used, and that the dispersion of regional per capita income has decreased. However, the approach of the absolute convergence used in those estimates does not explicitly include human capital variables. It is not possible therefore to determine the exact contribution of human capital to explain convergence and lower income dispersion on the basis of the existing empirical evidence. However, the contribution of human capital to regional growth can be derived in this approach from the interpretation of the results. Rates of convergence of the order of 2 per cent per annum are considered to be compatible with a national income share of total human and physical capital of $\frac{2}{3}$, where the share accruing to human capital is assumed to amount to $\frac{1}{3}$. Estimates of conditional convergence rates for Germany including explicit human capital data for German regions are not known. One reason for the lack of studies is that regional human capital data banks do not exist as yet. Major effort would seem to be necessary to gather the data needed for such research.

The micro approach to estimating the regional impact of training measures embraces experimental and non-experimental methods (Ashenfetter and Lalonde, 1996). These determine the impact of training on individual earnings. In spite of the large number of studies in this field, the state of the art indicates that methodological and severe data collection problems govern the debate, particularly in relation to experimental methods extremely difficult to use in the practical world of training. Neither employed nor unemployed persons can be easily per-

sueded to participate in experimental studies on a voluntary basis. These problems, but not the data problem, can be avoided by switching to non-experimental methods, especially to econometric methods. The latter bypass the problem of selection bias by explicitly including the characteristics of trained workers in the regression equation. There have been very few high-quality studies applying the micro approach on German data and none of them focuses on regional aspects. Rather they address the general impact of training, that is, government-sponsored measures, on earnings and other variables. Research on Germany and other countries has yielded rather mixed results, with almost no support at all for training measures.

This contrasts with the results of the usual method of assessing training measures in Germany and other European countries which is totally unrelated to human capital theory (Schmid *et al.*, 1996). This is normally interested in the extent to which such programme objectives have been achieved as, for example, the number of participants, the number of successful participants, and the ability of participants to find and keep a job after training. Since the hypotheses tested are generally not based on economic theory, there is no explanation for the way a measure is expected to apply. Moreover, the methods used are not only unsophisticated, many being restricted to descriptive statistics, but subject to the problem of selection bias. Furthermore, they are unable to discriminate among different policy impacts – creaming effects, dead-weight effects or windfall profits, displacement effects, substitution and distribution effects.

Economic theory and the regional experience of training measures tend to underline the general importance of training for economic development and regional policy. Useful conclusions can be derived from the state of the art in empirical research and practical experience of training in Germany. The results of empirical research do not seem to support an expansion of government-sponsored training programmes. Regional experience indicates a major need to reform the dual system and to find the means to solve the problems of imperfect information, including that on quality, and competition detected in the field of further vocational training. A reform of the dual system of initial vocational training should start with a thorough review of apprentice compensation schemes and an extension of the time devoted to training on the job. Solutions to the problem of imperfect information in the area of further vocational training call for incentives to introduce regional learning measures, in which all the relevant regional agents participate, and to improve the supply of information from private and other organisations. Performance standards for further vocational training should be developed taking advantage of the vast experience of quality control gained in the dual system. An appropriate competition policy should be designed so as to increase market competitiveness in further vocational training.

POLICY INTEGRATION: EXAMPLES AND ILLUSTRATIONS IN SELECTED COUNTRIES

The following section illustrates vertical and horizontal forms of co-ordination between the public authorities at national, regional or local level and co-operation with the private sector or non public bodies. Co-operation can be designed, developed, and partly financed at the local level. However, the federal and state or provincial levels of government that initiate the programmes may also be involved as they too assume part of the costs. Policies and programmes encouraging training partnerships between the private sector and government at the national and the local level are developing. The state level might also be involved. Building stronger links between education institutions and employer institutions often depends on linkages forged at the regional or even local level. Changing economic and employment conditions increasingly require the adaptability of workers and geographical mobility as larger enterprises close plants or branch offices or relocate in other regions. Many workers are not geographically mobile, preferring to find training opportunities and work in their own communities. There is therefore a need for occupation-specific training links to job opportunities available within the community. To ensure the relevance of training to local enterprises, collaboration between local employers and providers of vocational education and training is important. The examples below illustrate links between community economic development and job training.

In the United States, the federal government is not always involved as shown by the examples of Colorado and Virginia. In other states such as Oregon the federal government is present. Moreover, at the state and local level, the “Compacts” programmes aiming at the development of education and training illustrate collaboration between the public authorities and the private sector.

The Canadian experience illustrates the role of the provincial Labour Force Development Boards which emulate the national Canadian Labour Force Development Board. Skills Centres such as those developed in British Columbia are part of joint federal and provincial initiatives to enhance HRD. The entrepreneurship education proposed in Atlantic Canada is another example.

In Australia, the Area Consultative Committees (ACC) involve the Commonwealth government, through the Working Nation framework, as well as the regions and the social partners. Locally, school and employers’ linking Committees (LIENCs) aim at improving school to work transition.

In the United Kingdom, there has been a decrease in the national role and a strong emphasis on the local actors. Nevertheless, as far as education and training

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are concerned, the national level plays a unifying role, for example in supervising the National Vocational Qualifications (NVQs). The role of the regions is increasing, as in the North-West with its central focus on the concept of the learning region. Finally, the Training and Enterprises Councils (TECs) exemplify strong local involvement.

In Germany, the Berlin Pact illustrates a complex approach whereby the policies of the regions (Land) and local authorities are integrated, and the social partners and other relevant organisations are involved. The Regional Training Conferences also illustrate this complex co-operation.

In France, the long tradition of centralisation is reflected in the setting of national norms and diplomas but this is now complemented by a very strong regional role under the recent *Loi quinquennale*, especially for the training of young people under 26 years old. Regional competitiveness strongly relates to the density of SMEs and to the dynamism of local networking between SMEs and secondary or tertiary vocational institutions, usually present in large numbers in medium-size cities and local labour markets.

In Portugal, the Commission of Vocational Certification, launched in 1993, certainly plays a unifying role in HRD. The centralised approach may well be a necessary step towards ensuring the credibility of the qualifications awarded. The Employment and Vocational Education Observatory helps the national and regional levels to adjust their policy measures. The joint management of Training Centres shows that social partners and regional associations are more and more involved in HRD.

Ireland is traditionally relatively centralised with public policies implemented through national agencies while the regional and local levels concentrate on the delivery. In the recent years, local partnerships have been developed with the aid of the European Union structural funds. They show the first positive impact on HRD of innovative techniques of decentralised production focusing essentially on transferable methodologies rather than complicated programmes or structures.

In Italy, decentralisation and the role of regions are reinforced by the recent "Employment Pact". It links three essential dimensions for HRD and regional competitiveness: the redefinition of training policy from the initial level to life-long learning; the reinforcement of decentralisation; the implementation of negotiated planning action.

As these examples will illustrate, the horizontal integration of economic, employment and human resource policies, programmes and agencies is increasingly found at the regional level, where it involves the collaboration of the various competent ministries and agencies or the creation of new policy bodies.

United States

Policy co-ordination

Initiatives have occurred or are being planned for increasing the policy co-ordination between hitherto distinct and separate policy sectors. The Colorado Economic Development Advisory Board has developed a strategic plan to enhance the diversification of industry and value-added sectors, to upgrade workers' skills and to encourage the development and commercialisation of technology. These strategic objectives are reflected in the work of other state agencies. For example, the Workforce Co-ordination Council has designed a market-driven and performance-based workforce system of development that supports these economic goals. Likewise, Virginia has developed a strategic plan ("Opportunity Virginia") for systematically guiding state efforts to promote job creation and growth in investment by bringing together technology, workers, training and economic development plans. The plan was based on a comprehensive review by a joint public and private commission of state government and its service delivery structure. Similar examples of horizontal policy co-ordination can be found in several other states, for example in Oregon, North Carolina, South Dakota and West Virginia (National Governors Association, 1996a, b).

Oregon

Oregon's "Workforce Vision" aims to prepare the best educated workforce in the nation by the year 2000 while simultaneously ensuring high-quality employment for all its workforce. The vision will be realised through a performance-based system, locally driven and defined by benchmarks and performance measures (National Governors Association, 1996c; Preus-Braly, 1997). Oregon has a history of outcomes-based planning. In recent years, the state and local workforce partners have legalised a comprehensive Workforce Quality System that produces results by emphasising collaboration and the integration of resources and services. The state is engaged in establishing an excellent foundation for attaining the workforce vision. The key is not to restructure the system that has been recently put in place but to strengthen and reinforce efforts to implement the system throughout the state.

To this end, the state is requesting a distribution of federal workforce funds in the form of a block grant in exchange for the delivery of mutually agreed outcomes. Three federal agencies are involved: the Department of Labor for overseeing the Job Training and Partnership Administration; the Department of Education for overseeing the School to Work Program; the Department of Health and Human Services for the Worker Profiling Program. Oregon proposes to seek specific outcomes in each of the programmes. In return, the federal partner will work directly with the state to achieve these outcomes, specifically, by identifying

and significantly reducing the rules and regulations that do not directly contribute to the achievement of the mutually agreed benchmarks and performance measures. The emphasis is on eliminating federal and state administrative barriers, promoting the integration of federal, state and local workforce resources and facilitating co-operation among the independent and diverse programmes and agencies.

The “compacts”

Some states and localities have developed school-employer co-operation in the form of compacts. Originated in the United States and now emulated in the United Kingdom (Bennet *et al.*, 1990), these consist of agreements between employers, schools and students, aimed at providing young people with work experience and establishing a continuous dialogue and support mechanism between schools and employers. Compacts are not just organised linkages trying to improve local involvement in vocational education and training. Rather they represent networks based on collaboration among all the relevant agencies and non-government actors with responsibilities for sub-regional or local labour markets and economic development. The first of these agreements dates back to 1982 when Boston's public schools signed a “compact” with the city's business, universities and labour unions. The schools promised better academic achievement and work preparation in exchange for increased opportunities for employment and higher education for the city's youth. The compact is considered by many observers to have been an important factor in sustaining the relatively low youth unemployment rate in Boston throughout the 1990s and eliminating the differences in unemployment between white and black youth.

Canada

Regional Labour Force Development Boards

The Labour Force Development Boards (LFDBs) which established in several provinces, concentrate on labour market and human resources policies. Although not all are similar in their membership composition and mandate, some emulate the National Canadian Labour Force Development Board (CLFDB) in which labour and business are represented in equal numbers along with representatives from the so-called Labour Market Equity Groups. For constitutional reasons the provinces are not represented at the national board. Ontario, Quebec and British Columbia established boards of their own while the rest were set up by or jointly with the National Board (Sharpe and Haddow, 1996). The provincial Labour Force Development Boards are advisory bodies, with the notable exception of Ontario's Training Adjustment Board (OTAB) which has far-reaching regulatory and funding powers and the “Société Québécoise du développement de la main-d'œuvre”

(SQDM) which also has administrative functions and is by far the largest. Those boards set up jointly advise both the federal and their provincial governments. The others advise their respective provincial governments or the responsible minister. The mandates differ in emphasis and breadth, but generally the boards are assuming a leadership role in the development of a skilled labour force in the province, providing strategic and practical advice from the private sector to government in the development and implementation of labour-force development initiatives, and promoting private sector awareness and commitment to labour-force development.

Such mandates have not ensured that the boards be influential. The impact of several boards on government policies and initiatives appears to have been much less than was originally expected, leading to a certain reluctance on the part of their members to participate in the work of the boards, reflecting the gradual decline of the National Board which has been severely reduced in size by recent cuts in the federal budget (Sharpe and Haddow, 1996). But some provincial boards have exercised influence. The British Columbia LFDB published a widely discussed report "Training for What?" which contained certain controversial and potentially far-reaching recommendations for future policy concerning post-secondary education and training. However, in spite of this active role, or perhaps because of it, the British Columbia Board fell victim to budget cuts and was abolished in October 1996.

Community Skill Centres (British Columbia)

As part of a larger package of skill-training initiatives, community skill centres have been set up during the last two years in British Columbia. Their explicit objectives are: to increase the competitiveness of business and industry in the global market place and of individuals in the labour market; to increase the community input, including decision-making into training and adjustment issues; to act as a focal point for bringing together community resources so as to increase access to training and to provide a bridge between training and work; to offer local one-stop training and retraining opportunities for youth, especially high school drop-outs and un- or under-employed youth, adult workers in need of upgrading or adjustment training, and the unemployed; to enhance the recruitment capacity of education and training by using information technologies. Twenty-one skill centres have been established since 1995 by the provincial government as part of a federal-provincial "strategic initiatives" programme, in conjunction with communities involving local business, community representatives, education and training providers and especially community colleges and the Open Learning Agency, British Columbia's distance education institution. The centres are funded jointly by the federal and provincial governments by means of a start-up grant and subsequent matching grants to cover operational costs for the

first five years. They are concentrated in rural areas where access to adult education and training has traditionally posed a problem. The biannual Adult Education and Training Survey by Statistics Canada (1996) reveals that 50 per cent fewer people in rural communities participate in adult education and training activities than in urban areas. A few centres are also located in cities where they are catering especially for youth "at-risk". Thus, the specific focus of activities and the target population of the centres depend very much on the needs of the local communities.

Entrepreneurship Education in Atlantic Canada

Recognising the crucial role of entrepreneurship and the establishment of new enterprises for economic development, the Canadian government formulated in 1988 a national policy which made entrepreneurship a stated objective of regional development. For the four federal agencies charged with promoting development this policy gave the go-ahead for active involvement in "entrepreneurship development" (ED). In elaborating an ED strategy, the Atlantic Canada Opportunities Agency (ACOA), responsible for the four provinces of Newfoundland, Nova Scotia, Prince Edward Island and New Brunswick, saw education as a key instrument in attaining its central objective, namely to increase the pool of people with the motivation, skills, ability, and desire to start their own businesses, and to make them successful. AOAC was aware that successful implementation of the strategy was highly dependent on the development of partnerships, specifically among the media, the education community, existing small businesses support organisations, economic development offices and other government departments and offices both at the federal and provincial levels (OECD and The Atlantic Canada Opportunities Agency, 1996e; Abrams, 1997).

Building partnerships with provincial economic development offices, business associations and the media took time but was otherwise relatively unproblematic. More challenging was the development of a partnership with the different parts of the education system, not only because education is the domain of the provinces rather than the federal government, but because of a differing philosophy about the appropriateness of encouraging students to become entrepreneurs particularly at the elementary and junior high school levels. Long negotiations with the provinces were needed before the federal government was able to develop funding partnerships with the departments of education for curriculum development, teacher orientation programmes, and enterprise/entrepreneurship education materials. Finally, the two levels of government were partners in the development of curriculum and materials. As a result, over 50 000 students from grades 8 to 12 (12-13 to 18 years old) were enrolled in full entrepreneurship classes or courses in 1995/96. Thousands of teachers received in-service training in the teaching of entrepreneurship material. Project-based materials for use in

elementary schools were scheduled to be introduced in classrooms in September 1996. Universities and community colleges have been encouraged to develop programmes and courses with a focus on enterprise management and venture development skills. Moreover, universities have been encouraged to provide training and counselling services to small business through Small Business Centres. A total of over C \$40 million of federal funding has been directly committed to education activities (not just education and training), which levered additional funds from other federal and provincial government departments and the private sector.

Australia

There are many government initiatives and programmes at the local and regional level in support of employment and training. A major aim of the federal government is to ensure that the different federal Commonwealth, state/territory and industry initiatives are co-ordinated in a more strategic fashion so as to support regional development objectives and regional competitiveness to a greater effort. Australia has a highly decentralised system of training provision based on mutual agreement and co-operation among the key players involved. A system without compulsion from a central agency must, of necessity, develop a range of flexible planning and delivery mechanisms which allow the widest possible consultation with and direction from the actors involved at the regional level.

A national framework

Australia is a federation in which power is shared among the federal government, six state and two territory governments. Although constitutional responsibility for education and training rests with the six state and two territory governments, the federal government has assumed a significant role arising from its responsibility for national economic development and promoting national consistency and coherence across the education and training system. Within each state and territory there is a number of smaller, more manageable regions, but the regions themselves vary greatly in the way they are defined and have no formal legislative or policy role in the training area. In the 1980s, the federal government embarked on a process of structural reform of the economy including reforms to the labour market, the industrial relations system and the education and training system. The vocational education and training (VET) system needed to be more flexible and adaptable. Other key elements were the closer involvement of industry, the implementation of a competency-based approach to training, the reorganisation of entry-level training arrangements and the provision of structured training in the workplace. This has led to fundamental changes to the training provided in the workplace, the recognition of training, and the development of

skills and competences required in the labour market. It has provided an opportunity for streamlining, simplification and deregulation.

The Australian National Training Authority (ANTA) was established in 1992 with the objective of developing a national system of vocational education and training based on mutual agreement between the key players. ANTA is headed by a five-member industry-based board which advises, and is responsible to, a Ministerial Council, comprised of the relevant Commonwealth, state and territory ministers. ANTA liaises closely with governments, industry training advisory bodies, private and public training providers and other stakeholders to ensure that the national vocational education and training system becomes more responsive to clients needs. Since March 1996, further reforms to the training system have been introduced within the framework of the Modern Australian Apprenticeship and Traineeship System. The key objectives are greatly to expand employment and career prospects, especially for young people, and to increase the international competitiveness of enterprises by enhancing workforce skills. The system encompasses six key principles agreed to by state and federal ministers: an industry-led a system; streamlined regulation; expanded training opportunities; regional and community involvement; a national framework; and access and equity.

Existing regional structures

One key structure at regional level is the Area Consultative Committee (ACC) network, which provides a strategic planning and consultative mechanism to support regional development. The government plans to build on the network of 61 ACCs which has been established since 1994 to advise the Minister for Employment, Education, Training and Youth Affairs on employment and training issues in the regions. A typical ACC comprises employers, unions, community and regional organisations, government representatives, and the major education and training providers. The government has recently strengthened the role of ACCs which are expected: to foster strong links between the community and the programmes and services of government agencies at the regional level; to identify regional skill needs and training opportunities in order to facilitate job placement for local people; to encourage the relationship between schools and training institutions with the business community in order to help the young obtain real jobs; to assist local business communities to establish links and networks that will ensure the economic growth potential of their regions is maximised, thereby securing greater training and employment opportunities for the local population; to assist in identifying and articulating the actual and perceived problems and issues in regional labour markets. ACCs sponsored over 600 regional projects in 1995/96.

Another successful regional structure is the existing network of more than 110 independently operated Group Training Companies (GTCs), which provide a unique and highly flexible approach to the employment and training of young people. They recruit and employ apprentices and trainees who are placed with one or more host employers on a "lease" basis for all or part of their training period. Currently, GTCs employ over 20 000 apprentices and trainees placed in over 25 000 enterprises. They are particularly focused on non-metropolitan areas and on assisting small businesses to recruit and train skilled labour. They are now filling the void, particularly in regions where smaller enterprises find it difficult to make a full-time commitment to engage apprentices because of their fluctuating work loads or limited opportunities for undertaking a broad range of practical, on-the-job experience. GTCs have agreed to double the number of apprentices and trainees in training to 40 000 by the year 2000. In addition, the Regional Employment Strategies measures are designed to increase employment opportunities and improve the skills base in regions which are experiencing adjustment pressures or high levels of unemployment. Under these arrangements, project funding is made available for initiatives which assist regions to adapt to structural change, diversify their industry base or respond to major retrenchment activity, consult young people and employers with a view to identifying strategies for increasing opportunities for youth employment and training, foster entrepreneurship and the establishment of new small businesses, and provide local unemployed job-seekers with the skills to compete for emerging job opportunities.

New regional structures

Australia is now poised to undertake a further significant reform of employment and training policies. By the end of 1997, the government will have introduced a competitive market for employment services which will have had a major impact on the strategies and services provided at a regional level. It will build on existing successful regional arrangements and structures, while ensuring responsiveness to a market-led and a client-driven system. It will avoid the imposition of rigid or inflexible structures. The Employment Service Reforms will include the establishment of a single point of delivery for people seeking access to Commonwealth services, the development of a competitive employment services market, and a new range of services for job-seekers and employers. Thirty regions have been defined for the purpose of purchasing and providing the new employment services. Within this framework, regional delivery arrangements are being established to provide employers, apprentices and trainees with the support services they require to operationalise apprenticeship and traineeship arrangements. Entry-level training support services will be provided through one-stop shops. A key objective is to simplify and streamline service delivery arrange-

ments for apprenticeships and traineeships, thereby increasing the take-up of these employment and training opportunities.

Flexible Training Products is another key feature of the reforms designed to refine the National Training Framework. The federal government is working with states and territory governments to deregulate the training system and make it more responsive to SMEs. Within a quality assurance framework, training will be developed which can be customised to meet specific industry and enterprise requirements at the local or regional levels. The School to Work Programmes are a further important element of the strategy at regional level to foster closer linkages between the vocational education and training and schools sectors. In 1992, 20 Local Industry Education Network Committees (LIENC) were established to pilot different approaches for improving the linkages between employers and education institutions. The role of LIENC includes improving the quality and quantity of entry-level vocational education and training provision in the region and locality, enhancing local ownership of the skills formation process, developing and facilitating placement opportunities in industry, and promoting industry-education links. LIENC are overseen by a committee with representatives from schools and employers (Australian Centre for Industrial Relations Research and Teaching, 1995).

Building on these local efforts and structures, vocational programmes in schools were given a national focus in 1994 with the establishment of the Australian Student Traineeship Foundation (ASTF). The ASTF is a national industry-driven body which promotes senior secondary vocational programmes run jointly by schools and industry. The Foundation works closely with state and territory governments and public and private schools to ensure cohesion in the provision of school-industry programmes. It places particular emphasis on regional co-ordination models which advance school-industry partnership arrangements and provide quality outcomes. It has been working towards a goal of having 15 000 students involved in workplace learning programmes by the end of the 1996 school year. ASTF grants have funded over 650 programmes spread over 1 100 schools throughout Australia. Students who complete programmes at school can receive further support for making the transition to employment through the Jobs Pathway Programme (JPP) operating in regions.

United Kingdom

National vocational qualifications (NVQs)

In 1986, the National Council for Vocational Qualification (NCVQ) was created to establish a national and unified qualification system. It is based on enterprise needs and introduces a single structure linking enterprises and training (Wolf, 1993). Its standards are defined by employers meeting in Industry Lead Bodies

(ILBs), which recognise the standards of competence accredited by the NCVQ. Currently, 170 ILBs represent employers' interests. They have developed standards describing the work required in much greater detail than conventional qualifications based on knowledge and academic learning. From the outset, researchers noted that NVQs were intended to allow employers to train young people for their specific need rather than for sending them to further education colleges (Steedman and Hawkins, 1994). However, in sectors with a large number of SMEs such as the building trade, most employers send their workers to be trained at further education colleges rather than organising their own training. This trend creates problems, since NVQs were designed to be taught and assessed in the workplace. Nonetheless, the NCVQ and the TECs have succeeded in linking national, regional and local levels.

Training and Enterprise Councils (TECs)

Training and Enterprise Councils (TECs) which are public-private partnerships, were established in 1990, as decentralised decision-making bodies involving the private sector (Bennett *et al.*, 1990). Training and Enterprise Councils, or Local Enterprise Companies in Scotland (LECs) created as private companies with limited liability, were set up in more than one hundred locations, representing the interest of employers in their respective region and replacing the 58 regional offices of the former Training Agency. It was through the TECs in particular that the White Paper on Education and Training for the 21st Century (1991) aimed to strengthen the role of employers. Increasingly, TECs are co-operating in further education colleges (a representative on the board of directors) and in steps towards achieving national targets. Objectives of the TECs and criteria for the evaluation of their performance are to influence employers' attitudes and increase their financial and practical commitment to education and training; to improve access, equality and cost-effectiveness of training; to promote and support SMEs and self-employment; to enhance local development; to break down barriers between education, training and industry; and to co-ordinate initiatives (Marquardt, 1992).

At least two-thirds of the board of directors must be private sector employers at top management level, while the remaining third is made up of personalities from local education, economic development agencies, trade unions or voluntary bodies. TECs cover an average sub-region of approximately one-quarter of a million people and each spends an average of £ 25 million per annum to train young people and adults, to support self-employment, or to stimulate training and improved management by SMEs (Marquardt, 1992). In contrast with the previous system, whereby decisions about programmes and levels and the location of funding were made by the Training Agency's Head Office, the allocation of funds is now, in principle, based on three-year corporate plans and one-year business

plans drawn up by the TECs, which are expected to reflect local labour market and training needs, and on an evaluation of their own performance, as judged against the prescribed objectives.

North-West Partnership HRD

The North-West Partnership's Human Resource Development Group (North-West Partnership, 1996) has analysed in detail the region's performance, the reasons for its decline and the strengths of its economy. The region came out with a clarification of its strategy for economic development. In 1993, the Regional Economic Strategy documented a relative decline during the 1980s when the North-West's share of national output, employment and population fell and unemployment was persistent, high and above the national average. It pointed out that this indicated a relatively poor capacity to adjust to changes in the global and national economies. The competitiveness of the region's trading economy was declining. Employment loss was greater than that expected on the basis of the region's manufacturing structure. Weaknesses specific to the North-West seemed to be the explanation. In spite of a recession, the record of the last five years shows many businesses surviving and even thriving locally within the global economy. In January 1995, the magazine *Insider* published an analysis of the top 250 North-West-based companies reported pre-tax profits in the last year up by 35.4 per cent, turnover by 6.7 per cent, assets by 6.1 per cent and pay by 9.5 per cent. The competitive challenge has increased and many of the region's stakeholders are responding vigorously. However, most of the old weaknesses are still apparent and so serious that they will continue to be a severe constraint on economic development in general and competence-building in particular unless they are tackled successfully.

Some deficiencies in competence-building are the result of inefficient education, training and management of workplace learning. This inefficiency is internal, in the sense that too many resources are being absorbed for too little outcome. It is external in the sense that an internally efficient competence-building effort is nevertheless poorly related to the objectives of employers and households. Quite often, deficiencies are due to factors entirely outside the institutions or the process of competence formation. However, not all the region's problems are on the supply side. Some deficiencies are simply the result of insufficient investment in people by the region's stakeholders. There is a chronically weak demand for certain key skills and knowledge, inadequate incentives and overwhelming obstacles to investment in skills and knowledge by individuals or employers. These negative factors arise from the product strategy of some of the region's traders, the way in which the region's labour markets operate and in which many employers manage their work and workforces.

One of the Partnership's special strengths is that it can build a strategy from the bottom upwards, across the length and breadth of the region and with contributions from all those with a stake in the region's future prospects. This process was built up through sixteen consultative workshops drawing on the different sub-regions and different sectors of the regional economy. It reflects the distinctive contribution that a partnership of regional stakeholders can make to HRD. Central government exercises powerful leverage over most of the suppliers of further and higher education. But, in spite of repeated initiatives, it has always had great difficulty in exercising equally effective leverage on the demand for competences. By contrast, those in the front line of HRD at the workplace are strongly represented in the Partnership. The distinctive emphasis in the proposed strategy is therefore on this front line and on influencing investment in competences by employers and by individual members of the region's workforce.

Since this strategy is built from the workplace outwards it fully recognises the vital role in competence formation of product strategies, work organisation, technologies and wage structures as well as the role of the region's enterprises support and education and training infrastructure. The NWHRD Group believes that this distinctive orientation towards the workplace and the demand for competences complements central government's approach to HRD.

Germany

The Berlin Pact

Within the Berlin Pact, the Land is committing itself to engage strongly in an integrated approach to both policy-making and administration for securing economic viability and employment (Berlin Pact for securing economic viability and employment, 1996). The City of Berlin – former and future capital of Germany but also a region (*Land*) under the German Federal Constitution – is at the origin of a pact with all relevant stakeholders in order to secure the city's long-term economic attractiveness and viability as a location for industry, services and also for the sciences and the arts. The purpose of this pact is to develop a common vision, and agreed-upon objectives and strategies, about the future development of the Land of Berlin. It is designed and implemented with the collaboration of employers, unions, chambers and associations, representatives of the sciences, the churches and other relevant groups. The Land government has proposed a holistic and long-term vision comprising speedy completion of the transfer of the national capital from Bonn to Berlin and thus a higher profile as a major European metropolitan area, development of a cross-roads function between Western and Eastern Europe, and strong ties with Northern Europe, creation of an image as an attractive location for innovative industry and business, based on a well-developed infrastructure of science and technology institutions, a major transpor-

tation hub, a pool of well-qualified workers, and an efficient citizen-oriented public administration.

In particular, the regional government will review, and if necessary revise, all existing laws, regulations, guidelines, public programmes and other public initiatives with respect to their impact on employment, oblige all ministries and agencies to work closely together with the aim of positively affecting employment, and align new policies of all ministries and agencies with the objective of creating sustainable effects with regard to strengthening Berlin's economic base and employment situation. As mainstays for such employment-relevant policies the government cites the improvement of the legal and regulatory framework for enterprises, the improved use of the science and technology infrastructure for innovation, a relaxation of some overly rigid labour laws, publicly supported job creation and the modernisation and further development of initial education, training and lifelong learning to make skills and competences more effective and relevant to employment. Although its final organisational form is not yet clear, the Berlin Pact will be led, co-ordinated and administered by a steering group, secretariat or other unit that will be administratively located above the *Land* ministries and agencies. This will help to operationalise the vision, priorities and commitments of the various members of the Pact.

The Training Workshop for Innovation (Berlin)

Among the various models of public-private partnerships for training, this initiative aims at providing specialist training for unemployed workers. It also assists local manufacturing enterprises to become more innovative. The model project "Training Workshop for Innovation" (*Innovationswerkstatt*) which is registered as a non-profit limited liability company, provides training for 15 workers including four qualified workers and seven engineers. The training is carried out in close co-operation with a local metal firm that had been working as a supplier of parts for large automobile manufacturing enterprises but had been forced to lay off 50 per cent of its workforce due to market changes and increased competition. Training, which is partly provided by outside trainers and partly organised in self-learning modules, aims at providing participants with different types of competences: updating and enlarging of advanced and basic technical skills such as computer assisted design/computer assisted manufacturing or numerical control techniques; the acquisition of specific skills such as project management and innovation marketing; additional extra-functional and process-oriented competences such as communication and process skills; and those competences which are needed for setting up and running a new firm, such as marketing, basic legal and management knowledge, and technology management.

The project, partly funded for two years by the European Social Fund, the Land of Berlin and the private firm, is expected to benefit the trainees by making them employable, capable of setting up their own small innovative enterprises, or becoming consultants on innovation management to other SMEs. Benefits are also expected in the form of concrete product and process innovations elaborated by the workshop. This would permit the enterprise to improve existing products and also to diversify its production. Product ideas or prototypes not taken up by the sponsoring firm will be either realised by other SMEs or produced and marketed by one or several of the trainees themselves.

The Regional Training Conferences

Another example comes from the most populous of the German *Länder*, the heartland of traditional industries, North-Rhine-Westphalia. In this *Land*, Regional Training Conferences were set up in each of the 33 Employment Administration districts where all the actors concerned with employment, education and training come together on a regular basis to devise solutions to unemployment at the local level. As employment administration is the responsibility of the federal government, these training conferences bring together representatives from the federal, regional, and local levels as well as employers and other non-governmental groups. These conferences identify the main target areas for new training initiatives to meet local demand, including continuing training activities to enable workers to use new technologies, primarily developed by the Chambers of Commerce and the Crafts, and specific training for “at risk” groups. These initiatives are mainly developed by local authorities in partnership with the *Land* government, the Chambers, the unions, the federal Employment Agency and voluntary organisations.

France

A national framework

There are three main secondary education streams: general, technical and vocational. The first two lead to the general or technological *baccalauréats*; the third to the CAP (Certificate of Vocational Competence), the BEP (Diploma of Vocational Studies) or a vocational *baccalauréat*. The same streams exist in higher education. The BTS (Advanced Technician’s Diploma), DUT (University Diploma of Technology) and engineering degrees could be considered rather as falling under vocational or technical education. Most of the other university degrees belong to the general stream (OECD, 1995*b*; Perker and Liétard, 1994). There are several certifications: diploma, accreditation (*homologation*) and certificate. Diplomas in initial vocational education are the responsibility of the Ministry of Education and the CPCs (Vocational Advisory Boards). Accreditation is granted by the

Board for the Accreditation of Degrees and Diplomas (*Commission d'Homologation des Titres et Diplômes*). Certificates have a connotation relating to specific training institutions. The newly introduced CQP (Occupational Qualification Certificate), for example, sanctions a study course whose subject-matter is determined by the social partners in a particular industry sector.

A decentralisation process

Within this national framework, the Law of 20 December 1993 known, as *Loi quinquennale* on labour, employment and vocational training, gives the regions added responsibility for vocational training and apprenticeship policy. This widening of responsibilities concerns vocational training for young people (skill and pre-skill training). Under this Act, the regions have responsibility, in co-operation with the national government, for designing a vocational training development plan and ensuring the consistency of the measures implemented. The plan is the subject of consultation by the economic and social partners in the region, as well as the regional economic and social council. The *Loi quinquennale* gives the regional councils responsibility for framing regional training policy and co-ordinating the initiatives of the different regional actors: national and regional public authorities, social partners. Application of the Act in the regions has triggered a process of change in the role of each actor in vocational training and the way they all work together.

The Regional Training Development Plan for Young People (PRDFJ) concerns all the economic and social agents involved in the regional or local training system, in other words all policies for initial and continuing vocational training and apprenticeship developed in a regional territory. It takes account of the way that a set of diverse social actors, decentralised public bodies, regional public authorities, trade associations and trade unions mobilise financial resources and build frameworks to facilitate a coherent approach to the different youth training policies at regional level. This approach gives a wider meaning to the concept of a “regional initial and continuous vocational training policy” than it has in the programmes or initiatives carried out directly by the regional council. The process is one of framing regional policies for training young people. Regional training policies are implemented within very different regional contexts. These cannot be attributed solely to differences in development. Other factors include the structural differences, sometimes marked, in the regional markets and education and training systems (Table 7, Annex 1).

A portrait of the regional territories that highlights the consistencies within each of them has been drawn (Comité de Coordination, 1996). The following typology of regional territories has been proposed:

- i) An education system characterised by low participation rates at all ages and by a high rate of under-achievement. Whether at the end of schooling or apprenticeship, job prospects for young people are generally bleak. As a corollary of this, the central government is the actor dominating policies aimed at young people leaving the education system. In this set of regions, industrial training and activities predominate. Examples are the regions in the North of France (Nord-Pas-de-Calais, Picardie, Champagne-Ardenne).
- ii) An education system characterised by high enrolment at all ages and by a high proportion of service activities. Schooling is important, as is staying in education. This set of regions is characterised by a context of a marked shift to services. Examples are the regions in the South of France (Provence-Alpes-Côte-d'Azur, Languedoc-Roussillon, Rhône-Alpes, Midi-Pyrénées, Aquitaine, Limousin), Brittany and the Ile-de-France.
- iii) An education system characterised by short vocational training courses in an industrial or agricultural environment. The education system is marked by the strong development of vocational training in a school environment and by apprenticeship. At the same time, staying in education after the *baccalauréat* is limited. The common feature of the regions is that they are small or medium in size and agricultural and industrial jobs play an important role. Service activities are decidedly less predominant. All the alternating training or work experience-formal training contract schemes exist. Examples include the following regions: Alsace, Lorraine, Franche-Comté, Central France, Bourgogne, Basse-Normandie and Haute-Normandie, the Pays-de-la-Loire and Poitou-Charentes.
- iv) An education system in which school participation is significantly lower and young people face major educational problems. Most of the young working population have no qualifications and go into jobs in the service or agricultural sectors. The weak job creation dynamic helps to maintain high unemployment rates despite government intervention. The central government and the region fund virtually all the measures designed to help young people enter the labour market. Examples are regions in the overseas *départements*.

In conclusion, the *Loi quinquennale* has been applied for two years now and the changes are twofold. The Act has widened the scope for achieving a regional policy for vocational training for young people that is designed to focus on greater proximity to stakeholders and greater involvement of actors, each region tries out

its own approach along past or new lines. Regional policy statements and the philosophy of coherent policy implementation are now a reality. By altering the institutional framework that had been managing the different training initiatives for the past ten years, the Act has introduced uncertainties as to the co-ordinated implementation of policy principles, goals and methods.

The complexity of the challenges requires a transversal and forward-looking approach and, finally, working together on employability (Conseil économique et social du Poitou-Charentes, 1994). This approach focuses on the real capacity for action of all the actors on the regional level and presupposes clarification of their roles (Government, industry sectors and socio-economic partners) and involves a balance between the different training functions (gap between supply and demand, demographic change).

Co-operation between schools and enterprises

Today, market, technological, and HRD factors are indissociable in any consideration of the progress of localities and enterprises. Young people must be helped become innovative and flexible in order to be able to serve the needs of SMEs. For their part, SMEs must learn how to sustain their development and ensure their survival over the long term. Thanks to their proximity and specialised curricula, vocational and technical schools are well placed to respond to the development and innovatory requirements of SMEs and to participate actively in the dissemination of new technologies. Close relations between schools and SMEs are an essential prerequisite for the training of young people and growth of local economies and employment. To acquire skills adapted to their occupational setting that will widen opportunities is the key to the immediate and long-term development of local enterprises

The overall provision of training would include all institutions: public and private vocational and technical schools; university extension and university institutions of technology; engineering schools; commercial schools; all other institutions in a region or in adjacent regions. It also embraces the existing or potential research and development capacity. The culture of SMEs does not predispose them to call on assistance from specialist centres, research centres or local schools. It is a question, therefore, of creating networks of expertise and interactive partnerships between educational institutions and the economic partners in order to stimulate SMEs and facilitate the transition to working life. The density of the national network of upper secondary schools (*lycées*) is such that, *a priori*, they could all be potential partners of local enterprises.

The national inquiry undertaken by FRADE for DATAR and the Directorate for Secondary Schools confirms this finding (Colloque de Poitiers, 1994). It reveals that more than 40 per cent of schools co-operate with enterprises, mainly largish

ones with 50 to 200 employees. It also mentions the successful adaptation of schools to clusters of SMEs. The findings highlight two factors: the percentage of industrial achievements and the percentage of teachers concerned. By calculating the sum of the percentage of industrial schemes planned and the percentage completed it is possible to arrive at an estimate of the system's productiveness from the employers' point of view. As regards the main subjects in the BTS curriculum (higher technical) two results emerge. The dominant subject is industrial mechanics and automation (MAI) with a yield of 50 per cent. Three groups of schools are notable for their industrial output: 70 per cent for Group A, 25 per cent for Group B, and 6 per cent for Group C, but also for the average time taken to find a first job: 6 months for Group A, 7 months for Group B and 9 months for Group C (Table 8, Annex 1). This distribution brings out the potential of certain subjects. Thus, Group A of the highest performing schools is remarkable for the number of institutions having a MAI track – 37 per cent. These findings show that, across a wide variety of school and enterprise practices, there is a need for more intensive professionalism in these partnerships.

Portugal

A national qualification structure

Portugal has adopted a single basic qualification structure with two complementary procedures. On one hand, a “core” of skills without any direct relationship to a particular occupation is developed. On the other hand, groups or clusters of technical and vocational skills associated with groups of similar occupations and qualifications levels are proposed. Skills relating to working life should be dealt with at the end of the training period. This approach has been necessitated by the pace and direction of change and individuals absolutely need the foundation to benefit from lifelong learning. Since 1993, the Commission of Vocational Certification is responsible for the design and the management of that system. Participants in this Commission include the ministry of Education, the ministry of Economics, the ministry of Employment and Social Security and the social partners. Private training institutions can be accredited by those ministries. The mechanisms of recognition are managed essentially at national level, without regional intervention. The Commission of Vocational Certification may contribute to transparency and permeability among training systems, occupations and employment. The most recent measures aimed at increasing interconnections consisted of adopting a common rationale for all training, the principle being that a qualification level obtained at any place and any time would give access to a new qualification level. Therefore, modular curricula will need to be widespread. The implementation of a national system of certification of vocational qualifications needs to be more formalised so as to be recognised by employers and the

existing professional bodies. Assessment and recognition mechanisms must be strengthened.

The Centre for Employment and Vocational Training (OIEFP)

This tripartite centre was set up in 1993 in accordance with an agreement on prices and incomes and following consultation with the social partners. Under the aegis of the Ministry of Qualifications and Employment, the centre conducts studies and makes recommendations. At regional level, its work is carried out by delegations of the Institute for Employment and Vocational Training, and at local level by the public employment agencies and vocational training centres. In accordance with its mandate the centre focuses on analysing the labour market, identifying problems, evaluating the impact of political measures, and formulating new policy orientations. An important part of its remit is to maintain a network of interlocutors at national, regional and local level. Information is disseminated in the form of newsletters and reports.

Jointly Managed Training Centres

Portugal has a number of specialised training centres set up in various regions that are jointly managed by the national Institute for Employment and Vocational Training (IEFP), the respective sectoral employers' association and a regional association in which the regional enterprises are represented. One example is the Vocational Training Centre for the Ceramic Industry (CENCAL) which is located in Caldas da Rainha, a city situated in a region where the manufacturing industry specialises largely in porcelain, pottery and stoneware. The Centre operates on a national scale as far as specialist training for occupations in the ceramics industry is concerned, but also offers courses in other areas, such as data processing, material handling, and the kind of engineering demanded by local enterprises in other industries. Thus, besides training workers, technical managers, designers and other personnel for the ceramic industries, CENCAL provides youth training, for example through apprenticeships, and the retraining of workers in both technical and management skills. In order to identify the training needs of local enterprises, the Centre conducts regular enterprises surveys. The relevance of the courses offered is evaluated through a post-training procedure by which both employers and former trainees are requested to assess the trainees' competence and reintegration in their enterprises (Ferraó *et al.*, 1992). There are now 26 such jointly managed training centres covering 25 different vocational sectors. All enjoy some degree of administrative and financial autonomy. Each is governed by a board of management, a board of directors, and a supervisory committee composed of the representatives of the various partners and presided over

by a representative of the IEFP (Instituto do Emprego e Formação Profissional, 1996).

Ireland

Social partnership and economic performance

Following strong economic growth in recent years, Ireland now faces the challenge of increasing its competitive advantage and creating an economic structure of high employment. It has opted for a strategy which requires substantial investment, advanced education and training and high levels of public provision and social security sustained through a national social partnership process (OECD, 1996c). Ireland has been one of the fastest growing OECD economies during the 1990s. The policy underlying this achievement has been built upon a social partnership between the State and major economic interests, including in the most recent negotiations the representation of the voluntary sector. The three successive social partnership agreements implemented at the national level since 1987 have helped to secure a much needed recovery from the disastrous circumstances of the early and mid-1980s and underpinned a sustained period of growth.⁷

Actions for structural change

Traditionally, the industrial and employment policy systems have been relatively centralised and hierarchical. The State-led approach has been implemented through national agencies and decision-making. The regional and local levels concentrate on delivery rather than on policy. From a regional development perspective, a number of difficulties arise: policies are excessively focused, compartmentalised and segmented; the regional tier is weak; enterprises and initiatives suffer from proliferation and fragmentation, and co-ordination is poor, both horizontally and vertically. The local development programme which is supported by European Union structural funds aims to develop innovative models of participation capable of harnessing the energies of trade unions, enterprises associations and the voluntary sector. The State government has recommended a renewed system of local government.

In 1992, the Industrial Policy Review Group produced the Culliton Report which recommended reforms of the enterprise training system and institutions to secure greater priority for enterprise-relevant training. In order to sustain the increase in the educational attainment levels of the majority of the population, other aspects of HRD have to be further developed since, as things are, the incidence of formal training for employees is significantly lower than in most European countries and its duration is substantially shorter. The Report signals

that a major problem arose from deficiencies in intermediate production skills. Although there is no shortage of training providers, enterprises tend to be unable or unwilling to upgrade the skills of their employees. The total expenditure on training within enterprises is estimated at 1.2 per cent of payroll. On the other hand, the National Training and Employment Authority (FAS) concentrates on training young people who are about to enter the labour force and on various forms of community-based employment for the unemployed. The FAS allocates limited funds to enterprise training and plays a minor role in its provision.

Local partnerships: the challenge of self-generating competitiveness and social inclusion

The local partnerships were born out of a particular context, most notably, the threat posed to macroeconomic stability by high levels of unemployment and the availability of European Union structural funds. Ireland is often cited as an outstanding example of well-formulated and targeted European Union regional policies. For the purpose of receiving funds, Ireland has chosen to be treated as a single region. This classification partly reflects the relative absence of a formal regional government structure in comparison with other European countries. The factors which prompted the experiment in decentralisation differed from those which were at the root of earlier decentralisation moves in other countries. The process of national co-ordination and its focus on solidarity with those disadvantaged sections of the community likely to miss out on the benefits of economic development gave the government a very different character. This is typified by the adoption by the local partnerships of a “problem-solving” approach as their central organising principle. The Irish Partnerships have found their way with remarkable speed towards solutions that draw on techniques still regarded as experimental in many large enterprises. Local actors appear to have an understanding of new learning approaches at industry level. Many of the multi-nationals are developing strong and apparently enduring ties with the local suppliers: companies have begun to change the categories according to which the capacities of enterprises and the value of skills are assessed.

Social training for the unemployed and training for enterprises reflect assumptions that the provision of training for the long-term unemployed may be questionable on economic grounds, especially in view of the number of new entrants to the labour market through to the turn of the century. Enterprises have successfully trained people from disadvantaged areas for work that demands the problem-solving skills and rigorous reliability that mark the high performance jobs of the new competitive economy. The diffusion of innovative techniques of decentralised production, originating from Japan and the United States, has positively impacted on HRD by means of the collaborative links established between local enterprises and multi-nationals, for example in the computer area, and by

securing accreditation for quality standards which attest a break with practices associated with mass production in favour of new disciplines and a greater reliance upon training at both management and non-management levels. Another positive impact is the development of “cluster” programmes implemented by the FAS to enable groups of enterprises brought together on a regional basis to enrol the services of specialists assigned by the training agency to each participating enterprise in order to provide training programmes and contribute to their competitiveness. Finally, the establishment by small enterprises of training networks on enterprise management (the PLATO experiment, OECD, 1996c) demonstrates how public policy can support the area-based networking of small enterprises in order to promote local economic and employment development, innovation, market specialisation and the internationalisation of the small firm sector. The PLATO experiment has proven to be an ideal transferable model and training device because it is essentially methodological rather than a complicated set of programmes or an intricate organisational structure.

Partnership 2001

The tripartite National Economic and Social Council (NESC) has called on all the parties to the next national agreement (1997-2001) to view their task as that of seeking to ensure that competitiveness and social solidarity are made self-sustaining. Following the success achieved at macro-level, it identifies the goal of the next multi-annual programme as providing a framework for building competitiveness at enterprise and industry level. The process of social partnership is considered to provide a sound foundation on which a strategy to upgrade the national training system can be implemented.

Italy

Following the “Social Pact” signed by the government and the social partners in 1993, a formal agreement, the “Employment Pact”, was concluded in 1996 that determines the framework for infrastructures, work, training and research within an integrated strategy for structural reform and introduces new methods of management (Curzi, 1997). A major objective of the pact is to raise the level of employment, especially in the South where it is much lower than in the North. The measures foreseen concern training, research and innovation, infrastructures, and area compacts. The legislation encompasses three domains that are at the heart of the debate on HRD: regional competitiveness, training policy, decentralisation and participatory programmes.

In order to promote HRD and competitiveness it is necessary to have a *training policy* and to adapt the education and training system to a labour market that is in constant flux. The principal measures have to do with the efficiency of

the system and reform of its structures. At the level of initial education it is proposed to raise the school-leaving age to sixteen and to extend the right to training up to the age of eighteen. At the post-school level, it is the intention to encourage individualised learning, enriched by a work-experience component, and to redefine the forms and expected outcomes of vocational training. At the post-secondary level, the intention is to create an autonomous system linked to the workplace and the training providers, to make effective use of new technologies and to benefit from an integrated system of certification. Training by means of apprenticeships and employment contracts as well as tertiary continuing education will be upgraded. An inter-institutional agency has been set up within the office of the President of the Council of Ministers which will co-ordinate training policies and introduce a certification system designed to unify training tracks and to promote recognition of the qualifications obtained.

The Employment Pact envisages *decentralisation* of the national government's role in training and employment. The regions will be required to redefine the outcomes of vocational training at the post-school level and to establish an autonomous sector at the tertiary level alongside the universities. As for continuing education and training, the regions will formalise training systems according to guidelines and procedures agreed by the social partners at the national level. A reform of the employment services will be undertaken with a view to strengthening the match between supply and demand as well as the participation of private agencies in managing the system.

Co-ordination with local and regional administrations and co-operation with the social partners will be reinforced within the framework of *participatory planning*. Programme and neighbourhood contracts as well as area agreements are deemed to be instrumental in committing the public and private actors to local development.

CRITERIA OF SUCCESS

Most of the policies or programmes mentioned do not benefit from a definitive assessment of their effectiveness concerning the intended objectives, their impact on the regional economic development and competitiveness. Nevertheless, a number of prerequisites or conditions of success emerge. They demonstrate the difficulties in putting into place a decentralised, demand-driven, client-responsive and outcome-oriented approach. Several criteria appear critical for success, such as transparency of organisation; the involvement of the main actors at the regional level; the programme sustainability and stability of the funding as well as trust among different actors. They are discussed briefly below.

Transparency of organisation

The transparency of new structures, forms of interaction between parties or delivery of programmes efficiently implemented by the various agents and used by the intended clients, depend on the clarity of their objectives and functions. However, transparency is not always achieved. In consequence, public acceptance and utilisation of new programmes or services is lower than envisaged. This applies in particular when responsibilities between two levels of government are re-distributed in a major way. For example, in France, far-reaching decentralisation of responsibility for training has affected the entire system and seems to have led, at least initially, to uncertainty and confusion for some of the actors. In the assessment of the complementary training based on local initiatives (*formations complémentaires d'initiative locale* – FCIL), a regionally based training programme that requires collaboration between the regional representative of the central government and the regional authorities, the *Commissions Professionnelles Consultatives* (CPC) found that the programme was under-utilised because it was relatively unknown (Info Flash, 1996). Just before the *Loi quinquennale* in France, Remond (1992) concluded that the regions were not yet taking full charge of their new responsibilities.

Uncertainty can arise because of insufficient information and co-ordination, overt or hidden conflicts of interest or orientation of the various partners, or the dispersion of the various viewpoints and interests which makes the articulation of positions difficult. Some of the uncertainties are inherent in any major policy or organisational change; others can probably be avoided if the rationale of the reorganisation and its objectives are more clearly spelled out. Co-operation depends to no small extent on clear yet flexible structures, rules, and routines, in particular for mediating and resolving conflicts of interest, and maintaining reliable channels for the flow of information. This does not prevent actors in co-operative networks from using personal contacts and informal channels of communication, but the framework in which co-operation takes place must be transparent for everybody involved.

Other barriers to efficient co-ordination at the regional or local level are found in the reluctance of actors to change established ways of thinking or crossing established lines of responsibility. In its evaluation of regional training policies, the French *Comité de Coordination* (1996, p. xvi) stated: “as far as the national level is concerned, co-operation sometimes suffers from poor co-ordination between its various decentralised agencies which reduces its unity of action, and from behaviour that does not yet reflect the realities of decentralisation. In this context, information sharing and consultation between the national authorities and the regions is important.” Thus, the various actors must understand that they are not operating in isolation from one other but are all part of a larger system in which each partner has a well defined place. While this seems clear enough in

principle, actual compliance is often hampered by hierarchical or sectoral thinking, a sense of competition or simply sheer ignorance about the other partners' tasks, capabilities, and modes of operating.

Involvement of the main actors at regional level

When a strategy aims at developing HRD with the participation of local or regional social partners, the way they are involved is of critical importance. However, the direction of desirable regional development and the strategies employed to get there are not solely for the social partners to define and decide. One of the main criticisms of the TECs in the United Kingdom is that stakeholders are very unevenly represented at the board level, and "some of the key players, namely the local authorities and trade unions, are offered only token membership" (Coffield, 1992, p. 26). Another problem related to the dominance of local or regional bodies is that conflicts of interest may arise when such bodies fulfil both advisory and funding functions. For example, a recent United Kingdom study found that it is not uncommon for TECs to give grants to companies in which directors have an interest (Bennett, 1994). As pointed out by the OECD Business and Industry Advisory Committee (BIAC), the development of employees and human resources is often treated as a higher priority in countries with a tradition of decentralisation, where decisions are not taken nationally: education and training are more easily stressed as being a priority within the enterprise. For the Trade Union Advisory Committee to OECD (TUAC) the first objective remains qualification for all. To be qualified is the starting point for a more humane society and it goes hand in hand with work organisation and technological change. If qualifications, regional development and globalisation are key words and concepts, it is in fact because they are linked and work together. Further training and lifelong learning have to be improved in a common effort by the various stakeholders and actors. Education has to be based on solid foundations so that some actions and training can take place later on, for example to adjust to technological innovations. Concerning regional policies, the federal and the regional levels can be very closely linked. They are different and solutions can be made within the enterprise. There is a gradual system of regional as well as federal interests and social partners interests should be taken into consideration.

An example of these multi-level interests is provided by the Confederation of Danish Industries and the Central Organisation of Industrial Employees. These represent about 50 per cent of the labour force in the industry and, as the two major organisations, they are represented on the boards of most of the vocational training institutions. Through a common agreement, they have initiated the SUM (Strategic Employee Development) to support SMEs in their efforts to uncover qualification gaps and plan and carry out employee education. In that way, they strengthen the competitiveness of the companies and help to optimise the devel-

opment and implementation of training activities by establishing communication between the small and medium-size enterprises and the training institutions. The SUM develops flexible methods of skills analysis based on dialogue between employees and employers and implements them in a large number of SMEs. It has established a certified qualification for the consultants of the training institutions implementing the SUM approach. SUM is strongly based on a dialogue between social partners and training institutions to address the needs of SMEs at the local level and close to enterprises level (Mejer Petersen, 1997).

Serious co-operation between the public and private actors appears a crucial element in preventing technological and organisational confusion. Prediction has proven very delicate at national level. For the same reasons, similar difficulties appear at regional level. How to anticipate future needs remains quite uncertain and often the requirements seem backward rather than forward looking. In addition, the ability of businesses to define and articulate their needs and requirements is hampered by structural problems, namely “the dispersion of the various professional organisations, internal conflict within these, and their uneven capacity and level of expertise at the regional level. The weak organisation of employers and sectors at the regional level has negative consequences especially for the articulation and taking into account of the needs of SMEs” (Comité de Coordination, 1996, p. xvi). In the case of school-business partnerships the problem is slightly different. Here it is necessary to involve the right kind of industry and business and to have the right level of participation and involvement. Thus, an evaluation study of the LIENC programme in Australia found that to improve the quantity and quality of work-based activities, initiatives must focus on involving employers rather than employers’ associations. The same study also recommended that employers from all parts of the local or regional labour market should be involved and that different strategies must be applied for large, medium and small employers (Australian Centre for Industrial Relations Research and Teaching, 1995). In the great majority of regions or localities, small firms are the most important providers of jobs and workplace training opportunities.

Programmes sustainability and stability of the funding base

Often, however, programmes and services are set up as pilot projects, with public funds allocated in a digressive way, the expectation being that they will become self-financing upon completion of the pilot phase which usually covers somewhere between two and five years. In areas where there is a potential or existing market and where clients can be expected to pay for the services this is quite appropriate and a proper use of public resources. However, these conditions may not always exist and there is ample evidence of programmes and initiatives being abandoned that did not survive the end of the initial phase and the discontinuation of public support. In the field of HRD, opening up markets by

inciting and responding to latent demand may well be an option in certain areas, for example continuing vocational training and particularly continuing professional education (OECD, 1995*b*). Where training programmes primarily aim at the unemployed, youth at risk or other disadvantaged groups, the option of charging fees for training is largely unrealistic except when they are picked up by other public sources such as unemployment insurance, social security or welfare. Thus, for these groups, the observation made in connection with youth training programmes in general seems appropriate, namely that *ad hoc* and emergency interventions to help at-risk groups “offer nothing more than temporary and shallow relief” (Drake, 1994).

Trust among the partners

Trust is another key to the success of co-operative arrangements; it is the glue that binds the various elements together. There must be an element of mutual trust among the various partners. Co-operation needs to be based on a sense of reliability, a long-term perspective and, possibly, a shared commitment to the objectives and main directions of regional development. The latter is especially helpful when, as is often the case in local or regional government, the network consists of people who are competitors or belong to different political parties, or to opposing sides of labour or employers’ organisations.

SUMMARY

The foregoing examples cover different concepts and approaches aiming at HRD, employment, and economic development and competitiveness of regions. While their specific focus differs, they have three overall objectives in common: to increase the involvement of the local community, specifically enterprises and the social partners, in providing learning activities at the school level and more and better work experience and training opportunities at the workplace; to help unemployed and other at-risk groups find qualified and stable employment by improving their skills and competences through training; to develop the economic viability and competitiveness of localities and regions by enhancing the skills and competences of the population.

NOTES

1. It has to be underlined that policies for HRD rely on both the education system and the overall learning and training opportunities. Ministries of Education are in charge of initial education and in certain countries of initial vocational education. This provision constitutes the formal sector. But, many other training opportunities are available at national and regional level in the non formal sector beyond the competence of education ministries responsibilities: enterprises, professional associations, profit and non-profit associations, labour market programmes.
2. The United Kingdom is to be examined carefully because the tables indicate the percentage of young people finishing compulsory education (16 years old). Therefore, the 81 per cent should be understood with reference to the net enrolment in secondary education (OECD, 1995a, table 3, Annex 1).
3. First report to the President and Congress, 1992; re-quoted by M. Fred Bergsten, Chairman of the Competitiveness Policy Council, in the United States House of Representatives, 15 March 1995.
4. The Nomenclature of Territorial Units Statistics (NUTS) at the same time as establishing a correlation between regions in terms of size, also provides several analytic levels. The 1961 Brussels Conference on Regional Economies, organised by the Commission, found that NUTS2 (basic regions) was the framework generally used by Member States for the application of their regional policies and was therefore the appropriate level for analysing regional-national problems, whereas NUTS1 (major socio-economic regions grouping together basic regions) should be used for analysing regional Community problems, such as "the effect of customs union and economic integration on areas at the next level down from national areas". NUTS3, which broadly comprises regions which are too small for complex economic analyses, may be used to establish specific diagnoses or to pinpoint where regional measures need to be taken.
5. The terms coordination, co-operation, collaboration and sometimes integration are often used interchangeably. Here, they are distinguished by degree of intensity. Thus, integration means the merging of policies, programmes or services, and coordination, the adjustment of policies or programmes to fit a common objective, and cooperation the working together between government and private sector.
6. This section, prepared by Dr. Federico Foders, is part of the project "Regionale Wettbewerbsfähigkeit und Bildungs-, Aus- und Fortbildungs- sowie Qualifikationsmaßnahmen" which receives financial support from the Federal Ministry of Economics, Bonn.

7. Despite the down-turn in the world economy in the early 1990s, average real GNP growth of 4.1 per cent was achieved during the period 1987-1994. Total employment increased by over 1.35 per cent per annum between 1987 and 1990 and, despite the international recession, by 1.2 per cent per annum between 1991 and 1994. Compared to the fall in employment of nearly 80 000 in the 1980s, the number of jobs has risen since 1989 by 2 000 000 to 1 284 million, the highest levels in employment in the history of the State.

Part III

STRATEGIC ROLES OF REGIONS

INTRODUCTION

With the development of the knowledge society, reflection has to be given to the benefits of HRD. Strategies and policies have to be developed at both the national and regional levels. Three main areas for policy action will be considered here: the links between human resource policies at regional and national levels; the assessment of human resource policies; the interactions between regional authorities and partners. For each area, a set of issues will be examined and some of the proposed lines of current thinking are presented. They do not embrace the full range of possible issues but look at some selected aspects chosen because of their relevance to the role of HRD in regional competitiveness. While questions will remain open, trends will emerge which will then be further developed in Part IV on conclusions and policy implications.

Chapter 8 on the links between human resource policies at regional and national levels discusses the methods of co-ordination. How and by what means can education and training contribute to enhancing the development of human resources in a region? How can the education and training policies of regions, which are required to respond to regional needs, be co-ordinated with national policies?

The improvement of human resource policies based on follow-up and assessment is examined in Chapter 9 with a view to improving the understanding of regional needs. How to design an effective structure for negotiating common strategies? How to create public and private linkages to improve effectiveness in HRD?

Finally, Chapter 10 examines the interactions between regional authorities and partners. How can the recognition of skills and competences clarify and simplify the pathways that individuals follow through education and training at regional level? How to integrate research into the education and training supply? How could more emphasis be put on innovative experiments in regions?

NATIONAL AND REGIONAL CO-ORDINATION

The regionalisation of HRD policies – an agenda

by

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League tables built from indices of national competitiveness are in fashion. For the most part they measure the extent to which governments have adopted policies of which the index constructors approve. These composite indices bury value and factual judgements in misplaced aggregation. Some factors which influence competitiveness may be quite subjective, like the openness of a culture to foreign influences or respect for the law. They are illegitimately isolated from their context, quantified and added to objective factors like levels of educational achievement. By contrast, the exploration of some sources of regional competitive advantage by disaggregation, by focusing on specifics appears to differentiate one region from another and may throw light on the creation and exploitation of competitive advantage. In order to do this, this introductory note focuses on two main issues. These are considered in general terms, applicable to any OECD country, but illustrated mostly from a single region within one country. The intention is to promote a search for what is general and agreed within the particular.

Policy-making at national and regional levels

The variety of practice across OECD countries challenges the identification of the role of the region in HRD as opposed to the role of a supra-national body like

the European Union; a national government; sub-regional authorities such as cities and counties; individual employing organisations in the private for-profit, not-for-profit and public sectors. Only half of all OECD countries belong to a supra-national policy-making body but all countries have to work out, and frequently re-work, the relationship between the regional role and at least one superior and two subordinate levels of policy-making.

The principal focus in this chapter is the relationship between the national and regional roles in HRD. In particular, the focus is on striking a balance between the legitimate imperative to be responsive to regional needs and the equally legitimate imperative on a national government to pursue a policy which supports the macro-economic and macro-social goals of the whole country. Although less attention is often given to the relationship between the region and the two subordinate levels of policy-making, this is scarcely less important to the effective orchestration of the collective effort which is necessary if people are going to be what they are capable of becoming. This being so, the Baltimore and Manchester stories can serve as a springboard for consideration of specifics and inhibit any tendency towards excessive abstraction. They also direct attention to some conflicts between policy goals on social exclusion and on competitiveness and to possible solutions.

The nature of HRD: education, training and beyond

Nesting within the issue of governance is a technical issue concerning the nature of HRD: how and by what means can education and training, or rather the formal part of the sector for which the public authorities are responsible, contribute to HRD in a region? This drives to re-examine the role of the principal stakeholders in HRD, not just national and local governments and administrations, but the social partners, the suppliers of educational services, the non-profit agencies and, not least, individuals in their multiple personae: citizens, electors, shareholders, trade unionists, employees, entrepreneurs, learners.

It may help to think about regional systems of HRD in terms of one or more typologies. For example, one typology relates degree of centralisation in a country to the existence and power of a national system of standards governing the delivery of education and training and even labour market recognition of skills (see Figure 2, annex 2). Regional independence is vital if the provision of education and training as well as the innovation and financing networks are to be responsive to local needs and initiatives. National and cross-national transparency and reliability of standards and cohesion of labour and training markets are needed to ensure the mobility and flexibility of labour which underpin com-

petitiveness as global market forces penetrate deeper and deeper into hitherto sheltered national marketplaces. Regional policy on HRD has to be a major part of the resolution between these regional and national imperatives. Moreover, since it focuses on regional competitiveness, its objective is not only to improve capacity to sell goods and services on the international market but to do so while reducing intra-regional income disparities and combating unemployment.

In general terms there is probably widespread support for such an analysis. The devil is in the detail. Consider some examples:

- i)* If national industrial policy, including policy on inward investment, is more than the sum of regional industrial policies, how are national and regional industrial strategies to be reconciled?
- ii)* How far and in what way should national budgets for small-firm development, innovation and R&D as well as training be regionalised?
- iii)* Much of the rationale for regional structures and policies has been in terms of the alleged superiority of a more local perspective, information set and grouping of interests in improving the responsiveness and adaptive capacity of a training system to economic change. Are there any limits to regions going beyond improving system behaviour to changing the rules governing the system's behaviour (Argyris, 1977)? For example, since employment opportunities and where and how work are organised are more important to HRD than the provision of formal education and training, is there any case for constraining regional initiatives to reforms that improve the functioning of labour markets as allocators of competences and providers of investment incentives? In other words, if a far more knowledge-based economy requires a different kind of labour market, with new kinds of labour market institutions, as well as different kinds of training systems, should regions be permitted or even encouraged to pioneer the restructuring ahead of a country as a whole?

The regional role in practice

One way of exploring the role of regions relative to national governments is to examine test cases in the form of some key issues. Three will be looked upon here: the contribution of publicly-financed education and training; the transparency of skill accreditation; partnership.

The contribution of publicly-financed education and training

The pursuit of regional competitiveness involves continuous economic change, high levels of mobility between tasks and even between jobs, with an increased risk of at least short-term frictional and structural unemployment. After reviewing the most reputable recent econometric models of growth and trade for technologies consistent with rapid economic growth, Lucas (1993) concluded that export-led learning, especially learning by doing on the job, is the key to competitive success and economic growth. At the same time, there is a growing recognition in Europe, as in Japan, that the development of tacit knowledge is a critical source of industrial competitiveness and will remain so in spite of the efforts of managers to codify it (Drake, 1995; Foray and Lundvall, 1996). The centrality of learning by doing and the importance of tacit knowledge, some of which is not codifiable, is explained by Polanyi (1967): “Tacit thought is an indispensable element of all knowing... by which all explicit knowledge is endowed with meaning (...) we know a great deal that we *cannot tell* and that which we know and *can* tell is accepted by us as true only in view of its bearing on a reality beyond it (...) the transmission of knowledge from one generation to the other must be predominantly tacit.” Tacit knowledge poses a key question to the public authorities which largely control formal education and training systems. How can these systems be re-engineered to increase the complementarity between instruction-led, off-the-job education and training and experience-led learning?

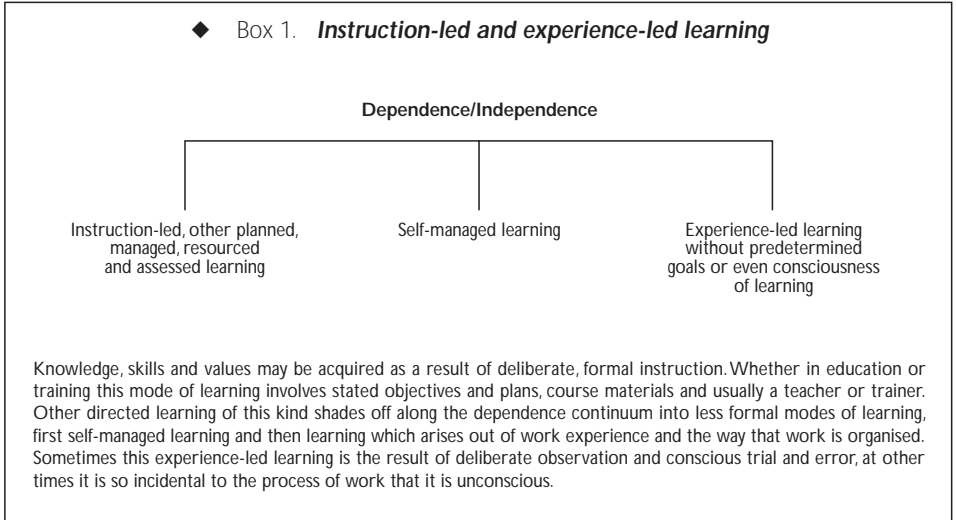
The traditional systems of alternance training, of which the German dual system is the classic example, have not generally gone far beyond the juxtaposition of logics: Vincent Merle’s exact description of the relation between skills and knowledge acquired within the logic of production and those acquired within the logic of training (OECD, 1994e, p. 56). In countries such as Australia, France, Korea, Sweden, the United Kingdom and the United States, there are good examples of new approaches which give students practice in using work for the purpose of learning, and there are school-based enterprises which combine learning and production (Stern, 1996). Some of these developments are national and others are much more local initiatives.

What is the value which a regional policy and regional action can add to these important efforts to re-orient formal, publicly-financed education so that there is a much more efficient relationship between instruction-led learning in a formal context and work-based learning (Box 1)? There are two criteria for identifying an action as appropriate to a region. The first is that this is the only level at which action can be taken, legally or effectively. The second is that an action at the regional level can reinforce the efforts of partners operating at a superior or a subordinate level.

Where regions have constitutional powers to provide or regulate education or training, in countries such as Canada, Germany, Italy or the United State and central government may have only very limited powers, both criteria apply. In other countries, the region may have no statutory powers, for example in England, or statutory powers, including budgets, which are devolved to the region, as in France. Where the regional authorities have statutory powers there may be real scope to initiate a re-orientation of the education system towards recognising the importance both of learning by doing and of tacit knowledge. The situation of regions which are not so empowered, by a constitution or by devolution of central government powers, is limited by the constraints of partnership. Whether a regional government is provider, financier, partner or regulator, the effectiveness of education and training initiatives depends heavily on the quality of partnerships between regional authorities and major stakeholders, *i.e.* lower levels of government, employers and unions, education and training institutions, and the business support infrastructure. In particular, it is the workplace partners who have a key role to play in helping regional authorities to define the foundation knowledge and skills which the regional economy needs, and to elaborate the role which education and training institutions can best perform in the continuing development of the region's workforce, *i.e.* its upgrading, updating and retraining.

This process of collective definition of the division of labour among partners goes well beyond customising national policy to local circumstances. A region's stakeholders can identify needs not catered for by national policy. For example, the North-West HRD Strategy adopts seven education and training targets which are derived from the United Kingdom's National Targets for Education and Training (North-West Partnership, 1996, pp. 31-34). But the region's targets are more demanding because its performance in formal education and training is generally a little worse than the national average, with some other United Kingdom regions performing distinctly better with the same central government, and the competence gap between the region and its international competitors is formidable.

In addition, the North-West has fixed three targets which are not to be found in any form among the National Targets. They reflect the specific circumstances and priorities of the region. They attack serious deficits that threaten the region's chances of achieving its economic objectives. One concerns young people leaving the education system and entering working life: they should have the capacity and will to continue learning. By 2005 at least, 35 per cent of all 19 year old boys and girls should have an adequate foundation in English, mathematics, one science and one modern language against 19 per cent of boys and 26 per cent of girls today and, by 2005, at least 21 per cent of employees should be receiving job-related training in a four-week period, that is a 50 per cent improvement on the present.



The transparency of skill accreditation

The United Kingdom is well known internationally for its bold and imaginative attempt to convert a veritable jungle of vocational and academic qualifications into a single coherent, transparent and reliable national system which would facilitate job mobility, that is, bridging and progression, and certify job competence wherever, however and whenever acquired. When the qualifications began to come on stream eight years ago the idea was to establish uniform standards throughout the country. The means of achieving competence could be varied but everyone would use the same currency.

In practice, implementation of an admirable concept was lamentably mis-managed. Critically, the reliability of the assessment system was compromised. As a consequence, only 7 per cent of companies use NVQs at all, a quarter of employers have never even heard of them, and half of all employers say they have no interest in using them (Spilsbury *et al.*, 1995). Take-up fell so disastrously below expectations that the original National Target of 50 per cent of the employed workforce working towards NVQs by 1996 had to be abandoned in 1995 since only 2 per cent of the workforce was doing so. Only subsidy and their use in government training programmes maintain a semblance of credibility. In 1995, in a region with a 3 million workforce and entry age groups of around 80 000, only 24 000 NVQs were delivered and 17 000 of these were delivered through the

government's programme for the adult unemployed, where Training and Enterprise Councils can insist. A disproportionate number of NVQs are taken in clerical, sales and personal service fields, and they have largely failed to penetrate leading export sectors such as manufacturing or financial services (Robinson, 1996).

Any English region therefore faces a failed central government attempt to rationalise the qualification structure and to relate it more effectively to changing workplace needs. Peter Robinson has pointed out that in 1994/95, awards of traditional vocational qualifications exceeded awards of NVQs and GNVQs by a wide margin. Information costs have risen all round. Regional actors cannot rescue such a situation. Only the national authorities can ensure the operation of an effective national system of recognising qualifications and assessing skills whatever their genesis. It is a moot point whether the definition of occupational standards can be left either to employer lead bodies, which is the NVQ solution, to self-regulating bodies of practitioners, such as many British professions, or to training institutions, such as British universities, collaborating with professional bodies on whom they may be strongly represented. A German or Japanese region operates within a national framework which does not leave the task to any of these interested parties. Recognising that only customers have an unalloyed interest in the maintenance of high standards, those two countries accept that they themselves must protect the customer interest (Drake, 1996).

Partnership

In federal states the form of regional partnerships may be prescribed. In Germany, for instance, each *Land* has a State Committee for Vocational Training, comprising the state authorities (half from education), and equal representation of employers and employees, and co-ordinating at state level the education system which is a *Land* responsibility and in-company training, where the federal government is responsible. In France, the Regional Councils, drawn from national and regional government and the social partners, are responsible both for regional policy and co-ordination of the activities of the different regional actors (Comité de Coordination, 1996).

The other extreme is an English region like the North-West, which lacks this powerful, partnership-controlled, institutional machinery and the capacity, through the apparatus of regional government or administration, to regulate and spend. The nearest the North-West gets to such formal machinery is through its 14 Training and Enterprise Councils, 95 per cent of whose budgets come with tight controls from central government, and three-quarters of whose expenditure has to be spent on training programmes for the young and adult unemployed, with supervisory boards drawn two-thirds from local private for-profits and the rest from private non-profits, local government, education and trade unions.

The flagship products of the TECs, aside from programmes for the unemployed, are central government programmes such as “Modern Apprenticeships” and “Investors in People”. Using central government money the TECs are able to subsidise off-the-job apprentice training. The North-West TECs have been astonishingly successful in working with local employers and in 1995 were responsible for a third of all Modern Apprenticeship starts in the entire United Kingdom. But these 7 500 regional starts represent only 9 per cent of a year group in the North-West, when the density of intermediate level skills in Britain is only half the German level. Investors in People is a quality mark, which helps firms to align their skill to their product strategy. In spite of strenuous efforts by the North-West TECs, fewer than 2 per cent of the region’s businesses are even committed to achieving Investors in People status, and far fewer have achieved it.

Despite their obvious virtues, TECs have been persistently criticised because whereas they were set up to establish local priorities and cajole local firms to undertake training they would not otherwise carry out. Central government denied them the autonomy, the compulsory membership of firms, and the revenue-raising powers which they would have needed to be effective at doing more than tailoring central government programmes to local circumstances (Hutton, 1996, pp. 188-190). To implement their HRD strategy, the regions need far more independent and powerful institutional machinery than agencies of central government who recruit local assistance to improve the effectiveness of programmes. They need the capacity not simply to design but to implement a regional policy grown in the region, such as is found in some OECD countries but not at all in others.

Universities and human resource development: the case of Manchester

by

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Manchester offers an interesting local case study of the development of HRD strategies and practice. Three contextual aspects are important. First, as previously developed, England's North-West is a region which has suffered disproportionately from the effects of industrial restructuring. Its old manufacturing base has collapsed. Since growth in the service sector in the region has been less than for the country as a whole, service industry jobs have not compensated for the loss of manufacturing. The legacy of old industrial jobs has meant that the inherited skills base of the labour force is inappropriate to the current needs of the market place. On all the indicators of educational and skills performance, the region lies significantly below the national figures. There is therefore a pressing need for upskilling. Second, there is a wealth of higher education provision within the region, with a disproportionate percentage of the region's population in higher education. The North-West as a whole has eight universities; Manchester has four universities, more than in any other provincial conurbation. And, finally, the region has been characterised by political fragmentation and has historically found it difficult to develop commonly agreed strategies across its local authorities and other stakeholders. The region is therefore in the anomalous position of having unmet HRD needs and yet a greater potential for advanced HRD supply than most other parts of Britain.

LOCAL HIGHER EDUCATION INSTITUTIONS

The universities in Greater Manchester comprise a very substantial sector of the local economy. Together, the four (Manchester, Manchester Metropolitan, Salford and UMIST) generate almost £600 m of spending within the North-West, employ a direct workforce of over 12 000 and indirectly generate a further 5 000 jobs, and they have a total full-time equivalent (FTE) student population of

over 50 000. The FTE figures do not show the much greater numbers of individuals who are involved in part-time or short courses at one or other of the universities. For example, Manchester University has over 100 000 people on short courses. Outside the rather special case of London, these absolute numbers are significantly higher than in any other British conurbation. The figures suggest the enormous impact and the considerable potential of the higher education sector in the sub-region.

REGIONAL POLICIES

Putting that potential to work for the benefit of the region has faced many problems. One has been the political fragmentation of the North-West. Because the region has two major conurbations in Merseyside and Greater Manchester and has a mix of old industrial free-standing towns and of rural areas, there have been difficulties in developing agreement across sub-areas within the region: Liverpool and Manchester have vied bitterly with each other; the smaller textile towns have resented the suggestion that they are subservient to any regional “capital”; dormitory areas such as North Cheshire have resisted attempts by Manchester to expand its boundaries; the rural areas to the North have resented what they see as a preoccupation with the problems of big cities. In the region as a whole, this fragmentation has been exacerbated by the establishment of two regional offices of government (one covering the Objective 1 area of Merseyside, and the other covering the remainder of the North-West). In the Greater Manchester case the fragmentation has been compounded by the division of the conurbation into no fewer than ten separate districts of which Manchester itself is a small part (with a population of less than 500 000 out of a total population of 2.5 million. The fragmentation will also be compounded from 1998 when at least four of the local authorities in Lancashire and Cheshire are given unitary political status. This means that Greater Manchester and Merseyside will have 15 unitary authorities within them, Cumbria will continue to be a two-tier county, and Lancashire and Cheshire will have a disjointed mix of unitary and two-tier structures.

The development of region-wide strategies has therefore faced difficulties, but these have partly been offset through the insistence by the European Commission that structural funds will only be forthcoming in the context of a regional economic strategy. This helped to stimulate the establishment of a North-West Partnership (NWP), with the active involvement of the private-sector Business Leadership Team. The NWP now embodies local authorities, private business, the voluntary sector, and various “stakeholders” such as education, trade unions and quangos such as Training and Enterprise Councils. This has provided the framework through which a range of strategic plans are now beginning to emerge for the North-West – amongst which are not only an economic strategy, but also a Faraday Partnership, an information technology strategy (helped by a pilot European

Union IRISI initiative), a transport strategy and the development of an approach to environmental sustainability. Among these plans, one of the furthest developed is an HRD strategy (North-West Partnership, 1996), which was largely the product of the lead taken by the universities in the region.

UNIVERSITY COLLABORATION

Against this background, one of the most notable developments has been that the region's universities have shown a considerable readiness to collaborate in many of their HRD-related activities. The eight North-West universities, for example, are each represented on a Standing Conference of NW Universities which aims to articulate the higher education view on matters of regional strategy. By far the closest collaboration is found within the four Greater Manchester universities. They have progressively developed collaborative mechanisms to a degree which is generally acknowledged to be greater than in any other conurbations in Britain. Many of the examples of co-operation are directly connected to the development of HRD.

CONTACT is an organisation, jointly resourced by the four, which coordinates training across the Greater Manchester universities. Now celebrating its tenth year of existence, it represents a belief in the collective benefits of increasing the higher education institutions market share by pooling efforts and developing cross-institutional strategies.

Trafford Park Manufacturing Institute is a commonly-owned venture which takes training and learning closer to the workplace. The Institute is based in the industrial complex of Trafford Park and offers *ad hoc* training for employees in the local large manufacturing enterprises. Awards for courses are validated by Manchester University on behalf of the five higher education partners (the four Manchester universities together with the Open University).

The Consortium of Academic Libraries in Manchester (CALIM), launched in 1992, provides on-line access to materials in the libraries of all four universities. It also provides a forum in which decisions can be taken to avoid excessive duplication of library holdings.

Even though the region has a greater-than-expected proportion of its population in higher education, its proportion of graduates in work is lower than the national average. It is clear that many graduates produced through its universities migrate to find work elsewhere, especially in London and the South-East. There are numerous projects aimed at increasing the take-up of graduates in local businesses.

The Greater Manchester Information Network Group (G-MING), started in 1993, is a metropolitan area network which provides broadband links between each of the four universities, and with their various outlying sites (halls of resi-

dences, detached campuses, four outlying teaching hospitals, the jointly-run Science Park, free-standing research laboratories, Trafford Park). It has been developed with financial assistance through European Regional Development Funds (ERDF) resources and in association with the City Council. Through the latter the intention is to develop connections to a city-based multi-media centre established to act as the first focus for community, school and SME involvement in networked IT-based information. There is clearly considerable scope for this network to begin to exploit distributed access to learning.

Three of the universities have long had companies established to facilitate technology transfer. The principle on which they were founded was largely the concept of technology transfer as a linear process – from invention to innovation – that laboratory scientists developed bright ideas which could be filtered down to companies for commercial exploitation. Increasingly it has been appreciated that transfer is a two-way process which demands close interaction between research scientists and those in the production process. This has led to the development of new forms of research “incubator” units or research “hotels” in which production and research can be brought together to enable the two-way process to happen more effectively. For example, Manchester University has now established an innovative company, Campus Ventures, which provides protected accommodation for the genesis of new micro-enterprises, many of which are spawned from the ideas of university researchers and which can be developed into commercial companies cheek-by-jowl with laboratory scientists. The embryonic companies are given rent-free facilities for an initial period, are based within the university itself, and thus can work alongside the development of university R&D, to the benefit of both.

All these examples reflect the variety of approaches which are being developed to increase the collaborative exploitation and development of university R&D and its translation into benefits to the locality and region. The greatest difficulty that remains is how best to develop the interface with SMEs which are seen by government as the sector with the greatest potential for future job generation. None of the agencies working in regional economic development have yet solved this conundrum. SMEs typically do not recognise the benefits that can come from upskilling and have or claim to have little time or resources to devote to this task. The secret of successful HRD – and one that is at the core of the North-West’s Learning for Earning – is to develop strategies based on increasing the demand for competences and skills rather than on merely “selling” the training and learning packages that higher and further education can offer.

The lifelong learning demonstration in the Greater Baltimore area

by

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BACKGROUND AND CONTEXT

The United States places primary responsibility for education and training on state and local governments, families and individuals, and the private sector. Nevertheless, the federal government plays a crucial, if limited, role in providing education for a lifetime from pre-school to career training for adults. Federal government resources help states and communities improve the quality of education and training and low-and middle-income workers and their families gain access to post-secondary education and skill training through loans and grants. Trends in the labour market suggest that an increasing number of people currently in employment will face the prospect of having to move to new jobs or new careers both in their early working life and at later stages. Many workers may also find that the new jobs available require higher and different skill and knowledge requirements than their own. One way in which currently employed workers may be able to prosper in a dynamic and unstable labour market is by acquiring more formal education and training which will better position them to move to a new job or new career, keep their present jobs, or qualify for promotion.

The Lifelong Learning Demonstration (LLD) is designed to encourage investment in education and training by workers currently employed in the area of Greater Baltimore, Maryland.¹ The LLD was conducted there as a promotional effort in a large urban area with a sufficient concentration of population and of post-secondary education and training institutions to offer workers convenient access to one or more sources of education and training opportunities. The Baltimore Metropolitan Statistical Area (MSA) clearly meets this objective.² This pilot project addresses demands created by increasingly volatile global labour markets, in which workers must move with greater frequency to new jobs and new careers that require more knowledge and job-related skills. The project will make it easier for currently employed workers, called “incumbent workers”, to explore new career directions, plan for potential skill needs, and take action to pursue the

education and training that will help them prosper in an increasingly competitive global labour market. When completed, the LLD will provide a clear, convincing test of the ability of education and training investments to enhance the HRD in a large urban area.

This demonstration also highlights a new national programme called the Federal Direct Student Loan (FDSL) programme, which was enacted in 1993 and provides student loans from the government directly to eligible students through an educational institution. Although its primary focus is on traditional students, it also encourages the use of these loans by incumbent workers for financing investments in upgrading their skills. The LLD is a co-operative effort with the Department of Labor, Department of Education, the Maryland State Higher Education Commission, and a dozen post-secondary educational institutions in the Greater Baltimore area. It involves a variety of institutions in which the Department of Education facilitated accelerated implementation of the FDSL programme, including community colleges, four-year colleges and universities and selected private, for-profit technical training schools.

OVERCOMING TWO MAJOR BARRIERS TO HRD

The LLD is based on the general principle that there should be adequate education and training opportunities for skills in demand in a given labour-market area and that every worker willing and able to take advantage of these opportunities should have access to them. However, several barriers exist. Two of which are a lack of information and a lack of collaboration between post-secondary educational institutions, including the absence of information about the availability of post-secondary education and training opportunities and about the benefits and costs to the individual of obtaining such training, including possible options for its financing. The lack of understanding about the benefits of continuing education and training, and about how and where to obtain it is aggravated by a fragmented system that may result in under-investment in skill development within the region.

The project is providing targeted workers with comprehensive information about post-secondary education and training opportunities and streamlined referrals of interested workers to participating educational institutions. It will examine whether this information backed by affordable financing through direct student loans can prompt incumbent workers to seek additional education in order to upgrade their job-related skills and improve their careers. Specifically, the LLD is designed to achieve the following objectives: to develop and test alternative public information approaches for promoting lifelong learning (this includes highlighting the availability of student financial assistance from the federal government, in particular, federal direct loans with more flexible repayment

options); to determine the impact of these approaches on increasing the interest of incumbent workers and participation in further education and training, and their use of direct loans and other forms of student financial assistance available from the federal government; to determine the impact of the additional education and training received by incumbent workers on their earnings and employment. The LLD seeks to achieve these objectives by involving a variety of post-secondary institutions, including community colleges, public and private four-year institutions and selected proprietary schools in a collaborative effort, called the Partnership for Career Advancement (Gritz, 1996).

MEASURING THE RESULTS: AN EXPERIMENTAL APPROACH

It is expected that the LLD will increase overall enrolment levels in educational institutions in the Greater Baltimore area and ultimately enhance its human resources base. It will systematically obtain information on the employment and earnings levels of the region's workforce, which are strongly correlated with economic output. It is a classic experiment involving the random assignment of targeted workers into an "experimental" group that receives information about education and training opportunities and streamlined referrals to participating institutions and a "control" group that does not receive this special assistance (Bell *et al.*, 1995, 1996). Using the control group as a baseline to measure what would have happened to workers, without the demonstration controls for the empirical problem of dead-weight, and this allows therefore for precise measurement of the impacts of the pilot effort on significant outcomes. A comprehensive evaluation will be conducted by an independent research firm, which will include an analysis of the following outcomes: participation in continuing education and training programmes (overall enrolments in school and enrolment in specific courses; number of courses and credit hours taken and completed; receipt of degrees and certificates); applications for and receipt of various types of student financial assistance from the federal government, including direct student loans; employment and earnings, including weeks worked per year, total earnings per year, and receipt of unemployment compensation and other government benefits.

Public information brochures on continuing education and training opportunities for lifelong learning were sent out to a total of 100 000 randomly-selected incumbent workers prior to the Fall 1996 and Spring 1997 semesters. These brochures encouraged selected workers to upgrade their skills by obtaining education and training at one of the twelve Baltimore-area institutions participating in the demonstration. The demonstration is now using the brochure that was most effective in generating interest in participation, based on a Spring 1996 test of four different brochures.

Incumbent workers interested could call a toll-free telephone number or return a response card to request information on educational programmes, courses, and facilities from any one or all of the participating institutions. For the Fall 1996 and the upcoming Spring 1997 semesters, a total of 2 408 incumbent workers responded to the public information campaign by requesting an information package on one or more of the 12 participating institutions. These interested workers are immediately referred to the institutions for follow-up, each worker being sent a packet of relevant information. In addition, the Partnership for Career Advancement sends each interested worker a self-assessment guide to help them choose appropriate courses and inform them of the special services available to adult students (for example, child care), and a booklet from the Department of Education providing detailed but easy to use information on the types of student financial assistance on offer and how to apply for it.

FUTURE PLANS

The first evaluation, foreseen for late 1997, will focus on measuring the increase in applications for and enrolments in post-secondary education and training programmes as well as any effects on the receipt of student financial assistance. A second evaluation (1999) will consider longer-term impacts, including the receipt of educational degrees and certificates and the employment and earnings of those who passed through the programmes. Additional follow-up is also being considered, since the benefits of post-secondary education and training are expected to continue over a longer period of time.

The Czech case: to launch regional education and training policies?

by

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Ms. Zorka Klimová, Ministry for Regional Development Czech Republic

The Czech Republic is a small country, with a total population of 10 334 000 (1995) and an area of 78 864 sq. km. Administratively, the country is divided into 77 self-governing districts, including 4 “statutory” cities with their municipal and district authorities. There is no intermediate level between the municipal district and the central state administration. Since 1990, many discussions have been concerned with the ideal regional division of the country. So far, this issue has not been resolved. According to some etatist opinions the intermediate self-governing units are not even necessary, as the country as a whole, due to its small size, may be seen from the European perspective as a self-contained, independent region. This idea may be supported also by the geographical morphology of the country. However, the fact that a new Ministry for Regional Development was established in 1996 as one of the consequences of destructuring the former Ministry of Economy may show an increasing governmental interest in local and regional issues. The term “regional” is now deliberately used for larger territorial areas, which can be identified by certain criteria, industrialised or agricultural areas, areas demanding special attention by the state authorities because of their ecological or economic problems or deriving from the former territorial division of the country (Northern or Southern Moravia, Central Bohemia).

EDUCATION AND TRAINING POLICIES

The educational level of the population is good: more than 95 per cent of the population go through some type of secondary education and 27 per cent continue within the framework of higher education or other types of post-secondary vocational education. The proportion of the population actually participating in some sort of adult education is higher than the average for West European

countries (45 per cent as compared to 27 per cent in Germany, 37 per cent in Norway and 38 per cent in Switzerland). Several systems of skills and competences have been functioning rather independently: initial education and adult education (Ministry of Education, Youth and Sports, and its district school offices); requalifying and upgrading (Ministry of Labour and Social Affairs); other opportunities created by the employers and their associations. An apprenticeship system was organised by the Ministry of Economy (1993 to 1996). Other areas of vocational education were under the supervision of the Ministry of Health Care and the Ministry of Agriculture.

The fragmentation of skills and competences and a lack of local and regional co-ordination emerged. The Ministry of Education collaborates with the Ministry of Labour and Social Affairs to analyse the labour market from the viewpoint of school-leavers. Further co-operation between these two ministries is intended for the foreseeable future as regards estimates of the future needs for qualified labour. The school offices, which function at the district level separately from the district administration, try to influence the structure of qualifications provided at the secondary level on the basis of local needs. They have already managed to accumulate the required information not only from the central statistics but also local employers, from labour offices and other agencies such as counselling and information centres. Certain assistance may be provided by the district school councils. Nevertheless, the experience is still too limited to draw any conclusions about its usefulness in generating regional and local needs. Overall, the development of the structure of vocational studies at the secondary level seems to be following the regional and local demands for qualified labour, although some problems may remain concerning the contents of the curriculum. A positive step in co-ordinating the training provision may be seen in the move in all areas to place vocational education and training under the supervision of the Ministry of Education (end of 1996). This may lead the State to focus more attention on vocational education.

The position of apprenticeships has been difficult as a consequence of the economic transition. The apprenticeship schools, whose practical training in the past was fully dependent on financing and organisation by State enterprises, became separated from the workplace during the process of privatisation. At present, the need for qualified labour is starting to become clear to most employers and they are renewing their training activities. However, the State has to identify mechanisms in support of enterprise-based training, especially for the SMEs. Some compensation for the lack of enterprise-based training is currently provided through regionally located apprenticeship centres. Five post-secondary institutions created in 1990 outside the traditional higher education centres have played a significant role in the development of competences within the region. Most of the other higher education institutions concentrate on co-operation with

the district and municipal authorities, local businesses and other employers, and professional associations. The further adult education provided by different levels of the initial schooling system is parallel to other activities. Still, the qualification and requalification programmes provided by the labour offices, the regional counselling centres, and other adult education agencies develop without too much co-ordination, which also concerns the financing of this area. A systematic mapping, supported by the European Union programme PHARE, has been initiated by the National Training Fund. The philosophy of HRD is becoming quite familiar among the professionals dealing within further education, training and human resources management policy.

RECENT REGIONAL HRD INITIATIVES

There already exist more complex initiatives concerning regional development, which also deal with the restructuring of the local economy and the development of small enterprises. The fundamental principle underlying State assistance is to help entrepreneurs to start up, develop their entrepreneurial activities, create new jobs and introduce modern technologies. With the PHARE assistance and support from the regions, counselling and information centres are being set up and provide guidance and information to entrepreneurs. Under PHARE auspices, regional development agencies have been founded in two of the country's structurally weakest areas – namely, the Agency for Regional Development in Ostrava and the Regional Development Agency, Ltd. for North Bohemia in the city of Most. The objective is to create conditions for the restoration and development of the region and to help alleviate the consequences of the restructuring of the coal industry.

The Agency for Regional Development in Ostrava has concentrated on projects for assisting SMEs, infrastructure and logistics, local administration and self-administration, the promotion of the region and the dissemination of data. The strategy of support provided through the Agency has a double focus. First, it creates equal conditions for all those interested in entrepreneurial activities as regards the dissemination of information through the network of co-operating points in all the key sites in the six respective districts. Secondly, it supports pilot projects targeted on needed types of entrepreneurial activity (through technical and capital inputs), based on a contract with the recipient of such assistance and transmission of information and experience to those interested in similar activities. The Regional Entrepreneurial Fund was set up in Ostrava with PHARE support and operates on a commercial basis. It invests risk capital in private enterprises that promise good returns. It also transmits know-how, aids marketing and helps upgrade the management of these enterprises. The objectives and mission of the Regional Development Agency for North Bohemia are multiple: the upgrading of expert qualifications for providing universal services for the enhancement

and co-ordination of the economic, social and cultural development of the region in accordance with the government document “Regional Development Strategy of North Bohemia”; the mobilisation of all the actors interested in the economic development of this environmentally damaged area; maximum utilisation of the region-s positive factors, including their commercial potential; the introduction of programmes for the development of enterprises, including entrepreneurial incubators, technological parks, science, technology and innovation centres; support to telecommunications.

Effective assistance in the preparation of entrepreneurial projects is being provided by the network of 19 regional consultancy and information centres operating throughout the Czech Republic. Innovation firms may also use the services of four technological and innovation centres (BIC), operating at institutions of higher education and research institutes. Specialised bodies, such as the professional unions and associations, the Economic Chamber, the Agrarian Chamber and the Association of Entrepreneurs already exert significant regional influence. These bodies have been established on the initiative of both the State and entrepreneurs. Employers show some reluctance to develop skills and competences. However, further stimulus to their involvement through tax relief or financial incentives is still up to the State.

Territorialisation of education and training policies in France

by

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The French system of education, often described as the centralised Napoleonic model, has changed considerably over the last fifteen years under the impact of mass education and the deterioration of the labour market. Three trends typify this recent evolution: decentralisation by the transfer of competences from the State to local and regional authorities; deconcentration through the transfer of competences from the central administration to the regional and local levels; co-operation between the various levels of government, as well as between public and private agencies. These tendencies provide the framework for an original model focusing on national uniformity whilst fostering flexibility in meeting the different circumstances prevailing in each region as regards employment and training.

DECENTRALISATION: THE EMERGENCE OF LOCAL AND REGIONAL AUTHORITIES AS PLAYERS

The decentralisation laws (1982 and 1983) depart from the principle of transferring « blocks of competences » in matters of investment (building, extensions or renovation, maintenance and upkeep), equipment and the day-to-day operation of educational establishments. Responsibility for the primary cycle is mainly entrusted to the *commune*, for the *collège* to the *département* and for the *lycée* to the region. The State remains responsible for higher education. This transfer confirms the State in its role as guardian of the principles of equal opportunities, secularity, and education as a public service (formulating educational policies, pedagogical content, award of diplomas, administration and the salaries of teaching staff).

Initial vocational training is subject to this new scheme of responsibilities. For apprenticeships, which are only modestly developed, the responsibility is now essentially regional. The decentralisation of vocational education and train-

ing, in particular continuing education, intensified under the 1993 law known as the *Loi quinquennale* on employment, labour and vocational education. The regions are now responsible for designing action plans especially adult education and for the co-ordination of all sandwich course systems (*alternance*). This provides them with a lever in the management of territorial development. For instance, in Alsace, the regional development plan for vocational training focuses on five main priorities which embody the links between the development of training and that of the region: guidance and counselling for young people, co-ordination of sandwich or alternating training systems; remedial training for the “unqualified”; improved procedures for the transition to working life; rational distribution of vocational education and training programmes throughout the region.

Decentralisation has obvious implications for the structure of educational financing and the contribution of the various stakeholders. The State remains the principal source, providing some two-thirds of educational expenditure in 1995. This in no way lessens the importance of decentralisation. The territorial authorities now contribute up to 20 per cent of expenditure as against 14 per cent before decentralisation. The decentralisation of financing is also clearly apparent in respect of lifelong learning, although the funding is dissimilar because of the role played by enterprises. Decentralisation has thus undeniably expanded the role of local and regional authorities in every domain of education and training. The outcome is often spectacular and most interesting in terms of enhanced responsibility. New behaviour patterns appear and co-operative activities generated by a shared concern for regional development are initiated. For example, although higher education remains the responsibility of the State alone, it has recently become apparent that the regional and local authorities are firmly intent on taking part in its development. A new attitude towards vocational education and training is emerging in the regions which, for the most part, realise that their new powers provide them with an effective tool for their own development.

DECONCENTRATION: THE PRINCIPLE OF SUBSIDIARITY SERVES TERRITORIAL EFFICIENCY

Deconcentration consists essentially of delegating more responsibility to the non-centralised services of the State which are established within the regions themselves (deconcentrated services) and increasing the autonomy of education and training establishments. For the Ministry of Education, deconcentration is based on administrative divisions which accord the main role to the regional level – the academy (in general, the area covered by the academy is that of the region). The rector of an academy has a multiple role: he co-ordinates all levels of the education system, and all types of education, including higher education in his capacity of University Chancellor. He also supervises the regional civil servants.

Finally, he is a privileged actor in all the contacts with other State and local authority services in matters of education and training.

Deconcentration, coupled with decentralisation, entails increasing the prerogatives of the rectors and reinforcing their power at regional level by the derogation of powers previously held at the central level. Operating within the framework of the major guidelines of educational policy defined by the Minister and with the overall academic resources voted by the central administration, the rector applies an academic policy adapted to the characteristics of his region. This deconcentration has resulted in academic policies focusing strongly on vocational training, both initial and continuing, and on working together with local authorities to reverse the downturn of the labour market and improve the transition to working life for young people. Reciprocally, the fact of having a State interlocutor who is more easily accessible and has genuine powers, has encouraged the local authorities to fully assume their new responsibilities. The deconcentration-decentralisation association has thus generated a leverage mechanism enabling education and training to become engaged in regional development to a far greater extent.

Deconcentration has also increased the powers of education and training establishments, especially where initial and lifelong education and training are concerned. It has made it possible for secondary schools to create highly active and competitive poles on the regional market for training and re-training adults and actions concerning the transition process. A pilot project in Alsace has opened up the possibility of extending this role to the transfer of technology for SMEs in the region. There is one particular aspect which concerns universities. The law endows them with the status of scientific, cultural and professional institutions headed by an elected Chairman. In recent years, they have diversified their sources of funding, preferring to develop specific institutional policies and to take into account the regional economic context. The law on the orientation of territorial planning and development (1995) underlines the need for greater involvement of the universities in regional development, in particular through regional plans for higher education and research established under the joint authority of prefects and rectors.

CO-OPERATION BETWEEN THE DIFFERENT ACTORS IN TRAINING SERVES TERRITORIAL DEVELOPMENT

Deconcentration and decentralisation reallocate roles and create a synergy which promotes education and training systems efficiency. They aim to enhance co-operation between the stakeholders. Some of the most interesting examples of co-operation between various public actors, and also between public and private actors, are worth-mentionning. These reveal the part played by education

and training in territorial development. The first example concerns the role of enterprises. It starts with the definition of diplomas and has been confirmed over recent years with enterprises drawing notably closer to education institutions. The enterprise sector has, for instance, taken part in creating a professional baccalauréat (1985). Most of the new vocational diplomas involve sandwich courses. As in apprenticeship, the enterprise contributes to the actual training and its evaluation. In a fairly small region such as Alsace, where some 20 000 students are trained on sandwich courses, the total duration of in-company training periods is estimated at over 100 000 weeks per annum, and the number of companies involved is nearly 10 000 which amount to almost one in four of companies with over ten employees in the region. The future of “French-style” sandwich courses will depend on the capacity of academies and the regions to organise this type of partnership with the enterprises. Continuing education (Law 1971) is an example of the contribution made by the enterprises. Education institutions depending on the Ministry of Education, secondary schools and higher education institutions are playing an increasingly active role, offering a counterpart to the educational role played by companies, and thereby establishing reciprocity. The 1992 law provides for the validation of professional skills and the recognition of training sessions and placement periods spent in a enterprise. It also encourages collaboration and joint ventures. Here again, the role of the region is decisive.

The *Loi quinquennale* of 1993 promotes this type of co-operation and entrusts the regions with a central role in co-ordinating vocational training activities. Contracts with territorial objectives, signed for a period of three years, also provide for the joint design of training programmes. A final example is that of planning contracts for five year periods signed between the State and the region. This public policy tool is intended to promote better co-operation between the State and the regions in supplying training. The creation of regional monitoring centres for employment and training, jointly funded by the State and the regions, is yet another example.

CONCLUSION

The transformations described and the associated examples, illustrate the extent to which the French education and training system is increasingly moving towards a territorial approach. Although the role of the central State may still be predominant, the efficiency of the system depends essentially on the way in which the stakeholders, who command between them the lion's share of institutional competences and resources, can be co-ordinated at the regional level. The specificity of the French model, halfway between the centralised model and the model more resolutely committed to institutional decentralisation, lies in its adoption of a more subtle territorial strategy. This may well be thanks to the lesson learnt from the crisis and certainly inspired by an endogenous approach,

that offers a way of escaping from the structural difficulties of the labour market through co-ordinated territorial policies. In fact, the critical condition of the labour market, perhaps more than any other factor, can be said to have accelerated the regionalisation of education and training policies.

ASSESSMENT FOR FUTURE REGIONAL POLICIES

Assessment and policy strategies at the regional level

by

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The relative failure of macro-economic employment policies in the past few years has prompted the governments of many OECD Member countries to seek greater involvement of the regional authorities. To do this, they have returned to the tradition of decentralisation or, where there is no such tradition, they have initiated a process of decentralisation. Education, training and HRD are central to the mechanisms which have now been in the hands of the regions for varying lengths of time. The different patterns of relations that exist between national and sub-national levels indicate that the former is no longer considered to be the only appropriate level at which to design employment and training policy. The response of some countries has been to shift to highly decentralised, and even local policies. It is becoming clear that decentralisation enhances the process of detecting needs and of identifying and monitoring targeted populations and opportunities for interventions. Decentralised training, HRD and employment policies have increasingly been established as vital instruments in the development and competitiveness of a country and its regions.

There are a number of preconditions to the implementation of regional policies: refereeing objectives and the human and financial resources needed to achieve them; converting objectives into coherent and consensual actions; developing innovation capabilities so as to improve and renew public policies. These preconditions are closely tied in with the regional processes within which policies are co-ordinated and partnership strategies defined. Two seem to occupy a key place: dialogue based on analysing needs and diagnoses in order to design

consensual objectives; regional processes to promote more efficient partnerships, co-operation or links between the training system and the economy.

AGREED REGIONAL POLICY OBJECTIVES: WHICH CONDITIONS OF DESIGN?

In order to be recognised as legitimate and to be implemented, a regional training policy needs to have its own agreed and coherent goals. This requires a precise evaluation of requirements, based on information and diagnoses validated by all the actors and the responsiveness of public policy to new demands. To evaluate requirements constitutes the first challenge for regional policy. A region's responsibility for education and training brings to the fore the issue of the information required to help policy-makers design policy frameworks. Decentralised support for vocational training and labour market access requires monitoring based on a disaggregation of data established at national level. Producing this type of information responds to the need not only to assess public policy but also to develop appropriate policy programmes tools. Trends in this area highlight three points high on the agenda of regional policy-makers. First, the search for fuller and more detailed knowledge of the structural characteristics of vocational training supply and demand; secondly, initiatives promoted at regional level to develop new and more reliable programme planning instruments; thirdly, the creation of a closer link between training and employment in order to achieve substantial improvement in the overall performance of the training system in terms of entry into the labour market.

The search for a closer link between employment and training effectively means making a number of significant changes in the policy planning process. The first effect of the change is a shift in the focus of policy from flow management to managing the content of training. Regional training policy planning now has a qualitative redeployment objective. The field of application and the time horizon for regional planning of vocational training are also being gradually changed. Other than physical investments are now taken into account. Policy planning is also increasing by focusing on the medium rather than the short term. Significant changes have also occurred in respect of planning procedures and the involvement of regional actors. The need for closer involvement of employers in the education system, in conjunction with the development of alternating training programmes, is one of the factors behind the procedures for co-operation and the building of new partnerships. The search for a more positive complementarity between the different training offers reflects the desire to rationalise the human and financial resources devoted to education and training, at a time when financial resources are becoming scarce. This is reflected in a shifting of priorities towards the introduction of greater consistency between training initiatives.

CONSTRUCTING DIAGNOSES IN COMMON

The planning of regional training policy should integrate a variety of goals, stakeholders and demands as well as the diversity of requirements of enterprises and sub-regional territories. In order to achieve a co-ordinated response, the pre-planning of programmes necessitates a co-operative approach to building knowledge of the regional environment and of its structural characteristics. For this, it is necessary to compare heterogeneous sources of data in the regional context, develop a forward-looking approach to the needs of the business community, improve the process of identifying and monitoring the people affected by the regional and national policies and creating a body of information at the sub-regional levels. Progress has been made in information and experimentation in respect of regional initiatives at very local levels – labour market areas, industrial districts, employment areas, *départements*. However, policy implementation is currently raising numerous questions, including those to do with the construction of regional diagnoses on which to base policy choices and priorities. The accumulation of regionalised information on which to base policy diagnoses raises a number of discussion points. One is to define how to make the transition from the information usually produced on an *ad hoc* basis in response to a need for urgent action to a durable information system. Another concerns the promotion of regional information built on a true partnership recognised and shared by all. It is also important to prevent regional information from being duplicated by national information that is often poorly managed or disseminated in the regions.

Regional information is still mostly produced in a discrete manner by each of the actors, using different categories and methods that make comparisons impossible. Regional monitoring centres are better able to identify the nature and scope of the difficulties faced by partnership initiatives based on a regional diagnosis. Experience shows that the institutional status of monitoring centres is problematic. They are often considered by the local actors as a “political tool” whose work is controlled by the regional authorities. The objectivity of their findings is disputed. Sometimes, the quality of the information gives the regional database only limited legitimacy. It can also happen that a monitoring centre is inadequately funded. It is evident that further efforts are needed in order to establish durable monitoring and evaluation systems set up on the initiative of regional actors. The operation and uncertain development of regional analysis and diagnosis structures pose more directly the question of the production of regionalised information, and beyond that, methods of interlinking centralised and decentralised systems of information production.

One of the lessons learnt from regional evaluation in France was to detect that the national statistical information system fails to accurately assess regional needs in terms of HRD. This evaluation has provided the means for interlinking the resources of the various central statistical services that had previously been

only very rarely the subject of technical comparison for example by standardising nomenclatures and defining common indicators. There is now a better understanding of regional territories. Possible changes to the national system for evaluating the regional dimension have been proposed. As a result, there has been a re-thinking, at the central level, of the methodological resources to be marshalled and the improvements to be made in the diagnosis tools in order to respond to the demand of the regions.

REGIONAL PARTNERSHIPS AND TERRITORIAL POLICY

To be effective, a regional training policy must co-ordinate and ensure consistency among the many different levels of intervention. It must also take account of the diversity of goals, stakeholders and needs. To do this, a concerted policy needs to be formulated involving all the actors of the region. The building of partnerships at regional level is a precondition for producing diagnoses shared by all that can be used as a benchmark for defining common strategies. It is also a precondition for successful implementation of a decentralised training policy that requires the co-ordination of initiatives by a growing number of national, regional and local actors. Partnerships at regional level are hampered by difficulties posed by certain limitations on evaluation of needs and the search for overall coherence. Furthermore, specific training planning questions may require inter-regional or inter-institutional co-ordination beyond the framework of partnerships. The building of shared knowledge remains a challenge for regional co-operation. Regional policy requires consultation and co-operation among the operators. Lines of connection are more easily defined if there are pre-existing common points of reference. The construction of a common language is frequently centred on a diagnosis of needs and on the importance, therefore, of having observation and analysis tools to define an agreed, and coherent regional policy. Data construction then becomes an opportunity for the actors to work out joint policy benchmarks.

The diversity of experience in designing territorial policy shows that the latter is more than just the strategy of a single actor. It is based on a range of interactions between multiple stakeholders of the region. A regional policy is the outcome of a collective learning curve culminating in the joint definition by the actors of priority objectives, working methods and operating procedures. Underlying the significance of responsibility for education and training under regional policy is the basic need for coherent activities and shared efforts. Further, the general policy objective is to respond to complex social demands, expressed in particular by individuals and by enterprises. In this context, the dynamics of co-operation and building partnerships or partial agreements assumes strategic importance for regional policy. Two major challenges of regional action are to make education, training and HRD policies more mutually supportive and better co-ordinated and to ensure a high standard of effective provision.

In France, such challenges have led the government and the social partners to combine their efforts over the last 15 years. A number of directions have been explored: matching skilling to the needs of enterprises, promoting apprenticeship, and developing frameworks to facilitate the school-to-work transition. Geared towards the development of vocational training in the education system, these have necessarily led to a restructuring of relationships among the enterprises, public authorities and the education system, which has prompted a search for new forms of contractual relationships, particularly between the education system and the world of work. The decentralised management of relations among the actors raises certain questions:

- i)* How has the national aim of promoting vocational training and apprenticeships for young people been understood at regional level? How does it fit into the regional education system? What innovative actions and difficulties can be identified at the regional level?
- ii)* On what partnerships are the regional vocational training programmes based? What is the nature of these partnerships and what actors are involved?
- iii)* What forms do these partnerships take: agreements between the government, employers' associations, regional public authorities, or bilateral agreements between particular regional or local actors?
- iv)* What are the barriers to the development of a partnership strategy between the private and public sectors for vocational training? Of these, one of the major barriers relates to the structure of employers' associations and their uneven representation at regional level.

The design of a regional policy for the medium term involves the planned management of measures, which, in turn, require a detailed forward-looking analysis of needs. One of the main difficulties faced in identifying regional needs is that it is hard for the business community to express its needs. The various employers' associations are still unequally organised for dialogue and expressing their needs. Their dispersion, their internal conflicts and their different levels of expertise are all barriers to their effective representation. The consequences are especially serious when it comes to identifying and considering the needs of SMEs.

ECONOMY AND TERRITORY: CONSEQUENCES FOR REGIONAL TRAINING POLICIES

Regional training policies currently seem to be non-committal in two respects. The first, focused on proximity, is targeted at equal opportunity of access to training through a balanced distribution of training structures through-

out the region. In this case, vocational training is considered a territorial development instrument. The second is based on matching the education response to the economic demand, whether from enterprises or individuals. When the enterprise approach predominates, education structures are clustered in a specific geographical area within the region in order to satisfy specialised local demand for skills. Conversely, when the aim of regional training policies is to meet the expectations of young people, the priority of regional policy is to achieve mass school participation and raise the general level of training, two aspirations still clearly expressed by individuals. In both cases, the economic as well as the client approach is imposed on the territorial approach and the relationship between them is problematic.

The design of a partnership policy for training and HRD requires the strengthening of co-operation between the regional and national levels, at least in certain fields. One is the improvement of statistical data in order to meet national and regional information needs. This presupposes further inter-institutional co-operation, so that the available sources are standardised and complementary. New requirements also emerge to harmonise regionalised information systems at the European level to conduct comparative analyses and to identify better regional and national structural specificities. A second field, which concerns aspects of training policies affecting several regions, is inter-regional co-ordination. The topic of geographic and professional mobility is currently an important feature of this co-ordination. On the one hand, inter-regional co-operation is necessary to control the flows of young people leaving an education system of a region in decline and moving into other regional or local labour markets that are more dynamic or more attractive because of the employment opportunities that they offer. The goal then is to limit the exodus of the best-educated young people and for partnerships to work together to find solutions to retaining skilled labour. On the other hand, inter-regional co-operation may aim to achieve a more balanced distribution of training supply within a given territory covering several regions. The objective is then to organise partnerships, generally between neighbouring regions and to set up joint training initiatives in order to remedy the shortcomings in the regional or local training structures. This attempt to pool resources and efforts concerns predominantly rural areas (OECD, 1996*d*), as the small population and its dispersion across the regional territory makes maintaining a diversified training supply expensive (Muheim, 1997).

Towards a local-regional co-ordination of education and training policies

by

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TWO APPROACHES TOWARDS DECENTRALISATION

There are two possible approaches towards implementing decentralisation. First, at the level of administration and organisation, which usually means the first administrative sub-division, coming directly below the central State (in France, the regions; in Canada, the provinces; in Germany, the *Länder*). The other possibility is to decentralise a functional area, which is not necessarily directly associated with an administrative entity (e.g. the *bassins d'emploi* in France or the TECs in the United Kingdom).

Both these types of decentralisation have their advantages. It is important, however, to distinguish between them regarding active labour market policies in general and training in particular. In effect, the main purpose of decentralisation is to create more effective decision-making levels, better suited to the demands of enterprises and individuals. The two types do not offer the same possibilities or present the same difficulties. The difference thus resides not so much in the level but in the nature of the activities pursued.

THE ADMINISTRATIVE LEVEL

Larger areas usually have an administrative structure that is capable of taking on the responsibilities delegated by the central State and managing the corresponding public funds. These areas are more naturally committed therefore to formulating policies. At the present time, considerable responsibilities are being delegated to them as, for example, an active labour market policy (Canada, Spain) or vocational education and training (France). Like any decentralisation process, this type of regionalisation towards an administratively structured level provides decision-making which is much closer to the issues at stake and to individuals. It is bound to improve the efficiency of the measures taken. However, a large

number of factors, including the size of a region, can mean that these entities contain a wide variety of economic contexts, which will in turn imply different demands from both enterprises and individuals, and therefore different measures to meet them. Canada is a good example. A wide diversity of situations exists in certain large provinces. In Quebec, certain districts of Montreal are low-income areas; certain regions are very dynamic; coastal areas have specific problems. The objectives formulated at the level of these administrative units should be sufficiently diversified as to face a large range of situations. A wide variety of interests must therefore be catered for when making regional diagnoses and preparing regional policies. Moreover, statistics gathered at the regional level may produce global averages that do not clearly reveal specific needs.

FUNCTIONAL AREAS

Functional areas are often economically homogeneous, relatively speaking, with economic problems common to the whole territory (*e.g.*, industrial restructuring and poverty). The exact needs of enterprises and individuals appear clearly in these circumstances, and partnerships are formed in order to formulate requirements and find answers. So, whenever funds are awarded, these areas of co-operation naturally become the entities for implementing measures. Most countries have identified these geographical units, which often correspond to local labour markets and for which a set of data is sometimes available (200 “functional areas” in the United Kingdom, 256 *bassins d’emploi* in France, 242 *mercados territoriales* in Spain, 762 “commuting zones” in the United States).

CO-ORDINATION OF THE LEVELS

The question is not so much which level to select but rather how to benefit from the advantages presented by the two levels. In many countries, the responsibility for education and training can be assigned to the administrative level (the regions in France, the provinces in Canada). It would be difficult to locate this responsibility at a more decentralised level. However, it is necessary to take into account the potential of the functional areas in order to co-ordinate the two levels accordingly. This co-ordination can take several forms but must allow for the identification of requirements at the most effective level. On this point, observation and analysis should be conducted at a local level where the economic difficulties are easier to identify. It is important that information should be compiled locally (for example, local monitoring centres); the data can then be aggregated at a regional level. However, regional observation, at a level where a large number of different circumstances exists, does not appear to be effective.

The co-ordination of levels must also permit the formation of partnerships. Regional partnerships comprised of representatives of various regional organisa-

tions may be ineffective. Rather than creating regional partnerships, it may be preferable to federate local partnerships and co-ordinate their actions.

In general, the administrative regional level can act as a co-ordinator. It can facilitate the emergence of partnerships on a local level, help them to create their own programmes, provide them with the means to carry them out and contribute to their co-ordination. Moreover, the administrative level can provide a link with the central administration and ensure conformity of local actions with national objectives (in the United Kingdom, measures are defined by the TECs, and in Italy, the regional governments co-ordinate measures).

The outcome of such co-ordination of the administrative and functional levels exemplifies of what may be called « policy territorialisation ». The territorialisation of local training policies thus co-ordinated by the administrative level can still leave considerable latitude to local stakeholders. It can improve the supply of information, identification of requirements and the formation of partnerships. Thus defined, territorialisation can also add value to the efficacy of policies.

Regional network – a means of promoting employment and qualifications

by

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Given the speed of development of communications technology and the rapid expansion of non-location-dependent forms of industrial co-operation, the issue of skills, training and regional competitiveness appears, at a first glance, not to be without contradiction. Information and communications technology permeates all sectors of economic and social action. Flexible changes of location for production and services have apparently become a routine tool of innovative management. However, precisely because economic operations are no longer tied to a specific location, locations for industry and business are now subjected to globalised competition. The focus is now on the competitiveness of each individual economic region and the specific factors determining attractiveness. Of course, the most attractive locations are those with a fully developed information and communications infrastructure, favourable production structures, supply networks, expanding high-tech markets, cutting-edge research and a qualified and adaptable labour force. Today, it is no longer sufficient to focus resources solely on individual technological breakthroughs and on economic growth. Education, training and continuing education, the international openness and attractiveness of higher education, a sound infrastructure for research and development and the establishment of optimum framework conditions are crucial factors in establishing the appeal of a location.

TENTATIVE CONCEPTS FOR REGIONAL NETWORKS

An optimum educational infrastructure is indispensable to economic growth. However, in the long-established industrialised nations, economic growth alone is no longer a guarantee of the necessary growth of employment. Any approach needs to integrate qualifications so as to foster the establishment of innovative

networks and the optimisation of additional location-related factors to enhance a region's appeal for investments conducive to the promotion of employment. Support is to be given to network strategies for economic, environmental, financial, education, employment and social policies at the European and national levels but also at the regional level. This complex approach is based on the assumption that a positive impact on employment will be achieved by introducing improvements in the employment-relevant environment. Issues are also involved relating to labour costs, employer and employee relations, the organisation of work and, last but not least, flexible training and continuing training systems, which can be rapidly adapted to the changing requirements of enterprises.

In Germany, with its dual system, close co-operation between industry and education is a tradition. This co-operation is supported by the policy pursued by the federal and *Länder* governments. However, vocational and continuing training are not to be viewed as separate sectors but in the context of solutions to economic, structural, social and labour legislation issues, so that training can make a positive contribution to improving the employment situation. In addition, the outstanding importance of SMEs and the wholesale creation of new enterprises is repeatedly emphasised.

The White Paper issued by the European Commission (1994) urges that the dynamic character of SMEs be supported. Their competitiveness should be strengthened by facilitating their access to finance and information sources, to the results of research and development and to training, including support through the new European Social Fund under Objective 4. Considerable funds for the support of medium-sized enterprises are being provided each year by European Union member States. The problem is how to plan assistance and services in such a way that this assistance effectively helps to strengthen SMEs and to promote employment. To this end, enterprises require an innovative environment at the level of the economic region. New ways of co-operation and communication within enterprises as well as between enterprises can be identified. Accordingly, channels of access to enhancing knowledge and experience can be further developed. Thus, the regional approach will also become one of the major prerequisites for devising a successful strategy for the training and further training of skilled workers.

MODELS OF REGIONAL NETWORKS IN GERMANY

For government, it does not suffice to introduce new initiatives in order to promote already privileged regions. Relevant activities must also focus on poorly developed regions with a view to introducing, as far as possible, similar living conditions in all regions. On the basis of the initial positions, the federal ministry

of Education, Science, Research and Technology launched a model of regional networks (Learning Regions) in poorly developed areas in the new German Länder in 1994. The objective was to promote integrated solutions to problems involved in skills enhancement in conjunction with the promotion of SMEs, the labour-market trend and social development in the respective regions. The intention was to mobilise and use the potential of all the regional players in a manner similar to that applied under the Learning Enterprises programme – in order to initiate regional development by means of a bottom-up approach based on self-organisation and self-responsibility. The chief objective was to develop sound communications and co-operation among regional decision-makers as a horizontal structure operating between equal players for the purpose of solving problems in the region and to open up new paths to the regional promotion of employment by exploiting the potential for technical, organisational and social innovations in conjunction with HRD.

Relevant activities were focused on that model in the following regions: the Bitterfeld/Wolfen region, a traditional chemicals-manufacturing region undergoing structural change; the Chemnitz region, a traditionally industrial region undergoing structural change; the Schwerin region, an agricultural area crisis-ridden owing to the major reduction in the number of big agricultural combines, which previously dominated the region; the Hoff Plauen region, a textiles-producing region marked by major structural changes; the Berlin/Hellersdorf region, a congested urban area without big firms; the Frankfurt/Oder region, an industrial border region affected by a major drop in employment owing to the failure of large firms; the Strasburg/Mecklenburg-Western Pomerania region, an agricultural border region with a high rate of structural unemployment. In contrast to the old *Länder*, these regions had no effective organisations for launching a new approach to improving the networking of all the regional players. In addition, the emerging new organisations and structures were concentrating on the urgent requirements of the restructuring process resulting from the incorporation of the new *Länder* into the Federal Republic of Germany.

It was therefore a deliberate approach, under the initiative launched by BMBF and in alignment with the bottom-up principle, to entrust very different institutions with the projects, depending on regional circumstances and to permit the establishment of different priorities. As a consequence, manifold results have been obtained. Special mention should be made of the following. The setting up and supervision of regional enterprise networks involving research institutions, chambers, labour administrations, universities and other institutions. The goal is to provide and enable optimal use of qualifications which have a positive impact on employment as well as state-of-the-art information to personnel and entrepreneurs (Technical University of Chemnitz, Initiativkreis Bitterfeld/Molten, ITF Schwerin). The establishment of contact and co-ordination agencies with a view to

supporting co-operation between the science community and industry as well as to the development of sound relations among administration, industry, education providers and the employees concerned (ITF Schwerin, Bildungswerk der Siichsischen Wirtschaft) and continuing vocational training centres maintained by the Bavarian Employers Associations. The establishment of an Advisory and Information Centre for New Technologies as the Centre for the Application of Laser and Beam Technology, Ostbrandenburg is an example. The development of an Association for Structural Development and Management which, already today, supervises with success the hiving-off of firms from the *Arbeitsförderverein* (Employment Promotion Association). It is the organisational framework for different job procurement measures within the context of the government-supported labour market and creates major prerequisites for the continued development of an industrial park (trend-GmbH, Neubrandenburg).

INITIAL FINDINGS CONCERNING THE ESTABLISHMENT OF REGIONAL NETWORKS

After only two years, a wide range of interesting results is available. If it is too early for an evaluation of the impact on employment, the following findings are of major general importance. In all model regions, stable communication and co-operation structures were set up. The various players in the respective regions co-operate within regional bodies to ensure more efficient use of the funding and material resources available for the promotion of industry, skilling and employment. A wide range of providers have proved themselves capable of functioning as co-ordinating agencies for the initiation and maintenance of the communications and co-operation processes. As regards the initiation and motivation of various forms of regional co-operation and activities, the presence of a central co-ordinating agency has proved helpful. Meanwhile, the involvement of SMEs often proves difficult for competitive reasons. The co-ordinating agencies have set up projects via the European Union to support programmes for economic development and skills enhancement in virtually all the regions they serve.

CONCLUSIONS: REGIONAL DEVELOPMENT AND LEARNING CONCEPTS

Public start-up funding appears vital for the establishment of regional networks in poorly developed regions. With a view to encouraging regional networks, a promising condition appears to be the greatest possible flexibility of funding requirements and establishment of regional priorities as well as speedy decision-making processes. With regard to their survival capacity, it should be noted that regional networks become increasingly stable as responsible institutions develop interesting services – information on education, science, research and technology; clearly-defined qualifications strategies and systems for technology transfer; infor-

mation on support programmes and structural aids. The goal of developing self-supporting structures may lead, however, to specialisation on profitable services and the actors may lose sight of the development of the region as a whole. Only the future will tell whether regional networks should be seen as an infrastructure to be provided by the region which requires basic public funding as a matter of principle. The policy of promoting regional competitiveness by means of qualification strategies should eventually be changed increasingly from individual support to support for networking.

In the poorly developed regions surveyed, the following fact has also been corroborated. Throughout all the regional networks, learning is regarded as an unusually complex and comprehensive process and is organised accordingly. This indicates that the traditional organisation of learning, for example, in the form of courses or seminars, increasingly fails to meet real-life requirements. On the one hand, learning is to a certain extent a general and comprehensive process, that is, regional players learn how to act expediently in the interest of regional development. On the other hand, learning is a process intended to match the requirements of specific tasks. So courses are aimed increasingly at the development of the universal ability to act independently.

These prerequisites for the mastery of structural change can hardly be attained, however, by means of conventional forms of organised learning and continuing training, that is, by participation in external market-based provision. On the contrary, the "work and learn" principle is of central importance for the acquisition of methodological and social competences. Accordingly, the challenge for poorly developed regions is how to preserve the qualification potential regardless of whether people are in gainful employment or not. To improve qualifications, it follows that all the occupational clusters that have so far not been the focus of attention must be examined to test their potential for providing employment. There are different forms of employment that can be exploited – temporary work, low-paid/side-line employment, internships, mixes of paid and non-paid employment, *e.g.* work in an honorary capacity or in the field of private care and welfare work down to neighbourly help initiatives, for example in the building sector. Here there is scope for regional initiatives, particularly as regards to preserving the qualifications potential.

The demand frequently heard in Germany for the development of a second employment market, which, in the last resort, would be artificially maintained by tax revenues, is not, in the long term, a viable concept. Such instruments, which often lead to competitive distortion, are no more than short-term interim remedies, which have to be deliberately designed as bridges to the first employment market and as a support for the setting-up of new companies. The prospects for development of a poorly developed region depend primarily on the extent to which it succeeds in generating a pioneering spirit as regards its own identity. Can

a region succeed, for example, by motivating young people to take the risk of setting up new companies but helping keep the consequences of failure within limits? Individuals, and whole regions, will only be able to meet the challenges of the future if they have confidence in their own abilities. It should therefore be the paramount goal of any regional policy to inculcate the mental attitudes required at all levels of the education system.

Training for SMEs: a role for local governments

The case of Modena

by

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The city of Modena has experience of a particular innovation in job-training provision policy for SMEs. The main peculiarity of the Modenese economy lies in its higher-than-average weight of SMEs compared with the rest of Italy and, *a fortiori*, the other OECD countries.

PROVIDING JOB TRAINING FOR SMES

Job training lies at the centre of a sort of a “grey area” in economic thought. The debate, in fact, has not permitted agreement on the key issue of who should pay for it. Some economists view the purchase of training as a sort of saving and therefore support the principle that individual trainees should pay for it. Others see it as a kind of human capital investment and conclude that enterprises should pay as for other forms of investment. A sub-group admits that training is human capital investment but add that for various reasons, it is difficult and risky and the government should intervene therefore and bear some of the burden of cost. A third school of thought maintains that training, like all education, is a merit good, not to be valued by standard welfare economics instruments, and that the public sector should be the ultimate payer. Mirroring these theoretical disagreements, the expenditure on training is carried out, in most countries, both by private and public sector agents. Among OECD countries, Italy is the one in which the share of the private sector is lowest.

This applies also to industries and jurisdictions such as Modena where SMEs are in a majority. However, there are two additional issues to be discussed when designing a training provision policy. The first is that it is probably a good idea, if SMEs are an important part of the economy, to endow local as opposed to national authorities with responsibility for training. The reason for this is that research shows clearly that the needs of local clusters of SMEs are highly diverse,

even within the same industry. A good example is from the textile and clothing industry: in Puglia, where enterprises need mainly to improve their design skills or in Carpi and Modena where training is needed to improving the productivity of the enterprises selling them intermediate goods. In other words, needs tend to be cluster-specific as well as industry-specific, and local authorities are in a better position than national ones to supply local economies with appropriate training schemes. The faster-than-average information diffusion in industrial districts is another important phenomenon to keep in the background when designing training policy in an area dominated by industry. Modena's city government pays great attention to this class of specificities. It is now testing the setting up of a public-private training company derived from the transformation of a public regional and municipal training agency and from the involvement of new and important private partners.

There is a second class of specificities in job training provision to SMEs and this, too, underpins Modena's policy. As many leading SMEs theorists advocate, training amounts to a sort of information. Markets for information are notoriously tricky in the sense that it is difficult for a buyer to value a piece of information before actually knowing it, but if he already knows a piece of information there is no point in paying for it. In the Modena context, this paradox means that many SMEs confronted with a competitive disadvantage based on information do not try to bridge it by buying training. They tend to "become depressed" and adjust downward to competing at the lower value-added end of the market where the need for information is less keen. A good example is clothing. Competing in the more fashion-oriented and therefore profitable end of the market calls for creativity, constant monitoring of fashion trends, and consequential "buying skills" that are not demanded in the more standardised market. The problem with the latter is that Modenese firms can hardly sustain price competition with newly industrialised countries and third world competitors, which have lower labour costs. This does not seem to be a problem of information cost per unit of output but rather of the inability of entrepreneurs to evaluate the impact on their enterprises of enriching their endowment of skills. In other words, they need training but do not demand it. The solution to this problem, clearly, is public intervention in the form of direct provision. In a slogan, the idea is to provide training for enterprises rather than give them the money to buy it or, using the jargon of research into industrial districts, make training a real service. In the industry policy debate in Italy, the expression "real service" is applied to the provision of information under such different forms as the evolution of fashion and the certification of intermediate goods. The provision of all these real services shares with that of training the role of the public sector in identifying a need when SMEs cannot express a paying demand. In other words, it is a question of correcting a failure on the market for information by directly providing the information needed.

THE ITALIAN CONTEXT

In Emilia Romagna, the region in which Modena is to be found, the normal status of a service centre is that of a private company, whose stocks are owned partly by the regional government, partly by the trade associations of the entrepreneurs in a given industry and partly by firms using the service. Users pay for the service a price lower than its production costs, so that the centres are self-financing for about 40-50 per cent. This is not a signal of inefficiency but an implication of failure on the information market.³ At the more micro level of training, however, bilateral co-operation seems to be extremely difficult to induce, in part because training is an extremely expensive affair funded with the taxpayer's money. Trade unions and associations see it not only as a real service to allocate but also as a source of revenue. Trade unions and entrepreneurs' associations see themselves as competitors and are reluctant to co-ordinate. This hypothesis seems to be at least compatible with the facts that government decision-makers in charge of allocating training funds spread them among the available agencies, and that the funds allocated to each agency tend to be fairly stable over time regardless of the evolution of training needs within the economy.

It is difficult to judge precisely the extent to which this hypothesis can be accepted as a general explanation of the lack of bilateral co-operation of training in Italy. Certainly, wherever appropriate, it implies a situation in which the public sector, instead of accepting the ultimate responsibility for the strategy and quality of training provision, risks surrendering it to private agents. The distance of this model from that prevailing in Germany, for example, where there is co-operation between the workers, the entrepreneurs and the public sector, with the latter taking responsibility, could not be greater. Clearly, there is not much a local authority can do to correct the first two peculiarities. On the other hand, to the extent that the explanation offered for the third peculiarity is correct, the appropriate way to tackle it is to promote co-operation among training agencies, and this can be done at the local as well as the national one.

THE MODENA APPROACH

The supply of training services in Modena is characterised by much the same fragmentation as that of the country as a whole. The civic authority adopted the goal of achieving co-operation among job training agencies and pursued it in different ways: first, by promoting and investing in a public-private training company, involving not only several major municipal authorities from the Province of Modena, but also public-private organisations such as the Local Health District and the Water-Power and Environmental Health Management Board; secondly, by supporting the creation of a real service centre called Democenter of which the main activity is to monitor innovation and promote the diffusion of state-of-the-art

technologies among Modenese firms. So when an innovation relevant to the SME-based Modenese economy is launched on the world market, Democenter technicians check it out and then try to inform entrepreneurs that it exists and give advice on what it can do for them. One very effective way of doing so is to buy innovative machines, typically, machines used in the fine mechanics industry, and organise demonstrations of how they work for the benefit of small firms. Among the machines acquired by Democenter there is also one for fast prototyping, which is very useful in fine mechanics but economically unviable for a small enterprise, so that fast prototyping is offered to Modenese firms as a real service.

Accepting that training is a real service, Democenter includes its provision in its innovation diffusion policy. Like all other real service centres in Emilia Romagna, Democenter is technically a private company, the stockholders being the city authority, trade unions, entrepreneurs' associations, *i.e.* all the organisations involved in the provision of training. Decisions regarding the centre's activities are made by a technical committee representing ownership and users. The inputs on what to do and how to do it come from local enterprises, through their representatives in the technical committee, the university and trade associations.

The city has also taken advantage of the regional government's decision, in 1995, to tender out European Union funds for training and to give priority to consortia of training agencies, preferably those including universities. The new formulation of the tender clearly established Democenter as a frontrunner in the competition to supply the training funded with European money. The centre was encouraged to form consortia and get involved. The results have been favourable, especially as regards co-ordination. Democenter promoted a project called FIT, "Training and Technical Change". The project, aimed at the SME-dominated mechanics sector, was presented by a temporary consortium which has both "promoters" (training agencies, schools and enterprises which will actually take the money and do the job) and "supporters" (basically, the political sponsors of the former). The list of promoters include the training agencies of two of the three trade unions at the regional level, and of the third one at the provincial level, five private firms, two universities, a technical high school and Democenter. The list of supporters includes all three trade unions, the association of entrepreneurs, the three associations of small firms and crafts, the association of co-operative firms, two provincial governments. Among the objectives of the project, the creation of two post-graduate university courses, one of which in car engineering, is included. A master's degree in car engineering in a place like Modena is more than a good idea. It evokes immediately both to prospective students and their potential employers the names of Ferrari, Maserati, Lamborghini, and, more recently, of Bugatti, in a word, of the most advanced realities of the mechanics sector in the area. It is a signal that the gap between the training system and the local economy it is meant to support is, finally, beginning to close.

INTERACTIONS BETWEEN REGIONAL AUTHORITIES AND PARTNERS

Linking the partners: interactions between regional authorities, training providers, firms and unions

by

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In order to become or to stay competitive, all countries and enterprises must adjust to increasingly rapid technological breakthroughs, new communications infrastructures, and shifting skill requirements that characterise the emerging global economy. This overarching reality poses new questions for policy-makers and practitioners concerned with promoting sound human resource management practices within the public and private sectors. There is a series of questions that need to be considered by regional authorities as well as state and national ministries and governing bodies.

PARTICIPATION OF REGIONAL PARTNERS TO IMPROVE HUMAN RESOURCE STRATEGIES

Is there a need for a regional forum with the necessary powers to establish cross-cutting institutional goals, benchmarks of progress and success based on those goals, and to set resource allocation priorities for the overall HRD system? Simply put, are the old governance structures adequate for the future? How can collaborative bodies be established that make sure the pieces of the system, formal as well as non-formal, are pulling in the same direction, yet also allow room for healthy competition among institutions? Do the right indicators of success

exist? What role should representatives of the non-formal sector play in governance structures and the determination of the priorities?

How can education and training strategies be integrated at the enterprise level where the ultimate integration of education and training strategies must occur? Part of the challenge for governments and the other social partners is to identify the least intrusive techniques that can be employed to promote the maximum utilisation of employees. Arguably, one of the most powerful tools would be to reassess the taxation of business assets. Currently, the international pattern is that expenditures on human resources are counted on the expense side of the ledger, not the investment side. Employment in any country may be one of the most necessary preconditions for a truly integrated workforce preparation system, simply because it places the locus of decision-making at the focal point, namely, the enterprise.

The adoption of new technologies offers lessons about focusing on the enterprise level. The characteristics of successful adaptation to technology have been summarised as the four F's: focused, fast, flexible, and friendly. Research has shown that for any organisation to successfully apply the four F's there must be employee involvement, training incentives fluid organisational structures, the matching of technology to the problems that need to be solved, and committed leadership. This list suggests that the introduction of new technologies can present as many human resource management issues as engineering challenges. Individual enterprises with flexible organisational structures, located in countries that promote employee involvement and training are better positioned to make successful use of them.

Changes within occupations also point to the need to build upon the learning that occurs in the non-formal sector. Professional bureaucracies have spawned new specialised occupations and the growth of larger corporations has created a greater demand for legal, accounting, medical and other professional services. The growth of science and its commercialisation has also helped create new, highly-specialised occupations. Thus, there has been a growth of specialists in "more valued" occupations. In addition, experience has shown that the specialisation model demands more collaboration among a variety of workers in order to obtain the breadth and depth of expertise to accomplish tasks. Many new technical occupations blend the attributes of professional and craft workers in such areas as bioscience, engineering, radiology, medical techniques, technical writing, computer programming. These often require specialised education, especially in science, math and technology. However, it is important to note that the evidence to date shows that the most valuable place in which to obtain skills appears to be on the job, which permits the development of the "technical craft artist". These "new crafts" present a particular set of challenges for some governments and institutions in defining competences and skill requirements, in part because they

do not yet have a strong base of professional societies and there is a lack of “guilds” for them even in the strongly unionised countries. Moreover, the jobs should not be cast in a vertical model of career progression that assumes increased supervisory responsibility is the most important ingredient. The results may end up stifling necessary reorganisation of the workplace.

Should support networks for enterprises traditionally focused on product development, marketing, and financing become more fully integrated into the HRD system? That would appear to be an effective governmental strategy for providing technical support through a variety of industry-based networks that assist firms of varying sizes to improve strategic and technological research concerned with adapting and promoting the integration of systems. SMEs, often the engines of change for often larger firms in terms of innovations, demand high levels of support. Post-secondary institutions are often used as key linking institutions by providing the technical experts who assist individual firms. However, there is growing evidence that the most effective networks are those in which members of an industry and not public institutions drive the agenda. It is important not to assume that formal education and skills training are the only factors contributing to the economic growth of an enterprise. Assistance designed to improve overall business strategies is an essential ingredient of any integration strategy to improve productivity. Business strategies need to include the development of systems to assure continuous improvement to satisfy the needs of customers. Companies also need to use strategies for addressing the dual and sometimes contradictory concepts of decentralised decision-making combined with the need to achieve integration between and among departments and systems such as financial, technical, human resource management, planning and development factors.

How can skill credentialling systems be structured to capture not just initial but upgrading and continual training as well, particularly in respect of the skills and knowledge acquired in the workplace? What are the critical roles for regional bodies in such a system? Standards have value but are of limited use for a holistic HRD system if they are not frequently reviewed and updated to keep pace with changes occurring in the workplace, if they focus only on one slice of the HRD system, such as initial training, if they do not build upon the skill and knowledge requirements common to most occupations yet move into specialisations’ that vary by sectors of industry, and if the credentialling system does not recognise learning that occurs in the non-formal sector. The utility of using standards as a key organising tool for any HRD system is that they help to ensure quality, to indicate goals and promote change. Standards also facilitate communications, protection, harmonisation, simplification and evaluation. Given these uses, can regional authorities use standards as a core tool to promote high-quality education and training in both the formal and non-formal sectors?

How can the marginally trained workforce be best served in a customer-driven HRD system? If regional strategies are increasingly driven by the economic imperatives of strengthening enterprises, including improving the skills of the current workforce, how will the unemployed and poorly-qualified be served? The causes of an individual's problems will vary from social discrimination to job loss after many years in an old-style workplace that has failed to promote continuing training. Whatever the cause, it may be necessary to review the approaches used to prepare these individuals.

What modifications, if any, need to be made in the traditional responsibilities of post-secondary educational institutions to promote closer links with the non-formal education and training sector? One of the thorny sets of issues that all countries must grapple with is the role and capacity of these institutions in skill formation and the certification of competences. Should the institutions recognise and accredit learning that takes place outside the "traditional classroom"? If continuing training is to be shaped by the needs of the enterprises and their employees, what are the implications of transferring the power from producers to consumers? Should clear learning outcomes rather than content and duration drive the learning process? If such a shift does not occur, is it possible to ensure the integration of education and training with the needs of the workplace?

LINKING RESEARCH WITH PRACTICE

It is reasonable to believe that the observation "the state of the art is better than the state of the practice" has universal applicability as it relates to HRD functions. A key, if not the key, challenge is to link research findings with practice in both the public and private sectors. Research takes many forms, basic, applied, formal and non-formal, and each has a role to play within the HRD system. More core research in human management is probably warranted in order to strengthen the knowledge base about how people learn, and how to minimise the stress generated by change so that individuals can adapt to the realities of the changing workplace. Applied research is needed to ascertain the most effective ways to infusing improved management practices in an enterprise that engages all its employees in the improvement of a product or process. The former is perhaps most effectively carried out under the sponsorship of a university and the latter through an industry-based network whose mission it is to assist individual entrepreneurs.

There is an unlimited list of issues calling for more research to improve the opportunities of firms and individuals alike to be better prepared for the future. A broad definition of a HRD system is required when ordering research priorities. For example, while attention should be given to questions about skill competences and their effect on productivity, focusing only on the skill capacity of the

workforce would be limiting. Attention to management practices in both the public and private sectors, the effects of a communications infrastructure and how to make the best use of scientific and technological breakthroughs are other examples of how improved linkages between research and practice can assist in the improvement of regional HRD strategies.

Adult learning theorists tell us that one of the most effective ways to learn is through peer networks. This, no doubt, accounts for some of the success in “learning regions” where innovations help make particular areas highly successful. It follows, therefore, that an explicit investment in encouraging adult development and peer-to-peer networks is critical to success. Facilitation, problem-solving, trouble-shooting, and research-based advice on “what works for whom” can often best be done on-site by “an outsider” and across sites through peer-to-peer sharing of strategies, techniques, mistakes and work plans. While many of the day-to-day solutions rest within the purview of local areas, “just in time” information based on cross-cutting and broad-based research can accelerate the effort. A key challenge is to organise the links between research and practice through identifying the mechanisms that exist or are lacking, and to share the findings with the front line implementers in both the public and private sectors. When considering how to organise a “linking system” it is necessary to take into account all the different forms of research.

Individuals within enterprises and public services are appropriate participants in many of these activities. For example, benchmarking can be considered a research tool that fits into the category of applied research, but one that also has particular relevance for the private or non-formal sector. Benchmarking is a technique that is a “discovery process and learning experience”. It is also comparative whereby a “borrower” searches for “reputational best in class practitioners” of a technique, process or service to search and acquire from them the information needed to compare with the borrowers’ own practices. The benchmarking exercise may result in a description of a process or a service or may be converted into performance metrics. The benchmarking technique requires the borrower to be self-analytical during the process, forces testing of internal actions against external standards, and has the potential for getting all the appropriate actors involved. It requires metrics to assess performance and thus forces a borrower to disaggregate information to the level of comparable functions.

Countries and regional representatives need to ask themselves a series of questions regarding the most effective ways of building a more effective system to link research with practice. These include but are not limited to the following. Does there exist a national framework for supporting research in the HRD field? How inclusive is the framework? Are the efforts of the various ministries and universities co-ordinated? Is there a structure in place for the voices of regions to be heard regarding what needs to be included in a national agenda? What

national support mechanisms exist to promote peer networks nationally and within regions? How are the resources of the universities and other government-supported research institutions tied into support for particular regions in the country? What structures and support systems need to be in place within each region to promote the engagement of enterprises, unions, and education and training providers? What are the best ways of allowing regions to set their own agendas for research and linking networks? How will the success of such efforts be measured?

Research, education and training linkages

by

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President of the European Rectors Conference

RESEARCH AND REGIONAL DEVELOPMENT

The process of modernising the economy is carried out in three phases: an initial phase of innovation, in which scientific and technical development introduces a higher technological level; a spreading phase, in which training and learning conditions as well as forms of market and financing play an important part; and a maturing phase, in which incremental innovations tend to become manifest. Kutznets (1966) has warned that “the epochal innovation that distinguishes the modern economic epoch is the extended application of science to problems of economic production”. It is well known that a significant part of the task of scientists today consists of rigorously systematising and adapting practical innovations and the corresponding knowledge attained by technicians; similarly, technology has decisively moulded science by providing the data which enables scientific statements to be explained. Nevertheless, success in applying the results of research and training to production in a territorially limited economy depends on a series of conditions, of which three should be pointed out: the possibilities of marketing the product and financing the innovative process as well as the behaviour of employers when it comes to deciding future occurrences. This may respond to predictions of market growth, and at other times the criteria of profitability may be decisive. The degree to which these measures complement others taken at the heart of enterprises, for example, in order to better organise the rapid adaptation to new demands, is at present less concerned with mass production inside the enterprise or outside it in other productive sectors, services, administration and other industrial sectors.

Four dominant technological sectors are presently distinguished: the mechanical, based on the “Design” and “Engineering” departments of industrial firms; the chemical, based on the R&D laboratories of industrial firms and research based on chemistry; the electrical-electronic, based on the R&D labora-

tories of industrial firms and research in physics; the software, in the “Systems” departments of industrial firms and services (Patel and Pavitt, 1995).

The general objectives of regional policies tend to focus on four aims. First, emphasis on the natural resources which provide a territory with a relative advantage. The importance of such resources has been reduced by technological development itself, as well as by the inherent risk of dependence on the external demands of these resources. Secondly, the promotion of an economic structure which is based on the relatively fixed nature of human resources or on the capacity for ease of adaptation in the case of physical capital, due to its relative mobility and linked by means of different institutional procedures to the global economic sectors, through networking practices and even globalisation of the production process made by the multinational firms. Thirdly, maintaining the external equilibrium of the territory – the growth rate of exportation, flexibility of income from it and internal growth of productivity. Fourthly, the creation of an appropriate communications infrastructure and social services.

Since the extraordinary social, technical and economic development that Western Europe has experienced from 1945 to the beginning of the 1970s, the relationship between universities and the rest of society has undergone significant transformation. A quantitatively significant portion of the activity of the universities has established a different relationship with their localities or regions. This portion of university activity is being encouraged to behave, in the long run, as another sector in the national productive system, joined to it through inputs (information and communication; laboratories) and outputs (training and applied research) that as well as posing new problems (such as ownership and use of the results of research) place the universities within a logic that different from their traditional one. It also seems that this particular relationship does not affect the fields of education and research in the same way. In each of these, universities connect with the rest of society and governments in different ways appropriate for each of them and so that they do not always take into account the inseparability of teaching and research. Inseparability not only belongs to the university tradition but is a part of the very nature of the cultural process that operates in our centres.

RESEARCH AND TRAINING

On the double path followed by research activities and educational activities, the universities do not exercise the monopoly that was characteristic of the past but find other institutions competing with them, although with different approaches, areas or levels and which do not, on the other hand, connect research and education. Moreover, the development of new and not strictly university professions combining technical and manual activities, added to those

already existing in the past presents the problem of how to accredit them. The maintenance of unity between research and training in a sector of higher education is very important for social and economic development. The necessity of training the workforce to be flexible and adaptative and the inevitable renovation of production methods are at odds with routine. Research plays a decisive role in technological change and should also do so with respect to the organisation of the economy inside and outside enterprises and in society itself. This role provides the framework in which technical knowledge is produced and the basis for training to be given. In periods of rapid scientific and technical developments, the unity of research and training is inevitable. What is more, the doubt inherent in scientific development introduces behavioural methods which distance it from routine and help prepare for uncertainty. Finally, university practice has historically been an essential element in the constitution of our cultural heritage and for maintaining the ideals of justice and freedom. Some authors have also drawn attention to the danger of turning universities into new industrial laboratories and distancing them from their function of being a major source of new public technological knowledge and society's most effective vehicle for making technological knowledge public (Nelson, 1992).

Recently, industry has produced what has been called a "network organisation" as "a basic institutional arrangement to cope with systemic innovation". "Empirically it is an organisation with a structure marked by loose linkages and having a core with both weak and strong ties between constituent members" (Imai and Baba, 1991). This structure could be adapted to the higher education sector, and this is already occurring in some places as a form of division of work in different universities, as a method for collaboration with other political, economic and social institutions and as a system for the internal diversification of advanced-level education centres.

The Finnish centres of expertise programme

by

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The key prerequisite for regional development is the ability of the people and the organisations of a region to recognise the prevailing situation, their own strengths and the actual possibilities for regional development. Based on this, it is possible to formulate viable options for the direction of the development and for the relevant operative plans and development measures. Through their own measures the national authorities can influence the realisation of the regional operation and accelerate progress in sectors they consider important. The experiences acquired in Finland with the national Centres of Expertise Programme is based on a strong need to increase organised regional co-operation and to exploit the expertise of the various authorities, *i.e.* the State and its subordinate administrative bodies, regional governments, communities and cities, universities, research and training centres, and especially enterprises. The programme extends from the planning of actions to their implementation and the monitoring of their effectiveness. The programme as such provides the activity with a status, determines content, and mandates the authorities to assemble the various officials for the implementation of the joint decisions.

The Centres of Expertise Programme is the outcome of a national decision to invest in exploiting the higher education level and the internationally high-level research on product development activity. Its growth potential is the programme's strong emphasis on the utilisation of essential expertise in enterprises. The programme is a focused national operation implemented in regional functional units selected after competition. It is a matter, therefore, of strengthening the regional expertise. The results of this operation can be seen first of all in the changing methods of the information providers, that is, universities, colleges and other research and training institutions, and in increased and more efficient enterprise contacts. The economic results can be seen in new activities based on high-level know-how, in new enterprises and new jobs. The programme is signifi-

cant not only at the regional level but in increasing the co-operation and combined influence of the actors at the central administrative level.

FIELDS OF EXPERTISE OF THE CENTRES

The Centres of Expertise Programme was started by a government decision in 1994 as a part of the strategy for regional development. At that time, eight centres were established, each concentrating on a specific field. The fields include, among others, telecommunications, biotechnology, biomedical and health care, materials research, information technology, electronics, mechanical engineering and automation, energy technology, paper manufacturing technology, environmental technology and drug design. One year later three so-called network centres were established in the fields of forestry, food industry, and tourism. The central aims of the operation include improving the development and placement of internationally competitive business activities that require a high degree of know-how and to support regional specialisation and the division of duties among Centres. The Programme requires the formulation of regional development strategies and programmes based on them. Its starting point is the internationally large amount of high-standard research and training. Its activities are targeted on utilising existing recognised strengths. The operation is directed by a national working party appointed by the Minister of the Interior, with representatives from the ministries concerned: Interior (MI), Trade and Industry (MTI), Education (ME) and Employment (MEMP). The working party includes members from universities, regional and local administration, and enterprises, and it uses third-party expertise whenever necessary. The Centres lean on the Technology Centre network, and their access to appropriate innovative operational environments and service functions. The prerequisites for a successful operation are that the operation is regionally inspired, based on a regional development strategy and the various partners take full part in the planning stage clearly expressed and supported by the government.

TRAINING AS A PART OF THE CENTRES

The transfer of new information and expertise concerning competitiveness to enterprises is facilitated by the training of key personnel. The Objective 4 programme of the European Social Fund includes a separate appropriation stipulation for the development of the Centres of Expertise model. By combining this with the national share of the financing, a significant amount of employer-influenced training can be provided during the term of the programme. As a part of the training activity for the selected SMEs, there will be organised coaching designed to orientate the enterprises towards recognising the expertise-based development possibilities of competitiveness. In a small country with a limited

number of selected specialised enterprises, the goal is that each one should define its possibilities in terms of its development strategy.

CONCLUSION

The operations of the Centres of Expertise are being further developed. The intention is to increase the training of employees and maximise its efficiency; to rationalise the studies of the Centres of Expertise on the targeting and use of national resources; to co-ordinate nationally the operations in each field of concern; to consider the needs at national level of each sector of industry when targeting research, development and training resources. Targeting a narrow but essential sector of activity, the Centres of Expertise represent a national effort to initiate development activities based on a regional system and co-operation among individual authorities in the separate growth areas. As a model it has been widely approved and has made an impact at the regional and national level. The analytical and proactive work accomplished within its framework is reflected in the clarity and purposefulness of regional development strategies. The key objectives of raising the level of know-how and expertise, enabling SMEs to be more competitive and stimulating new company and business activities, are being attained at an increasing rate. It is important to note that in order to be effective, enterprises must be ready and able to take advantage of the available opportunities. These will not be seized, however, if enterprises do not recognise the strategic importance of applying specialist know-how. For many SMEs this calls for appropriate training. Intensifying interaction among the various regional authorities is an essential prerequisite for development. Transforming "formal" co-operation into active joint operations requires a catalyst. The Centres of Expertise are increasingly assuming this role.

Collaboration between schools, research centres, enterprises and public authorities⁴

by

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Traditionally, regional policy aims at remedying disparities by transferring resources towards the low-income zones. The present study is an overview of the region of Sierre, a mountainous micro-region located in the French-speaking part of Switzerland in the heart of the Valais canton. The principal objectives of the approach are to improve the possibility of lifelong learning, offer quality jobs with a high added value, promote the creation of spear-head companies and research centres, diversify the activities of the local economy, use the TECHNO-pole as a creativity nucleus and services centre for the enterprises of the region, give professional status to jobs in the tourism sector, and strengthen the synergy between public authorities, associations and the private sector.

The Ecole Suisse de Tourisme was founded in 1985. In 1988, the Ecole Supérieure d'Informatique de Gestion was established and obtained federal recognition in 1993. The Sierre TECHNO-pole (1989), a private undertaking supported by the public authorities, grouped 21 enterprises employing over 130 people, active in the sectors of data processing, telematics and communications. The semi-public corporation, TECHNO-pole Sierre SA is the concrete expression of an objective of regional development, and was created to attract leading enterprises and promote synergy between private enterprises, new training modes and institutions for economic promotion. The Centre Romand d'Enseignement à Distance offers university education and training sessions in scientific, technical and commercial fields. The Etablissement d'Enseignement Professionnel Supérieur (EEPS) offers a Service d'Appui Scientifique (SAS), a scientific assistance service, which provides enterprises with privileged access to EEPS competences.

LESSONS TO BE LEARNT⁵

This experience has taught three lessons. At the regional level, the proximity of schools and enterprises and the variety of context are fundamental. Training

plays a predominant role in attracting and diffusing skills. Finally, steering the networks and reflection on constraining factors must be integrated in an approach to regional competitiveness.

Proximity. The proximity of the schools generates an awareness among the population, in particular in the tourism sector (prime mover of the Valais economy). It ensures recognition and motivation, and offers new vocational perspectives such as reversing the flow of students, interest in and motivation for training, influencing the choice of a career. The schools create a climate of trust which is favourable to innovation, as the enterprises can benefit from hands-on advice and assistance. Computer-related solutions are more easily accepted by the professionals and the population through the “computer culture” promoted by the information management school (Ecole d’informatique de gestion, ESIS). The nearby pool of qualified labour fills the executive jobs occupied previously by people from outside the canton, brings home contracts previously executed outside the canton due to a lack of resources and competences in the region, generates new activities and enriches the diversity of the economic tissue. This trend is most apparent in the domain of data processing; networks created through the proximity of the actors (schools-enterprises) promote accessibility to skills and competences and the creation of an environment favourable to innovation.

The variety of the context is strengthened and attracts enterprises outside the area into the region. These enterprises, which have grown up or been set up near to the ESIS, would cease activities if these resources were no longer available. It is therefore logical that the vocation of the Ecole supérieure de tourisme (EST) is to make Valais tourism more professional and to create jobs. The development generated by these post-secondary schools brings with it the dynamics of success and incites other sectors of activity to become competitive. This effect favours risk-taking and breaks down the barriers between sectors of activity and synergies. Emulation also fosters a determination to attract other higher education institutions, as they are a source of financial benefit to the local economy (see Table 9, annex1). The increase in the variety of sectors of activity in the local economy means that the risk of depending on a single source of revenue is less intense, implies greater stability of financial results and allows for a more long-term policy. There is improved accessibility to education and training. The schools provide quality information and competences through their teaching staff and documentation centres. However, accessibility is still not sufficient due to a lack of awareness of the services available and of a reflex response from enterprises. Another element holding back progress is the difficulty of co-ordinated action in the tourist sector.

Training: attraction and diffusion of competences. Training remains the basic activity of the schools and assignments are the indispensable means of being an inte-

grated part of the economic activities and preserving the coherence of the territorial system of production. The contribution of the schools to competitiveness is strongly conditioned by the activities of their research centre. An assignment always consists of incubation (production of know-how), acquisition (search for competences) and diffusion (school-research centre-enterprises partnership). The incubation activity is more difficult for the EST due to a lack of unity among the tourist sectors. Assignments carried out by the EST and the CRAT research center consist of numerous small-scale collaborative projects which do not help to make them known in the professional sectors. The CRAT can only provide a sporadic contribution to the competitiveness of enterprises. The projects are sectoral, small-sized, and carried out cheaply or free of charge, principally because the tourist sectors have limited financial means. For this reason, obtaining a critical mass is again justified. Moreover, it is imperative to find a balance between applied research, that is, immediate requirements, and prospective research. The ESIS and EST research centres must maintain collaboration through a search for complementarity and avoid any competition with enterprises. The acquisition of skills and competences takes place through training sessions in the enterprises or research centres of the schools and through study trips (mainly for EST). The research centres act as a filter in relations between the school and the outside world. Their utility is recognised by all the professional milieu as an interface between the schools and the world of work. They present a particular attraction for professionals (neutrality, level of competence, flexibility, regrouping of specialisations).

The schools participate in the steering of networks and respond to demands for information. For the ESIS, the steering activity is crystallised in a specific centre: the TECHNO-pôle. This infrastructure helps in the development and steering of processes (Innovation-Acculturation-Reproduction), in other terms, it contributes to competitiveness. The strengthening of know-how by the retaining power of schools to the area, is related to the transfer of technology through research centres. Their contribution to regional competitiveness is in proportion to their capacity to transmit this know-how to all those concerned. The ESIS has assimilated this process better than the EST. The human factor, and in particular the diffusion of competences and know-how, is essentially promoted by former graduates through vocational training and lifelong learning. The diffusion of competences is still weak due to the need to improve communications. The networking of the Ecoles Supérieures should make it possible in the future to promote better communication with the professionals while respecting the individual identity of each school.

Steering the networks and the role of limiting factors. The fundamental role of the human factor in the development and the steering of processes must be stressed. Thanks to their commitment and skills, certain players generate an effect of

expansion which strengthens regional competitiveness. The schools contribute to this dynamic. A good indicator of the vitality of a process of innovation is the intensity of exchanges. This can be perceived in the domain of data processing around the point of crystallisation embodied by the TECHNO-Pôle. This excellent concept, built as an extension to the training tool, places the computer and data processing technologies school at the heart of the process-steering activity. The school-research centre-enterprise triptych is, in practice, frequently seen to promote the emergence of innovations: enterprises offer their services to the schools, and teaching staff carry out assignments in pursuit of regional economic development. This exchange further favours the circulation of know-how and integrates research in the offer of teaching. At the EST, this exchange between professors and the tourist milieu is not so regular or intense. The reason is that there is no point of crystallisation in a sector of activity which is highly fragmented and has a low density of ex-students in key posts, and therefore insufficient opportunities for frequent informal meetings.

The evolution of the schools has been considerably marked by outside phenomena: market growth; timeliness; the added value of the professional branch; the receptivity of the world of work; the dynamics of the branch and sensitivity of the sector to external variables. In these conditions, the development and results cannot be identical, as it is easier to act directly on a limiting factor by choosing, for example, an area of expansion such as data processing than to create a framework for updating a traditionally conservative area such as tourism. However, it should be mentioned that the ESIS was not able to take immediate advantage of all these benefits. As it was the first school of its type in Switzerland, it was confronted with certain difficulties in establishing innovative computer technologies. The notion of limiting factors is useful for prospective analysis of the possibilities of success for a new type of training. The ESIS, for example, has certainly targeted its action on a limiting factor for the competitiveness of the Sierre region. By contrast, the EST has developed its activity on an endogenous and more long-term vision, knowing that external variables or events can have a highly unfavourable effect on tourism (rate of exchange, airline prices, attraction of exotic tourism).

NOTES

1. Partner Organisations: US Department of Labor, US Department of Education, Maryland Higher Education Commission, Catonsville Community College, Dundalk Community College, Essex Community College, Johns Hopkins University, Towson State University, University of Maryland Baltimore County, University of Maryland University College, Coppin State College, Loyola College, Arundel Institute of Technology, Fleet Business School, and the Medix Allied Health Careers School.
2. The Baltimore MSA consists of the City of Baltimore and the five surrounding counties, it has a population of 2.4 million and has a large number of educational institutions (Gritz, 1996). In many ways, the Baltimore area is very similar to the United States as a whole, and therefore an ideal test site for the Lifelong Learning Demonstration. The unemployment rate was 5.7 per cent in 1995 versus 5.8 per cent for the nation as a whole. Median household income in the Baltimore area was higher than the US national average – \$36 550 versus \$30 056; however, due to the higher cost of living, per capita disposable income was very close to the US average: \$17 041 versus \$16 064. In addition, the occupational distribution in the Baltimore MSA is very similar to the nation as a whole, except for a slightly higher proportion of workers in government, primarily due to federal government employment. Finally, educational levels in the Baltimore area are also similar to the United States as a whole, although Baltimore MSA residents are both more likely to have a college degree – 23.2 per cent versus 21.9 per cent – and less likely to have a high school diploma than the United States average – 25.3 per cent are high school dropouts versus 19.8 per cent nation-wide (Bell *et al.*, 1995).
3. Interestingly, industrialists in Emilia Romagna have been known to attack real service centres on the ground that they are not financially independent, but at the same time to propose their replacement, provided that the Region funds them exactly as it funds the existing centres.
4. Report written by SIERRE REGION in collaboration with SEREC under the auspices of the Division of Regional Policy (OFIAMT).
5. The principal conclusions of the survey are based on interviews with 23 people from a variety of environments (schools, enterprises, public authorities, institutional organisations) making it possible to describe in an essentially qualitative manner how the schools for information management (ESIS) and tourism (EST) intervene in the operation of regional competitiveness. In addition to these two schools, there are the following partners: the Centre de Recherche en Informatique et Télématique (ICARE), the Cen-

tre de Recherche Appliquées au Tourisme (CRAT) and le Parc Technologique de Sierre (TECHNO-pole). The sample selected consists of 5 heads of schools or research centres, 3 Presidents of communes, 5 heads of regional or cantonal institutions and 10 company managers.

Part IV

**CONCLUSIONS AND POLICY
IMPLICATIONS**

CONCLUSIONS

by

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In the present context of moderate growth of our economies, governments are looking more than ever at the sources of competitiveness. They are noting the vitality of certain regions and their capacity to attract new investment, generate wealth and boost employment. They bring together, in clusters or in networks, a wide variety of manufacturing activities and services to businesses and consumers, along with various institutions such as education and research. In contrast, other regions must grapple with industrial and institutional imbalance, lacking the initiatives and resources they need to adapt to the new terms of international competition. In particular, they are faring less well from the globalisation of activities and new technologies, and they are affected by unemployment and emigration.

IMPROVE REGIONAL COMPETITIVENESS

To explain such differences in performance, economists cite a territory's indigenous capacity for development, which is linked to the productivity of enterprises and their ability to join into networks, the competition they wage and their ability to exploit local externalities. Enterprises derive much of their competitiveness from interactions with the outside environment. More and more, they benefit from the availability and the skills of the labour force that match their needs, factors that help cut costs and enhance performance. In this context, the Conference underlined the evolution of regional policies. There is a move away from a reliance on exogenously generated development towards a greater emphasis on indigenous approaches focusing on innovation and SMEs. Whereas the exogenous development approach emphasised the "hard" factors such as infrastructure and the cost of capital and labour, indigenous development strategies place greater

emphasis on the less tangible barriers to entrepreneurship in general and technological innovation more specifically. In any event, competitiveness, and regional competitiveness in particular, is a complex concept. It can therefore be noted that if the capacity of territories and enterprises to confront international competitiveness depends, of course, on their relative performance, their ability to expand cooperation and establish networks becomes increasingly important.

Human resource strategies

The evolution of regional policies emphasises the essential role of skills and competences. In an increasingly global economy with high levels of mobility of capital, the ability to produce goods and services of the workforce and local suppliers is vital in attracting and retaining investment. At the same time, developing innovative SMEs ultimately depends upon the creation and transfer of knowledge embedded in the skills and competences of individuals as much as in physical products. In addition, regional policies have evolved in parallel with national policies. The effectiveness of national systems of innovation focused on science and technology and of recent developments in lifelong learning have developed into a broader concern with the creation of “learning economies”. Thus, national innovation policies and HRD policies look to regional delivery mechanisms through formal and non formal links or initiatives like science parks and regional technology transfer mechanisms. These are now beginning to recognise the need to create “learning regions” as a means of raising skills, competences and innovative capacity across the nation state.

These trends have brought regional and industrial policies into closer contact with education and training systems and more generally with the development of skills and competences. In the context of an increasing emphasis on value for money in education and training programmes, the public rate of return on, for example, training the unemployed and general support for higher education, the regional perspective can make it easier to assess the links between investment in human capital and economic performance. Moreover, the non-formal sector also provides a lot of the training and opportunities for individuals to develop and improve their skills and competences in a lifelong learning perspective. It also changes the terms of the financial debate on training. The marriage of regional policy with education and training policies will not be an easy task, not least because the two policies are overseen by different national ministries each with distinct links to the various stakeholders at local, regional and national scale (*e.g.* schools, colleges, universities, local authorities, employers, trade unions, regional development agencies). The concept of the learning region provides a useful framework for linking the concerns of regional development policies with HRD.

Learning regions

Because of the difficulties of creating networks, co-operation and partnerships, it is hardly surprising that exogenous development via inward investment has been the preferred route to economic development in many lagging regions. Such investment may be the only way to kick start a learning process by attracting to the region international companies which understand that forging links between the global and the local is good management practice. Increasingly development agencies are seeking to embed this investment locally by raising the skill levels of the local workforce and enhancing the management competences of local suppliers and sub-contractors. Relevant skills therefore provide a key way of tying down the global in the local and attracting successive rounds of investment. This regional approach has strong support in the management literature. For example, Rosabeth Moss Kanter's management treatise, *World Class* is significantly subtitled, "thriving locally in the global economy", argues that to be world class, "businesses need concepts, competences and connections. World class places can help grow these assets by offering innovative capabilities, production capabilities, quality skills, learning, networking and collaboration" (Kanter, 1995).

The idea of the learning economy articulated by Lundvall (1992, 1993) has its origins in research on national systems of innovation. This suggests that it is not only the skills of individuals, be they employees or entrepreneurs, that matter but the way in which knowledge is transferred from one group to another in the economy to create a learning system. These systems are composed of the institutionalised networks of partnership between the public and private sectors which support innovation by fostering learning and promoting synergy. Because these networks depend so much on interpersonal relations they tend to be highly localised. So learning regions are an important dimension of the learning economy. According to Florida (1995): to be effective in this increasingly borderless global economy, regions must be defined by the same criteria and elements which comprise a knowledge-intensive firm; continuous improvement, new ideas, knowledge creation and organisational learning. Regions must adopt the principles of knowledge creation and continuous learning.

A learning region is one in which the networks effectively work and the education and training providers succeed in bringing the right supply to the real level of skills and competences required of the workforce. So the link between skills, competences and regional competitiveness should address how the needs and demands of individuals, students, employees and employers are aggregated to produce a learning system in which the regional whole is more than the sum of its parts. This approach to economic development, focusing on the contribution that each region makes to national competitiveness raises a number of challenges for regional policy, some of which are outlined below.

CHALLENGES TO DEVELOPING “LEARNING REGIONS”

The Working Party on Regional Development Policies has accumulated much experience in analysing central government policies for regions. Long focused on the reduction of disparities among regions, such policies have in recent years put far greater emphasis on each region's conditions for development. The aim is to “enable regions to better help themselves” (as stated at the ministerial conference in Vienna in 1994), so that they become more competitive, make better use of their resources and improve their standard of living and capacity to create jobs. Through a variety of conferences and workshops, the Working Party has made it easier to grasp the key success factors of regional economies: physical infrastructure, industrial restructuring capacities, business services and sustainable regional development. The contribution of human resources to development and regional competitiveness lies at the heart of what is being advanced here today. Five important results are highlighted for national and regional policy-makers to:

- i) use regional policies for HRD;*
- ii) give a demand-driven focus to HRD;*
- iii) base competitiveness on the development of partnerships;*
- iv) reinforce economic efficiency by policies of equity;*
- v) develop regional governance to consolidate national policies.*

To use regional policies for HRD

The Conference confirms the relevant role and the contribution of regional policies to HRD. Even if training needs are difficult to assess, the regional level is no doubt especially well suited to adjusting supply and demand, as well as to expressing demand. To avoid excessive fragmentation and encourage inter-regional mobility and flexibility of acquired skills and abilities, it is useful to have nation-wide norms, standards and mechanisms for the recognition of competences. The delegation of powers makes it imperative to build follow-up and evaluation mechanisms into the “councils” and “management committees” in charge of the strategic development of regions (France, State of Oregon).

The articulation between HRD and overall regional development strategies remains open. Too often regional education and training programmes operate within “silos”, striving to reach quantitative targets, such as training places provided for the long-term unemployed, with little regard for the economic development benefits. Likewise, industrial policies such as those designed to promote the development of regional technology focus on goods and services. They ignore the fact that the technology is most effectively transferred by skilled people – for example, by university students participating in work placements and their subsequent retention in local enterprises.

A demand-driven focus on HRD

Traditionally, HRD has relied on the training opportunities available, with governments striving to preserve the quality thereof. Today, it is increasingly clear that this approach is inadequate, and that the demand for training and skills needs to be taken into account. It is essential that initial education furnish a high quality of learning and be capable of providing guidance. Education institutions, and especially institutions of higher education, must increasingly reassess their roles and their ties with local and regional economies. Programmes will undoubtedly have to be evaluated much more than they are now, in the light of the “employability” they confer. In countries with a tradition of initial general education for young people, the definition of norms, standards and nation-wide mechanisms for the recognition of competences will be a priority (see examples in the United States). In countries with systems of initial vocational education, the main emphasis will be on enhancing flexibility and diversifying ways of moving from one stream to another (see examples in Germany and France).

With the development of lifelong learning, it is also imperative to expand ways of identifying and recognising occupational skills and qualifications. In this area, demand-driven policies can yield results. Lifelong learning can be greatly affected by regional disparities (Modena, Ireland and Baltimore). In a region characterised by a standstill economy, the pace of learning and of skills formation will be slow. It will probably be much faster in regions with leading-edge enterprises. The implementation of education and training strategies to improve the economic performance of regions will therefore require the utmost care in policy-making and enlisting local and regional participants. As a rule, officials often expect that raising the skills level will have an automatic impact on regional competitiveness. In the absence of national and regional frameworks for defining and measuring skills and competences, and without heightened concern for satisfying regional needs, this impact may be severely diluted.

Competitiveness based on partnerships developments

Another result confirms the role and responsibilities of the non-formal sector. In particular, this involves the participation of regional enterprises in enhancing training and skills enhancement. It also involves profit and non-profit associations that contribute to HRD. Private sector involvement makes it easier to factor in human capital requirements at the local and regional levels. Enterprises invest heavily in in-house, on-the-job training, as well as in the financing of joint vocational training providers. Dual training mechanisms seem to exhibit greater efficiency and frequently lead to jobs. In the United Kingdom, more and more emphasis is being put on apprenticeship programmes. In France, the success of such schemes has paradoxically forced the central government, given the regions’

budgetary difficulties, to pick up once again a part of the tab. In Germany, vocational secondary education in co-operation with the business sector has firmly taken root. It has gained nation-wide recognition and helps bolster the competitiveness of regions while enhancing both the visibility of supply and demand and the mobility of skills.

In the realm of research, partnerships between enterprises and educational institutions are especially promising (France, Switzerland and Finland). Universities and institutes offer substantial R&D capacities which enterprises can exploit to meet their objectives. Such collaboration can lead to the formation of science parks, high-tech complexes and even technopoles. Regions in which such co-operation is established and develops can benefit from new comparative advantages. Research findings spread more rapidly, and enterprises can more easily benefit from economies of scale and technical advances.

To reinforce economic efficiency by policies of equity

Another result underscores the importance of questions of equity and regional governance. The effectiveness of training programmes has to be considered against concerns for fairness to individuals: equal access to training opportunities and equal access to the recognition of competences, irrespective of where they were acquired. The new approaches to regional policy encourage regional authorities to set up their own mechanisms to facilitate the structural adaptation of their economies and encourage job-creation. This effort to foster subsidiarity practices is predicated on the idea that citizens have to be more closely involved in programme design and implementation, with a view to greater effectiveness and budgetary savings (as in the Australian example). The sources of knowledge and know-how are many and varied. The education and training establishment is not the only supplier in this area. Nevertheless, it plays a major role in raising skills and imparting competences. Its role in job-creation and the competitiveness of nations and regions is beginning to be understood more clearly.

One has to note that successful regions are also often characterised by a high level of cultural awareness. Indeed, a thriving cultural sector is a major asset in economic development. Certain enterprises recognise this when company learning credits are used by employees to raise their general level of education before moving on to vocationally-oriented programmes. More generally, non-vocational education can be a way of combating social exclusion in areas of high unemployment and providing a way back to work for disadvantaged groups.

To develop regional governance to consolidate national policies

Considering the interaction between regional and national priorities, HRD has to take into account the possibility of developing essential competences

outside the region and using the training supply existing elsewhere. One means to improving the level of skills consists in attracting and retaining persons from outside the region, for example young people who come to study in the region and then establish themselves to work within the framework of programmes targeted to retain graduates. On the supply side, training programmes do not always have to be proposed by the region. In staying open to outside influences, learning regions can implement mechanisms to compare their experience with others (see the North-West Partnership in the United Kingdom).

Public administrations at different levels (national, regional, local) have an essential role in articulating the links between education, training and competitiveness. A particular problem arises in centralised countries where there is no relevant tier of government to legitimate HRD strategies specific to a region (United Kingdom). Having said this, centralised systems do create the possibility of raising standards of education and training everywhere to the obvious benefit of lagging regions. This is particularly significant in the context of geographically open labour markets which characterise the higher level skills and competences area. Employers' organisations and professional associations are also interested in national standards. The critical issue here is regional participation in the standard-setting process, particularly the accreditation of accumulated tacit knowledge arising from learning by doing in the enterprises.

POLICY IMPLICATIONS

by

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During these exchanges on skills, training and competitiveness, the ideas of dialogue, consensus, agreements and partnerships have recurred constantly. HRD was analysed at the local and regional level in terms of its linkages with national governments, and was also considered in the light of the specific situation of cities. Most of the discussions dealt with regions that had adopted a wide range of policy responses. The various presentations focused on the implementation of regional policies that are already relatively well integrated, showing that they are being used as a tool to promote employment, economic growth and greater social cohesion. In discussing the integration of HRD policies, all the presentations stressed the importance of integrating the various policies both vertically (*i.e.* at the local, regional and national levels) and horizontally. As the primary sub-national unit, the region has a special role to play in this regard. It is an area in which coherent and integrated policies can be formulated and implemented. From among the many points raised and examined, these conclusions will focus on three key ideas:

- i)* the region as an area for dialogue and co-operation among actors;
- ii)* the region as an area for policy integration;
- iii)* the region as an appropriate area in terms of negotiation.

Each idea will be accompanied by a policy recommendation for the future, namely, to achieve greater transparency, to ensure greater coherence and adaptability and to promote complementary relationships.

THE REGION: AN AREA FOR DIALOGUE AND CO-OPERATION

The region is an area for dialogue that is made possible, and even necessary at times, by the very proximity of the actors. After the discussions, it can be added that consultation, co-operation and partnerships make possible and promote the emergence of a common frame of reference, which provides a basis for decision-makers to set goals and choose policy priorities, specifically in the field of HRD policy. The development of common references and the choice of priorities represent the most complex stage of this process, since it is necessary to overcome the obstacles of administrative and policy compartmentalisation as well as the deeply ingrained habits and ways of thinking of citizens. Co-ordination is an essential aspect of this process: co-ordination among ministries and especially between the ministries of labour and education, co-ordination between regional and national education bodies, co-ordination between the formal and non-formal sectors and between training within the traditional education system and enterprise-based training. This co-ordination plays an essential role in enhancing the status of skills and competences acquired through experience, at the workplace and in social, family and cultural life, and in recognising the value of what each person has learned through work.

Skill training and development of competences should be designed to ensure the “employability”, adaptability and mobility of workers in a variety of changing situations in different enterprises and across regions. In countries with a strong tradition of general education for all young people, the definition of standards and the development of systems for validating vocational skills will be a priority. In countries with systems of initial vocational training, emphasis will be primarily on diversifying training, establishing crossover points between streams and ensuring the possibility of transferring from one system to another. In the present context of tight national and regional budgets, the freedom of action of regions can be a major factor for innovation in the field of education and training that can help meet regional and local needs. Co-ordination between initial and continuing training systems seems essential if genuine lifelong training is to be implemented and if each worker and unemployed person is to be able to use to the fullest the possibilities and learning opportunities encountered at all stages of life. Accreditation of what has been learned through work is one of the keys to competitiveness and economic growth. But this poses a difficult problem for the public authorities in charge of education and training in the formal sector. As a result, bold and rapid measures are called for as part of a general reorganisation in order to make school-based education and training structures more complementary with machinery for validating the skills and competences acquired through work experience and social, family and cultural life.

The first recommendation for regional HRD is, therefore, that education and training policies and skill recognition mechanisms be made more transparent.

THE REGION: AN AREA FOR POLICY INTEGRATION

Regions are not only areas for integrating education and training policies, but also for integrating employment, economic and social policies. But integration is extremely difficult to achieve, for it disrupts administrative structures that are often centuries old as well as deeply ingrained ways of thinking. As the example of many Member countries shows, it can only be achieved with the participation of the social partners, whether through collective bargaining or other forms of agreement. The effectiveness of HRD primarily depends on partnerships formed between the regional authorities and the main stakeholders: administrative bodies, employers, trade unions, chambers of commerce and industry if they exist, and education and training institutions. Trade associations must take the lead by helping the regional authorities to identify the needs for skills and competences. They must also jointly define the role of education and training institutions and the processes for validating competences within the framework of regional HRD. This collective effort to define respective responsibilities involves much more than merely adapting national policies to local conditions. In order to be able to implement their HRD strategy, regions require more independent institutional mechanisms than can be provided by bodies designated by the central government to promote local support for the more effective application of programmes decided at national level.

Regions need to be able to formulate and implement a policy that is developed on the basis of the principles of coherence and adaptability by means of a “bottom-up” approach that involves local and regional actors. Any regional policy must be aimed at meeting the demand for skills and at reducing the gap between supply and demand through lifelong training and migration between regions. The necessary adaptability will be facilitated if programmes and evaluation systems are more coherent across regions. Any policy must also be integrated into a national framework accepted by society as a whole which lays down the major goals of national policies concerning education, lifelong training and skills recognition. If, depending on national and regional situations, a “bottom-up” approach and a national framework are present, policies can be both coherent and adaptable and ensure HRD.

The second recommendation is, therefore, that policies for education, lifelong training and skills recognition should be made more coherent and adaptable.

THE REGION AS AN APPROPRIATE AREA FOR NEGOTIATION

It is obvious that no single model of HRD is valid for all regions in all Member countries. However, there are some constants: policies need to be not only transparent, coherent and adaptable, but innovative. A country's creativity is shown by the number and diversity of initiatives that it implements. Any attempt to design a set of policy responses adapted to the strengths and weakness of regions must obviously rely on the complementary aspects of different approaches and initiatives. The third recommendation for enhancing regional human resources is to foster these complementary relationships. Regions must identify the linkages that exist between the separate aspects, systems, measures and programmes of training or skills acquisition so that they complement one another "at the lowest cost", thereby optimising the use of financial resources in a time of tight budgets. Although forward planning is a risky exercise at both national and regional level, a mechanism for the continual monitoring and co-ordination of needs can make it possible to set and pursue goals for a given period, sometimes on a contractual basis, and then to reassess them.

It is essential to identify and establish these complementary relationships within regions in a negotiated framework in order to avoid the real dangers of dispersion and fragmentation that inevitably arise when an approach that attempts to integrate local factors is implemented. A sufficient "critical mass" must be achieved to create a strong regional HRD policy. This is, of course, the basis for a more realistic approach to lifelong training and for a highly pragmatic reorganisation of initial and continuing training systems. Governments must continue to lay down broad policies and set major goals at the national or federal level. A genuine regional policy, bringing regional goals in line with those of the nation as a whole, makes it possible to do more, to be more effective and, often, to act more rapidly and at a lower cost. One of the main goals of any nation or state must be to guarantee that all its citizens in all its regions have equitable access to the means of training and thus better opportunities for finding and keeping a job.

EPILOGUE

The region is an effective area in which to improve education and training policies. HRD is an important tool for regional development policies. The future of regional HRD policies will be determined by dialogue, desire to reach consensus, and partnerships. It also depends on making policies more transparent, coherent and adaptable through continuing effort to negotiate all the complementary relationships that could be useful. In a time of tight budgets and when social marginalisation is affecting new segments of the population in all countries,

these mechanisms hold the key to successful international competitiveness, as strongly suggested by the example of Germany. Regional, national and international competitiveness, although indispensable to the survival of all our nations, only has meaning if the growth that it generates benefits all the men and women living in every region in a spirit of equity and concern for social justice in economies that never lose sight of the fact that the ultimate goal is the service of mankind.

Annex 1

Tables

Table 1. **Percentage of the population 25 to 64 years of age that has attained a specific highest level of education, 1992**

	Early childhood, primary and lower secondary education	Upper secondary education	Non-university education	University education	Total
Australia (1993)	47	30	11	12	100
Canada	29	30	26	15	100
France	48	36	6	10	100
Germany	18	60	10	12	100
United Kingdom	32	49	8 ^a	11	100
United States	16	53	7	24	100

a) In 1992: merge of tertiary education.

Source: *Education at a Glance, OECD Indicators*, 1995, p. 20.

Table 2. **Persons having attained at least upper secondary education, by age group, 1992**

	Per cent				Difference in attainment between age groups		
	Age Groups				a-b	b-c	c-d
	25-34 a	35-44 b	45-54 c	55-64 d			
Australia (1993)	57	56	51	42	0	4	8
Canada	81	78	66	49	3	12	17
France	67	57	47	29	10	10	18
Germany	89	87	81	69	2	6	12
United Kingdom ^a	81	71	62	51	17	11	5
United States	87	88	83	73	-2	6	10

a) See Table 3.

Source: *Education at a Glance, OECD Indicators*, 1995, p. 22.

Table 3. **Net enrolment in all public and private secondary education, 1992**

Full-time enrolments

	Net enrolment rate by single year of age (in per cent)							
	14	15	16	17	18	19	20	21
Australia	97.5	92.0	78.7	58.8	14.2	2.8	3.3	^a
Canada	99.8	98.7	96.5	72.0	36.9	11.1	14.0	^a
France	94.3	94.1	92.1	87.2	58.6	34.0	12.0	3.1
Germany	93.9	93.1	95.3	92.8	82.3	55.0	29.3	16.0
United Kingdom	99.6	98.9	75.3	55.3	18.7	4.3	1.9	1.2
United States	98.7	95.7	91.4	72.0	20.6	5.8	1.7	0.6

a) Figures at age 20 refer to ages 20 and over.

Source: *Education at a Glance, OECD Indicators*, 1995, p. 135.

Table 4. **Consistency of theories and policy approaches**

Major theories	Policy approaches				
	Recruitment	Modernisation	Incubation	Innovation	Milieu
Neo-classical	0	+	0	+	0
- Regional growth					
- interregional trade					
- disequilibrium					+
Waves/cycles/stages	0	0	+	++	+
Production organisation	0	++	0	+	0
Entrepreneurship/creativity	0	+	+	++	++

Note: ++ = highly consistent; + = consistent; 0 = neutral.

Source: Goldstein and Luger (1993).

Table 5. **Regional economic development and human resources: policies and actors**

	Policy and programme areas. Actors and stakeholders	1. Economic development, industrial, technology	2. Employment and labour market	3. Education and training	4. Social, youth, unemployment, welfare
Public	A. National and federal	A1	A2	A3	A4
	B. Regional	B1	B2	B3	B4
	C. Local	C1	C2	C3	C4
Private	D. Employers	D1	D2	D3	D4
	E. Unions	E1	E2	E3	E4
	F. Non-government	F1	F2	F3	F4

Source: Compiled by H. Schuetze for the purpose of this conference, 1997.

The table is useful as a tool for visualising the functional and organisational linkages that characterise HRD programmes in different countries. For example, a complex system like the German apprenticeship system would be characterised by joint policy and administrative arrangements and would thus involve both vertical (across the three levels of government) and horizontal linkages (across different policy sectors). Programmes and policies would thus cover cells A2, B2 and B3, C1 to C4, as well as D2 and D3, E2 and E3 and F2 and F3 (indicating the role of the Chambers of Industry and Commerce and of the Crafts). By contrast, a work experience arrangement between a school and a single firm or the local employers association would only concern horizontal linkages at the local level and thus cover only cells C3 and D3.

Table 6. **Selected regional training initiatives (Germany)**

No.	Initiative	Objectives	Organisation	Participants	Tasks	Finance
1	Ausbilder-Qualifizierungszentrum Güstrow (AQZ)	Skill improvement, business development	Formal association	Industry associations, unions, chambers	Skill demand projections, curricula adjustment	Federal funds
2	Dithmarscher Modell	Skill improvement, business development	Informal association	Local government, labour policy authorities, chambers, training providers	Information, advice, co-ordination, skill demand projections, quality control	Local public funds
3	GARP (Gemeinschaftsausbildungsstätten Ruit-Plochingen e.V.)	Skill improvement, business development	Formal association	Firms, chambers.	Skill demand projections, curricula adjustment, training	Public funds, user's contribution
4	Innovations-Transfer und Forschungsstelle für beruflich-betriebliche Weiterbildung M.-V. (ITF)	Skill improvement, business development	Project	Staff	Information, advice, curricula adjustment, training	Federal funds
5	Kommunale Weiterbildungsstelle des Landkreises Hoyerwerda	Skill improvement	Informal association	Local government, West and East Germany	Information, advice, skill demand projections	Local public and European funds
6	Regionale Wirtschafts-förderung – Berufliche Weiterbildung Hannover Region	Business development	Public agency	Local government training providers	Information, advice, skill demand projections, co-ordination, quality control, training	Local public funds
7	Kooperative Bildungsmaßnahmen im Regionalverbund (KBR)	Skill improvement, business development	Informal association	Federal and local government, firms, training providers	Advice, curricula adjustment, co-ordination	Local public and European funds
8	Qualifikations- entwicklungs Büro Brandenburg (Qebb)	Skill improvement, business development	Informal association	Federal and local government, labour policy authorities, chambers, unions	Skill demand projections, curricula adjustment, information, advice	Federal and local public funds

Table 6. **Selected regional training initiatives (Germany)** (cont.)

No.	Initiative	Objectives	Organisation	Participants	Tasks	Finance
9	Regionales Forschungs- und Transferzentrum für berufliche Weiterbildung Sachsen-Anhalt/Halle (RTW)	Skill improvement, business development	Informal association	Federal and local government, labour policy authorities, unions.	Skill demand projection, information	Federal, local, and European funds
10	Saarbrücker Programm einer kommunalisierten Beschäftigungs- und Qualifizierungs-politik	Labour market policies	Authority	Local government, chambers, industry associations, labour policy authorities	Training	Local public funds
11	Weiterbildung Hamburg e.V.	Skill improvement	Formal association	Labour policy authorities, chambers, local government, unions.	Information, advice, quality control	Local public funds, participant's contribution
12	Koordinierungsstelle "Lernende Region" Bayern/Sachsen	Regional policy, skill improvement, labour market policies	Project	Local government, labour policy authorities, chambers, firms, unemployed.	Information advice, quality control, skill demand projections, co-ordination, curricula adjustment, training	Public funds

Source: F. Foders, Institute for World Economy, 1997.

Table 7. **Main differences between selected French regions, 1996**

Indicators	Regions		
	Ile-de-France	Auvergne	Nord-Pas-de-Calais
School participation rate (20-24 years)	32.1	30.2	28.3
Apprenticeships	11.7	17.4	8.6
Skill formation contracts	4.5	2.7	2.6
Percentage of young people leaving education unemployed	34.8	47.6	56.2
Percentage of young people on fixed-term contracts	34.1	27.9	20.4
Percentage of young people in the active population	7.8	8.7	13.1
Unemployment rate (ILO definition)	10.8	11.2	15.9
GDP per capita	187 530	98 974	97 638
Region's share in funding	7.7	11.7	6.0
Government share in funding	32.9	56.9	66.6
Firms' share in funding	59.5	31.4	27.4

Source: *Évaluation des politiques régionales de formation professionnelle*, Comité de Coordination, 1996.

Table 8. **Characteristics of the three groups of lycées**

Characteristics	GROUP A	GROUP B	GROUP C
Lycées (in percentage)	25	33	42
Professors involved	Average	Above average	Below average
Business partners, industrial projects and industrial income activities	Above average	Average	Below average
Industrial output (in percentage)	70	25	6
Average time to find first job (in months)	6	7	9

Source: Poitiers Seminar, 1994.

Table 9. **Establishment in full-time jobs in information technology**

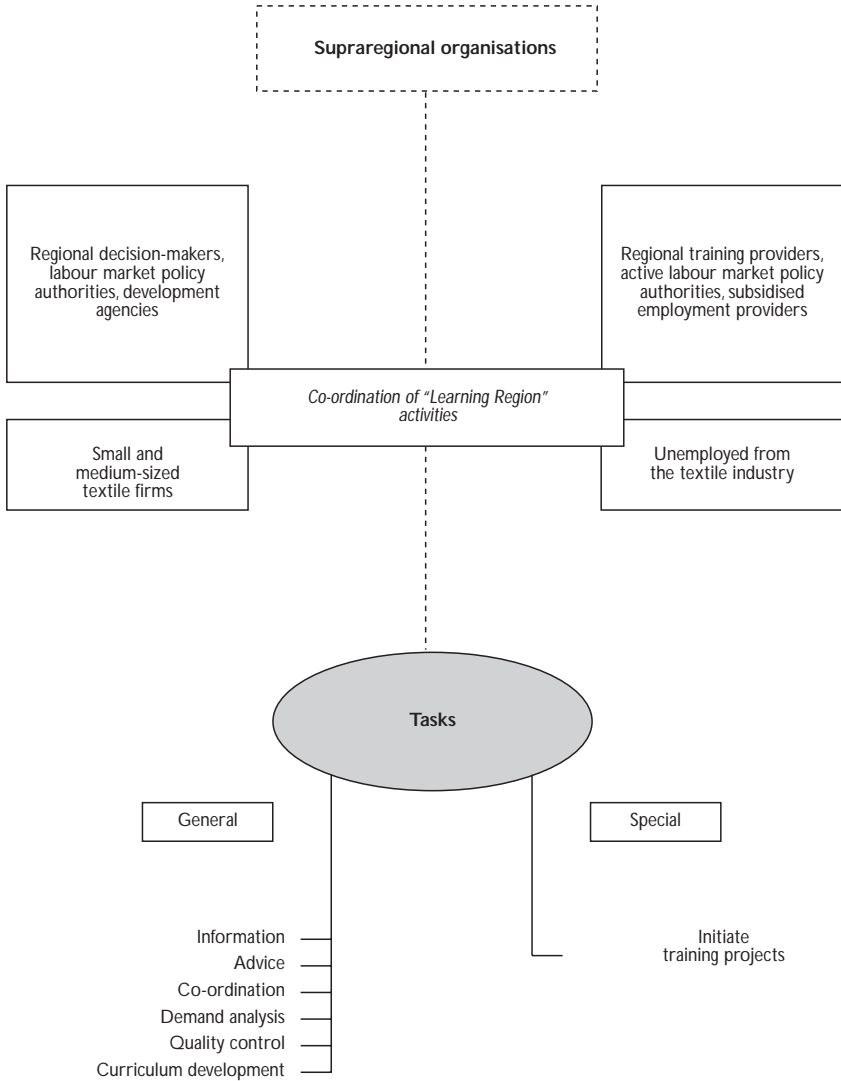
	April 1985	April 1991	Progress in per cent
Number of jobs			
Sierre	13	65	400
Valais	53	132	149.1
Switzerland	9 360	20 598	120.1
Number of enterprises			
Sierre	4	13	225
Valais	13	47	261.5
Switzerland	1 691	4 348	157.1

Source: Federal Office of Statistics, 1996, Bern.

Annex 2

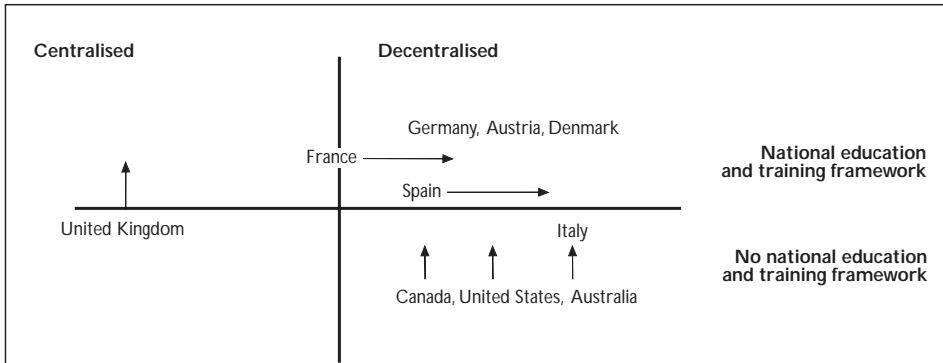
Figures

◆ Figure 1. *The Project "Learning Region" in Bavaria and Saxony (regional network of the textile industry, NETTEX) – Germany*



Source: Foder, F., Institute for World Economy, 1997.

◆ Figure 2. *Centralisation and national standards in the 1990s*



Source: Drake, K., in *Issues in Setting Standards: Establishing Comparabilities*, 1996.

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