

*Study on the Potential of
Community Policies for
Employment Promotion
Final Report*

August 2002



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1 Introduction

Following the Invitation for Tender no. VT/2000/010 from the European Commission's Directorate General for Employment and Social Affairs, a consortium led by PLS RAMBOLL Management (DK) and also consisting of University of Warwick (UK), SEOR (NL), CIREM (ES), and two analysts from Berlin Science Centre (D) was selected to undertake a study entitled the *Potential of Community Policies for Employment Promotion*.

The consortium members combine different scholarly disciplines, such as economics, geography, political science and sociology. Hence, a distinct challenge of the study has been to develop a methodology that is applicable to different disciplines and schools of thought.

1.1 Objective of study

The overall purpose of the study was to provide the European Commission with background material for its assessment of the relevance of Community policies for employment. The study should cast light on how different policy instruments are likely to function in relation to employment objectives, which could assist the European Commission in deciding which of these instruments shows the most potential and the kind of barriers to overcome with regard to employment. To this aim, eight policy areas were singled out for an assessment of the past contribution of each policy field to employment in the EU. These policy fields are:

- The potential of structural funds.
- The support for research and development and life-long learning
- Market liberalisation and integration
- Rural development
- Enterprise policy
- The influence of an overall sustainable development strategy on employment
- The role of inclusion and participation for competitiveness, growth and employment
- Transport and energy

The study is not to be regarded as an evaluation of the policies or programmes within each policy area. Rather, the outcome of the study is an analytical tool which may be employed by Commission services to provide ex ante a structured and systematic report on how particular policies, instruments and objectives are likely to influence employment with regard to job quality and number of jobs.

1.2 Approach

The selection of a suitable methodology had to take into account that the selected policy areas differ markedly in their nature and their delimitation. While some of the selected areas can be considered as policy domains, others are more accurately described as political priorities. Obviously, the policies and programmes within these areas influence employment in very different ways. Some of them (notably “the potential of the structural funds” and “rural development”) address employment directly as a policy objective, while the success criteria of other policies do relate to totally different objectives such as the provision of infrastructure or the enhancement of the open market. In addition, within each policy area is embedded a plethora of policies and programmes with more specific objectives and mechanisms of implementation.

At the onset of the study it was agreed that the aim of the study should not be to produce quantitative estimates of employment effects. Such estimates would be misleading for a number of reasons. *Firstly*, since the quantitative data needed for this type of exercise is only available to a very limited degree, quantitative estimates can only be made which requires rather strong assumptions. This would render them less useful and open for wide-ranging interpretation. *Secondly*, strong assumptions would also be required to distinguish between effects attributable to policies and those due to exogenous factors. *Finally*, disentangling effects of Community policies from effects due to national policies was seen as an insuperable obstacle in quantitative terms. It was therefore agreed that the study would aim at a more qualitative assessment of the employment effects that would enable the Commission to assess the relevance and future potential of the policy areas with regard to the volume of employment and with regard to affecting the quality of work.

The approach, which was finally adopted, and which is described in more detail below, is inspired by elements of theory-driven evaluation, which are combined with elements of micro-economic theory. Very briefly, the approach focuses on the mechanisms through which each policy can influence employment. For each policy area the relevant policy instruments are identified and it is investigated how these instruments can be expected to influence employment. Subsequently the validity of the assumptions made is verified against empirical findings reported in the literature and available statistical information.

1.3 Contents

This Final Report in connection with the study is structured as follows:

- Chapter 2 provides a more detailed overview of the analytical framework that has been the foundation for each of the policy area studies.
- Chapter 3 to 10 contains monographs for each of the eight policy areas. While the full version of the studies are presented in the Annex Report, the monographs gives a summary of each study with a main focus on the mechanisms through which each policy area influences employment. The level of aggregation differs between the eight areas, which is partly due to real differences between the individual areas with regard to e.g. the distance between policies and employment effects; partly because of specific requests made by Commission representatives in the course of the study; and partly because of the differences in scholarly disciplines between the individual authors, which leads to slight differences in approach within the overall analytical framework.
- Chapter 11 contains the overall conclusions of the study with regard to the applicability of the developed methodology and validation aspects related to this.

Appendix A presents the literature used in connection with study.

In addition to the assessment of past effects of the eight policy fields, a number of issues related to the possible future contributions of the Community policies have been investigated by the study in connection with a scenario workshop, taking as its point of departure the *Scenarios Europe 2010* prepared by the European Commission's former Forward Studies Unit. *Appendix B* presents some conclusions that can be drawn from this exercise. At this point it should be stressed that given its experimental character, the conclusions from this particular exercise should be treated with caution.

Appendix C explores some of the unintended consequences of Community action.

Appendix D contains a summary of the *Scenarios Europe 2010* used in connection with the scenario workshop.

An Annex Report contains the full versions of the eight policy area studies.

The views expressed in the study are those of the consortium and do not engage the responsibility of the European Commission.

2 Methodology

This chapter gives an account of the methodology that has been developed as a common analytical framework applicable to the assessment of employment potential for each of the eight policy areas. To this aim the framework should strike a balance between being sufficiently general and flexible to allow for application across policy areas that in terms of scope, instruments and objectives are very different and at the same time allow the results of the analyses to serve as an integrated analysis of Community policies.

The methodology outlined below should not be viewed as a full-blown theory with the ability to forecast employment effects of all community policies. Rather, it is a common theoretical approach to ensure that studies of different policy areas will utilise a number of common steps and will draw on a common methodology.

Below we firstly present the policy model, which is the study point of departure with regard to the connection between types of policy instruments, their influence on the labour sector, and the outcome variables for employment impacts. Secondly, the analytical framework is presented. This can be seen as the prescription for applying the policy model for an analysis of employment effects.

2.1 Policy model

The policy model contains three elements:

- Types of policy instruments
- A model for the functioning of the labour sector
- Outcome variables for job quality and number of jobs.

2.1.1 Types of policy instruments

The actual policy implementation within the eight policy areas differs considerably. Some policies are enacted mainly by spending “on the ground”, i.e. by fiscal measures, while others entail regulation. In order to establish whether the different nature of the policy instruments used are relevant to an assessment of employment potentials, the study distinguishes between three overarching types of policy instruments. These types of policy instruments are:

In order to establish the nature of the policy instruments used in different fields and assess their employment potentials, the study distinguishes between three overarching types of policy instruments. These are:

- Spending policies,
- Regulation policies, and
- Dialogue-based policies.

The main characteristics of the policy instruments are outlined in the table below.

Table 2-1 Policy instruments and their characteristics and the EU policy approach

Type of policy instrument	Description of policy instrument
<i>Spending policies</i>	Policies or programmes that are implemented (mainly) by direct transfer to Member States, regions, organisations or individuals of financial subsidies.
<i>Regulation policies</i>	Directives and other regulation by the European Union, which directly influence the latitude of national policies within a given field. Regulation policies should be understood in broad terms, which mean that for instance guidelines such as those of the European Employment Strategy can be understood as regulation, even though the guidelines might not be legally binding for the Member States.
<i>Dialogue-based policies</i>	Dialogue-based policies work mainly through a dialogue between the Commission and the individual Member State concerning the achievement of common objectives through national policies. Included in dialogue-based policies are initiatives such as benchmarking and diffusion of best practice and networks.

While most policy areas and their programmes can be said to include elements of all three types of policy instruments, the focus of the analysis of the policy areas is on the character of the main instruments used by each policy area.

2.1.2 The labour sector

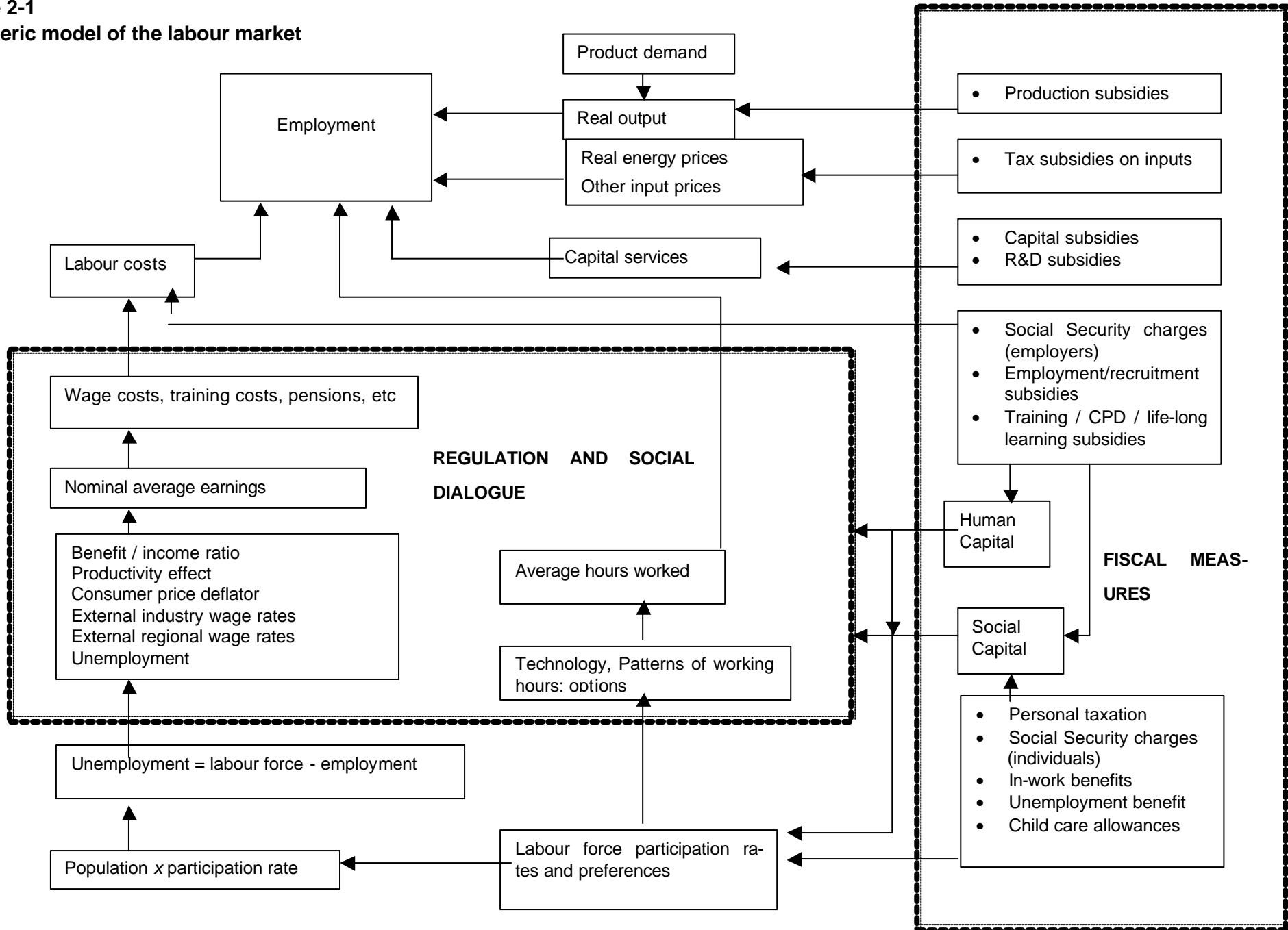
Obviously policies are not the only thing affecting employment. The figure below shows a 'generic' model of a labour market in which the main determinants of employment are identified. For present purposes, some variables, such as product demand and population, can be treated as exogenous with respect to the labour sector, though in practice there are always feedbacks of one kind or another. Policies influence employment through a plethora of mechanisms involving differences in complexity of the causal links involved and differences with regard to response time, scale, directness etc. For policies to affect employment they

must ultimately have an impact on certain key variables. Each policy area will have its own pathways to one or more of these variables.

Note that the term 'generic' model is used to reflect the fact that the model is designed to be reasonably compatible with a variety of theoretical views in economics that give primacy to different sets of causal links. It does not, for example, assume a neo-classical perspective *per se* just because, in the figure, wages and prices have a role to play in the determination of employment.

The figure shows two rather than three main areas relating to 'policy mechanisms' because the use of regulation and the promotion of dialogue are sometimes difficult to separate out in a flow chart of this kind.

Figure 2-1
A 'generic model of the labour market



Whilst recognising the complexity of the labour market and its relationship with the rest of the economy and society, the project has simplified the discussion of policy impacts by identifying the main employment drivers in this study.

The model of the labour sector and consequently the drivers constitute the point of departure for an understanding of the connection between policies and employment outcomes. They provide the overall framework within which the employment potential should be assessed.

Drivers for number of jobs

The following drivers for the impact on number of jobs can be extracted from the generic model are applied in the study:

- Market conditions
- Real wage cost
- Physical capital
- Technology
- Human capital
- Social capital
- Prices of goods and services

Physical capital is defined as machinery, computers, buildings and so forth, while *technology* is a characteristic of capital. Technological progress may for instance increase output per unit of capital or the productivity of capital. Changes in physical capital and technology have an impact on the demand for labour but the direction of their impact on employment depends on the type of capital and the type of labour.

Human capital results from experience and educational background. Experience and education can be general, or related specifically to the business sector and entrepreneurial activity concerned. In this sense, the number of years, as well as level and type, of education, including courses and languages, are part of the human capital (Mincer 1974).

Social capital consists of the set of social relations (social ties) surrounding the actor that can more or less be consciously mobilized when needed. The person's gender, age and family background are generally expected to influence the number and type of social ties. For example, a person with extensive business experience will have access to people with special know-how, while a graduating student is likely to lack such contacts (Campbell and Hefferman 1981).

Prices of goods and services required as inputs to the activity also have an impact on employment by changing unit costs and, depending on the pricing strategy, may affect demand and/or profits.

Employment drivers for job quality

Partly due to the lack of conceptual clarity concerning job quality, it is considerably more complicated to identify an exhaustive range of drivers for job quality. Drivers for job quality cannot be directly deducted from theory, as no clear standard or agreed definition of the concept exists, cf. below. However, the literature on job content and job quality gives different clues as to drivers, and the following range of drivers are applied, knowing that it can be disputed whether the drivers identified are the right ones and whether the range is exhaustive. The drivers are:

- Real wages and non-pay rewards
- Technology
- Human Capital
- Social Capital
- Attitude and reputation
- Industrial Relation System (IRS)

It appears that a majority of the proposed drivers for job quality are identical to the drivers for number of jobs identified above. The interpretation of these drivers – the mechanisms through which they affect job quality as opposed to numbers of jobs – does however differ.

Real wages and non-pay rewards increase motivation and thereby job satisfaction.

Technological progress can change the production process making work for instance less monotonous or less polluting, which influence the health and safety of the employees.

Investment in *human and social capital* through education and training can increase job opportunities, flexibility and job satisfaction. A higher skill level may also increase productivity in general resulting in economic growth and rising living standards.

Attitude and reputation has been included as drivers to describe the ethic and moral obligations modern enterprises have to fulfil due to public opinion on social responsibility. Enterprises may also use the quality of the jobs strategically in marketing and in efforts to attract qualified employees to the enterprise.

Industrial Relations System denotes the system that develops, and administers the rules of the labour market (Dunlop 1957). These rules can be legal (national labour legislation and EU regulations) or based on voluntary (collective) agreements between the social partners. Elements related to job quality that are negotiated within the IRS are for example working hours, flexibility and health insurance.

2.1.3 Outcome variables: Number of jobs and quality of jobs

The study addresses employment potentials as well as past effects of Community policies. As already established, employment impacts are not limited to changing the number of jobs, but will also include influencing the quality of work. Although the study does not aim at establishing estimates of effects based on quantitative indicators, it is none the less important that the dependent variables, i.e. number of jobs and quality of jobs, are accurately defined and established as well as generally accepted in order to allow for comparison with other Community studies, figures etc. To this end the study utilises definitions used in connection with the MEANS Programme as well as recent work by the European Commission in the area of quality of work (MEANS Collection 1999 & CEC 2001a, 2001b).

Number of jobs

Following the MEANS Programme (MEANS Collection Vol. 2), one can distinguish between employment effects as an *impact* and as a *result* of an intervention. In this respect *result* refers to an employment effect occurring as a direct consequence of an intervention, whereas *impact* refers to an effect occurring as an indirect consequence. Both employment as a *result* and employment as an *impact* will be part of what, in this study, are termed the employment effects of Community policies and will be grouped together when considering such effects. The reason for this is that the policy areas in question only rarely focus directly on employment. Instead, they often affect employment indirectly by impacting upon socio-economic drivers that promote employment in the course of addressing the primary policy objectives. In this report the terms *result* and *impact* will be used interchangeably to refer to employment effects as defined above.

Another distinction applied in the MEANS Programme is one between *job creation* and *job maintenance*, where job creation is defined as jobs created as a result or impact of an intervention and job maintenance is defined as jobs safeguarded as a result or impact of an intervention. While the distinction may be analytically clear at the micro level, the distinction is somewhat problematic at the meta and macro levels. The distinction will therefore not be generally applied, but instead upheld when deemed especially relevant.

Job quality

Job quality or quality of work life are concepts to which no one commonly accepted understanding is attached. However, two approaches to job quality seem to prevail. The first is the *organisational approach*, which looks at the presence (or absence) of specific prerequisites. In this understanding, organisational conditions and practices like promotion-from-within policies, democratic supervision, employee involvement, safe working conditions will produce job quality, and hence the degree to which these prerequisites are present may be taken to be an indicator of job quality.

On the other hand there is the *individual* approach. In this approach, job quality is only present if perceived as such by the individual employee, and hence indicators of job quality can only be obtained by asking each employee whether she or he feels safe, relatively well satisfied, and able to grow and develop. Consequently, in this understanding, quality of work life is an expression of the degree to which the full range of human needs is met at the workplace.

In many cases these two views merge: Workers who appreciate their place of work and the ways their jobs are structured will feel that their work fulfils them: In such cases, either way looking at one's quality of work life will lead to a common determination of whether a good quality of work exists. Employee's physical and mental well-being needs must be seen in relation to the surrounding around them, which is in a dynamic process of change. When people start a new job it is not enough that they have a lot of experiences and are well educated. Life-long learning orientation and training are the most important starting points in their career.

To sum up, job quality is a concept whose nature is relative and multidimensional, and it comes as no surprise that no standard or agreed definition of the concept can be found in the expert and academic literature. In order to provide a framework for analysis of quality in work, the main elements of job quality has been grouped under two broad dimensions inspired by a recent Communication from the Commission (CEC 2001b):¹

1. Inherent job characteristics
2. Contextual job characteristics

¹ As in COM (2001) 313 final: Employment and social policies: a framework for investing in quality.

Inherent job characteristics include elements directly related to the job such as working hours, job satisfaction, skills, training and job content. *Contextual job characteristics* on the other hand consist of elements related to the work and wider labour market conditions. This includes health and safety, work-life balance, flexibility, security and worker involvement.

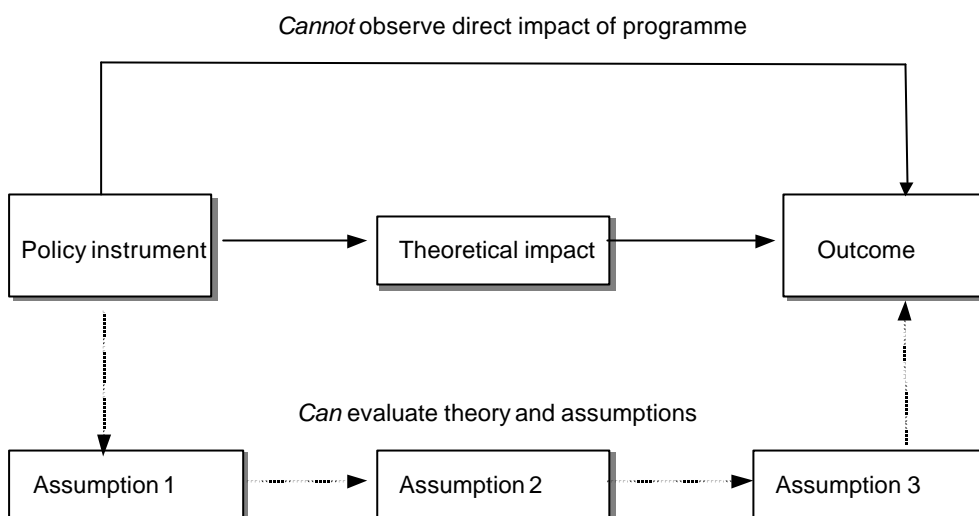
A recent report by the Employment Committee to the Council (CEC 2001a) has suggested 10 dimensions of job quality and in this connection 8 key indicators and 23 context indicators with the latter requiring further work before being applied. The 10 dimensions are: (1) Intrinsic job quality (i.e. pay level and type of contract); (2) Skills, life-long learning and career development; (3) Gender equality; (4) Health and safety at work; (5) Flexibility and security; (6) Inclusion and access to the labour market; (7) Work organisation and work-life balance; (8) Social dialogue and worker involvement; (9) Diversity and non-discrimination; and (10) Overall work performance (i.e. labour productivity). While the 10 overall dimensions correspond to the understanding of job quality applied during the course of this study, each dimension has been considered in a broader sense than that suggested by the indicators. The indicators suggested by the Employment Committee have thus been restricted by available statistics, whereas the methodological approach of this study has allowed for a wider application even though a statistical measure may not be available.

2.2 Analytical framework

The aim of the study has been to develop a model or an approach, which will allow for realistic assessment of employment potentials of community policies. As previously mentioned, the aim is not to deliver quantitative estimates of the employment effects of each individual policy or programme, but rather to give a more *qualitative assessment* of the employment potential and previous employment effects of Community policies. To this aim the analytical framework is inspired by theory-driven evaluation, which can be a useful tool when evaluating initiatives that are not well suited to statistical analysis of outcomes.

The underlying premise behind theory-driven evaluation is that even though we cannot observe and measure the direct impact of a given policy instrument or programme statistically, we can still reach conclusions about the effectiveness of the instrument (Shacter 2000). Theory-driven evaluation can be understood as a “theory of change” in that it focuses on the change processes that are assumed to flow from policy intervention (Weiss 1999). This implies that theory-driven evaluation theories are about the link between the programme and its outputs, or about *how* the programme produces those outputs (Scriven 1999).

Figure 2-2: The Application of Theory-driven Evaluation²



The important point here is that a conclusion can be reached even though we are not able to directly measure the final outcome of the policy instrument or to establish a clear causal link between the instrument and the outcome; a situation inherent in the present study considering the complexity, interrelatedness and scope of the 8 policy areas. This is illustrated in the figure above.

Following theory-driven evaluation the basic approach of the analytical framework is then to establish sets of *policy assumptions* or mechanisms through which each policy can influence employment developments for the eight policy fields and seek empirical validation for these assumptions rather than to attempt to measure the direct employment effects.

The analytical framework that has been utilised entails three steps:

- First: To establish underlying policy assumptions
- Second: To validate empirically these assumptions
- Third: To reach a balanced assessment of the employment effect.

2.2.1 Step one: Establishing policy assumptions

This first step focuses on uncovering the assumptions underlying the policies and programmes in each policy area with regard to their influence on employment. As mentioned above, such policy assumptions can also be termed *programme theory* and can also be lik-

² The figure is modified after Schacter (2000).

ened to the concept of *theory of action*, employed in the MEANS Programme (MEANS Collection Vol. 6). The term “Programme theory” however signals intent, as a theory is usually understood to come before the action. In the present study, however, some of the policy areas to be studied do not address themselves explicitly to employment or indeed to the enhancement of job quality in the Union. The programme theories describing their impact on number of jobs as well as on job quality will therefore necessarily have to be constructed by observing the way the policies and programmes impact upon the socio-economic system. What mechanisms are in play and in what way can they be thought to contribute to changes in the number of jobs and changes in job quality? Hence, rather than using the term programme theory, we prefer for the purposes of this study to use the term “assumptions”. At the same time, this term serves to underline that we are not dealing with firm theoretical predictions.

While several ways of identifying programme theory can be applied (Scriven 1999), the present study has primarily relied on various empirical and theoretical sources such as economic and political theory as well as policy and programming documents for the development of assumptions.

This process of developing sets of policy assumptions can also be described as developing a programme logic model – or picture – describing how the intervention is assumed to work (Kellogg Foundation 1998). In the context of the present study the logic model can be seen as linking the individual policy area with employment drivers, which subsequently can be expected to influence employment (changes in number of jobs and in job quality). The linking of the policy area with employment drivers and employment outcome can involve a different number of steps depending on the specific policy area, programme studies etc.

Flowcharts

The various sets of assumptions regarding the link between policy areas (or parts hereof), employment drivers and employment are subsequently summarised in a series of flowcharts that can be viewed as illustrations of the policy assumptions.

The functioning of such flowcharts is to highlight elements of causation and/or association together with those links about which the evidence available is most reliable. The charts will help making the sets of assumptions clear, both for the evaluator and for the reader and can further point to the potentially most important uncertainties about the evidence insofar as they affect judgements made about potential policy effects.

Expected outcome tables

The assumptions and mechanisms are summarised in what are termed 'expected outcome tables', which, by combining policy areas and types of intervention with employment drivers, present the main impacts on each employment driver expected for that particular policy area. Separate tables are provided for number of jobs and quality of jobs. The tables will serve to point out which particular drivers the policy area can be expected to influence and hence the way in which employment can be assumed to be affected by that policy area.

2.2.2 Step two: Empirical validation

The second step concerns an empirical validation of the policy assumptions to allow for an assessment of previous effects of Community policies in the area of employment.

Since one can expect that problems of measurement and causality in most cases will prove an insuperable obstacle with regard to tracking the direct links between instruments and effects the overall idea is to seek evidence for the unfolding of the policy assumptions outlined in step one, including the impact on employment drivers. This amassing of empirical evidence against the theoretical assumptions constitutes the basis for an identification of the general trend for each specific policy area and thus provides a basis for assessing whether and how employment has been affected. Following Weiss (1999) one can say that by tracking the micro-stages of effects as they evolve, one can by greater certainty claim that observed changes, i.e. employment effects, are due to the specific policies and not outside events.

Since it has been outside the scope of the present study to construct data collection methods and carry out empirical data collection on its own, the validations are based on data from previous studies, evaluations and analyses as well as available existing statistical data.

2.2.3 Step three: Reaching balanced assessment

The final step involves the reaching of a balanced assessment following the investigation of empirical evidence. This step balances the theoretical assumptions made against the available empirical evidence to reach conclusions on the impact of a given policy area. This step in other words more generally tries to assess the past contribution of each policy field to employment in the EU.

In those instances where empirical evidence is not available, this section should also indicate where further studies and/or data is needed.

The balanced assessment is closely related to the previous assumptions made and the amount and type of available empirical evidence. Since this varies across policy areas, it is not possible to give a more detailed account of this particular methodology.

3 Monograph on the Potential of Structural Funds. An assessment based on theoretical considerations and theoretical evidence

3.1 Introduction

The aim of the structural and cohesion policies is to reduce economic and social disparities. Through the structural funds the European Commission tries to improve the economic and employment situation for countries, regions, sectors and groups that are lagging behind. It is an explicit objective to enhance job opportunities and to increase the quality of employment. Therefore, there is a more direct relationship between this policy area and the employment situation than is the case with most other policy areas.

There are four structural funds:

1. The European Regional Development Fund (ERDF) assists those regions that are undergoing structural difficulties and are lagging behind in development.
2. The European Social Fund (ESF) is the tool through which the European Union (EU) put its employment strategy into action.
3. The European Agricultural Guidance and Guarantee Fund (EAGGF) provides assistance for the development and structural adjustment for the regions that are lagging behind in development by improving the efficiency of production, processing and marketing of agricultural and forestry products.
4. The Financial Instrument for Fisheries Guidance (FIFG) is a structural financial instrument to assist in the sustainable exploitation of the fisheries resources, improve competitiveness and develop viable enterprises in the sector.

In connection with ESF, the Commission has launched the so-called Community Initiative EQUAL. This programme supports the development and mainstreaming of new ideas in the same policy field as regular ESF.³

³ In the previous programming period separate initiatives existed for schemes aiming at the employed (ADAPT) and schemes aiming at the unemployed (EMPLOYMENT). EQUAL is replacing these former initiatives.

For each of the Funds the available budget is broken down according to types of regions with specific problems. In the programming period 2000 - 2006 there are three so-called Objectives⁴:

1. Objective 1 promotes the development and structural adjustment of regions whose development is lagging behind (whose average per capita GDP is below 75% of the European Union average). As was previously the case, two thirds of the Structural Fund operations come under objective 1. Almost 20 percent of the Union's total population should benefit from the measures taken under this objective.
2. Objective 2 contributes to the economic and social conversion of regions in structural difficulties other than those eligible for the new objective 1. It will cover areas undergoing economic change, declining rural areas, depressed areas dependent on fisheries and urban areas in difficulty. About 18 percent of the Union's population will be covered by this objective.
3. Objective 3 gathers together all the measures for human resource development outside the regions eligible for objective 1. Its starting point is the new title on employment introduced by the Amsterdam Treaty and the European Employment Strategy (EES), and it is the reference framework for the development of human resources throughout the Member State, notwithstanding regional specificities.

The structural funds support national and regional policies in the weakest regions and on national and regional labour markets. Member States and regions are primarily responsible for defining their priorities for development, but the co-financing of programmes by the EU requires that account be taken of Community priorities (European Commission, 1999a).

In this report we deal mainly with the ESF and the ERDF, and the Community Initiatives Employment and Adapt. The reason is that the ERDF and ESF are by far the two largest funds. Together they accounted for approximately 82 percent of the total funding available for the structural funds in the period 1994 - 1999. The initiatives Employment and Adapt (in the new programming period merged into the EQUAL initiative) are incorporated because of their special nature: the primary intention of these initiatives is to improve (the effectiveness of) mainstream policies. In terms of types of interventions they are closely related to the ESF programme.

In the paper we will not go into detail concerning the contents of the two funds dealt with. We give a brief description here. ERDF contributes for example to the financing of investment in

⁴ The new objective 1 is a combination of the former objectives 1 and 6 (period 1994 - 1999), objective 2 brings together the former objectives 2 and 5b and objective 3 carries over the former objectives 3 and 4.

the productive environment, in particular to increase competitiveness and sustainable investment by firms (especially SMEs) and to make regions more attractive, particularly by improving the standard of their infrastructure. Other kinds of investments that are eligible for ERDF are research and technological development, the development of information society, the development of tourism and cultural investment, the protection and improvement of the environment and the establishment of firms, infrastructure or services enabling the reconciliation of family and working life. Within the ESF many different types of measures are possible, but many of them concern guidance and counselling, training and the placement of job seekers. Within regions under objective 1 or 2, relatively more attention is paid to structure-oriented programmes, such as support for employment services and the development of (training or educational) systems.

3.2 Theoretical aspects and some basic empirical facts

If markets were perfect, disparities between countries, regions and social groups could still exist. Differences in natural resources, geographical position, and historical and cultural development might be among the factors explaining the differences. Also a possible source for these disparities are adjustment processes. Regions and even countries often specialise in specific economic activities. Owing to external factors these activities may become obsolete. The adjustment process involved may be costly and time-consuming. Last but not least market imperfections may cause disparities. Companies, for example, may be reluctant to invest in a certain country or region because of a high risk that the investment would prove loss giving. Some people may have few chances on the labour market because employers have low expectations of their productivity on the basis of group characteristics. All three factors, which can be closely intertwined, may be responsible for high unemployment.

How can the structural funds help to deal with the problems faced by countries and regions and social groups? Looking at the structural funds, we can observe that:

- 1) A considerable part of the funding is used to improve the infrastructure of poor countries and regions that lag behind in this respect;
- 2) Also a considerable part is used to help poor regions with obsolete industries and/or a weak economic structure to adjust their economic structure;
- 3) The support for the wealthier countries is concentrated on the problems faced by specific groups on the labour market, that is: the unemployed and workers in risk of becoming unemployed.

Generally spoken one can say that for the poorer countries and regions the emphasis is on strengthening infrastructure and industrial structure (mainly through ERDF) in order to pro-

mote job and income growth. For the richer countries this type of support may be relevant for some of their regions, but the programmes in these countries concentrate more on supporting labour market measures for vulnerable groups with a national scope (through ESF). In relative terms the support for richer countries is less than for poorer countries. Therefore, one would be inclined to think that the structural funds redistribute funds available for employment policies in favour of poor countries, poor regions and disadvantaged groups. For the poorer countries and regions the emphasis will be more on enhancing income and job growth in general, while richer countries will concentrate more on dealing with disadvantaged groups.

The foregoing reflects the intentions of the structural funds. However, how are the real impacts? For several reasons the real impacts may differ from the expected ones. First of all policies may simply not have the expected effects. There are several possible reasons:

- a) Deadweight. If an unemployed person finds a job after having followed a training course, he might also have found a job without the training. Even if the person had problems in finding a job before attending the training course, the job may be a result of an improvement in the general labour market conditions. In that case the phrase 'windfall' is sometimes used.
- b) Substitution and displacement (of workers or jobs). Substitution occurs when a worker finds a job through a government programme, a wage subsidy scheme, for example, but it does not increase the employment level of the firm concerned.
- c) The implementation costs. Even when the results are positive, they could be insignificant compared to the implementation costs involved.
- d) The opportunity costs. The funds could have been spent in an alternative way. Or, alternatively, they might have been used to cut tax rates. Therefore, even when the structural funds programmes have, after taken implementation costs into account, a positive impact on employment, it might still be the case that alternative ways of spending the money would have better effects.

However, there can also be macroeconomic mechanisms through which the structural funds programmes can (indirectly) have positive effects. In case of the ESF one can particularly think of the following mechanism.⁵ Suppose, that the ESF-programme subsidises projects that succeed in job placement of individuals such as those with extremely long unemployment duration that were not effectively part of the labour market process anymore. The programme would then, in other words, make more people employable. Through at least two mechanisms this could enhance the employment level. Firstly, a higher effective labour sup-

⁵ For the macro-economic aspects of active labour market policy we refer to: Layard, Nickell and Jackman (1991) and Bellmann and Jackman (1996).

ply means that more people are competing for the available jobs, which would have a downward effect on wage development. The latter can be expected to have a positive effect on employment. Secondly, a higher effective labour supply makes it easier to fill the existing vacancies (including the latent ones).

From a theoretical point of view it is also possible that the structural funds programmes have a positive effect on the quality of employment. The subsidies for investment in physical and human capital may act as an example. Supposing, that these subsidies lead to a shift to more capital-intensive production, this development may also induce a development from poor quality to high quality labour.

Previously, we have mentioned substitution as a possible side effect in case of re-employment programmes for the unemployed. However, substitution may also occur as a result of investment subsidies for specific countries and regions. The latter regions and country may benefit from the subsidies, but possibly at the cost of other regions and countries. However, even when economic activity and employment are left unchanged at the level of the European Union as a whole, the structural funds programmes could still lead to a redistribution of employment and economic activity in favour of the poor regions and countries. Probably, this would still be considered a positive outcome.

However, there is even a third type of substitution effect. Faced with the possibility of subsidies through the structural funds, countries and regions may decide to reduce their own spending on similar or other programmes. Therefore, the total spending may not change. This mechanism could be particularly relevant for the richer countries.

Therefore, the structural funds are cost-effective only under specific conditions:

- More money is spent on programmes that are good for employment;
- Most money is spent on the poorer countries and regions, and as far as the richer countries receive support they spend it on the more vulnerable groups on the labour market;
- These programmes have a net effect on employment and income, after taking care of deadweight, substitution, displacement and other indirect effects.

On the basis of administrative data we can conclude that for the 1994-1999 programming period ESF-expenditure per head in the poorer countries was roughly twice as much as in the richer countries. However, still more than 60 per cent of the total budget was spent in the wealthier countries. One could argue, however, that in the latter countries most of the money has benefited the poorer regions. Italy (with its poor Southern part) and Germany (with its

poor Eastern part) also had a considerable part of the budget. At the same time evaluation studies have shown that the share of disadvantaged groups in the total number of participants is not that high compared to the structure of the target groups and that of the participant groups of national policies. Therefore, our conclusion is that although – in terms of spending – ESF seems to have a re-distributive effect, but it could have been better in terms of targeting disadvantaged groups within national contexts.

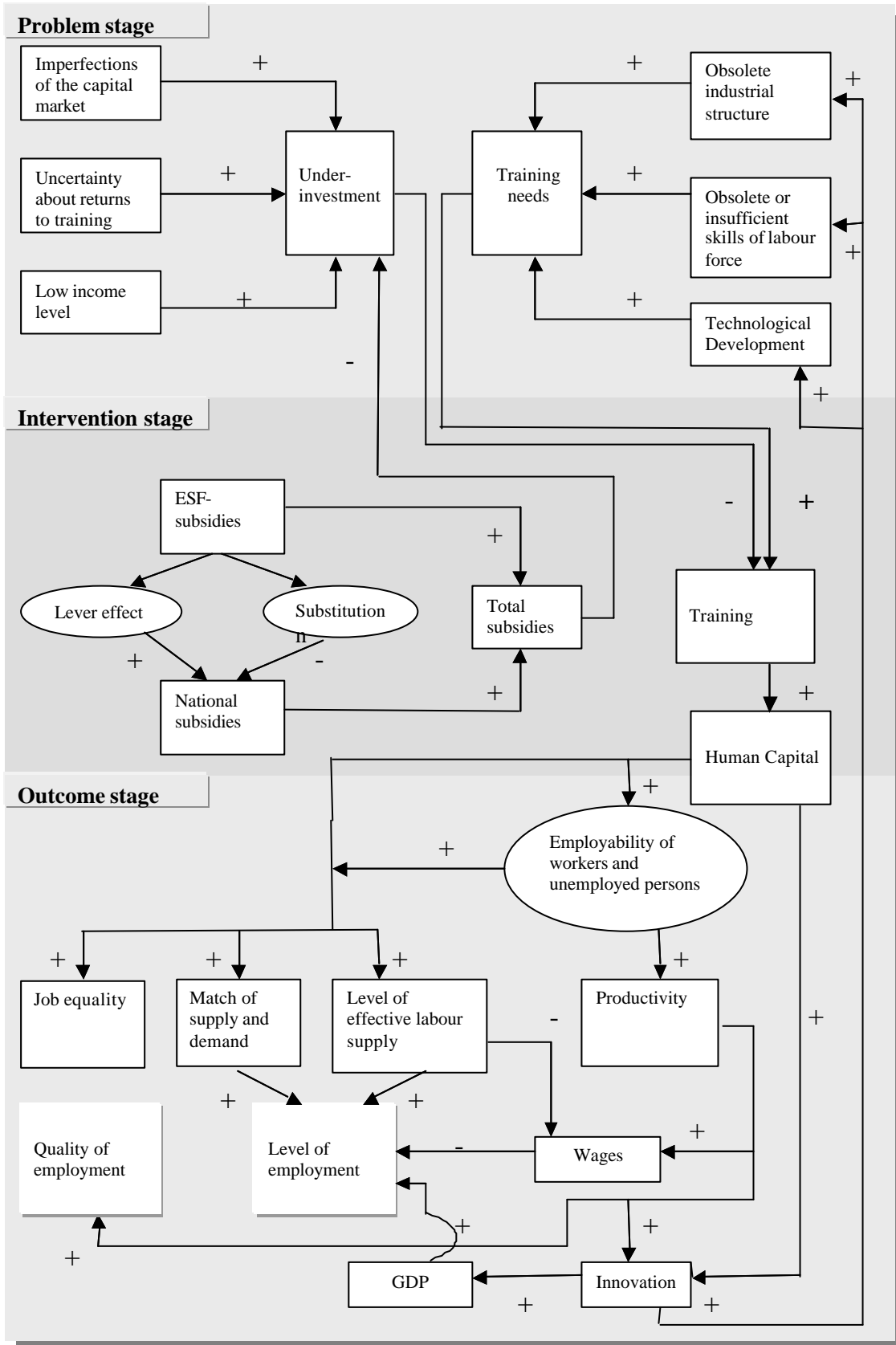
When we look at ERDF the emphasis on the poorer countries is even more visible. More than half of the total ERDF budget was spent on the four countries with the lowest GDP per head. Furthermore, a quarter was spent on Italy (mainly the southern, poorer regions) and Germany (mostly the 'Länder' that used to form the DDR).

3.3 Construction of flowcharts

The relationship between the structural funds on the one hand and economic and labour market outcomes on the other hand is a complex one. With the help of flowchart we try to make the most important theoretical relationships visible. We stress that the flowcharts contain relationships that are more or less plausible from a theoretical point of view. On the basis of the charts we may get a clearer picture of the mechanisms through which the structural funds could possibly affect employment. However, that does not automatically imply that the funds are effective in practice. In section 5 we deal with the latter point.

In figure 3-1 the flowchart for training subsidies is given. According to the figure training needs are higher in case of an obsolete industrial structure, in case of obsolete or insufficient skills of the labour force and in case of a faster pace of technological development. Owing to imperfections of the training market, training needs will only be partially fulfilled. Therefore, actual training volume will be lower than training needs. Or put differently: training demand exceeds training supply. Possible causes of market failure are imperfections of the capital market, uncertainty about the training returns and poverty. Poverty implies that individual workers and unemployed persons, firms and government organisations lack the means for funding training. Training subsidies through the ESF could then help to reduce the under-investment in training and bring the actual training volume closer to the level that is optimal from a social and an economic point of view. However, we must keep in mind that countries and regions often have their own training programmes. National and local governments may be inclined to spend a smaller share of their own budget on training when they can get ESF subsidies. This kind of substitution is more likely to happen in richer than in poorer regions and countries. One would also expect under-investment in training to be higher in the latter regions and countries.

Figure 3-1 Flowchart for training subsidies



As far as ESF subsidies succeed in increasing the training volume in a region or a country, several positive effects may come out of this. To start with, training may enhance the employability of both workers and unemployed persons. Owing to this the obsolescence of workers can be prevented or, when obsolescence cannot be avoided, obsolete workers can be trained in new skills for which there is a demand. The result may be that fewer workers become unemployed. In case of unemployed workers, training may help their reintegration into the production process. However, does this lead to an increase in total employment, or just to a redistribution of available job opportunities? There are at least two mechanisms through which a positive effect on total employment may occur:

1. When the employability of the labour force as a whole is enhanced, more people will compete for the existing jobs, having a downward pressure on wages, which would have a positive impact on labour demand;
2. An improved employability of the workforce implies a better qualitative match between labour demand and labour supply.

Training may have a positive effect on productivity, which may in turn lead to higher wages and a higher job quality. This upward effect on wages may partly or wholly compensate the supply effect on wages. Depending on the size of this effect, the overall effect on the employment level may be positive, neutral or negative. It should be noted, however, that higher wages might also stimulate technological development, which will increase economic growth. In the long run, then, higher wage and productivity growth could have a positive rather than a negative effect on employment.

The employment effects can be closely intertwined with the effects on industrial structure and technological development. This will particularly be the case when training subsidies go hand in hand with subsidies for economic development through the ERDF.

When training subsidies are mainly allocated to the more disadvantaged groups among the workers and the unemployed, these groups may improve their relative position compared to other groups. Even when the effect on total employment is small, the result could be that inequality is reduced.

Some of these effects (the effect on the match between supply and demand, for example) may occur on short-term, while other effects (such as the wage effect on employment) may take more time. Owing to the fact that so many factors interact, and we do not know much about the dynamics of the system, it is very difficult to become more concrete about the time lags involved.

The background paper contains also flowcharts for wage subsidies and job counselling. Although the general structure of these charts is similar to the one for training, there are also a number of important differences. Wage-subsidy schemes, contrary to training, often aim at direct job creation. Furthermore, while training tends to increase productivity, wage-subsidies may stimulate a tendency towards low-skilled low-productivity and low-quality labour. Although perhaps positive for employment on short term, a slow-down of productivity development may have negative effects on employment on long term. In case of job counselling the focus is on increasing the efficiency and the equity of the job matching process.

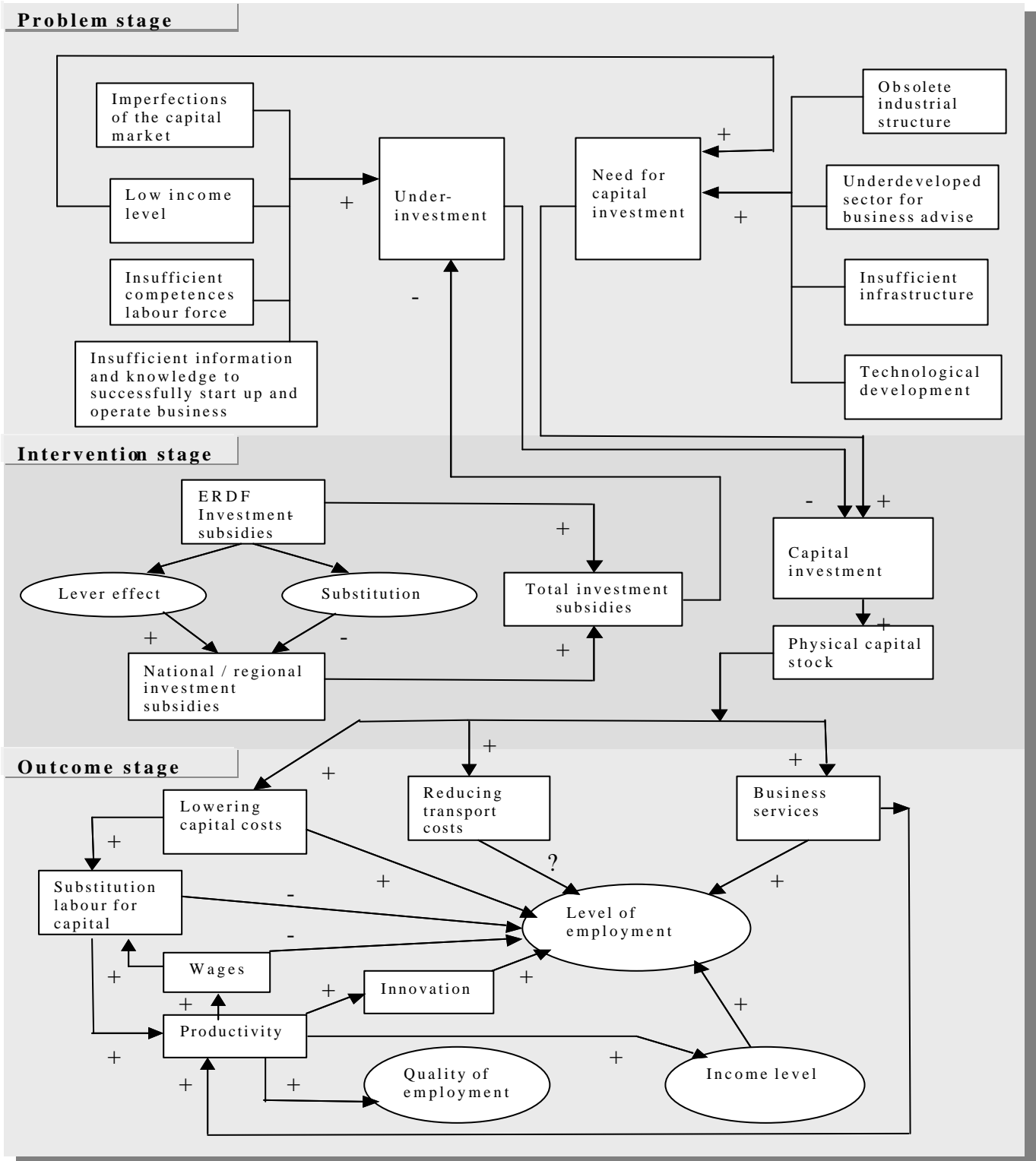
Below the flowchart is given for subsidies in the field of investment in infrastructure (figure 3.2). An obsolete industrial structure, insufficient infrastructure, an underdeveloped sector for business advise, technological development and income level are the most important determinants of the demand for such investment. The main reasons for providing investment subsidies are:

- Imperfections of the capital market;
- A low income level making it difficult to finance investment from current income;
- Insufficient competences of the labour force;
- Insufficient information and knowledge to start up and successfully operate businesses, particularly small and medium sized businesses.

The last two points may also be partly due to imperfections of the capital market, implying under-investment in training.

The subsidies through the ERDF may partly substitute national or regional subsidies. As far as total investment is increased, the employment level is affected through several mechanisms. Lower capital costs have two opposite effects on employment. Firstly, an increase in the capital stock will have a positive effect on production and therefore also on employment. As far as a higher capital intensity goes hand in hand with more innovation, there may also be a positive effect on the long-term growth rate. In the long run the level of employment will also benefit from such a higher growth rate. Secondly, however, lower capital costs will induce substitution of labour for capital, which has a negative effect on employment. A priori the total effect is unclear, particularly on short-term.

Figure 3-2 Flowchart for ERDF subsidies



Investment in transport infrastructure leads to lower transport costs, which may have positive effects on economic activity and employment. However, it also makes mobility of labour from

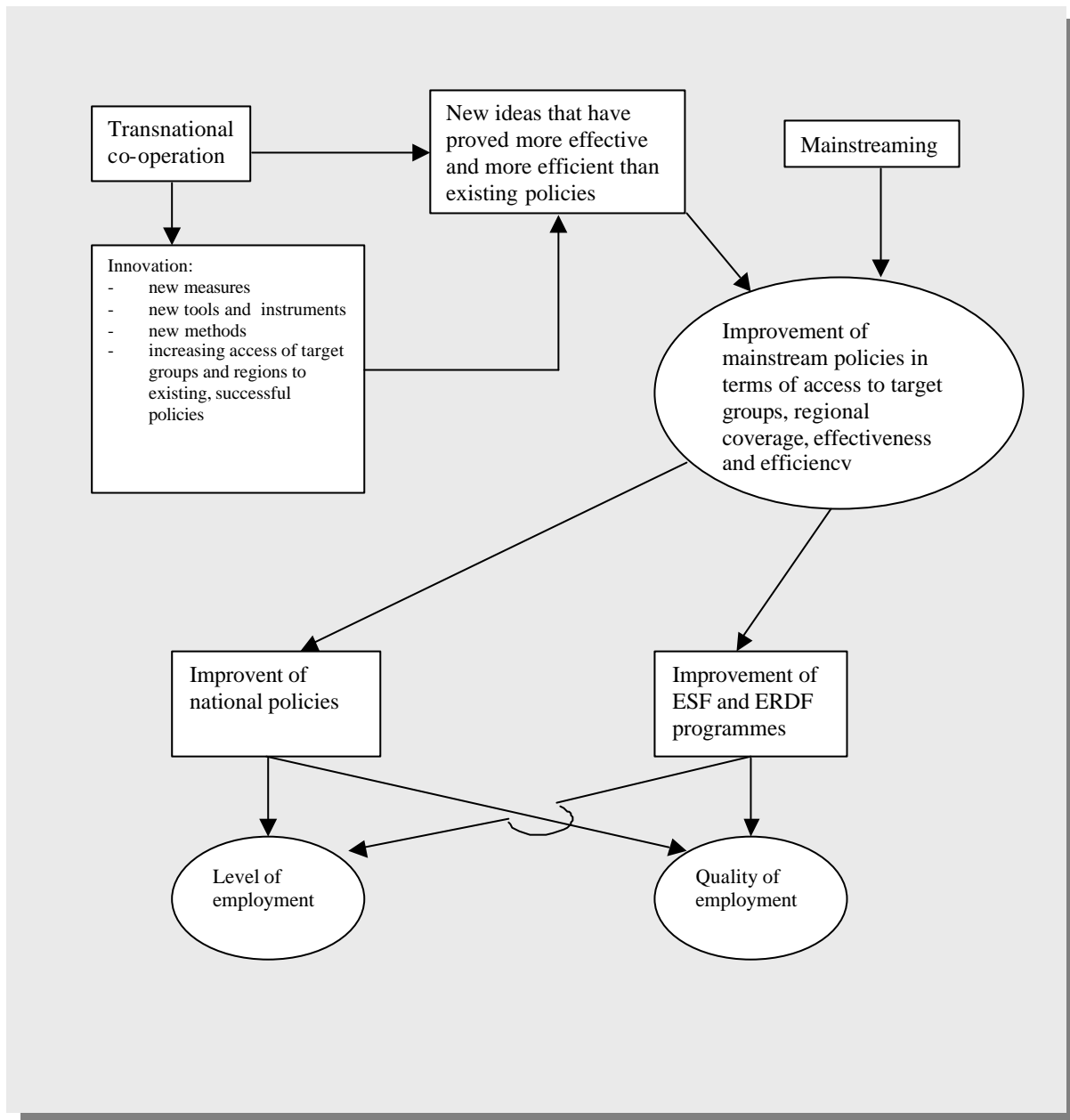
poorer to richer regions less costly and transport of goods from richer to poorer regions less costly. Therefore, we have put a question mark in Figure 3-2 concerning the relationship between investment in infrastructure and employment. Positive effects can be expected from a more developed business advice sector.

Finally, Figure 3-3 gives a flowchart for the Community Initiatives. In the 1994-1999 period two such initiatives existed: Employment and Adapt. Employment mainly dealt with active policies aiming at re-employing jobless people, while Adapt dealt with company training. Both initiatives tried to stimulate innovative policies, measures and instruments that, after having proved successful, could be incorporated in mainstream policies. The latter could in such a way be made more effective and efficient. In the current programming period Employment and Adapt have been merged into one new programme: Equal.

Figure 3.3 assumes that successful innovations are mainstreamed and therefore lead to improvements in mainstream policies. Then, both through national policies and through the structural funds programmes this may have positive effects on both the level and the quality of employment. The mechanisms that are relevant for the latter to hold are described in the previous graphs. Therefore, the possible impact of the Community Initiatives on employment is very indirect and many assumptions must hold to transform the possible impacts into real ones.

Transnational co-operation between the projects that are financed under the Community Initiatives is a corner stone of the latter. This form of co-operation is supposed to stimulate both the innovation process and the mainstreaming process. This is reflected in figure 3.3.

Figure 3-3 Flowchart for Community initiatives



3.4 Expected outcome tables

On the basis of the previous section we fill in the so-called expected outcome tables for ESF, ERDF and the initiatives Employment and Adapt. The outcomes refer to job creation and job maintenance and for job quality. Because the reasoning behind these tables was already given in the previous section, we only clarify some points short.

Job quantity (creation and maintenance)

The most important effects of ESF training subsidies run through an improved employability with its effects on the effective labour supply, the match on the labour market and productivity (figure 3.1). The effect on productivity is assumed to be positive; this will increase wages and decrease employment if the wage increase exceeds the increase in marginal productivity of labour. Another possible effect on employment comes from the increased speed of technological development as a result of a better-trained work force, and the upward effect on wages. Although a higher speed of technological development may have a negative impact on the employment level on short term, it is likely to have a positive effect on economic growth, which will eventually lead to higher employment. In principal the expected effects are the same for new and maintained jobs. The question to start with however is whether ESF subsidies change the behaviour of relevant actors and increase the volume of training, in total or for particular disadvantaged groups. We have to take into account that ESF subsidies also might increase the quality of the training.

In the background paper similar tables have been made for wage-subsidies and job counselling.

Table 3-1 Expected outcome table ESF training subsidies for job creation and job maintenance

Policy area Structural Funds	Spending		Regulation	Dialogue based
	Job creation	Job maintenance		
Market Conditions	Substitute for imperfect capital market, more training and more jobs; A better match of supply and demand on LM; employment increases.			
Real wage costs	Effective labour supply may grow, which reduces real wages			
Technology	Both employability and speed of technological development increase, which increases productivity and decreases employment on short-term, but probably increase the number of jobs on long-term			
Physical capital				
Human capital	Increased employability, better match and more effective labour supply. But: does ESF have effect on behaviour and training volume?			
Social capital	Training might improve social network.			

In case of ERDF crucial questions are (see figure 3.2):

1. The element of additionality (does ERDF lead to more investments in infrastructure, market development, et cetera?).

2. The direction of the total effect on employment of the lower costs of capital.
3. The direction of the effect on regional employment of lower transport costs.

The background paper also contains an expected outcome table for the Community initiatives, but it is almost empty. This is because both Employment and Adapt try to stimulate innovative policies, measures and instruments that after having proved successful could be taken up by mainstream policies. The design and implementation could be seen as a kind of policy-technology. The transnational co-operation in the initiatives may through the social network lead to more effective policies.

Table 3-2 Expected outcome table: ERDF subsidies (infrastructure, market development, etc.) for job creation and job maintenance

Policy area Structural Funds	Spending		Regulation	Dialogue based
	<i>Job creation</i>	<i>Job maintenance</i>		
Market Con- ditions	Solution for capital market imperfections (SMEs cannot easily acquire capital; insufficient information and knowledge to start up and operate businesses)			
Real wage costs / capi- tal costs	Lower costs for capital with positive effect on production and employment; substitution of labour with negative effect on employment. Direction of total effect is not clear.			
Technology	Better take-up of technological development, with positive effects on productivity, innovation and employment			
Physical ca- pital	Better infrastructure lowering transport cost with no clear influence on employment (in regions)			
Human capi- tal				
Social capital	Better access to business services, with positive effect on productivity, innovation and employment			

Job quality

The aspect of job quality is incorporated in the flowcharts in section 3. Here we present only the expected outcome tables dealing with job quality for ESF-training and ERDF. The background paper contains a similar table for wage subsidies.

Table 33 shows that ESF training subsidies might have a positive effect on job quality, through technological development and improved productivity. Wage subsidies, on the other hand may result in lower quality jobs, and to an industrial structure, which is less innovative (see the background paper). We have seen more equal job opportunities also as an aspect

of (job) quality. In case of job counselling there seems to be no direct relationship with job quality.

Table 3-3 Expected outcome table for ESF training subsidies for job quality

Policy area Structural Funds	Spending	
	<i>Internal characteristics</i>	<i>External characteristics</i>
Real wage costs		
Technology	Improved employability → technological development → higher productivity → higher wages and higher job quality	
Physical capital		
Human capital	Employability → higher productivity → higher wages → improved job quality	
Social capital		
Attitude and reputation		
Industrial Relation System		Employment effects can be closely related with effects on industrial structure and technological development (especially when there are also subsidies for economic development)

In the case of ERDF lower capital costs, better access to business services and a higher speed of technological development are expected to result in higher job quality (see figure 3-2).

Table 3-4 Expected outcome table for ERDF for job quality

Policy area Structural Funds	Spending	
	<i>Internal characteristics</i>	<i>External characteristics</i>
Real wage costs / capital costs	Lower capital costs → substitution of labour for capital → higher productivity → higher job quality	
Technology	Higher speed of technological development → higher productivity → higher quality of employment	
Physical capital		
Human capital		
Social capital	Better access to business services → higher productivity → higher job quality	
Attitude and reputation		
Industrial Relation System		

3.5 Validation of assumptions

In the previous sections we have discussed under which assumptions the structural funds may have an impact on the level and the quality of employment. However, to what extent are these assumptions valid? In section we base our validation on two sources:

- Previous evaluation studies;
- Aggregate statistical analyses

The background paper contains a more detailed literature review as well as a detailed description of the statistical analyses.

3.5.1 Previous evaluation studies

With respect to the structural funds only few evaluation studies dealing with the national SF programmes use the type of methodology that enables one to draw conclusions on the net effects of the programmes on job entry rates, employment and other relevant outcome variables. However, for the most part the types of interventions that are subsidized through SF seem very similar to national policies in the field of training, infrastructure and activation of the unemployed. Therefore, the results of the general evaluation literature dealing with training, investment in infrastructure and active labour market policies may also throw light on the results of the SF interventions. Therefore, the literature review includes both specific SF evaluations as well as more general evaluation studies.

Regarding subsidies for training of workers the following conclusion emerges. In the general literature high returns to company training have been found. Furthermore, there is evidence of under-investment in training for specific types of firms (SME's, for example) and workers (older workers, for example). However, on the basis of evaluations of subsidy schemes for company training there is considerable doubt as to the impact of these schemes on total investment in company training. The main reason seems to be that although these schemes officially aim at reaching specific target groups, the shares of these target groups in the participant groups are often disappointing.

Evaluation of active labour market policies is widespread. The general conclusion from the literature seems to be that the overall impact of ALMP on employment is relatively small. The results seem to be better for specific disadvantaged groups. However, given the fact that the participant groups in ALMP often contain a high share of people with a relatively high profile in the labour market, the overall net effect is small. On the basis of the available ESF evaluation studies, it is likely that this conclusion also holds for the ESF interventions. Targeting in the ESF programmes is not 'sharper' than in the national programmes. Given the different

types of interventions (training, wage-subsidies and job counselling) it is difficult to say which one is most effective. There is considerable variation in outcomes among different studies. Some years ago training was generally considered to be the most effective form of ALMP, but nowadays job counselling has replaced training in this respect. However, the evidence is weak. Perhaps surprisingly, wage-subsidy schemes perform relatively well. This is also true for some of the specific ESF evaluations. A drawback of the latter scheme might be that, although it may offer subsidized employment for people that would otherwise had virtually no job chances, it could hamper the transition to regular jobs for others. Although impacts may well depend on design features and implementation strategies, this is something we know very little of.

The point about targeting applies mainly to the richer countries. In the poorer countries the ESF programmes seems to be closely related to the ERDF programmes for economic development. It is more likely that in the latter cases interventions such as training subsidies have an added value. There is evidence from a number of sources that the ERDF programmes have contributed to economic development and employment growth in the poorer countries. This applies to the results of investment subsidies for public infrastructure, private investment and support of business services for SME's. The available information also seems to point at considerable variation in the outcomes of the ERDF programmes between the poorer countries. Whether this is due to the type of interventions (focusing on intangible capital or on physical capital, for example) or to the quality of implementation is difficult to say.

Aggregate cross-country and cross-regional analyses based on existing statistical data

For three periods data was available on SF expenditure, employment as well as other economic and labour market indicators on the country level. Pooling the data, offered the opportunity to assess the impact of SF expenditure (per capita or as a percentage of GDP) on employment growth, using the so-called fixed-effects method by which one can account for unobserved country-specific factors. In principle, the regional level is more appropriate for such an analysis in view of the huge regional variation in SF support. However, regional data was only available for one programming period (1994-1999). Therefore, the regional analysis was a purely cross-sectional analysis. Such an analysis does not allow correction for unobserved region-specific factors, which makes it less reliable.

The cross-country analysis does not give support for the proposition that the structural funds programmes have a positive effect on employment growth. The regional analyses produced mixed results. On the NUTS II level a (weakly) significant effects was found, but on the NUTS III level not.

Given the limitations of the regression models and the data not too much value can be attached to the results. However, it is possible to improve the database and to estimate better models. Therefore, we see our model analysis as a first step in developing a tool that might become extremely useful in assessing the impacts of the structural funds in the future. Potentially, it can be a valuable addition to specific evaluations of sub-programmes using micro data.

3.6 Conclusions

In this paper we have analysed the employment effects of the Structural Funds (SF's). We have focused on the European Social Fund (ESF) and the European Regional Development Fund (ERDF), which take account of most part of the funding. Furthermore, some attention has been paid to the Community Initiatives (CI's) ADAPT and EMPLOYMENT. The types of projects funded by the latter programmes correspond with the ESF programmes in term of content. However, the purpose of the CI's was to develop innovations in ALMP and training and to incorporate them, after they had proved successful, in mainstream policies. Therefore, the CI's are meant to have an indirect effect on employment.

The first step in the analysis has been to show how the SF's and the CI's may affect employment theoretically. Market failure is seen as the key justification for the type of measures that are funded under the structural fund programmes. Owing to imperfections of the capital market, for example, poor countries may not be able to attract sufficient capital flows for capital investment. Furthermore, they make lack the funding for investment in infrastructure and social and labour market policies. In principle, this is a justification for some kind of redistribution programme within the Union. One would expect a re-distributive effect of such a programme in the first place. It is not impossible, however, that there are also positive effects on output and employment on the level of the Union as a whole. This is the case when the growth potential of the poorer countries is higher than of the richer countries. The fact that there is a theoretical justification for the type of policies funded under the structural funds does not necessarily imply, however, that the interventions are effective in practice. Crowding-out and substitution effects may partly or wholly neutralise the envisaged effects.

Using the same type of reasoning, similar public support can also be defended for poorer regions (and regions having to deal with far-reaching adjustment process) and for disadvantaged groups in richer countries. However, the question is why European funding is needed in those cases, as we are dealing with relatively rich countries in those cases. It is possible, then, that in those countries European funding may not add to the national funding in the policy fields under consideration. However, it is very difficult to assess the extent to which coun-

tries have substituted national funding for European funding with respect to the types of policies under consideration here. We must take into account that even the richer countries can be faced with problems on a scale that makes it difficult to cope with it using only national resources.

It is possible and even likely that the impacts of interventions such as the ones co-financed through the structural funds depend on the specific socio-economic context in a country or even a region. Firstly, impacts may vary according to the labour market situation. Evidently, the effects of activating measures will be different in a labour market that is characterised by few vacancies compared to the number of unemployed job seekers than in a labour market with many vacancies and relatively low unemployment. But also variation in institutional settings may produce different outcomes of the same policies in different countries or regions.

Targeting seems to be crucial when it comes to the effectiveness of the structural funds. Therefore, the second step in the analysis has been to see how the money was spent. Clearly, poorer countries and regions receive more support than richer countries and regions. However, still a considerable amount of money is spent for national purposes in richer countries. On the basis of the available evidence, we conclude that only a relatively small part of this part of the funding is spent on disadvantaged groups. This increases the doubt concerning the effectiveness of the SF programmes for the richer countries.

The third step in the analysis was to look at the available evaluation literature. The interventions that are supported through the structural funds are often similar to national and regional policies. Therefore, the outcomes of the general evaluation literature may be relevant when we are assessing the impacts of the structural funds. This is an important source of information as specific ESF and ERDF evaluations that attempt to measure the impacts of these programmes using scientific methods are relatively scarce.

The ESF programmes largely consist of training and ALMP measures. ALMP evaluation research covers many measures in a variety of countries. On the whole, the evaluation literature points at a relatively small overall impact of ALMP. The net effect of ALMP on job entry chances is probably considerably higher for specific disadvantaged groups. However, since these groups have only a relatively small share in the total number of ALMP participants, the overall effect is small. On the basis of the available information on participant characteristics and net effects, we tend to conclude that the same conclusions hold for the ESF programmes. However, these programmes may accomplish more than simply redistributing employment in favour of the disadvantaged. As far as the interventions give access to the labour market for individuals that were virtually without job chances before, aggregate employment

may be enhanced. It implies that more people than before are employable and compete for the available jobs. Owing to this increase in the size of effective labour supply, it becomes easier to fill the existing vacancies, both the registered and the latent ones. Furthermore, a higher labour supply compared to labour demand will slow down wage increases and thereby stimulate employment. The result could be that both aggregate labour supply and employment increase. Unemployment will normally not diminish to the same degree as employment is increasing.

From the literature on training we know that the economic and social returns of education and particularly of training are often high. However, at the same time there is no evidence of a high under-investment in company training. Only for some specific types of companies (SME's, specific sectors) and groups of workers (the unskilled, the elderly, etc.) is a considerable under-investment plausible. That is probably why general subsidy schemes for company training do not seem to be extremely successful in stimulating the volume of company training. Here too, a better targeting would probably have contributed to a higher added value of the ESF programmes. Perhaps the case for training subsidies is most convincing for poorer countries, in which both the public and the private sector lack the financial means and the infrastructure to develop a national training programme without outside support.

A special form of investment in intangible capital consists of measures supporting business services that improve the quality of management and entrepreneurship, particularly in small and medium sized business. This type of services can contribute to more people starting a new business and to the sustainability and growth of these new companies. Survey results indicate that the ERDF-supported measures in this field have indeed lead to more employment. Given the subjective character of the methods used to assess the employment effects of these interventions, it is difficult to draw conclusions on the size of these effects.

There is evidence that both public and private investment programmes in physical capital under the ERDF framework have contributed to both income and employment growth. In those cases where public transport and road infrastructure is on a relatively low level, it can be a bottleneck for economic development. When countries are unable to finance the necessary investment from public or private sources, European funding can be useful. This is also true in case of under-investment in machinery. Although, there is evidence of positive effects of the ERDF programmes, at the same time considerable crowding out effects may have occurred. Furthermore, even among the poorer countries the impacts of the programmes may have varied quite strongly owing to variation in the design of the programmes and the quality of the implementation strategies. However, although design and implementation are likely to

be important explanatory factors for the success and failure of policy programmes, we know very little about them. This is certainly true for the ERDF (and the ESF) programmes.

The fourth and final step in the analysis consisted of the estimation of a number of regression models in which we tried to explain employment growth on the aggregate level from a set of explanatory factors including the relative level of SF expenditure. The hypothesis to be tested was that a higher level of SF expenditure leads to higher employment growth. On the whole not much support was found for this hypothesis. However, we consider this analysis as a first attempt to assess the aggregate impact of the SF programmes. Times series were only available on the national level, while the regional level seems to be more appropriate. At this level results were rather promising. In principle, it must be possible to construct a regional data set with time series of the most important variables such as employment growth and programme expenditure, covering more than one programming period. Perhaps, it is worthwhile to include this type of analyses in future ex-post ESF and ERDF evaluations on the European level. Then, additional efforts in constructing an appropriate data set would be needed.

Considering the available evidence, it is difficult to say how many jobs have been created as a result of the SF's. Even a rough estimate is difficult to give. Probably, the SF programmes have had at least some positive effect on employment growth in the poorer countries. The size of this effect may differ considerably among individual countries depending on the design features of the programmes and the implementation strategies used. For the richer countries there is more uncertainty about the employment effects. The nationally oriented ESF programmes, for example, do not particularly focus on disadvantaged groups in practice, which casts doubt on their overall net impact on job entry rates. So far, we have concentrated on the SF's impact on the level of employment. It is even more difficult to say something about the impact on the quality of employment. In so far as the programmes lead to a more capital-intensive structure of the economy, one might expect a positive effect on the quality of labour. This is particularly so in the case of intangible (human and social) capital. However, although a substantial part of the SF programmes deals with training, we do not know to what degree the knowledge economy is enhanced by it. It would be important to develop a regional database that can be used to analyse the impact of the programmes on a set of relevant indicators. As was said before, the aggregate impact analysis that was presented in this paper can be seen as a first attempt to do so. However, in this analysis, the impact on *employment growth* was dealt more extensively than the impact on the *quality of employment*. A more balanced picture can only be obtained by taking into account more target indicators such as the share of long-term unemployment, as well as additional indicators of the quality of employment.

What can we say about the future role of the structural funds? First of all, it is important to note that investing in infrastructure (roads, etc.) is particularly relevant when existing infrastructure is poor. Owing to the past support of the Union through the structural funds the poorer countries of the union have been able to improve things in this respect. Therefore, the returns to further support in this field may be small. For countries that still lack sufficient funding for national support programmes, European support may still be useful, but the emphasis should then perhaps shift towards investment in intangible capital. Instead of the traditional support programmes, one could also think of transfer of know-how and good practices between countries. In the future the type of support programmes that we have seen in the past period may be more relevant for the countries entering the Union in the coming years than for the present member states.

4 *Monograph on the Support for Research and Development and Life-long learning*

Acronyms and other terms in this monograph

CPD	Continuing professional development - lifelong learning associated with the individual's continuing development in a particular occupation.
FP	Framework Programme
HCM	Human Capital and Mobility
Life-long learning	Education, training and development beyond the phase of initial entry to employment
Research	'Research' in the EU policy context includes R&D; the terms are used interchangeably in the text
RLL	Research and life-long learning where the links between the two are the focus

4.1 Introduction⁶

The evaluation of the employment effects of policy is technically quite difficult even in those cases where the policy is well-defined, clearly targeted, consists of fairly straightforward forms of intervention, has modest time lags between application and impact, and operates in the absence of other policies designed to achieve similar aims.

Policies on research and development and on life-long learning⁷ meet none of these conditions even at national, never mind European, level. Moreover, they are not directly concerned primarily with employment but with the quantity and quality of inherently more complex phenomena: the generation of new knowledge, its role in technical progress, and its wider dissemination and transmission through learning by those not directly involved in the immediate processes of discovery and exploitation. In addition, the traditionally 'linear and compartmentalised' view of the relationship between research and development on the one hand and education and life-long learning on the other hand is increasingly inadequate in the sorts of scenarios envisaged for the 'knowledge-based' economy and society. Indeed, arguably, it is

⁶ The author of this monograph, Robert Lindley of Warwick Institute for Employment Research, is grateful to Sheila Galloway, Arie Gelderblom and Pascal Petit for written contributions to the full study given in the Annex. They are not, however, responsible for how I have used them. My thanks are also due to Beate Baldauf who provided research assistance with the material for the Annexes.

⁷ *Life-long learning* is defined here to be education, training and development beyond the phase of initial entry to employment. *Continuing professional development* is taken to mean life-long learning associated with the individual's continuing development in a particular occupation.

already anachronistic. So to ask what are the employment effects of 'research' and 'lifelong learning' seems to invite a double failure to respond, especially in quantitative empirical terms.

Yet these activities clearly do have an impact on both the demand for and supply of labour in the short term and long term. National or EU funding of these activities will inevitably create jobs for people employed by organisations that research and/or teach and these can, in principle, be estimated. However, promoting employment in these areas is not actually the main object of policy. Their underlying aim is, in effect, to contribute to raising the 'dynamic effectiveness' of the economy and society concerned. There are several key ingredients for this:

- A strong basic productivity performance, as measured conventionally;
- Risk-taking suppliers of capital;
- Entrepreneurial drive;
- The harnessing of the science base for business purposes, including the institutional conditions for effective university-business co-operation;
- The creation of vigorous product market competition, making it more difficult for less efficient producers of goods and services to survive on the back of the domestic market;
- Investment in education, initial training and continuing professional development;
- A supply-side orientation of policy which is not simply concerned with individual behaviour but with organisational effectiveness.

Improving the dynamic effectiveness of the EU and its Member States is the key to raising employment and the quality of jobs in the long run but clearly the mechanisms are not very direct.

Moreover, there is some debate as to how to promote R&D and life-long learning in the first place. Nonetheless, this study explores the scope for assessing the impacts of EU activity in this area upon employment, focusing on those effects that are most likely to arise out of the *links between* research and life-long learning, as indicated in the specification of the PCP project. Other EU policies also have a bearing on life-long learning, but these are not covered here. Annex E to this report elaborates upon this point, especially in the context of the evaluation and reform of the Leonardo programme for 2000-06.

4.2 Policy rationales and social scientific evidence

The research and related life-long learning or CPD policies developed at EU level to support the research effort involve, largely, fiscal incentives. They operate within product market

conditions that mainly follow from the internal market strategies adopted but alter the conditions in the 'research' market place though promoting:

- (a) More effective human capital accumulation for the individuals participating in the EU programme and their organisations;
- (b) More cross-disciplinary scientific collaboration and synthesis;
- (c) Greater collaboration between the non-commercial research system and the industrial system;
- (d) Greater cross-sectoral collaboration;
- (e) Greater collaboration between commercial industrial producers and users of research and development.

The full study seeks to draw out of the policy and research literature the principal elements of cause and effect in the relationship between research, learning and technical change, their impact on the economy and the extent to which existing theoretical and empirical models reflect these stylised facts. The essential conclusions are captured in the form of flow charts. These summarise the interpretation of the evidence in three main areas dealing with:

- Innovation and technical progress;
- Modelling innovation, growth and the outcome for employment;
- Technical change, human capital, investment and professional development.

The final part of the section uses the insight from reviewing the above evidence to relate policy on research and life-long learning to the potential effects it might have on employment creation and job quality.

4.3 Flow Charts

Just three of the ten flow charts used in the full study are reproduced here. They capture key relationships.

4.3.1 Competition, innovation and productivity (Figure 4-1)

Depending on the balance reached in designing the competition regime in different product markets, there will be a mix of static and dynamic effects (Figure 4-1). In the case of the former, there will be increases in workforce effort and reductions in 'X-inefficiency', leading to once-off gains in productivity. In the case of the latter, the impacts on the *rate* of growth of productivity can come from several sources. First, to the extent that market fosters the survival of the fittest, this will generate dynamic gains by forcing the less efficient and adaptable out of business or lead to their being taken-over by better management. Second, aside from the market routinely sorting out the poor performers, organisational innovation (which is not

simply driven by technical innovation built around scientific R&D) will also generate further dynamic gains. In effect, such innovation continually extends the range of performance which survival of the fittest otherwise narrows, injecting more competition between organisational designs, etc.

As regards, R&D *per se*, process and product innovation generate higher productivity and boost demand. In goods-producing industries the former are usually associated with probable employment losses and the latter with possible employment gains. In services, however, product and process innovations are often very much intertwined and the distinction is less helpful.

4.3.2 Models of the relationship between research, production and skills

A simple representation of the 'non-linear' model with life-long learning is given in Figure 4-2. The main difference from the linear model are shown by dotted lines which indicate feedback to the research system at all levels of the innovation-investment process and from external and internal labour markets. The last of these is mediated by continuing professional development, which may be provided by the employing organisation or by other organisations whether part of the research system or specialising in training and development. As for funding, this may come from the employer, another body (e.g. the EU or national government) or the individual.

As noted in the Introduction, the simple linear model of the relationship between scientific activity and the economy has been superseded by recognition of more complex interactions. EU policy on research and professional development, in effect, brings together a 'non-linear' view of the research system with recognition of the importance of professional development (or, more generally, life-long learning).

4.3.3 Technological change and investment in human capital

There is a very wide literature on the assessment of the returns to investment in education and training but most of this focuses on the initial period of such activity prior to entering employment. There are some studies that also take account of the effects of subsequent vocational/professional training but these tend to be part of the formal structure of entry to higher-level professions. They do not include situations of learning and development that are less established and reflect the mix of individual and employer circumstances that typically determine forms of life-long learning. Nonetheless, they do provide insights into the economics of choices made later in occupational careers.

The linked 'virtuous circles' embodied in Figure 4-3 convey the rationale or causal assumptions behind commitments to investment in human capital by the firm in the context of innovation and technological change. R&D is, in effect, the only exogenous variable entering at the right-hand-side in to the box 'quality of technology'. There is no apparent 'escape' once the system of virtuous circles has been entered. Policy-makers may, however, be concerned about how *quickly* movement takes place through the system, since too slow a pace may mean that the 'virtuous' become 'vulnerable' to falling out of the circle.

4.3.4 Theories and models underpinning professional development

From Figure 4-2 that identifies CPD there is clearly an important role for this activity. Scientific occupations offer a particularly strong example of how work experience can be the dominant form of 'continuing professional development'. This is because competence and career opportunity are promoted most by the quality of projects on which the scientist or technologist is engaged. Other more generic forms of training (e.g. in management, communication and entrepreneurial skills) will be important supplements but they need to be built round a core of high quality project experiences. In the R&D field, this is why the principal contribution made at the EU level is through its orientation towards cross-country, cross-sector and cross-disciplinary projects grouped around themes, which are intrinsically important rather than driven by the particular industrial and scientific structures that happen to exist. Arguably, from the point of view of its impact on the quality of personnel this may be its main effect on employment and the quality of jobs that result both within the R&D producing sectors and the rest of the economy. However, within the ECU 17 billion of the next Framework programme, there are budget lines devoted more specifically to professional development especially through international mobility and related training of researchers.

4.4 Employment Effects of Research and Life-Long Learning/CPD

The approach used in the project advocates the completion of two tables of employment effects for each policy area: one on expected outcomes for job creation and maintenance and one for job quality. Policies may operate through different mechanisms: fiscal policy, regulation and dialogue (in the context of the EU, the last of these often refers to the dialogue between political actors or to the 'social dialogue' between employers and trade unions but increasingly, the EU is seeking to strengthen civil society through promoting civil dialogue among wider groups of actors).

In addition, the impact of policy within a given mechanism may not affect employment directly but rather operate through intervening variables or 'drivers'. In the case of the effects of RLL policy on employment creation (Table 4-1), these drivers are most likely to be:

- Market conditions
- Real wage costs
- Technical progress
- Physical capital
- Human capital
- Social capital
- Intangible capital.

In general, this policy area does not give rise to changes in the prices/qualities of other inputs of goods and services than those already covered above, so this driver is not shown independently in the table. What has been added however, is the driver 'intangible capital' as affecting the number of jobs as well as their quality (Table 4-2). Overall, the policy works through the job creation side though the distinction between this and job maintenance is not a comfortable one and has been suppressed in the table.

As regards job quality, RLL policy is clearly part of the strategy to bring about higher value-added knowledge-based activity and promote the higher quality jobs that are believed to go with that. However, although the policy field is, itself, driven by funding mechanisms rather than by regulation or social or dialogue, there is a strong element of promoting networks and dialogue among and between non-profit scientific institutions and commercial organisations.

In the case of RLL policy, the drivers 'market conditions' and 'physical capital' have been included in the table for job quality as well as that for employment creation. In addition, the notion of 'intangible capital' has been used rather than the more specific 'attitude and reputation' which are just specific forms of the more general intangible category.

The general schema developed by the overall project has thus been modified in Tables 4-1 and 4-2, which are more tailored to the research policy and life-long learning context. The statements in the different cells are intended to capture the potential employment benefits from such policy at the *EU level*, though this assumes that additionality is not undermined by strategic behaviour on the part of the national actors.

4.5 Validation of assumptions

The methodology adopted by the project overall involves examining the 'assumptions' behind policy: these can be of several kinds, including the models of the way the socio-economy works which policy-makers have in their minds, their theories about the behaviour of the different actors in the system in response to policy intervention, and any views they have about the ultimate effects of policy on job generation and quality. Much of this theorising by policy-makers is, perhaps inevitably, implicit rather than explicit and passive rather than active, i.e. they adopt certain positions without having developed the theories or assumptions themselves and do not continuously assess and re-assess their validity.

Moreover, there is a dynamic in the relationship between the policy development process and the scientific research process, each feeding off the other through time (though this does not rule out long periods of divergence between assumptions made by the policy system and the available research evidence). So the separation of policy assumptions from research evidence envisaged in the project's overall methodology can be somewhat artificial, especially in complex policy areas. From this point of view, the expected outcomes in Tables 4-1 and 4-2 already embody evidence that might otherwise have been used to 'validate' these expectations of employment effects.

However, the study has also looked directly at the main EU policy that combines research with life-long learning. The Mobility and Training of Researchers within the Framework Programmes brings together the two perspectives of R&D and lifelong learning (or continuing professional development, the term preferred in this context). The study gives an overview on mobility and training measures funded under FP4, FP5 and (the proposed) FP6. It outlines (i) the budget for these measures, (ii) the variations in mobility and training measures offered and (iii) methods used to monitor, assess and evaluate the mobility and training measures and the outcomes of such exercises.

It is clear that significant moves have been made towards setting up a system of monitoring, assessment and evaluation procedures in the form of annual monitoring reports and five-year assessment reports. However, these fall short of being socio-economic impact studies.

4.6 Conclusions: Reaching a balanced assessment

4.6.1 Impact on employment creation and job quality

The effects of research and life-long learning policy on job quality are uncertain but probably positive over the long run; the effects on employment creation are highly ambiguous, theoretically as well as empirically.

4.6.2 Reasons for difficulties in assessing this policy area

1. Attempts to quantify the impact of EU policies relating to research and life-long learning upon employment and the quality of jobs will not be possible on the sort of basis that might be expected in the case of active labour market policies or, more broadly, the structural funds.
2. This is partly because the activities which policies affect directly are at too much 'socio-economic distance' from their potential consequences for employment.
3. It is also because the kind of information provided on specific measures, either through administrative data or special surveys, are focused on variables that relate more to the quality of delivery of the scheme rather than on its wider consequences.
4. Since the various schemes for researchers under the Framework Programmes also represent the largest pan-European form of professional development in existence, the above conclusions will probably also apply to other forms of life-long learning covered under other EU budget headings, though excluded from the specification of this study.

4.6.3 Scope for improving the evidential basis for policy

1. In effect, the human resource development activities under the Framework Programmes seem to offer potentially the best conditions in which to examine the effects of EU support for professional development/life-long learning (though, admittedly, to date, at the earlier stages of careers). In contrast the diversity of learning activities bundled together in other EU policy areas poses a more difficult evaluation problem.
2. However, arguably, this advantage of relative homogeneity of the policy measures involved is offset by the longer-term nature of the employment impact of EU policy via continuing professional development within the research and development system. So this complicates the evaluation problem, even if the more transparent and common structure of EU professional development (HRDF) policies in the research field should, in principle, facilitate evaluation.
3. Looking more generally at EU R&D funding policies (i.e. not just those elements concerned with professional development/life-long learning) their effects on the EU economy and employment can only be judged via the operation of multi-sectoral models and the synthesis of their results with ad hoc sectoral studies and the findings of altogether more qualitative research.
4. So there needs to be a mixed strategy. The review of the research literature indicates that, whilst a handful of such models does exist, they have not been deployed in shedding light on that issue. Their representation of the impact of R&D spending on technical progress and the transmission of this to the overall performance of the economy is quite limited. Renewed effort should be put into this area.

5. At the same time, the proposals to improve the monitoring and assessment of EU HRDF are welcome, providing they extend to examining policy impacts rather than mainly the efficiency of policy delivery processes. Some rich qualitative enquiries are being envisaged relating to the wider Framework Programme and these could be particularly important in helping to understand the potential impacts on employment creation and job quality. However, the context in which the various human resource development measures have been discussed does not seem to have been strongly informed by theory from either labour economics or pedagogical research on adult learning and continuing professional development.

Figure 4-1 Competition, Innovation and Productivity

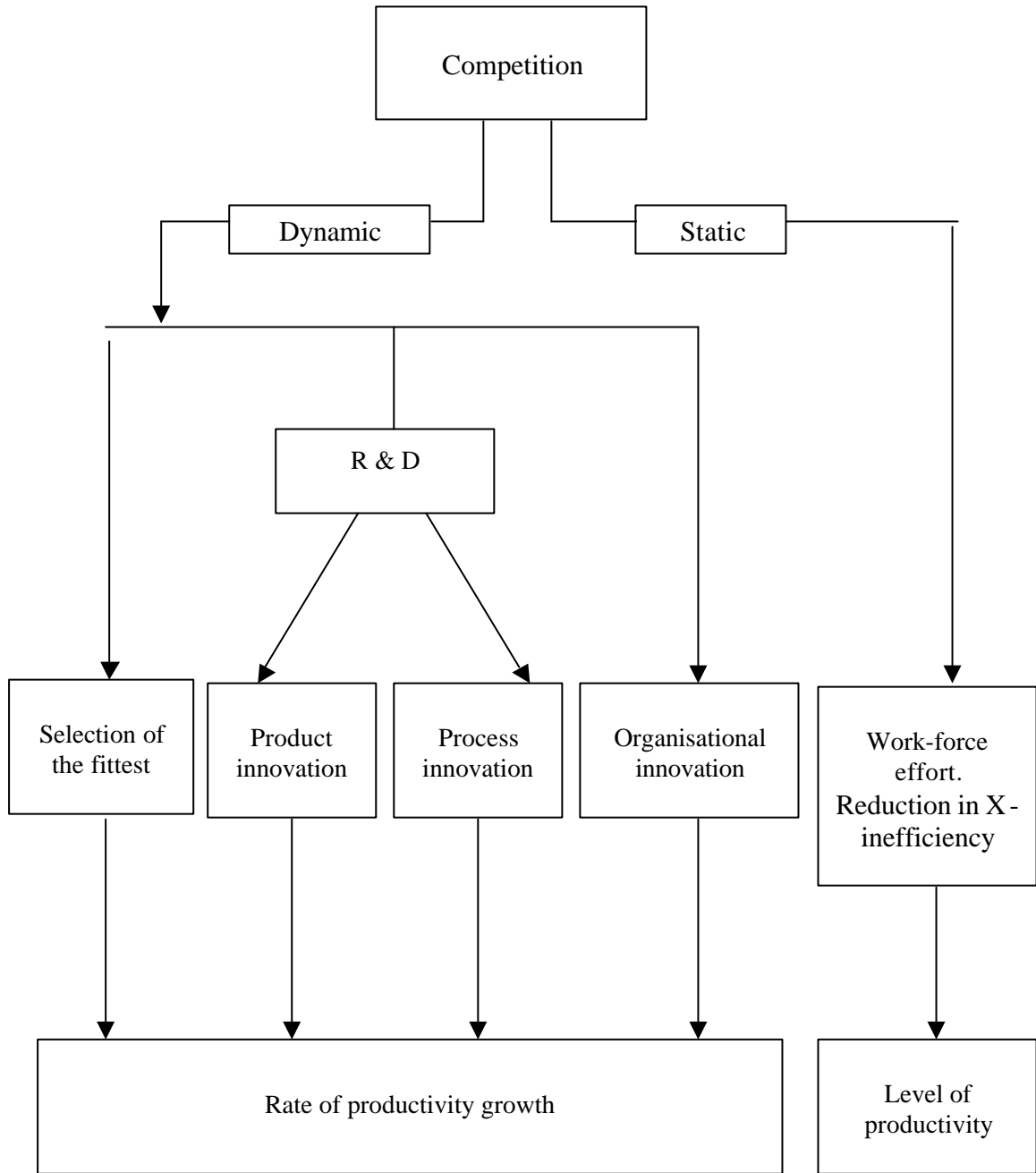
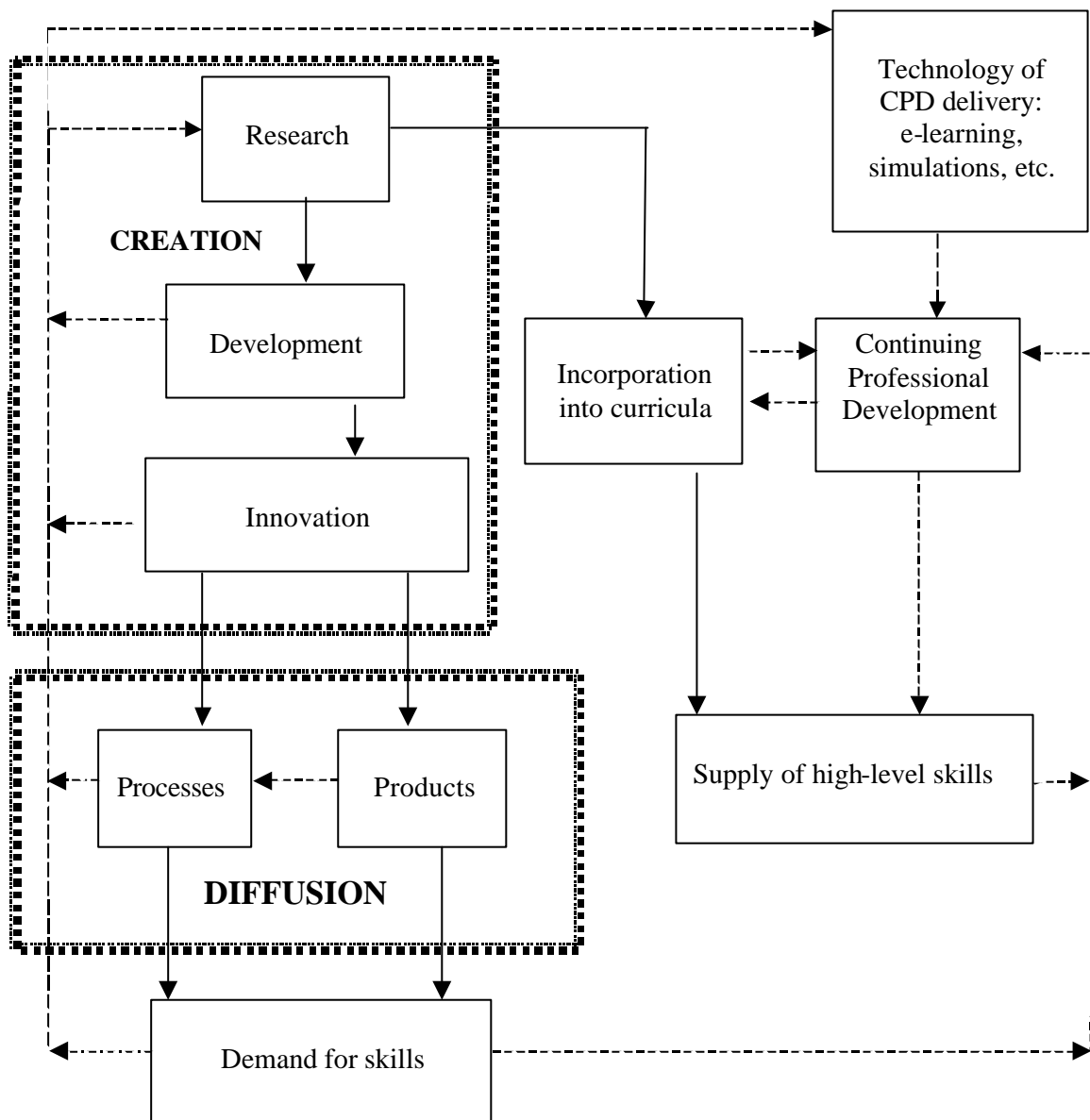


Figure 4-2 Simple Non-Linear Model with Life-Long Learning



Continuing professional development (CPD) is a sub-set of life-long-learning.

Figure 4-3 Technological Change and Investment In Human Capital

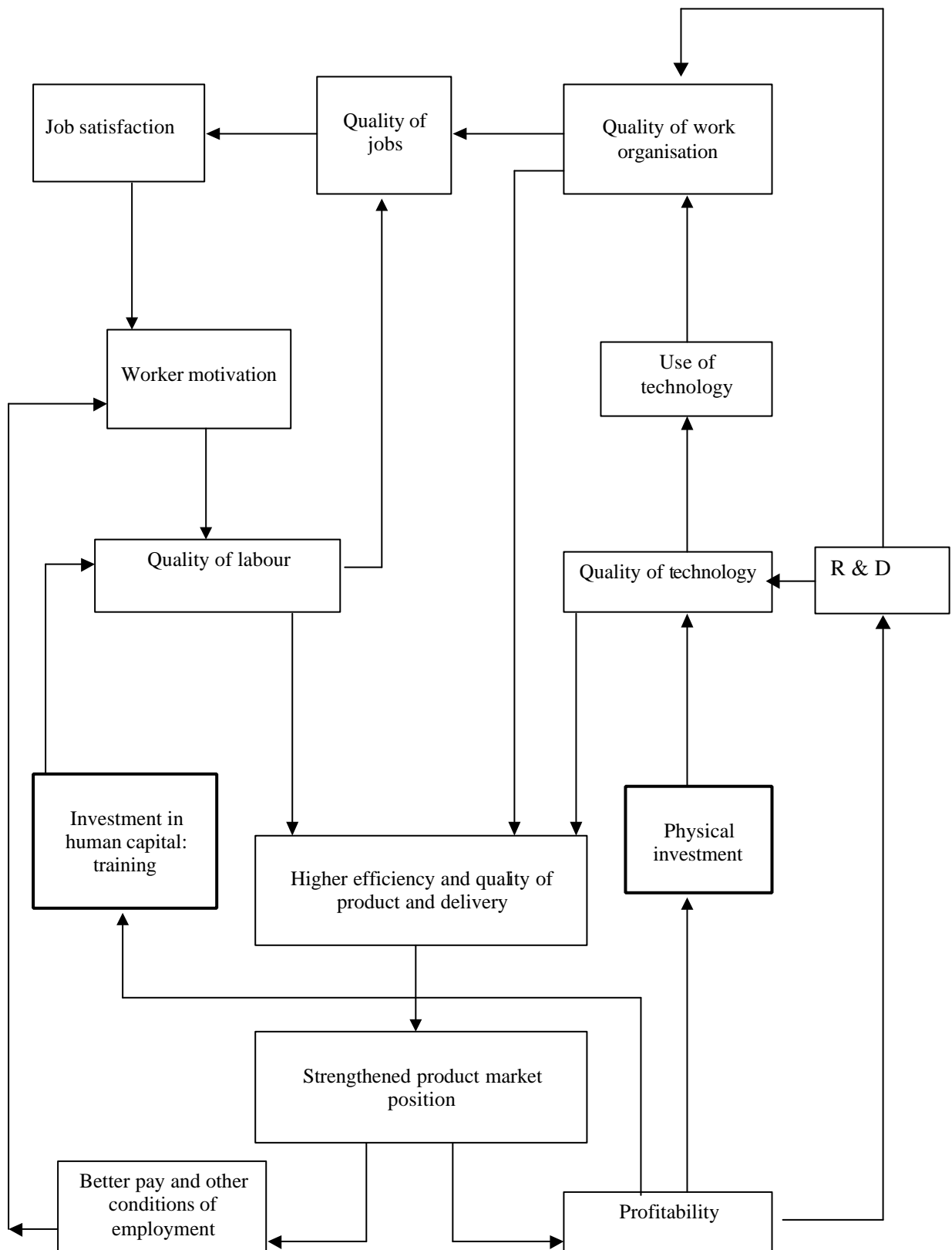


Table 4-1 Expected Outcomes for Employment Creation

	Spending	Activities promoting dialogue and networks
Market conditions	<p>EU R&D spending adds only marginally to the volume of national funding of research. It seeks to promote certain qualities, which develop synergies between research and development in different scientific areas and potential <i>long-term</i> commercial settings.</p> <p>If anything, EU initiatives probably undermine the operation of the 'market for research' to some degree in the short-term in the interests of tackling sources of market failure that would otherwise reduce the contribution of research to the long-run growth of the EU economy.</p> <p>The short run effects on market conditions <i>per se</i> are unlikely to have much impact on employment in either direction.</p>	<p>EU research initiatives may be seen as promoting an EU-wide <i>collaborative</i> basis for later market <i>competition</i>.</p> <p>The chemistry of the outcome may threaten visions of rigorous product market competition regimes but it is for EU and national competition authorities to defend that policy territory.</p> <p>Employment is likely to benefit from the spillovers from EU spending programmes, which enhance communication between potential partners in 'nearer-to-market situations' that may be identified.</p>
Real wage costs	<p>The more effectively high quality research is incorporated into EU products and processes, the more likely will real wages rise (see job quality table).</p>	<p>Potentially as for spending programmes, though probably on a much more modest scale.</p>
Technical progress	<p>The increase in technical progress available to EU economies and societies will have ambiguous effects upon the volume of jobs created (but see job quality table).</p>	<p>As above</p>
Physical capital	<p>The creation of EU facilities brings within the reach of a wider group of researchers access to the latest high cost technological infrastructure.</p> <p>The promotion of other forms of collaboration on a larger scale bringing together universities and business does the same for other research and development areas.</p> <p>To the extent that these extend access to the best physical capital for R&D, they should increase the number of jobs in these activities that are complementary with the kind of technological infrastructure created.</p>	<p>As above</p>

Human capital	<p>A major aim of EU research activities is to enhance human capital, through project-based experience across scientific disciplines, collaboration between different types of organisation, and involving people from a diversity of Member States.</p> <p>Since these groups are in short supply, any easing of high skilled bottlenecks should not only increase the employment of such people but also increase jobs for those occupations and in sectors which are complementary to the activities in which the new cadres of researchers are engaged.</p>	As above
Social capital	<p>The extended networks of EU researchers create a kind of social capital because of the greater access to the results of R&D and the increase of 'two-way' capacity: i.e. the capacity of very talented researchers from poorer regions to access and participate in high quality R&D endeavour and the capacity of leading centres, regardless of location, to attract the best researchers to participate from across the EU.</p> <p>The first way may retain (at least, in part) within poorer regions good researchers who would otherwise have to migrate completely to be closer to the 'centres of excellence'. The second way may simply provide better recruitment channels for the better-off research organisations and increase the 'brain drain' from poorer regions.</p> <p>The aggregate effect on employment and its regional distribution is ambiguous.</p>	Outside the specific funding regime, there have developed other scientific and policy-related activities that help to position the research community so as to be better able to identify new areas for EU-wide initiative and to produce higher quality proposals and projects in response.
Intangible capital	<p>The international, cross-disciplinary and cross-sectoral effects on the reputation of EU science and science-based industries is likely to contribute in the long-term to the retention of talented researchers within the EU. It should also make EU-based companies more attractive from the perspectives of investment finance and share holding. This will help to underpin economic growth and job generation.</p>	

Note: In general, this policy area does not give rise to changes in the prices/qualities of other inputs of goods and services than those already covered above, so this driver is not shown independently in the table. What has been added however, is the driver 'intangible capital' as affecting the number of jobs as well as their quality (Table 4-2).

Table 4-2 Expected Outcomes for Job Quality

	Spending	Activities promoting dialogue and networks
Market conditions	R&D and CPD programmes associated with it can support a strategy of (i) shifting an EU sector from the low value-added end of the spectrum to the high value-added end and (ii) entering embryonic sectors that are developing from the science base. Both outcomes change the product market conditions in which employment is being generated in ways that are likely to foster better jobs.	<p>All items:</p> <p>Depending on the circumstances, these activities may be seen as direct outcomes of EU R&D policy and related CPD or as spillovers. Either way, they are likely to reinforce, albeit in modest ways, the impacts of the spending policies summarised under the column on the left.</p>
Real wage costs	Higher value-added activity will require more productive workers and hence better quality jobs are likely to result.	
Technical progress	EU access to and exploitation of new knowledge will raise the average quality of jobs.	
Physical capital	Better jobs should result because of access to more and better capital in the R&D process and in the production processes and product innovations that evolve (including the provision of services as well as goods).	
Human capital	The supply of higher forms of human capital will increase and this will help to satisfy current unmet demands for such labour and encourage growth in demand. Better quality jobs will result.	
Social capital	The best case scenario is one in which the EU as a whole and even currently poor regions will retain and develop dynamic centres of innovation, the benefits of which will be effectively shared across social groups and spatial locations. This would mean raising the quality of economic and social life	
Intangible capital	If company-wide high performance cultures can be created beyond what happens in R&D activity <i>per se</i> this will add generally to the financial strength and market positions of EU companies. Reputation not just for having skilled labour forces but also for having effective CPD systems so that skills can be adapted effectively should reinforce both financial and marketing strategies, and hence the capacity to generate high quality jobs.	

Industrial relation system	<p>Many of the above potential benefits could be compromised by poor industrial relations. Equally, there are opportunities for entering virtuous circles in which good industrial relations foster the growth of high performance organisations, incorporating better working conditions and participation overall.</p>	
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Note: The drivers 'market conditions' and 'physical capital' have been included in the table for job quality as well as that for employment creation. In addition, the general notion of 'intangible capital' has replaced the more specific 'attitude and reputation'.

5 *Monograph on Market Liberalisation and Integration*

5.1 Introduction⁸

This study is concerned with the employment effects of market liberalisation and integration. Since this is a huge area of policy and research, bearing in mind the interaction between national and EU-level policy and its rapid evolution over time, it is necessary to concentrate on those parts of it which have particular relevance to the development of EU policy currently and over the medium term. Thus, in examining the employment consequences of market liberalisation and integration, the study gave special, though not exclusive attention to job quality.

One feature of this policy study is that it reviews the competing explanations for the relative shift towards higher skill levels. The reason for this is that there is a danger of attributing too much of this aspect of change in job quality to market liberalisation.

5.2 Market liberalisation and integration in context

Market liberalisation can, of course, operate within one country, usually through privatisation and/or breaking up of public monopolies, de-regulation of product markets, promotion of competition, especially where oligopolistic behaviour is dominant, etc. However, with the extent of two-way trade flows and the presence of multi-national corporations, it becomes difficult to sustain national strategies beyond a certain point without penalising domestic producers; if foreign firms can rely on less demanding home markets, this provides them with a competitive advantage. So the term 'market liberalisation' usually implies an international process.

The subject matter may be broken down into several main forms of economic co-operation, integration and regulation (including de-regulation and re-regulation) in the course of which product markets (used generically to cover goods *and* services) are liberalised to some degree:

- a) Trade agreements among a group of national economies to lower barriers of various kinds in which the members of the group may change depending on the particular area for liberalisation;

⁸ The contribution of Geoff Briscoe and Rob Wilson to this report is gratefully acknowledged but Robert Lindley, Warwick Institute for Employment Research, is responsible for its incorporation and any final interpretation placed upon it.

- b) Multi-lateral trade agreements in which a group of countries agree on a liberalisation agenda which is then legally binding on all;
- c) The creation of a strong form of internal market among a group of economies which are politically linked, covering systematically the majority of economic activity and with compliance issues ultimately being settled by a competition policy agency and legal institutions operating at the multi-national level;
- d) Enlargement of the group in (c) to include new members who accept the existing agreements reached by the group (subject to transition periods);
- e) Continuing measures to pursue greater liberalisation in particular areas;
- f) Full economic and monetary union which facilitates (in some cases, requires) deeper and wider development of market regulation with more complex areas being covered (such as research, education, and other public or partly public services) and more subtle aims being pursued than basic competition and industrial development objectives;
- g) Enlargement of an economic and monetary union by the accession of new countries that accept the full range of pre-existing agreements.

To an increasing extent in moving to (c) and from (c) through to (f) there arise fundamental issues which bring out national cultural differences of opinion over how to handle the relationship between the economy and society. Some of these have implications for the quality of jobs available, their allocation to different socio-economic groups, and wider effects on standards of living and the overall quality of life.

The natural perspective to dominate the market liberalisation programme during a major thrust to create a strong form of internal market, (c) above, is that of the sector or product market. Each such market presents rather different national corporate structures, trading practices and impacts of competition regimes. Moreover, different markets present very different variations in the competitiveness of national producers and degrees of multi-nationality.

As market liberalisation proceeds, however, the policy perspective shifts somewhat from the so-called 'vertical' policies concerned to ensure that as many sectors as possible comply with basic principles (allowing for differences in certain sectoral characteristics) to 'horizontal' policies which are more concerned with continuing compliance issues, trading practices across sectors, and informational questions. The EU is still pursuing major 'vertical' market issues, for example, those relating to financial services, utilities and network industries but horizontal actions are attracting increasing attention (e.g. sales promotion) and, in some respects, causing technical difficulties in developing the rationale for policy and pursuing its implementation. Priority target actions concerned with the 'business environment' and 'im-

proving the quality of life for citizens' may also be seen as 'horizontal' issues, even if some of these may involve the practices of some sectors more than others.

5.3 The channels through which policy acts

The full study explores the potential effects of liberalisation by first focusing on the so-called 'completion' of the EU internal market. This is by far the most significant set of market liberalisation phenomena and even though the conception of policy has moved on, it remains the major driving force likely to influence employment. The study develops a taxonomy of integration-liberalisation processes and the channels by which the Single Market Programme (SMP) and the vertical elements of the continuing internal market strategy affect employment, directly or indirectly. The approach is then extended to encompass the more horizontal issues mentioned above.

5.3.1 Flow Charts

The two main flow charts to capture the impacts of market liberalisation are reproduced in Figure 5-1 and Figure 5-2. The first focuses on the product market effects and the second on impacts relating to the labour market. Note that the term 'trade parameters' in the centre of Figure 5-1 is a reference to the fact that market liberalisation affects the underlying behaviour determining intra- and extra-EU trade flows. This is elaborated in the full study. The charts themselves are fairly self-explanatory.

5.3.2 Employment Effects of Market Liberalisation and Integration

The approach used in the project advocates the completion of two tables of employment effects for each policy area: one on expected outcomes for job creation and maintenance and one for job quality. Policies may operate through different mechanisms: fiscal policy, regulation and dialogue. The market liberalisation and integration policies developed at EU level involve, largely, regulatory mechanisms except in the case of moves to harmonise/approximate, to some degree, indirect taxes. The latter will not be covered here.

In addition, the impact of policy within a given mechanism may not affect employment directly but rather operate through intervening variables or 'drivers'. In the case of the effects of market liberalisation policy on employment creation (Table 5-1), these drivers are most likely to be:

- Market conditions
- Real wage costs
- Technical progress

- Physical capital
- Human capital
- Social capital
- Intangible capital
- Prices/qualities of other inputs

Note that the driver 'intangible capital' has been included here as affecting the number of jobs as well as their quality (Table 5-2).

As with the case of research and life-long learning policy, the drivers 'market conditions' and 'physical capital' have been included in the table for job quality as well as that for employment creation. The notion of 'intangible capital' has also been used rather than the more specific 'attitude and reputation' which are just specific forms of the more general intangible category.

The general schema developed by the overall project has thus been modified in Table 5-1 and Table 5-2, which are more tailored to the market liberalisation context. The statements in the different cells are intended to capture the potential employment benefits from such policy. The most significant feature of the expected employment effects is the weakness of horizontal and other measures that complement the vertical sectoral measures. The reasons for this are undoubtedly partly because of the greater technical difficulties of capturing the effects of the much more diffuse measures being introduced horizontally upon specifically identified variables in empirical and even theoretical models. So compliance issues, trading practices and informational policies should have impacts on prices and quality, for example, but there is precious little empirical analysis at EU or national level to bear this out. In contrast, the vertical measures (especially those focused on particular sectors) can be assessed using partial equilibrium models drawing on industrial economics more readily or even on multi-sectoral models where they exist.

5.4 Validation of assumptions

The methodology adopted by the project overall involves examining the 'assumptions' behind policy: these can be of several kinds, including the models of the way the socio-economy works which policy-makers have in their minds, their theories about the behaviour of the different actors in the system in response to policy intervention, and any views they have about the ultimate effects of policy on job generation and quality. Much of this theorising by policy-makers is, perhaps inevitably, implicit rather than explicit and passive rather than active, i.e.

they adopt certain positions without having developed the theories or assumptions themselves and do not continuously assess and re-assess their validity.

Moreover, there is a dynamic in the relationship between the policy development process and the scientific research process, each feeding off the other through time (though this does not rule out long periods of divergence between assumptions made by the policy system and the available research evidence). So the separation of policy assumptions from research evidence envisaged in the project's overall methodology can be somewhat artificial, especially in complex policy areas. From this point of view, the expected outcomes in Table 5-1 and Table 5-2 already embody evidence that might otherwise have been used to 'validate' these expectations of employment effects.

5.4.1 Competing Explanations

A key aspect of the validation process in this case is the importance of putting the potential effects of increasing integration and liberalisation into a wider perspective than that simply of the European internal market. Otherwise, there is a danger that more will be attributed to the market liberalisation strategy than is justified, especially when examining phenomena that are shared with many countries, which have not been part of such a process. The study proposed, that special attention needs to be paid to the relationship between *job quality* and market liberalisation and integration. There are several competing theories advanced to explain changes in the relative positions of more skilled and less skilled members of the labour force.

There is considerable evidence that, over recent decades, there has been a marked shift in demand away from unskilled and towards skilled occupations. The evidence has been produced for the USA and more widely for other OECD countries. It is also clear, from the historical analyses carried out into *occupational* structures of the labour market, how the employment shares of the more highly skilled occupations have been increasing at the expense of the lower skilled manual occupations.

There has been a wide-ranging debate in the economics literature in recent years as to the prime causes of these skill shifts. Two main explanations have been advanced. Firstly, it has been argued that international trade has, in the face of lower trading costs and through factor price equalisation, led to pressures on wages for unskilled workers to be brought into line with those in developing countries. The evidence on this explanation is contradictory and far from clear-cut. The second major explanation is skill-biased technological change that is pervasive across most countries in the developed world. Such change creates a *complementary*

demand for the more skilled workers and provides them with a wage premium over their less-skilled counterparts. The empirical evidence for this explanation is far more compelling

Other explanations remain possible. Several additional potential causal factors are identified in the literature, but many of these cannot be readily measured and they do not usually appear in any modelling exercises. These and the above are considered at length in the full study.

5.5 Conclusions: Reaching a balanced assessment

5.5.1 Impact on employment creation and job quality

1. Employment creation and job quality have both probably increased as a result of the internal market strategy; the dangers of the 'cost-cutting scenario' have not generally materialised.
2. As regards product market regulation, vertical measures undoubtedly have the most significant effects on employment and job quality. Although the measures may be concentrated on particular sectors, the impacts on employment tend to come through their consequences for macro-economic policy. Improving trade performance in manufacturing will enable employment levels to increase mainly in the services sector. Manufacturing jobs could well be lost though average quality among those that remain is likely to be higher.

5.5.2 Reasons for difficulties in assessing this policy area

3. These arise especially because of the importance other competing explanations for the rising relative position of skilled workers. Attributing much of the gain in job quality to market liberalisation is questionable.
4. The rise in the relative employment and earnings of skilled workers has been attributed to pressure from the availability of unskilled workers in developing countries upon labour market situations in industrialised economies. The estimated effect is minor, however.
5. One of the reasons why the effect might be minor but trade could still be playing an important role is the possibility that most studies examining the impact of trade focus on the wrong aspect of it, that between developed and third world countries, whereas what matters is trade between developed countries – opening their markets and integrating their economies. As a result, skilled working conditions (especially earnings) become 'detached' from those of the unskilled. This would leave a significant role for the impact of EU internal market liberalisation but with ambiguous conclusions about the net benefits to the skilled versus the unskilled regarding both the quantity and quality of jobs available to them.

6. On balance, perhaps the most important factor is skill-biased technical change in which hinges on the complementarity between capital investment and employment of skilled workers. For specific tasks requiring modest cognitive skills, substitution is very strong, particularly in manufacturing sector though the same applies to retail and financial services.

5.5.3 Scope for improving the evidential basis for policy

7. The problem with this policy area is that, if anything, it is likely to become more difficult rather than less so to assess its impact on employment creation and job quality. This is because the horizontal measures, such as trading practices across sectors and dealing with informational issue in the market place tend to have more diffuse effects, especially when compared with the opening up of well defined markets for products and services.
8. One suggestion is that each measure should be subject to close analysis at the micro level to establish the 'channels of influence' through which they are most likely to affect the economy and the labour market, as set out in the full study.
9. However, in view of the EU proposals to promote greater mobility and to give renewed impetus to the 'freedom of movement' objective, perhaps this aspect of internal market liberalisation should come more rigorously under the spotlight.

Figure 5-1 Market Liberalisation – Schematic View

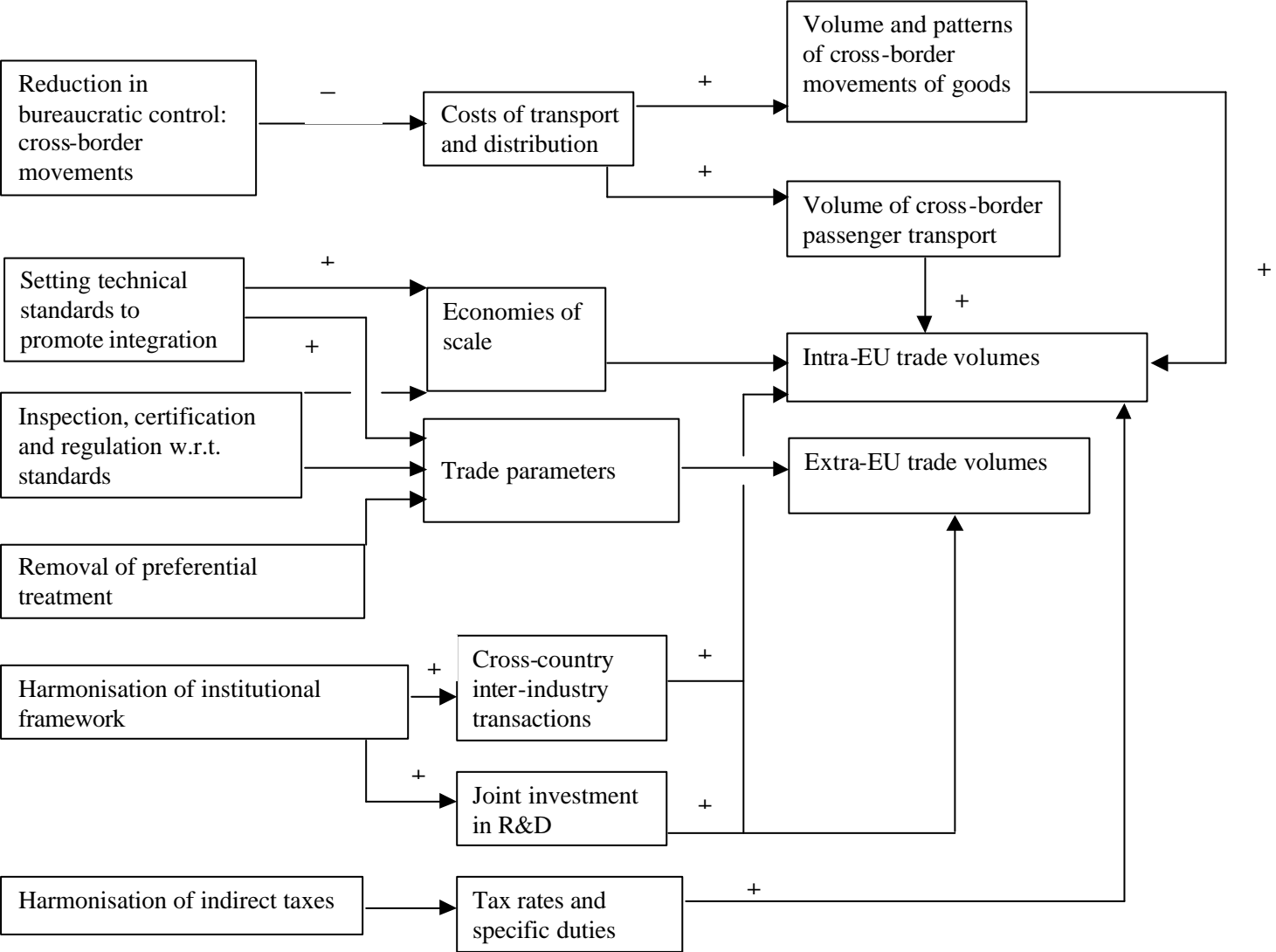


Figure 5-2 Market Liberalisation and the Labour Market - Schematic View

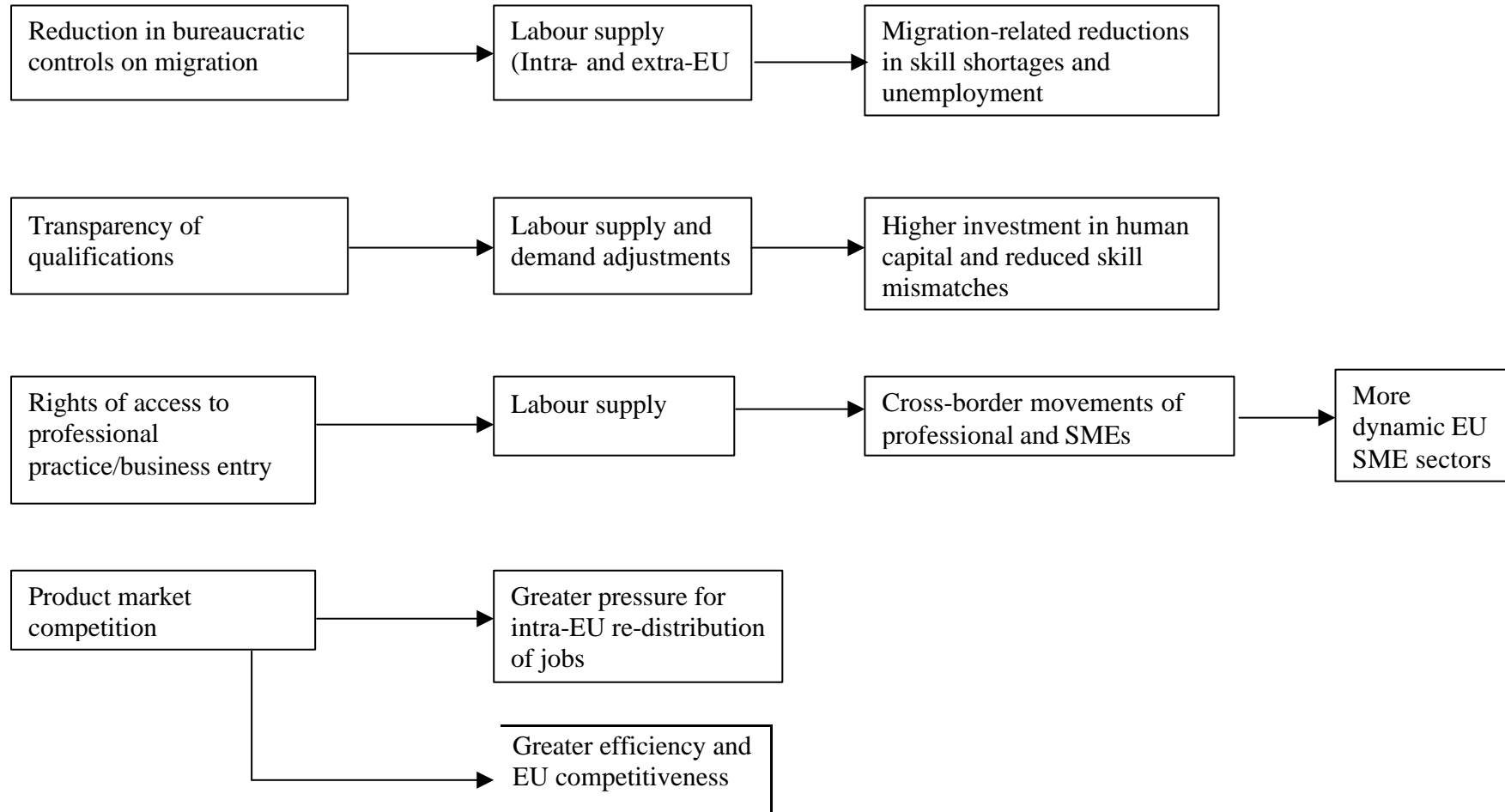


Table 5-1 Expected Outcomes for Employment Creation

	Regulation	
	Single Market Programme and continuing vertical integration under the internal market strategy	Complementary internal market policy
Market conditions	These are clearly directly affected by the creation of the internal market and steps taken subsequently to increase market liberalisation and integration. The impact overall is likely to have increased EU employment by 300 thousand to 1 million jobs and GDP by about 1 to 1½ per cent in the mid- 1990s. These may be seen as static once-off increases in the levels of the variables concerned. Estimates of the dynamic effects depend on more time elapsing on which the empirical analysis can be done or rather heroic theoretical model simulations.	All items: Relatively little impact on these drivers
Real wage costs	Real wages in sectors characterised by monopoly and oligopoly are likely to fall, in the first instance under the pressure of EU competition. This will not lead to higher employment, however, because productivity will rise. In the long run, however, employment is likely to be higher <i>than would have resulted</i> , assuming that globalisation continues to increase pressures to liberalise.	
Technical progress	More efficient EU producers are likely to both harness technical progress to promote higher value-added activity and to add more to technical progress itself. In the long run, this should increase incomes and job opportunities relative to what they would have been.	
Physical capital	Higher investment is likely to result but this has ambiguous implications for the net effects on employment since it will boost productivity and at least in some sectors this is likely to exceed the growth in output.	
Human capital	More dynamic markets should force EU producers up the value-added spectrum, leading to the generation of more human capital through learning and experience of such activity, providing education, training and continuing professional development/life-long learning policies work in support. But the effect on aggregate employment is ambiguous because of the trade effects and skill biases reviewed in the main study.	
Social capital	This should be enhanced through the overall growth effect but the effect on aggregate employment is ambiguous, largely because of the uncertainties about which kind of social capital will be most encouraged in the different markets of the EU.	
Intangible capital	This should be enhanced through the overall growth effect but the effect on aggregate employment is ambiguous (as above).	

Prices / qualities of other inputs	Increased competition is expected to improve price/quality ratios and may transmit some of this pressure to factor markets (see above). The likely impact on the volume of employment is ambiguous because of the ambiguities in the net effects mentioned above.
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Table 5-2 Expected Outcomes for Job Quality

	Regulation	
	Single Market Programme and continuing vertical integration under the internal market strategy	Complementary internal market policy
Market conditions	Job quality overall should benefit through the impact of dynamic markets but this assumes that 'cost-cutting scenarios' do not dominate 'quality scenarios' On balance, in most sectors, it is the latter that will result, to some degree at least.	All items: Relatively little impact on these drivers from horizontal policy.
Real wage costs	Higher value-added activity will require more productive workers and hence better quality jobs are likely to result.	
Technical progress	EU access to and exploitation of new knowledge is likely to result from greater competition and will raise the average quality of jobs.	
Physical capital	Jobs that are complementary to increases in high quality investment will increase. These tend to be the more skilled.	
Human capital	More dynamic markets should force EU producers up the value-added spectrum, leading to the generation of more human capital through learning and experience of such activity, providing education, training and continuing professional development/life-long learning policies work in support. The question then is how many sectors will achieve the virtuous circle of mutually reinforcing increases in high quality demand for and supply of skills and, hence, employment.	
Social capital	The best case scenario is one in which the EU as a whole and even currently poor regions will retain and develop dynamic centres of innovation, the benefits of which will be effectively shared across social groups and spatial locations. This would mean raising the quality of economic and social life. 'Horizontal' policy initiatives are intended to secure such benefits. However, the wider spatial distribution of good jobs may not be as easily achieved as a more common strengthening across the EU of consumer environments.	

Intangible capital	The effects of competition in forcing weak companies out of the market or to reform themselves significantly in order to survive and prosper should create more firms with high quality intangible capital, not just in terms of reputation but also in terms of the reality of having good organisational designs and human resource policies to attract, retain, develop and deploy well-qualified people. These perceptions could feed through to higher investment finance being made available and, ultimately, to higher quality employment.	
Industrial relation system	Many of the above potential benefits could be compromised by poor industrial relations. Equally, there are opportunities for entering virtuous circles in which good industrial relations foster the growth of high performance organisations, incorporating better working conditions and participation overall.	

6 *Monograph on Rural Development*

6.1 **Issues of Rural Development**

Rural areas account for more than 80% of the territory of the European Union and are home to some 25% of the population – depending on definition. The diversity of Europe's rural areas, the rich variety of their natural landscapes, and the skills and cultural heritage of Europe's rural communities are an essential part of Europe itself (van Depoele 2000, 69). Aim of this policy area study is to show the potential of European rural development policies for employment promotion.

6.1.1 **Description of the policy area**

The development process in rural areas in the EU was in the past characterised by a focus on productivity growth in agriculture. Starting with structural policies in the 1960s, the EU progressively evolved structural policies for rural areas. Since 1988, the EU's approach to structural policies for rural areas has been considerably strengthened and widened (van Depoele 2000; Bachtler and Michie 1993). The shift to a more territorial, and integrated approach started with the Southern enlargement, which led to a major reform of the EU Structural Funds and Structural and Cohesion policies in 1987, and a radical reform of the CAP in 1992, changing the role of EAGGF Guarantee Section and introducing the "accompanying measures". The 1988 discussion paper "The Future of Rural Areas" outlined a new approach to rural development. Up to the year 2000, rural development policies were mainly implemented via the Structural Funds. Greater emphasis is now put on diversification of rural economies with a particular stress on direct and indirect measures that address not only the agricultural sector, but also small and medium sized enterprises and local initiatives which build on existing resources and skills. The Berlin Agreement on CAP reform included some redirection of support for agriculture and an increase in expenditure on rural development measures under the new EU Rural Development Regulation - the so-called "second pillar" of the Common Agricultural Policy (Ackrill 2000). All rural areas will from now have access to rural development measures. The policy shifts under way can be summarised as (1) from a sector approach to a territorial approach; (2) from an exogenous development model to an endogenous model; but less clear, (3) from productivity orientation to a multifunctional, post-productivist orientation; and (4) from a top-down (hierarchical) governance approach to a bottom-up (network-based) approach.

6.1.2 Scope of the Study

The study presented here includes the following programmes and interventions (see long version for detailed information)⁹:

- EAGGF
- LEADER+
- INTERREG III
- EQUAL¹⁰
- ERDF
-

6.2 Identification of underlying assumptions

6.2.1 Underlying assumptions in literature

Rural development is understood as a territorial policy to which the European Union, national states, regional and local bodies contribute. The effectiveness of rural development in terms of problem-solving is dependent on decentralised rural governance capacities and competences (Camagni 1991). Rural areas are by no means similar (among others Cuadrado-Roura, Mancha-Navarro et al. 2000; Neven and Gouyette 1995). The assessment of policy potentials for employment creation and maintenance must take into account in which sector and what branch what kind of employment is created or maintained. This is of importance for (1) access to new jobs and (job) migration, (2) long-term versus short-term employment creation and maintenance, (3) “vulnerable employment”, describing the embeddedness of employment within a specific rural profile.

(1) Rural Profiles

Factors influencing profiles have been identified by several empirical studies (see Bryden and Hart 2001; Terluin 2001). Leading rural areas usually benefit from better industry, roads, transport and telecommunication infrastructure, succeeded in developing both the service and manufacturing sector, have a higher education and skill level, traditionally good rural know-how, experience a population growth and have a positive image. Leading rural areas are especially strong in developing their own voice, being active not only in rural networks,

⁹ Excluded from this study are measures and initiatives by national states according to horizontal regulation (regulation EC 1259/1999) for direct support regimes, the POSEI programs to the outermost regions of the European Union (Commission of the European Communities 2000), and the programmes preparing the enlargement of the European Union (SAPARD).

¹⁰ A relevant program prior to EQUAL was ADAPT, relevant for rural areas, as this program supported the development of endogenous capacities.

but also in external networks offering access to policy learning and development. Their governance structure is based on a bottom-up strategy with strong ties to non-local entities. A very common assumption is that supporting networks in general will increase the possibility for economic development, however supporting networks enhances only, when networks are rooted in a rural area's profile (Morgan 1996).

(2) Rural Industry

There is a shift from mass to specific production: The term *specific* refers to the territory in sense of *regional specification*, to the *product* itself, and to the *production process*. *Mass* refers to economies of scale, and to the degree of prevalence of the *applied technologies*. The “mass production” in every industry is characterised by relative low skills and qualifications, relatively low wages, and a relatively weak long-term employment. A lower rate of mechanisation in the production process tends to increase the amount of jobs. The success of long-term employment in mass production is related to the ties the industry has within the region – this is even more true for specific production (Armington and Acs 2002).

Agriculture

Both the share of agricultural activities and the number of people employed will further decrease. There is a decrease of agricultural employment in lagging regions and a significantly smaller increase in other sectors compared to loss and compared to leading regions (Terluin 2001, 35). People in rural areas face problems getting access to the labour market (Monk, Dunn et al. 1999).

▪ *Agricultural mass production*

Aiming at economies of scale by production of standardised mass products and established market accesses, the decline of employment in this sector is going to persist. Market regulation and personal directed help tend to provide a convenient tool to support existing entrepreneurial interests in a given economic environment. Subsidising a given context tends to promote process innovation more than product innovation, whereas product innovation is generally known for higher employment effects (Pianta 2000; Moseley 2000, 98f. Morgan 1997; OECD 1998). EAGGF price policy guarantees income for farmers and thus contributes to reduce the speed of decreasing employment opportunities. The productivity-driven assumptions need a functional infrastructure.

▪ *Agricultural specific production*

Some developments of specialised and extensive forms of farming inverse the current trend of job decline (see OECD 1995). These forms comprise organic farming that requires technical and economic know-how for which specialist technicians are needed. Products have the potential to be distributed in specialised consumption channels to overcome niche markets (Foglia 1999).

Manufacturing industry

Manufacturing industry is usually less developed in rural areas, although plant re-locations have been partly successful (Healy and Ilbery 1990; Mayer 1999; Roth 2000). SME created jobs, while large enterprises have been losing or at best maintained their share of employment (Saraceno 1999a).

- *Mass manufacturing*

Trans-located plants or industrial units in rural areas that are not embedded within a region are vulnerable to re-location decisions - only those rural areas will benefit from a moderate growth in industry that can build upon given traditions (Bryden and Hart 2001; Knudsen 2001).

- *Specific manufacturing*

Regional development aims to support industrial settlements, which are related to local services, suppliers and networks. This may be guaranteed by jobs with higher qualifications that are less easy to be trans-located to other areas providing low wage costs.

Service Industry

Services have to target outward demand to overcome transaction cost problems (Begg 1993). Local networks can develop service provision that is specially shaped to the requirements and opportunities of the region.

- *Services in support of local industries*

Especially in rural areas, services in traditional processing and retail branches have to a large extent been replaced by centralised large-scale service centres and low-priced consumption products. Recently, there is recognition of the importance of adding value to local resources by developing niche markets with direct marketing services and local knowledge of processing distinct products (OECD 1995).

- *Services directed to non-local residents*

In rural areas, services directed to non-local residents are often related to tourism and other "tradeable" services. The technological development in the telecommunication and of information technology may support employment here, too (Glasmeier and Howland 1995; Soete 2002) though it has been noted that the *death of distance* (Cairncross 1997) comes along with a rising importance of social networking and close connection of the conveying technology (Amin and Thrift 1992).

(3) Rural Branches

Rural industries and branches must taken into account when promoting employment opportunities (Lanjouw 1999). Employment linkages between companies and unemployed and/or low-skilled people (Molina 1998) and networking for job maintenance (Mayer 1999) and creation (Seavey 1999) have shown success. Tourism has been identified as a lever for rural de-

velopment. Tourism is one, but not the only alternative to agriculture or other rural economic activities, and tourism is not suitable for all rural areas.

(4) Rural Governance

"Economic development is about more than allocating resources that are given" (Mackay 1993, 792). Policy instruments and measures should be connected with rural competences and capacities, as well as classical production function of economics and theoretical centre-periphery assumptions. "Rural governance" describes here co-ordination mechanisms that allow a rural, partnering approach in defining vision and strategies for a specified territory. Partners are all stakeholders including non-rural governmental bodies and institutions. Rural Governance seems to be a main key not only to explain, but also to overcome the map of inequality of rural areas.

In recent years, entrepreneurship has been promoted in Europe as a key factor of rural development. It is now accepted that the economic and social vitality of rural areas depends on the overall level of its entrepreneurial capacity and development potential. (Petrin and Gannon 1997).

6.2.2 Construction of flowcharts

The following flowcharts are a synthesis of assumptions made, but focusing on the effect the identified driving forces (see 2nd interim report) have on industries in rural areas.

Figure 6-1a and 6-1b

On the top half of the flowchart, dynamic (and non-rural) drivers are shown, on the bottom half the drivers that can be influenced by rural areas. The yellow and blue spheres show areas of intervention – those by the European Union (yellow) and those on a rural level (blue). The flowchart differs between industries, and within industries "mass" and "specific" forms of production/products. The non-existence of relationships in the flowchart does not mean necessarily that there is no relationship at all, however, only the most direct effects are shown. Two examples show the logic behind the flowchart:

- **Figure 6-1a**

For example, real wage costs have a strong effect on agriculture, mass industry and mass services. In mass industries the share of wage costs of turnover has to be low, because the relation between profit and turnover is relatively low. This holds not true for specific forms manufacturing and customer-tailored specific services, where wage levels are less important in that sense. Agriculture – due to the current market condition – is in each form, mass and specific production dependent on wage levels to achieve reasonable prices.

▪ **Figure 6-1b**

Physical infrastructure is important for agriculture and mass manufacturing industry. These industries are highly dependent on non-local distribution, transportation, and in case of agriculture on land quality. Specific manufacturing is less dependent on physical infrastructure, because – for example – proximity tends to be of higher relevance. The mass service industry is an industry without spatial linkage, and specific services are relatively independent from physical infrastructure.

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Price policy of EAGGF influences one of the key driving factors identified for employment: market conditions. The flowchart shows that although the productivity is stimulated and income is generated, the overall level of employment can not be extended, as the external market conditions as well as the productivity growth lead to an increased competition that tends to reduce the number of people employed in the sector. The growth in productivity and the inter-linked process innovation has smaller employment effects than product innovation.

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Rural development and tourism should be considered in spatial terms, taking into account all basic functions which make up tourism; reception, board and lodging, services, leisure and activities. The success of rural tourism thus lies in a harmonious use of local potential set against a development background of the agro-rural space. The flowchart shows how tourism as a tradable service offers job opportunities and also helps to increase the rural demand for rural goods and services, helps to maintain and enhance rural services and could promote a positive migration. Positive migration helps in addition to tourism to develop the rural service sector by non-tradable services. Private capital plays an important role. The large number of programmes available makes clear that an adapted rural solution needs a coordinating and targeted function of rural governance to address the measures to a defined and communicated problem.

Figure 6-1a: The driving economic and territorial forces on industries in rural areas: Role of Real Wage Costs

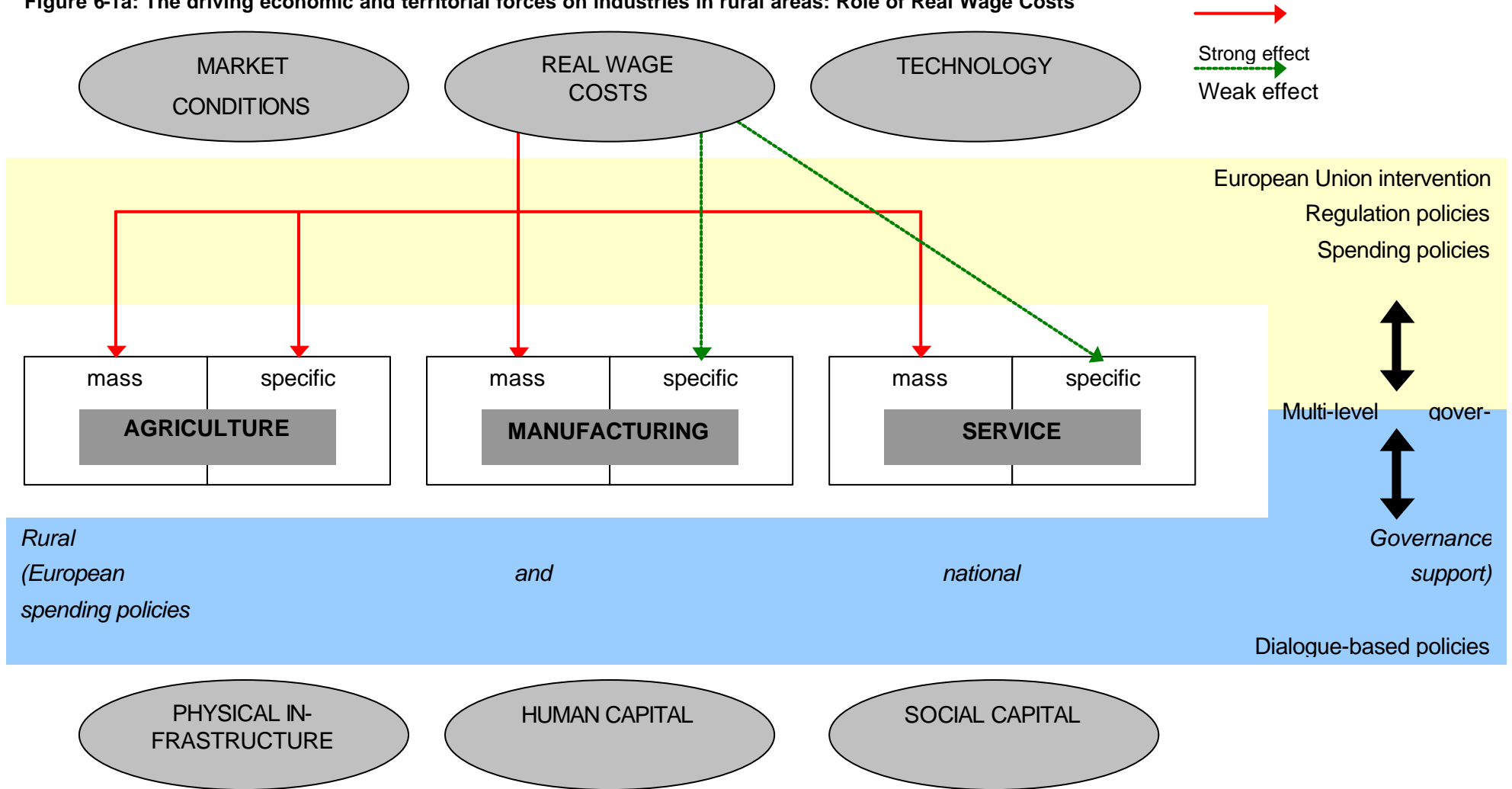


Figure 6-1b: The driving economic and territorial forces on industries in rural areas: Role of physical infrastructure

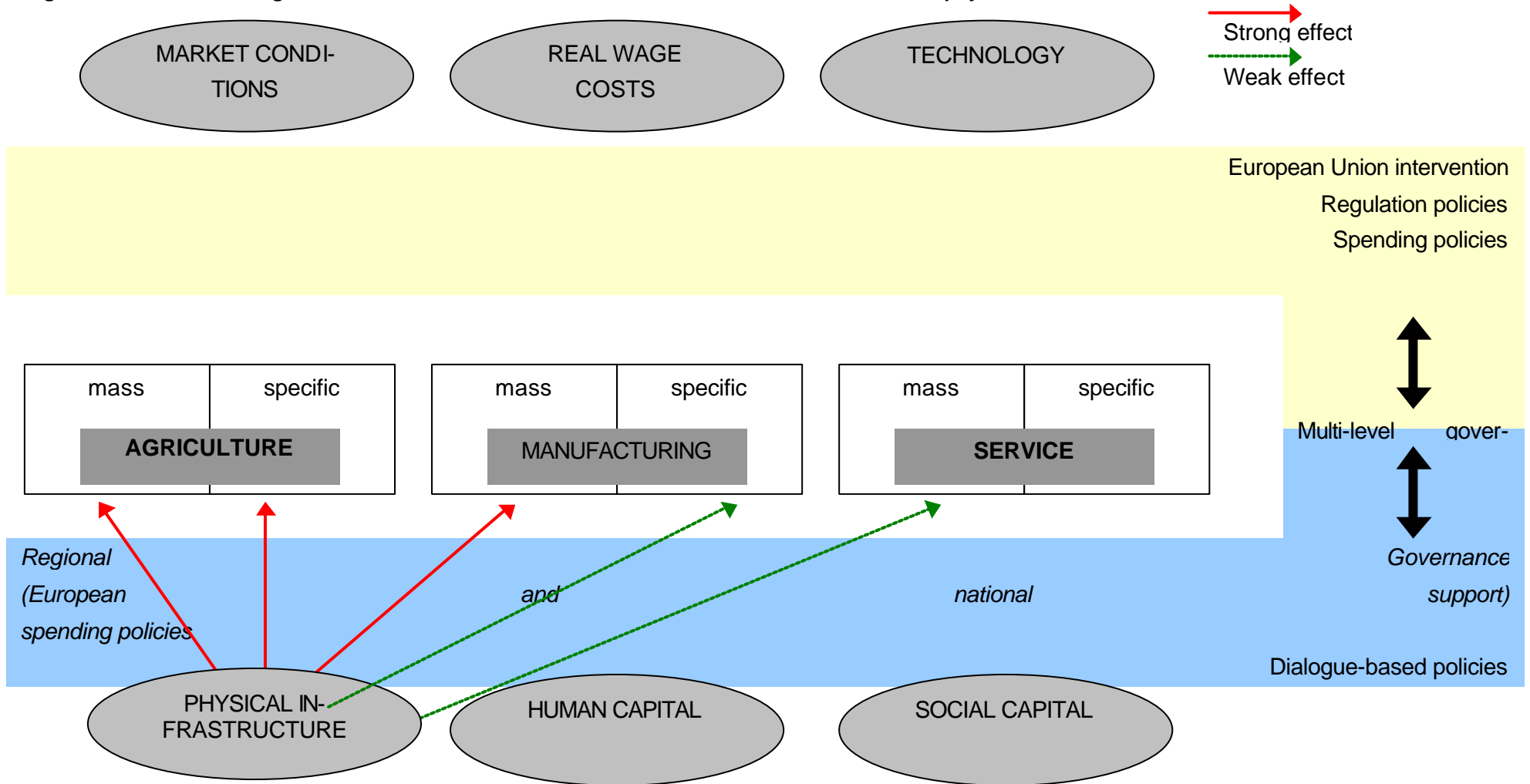
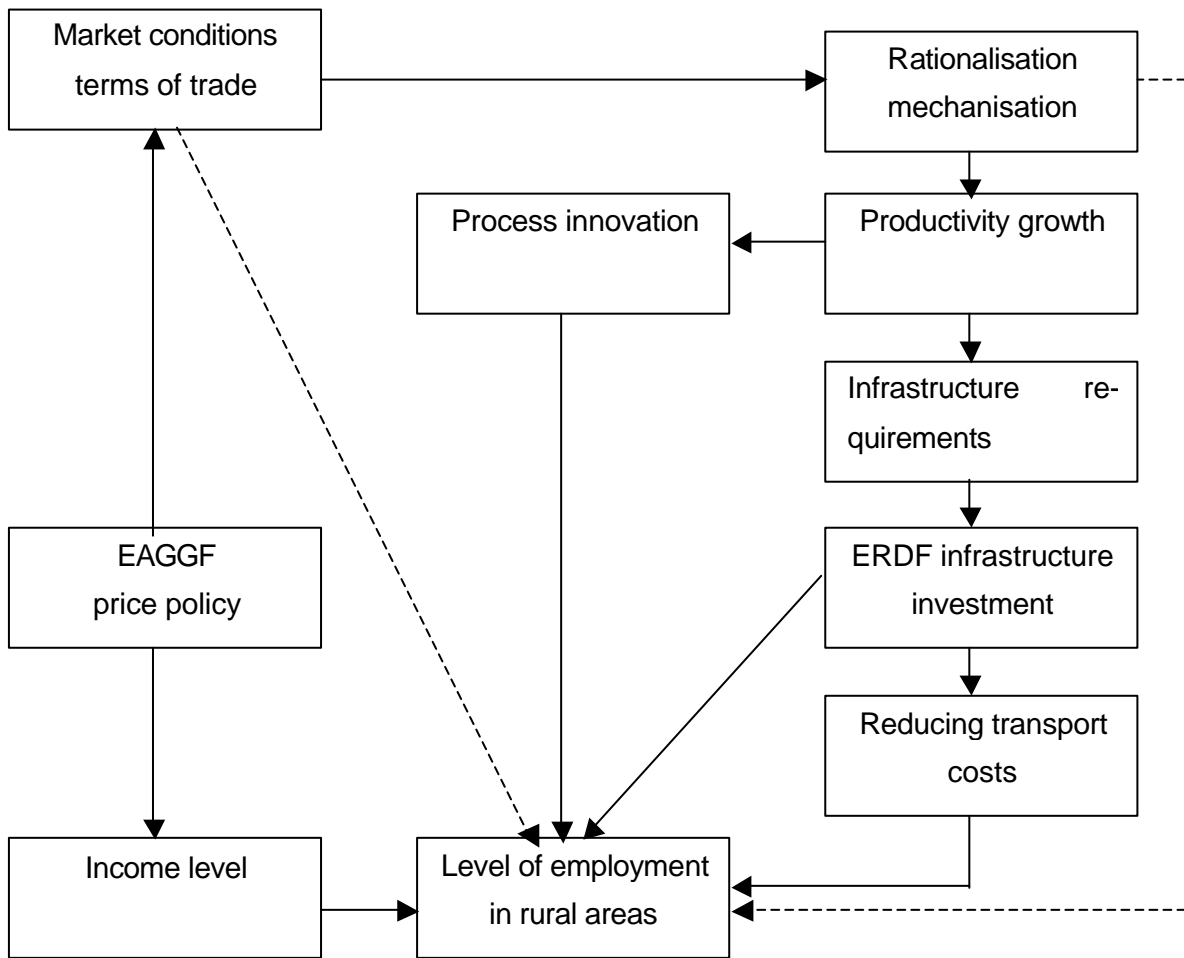
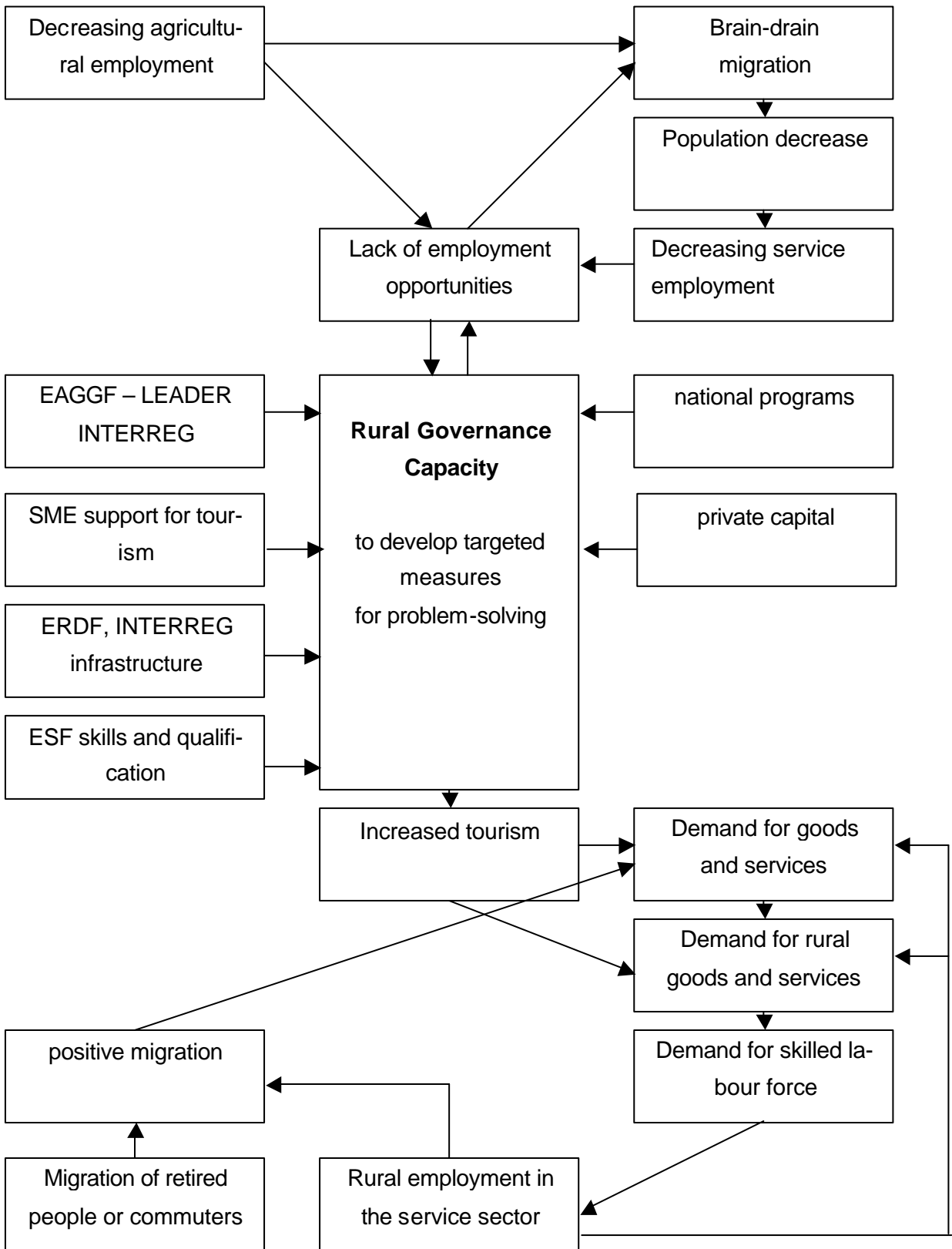


Figure 6-2: Price Policy and Employment



Dashed arrows indicate a *negative effect* on the level of employment in rural areas.

Figure 6-3: Tourism in rural areas



6.2.3 Expected outcome tables

Outcome on Job Creation and Job Maintenance

The outcome on job creation and job maintenance puts together a number of EU policies and instruments. The table one is backed by flowchart two (see above), where a distinction was made between levels of influence (general economic trends and rural or regional influence) to show which levels of governance address which driving force (column one). Governance-related initiatives and programs could not be integrated, as they do not focus primarily on employment opportunities, but might influence rural capacities and competencies to develop local/rural employment strategies.

Outcome on Job Quality

A number of programmes and initiatives have an impact, but it is rather speculative how and in what intensity they affect job quality in rural areas. In general, mechanisation and rationalisation tend to improve job quality.

However, the key programs relating to rural development seem to have little impact on job quality.

6.3 Validation of assumptions

The validation of assumptions drawn from literature and those of current EU interventions is hardly possible with the existing evaluation results and data available. In quite a number of ex-ante evaluations for programmes in the period 2000-2006, the concepts “rural area” or “employment” are not even mentioned. However, some “pattern-matching” (Yin 1981) is possible.

(1) There are a number of studies demonstrating growing divergence of regions and a simultaneous convergence of member states within the EU. The need to consider rural capacities or rural governance can be traced far back (Molle 1980; Pompili 1994; Camagni 1991; Wise 2000). Some argue that a distinction between Northern and Southern European areas is more relevant than the distinction between the centre and the periphery (Neven and Gouyette 1995). A number of pure market-economy driven publications that regard any intervention to lagging regions as a wrong decision (McMahon 2000). There is evidence that regional policy in general has become more effective after the 1989 reform and was able to generate growth in poorer regions, among them a number of rural areas (Cappelen, Castellacci et al. 2001).

Table 6-1: Outcome table (job creation and job maintenance)¹¹

Rural Policy	Spending policies		Regulation policies		Dialogue-based policies	
	Job creation	Job maintenance	Job creation	Job maintenance	Job creation	Job maintenance
Market conditions	EAGGF price policy				Support for rural governance (autonomy, decentralised policy design and strategy) influences market conditions	
Real wage costs	EQUAL might threaten EAGGF/GS direct aid and payments to farmers (CAP accompanying measures; 2078/92, 2079/92)					
Physical capital	EAGGF improvement of rural agro-environmental infrastructure, development and enhancement of forests (1610/89). Structural Funds (ERDF) Additional national programs during LEADER II like POMO or PODER EAGGF/GS afforestation (2080/92) LIFE might influence future policy decisions				FAIR and other preparatory measures might influence future policy decisions	
Technology	EAGGF: processing and marketing (Art. 33 measure) EAGGF: measures to modernise and diversify agricultural holdings, farm investment, investment aid for processing and marketing facilities (Art. 33 measures)				LEADER+: exchange and transfer of rural technology may support job creation/maintenance EUROPARTENARIAT and CRAFT: exchange and transfer of technology supports job creation, INTERREG: R&D, communication, IT support Finished programmes include FORADA,	
Human capital	EQUAL support for entrepreneurs opening new businesses EAGGF: setting-up of young farmers, training ADAPT: supports skills and qualifications				LEADER+: aiming to increase human capital INTERREG: supports labour market integration and social inclusion Finished programs include ELISE	
Social capital	EAGGF support of rural culture and heritage; Additional national programs (IRL)				INTERREG supports (rural) regional territorial profile building at trans-national level, LEADER+ and others, too FAIR and other preparatory measures might influence future policy decisions	

¹¹ The key programs are shown in bold types, the additional programs that may affect rural areas are in normal types. Finished programs (prior to 2000) are shown in italic types and additional national programs are shown in green types (examples only), while preparatory measures are shown in blue (examples only).

Table 6-2: Outcome Table (job quality)

	Spending policies		Regulation policies		Dialogue-based policies	
	Internal characteristics	External characteristics	Internal characteristics	External characteristics	Internal characteristics	External characteristics
Real wages and non-pay rewards		EQUAL supports equal payment and employability				
Technology	EAGGF promotes productivity growth and reduces physical work-load					
Human capital	ADAPT/EMPLOYMENT supported skills and qualification	LEONARDO supports initial vocational training and enhances human capital EQUAL aims to promote non-discrimination			Programmes and initiatives supporting networks increase individual human capital	
Social capital		LEONARDO supports initial vocational training and enhances rural social capital EQUAL aims to promote non-discrimination			Programmes and initiatives supporting networks increase individual and common social capital	
Attitude and reputation	ADAPT/EMPLOYMENT supported skills and qualification					
Industrial relation system		EQUAL influences industrial relation systems by agenda setting				

Investigating regional growth in the post-war period in six European states, Fagerberg and Verspagen 1996 point out that “the potential for catch-up by poorer regions through diffusion is still there, but that its impact is masked by diverging factors, most notably differences in R&D efforts, EU investment effort (but not the so-called European Regional Development Fund), industrial structure and unemployment” (Fagerberg and Verspagen 1996, 444). Some of these diverging factors are EU policy instruments and makes clear, that policy instruments have different effect in different areas. Yet, reasons why lagging areas were able to catch-up are usually not to be found in economic discussions. Rural governance – results of previous studies and profiles of leading rural areas give some evidence – seems to be of larger importance (Persson and Ceccato 2001; Lang, Naschold et al. 1998).

(2) Direct subsidies to farmers possibly maintain jobs, but will not create new jobs. The focus on process innovation through EAGGF price policy reduces incentives for product innovation (specific production) (Pianta 2000), while product innovations are supported by the emerging multi-functional agriculture.

(3) Self-employment plays an important role in rural areas (Huggins 2001), much higher than in non-rural areas, as well as small and medium-sized enterprises. Small- and medium sized enterprises are supported by other EU programmes. About one third of structural funds were directly attributed to SME in objective 2 and 5b areas, and about 14,5% in Objective 1 areas (COM (2001) 98 final, 84). The role of SME, entrepreneurs and self-employed in rural areas is significant (Huggins 2001). However, not every area in Europe can absorb the idea of entrepreneurship (Mariussen 2001). Targeting small-scale farming and organic farming by CAP could support employment promotion in specific agriculture. There is some evidence that the support and development of rural multi-stores has been successful for rural development.

(4) The domination of agriculture and the lack of R&D were identified as causes hampering economic growth (Cappelen, Castellacci et al. 2001, 13). Long-term interventions for structural change and improved R&D capabilities are regarded to facilitate growth. LEADER+ is going the right way compared to other inventions in the field of rural development, as the programme comprises a number of activities and relies on rural capacities. It is generally accepted that investment in public infrastructure, especially building, are reducing production and transportation costs and encourage private investment. Private investment, however, result in a technologically induced labour saving effect (Seitz and Licht 1995). There is some evidence that tailored specific forms of production as well as specific products in manufacturing and service industry by SME and rural entrepreneurs provide good chances for employment promotion. There might be a need for integrating programmes.

(5) Partnership approaches, increasing co-operation and co-finance makes it difficult to assess the employment effects (Saraceno 1999b). However, there appears to be some evidence to support the assumption that embedded partnerships are more successful than other forms (Westholm, Moseley et al. 1999).

(6) ICT represents an opportunity, but spatial distribution of employment effects tends to favour metropolitan areas rather than rural areas (Winther 2001). There is little information concerning both ICT and tourism: The idea of creating new employment opportunities in rural areas by promoting tourism is widespread and an important objective of the LEADER initiative. Though there is evidence that the capacity for tourism in the EU is exceeding demand by far (Bryden 1998) there are some indicators for a generally increasing demand of tourism as the growing age of the European population, an increased interest of matters associated with environment and health and a tendency to forsake mass tourism in favour of more differentiated products (Zimmer and Grassmann 1998). In accordance to the approach to identify strengths of rural profiles, each rural area will have to find its special tourism profile. These can contain traditional features of an area as well as new opportunities like “volcanic tourism” in the Rhône-Alpes (see www.rural-europe.aeidl.be). For this reason the literature about the impact of rural tourism for the domestic local economy is largely restricted to case studies (World Tourism Organization 1998).

6.4 Reaching a balanced assessment

Empirical evaluations show that new jobs resulting from growth in a local or rural economy are primarily going to migrants, and about one fourth of jobs created is estimated to increase the labour force participation rates of local residents in the long run (Bartik 1993). Due to a lower skill level, migrants are more likely to obtain jobs than rural residents (Häikkilä and Korhonen 2001). A number of rural areas experience a growth in population (Bryden 2000), and leading regions experienced a growth in employment, too (Terluin 2001). However, the picture might be slightly more difficult (Leeson 2002). Rural development policy aiming to create new job opportunities is closely linked with other measures, especially measures funded by the ESF. For rural employment creation, training subsidies have to be linked with actual rural labour demands in order to avoid an increasing brain drain. Here, too, rural governance is required to ensure stakeholder commitment to tackle rural unemployment and creating new opportunities.

Both job creation and job maintenance have to consider the long-term effect of employment. Specific forms of production (see flowchart 1a and 1b) tend to create more long-term employment than mass production, especially, when specific forms of production or specific

products are rooted in rural know-how or culture. Future ex-ante evaluations should assess the long-term employment effect of interventions and programmes.

There has been progress in developing and re-formulating an European rural development policy, however, the volume of spending is comparatively small. Decentralisation and allowing bottom-up rural policies is still needed to cope with the differences of rural areas in Europe (Baldock, Dwyer et al. 2001). The large number of concurrent programs has to be re-integrated on the rural level. This definitely does not imply a critique on the number of programs available, as rural profile differs, only a tailored set of programmes and measures will fit the needs.

6.5 Conclusions

What conclusions can be drawn from this policy study?

(1) Rural Governance

For employment promotion in rural areas policies should address rural competencies and capacities to ensure long-term employment effects and to increase the problem-solving capacity of rural areas. Programs like LEADER provide basic structures to targeted rural development with employment creation possibilities. The growing number of initiatives referring to local and rural partners in policy formulation still needs to support rural capacities and competences (Edwards, Goodwin et al. 2001). The long-known varieties in regional and rural performance for example in Objective 1 areas in the 1980s supported a "note of caution towards centrally-designed standard policies for local development" (Pompili 1994, 691)

There are a number of sometimes concurrent programmes that could be integrated by a single point of communication for rural areas offering lagging rural areas best access to EU programmes according to their defined strengths and weaknesses rural areas want to tackle.

The trend towards co-financed rural development should affect rural governmental bodies to ensure targeted use of EU programmes and measures.

(2) Rural industries and branches

EU policies should re-consider in what industry and in what branch employment creation can be addressed. Although job maintenance might be an important feature for social cohesion and inclusion, focus should be long-term employment in branches that fit to a region. The future of rural areas cannot be defined by ICT or multi-functional agriculture only, it depends on a rural area's profile whether a specific strategy for development is feasible or not.

(3) Future of rural development

Rural development measures account for slightly more than 10% of the total agricultural budget (Schrader 2000, 9). The Eastern Enlargement of the EU will have to address the redistribution of budgets, as many of the Candidate countries have large rural areas. This calls for a clearly focused rural development policy that is more independent from agriculture than is the case today.

7 *Monograph on Enterprise Policy*

7.1 Introduction

The Lisbon European Council of 23 and 24 March 2000 developed a new strategic objective for the coming decade for the European Union: to become the most competitive and dynamic knowledge-based economy in the world, capable of sustained economic growth with more and better jobs and greater social cohesion. To this end the Commission has adopted a Communication and a proposal for a multi-annual programme setting out how its Enterprise Policy will meet the challenges of globalisation and the new knowledge-driven economy.

Enterprise Policy is therefore a central tool in reaching the employment goals for Europe and is strongly related to other policy areas of this study: *'The support for research and development and life-long learning'* and *'The role of inclusion and participation for competitiveness, growth and employment'* are two areas, where enterprise policy plays an important role in fulfilling the aims. *'Rural development'* is another area where especially competition policy may have significant impact on employment.

7.1.1 Description

Enterprise policy and Competition policy are the responsibility of DG Enterprise and DG Competition respectively.

DG Enterprise was established in January 2000 as a merger between the former Directorates-Generals (DG) for small and medium-sized enterprises (SMEs), industry, and the innovation directorate. The current main aims of European Enterprise Policy are defined as:

- Encouraging entrepreneurship
- Promoting innovation and change
- Getting still more from the internal market
- Analysing Europe's competitiveness and integrating it with other policies.

The fulfilment of said policy aims should ease the life of start-ups and lower the overall costs of doing business in Europe - with the goal of creating a knowledge-based economy in Europe. A significant programme within DG Enterprise trying to secure the goals of the European Enterprise policy is the BEST Procedure.

European competition policy is based on European competition law and regulated by DG Competition within the European Commission. Competition policy seeks to secure economic efficiency and allow the internal market to function at an optimum. It restricts and prohibits anti-competitive practices by companies as well as national authorities. Competition policy differs from other policy areas by not having general programmes and initiatives. The activities can be divided into regulation and decisions within the following main areas: Mergers, Antitrust, Liberalisation and State aid.

Enterprise policy has a large potential for employment promotion, as demand for labour basically depends on how well enterprises perform in the economy. During the initial phase of the current study, a telephone survey was carried out among experienced stakeholders within national ministries of Employment, Social partners, and Members of the European parliament. It was the assessment of these stakeholders that enterprise and competition policies have large potentials for employment promotion. Only '*Support for research and development and lifelong learning*' and '*Market liberalization and integration*' was given a more optimistic assessment of employment potential. Within the area of enterprise policy, stakeholders generally point to *spending* and *benchmarking* as being the policy instruments with the largest potential for job creation, while *spending* and *regulation* are seen as having potential for promoting job quality. The assessment of existing policies within the European Union is less optimistic, though, as only *spending* is seen as having some effect on job creation.

The overall assessment of enterprise policies is thus that potential for promoting employment in Europe is large – both when employment quantity and quality is concerned – but the effects of existing programmes and policies are assessed to be rather limited. This may be due to the relative limited resources devoted to this area in the European Union compared to for instance Structural Funds, which is assessed as having the largest impact on employment.

7.1.2 Scope of the study

This paper has been preceded by an extensive research phase, which aimed at uncovering various community initiatives within enterprise policy. Given the limited scope of the current study it has been chosen to focus on four different and relevant enterprise policy initiatives in order to highlight different kinds of employment impacts, or rather: *potentials* for employment impacts, through a comparative analysis.

CREA is a spending based programme, which supports venture seed capital funds. Although CREA has a relative small budget, the programme has been chosen because it is directed at encouraging entrepreneurship – one of the key aims of European enterprise policy.

TEN-Telecom Action is also a spending based programme, which primarily supports market development and start-up investment in new products securing basic IT-infrastructure in the public interest. As is the case of **CREA**, **Ten-Telecom** is limited in size, but is included as an example of a programme, seeking to enable the framework and infrastructure for private sector development.

European competition policy regulates mergers, antitrust, state aid, and liberalisation. We briefly describe this policy area below and analyse the regulation of State aid in some detail. The policy regarding State aid has been chosen, as it seems relevant to discuss from an employment perspective.

The **BEST Procedure** is a basket of dialogue-based measures aimed at simplifying and promoting entrepreneurship and competitiveness in European SMEs. Apart from covering the wide span of European enterprise policy rather well, the **BEST Procedure** has been chosen because of its sheer size and importance for European enterprise policy.

A more detailed description of each programme is provided in the extended version of the policy study report on enterprise and competition policy.

7.2 Identification of underlying assumptions

Before describing the underlying assumptions concerning the employment effects of the selected programmes, a brief yet fundamental outline of the rationale of enterprise policy seems appropriate.

In order to place the analysis into a broader perspective, it should be stressed that the assumptions on employment effects are not necessarily explicitly stated in the official programme documents. Nor are they addressed in the evaluation reports, due to the fact that the focus of these studies lies on other matters. While employment is important as part of the overall development objective for all programmes, the immediate objectives of the programmes are of a different nature. The assumptions concerning employment are mostly implicit and must thus be deduced from the rationale and context of the programmes.

We have attempted to undertake these deductions by drawing on established schools of thought within economic theory that address the issue of public intervention in private markets and the resulting impact on the market and, hence, also on employment. The important point to be made in this regard is that there is not “one best theory”, but instead contending schools of thought, which offer different perspectives on how public interventions affect mar-

kets. Two main theoretical perspectives: the Keynesian perspective and the supply-side economic school, seem to be more or less in agreement, as to the appropriate role of public intervention in the long term, agreeing that sound markets function optimally *without* direct government intervention, and the role of government should be limited to the creation of a regulatory framework, which may enable private markets to function on their own terms. Government should thus refrain from initiatives such as spending programmes and regulation – other than ‘contract enforcement’ in the widest possible term – should in general be kept at a minimum.

In the short term, however, the two schools differ widely in their view on the role of government intervention. Supply side economists consider government intervention as a factor that creates market distortions in the long as well as short term. Government interferences negatively affect resource allocation and economic efficiency, and hence have a negative impact on employment. The Keynesian school on the other hand would argue that market intervention is made necessary in the short term by the fact that markets are “imperfect” and do not always by themselves lead to greater economic efficiency, technological innovations, etc.

In addition to the theoretical framework, the analysis is based on empirical programme documents and evaluation reports, where available (please refer to Annex A, Literature).

7.2.1 Identification of underlying assumptions

With reference to the theoretical arguments presented in the section above, the rationale behind most forms of enterprise policy is that market imperfections exist, which justify public policy intervention to lend a “helping hand” to the markets. Therefore, the argument goes, carefully designed “injections” may, in the best case, have a catalytic impact on the development of markets and may lead to better functioning and more advanced markets in the longer run.

In order to purify the analysis in the following sections, the view taken here is that of the long term as we have tried to single out the potential employment impacts in a time perspective that goes beyond the immediate time frame of the programmes. We have drawn on both schools of economic theory in order to reach a balanced assessment of the policy initiatives and their potential impact on employment drivers and employment.

We would also like to reiterate that due to the relatively diminutive size of the analysed policy initiatives, the European level impact of the programmes will be difficult to measure empirically, if at all possible. The assumptions on impact and the cause–effect relations sketched in the flowcharts should be seen as illustrations of the un-capitalised potentials of different

types of policy instruments. Moreover, these illustrations are all outlined under the assumption of a future situation where the critical masses of the initiatives exist and the policy initiatives would obtain European level impact.

The underlying assumptions on employment effects of different enterprise policies differ quite significantly. We have therefore chosen to subdivide this section, but to the extent that similar assumptions coexist for more than one policy measure, we will avoid repetition.

CREA

CREA aims to stimulate the start-up and survivability of innovative SMEs by supporting seed capital funds and promoting the exchange of best practices. The theoretical economic justification for a programme like CREA would be that the programme spurs innovation and the creation of SME-start-ups, which would otherwise not occur if only privately supplied venture seed capital existed. If successful, this will lead to positive externalities, which will enhance growth and thereby increasing the level of employment.

These positive effects could be impeded or even turned negative, if CREA merely crowd out other types of funding and investment. This makes it pivotal to evaluate, if CREA has in fact resulted in start-ups and innovation that genuinely differ from other start-ups and innovation funded on free market conditions and/or if CREA has resulted in a larger amount of independent venture capital than would have otherwise occurred.

TEN-Telecom Action

The underlying assumptions behind the employment effects of TEN-Telecom are that the investments in IT-infrastructure will pay off in terms of creating a public good (and overcoming existing cross-border barriers) and thus improving overall market conditions with positive effects on employment. Further, a demand for skilled labour – and thus an increase in job quality – may be expected as the result of technological innovation (initially, perhaps at the expense of unskilled labour). The supply of skilled labour can be expected as a result of increased IT-knowledge in the Community in general. These generally positive effects on employment may to some degree be countered by possible crowding out effects or mismanagement of funds (too much investments in “hot” areas).

State Aid regulation

The regulation of State Aid aims at countering the unintended (negative) consequences, which are expected to follow from the granting of State aid by EU Member States. This is done by seeking to limit the overall amount of State aid, and by redirecting State aid towards horizontal objectives of general Community interest.

The assumption behind the Community's regulation of State Aid is that this will limit and redirect State aid in the Member States with positive economic end employment effects by reducing the negative consequences assumed to be the consequence of State Aid. However, the benefits from limiting such unintended consequences may be very hard to detect and even harder to quantify.

The BEST Procedure

BEST is a basket of different dialogue based measures aimed at improving the business climate for SMEs and improve competitiveness within the EU. The initiatives aim at cultivating a European entrepreneurial spirit; improving access to finance and technology for SMEs; and easing the administrative burdens on SMEs. The different policy measures included in the BEST Procedure, however, affect employment in different ways.

The underlying assumptions behind the employment effects of the BEST programmes are, that the various measures will improve the business environment for SMEs, thus creating employment. Educational measures aimed at increasing the entrepreneurial spirit – and improving skills – may be expected to increase the number of business start ups; so too may support for SMEs in the form of facilitating seed capital and improving IPR-systems, which may also increase the survivability of existing SMEs. All these measures, however, require funds to be diverted from other parts of the economy, with adverse effects on the economy and thus employment. The final aspect of BEST evaluated here; public administration reforms (i.e. simplification), are on the other hand a “first-best” solution to the prohibitive costs of setting up and running SMEs, and may thus be assumed to be a more cost-efficient way of solving the problem.

7.2.2 Employment effect flowcharts

This section presents the assumptions translated into flowcharts for each of the four selected programmes.

Figure 7-1 CREA: An illustration of assumptions and the effect on employment

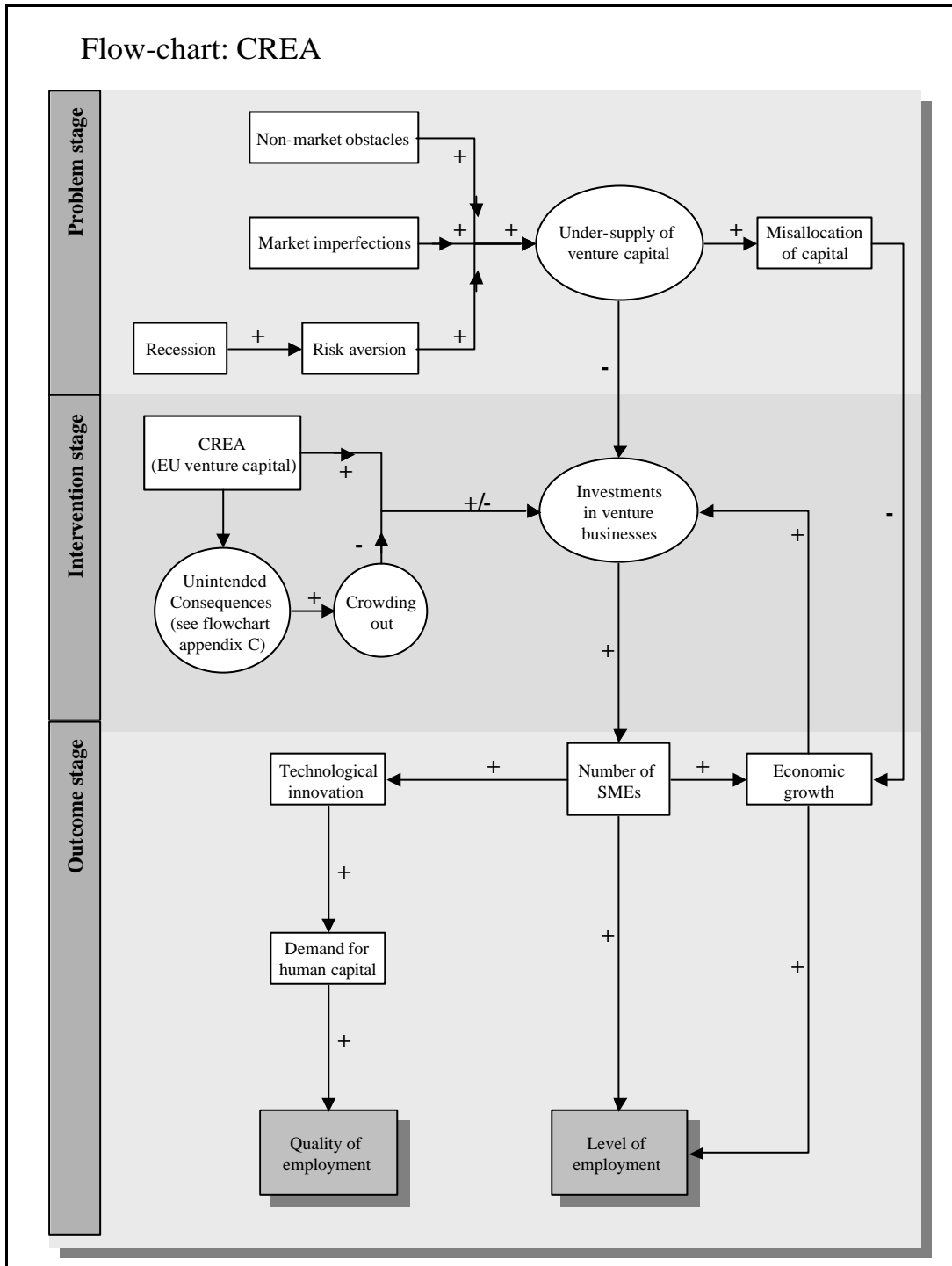


Figure 7-2 TEN Telecom Action: An illustration of assumptions and the effect on employment

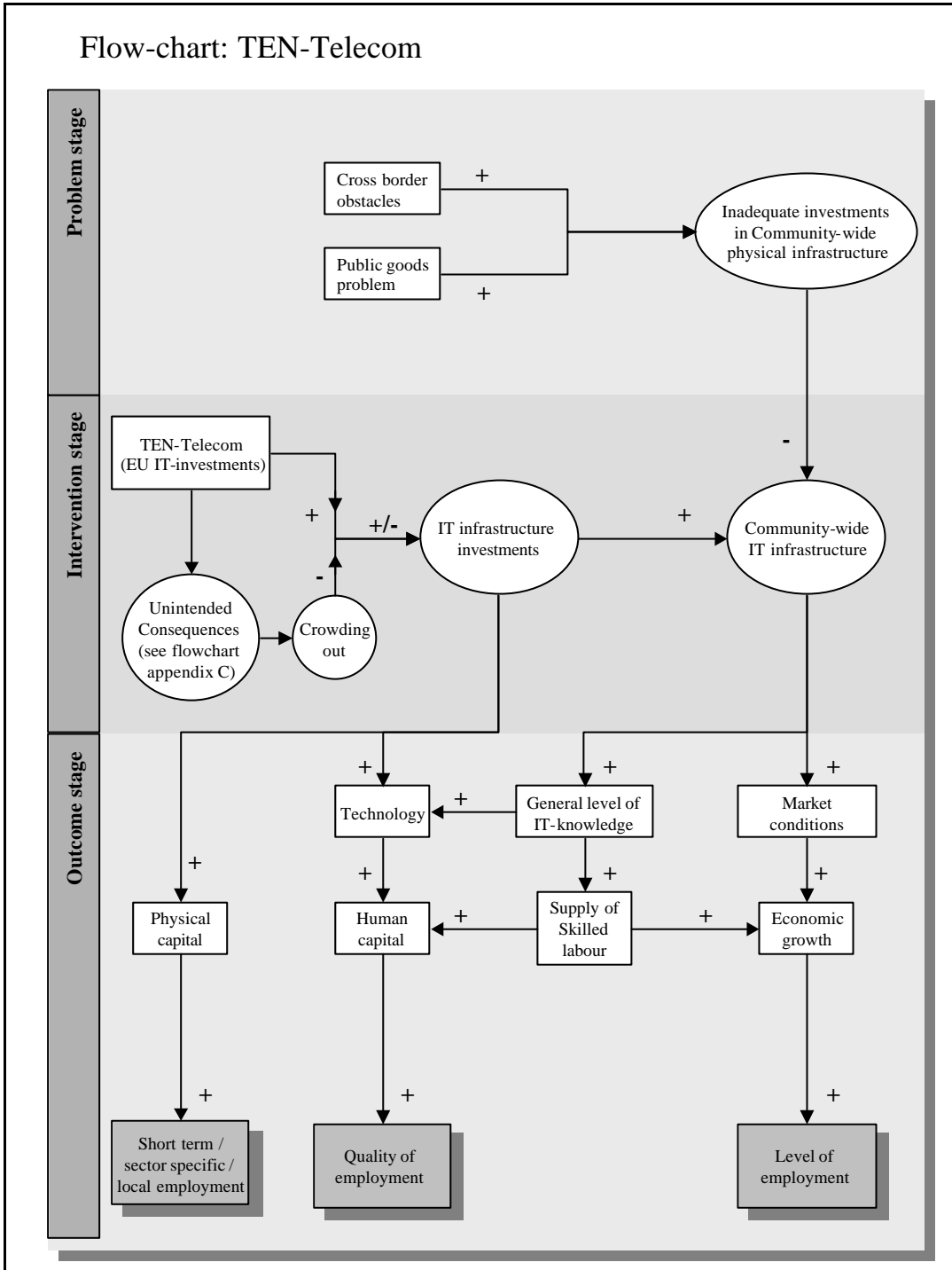


Figure 7-3 Competition policy: An illustration of assumptions and the effect on employment

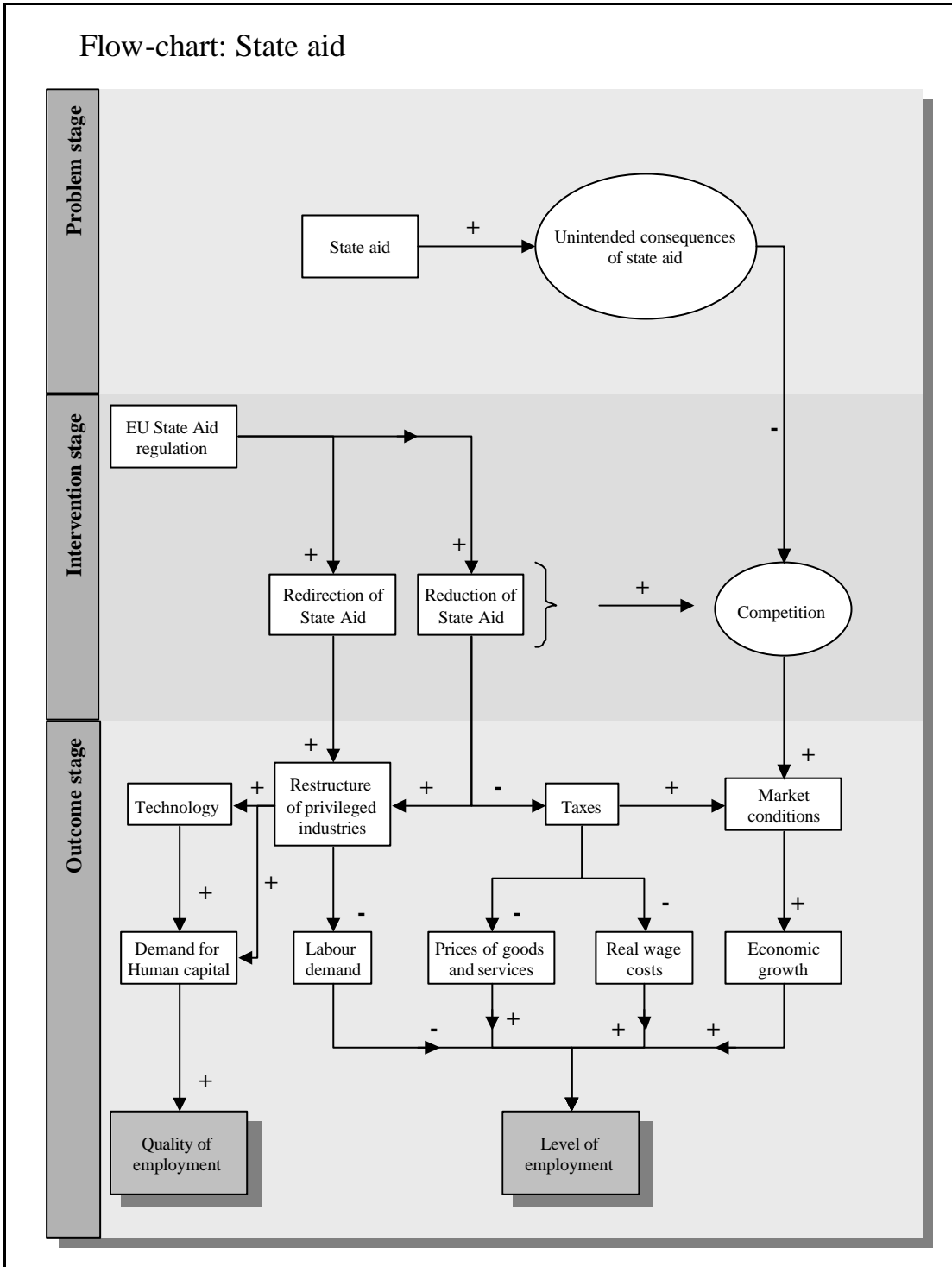
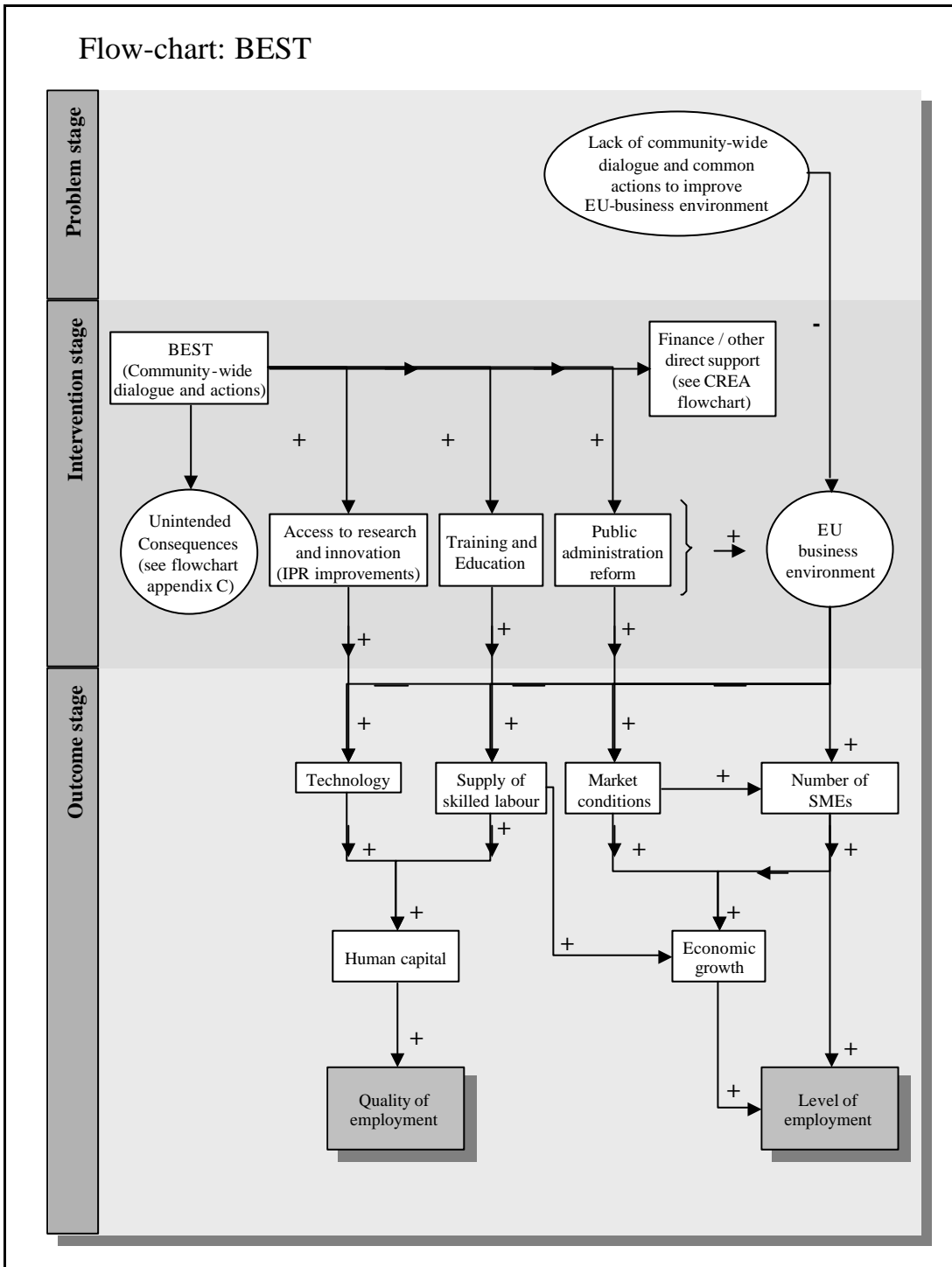


Figure 7-4 The BEST Procedure: An illustration of assumptions and the effect on employment



7.2.3 Expected outcome tables

Table 7-1 Expected outcome table for CREA

Driver	Spending	
	Job Creation	Job Quality
Market conditions	Aiding SMEs by providing seed capital is a “second-best” solution to the disadvantages faced by SMEs on account of large compliance costs. Whether market conditions will be improved depends on whether the correction of market failure outweighs the costs of the programme (through taxation).	
Real wage costs		
Real wages / non-pay rewards		
Physical capital		
Human Capital		Technological improvements in SMEs increase the demand for human capital, increasing job quality
Social Capital		Unknown
Technology		Increased investments in SMEs will spur technological developments increasing job quality. Other sectors of the economy will be hit as resources are diverted.
Prices of goods and services		
Attitude and reputation		
Industrial relations system		

Table 7-2 Expected outcome table TEN-telecom Action

Driver	Spending	
	Job Creation	Job Quality
Market conditions	The provision of a public good (IT-infrastructure) may improve market conditions and thus employment. Against this positive effects must be weighed costs to the economy (including the negative effects of crowding out and rent-seeking)	
Real wage costs		
Real wages and non-pay rewards		

Physical capital	Investments in physical capital (IT-infrastructure) may increase employment in the telecommunications industry as well as in related industries. Resources must, however, be diverted from other areas of the economy with adverse effects on employment there.	
Human Capital		Technological developments in the telecommunications industry (see below) may increase demand for human capital, increasing job quality. Increasing IT-qualifications in the workforce may further increase job quality.
Social Capital		
Technology		Investments in IT-infrastructure may spur technological development in the sector, raising job quality of workers employed in this sector. This will be at the expense of investments foregone in other sectors of the economy.
Prices of goods and services	An improved IT-infrastructure will reduce costs of goods and services in the economy (especially IT-related) promoting job creation and employment. <i>On the other hand:</i> resources diverted through taxation (to fund projects) will increase prices, hampering employment	
Attitude and reputation		
Industrial relations system		

Table 7-3 Expected outcome table Reduction and redirection of State aid

	Regulation	
	Job Creation	Job Quality
Human Capital	The restructuring of previously subsidised industries should shift labour demand away from low-skilled labour towards high-skilled labour. The effect of this on overall employment may well be negative. Especially in the short run in affected industries (See "Technology" below)	The shift in labour demand can be expected to increase job quality.
Real wage costs	The removal of State aid from Member States budgets should help reduce taxes and thus real wage costs, increasing the overall demand for labour	

Prices of goods and services	In the short run, prices of goods and services provided by previously subsidised industries / firms may rise, harming take-off industries. This may lead to short term reduction in labour demand. In the long run, however, the restructuring of subsidised industries and improved competition should reverse this. The lower tax burden should reduce overall prices of goods and services, increasing employment.	
Technology	Increased competition and the restructuring of previously subsidised industries should spur technological innovation further increasing demand for human capital (see above). In the longer run, technological innovation should also help increase economic growth and thus employment	By increasing the demand for skills / human capital, the increase in technological innovation will increase job quality.
Physical capital		
Market conditions	Reduction of state aid improve capital allocation and competition, reduces the burden of taxation and thus the use of scarce resources, leading to sustainable levels of high employment.	The optimisation of the internal market increases competition for workers and thus job quality.

Table 7-4 Expected outcome table BEST

	Dialogue based	
	Job Creation	Job Quality
Human Capital		The education and training aspect of BEST could impact human capital positively, increasing job quality.
Real wage costs	Public sector reform i.e. simplification lowers real wage costs. Aggregate costs of BEST affects real wage costs through tax wedge.	
Prices of goods and services	Cost of programme increases general prices in the economy	
Technology		Access to more efficient IPR ¹² -systems could spur technological innovation, improving the job quality of workers
Physical capital		
Market conditions	Public sector reform i.e. simplification is conducive to general enterprise climate Aggregate costs affect market conditions negatively (tax-wedge)	

¹² Intellectual Property Right

7.3 Validation of assumptions

This chapter aims at empirically validating the assumptions identified in the preceding chapter and illustrated in the flow charts and expected outcome tables. Due to the dynamics of a modern economy (and the limited size of the policies in question) problems of measurement and causality will in most cases prove insuperable obstacles with regards to tracking the direct link between Community action and effects on employment. The idea is thus to seek evidence of the individual assumptions previously identified for each of the policy areas, including their effect on individual employment drivers. As pointed out by Weiss (1999), tracking the micro-stages of cause and effect as they evolve, will allow greater certainty that observed changes (in this case employment effects) are due to the specific policies and not outside events.

As it is beyond the scope of this study to construct data collection methods and carry out data collection, validation of assumptions will be attempted on the basis of data extracted from previous studies, evaluations, and analysis of the Community policies in question. In the following the conclusions from the empirical studies are presented. The empirical analysis is given in the extended version of the policy study report on enterprise and competition policy.

7.3.1 CREA

It has proven difficult to obtain detailed evaluations of the CREA programme. The underlying assumptions behind the CREA programme and its effect on employment drivers are, however, identical to the underlying assumptions behind similar action under the BEST programme, which has been evaluated in some detail. As for validation of the underlying assumptions behind the CREA programme we thus refer the reader to the validation of assumptions behind the BEST programme (or rather the part of the BEST programme dealing with the provision of seed capital for SMEs).

7.3.2 TEN-Telecom Action

To sum up the impact of possible unintended consequences to be expected from the TEN-Telecom Action, these will primarily be the result of the alternative costs – albeit limited – and resources possibly wasted on rent seeking. The focus on high-risk trans-European projects in partnership with private agents should limit crowding out and ‘malign’ rent seeking. It remains a question, however, whether the resources invested in the projects (including resources spent on administration and rent-seeking) could have been invested elsewhere with better effects on employment. To shed some light on this question we turn to the evaluation of the *intended* consequences of the TEN-Telecom Action.

Concerning the expected positive employment effects from the TEN-Telecom Action as described in the expected outcome table, these seem to be validated by the evaluations. It remains the question, however, whether the positive expected effects will outweigh the unintended negative consequences of the programme. As mentioned above, the expected negative consequences are somewhat negligible, increasing the likelihood that the net employment effect will be positive.

7.3.3 State Aid regulation

In attempting to validate the assumptions underpinning the EU policies on State aid, we have firstly attempted to establish the policy effects on the two principal aims: the reduction of overall levels of State aid, and the redirection of State aid towards horizontal objectives of Community interest. Secondly, drawing on evaluations by the OECD and others, we have attempted to validate the effects that the fulfilments of these aims may have on employment.

On the basis of these sources, it may be concluded that the Commissions policy on State aid has not only succeeded in reducing state aid, but the policy also proves capable of improving the *quality* of State aid – a capability that is vital if the Community is to succeed in its policy of redirecting State aid towards sectors of Community interest. As for the employment effect of both these policies (the reduction and redirection of State aid), literature from both the WTO and the OECD (and the Commission) points unambiguously towards higher levels of sustainable employment as a direct consequence of improved internal market condition and increased competition.

7.3.4 The BEST Procedure

To conclude on the validation of assumptions behind the BEST procedure it is clear that the procedure has helped highlight many of the problems faced by SMEs and point to possible solutions. The employment impacts of the individual initiatives undertaken at EU or Member State, however, remain very difficult to estimate, let alone verify. An improved entrepreneurial spirit will undoubtedly affect employment positive by creating new businesses – however it remains controversial whether such a spirit can be created independent of efforts to help SMEs survive once they have been created.

8 Monograph on the Influence of an overall Sustainable Development Strategy on Employment: EU Environmental Policy

8.1 Introduction

While sustainable development is a broad issue integrating environmental protection, economic development and social development, it has precisely been determined that the focus of the present study should be on aspects of the Community's environmental policies. This does not capture the full range of issues concerned with sustainable development, but is operational and avoids overlap with other policy areas included in this study.

8.1.1 Scope of the study

Not only is sustainable development an extensive issue, but this is also the case for EU environmental policies, encompassing a substantial amount of legislation, programmes etc. The Handbook for Implementation of EU Environmental Legislation¹³ for instance lists 86 major directives or comparable pieces of legislation, with many of these having several daughter directives. To this can amongst others be added programmes and regulations concerning the Community's agricultural and fisheries policies and the Structural Funds that also have environmental objectives.

Given its overall scope the present study can, however, only deal with a limited part of this area with delimitation based on relevance to employment, the existence of empirical data, and scope and focus of the other policy area studies. With regard to the last point, the "Transport and energy" study thus addresses the programmes PACT, ALTENER and SAVE that all have environmental objectives and the "Rural development" study specifically addresses how to promote a more balanced regional development and amongst others includes agri-environmental programmes under the EAGGF.

Considering the above, the study will focus on the area of water quality management. While the area of water quality management is only one among a number of relevant policy areas within the Community's environmental policy, this rather narrow delimitation has been chosen in order to allow for a sufficient level of detail within the overall scope of the study. However, a number of the assumptions that are developed below will be readily transferable to other Community environmental areas, such as climate change, industry or waste, where

¹³ <http://europa.eu.int/comm/environment/enlarg/handbook/handbook.pdf>

similar measures are employed, e.g. inciting business sector and public investments by setting emission limits, technology forcing or internalising prices cf. below.

8.1.2 Water quality management

The area of water is perhaps the most comprehensively regulated area of EU environmental policy, initiatives in the area dating back to the First Environmental Action Programme in 1973. The overall objectives of the Community's water policy includes securing the supply of drinking water; securing the supply of water for economic requirements; protecting and preserving the aquatic environment; and restricting natural disasters related to water. The Community's water policy covers a substantial amount of legislation. Of relevance to this study, when considering time of adoption or implementation, i.e. within the last ten years, and likely effects on employment, are notably: the Water Framework Directive, the Urban Waste Water Treatment Directive, the Nitrates Directive, and the Integrated Pollution Prevention and Control Directive (IPPC).

The Water Framework Directive integrates a number of older directives, which eventually will be repealed, including the Dangerous Substances Directive, the Drinking Water Directive, the Directive on Surface Water for Drinking Water Abstraction, the Directive on the Measurement of Surface (Drinking) Water, the Freshwater Fish Directive, the Shellfish Water Directive, and the Groundwater Directive.

As concerns the IPPC Directive, it establishes a system of integrated pollution prevention and control and is not only focusing on water, but also air and land including waste. It is nonetheless very relevant with regard to water quality management, wherefore it is included in the study.

The selected measures are all regulation based, spending programmes have not been separately investigated. However, regulations have been and are the primary instrument in EU environmental policy, although the Structural Funds and the Cohesion Fund provides a substantial amount of funding and are actually the largest source of environmental project funding in Objective 1 regions (Medhurst 1998). In addition, the PACT, ALTENER and SAVE programmes, addressed in the "Transport and energy" study, are all spending programmes with some environmental objectives. Further, one may argue that especially the Urban Waste Water Treatment Directive is a regulation-based measure that actually incites spending programmes at Member State, regional and local level.

8.2 Identification of underlying assumptions

While not a direct objective of environment related programmes, employment (and growth) implications have often been at the forefront of discussions related to environmental measures. On one side of the discussion has been the traditional view that environmental measures are harmful to competitiveness and consequently reduce employment, while the other side of the discussion has pointed to the creation of 'green jobs', which according to this view more than compensate for alleged job losses in affected sectors.

The differences of opinion with respect to the magnitude of the net employment effects are illustrated by the survey, which was carried out among stakeholders within national ministries of Employment, social partners and Members of the European Parliament during the first phase of the PCP study. When asked about the extent to which a strategy of sustainable development promotes employment 32 pct. answered 'to a high extent', while 25 pct. answered 'to a low extent'. Compared to the other policy areas of the study, sustainable development was thus amongst those with the largest dispersion of answers. It should be mentioned, that the survey does not necessarily reflect the opinion on the employment potential of sustainable development per se (or the environmental aspects of sustainable development), but could reflect the perceived potential of only the current Community policies. The answers do, however, illustrate that no general opinion exists regarding the employment implications.

8.2.1 Assumptions and flowcharts

The directives covered deal with different aspects of preserving and improving the water quality. Across the directives the measures applied differ, reflecting both the overall development of water policy since its first integration into Community policy and that different demands are associated with particular aspects of water quality management. While some measures are so-called 'command-and-control' approaches instigating Member States to specific actions others leave more rooms to Member States to decide how to achieve the aims set forth in the directives.

The approach taken in this study will be horizontal, meaning that assumptions will be developed according to the type of measures applied across the different directives, rather than looking at the individual directive.

Table 8-1 Type of Measures in Water Quality Management

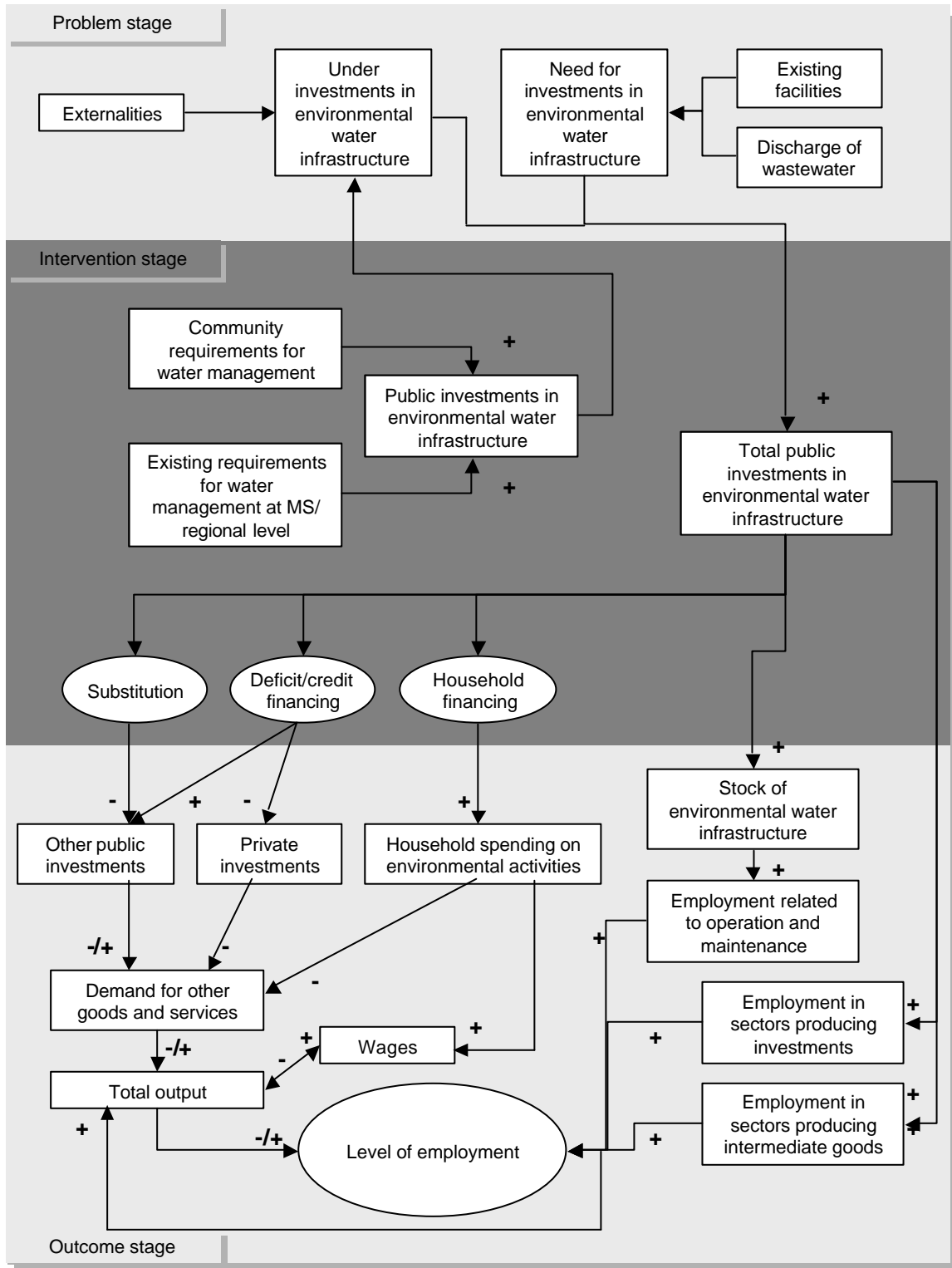
Type of Measure	Directives
Promote public environmental infrastructure investments – including operation and maintenance	Urban Waste Water Treatment Directive Water Framework Directive
Promote private investments in water management technology through technology forcing (i.e. require investments in certain types of technology) – including operation and maintenance	Urban Waste Water Treatment Directive Integrated Pollution Prevention and Control Directive (IPPC) Water Framework Directive
Promote private investments through emission/discharge limits – including operation and maintenance	Urban Waste Water Treatment Directive Dangerous Substances Directives Integrated Pollution Prevention and Control Directive (IPPC) Nitrate Directive
Internalising prices	Water Framework Directive
Promote establishment of administrative and monitoring capability	Urban Waste Water Directive Water Framework Directive Dangerous Substances Directives Integrated Pollution Prevention and Control Directive (IPPC) Nitrate Directive

As shown in Table 8-1 at least five broad types of measures can be identified across the directives, with most measures being applied by several directives. In addition to those listed, other measures are, however, likely results of the directives. Thus, in some cases, where no uniform method of implementation is required, several different types of actions in different Member States are possible. This is for instance the case for the Nitrate Directive, which sets a benchmark limit on nitrate levels, but does not require uniform methods of implementation across Member States. The measures dealt with here are those that most likely will be applied uniformly (but to a different degree cf. below) across Member States. While the following assumptions are based on an ‘everything-being-equal in all Member States scenario’ this is rarely the case. So the following arguments on the impact of certain measures will relate to a hypothetical status quo ignoring existing differences in Member States.

Promote Public Environmental Infrastructure Investment

The environmental infrastructure investments depicted in the flowchart in Figure 8-1 are mainly investments in wastewater collection facilities and treatment plants. While the heading refers to public investments one should bear in mind that the line between public and private investments in wastewater collection and treatment facilities are becoming less clear cut as new business models such as private-public partnerships are becoming more important, at least in some Member States. Investments in wastewater collection and treatment facilities by private companies *on behalf of the public* are included in this section.

Figure 8-1 Flowchart for Promotion of Public Environmental Infrastructure Investment



As shown in the flowchart, positive direct and indirect employment effects are related to producing and operating the water infrastructure. The employment associated with producing the infrastructure is assumed to be temporary, i.e. it is only sustainable while the investments take place. This view is, however, modified by the fact that the directives actually incite a

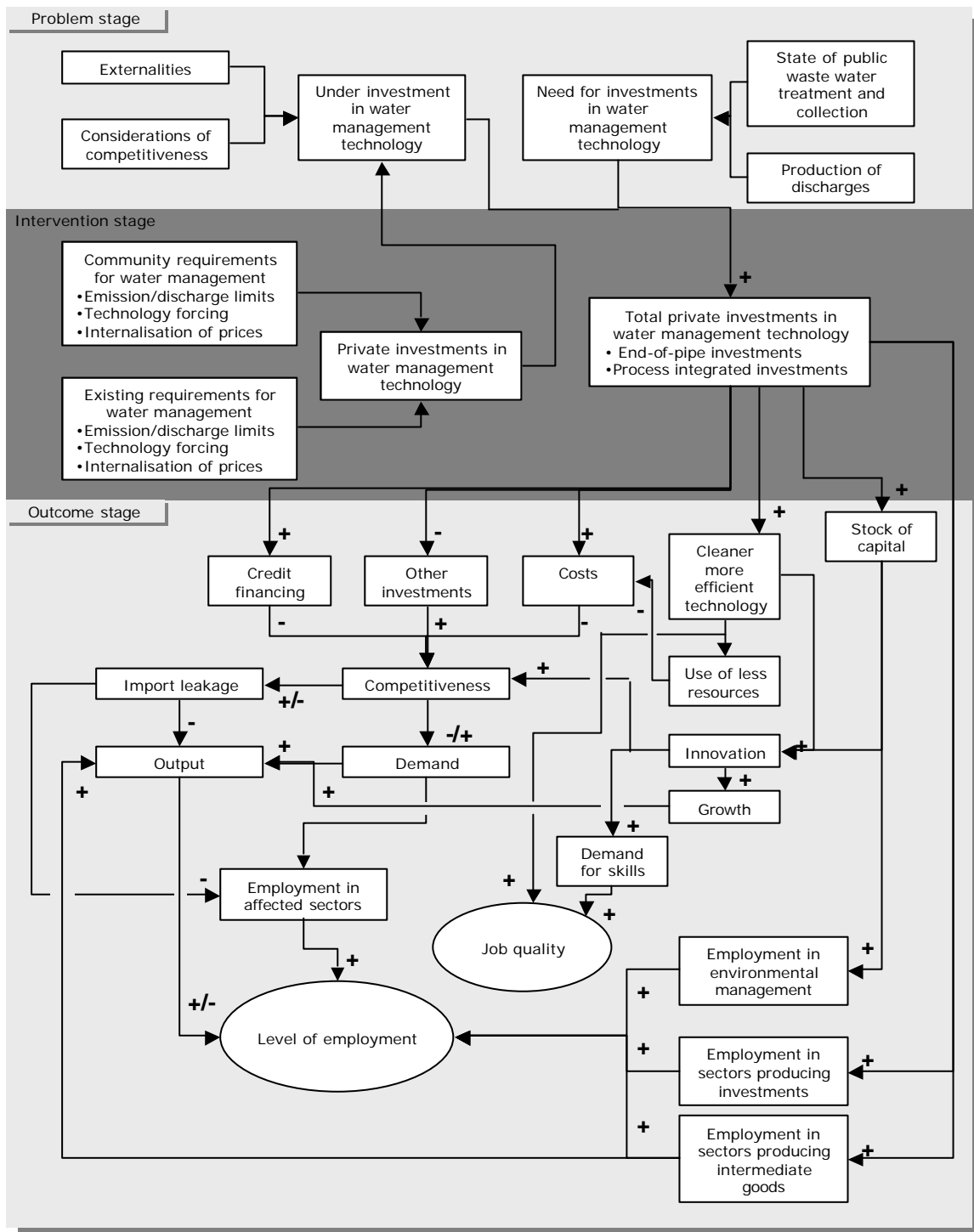
stream of investments, which, together with the need for replacement investments, provides for some continuity. Direct and indirect permanent employment is related to operating and maintaining treatment plants and collection systems. While these temporary and permanent effects are clearly positive, it is nonetheless unclear, whether positive effects on the overall level of employment will occur. Investments in water management infrastructure may thus substitute other public investments as well as lead to monetary and real crowding out of private investments. Further, private households disposable incomes may be negatively affected to the degree that the financing is passed on to the households. These factors will negatively affect the level of employment.

Promote Business Sector Investments in Water Management Technology

The directives dealt with in this study promote private sector investments in different ways. The most direct promotion occurs through so-called technology forcing, where a directive requires industries to adhere to a certain standard of technology. Emission/discharge limits more indirectly incite business sector (industry and agriculture) investments, since businesses are free to select how to observe the limits established by the directive. Finally, pricing the use of water or pollutant substances discharged (directly or indirectly) into water may indirectly promote investment in water quality management technology. This will particularly be the case when the pricing is volumetric, i.e. according to the amount of water used, amount of wastewater produced, or if pricing is based on the content of particular damaging substances, since this will increase the costs of pollution and at the same time create permanent incentives to limit the use of water and/or production of wastewater which subsequently might incite investments in cleaner technology.

As for public (or public-private partnership) investments, private business sector investments in water management technology may have positive direct as well as indirect employment effects in those sectors producing the investments. In addition, an increased stock of physical capital related to environmental aspects may lead to an increase in internal environmental management. On the other hand, investments in water management technology may negatively affect competitiveness, by substituting other investments and increasing unit production costs. This is likely to be the case for investments in end-of-pipe technology, whereas process-integrated investments *could* actually lead to a more efficient production process and ultimately have a positive impact on competitiveness. Changed competitiveness are likely to affect employment both at the individual plant at perhaps at an aggregate level, by affecting elements such as demand, imports and exports and hence total output. Investments in and demand for cleaner and more efficient technology may contribute to an innovation effect, which could influence long-term growth and ultimately employment.

Figure 8-2 Promotion of private investments



Although of less relevance for the Community's water policies, one could argue that an innovation effect would lead to a demand for skills, which could have some effect on job quality. Further, job quality may be positively affected by the introducing of cleaner technology, which could provide for healthier working conditions.

Internalisation of Prices

Besides promoting private, mostly process-integrated investments, an internalisation of prices both through flat rate schemes and through volumetric schemes will in itself lead to higher costs for businesses using large quantities of water, e.g. agricultural enterprises in parts of southern Europe or some industry sectors. While some enterprises might offset cost rises by installing technology to save water or avoid polluting effluents, such technologies might not be affordable for some of the smaller industrial and agricultural enterprises and enterprises with older production facilities. Such enterprises might therefore face profitability concerns if they are not able to cover the increased costs by raising prices for their products, which amongst others depends on factors such as elasticity of demand and competition from foreign and domestic producers.

For private households internalisation of prices though a higher price of water means that a larger proportion of the income is used for water consumption and wastewater disposal. This will affect real disposable income and thus demand for other goods and services and consequently employment. On the other hand, higher household payments will increase government revenues, which could be used to balance any negative effects. Also private households will have incentives to reduce the use of water/production of wastewater, which may partly offset reductions in real disposable income.

Promote Establishment of Administrative and Monitoring Capacity

All of the directives covered include elements that require that some form of capacity within Member States governments exists in order to implement, monitor and enforce the relevant provisions. Examples include administrative data collection systems, permitting systems and laboratory facilities. To the degree that such capacities are not already in place, the directives will therefore likely result in an increase in employment related to these activities. Increased employment will, however, mean an increase in public spending on environmental activities, which may affect demand for other goods and services and subsequently employment depending on the means of financing parallel with the situation depicted in Figure 8-1. Since the costs associated with establishing an administrative and monitoring capacity are on-going costs, it is less likely, though, that deficit financing will be applied.

Employment impacts from improved water quality

While the primary objective of the Community's measures related to water is not employment, but rather preserving and improving the quality of water, some long-term positive employment effects are likely results of meeting these objectives. Preserving or improving the quality of waters may help to maintain jobs in those sectors dependent on the quality of water. These sectors are notably fisheries and tourism where economic development and hence employment are associated with the state of marine and coastal waters as well as inland waters (rivers and lakes), but also for industries relying on large amounts of clean water.

An improvement in the quality of water may also have an impact on the job quality for those people having waters as a working environment by improving the external job characteristics with respect to healthy working conditions.

8.2.2 Expected outcome tables

Table 8-2 Expected outcome table for Water Quality Management for number of jobs

	Regulation
Market conditions	Private sector competitiveness might be negatively affected from investments in water management technology and from internalisation of prices because of higher unit production costs. This may affect output and ultimately employment. For integrated solutions this outcome might be avoided (in some cases) if the overall efficiency increases. Possible positive effects (cost savings of investors, learning/innovation of suppliers).
Real wage costs	If no consensus exists on who should pay for the environmental improvements, a wage-price spiral may be set in motion, which, if unsupported by monetary policy, can affect the level of employment.
Technology	Cleaner technology (mainly process-integrated) may be more efficient and may thus increase productivity and hence competitiveness. This may ultimately affect employment positively. Investments in cleaner technology might spur technological innovation and subsequent growth.
Physical capital	Temporary direct and indirect effects from investments in environmental water infrastructure (private and public). Permanent direct and indirect employment effects from operation and maintenance of infrastructure. Possible substitution of other public investments. This will affect employment negatively in those sectors where expenditures alternatively would have taken place. Possible crowding out effect (monetary and real crowding out) of private investments in other types of physical capital (used for production) caused by increased public expenditures. In the long run this may impede growth and employment.
Human capital	
Social capital	

Prices of goods and services	Financing of environmental water expenditures may lead to higher prices of industry output and impeding job creation. Internalisation of prices will lead to higher costs of natural and possibly other production resources, affecting production costs and thus competitiveness negatively.
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Table 8-3 Expected outcome table for the Water Quality Management for job quality

	Regulation (Contextual job characteristics)
Real wage costs	
Technology	Demand for new technology may give rise to demand for skills and thus an increase in job quality. Cleaner technology may improve working conditions by reducing health risks. Both from cleaner and healthier production forms and from an improved environmental state of waters.
Social capital	
Attitude and reputation system	
Industrial relation system	

8.3 Validation of assumptions

Below some of the crucial links identified in the previous section will be checked against findings reported in previous studies and against available statistical data.

8.3.1 Transposition of directives

Urban Waste Water Directive

Although significant delays were reported in the first implementation report as compared to the deadlines established by the directive (CEC 1998), the implementation programmes submitted by the Member States generally indicated that it would be possible to respect deadlines for the application of the directive. Figures for investments in collection and treatment facilities indicate that the directive is having a substantial influence on investments in wastewater treatment facilities. According to the European Environmental Agency (EEA), when the directive is fully implemented, collecting systems capacities should have increased by 22 % and treatment capacities by 69 % (EEA 2001).

Nitrate Directive

While the Nitrate Directive was to be transposed into national law at the end of 1993, a Commission report in October 1997 concluded that despite in 1991 all national governments had agreed unanimously on the regulation, only four Member States had implemented the di-

rective properly (CEC 1997). The poor state of implementation was confirmed in the second annual survey on the implementation and enforcement of Community environmental law (CEC 2000c). Everything being equal, the poor implementation of the directive will mean that the impacts on employment at an EU level from the Nitrate Directive up until now most likely have been relatively limited. Obviously, this does not mean that the directive in the future will not have a more substantial impact when fully implemented.

Water Framework Directive

The provisions of the Water Framework Directive with regard to full cost recovery schemes are not to be fully implemented before 2010, wherefore the effects up until now most likely are limited.

IPPC Directive

Adopted in 1996, the IPPC Directive had to be transposed into national legislation by October 1999. However, several Member States had by August 2001 only partially transposed the Directive¹⁴. From the time of transposition the Directive applies to all *new* installations, as well as some existing installations. For most existing installations a further eight years long transition period is however granted. The reference documents (BREFs) that are to guide national, regional and local BAT requirements are not to be completed for all 30 sectors defined in the Directive before the end of 2004. For these reasons, the influence of the Directive until now including on employment is probably limited.

8.3.2 Effects of investments

An attempt to assess the tangible employment effects (i.e. direct employment in industries undertaking expenditures and indirect employment in industries supplying investments and intermediate goods and services) associated with the transposition of Community directives related to air, water, and waste has been made by WRc in a recent study (WRc 2000). For the water sector the study addresses the Urban Waste Water Directive, the Drinking Water Directive and the Nitrate Directive. Based on an assessment of investments expenditures amounting to 164 billion Euros between 1990 and 2010 and annual operating expenditures of 3,5 billion Euros, the study concludes that almost 180 000 annualised jobs (full time equivalents) can be associated with the implementation of these three directives. Employment effects resulting from impacts on overall public spending, competitiveness and changes in real disposable income are not taken into considerations. Further, the estimated number of jobs cannot be linked directly to the adoption of the directives, since the estimated costs for methodological reasons are the costs of achieving the objectives of the directives and not the

¹⁴ According to the European Commission: <http://europa.eu.int/comm/environment/ippc/index.htm>

costs of the directives per se (WRc 2000). For the three (water) directives covered operating costs are estimated at between 13 and 29 pct. of total annualised costs. This leads to an assessment of sustainable jobs as between 22 and 33 pct. of the total number of annualised jobs for the different directives dealing with water.

Other figures are available in reports by ECOTEC (1997, 2002) on the employment situation in EU eco-industries. ECOTEC estimates EU 1999 pollution management¹⁵ expenditures for wastewater treatment to amount to Euro 48.2 billion, which is an increase from Euro 37.6 billion in 1994. ECOTEC estimates for employment related to wastewater treatment, which are derived from the expenditure data using an engineering analysis, are shown in Table 8-4.

Table 8-4 Employment related to wastewater treatment

		1994	1999	Difference
Direct employment	Investment related	175 500	218 500	43 000
	Operating related	226 300	209 000	- 17 300
Total direct employment		401 800	427 500	25 700
Indirect employment		n.a.	132 200	-
Total employment*		n.a.	559 800	-

Source: ECOTEC 1997, 2002

* For all domains the total number of direct and indirect employment is estimated to 1.5 million in 1994 and 2.7 million in 1999.

The table shows a substantial increase in the number of direct investment related jobs, while there for direct operating related jobs is a decrease. This decrease could be due to the application of more modern and less labour intensive technology. Overall there is an increase in direct employment. It must be underlined firstly, that the figures and increases cannot only be ascribed to EU policies and secondly, that the estimates are not net effects, since they do not take account of possible negative effects such as competitive disadvantages in polluting companies, decrease in demand for other goods and services etc.

8.3.3 Effects on competitiveness

A study on the impact of IPPC Directive's BAT (Best Available Technology) requirements on the competitiveness of European Industry, has been conducted by the Joint Research Centre's Institute for Prospective Technological Studies (IPTS) (Hitchens *et al* 2001). At a gen-

¹⁵ Pollution management defined as environmental goods, services and construction including investments in cleaner technologies and production (ECOTEC 2002).

eral level the study concluded that primary/front end (mostly process-integrated) measures have a generally positive impact on productivity and plant performance, while secondary (mostly end-of-pipe) measures have a mixed impact, i.e. both negative, neutral end positive impacts. The findings show, however, that the exact impact on competitiveness depends on a number of factors. Amongst those that can be derived are the timing of investments, particular characteristics such as size of the plant, the existing technological level and existence of high quality human capital, and the time to undertake these.

The study by the IPTS only deals with three selected industries and the conclusions are not necessarily transferable to other industries affected by the IPPC Directive or in general to business sectors making environmental investments, including in water quality management. The study results do, however, indicate that costs increases and competitive disadvantages do not necessarily follow from environmental investments. It also seems to suggest that in some cases especially related to process-integrated investments, environmental investments can actually lead to a decrease in production costs.

With regard to the level of industry investments Eurostat estimates that industries throughout the EU spent 7,4 billion Euros on wastewater treatment in 1998 of which 2,4 billion were investments and 5,2 were current expenditures. For all environmental domains Eurostat estimates total industry expenditures to be around 30 billion Euro in 1998, of which 62 pct or around 18,6 billion are estimated to be current expenditure.

Eurostat data suggests that the environmental protection investments for all domains as a percentage of gross fixed capital formation lies between 2.5 and 5.8 pct for those Member States where data is available (Eurostat 2001).¹⁶ Environmental compliance costs as a percentage of total production costs are somewhat lower though. Data for Community level are not available. However, according to the OECD (1997) available studies indicate that environmental compliance costs only amount to 1-2 pct of total production costs in most sectors, although for some sectors the share is markedly higher. Although exceptions exist, the OECD concludes that environmental compliance costs generally are not large enough relative to other costs to influence national or sectoral competitiveness. Further, with regard to plant closures following environmental regulation, the OECD concludes that by and large closures happened among older, high-cost, marginal plants. Parallel conclusions emerged from a number of case studies examined at a conference held by the European Foundation for the Improvement of Living and Working Conditions (Eurofound 1998). It was concluded that marginal firms in declining, environmentally intensive industries can suffer from extra

costs from environmental regulation, whereas averagely competitive firms in stable industries generally do not experience environmental regulations as a particular burden on competitiveness. And further, that attention to environmental management can lead to cost savings and innovation that might actually improve competitiveness.

At an EU level Eurostat assesses process-integrated investments to account for around 40 pct of total industry investments on environmental protection equipment and facilities (Eurostat 2001). No assessments for the EU level are available with regard to environmental water equipment and facilities. Data for some Member States are, however, available. They indicate a very large variation with regard to the level. Available data are from different years, wherefore one should be cautious about drawing conclusions.

8.3.4 Macroeconomic impacts

A recent analysis of the macroeconomic implications of sets of environment improving actions in the European Union has been carried out by the National Institute of Public Health and Environmental Protection (RIVM), Netherlands as part of a multi-sectoral study commissioned by the Environment Directorate General (RIVM 2000 & 2001). The study considers a number of environmental issues including issues related to water quality management and including an appraisal of the socio-economic impacts under different scenarios.

The study compares a technology driven scenario and an accelerated policy scenario with a baseline scenario, which includes existing and proposed EU environmental policies as of 1997. The technology driven scenario assumes a full application of the most advanced technology, which involves direct costs associated with the purchase of additional end-of-pipe technology around Euro 50 billion annually as compared with the baseline scenario, corresponding to about 0.5 pct of EU GDP in 2010. The accelerated policy scenario involves additional expenditures around Euro 8 to 10 billion annually as compared with the baseline scenario, corresponding to around 0.1 pct of GDP. The study predicts some overall economic costs measured as GDP losses. The total economic cost resulting from the full range of environmental actions is however, considerably lower than the direct costs in the form of investments etc. because of recycling in the economy of the direct costs. Estimated GDP losses range from 10 to 30 billion Euros equivalent to an affect on 2010 GDP level of -0,1 (accelerated policy scenario) to -0,3 pct (technology driven scenario) (RIVM 2001). While the overall GDP losses might be relatively limited, the study found that some sectors would be relatively more affected, i.e. agriculture, energy supply and energy intensive industries. Despite the

¹⁶ Data available for the Netherlands, Sweden, Austria, Portugal, Belgium, Finland, the UK, Ireland, and Germany.

sectoral and overall GDP losses, the study found that total employment would be almost unaffected and in some cases positively affected with employment effects ranging from 47.000 to 140.000. These effects are primarily the result of an increased total domestic demand for goods and services required for environmental protection.

Although the study is not an assessment of the effects of existing policies, but rather a forecasting of the effects of future possible measures, the result that positive employment effects may arise parallel to overall economic costs might nonetheless be pertinent for existing policies.

8.3.5 Internalisation of prices

A look at the current situation with regard to water pricing suggests that a full implementation of full cost recovery schemes will lead to significant changes and increased charges for the use of water as compared to the present situation, not least in the southern countries and with respect to agriculture (cf. Roth 2001 & OECD 1999). It is, however, difficult to assess the effect of the Water Framework Directive, since exemptions from the full cost recovery provisions for certain water usages, e.g. irrigation, are granted in the directive.

8.3.6 Improvements in water quality

Data from the EEA suggests that the state of waters in Europe has improved and is improving with a notable exception with regard to nitrogen concentrations, which is partly ascribed to unsatisfactory implementation of the Nitrates Directive (see e.g. EEA 2001). The general improvement of the state of waters at least suggests that the preconditions for any linkage with employment exist. However, no studies or existing data are known to the consultants, which could validate employment impacts consequent upon an improved environmental state or more specifically consequent upon EU environmental policies.

8.4 Conclusions

This study has considered the links between water quality management and employment as an example of EU environmental policies' influence on employment and has subsequently looked for existing empirical evidence that can validate the assumed links.

Although previous studies and existing data do provide some evidence for the unfolding of some of the theoretical mechanisms, evidence for a substantial number of the links is not available. Therefore, it is generally difficult to draw firm conclusions with regard to the employment impacts. That said, the investigation of available evidence suggests that:

- There can hardly be any doubt that the Community's policies has incited a substantial amount of investments, which in turn have contributed to substantial gross employment, not least in the water and wastewater sector, but also in sectors supplying intermediate goods and in construction sectors.
- A large part of the employment is in principle temporary, since the created jobs are dependent on continuous investments. On the other hand, the aggregate level of expenditures is sustained over a long period of time instilling at least some degree of permanence at the aggregate level also connected with the need for reinvestments. In addition a permanent impact on employment results from operating the build-up physical capital, although the effect per unit of capital stock may decrease over time due to technological progress.
- In general the effect on competitiveness seems to be related to the type of investments and to specific characteristics of the individual sector and the individual enterprise.
- Quality of jobs seems relatively less affected by EU environmental water policies.

The inability to draw more firm conclusions is particularly due to the fact that:

- Not enough evidence is available with regard to possible negative effects, e.g. on business competitiveness or through crowding out and the consequent impacts on employment as a result of environmental regulation in general or water policy in particular.
- A number of the assumed positive side effects, such as innovation effects are difficult to validate and disentangle from other causes, not least because of the time span such effects occur over.
- It is not clear from the available evidence, whether the employment connected to the relevant directives can be considered as additional employment or whether the jobs would not have been created anyway as a result of alternative investments or a higher demand for other goods and services.
- Although the water quality does seem to be improving throughout the Community with regard to most effluents, it is considerably harder to establish whether this does actually result in increased employment in affected sectors and whether job quality has been improved as a consequence of this.

Most of the positive employment effects considered in this study are related to investments in physical capital and technology, i.e. investments by public authorities, private-public partnerships or businesses in various forms of pollution abatement equipment and infrastructure. This driver is relatively easy to influence e.g. by setting emission limits that incite new investments, by renewed BAT requirements or by public environmental investment projects.

While investments clearly create employment, the question of how to best promote employment is really a question of minimising the (potential) negative side effects of environmental regulation. As evidenced by the expected outcome tables, the assumption of the study is that negative side effects are mainly related to less favourable market conditions, and related to increases in the prices of goods and services (the issue of alternative usages of public environmental expenditures and thus whether jobs created are additional is left aside given the methodological problems concerned with assessing the scope). To promote employment one may thus conclude, that measures to a large extent as possible should be designed to minimise the impact on these drivers or that parallel measures should be applied that can counteract the negative side effects.

With regard to business sector competitiveness (market conditions), measures that incite process-integrated investments rather than end-of-pipe investments should, when not counteracting the environmental objectives, be preferred. Or approaches relying on economic incentives, which could achieve more cost effective pollution abatement, rather than so-called 'command-and-control' approaches should be preferred. In general environmental regulation should be designed in a way to spur innovation by leaving as much flexibility as possible without foregoing the environmental objectives.

Certain sectors and regions are likely to suffer more from environmental regulation than others. To a large extent, the existing Community legislation already takes account of this issue, through exemptions and by allowing for regional and local considerations to be taken into account. While such approaches clearly help to counteract the negative economic and social impacts, they may result in a slower fulfilment of the original environmental objectives. Hence there clearly exists a trade off between flexibility and cost efficiency at an overall level on the one hand and a policy of exemptions taking into account local or regional socio-economic considerations on the other hand. Dealing with this trade off seems to be among the major challenges of Community environmental policy.

With regard to the prices of goods and services, increasing the price of water as in the water framework directive may actually be seen as utilisation of economic incentives. In general such incentives are likely to be most cost-effective, when relying on various forms of volumetric pricing. As previously mentioned, the aggregate affects are closely linked to the use of the additional revenue resulting from e.g. the full-cost recovery water schemes. Hence, possible negative effects may be offset or minimised by returning this revenue to the affected sectors or households through for instance reductions of strongly distorting taxes. Returning revenues may in some instances provide an alternative to a policy of exemptions and could thereby be part of the solution for the abovementioned trade off.

EU environmental water policy and EU environmental policy more generally do seem to have an employment potential by creating a substantial number of jobs in the environmental sector and in sectors supplying goods and services to these. On the other hand, although not only related to the water issue, macro-economic studies (RIVM 2001, OECD 1997) suggest that the aggregate effects on employment may be small, because of some negative side effects.

The (net) employment potential of EU water quality management (and EU environmental policy more generally) then seems to be connected more to structural changes, with employment shifting between sectors, than to an increase in the overall level of employment. It is obviously a challenge to deal with such structural changes, but the examination of available evidence do suggest that it is possible to pursue environment and employment objectives simultaneously.

9 Monograph on the Role of Inclusion and Participation for Competitiveness, Growth and Employment

9.1 Introduction

Social policy has been—and is still—the "Achilles heel" of European integration. However, the enormous contrast between the "Social Chapter" of the Treaty of Rome of 1957 and the "Agreement on Social Policy" of the Treaty of Amsterdam of 1997 also shows the progressive influence of the social dimension over these four decades, and especially since the late eighties. In this evolution, from the perspective of this study, three aspects stand out particularly:

- The progressive consolidation of a "convergence of objectives" approach in the co-ordination of social and employment policies during the nineties.
- The increasing centrality of combating social exclusion since the late eighties. The challenge of "building an inclusive Europe" took on legal status in the Treaty of Amsterdam.
- The "Open Method of Co-operation" on social inclusion as the beginning of a new stage in Community policy to combat social exclusion.

The "Open Method of Co-ordination" formalises the "convergence of objectives" approach. It is a process of co-ordination that is based more on inter-governmental co-operation than on supranational action and that is more oriented towards "soft" regulation and benchmarking on good practices than towards binding legislation.

At Nice Summit (2000) the OMC on social inclusion was agreed and four main objectives for promoting social inclusion were adopted: 1) to promote participation in employment and universal access to resources, rights, goods and services; 2) to prevent risks of exclusion; 3) action for the most vulnerable groups; 4) to mobilise all the relevant actors.

Rationale of Community social inclusion policy states that breaking the vicious circle of social exclusion requires a comprehensive approach that fosters equal opportunities in the economic, social, political and cultural field, an effective mobilisation of all relevant actors and a suitable balance between remedial and preventive policies. In this framework, promoting access to a decent job for those suffering from or threatened with social exclusion will be the cornerstone of this strategy. As it is stated in Nice Summit, "the best protection against social exclusion is access to employment".

The aim of this study is to analyse the employment potential of Community policy to combat social exclusion. At a time of change such as the present one, coherent selection of programmes and measures is required so that the conclusions will be of use in the years to come. To establish this selection criteria of significance (importance of the Community action in the nineties) and relevance (importance of the action for the future development of the OMC on social inclusion) were used. Selected actions combine preventive and remedial measures in four key areas for social inclusion policy: social protection, education-training, employment and gender equality. Structural Funds are excluded, because their employment potential is analysed in another chapter of PCP Study.

Selected actions

- 1 Community programmes to combat poverty and social exclusion (*spending*)
- 2 Guarantee of a minimum income (*regulation/dialogue-based*) (1992 Recommendation on common criteria concerning sufficient resources and social assistance in social protection systems)
- 3 Community actions to combat failure at school (Second Chance Schools) (*spending*) and the promotion of e-inclusion (*regulation/dialogue-based*)
- 4 Community actions in favour of the employability (Pillar I of EES) (*regulation/dialogue-based*)
- 5 Community actions in favour of equality between men and women and reconciling work and family life (Pillar IV of EES) (*regulation/dialogue-based*)

9.2 Identification of underlying assumptions

9.2.1 Social welfare, economic competitiveness and employment performance: European social model

Social welfare is a societal and political option that is mainly based on the aspiration to achieve a fairer society with greater solidarity. The debate lies in whether there is a trade-off between social welfare and economic competitiveness or they can reinforce each other. It is a recurring debate in academic spheres, among other things due to its strong ideological connotations and political implications. In this study the question is: does more policy of social inclusion necessarily mean in the medium-term less economic growth and therefore less employment and more social exclusion? In other terms: may more inclusion be conducive for more economic growth and more and better employment?

The debate is — and will probably remain — open, but in the framework of this study it is relevant to review the main empirical evidence of the different arguments.

- The main Neo-classical argument in favour of Neo-liberal theses is the negative fiscal effects of social expenditures and taxation on the supply of capital. However, the empirical revision of this argument shows a far less conclusive result that is open to different politi-

cal options: net levels of social expenditure are quite similar in US and European countries (Adema, 1999, 2001); persistent and large budget deficits are harmful, but the extent of a "persistent and large" deficit is nevertheless under debate (Gough, 1997); the stabilising impact of public social expenditure in European countries cannot be undervalued (Begg et al, 2001).

- A second powerful argument of the Neo-classical school is the existence of a vicious circle between social transfers, dependency traps and high standards of employment (like minimum wage and employment protection regulation). However, the empirical evidence does not corroborate this thesis, but shows the existence of different welfare state traditions (outside and within the EU) with different balances between employment, job quality and equity (e.g. Esping Andersen, 1990, 1999; Begg et al, 2001). It is explained by the impact of social transfers on consumption and demand, and, above all, the existence of "welfare outcomes" that foster the consolidation and long-term sustainability of better social balances (Gough, 1997)
- Finally, there is clear empirical evidence and a wide analytical consensus—though varying levels of application in political terms—on the positive impact of investment in human capital.

From this brief review one must draw two conclusions that are relevant for this study:

- The trade-off between competitiveness and welfare is not sustained empirically, but there are practical dilemmas of greater relevance, at least in two senses: the economic advantages of social policy are predominantly in the long term and generate strong tensions in political decision-making; the synergies between social, employment and economic policies are not automatic but contingent and must be constructed from quality and through a suitable interaction of policies.
- European social model is based on the recognition that the normative objective of social justice can be made to contribute to economic efficiency and progress. But within the EU there are different "European social models" that result in different balances between employment, job quality and equity.

9.2.2 Activation and social exclusion: the focus on a short-term curative approach

"Activation" approach tries to create more immediate links between welfare and work: inclusion in labour market is not only seen as an end in itself, but also as a tool to restore social citizenship. A common trend of social and employment policies is the focus on "active measures" for promoting access to employment. Currently, the main orientation of social inclusion policy is that of increasing employment rates.

Studies exploring the mechanisms of distancing and marginalisation in the labour market may be grouped into three not necessarily exclusive theories:

- “Dependency trap”: the economic protection offered by social and employment policies may generate the opposite effect of demotivating the search for employment. As already mentioned, in its most extreme version this theory does not have empirical backing. But the dependency trap has a certain influence, albeit limited and usually related to an inadequate combination of policies (i.e. breadwinner model) or to political choices (i.e. early retirement measures) (Gough, 1997).
- “Poverty trap”: when the poor quality of employment or unemployment leads to poverty, it is poverty itself that makes it more difficult to find a decent job. Poverty limits the possibility of reinsertion in several ways: less access to information, less mobility, worse image, less self-esteem and poorer health. This theory has broad empirical backing (Gallie et al, 2001; Gallie, s.d.).
- “Skill trap”: as result of knowledge society and international competition, an accelerated process of sector and technological change is coming about with a marked decline in traditional low-skilled jobs. Low-skilled workers have also fallen behind in the process of work skills development and in-work training that more highly skilled workers have undergone. This double process accentuates the risks of instability, unemployment and social exclusion for this group. It is the more widespread theory.

These considerations are covered to a greater or lesser extent in the Recommendation on a guarantee of minimum income, the European Employment Strategy and the OMC on social inclusion. Furthermore, in the great majority of European countries, current active social and employment policies all take these three possible traps into account, albeit with different emphases. One of the new elements in play is “workfare”, where income support is dependent of the acceptance of a job. In general trends, active policies combine training and employment subsidies with workfare and rapid job placement measures (Esping Andersen et al, 2001).

In spite of the diversity of these measures, and the methodological difficulties in achieving a thorough evaluation, the existence of highly extensive literature allows to extract some conclusions about their impact on employment:

- Active measures may redistribute job opportunities and reduce the risk of long-term unemployment for the most vulnerable groups (Koning and Mosley, s.d; Campbell, 2000). But, for this to be really the case, it is necessary to avoid stigmatisation and, above all, give economic support to prevent these groups from falling into the “poverty trap”, a condition that not all the programmes and measures fulfil (Esping Andersen et al, 2001).

- Effects on more long-term employability are much more uncertain. Active measures may help to overcome skills shortages that act as barriers and bottlenecks in the labour market: the labour supply of more highly skill workers may thus be effectively increased and the pressure to lower salaries have positive effects on the quantity and quality of employment. Obviously, it depends on the accuracy of design (substitution and displacement effects can be important). Nevertheless, a large part of active policies focus on workfare and job placement measures: the greater the emphasis on immediate job placement, the smaller the stimulus for upgrading one's skills and escaping from the “skill trap”.
- Other effects on employment level are empirically not very clear and in some cases politically questionable. Impact may be produced by two distinct mechanisms:
- Even if skills are not really enhanced, an effective increase of labour supply may lower wages and increase employment. Empirical evidence is not conclusive, given the great variety of measures and wage-setting institutions, but substitution and displacement effects may be considerable. Furthermore, this result is questioned by those who consider the trade-off between quantity and quality of employment unacceptable in the lower and more vulnerable part of the labour market.
 - Employment subsidies may increase the demand for low-skill workers: they compensate the low productivity of less skilled workers, making labour costs cheaper without generating more inequality and poverty. But their implementation is not free from perverse effects. In the short-term, substitution and displacement effects may even have a counterproductive impact (the unfair use of these subsidies to reduce labour costs, without creating net employment); in the long-term, they could harm incentives to innovation and upgrading of skills and consolidate the existence of poorly skilled and low paid jobs, producing, under a new formula, the very skill trap they were designed to eliminate.

In conclusion, in spite of the broad consensus established in the objectives of life-long learning and quality of labour, social inclusion policy places special emphasis on activation and increase of employment rates. In this way, a short-term approach, more curative than preventive, is being prioritised with only a limited impact on human capital and employment levels.

9.2.3 Childhood well-being, gender equity and social exclusion: the focus on a long-term preventive approach

The cornerstone of a long-term preventive approach to fight social exclusion must be childhood well being. All available evidence indicates that childhood is the critical point at which a

person's life course is shaped. Unequal opportunities in life are still powerfully rooted in social inheritance: all social inclusion policy must have, as its prime objective, to break or at least minimise this mechanism that transmits and reproduces inequality. An inclusive strategy for childhood is the fairest and also most effective way to act against the social exclusion of tomorrow (Esping Andersen et al, 2001).

This approach is closely linked to the resolution of gender inequality problems. Gender equality is a goal in itself, but is also a centre-piece for solving child poverty and exclusion via a friendly “mother employment” policy offering real opportunities to reconcile work and family life for women with limited economic resources and skills. Changes in the labour market have eroded the “breadwinner” model because it is increasingly difficult to sustain a family with the salary of a single low-skilled worker; but the scarcity of economic resources may also be a barrier for access to work for women when there is no adequate support to reconcile their family responsibilities; in this context, the dependency and vulnerability of women is accentuated and family breakdown may be a direct way to poverty and social exclusion for lone parents, almost all lone mothers (Esping Andersen et al, 2001).

The proposals for an integrated approach in this area are based around three basic actions:

- Economic support to prevent poverty in children and families at risk (there is also a “poverty trap” for children, with harsher consequences than for adults)
- Early and sustained socio-cognitive support for children and young people at risk (high quality day care, improvement of schools in deprived neighbourhoods, after-school programmes, prevention of failure and drop-out)
- Friendly “mother employment” measures and policies (partially related to socio-cognitive support for children, including leave schemes and affordable childcare).

Items from this approach are covered in the Recommendation on a guarantee of minimum income, the Second Chance Schools programme, the fourth pillar of the European Employment Strategy and the OMC on social inclusion. This coverage, however, is partial and fragmented. Furthermore, the degree of instrumentation of this policy is highly diverse among European countries (Behning and Serrano, 2001). In this context, it would be unwise to attempt to enter into details on their possible impact on employment. However, it is possible to highlight at least four basic aspects:

- Remedial policies for adults are a poor (and costly) substitute for interventions in childhood. A policy oriented towards the prevention of social exclusion during childhood should be seen as a social investment, although it may also include measures that are normally considered as social transfers. This policy could be a highly significant contribution to the long-term improvement of human capital.

- Social investments on long-term social inclusion policy would have short term clear impacts on job quality for those engaged in supporting activities -greater professionalism of networks and better working conditions- and, to greater or lesser extent, a medium-term positive effect on the demand of these supporting jobs.
- The effective mobilisation of low-skilled women towards employment does not depend only on aspects such as affordable childcare or parental leave schemes. Public support for women's employment can interact in a different way with the labour market: the more earning gap between men and women, the more women's greater domestic specialisation and less stimulus to work; something similar may be happening in relation to segregation and working conditions. The more general policies of gender equality therefore play an important role in the final impact of this friendly-mother employment policy on female labour supply.
- A significant increase in low-skilled female labour supply may have important effects on employment level and job quality. Employment growth is today closely related to services that are driven by households decisions of externalise or internalise service consumption. Increasing low-skilled female labour supply and supporting access to work would imply, also, increasing household income and maximising family out servicing and fostering the demand of labour in the service sector, offering new job opportunities not only to low-skilled women, but also to more highly skilled women and men. This may provide a more long-term way to reach a better equilibrium between employment growth, job quality and equity (Esping Andersen 1996, 1999).

9.2.4 The "European dimension" of social inclusion policy

Up to now, review has been done of the main underlying assumptions of the employment potential of community policy against social exclusion. The question for this "problem-oriented" approach was: what impact do/may social inclusion policy orientations have on the quantity and quality of employment? However, it also seems relevant in this study to tackle the relationship between employment and social inclusion from a "political-institutional" approach: To what extent does/may the "European dimension" of social inclusion policy improve the employment potential of national policies?

The most important innovations in this area are connected with the OMC: the formalisation of this policy-instrument, its consolidation for employment policies and its extension to social inclusion policies. The main criticisms of the OMC are that it is a defensive response by member states to prevent a greater degree of EU competence in social and employment policy and to hinder binding social regulation. However, other analyses state that it would be more consistent to consider the OMC:

- Under current political and institutional circumstances, as the only choice to establish an EU play in areas where EU competence is very limited (Begg et al, 2001; Begg and Berghman, 2001).
- As a policy-making process that, in practice, may involve rethinking of the principle of subsidiarity: subsidiarity would no longer be a zero sum relationship between member states and EU institutions, but rather a positive sum-game of "europeanisation" and "renationalisation" (Zeitlin, 2001).

From this viewpoint, OMC potential for improving national policies is based on the institutionalisation of a policy-learning process (learning from and with others, learning in anticipation of failure); the encouragement of management by objectives and a more medium, long-term approach; the enhancement of synergies between social inclusion and employment policies and, finally, the promotion of social dialogue and private/public co-operation.

For this purpose, the OMC's main critical points would be the technical quality of the benchmarking and monitoring procedure; the suitable balance between the quality of procedure and the flexibility in translating objectives to national policies and, finally, the degree to which there is an effective policy learning process and suitable feedback on the improvement of guidelines.

9.2.5 Flowcharts and expected outcome tables

The first table attempts to model the possible impact—*positive* and negative—of social policy on economic competitiveness and employment performance. Impact is broken down into the three areas that explain economic and employment growth in macroeconomic terms: supply of capital (demand of labour), supply of labour and productivity of capital and labour.

The next three flowcharts focus on the employment potential of activation policies, childhood well-being and gender equality policies, and the "European dimension" of social inclusion policy. Employment impacts are broken down into employment level and quality of employment. Furthermore, flowcharts also highlight two specific dimensions of quality of employment of great relevance for social inclusion policy: the equality of job opportunities and the gender equality.

The two final tables present expected employment outcomes of community social inclusion policy. To ensure a clearer presentation, they are explicitly related to the set of selected actions. Taking into account that most actions are a combination of "soft" regulation and dialogue-based approach, a distinction between regulation and dialogue based-approach has been made, depending on the extent that guidelines and objectives are clearly defined and thus likely to be translated into national policies.

Table 9-1 Impact of social policy on economic competitiveness and employment performance

	Supply of capital	Supply of labour	Productivity of capital and labour
Expenditure Taxation	Borrowing crowds out investment Social security charges encourage export of capital <i>Macroeconomic stabilisation effects</i>	Direct taxes reduce labour supply	
Social programmes	Social transfers reduce public investment <i>Social transfers raise consumption</i>	Social benefits reduce labour supply Minimum wages and employment protection pose barriers to hiring and encourage black economy <i>Active measures for the most disadvantaged increase labour supply</i> <i>Proactive measures for women's employment increase labour supply</i>	<i>Investments in education and training improve human capital and enhance technical and organisational innovation</i>
Welfare outcomes	<i>Social peace avoids security costs and encourages investment</i>	<i>Higher participation in labour market avoids future social transfers and enhances the sustainability of social welfare system</i>	<i>Welfare safety net enhances flexibility of labour and allows for technical and organisational innovation</i> <i>Higher labour standards enhance technological and organisational innovation</i>

Figure 9-2 Flowchart for childhood well-being and gender equality

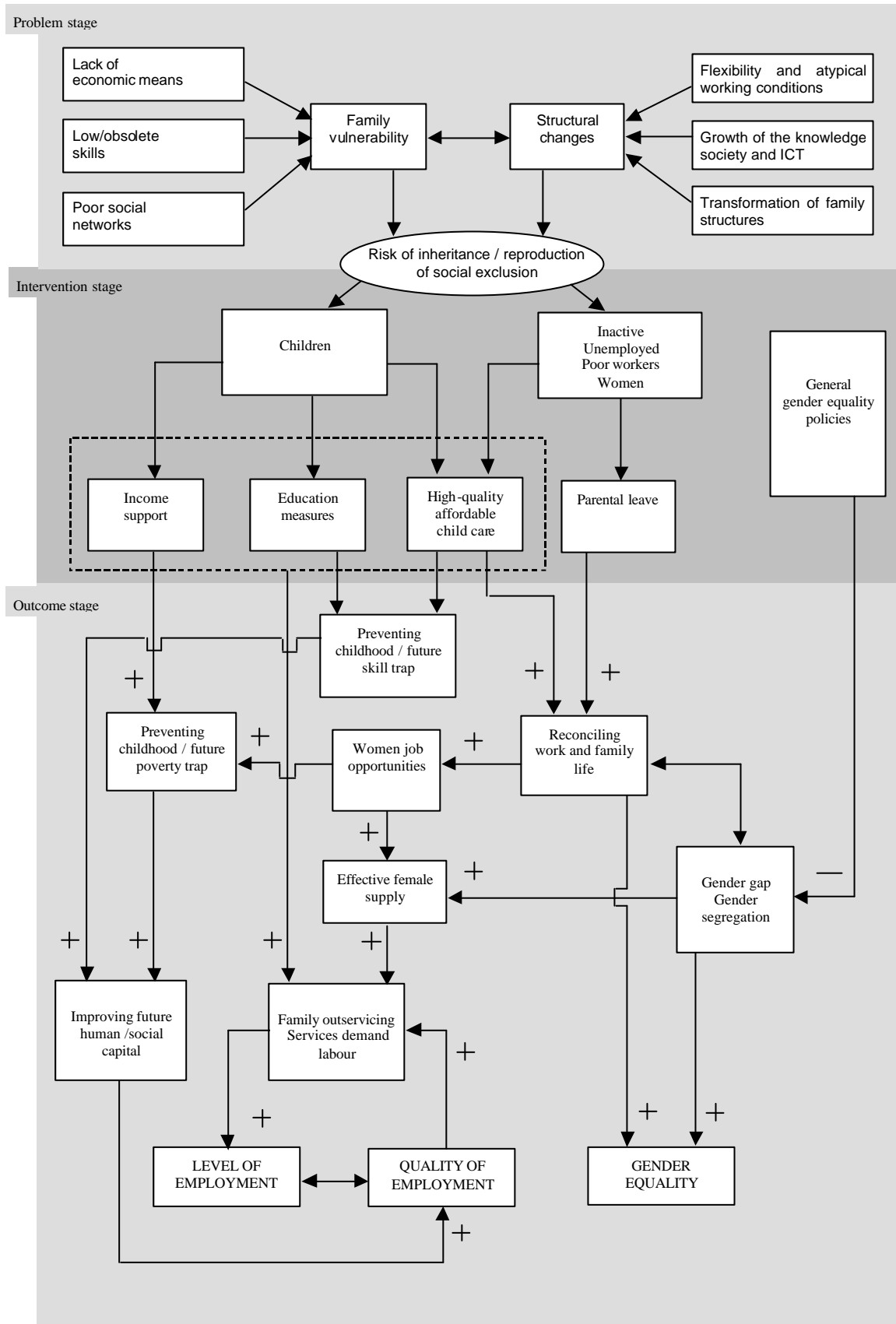


Figure 9-3 Flowchart for the European dimension

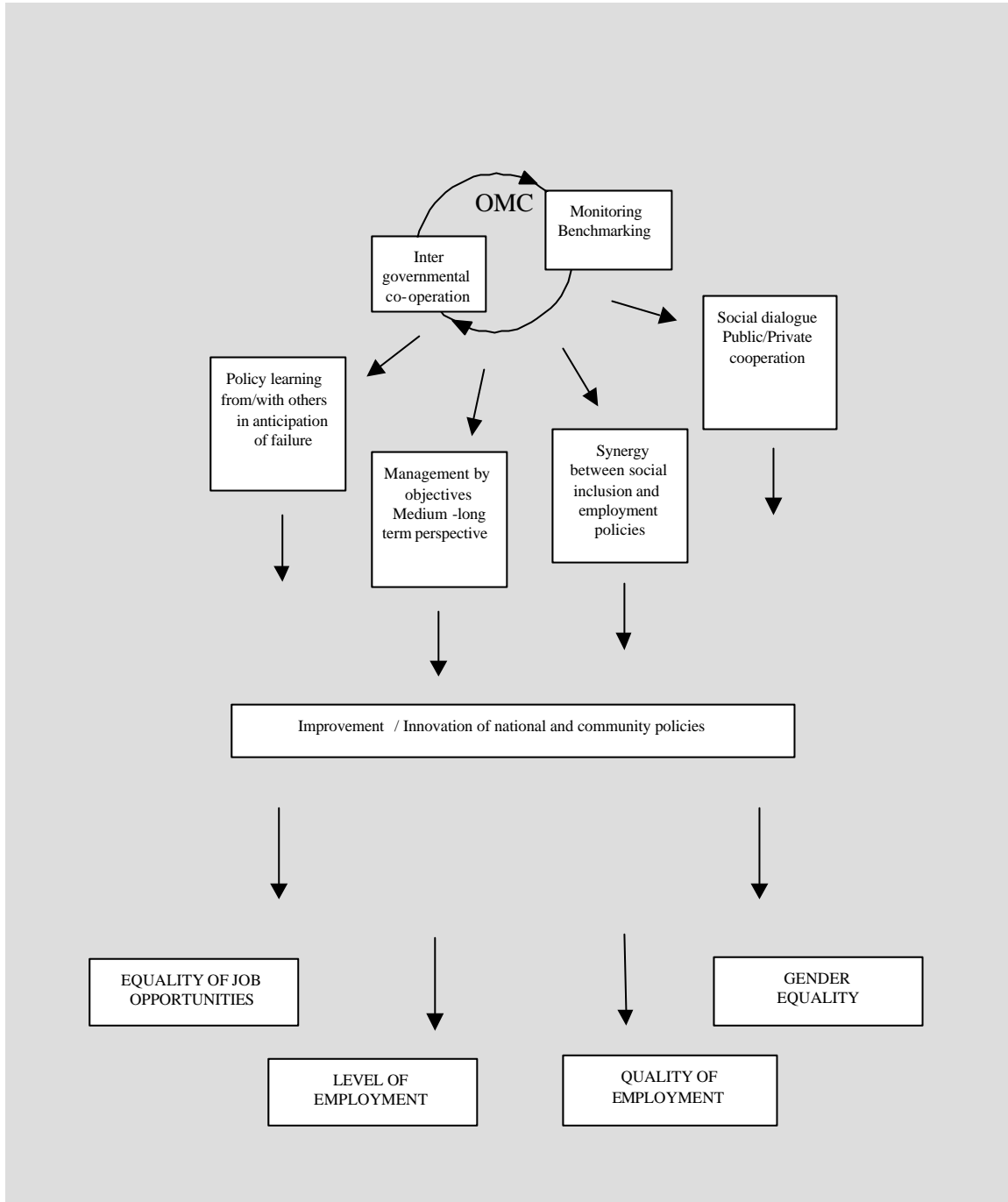


Table 9-2 Potential of Social Inclusion Community Policy for Employment Promotion: Level of Employment

	Spending	Regulation	Dialogue-based
Market conditions		Active measures may redistribute job opportunities in the short-term and prevent long-term unemployment (but it partially depends on their combination with income support measures: poverty trap, dependency trap). [Pillar I EES; MI]	Improving of public support for women's access to work. Short-term developments/medium, long-term effects [Pillar IV EES]
Real wage costs		Active measures may have short-term positive effect, through increasing labour supply and lowering wages (but substitution/displacement effects can be important) [Pillar I EES; MI] Job subsidies decrease low skilled wage costs; short term effect on low skilled employment rate may be positive (but depending on substitution/displacement effect) [Pillar I EES]	Avoiding trade-off between quantity and quality of employment: improvement of quality of social and employment policies. Medium-term developments/long-term effects [EES]
Technology			
Physical capital			
Human capital Social capital	Income and socio-cognitive support for childhood at risk: pilot projects may have medium-long term positive effects on dialogue based and national policies [PCP, SCS]	Active measures may improve human capital of most vulnerable groups in the short, medium-term (but important substitution/displacement effects). [Pillar I EES; MI] Active measures may solve skill shortages in the short, medium-term, lowering wages and increasing employment (but depending on design) [Pillar I EES; e-inclusion]	Improving of life-long learning strategy and measures. Short-term developments/medium, long-term effects [Pillar I EES; e-inclusion]

Table 9-3 Potential of Social Inclusion Community Policy for Employment Promotion: Quality of Employment

	Spending		Regulation		Dialogue-based	
	Internal	External	Internal	External	Internal	<i>External</i>
Market conditions				Active measures may improve security and enhance flexibility [Pillar I EES]	Improving of public support for women's access to work. Short-term developments/medium, long-term effects [Pillar IV EES]	
Real wage costs			Workfare-job placement measures and job subsidies may have medium, long-term negative effects, sustaining low skilled/low-paid jobs [Pillar I EES]		Avoiding trade-off between quantity and quality of employment: improvement of quality of social and employment policies. Medium-term developments/long-term effects [EES]	
Technology						
Physical capital						
Human capital	Income and socio-cognitive support for childhood at risk: pilot projects may have medium, long-term positive effects on dialogue-based and national policies [PCP, SCS]		Active measures may give greater quality job opportunities for the most vulnerable groups in the short-medium term (but depending on design of measures) [Pillar I EES; MI]		Improving of life-long learning strategy and measures. Short-term developments/medium, long-term effects [Pillar I EES, e-inclusion]	
Social capital						
Attitude and reputation			Wider application of policies of inclusion and positive discrimination in companies. Medium, long-term effects [Pillar I EES; Pillar IV EES] Greater professionalism of the networks (public, private and/or third sector) of technical-professional support for social inclusion. Medium, long-term effects [General]			
Industrial relation system			Improved regulation of job subsidies and workfare job placement measures. Short, medium-term effects [Pillar I EES] Greater regulation of working conditions of technical-professional support workers. Medium, long-term effects [General]			

9.3 Validation of assumptions

A meaningful approach of validation could be made under the same viewpoint as the Cecchini report (1988) on "the cost of non-Europe". It would consist in assessing the possible cost (for short and long term competitiveness, employment and welfare) of "non-community social policy". However, this assessment has not been drawn up formally.

Validation is also limited because, from the specific viewpoint of this research, there are few cross-national comparable data, even over the last few years. However, general literature on social and employment policies is very broad, including many recent works in the framework of the EU "Targeted Socio-Economic Research" (TSER) that have analysed and assessed some of the assumptions dealt with in the previous chapter. Validation analysis is mainly based on these works.

9.3.1 Societal and political framework: European social model(s)

There is broad agreement in literature on the existence of different European social models, which perform differently with regard to employment and social exclusion. There is also agreement that all these models are currently under pressure and undergoing a process of "self-transformation": all of them are having difficulty in maintaining the current status quo; in none of them does this status quo seem the appropriate for dealing with current challenges. European welfare states are exposed to similar endogenous challenges and external pressures but their vulnerability and capacity to set about reforms is different. (Esping-Andersen, 1990,1999; Scharpf and Schmidt, 2000; Begg et al, 2001):

The dynamism of self-transformation processes underway refutes diagnosis of a politically and institutionally "sclerotic" Europe. But perhaps it would be even more relevant to stress that, as a recent study shows (Salverda et al, 2001), the analysis of the earnings mobility record does not endorse the stereotype of wage rigidity in European countries: earnings mobility is similar or even higher than in US.

The analysis of challenges and current self-transformations processes provides three conclusions that are relevant to this study:

- An adequate synergy between economic, employment and social policies is crucial in achieving an optimum, sustainable balance among employment level, job quality and equity. The process of European integration is a basic factor in accelerating reforms and brings with it new constraints and opportunities. The challenges and problems to be dealt with, however, clearly show the need for a more "social" in the European integration process.

- Fortunately or unfortunately, political options are complex. This complexity is also evident in social and employment supply-side policies. A full employment strategy may increase low wage employment and wage inequalities; sustaining welfare commitments through high taxes on labour may leave the less skilled workers out of the labour market. A simplistic approach of social and employment policies may have unintended consequences. That is why it is important to stress that there are, at least, two main factors to bear in mind in seeking better balances among employment level, quality of labour and equity: the need to keep up (or intensify) social investments in human capital and the need to mobilise women towards the labour market, two factors that directly lead to policies on children and on the reconciliation between family life and work.
- The priority given to building an “inclusive society”, as it is stated in EU joint declarations and Community guidelines, reflects a broadly shared awareness that the risks of social polarisation are real. The real threat of social exclusion is that poverty and deprivations become permanent, that they determine the life prospective of the citizens, and that they are reproduced from one generation to the next. This approach leads directly to establishing the skills development and the prevention of all types of entrapments as priorities in social and employment policies.

9.3.2 Problem-oriented approach (I): Activation

In the European Union, there has traditionally been a clear differentiation between the Nordic model, with a strong emphasis on protection against poverty and a committed approach to activation with long-term skills development, and the rest of the countries with a more passive approach and less generous or universal protection systems. However, this situation changed decisively throughout the nineties: at the time when the Nordic model, after some years of economic stagnation, showed the first signs of financial difficulty, a more active approach was being consolidated in Europe, although with less ambitious - and less costly - objectives than in the Nordic countries (Bosco and Chassard, 1999; Heikkila, 1999; Roche, 2000).

Effectiveness of active policies is not always assessed with equal rigour because of the intrinsic methodological difficulties that mean identifying biases towards more employable groups and also discerning short and long-term effects. However, some empirical findings relevant to this study should be taken from existing research:

- An indiscriminate extension of workfare may aggravate the poverty trap and create, under a new formula, the very dependency trap it was aimed to remove. Workfare, nevertheless, can cover a very wide range of institutional realities and be of use as a selective complement to help some groups to get out of the dependency trap. (Begg et al, 2001).

- In the short-term, it seems clear that accurate active policies (employment subsidies included) may redistribute job opportunities in favour of the most vulnerable groups: the greater the obstacles in entering the labour market are for specific groups, the more room for redistribution. However, there is no conclusive empirical evidence in this regard that goes much beyond what has already been considered: the greater the emphasis on immediate job placement, the smaller the stimulus for upgrading one's skills and getting out of the skill trap.
- It is more difficult to assess the impact of active social and employment policies on the enhancement of long-term employability of the most vulnerable groups. The analysis suggest, along the lines stated in some studies (Esping-Andersen et al, 2001), that in the medium and long-term, sustainability of the redistribution of job opportunities depends on the extent to which the entrapment in poorly skilled and low paid jobs is avoided. All available data confirm the existence of entrapment (i.e. 1996 ECHP data show that 85% of those in non-skilled jobs were in the same type of job two years later).

9.3.3 Problem-oriented approach (II) Childhood well-being and gender equality

Empirical evidence seems to confirm the relevance of this approach. Firstly, all available data show that countries with higher levels of poverty also produce far more poverty persistence (Duncan et al, 1993; Bradbury et al, 2001; OECD, 2001); this empirical relationship is critical because it suggests that reducing poverty in itself is a primary and necessary ingredient for any social inclusion strategy (much more so if it is a matter of childhood poverty). Secondly, cross-national empirical research with micro-data shows that a second job in poor-working households (and, of course, the employment of single parents) greatly reduces the poverty rate (Esping-Andersen et al, 2001). It should be considered that ECHP 1996 data show that the child poverty rate is much higher in jobless (65%) than working households (16%); however, the percentage of children in poor-working households is a great deal higher (69% of children in low-income households are living in working households, in front of 13% in jobless households; the rest -18%- are living in retired or inactive households).

Cross-national differences in the well being of families with children are, no doubt, policy related. Nordic child poverty rates are invariably low and continue to decline; not so much because of social transfers, but primarily because both parents are employed and relatively well paid. Analysis seems to confirm that the main effect of provision of care services and other measures of family support is to encourage women's access to work.

The experience in Nordic countries suggests that there is great potential for employment in services that are directly or indirectly related to the entry of women into the labour market. In

these countries, a self-reinforcing mechanism emerged whereby the expansion of public jobs in the sixties encouraged women to enter the labour market and allowing a “de-feminisation” of many caring functions, which in turn fostered the demand for more social services. Although this mechanism does not seem feasible in current economic and political circumstances, the latest Dutch experience shows, with very different parameters, the strength of a similar self-reinforcing mechanism (Esping-Andersen et al, 2001). However, no further evidence in this area can be given. As surprising as it may seem, the effects of women working on household income, patterns of consumption, demand for services and employment level have not been studied very much at all.

9.3.4 Political and institutional approach: the European dimension of social inclusion policy

a) Community programmes to combat poverty and social exclusion and Community actions to combat failure at school and the promotion of e-inclusion

The experience of the “Anti-poverty” programmes shows the capacity to influence political debate, create networks and stimulate innovation and benchmarking in national policies through experimental programmes with limited means, even when they are practically the only or most important tool for Community action. Something similar could be said of the Second Chance Schools programme, that deals with a key aspect of educational policy with regard to social exclusion, despite a lack of a sufficient time perspective. The promotion of e-inclusion is an example of the capacity to encourage debate on a new subject and stimulate improvements in community guidelines regarding employment and social inclusion.

b) Guarantee of a minimum income

The Recommendation on a guarantee of minimum income was one of the most important community social policy initiatives of the nineties. It was an early manifestation of an approach of “soft” regulation, which was later to develop as the OMC. The recommendation established guidelines on common minimum standards after several years of debate on its relevance in both different member states and on a community scale. A decade later, there are still a great variety of practices, and perhaps it is even higher. The turn towards active policies in some cases has given rise to less protection for the unemployed, who have become potential users of this minimum income. There is now also a great variety of ways in which these programmes are connected to the promotion employment access. Even so, the guarantee of minimum income is still one of the community’s most distinctive social policy guidelines: it is a basic principle of the current debate on convergence and modernisation of the social protection system and one of the OMC’s guidelines on social inclusion. Prevention of poverty in childhood is also an objective that has been incorporated into this strategy.

c) *Community actions in favour of the employability (Pillar I of EES) and reconciling work and family life (Pillar IV of EES)*

It is plausible, but difficult to prove, that the co-ordination of efforts on a European scale has significantly contributed to the adoption of a more active approach in different European countries. It also seems clear that the dynamics of the OMC has won a degree of credibility in recent years: the procedure's technical quality has improved and there has been some significant feedback on improving guidelines.

Specifically, one of the most significant improvements in guidelines has been done on the reconciliation of work and family life. In this case, the experience with the EES has resulted in a shift in focus, from regular private-sector labour market incentives to more specific policies aimed at reconciling work and family life: notably, affordable, high-quality care services. An important step in an area where traditions still weigh heavily and advances made are few and fragmented.

9.4 Conclusions

This study emphasises that, although the employment growth fundamentally depends on economic growth, social and employment policies may have -and do have- a highly relevant role in the quality of employment. The study also highlights the crucial role an adequate preventive social inclusion policy may play in the improvement of both the level and quality of employment.

The study identifies six main critical factors:

- More “social” in the European integration process
- Renewed commitment to the guarantee of minimum income
- Shift towards action against low skilled employment to improve the quality of employment and not only its level
- Prime commitment to the eradication of childhood poverty
- Reorientation of social and employment policies towards support for double earning families
- More “Europe” on social and employment national policies

The main recommendations for a critical review of the assumptions involved are:

- To expand the concept of “activation” to encourage a more comprehensive strategy of promotion of capabilities and full social citizenship

- To avoid simplistic views of the complex interaction between the level and quality of employment that may lead to erroneous trade-off strategies
- To deepen knowledge of the links between the demand for services, household income, patterns of consumption and female employment to develop a more strongly based strategy in this area

The main monitoring and evaluating proposals are:

- Quality of synergies between economic, employment and social policies: a systematic audit of the effects of economic policies on employment and social inclusion
- Quality of activation/workfare measures: development of a more comprehensive set of indicators related to poverty traps, entrapment in low-skilled jobs and long-term employability

As a final conclusion, immigration and enlargement should be emphasised as two challenges that are crucial for social inclusion policies. These two factors may alter dynamics and balances that have been achieved in recent years and require reorientation and reinforcement of these policies.

10 Monograph on Transport and Energy

10.1 Introduction

The overall objective of a common *European transport policy* is to remove barriers at the borders between Member States in order to facilitate the free movement of persons and goods. Furthermore, the European transport policy is increasingly focused on the means of transportation and particularly the environmental effects of various transport modes.

The objectives of the *Community energy policy* are to guarantee the security of energy supplies; ensure competitiveness; and promote the compatibility of energy market development with environmental objectives.

The promotion of employment is generally not among the main priorities of EU transport and energy policies. The telephone survey – that was carried out in connection with this study among experienced stakeholders within national ministries of Employment, Social Partners and Members of the European Parliament – revealed rather low expectations of employment potentials of community transport and energy policies. According to the stakeholders this is due to the fact that these policies are not directly aiming at promoting employment. In general, stakeholders point at *spending policies* as the instruments with the largest potential for creating jobs, whilst both spending and *regulation* are assessed as having a potential for promoting better job *quality*.

Overall, expectations among stakeholders concerning the direct quantitative employment impacts of the transport and energy policy area are relatively low compared with expectations to the other policy areas of this study. In particular, the effects of existing programmes and policies within the policy area are assessed as being rather small.

Apart from the legislation concerning the *liberalisation* of the energy and transport sector and the Working Time Directives concerning transport the EU initiatives regarding transport and energy are mainly *spending* measures, i.e. programmes or initiatives that work by means of financial support to underpin innovation, enhance product development or invest in projects which the national authorities are not able to finance alone". The Commission has attempted to introduce fiscal regulation in relation to energy consumption, but so far the Council has not succeeded in reaching substantial agreements concerning this issue¹⁷.

¹⁷ This is of some importance, as several of the Community energy policies are "second-best" approaches to problems that would be more directly targeted through fiscal regulation.

10.1.1 Scope of the study

The five selected initiatives under the transport and energy policy area are:

- 1) The Working Time Directive for mobile road transport (2002/15/EC)
- 2) Trans-European Transport Networks (TEN-T)
- 3) Pilot Actions for Combined Transport (PACT)
- 4) ALTENER II
- 5) SAVE.

The Working Time Directive for mobile road transport aims at setting minimum standards for the working time conditions of employed drivers in the EU. The aim is to improve the health and safety of drivers as well as reducing the risk of road accidents.

The TEN-T initiative aims at improving the physical infrastructure network covering the overall EU area and its enlargement. Implementation of the projects included in the White Paper list of specific projects will improve the common *physical framework conditions* in the form of infrastructures serving individual transport activities.

Under the PACT programme Community funding is provided for cross-border pilot projects to promote the profitability of Combined Transport¹⁸ with the aim of shifting inter-European freight traffic (at least partly) away from roads and onto other – more environmentally friendly – modes of transportation. This should also reduce road congestion and improve road safety by providing a more optimal distribution between road haulage and combined transport.

The ALTENER II programme consists of Community support for technology investment in the energy sector in order to promote environmentally friendly investments and use of renewable energy sources in the economy.

The SAVE programmes consist of Community support for efforts to improve energy efficiency in all sectors of the economy, reducing the environmental impact of energy use and securing future energy supplies.

¹⁸ Combined transport means combinations of rail, road, inland waterways and/or maritime (short sea) transport to convey goods in units (such as containers), which can be transferred from one mode of transport to another.

10.2 Identification of underlying assumptions

In addition to previous evaluations and other relevant EU documents the assumptions established in the following draw on established schools of thought within economic theory that address the issue of public intervention in private markets and the resulting impact on the market and, hence, also on employment. In this regard there is not “one best theory”, but instead contending schools of economic thought, offering different perspectives on how public interventions affect markets. In the following we have drawn on some of the main theoretical perspectives: the *Keynesian perspective* and the *supply-side economic school* in order to reach a balanced assessment of the policy initiatives and their potential impact on employment drivers and employment.

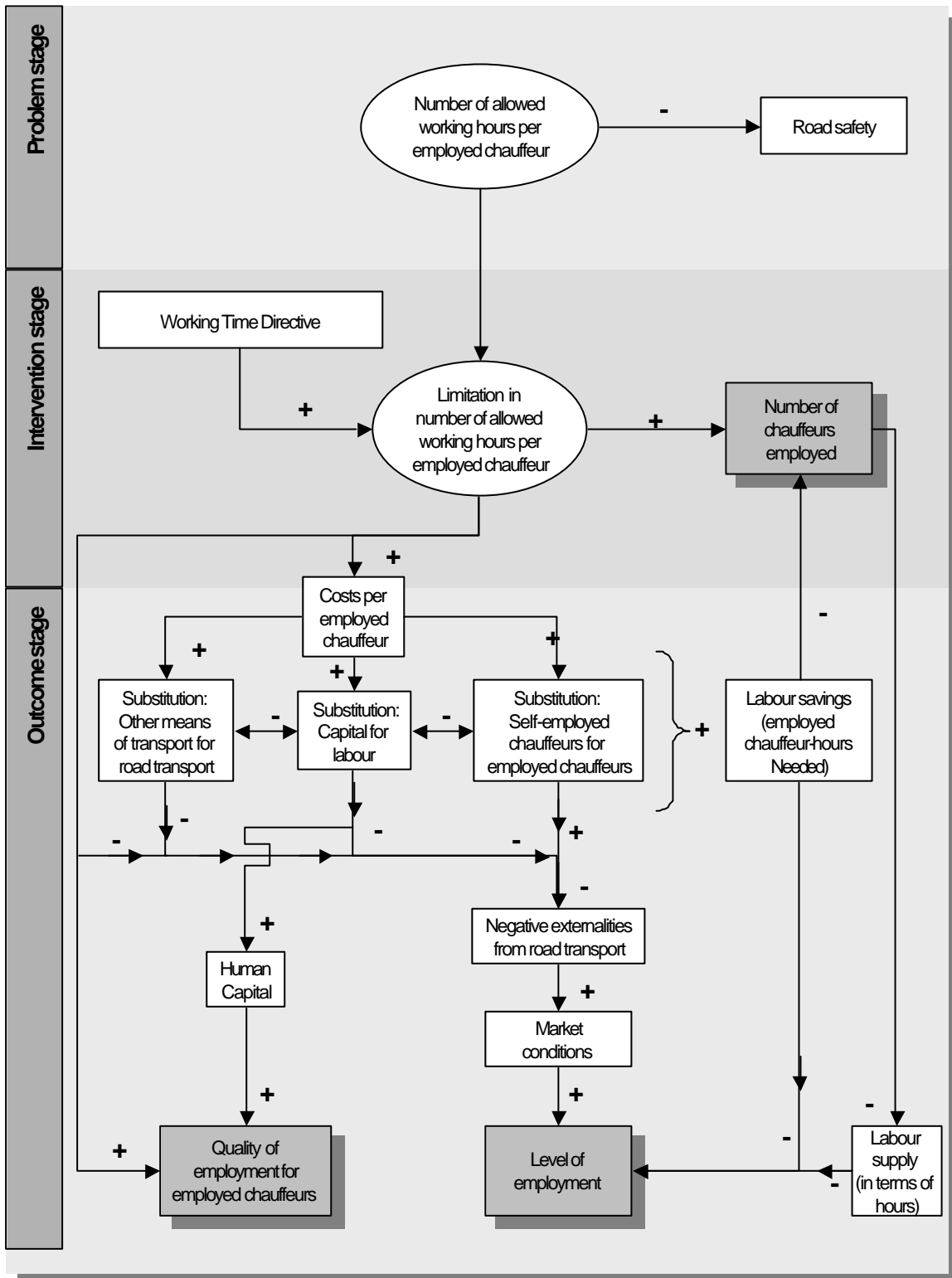
The assumptions are illustrated in a flowchart for each of the selected initiatives. For each flowchart is identified the problem, which the initiative is meant to address, the intervention stage, and the outcome stage with the assumed impact on employment. For a detailed account of the mechanisms illustrated in the flowcharts, please refer to the more elaborate version of this study as presented in the Annex Report. The expected outcome tables presented in section 10.2.6 do, however, provide explanations for those relationships perceived to be most relevant.

We would like to underline that due to the relatively diminutive size of some of the analysed policy initiatives, the meta-level impact of the programmes will be difficult to measure empirically, if at all possible. The assumptions on impact and the cause–effect relations sketched in the flowcharts should be seen as illustrations of the un-capitalised potentials of different types of policy instruments. Moreover, these illustrations are all outlined under the assumption of a future situation where the critical masses of the initiatives exist and the policy initiatives would obtain meta-level impact.

10.2.1 Working Time Directive

The main underlying assumption guiding an assessment of the employment impact of the Working Time Directive is that the Directive will have the immediate effect of improving the working conditions of drivers – and possibly also increasing their salaries. In the short term the *number* of drivers may also increase, although total employment in the sector in terms of total hours worked will not change. In the longer term, employment in the mobile road transport sector may be expected to drop as employed drivers are substituted with capital, other means of transportation, and possibly self-employed chauffeurs. This will to some extent counter the initial positive impact on *number* of jobs.

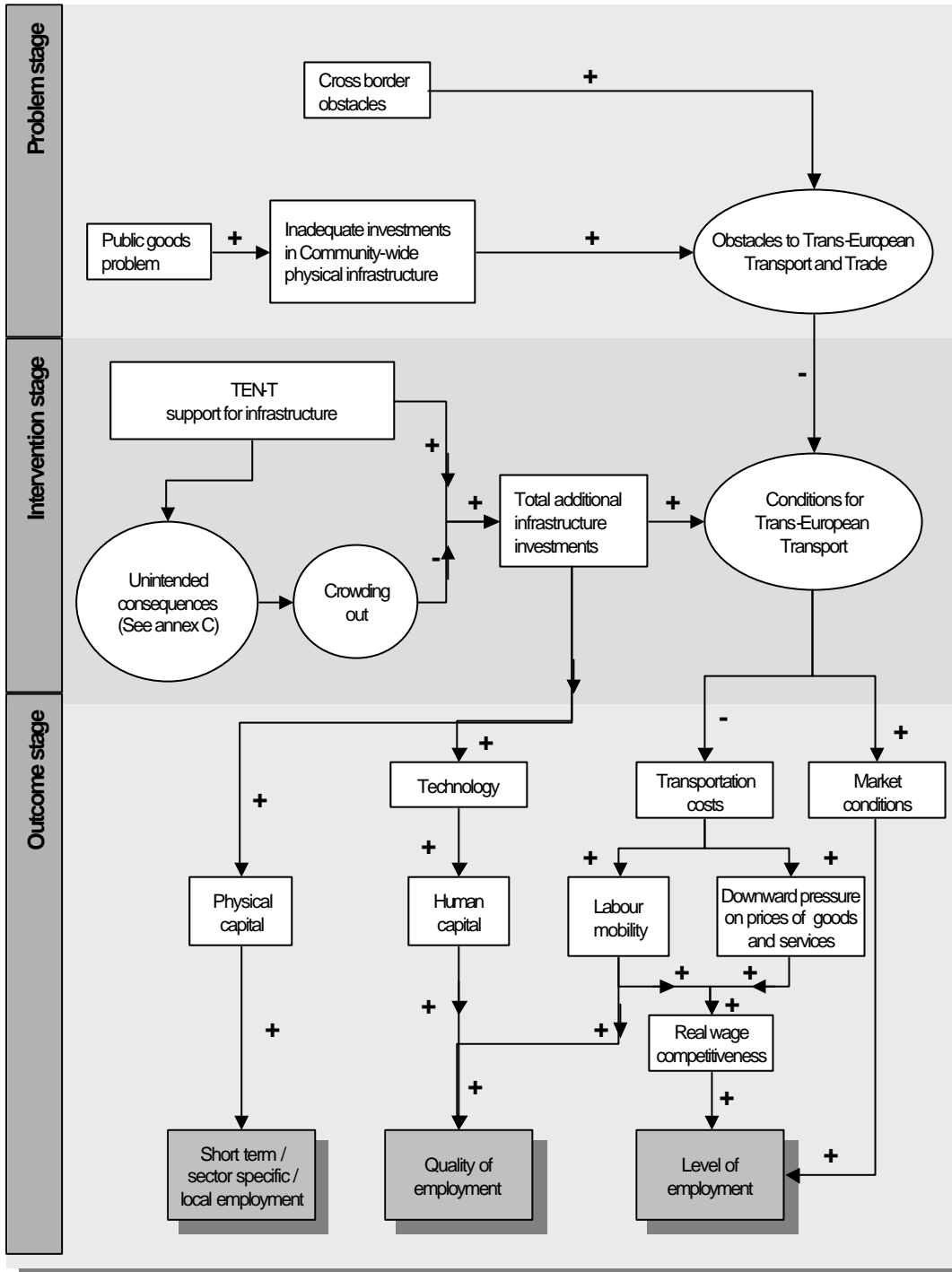
Figure 10-1 Working Time Directive: An illustration of assumptions and the effect on employment



10.2.2 TEN-T

If the TEN-T is successful in creating a trans-European infrastructure, this will lower the costs in the transport sector and possibly have a positive impact on employment in that sector. Furthermore, improved infrastructure will help all sectors of the economy better reap the benefits from the Internal market by making more markets accessible to individual companies. Improved infrastructure will also increase the mobility of the labour force. These factors could eventually result in a higher level of employment. An important question relates to possible displacement effects between regions (positive and negative) as a result of an improved infrastructure.

Figure 10-2 TEN-T: An illustration of assumptions and the effect on employment

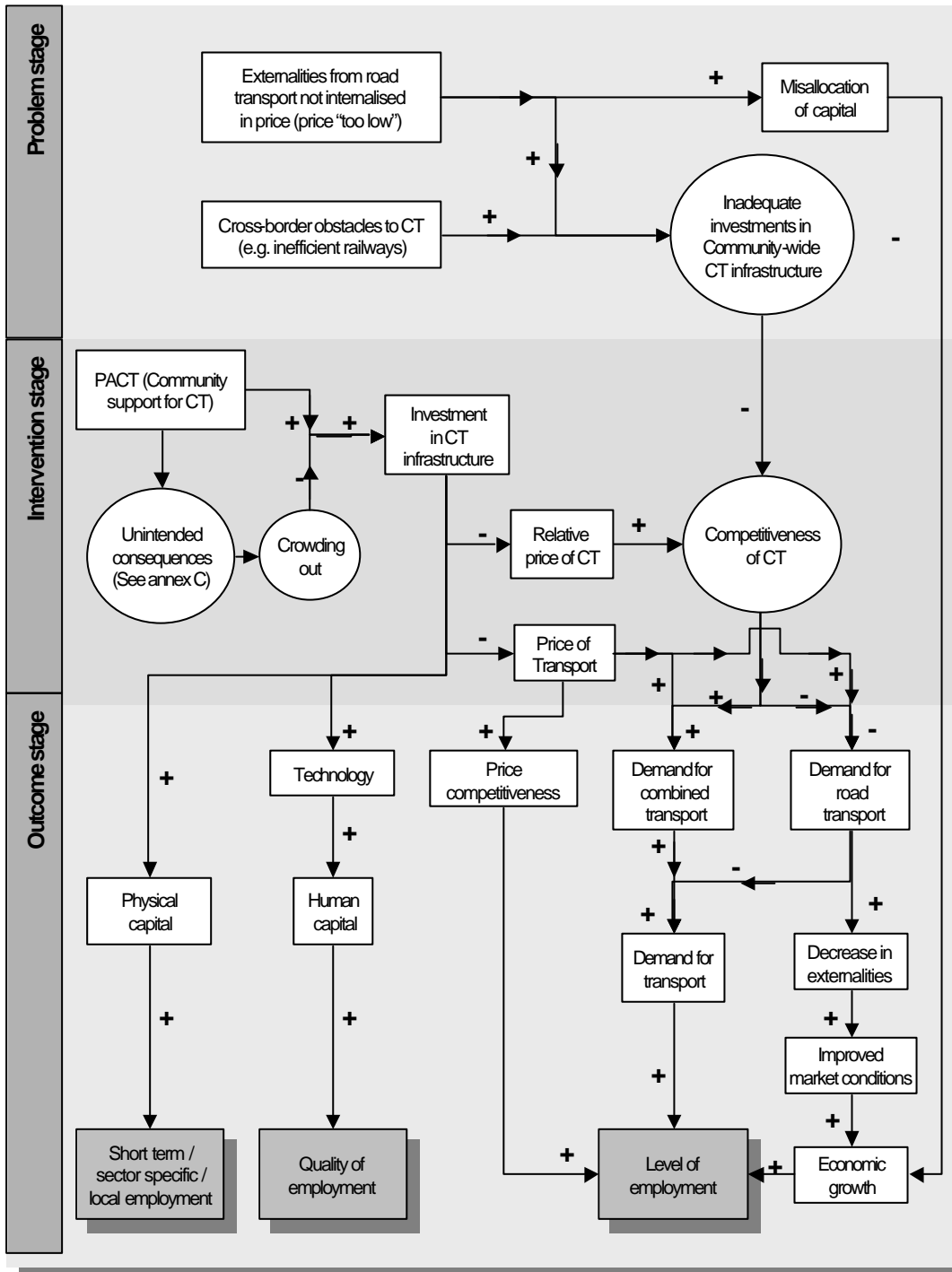


10.2.3 PACT

The investments made under PACT could lead to a reduction in the costs of combined transport, altering the relative prices in favour of such transportation. The justification for the programme rests on the assumption of a number of market failures in the transport sector. Look-

ing at the micro-level, some effects to employment may be expected, as a result of the shift in relative – and absolute – transportation prices.

Figure 10-3 PACT: An illustration of assumptions and the effect on employment

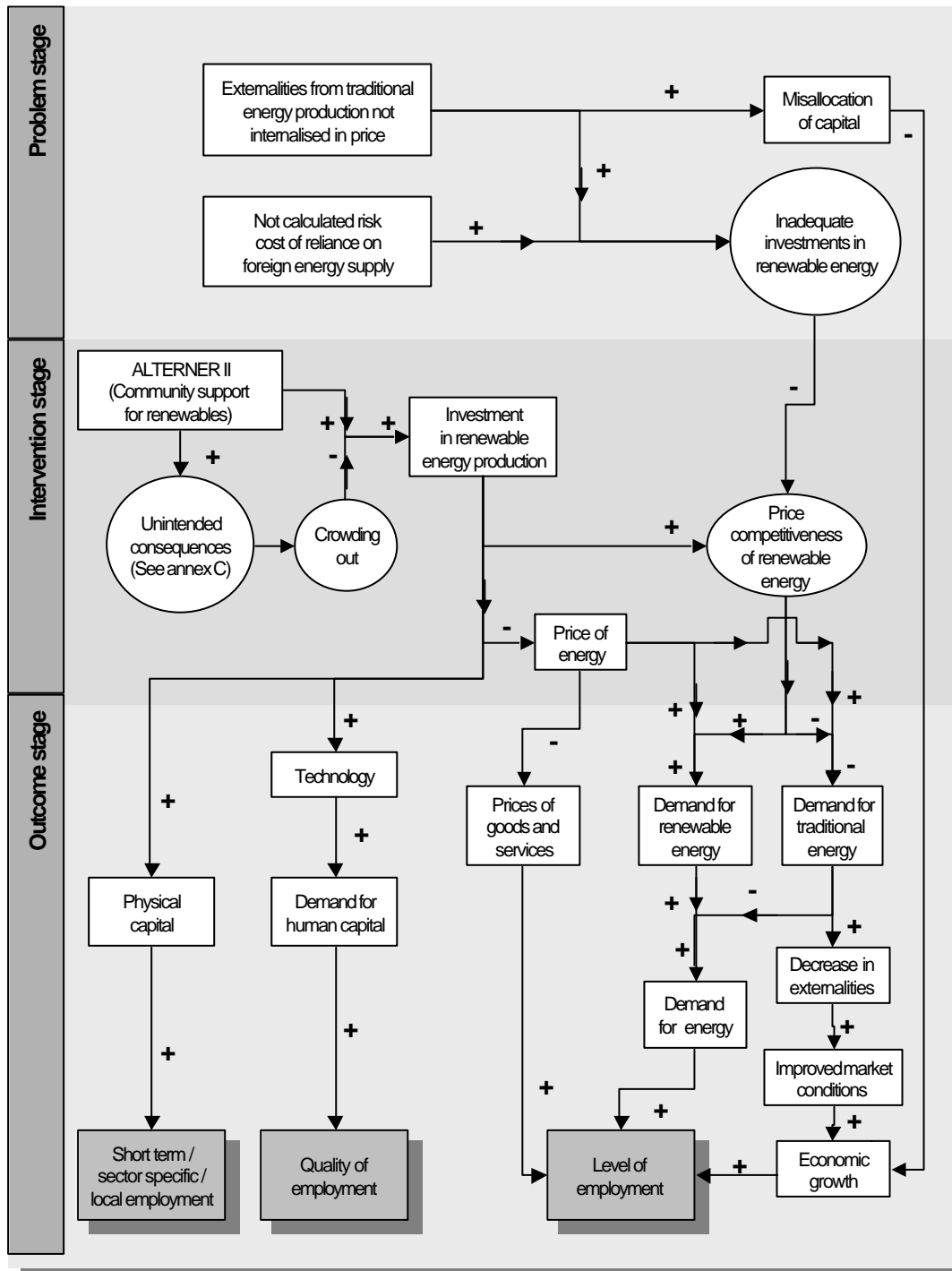


This change will first of all lead to a shift in activity (and thus employment) away from road transportation over to other modes of transportation. Investments in Combined Transport technology will also increase the demand for skills directly in the sectors set to utilize this

new technology, positively influencing human capital and thus job quality. The flip side of action such as the PACT programme is the costs associated with such action and whether alternative measures could achieve the same effect as subsidising combined transport, but with lower costs.

10.2.4 ALTENER II

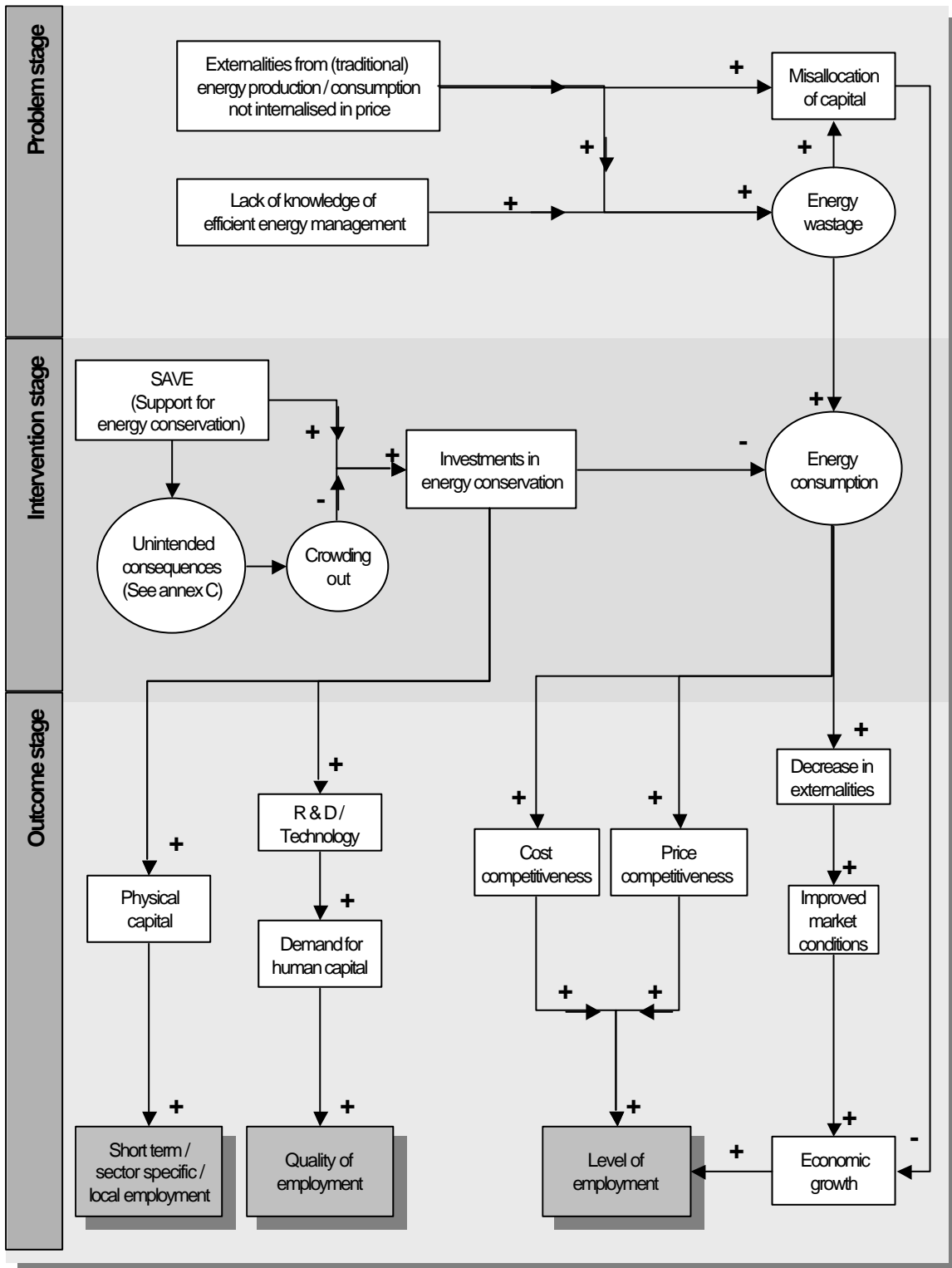
Figure 10-4 ALTENER II: An illustration of assumptions and the effect on employment



The basic underlying assumption behind programmes such as the ALTENER II is the existence of market failures in the field of energy production. If current relative prices of energy constitute a market failure, then restoring the relative prices to their true levels should not only enhance long-term economic efficiency, but also enhance long-term employment – *provided that the unintended consequences (notably costs) do not negate these positive effects*. In the short term, investments may be expected to increase employment in the renewable energy sector. To the extent that the investments are made in new technologies (R&D), then an increase in human capital may also be expected, promoting overall job quality in the sector too.

10.2.5 SAVE

Figure 10-5 SAVE: An illustration of assumptions and the effect on employment



As it was the case with the ALTENER II programme, the underlying assumption behind the SAVE programme may be said to be one of a market failure: in the absence of public inter-

ference, the consumption of energy will be “too high”, resulting in rapid depletion of (non-renewable) energy resources and environmental damages. Reducing this consumption (even if it is done using the second-best approach) should improve overall resource allocation, leading to higher sustainable levels of employment. Furthermore, to the extent that investments are made in R&D, there could be public good-effects. As for short-term employment effects, these are exactly the same as for similar programmes. Diverting resources away from other parts of the market towards the energy conservation industry will benefit the latter, while hurting the former: the net effect will be determined by the relative labour intensiveness in affected sectors. To the extent that investments are made in R&D or the application of new technologies, an increase in demand for skills / human capital may be expected with positive effects on job quality in the sector.

10.2.6 Expected outcome tables

In the following the outcome tables for number of jobs and quality of jobs respectively are presented.

Table 10-1 Expected outcome table for Working Time Directive

	Regulation	
	Job Creation	Job Quality
Market conditions	Restrictions on working time will lead to reductions in overall labour supply in the economy. Along with the labour demand effects mentioned above, this will affect overall employment negatively. To some extent, this negative effect will be countered by the reduction of externalities to road transportation (congestion, pollution, accidents), which will improve market conditions, freeing up resources and improving overall employment.	
Real wage costs	Increase in real wages in the road transport sector will reduce demand for labour, reducing employment.	
Real wages / non-pay rewards		Regulation of employment in the road transport sector affects job quality through higher monetary and other benefits for those employed.
Physical Capital	Substitution of labour with capital in the road transport sector will reduce demand for labour, reducing employment	Substitution of labour with capital in the road transport sector increases the demand for skills, improving job quality
Human Capital	Fewer but potentially more skilled jobs	Restructuring the road transport sector (bigger / better lorries, improved logistics) will increase demand for human capital in the sector, thus improving job quality
Social Capital	Uncertain effect, if any	Increased cooperation enhancing trust and other social capital virtues. However, potential risk of over-regulation encouraging non-compliance.
Technology	Investments in new technologies in the road transport sector will reduce demand for labour, reducing employment	Implementation of new technologies in the road transport sector increases the demand for skills, improving job quality

Prices of goods and services	Increased cost of (road) transportation (and thus goods transported) will affect overall employment negatively. To some extent this will be offset by employment in other transportation sectors.	
Attitude and reputation		Transport companies that obey the Directive may be able to compete for higher quality labour. This may lead to higher quality of work in these companies.
Industrial relations system		Likely to be enhanced by need for monitoring and self-regulation in long term, but an insider-outsider problem (with contracting out) in the short term.

Table 10-2 Expected outcome table TEN-T

	Job Creation	Spending Job Quality
Market conditions	The provision of a public good (infrastructure) may improve market conditions and thus employment. To some extent, this will be offset by the negative effects of the programmes' costs to the economy (including the negative effects of crowding out and rent-seeking)	Improved infrastructure will allow greater labour mobility, increasing employment opportunities and thus job quality. On top of this, improved market conditions (through public good provision) should improve job quality in the long run.
Real wage costs	Improved mobility will lower real wage costs, increasing employment	
Real wages / non-pay rewards		Increased labour mobility and hence increased competition on the labour supply side may lead to a downward movement in real wages for occupations particularly affected by competition. This will then affect job quality negatively.
Physical Capital	Investments in physical capital (infrastructure) will increase short-term employment in the construction industry as well as in the geographic area of construction (especially in the case of large scale projects). Resources must, however, be diverted from other areas of the economy / community with adverse effects on employment there. The medium-term effect will thus be to <i>shift</i> employment, rather than <i>create</i> employment	
Human Capital	Increased mobility may lead to better access to training and education offers for the labour force, hence increasing the effective supply of human capital.	Technological developments in the construction industry (see below) will increase demand for human capital, increasing job quality in the sector. Greater labour mobility may also increase the effective supply of human capital.
Social Capital		
Technology	The improved transport infrastructure will stimulate the replacement of labour by capital in the transport services and thus reduce employment	Investments in infrastructure will spur technological development in the construction business, raising job quality of workers employed in this sector. This will be at the expense of investments foregone in other sectors of the economy.
Prices of goods and services	An improved trans-European infrastructure will reduce the cost of transportation (and all goods transported) promoting employment. This effect will to some extent be negated as resources diverted through taxation (to fund projects) may increase prices, hampering employment.	

Attitude and reputation		Better physical infrastructure will improve the reputation and thus raise the awareness of requesting adequate job quality for the transport sector employees.
Industrial relations system		

Table 10-3 Expected outcome table PACT

	Job Creation	Spending Job Quality
Market conditions	The restoration of more “correct” relative prices of transportation (combined versus road) will improve market conditions. On the other hand, transportation prices overall may still be “too low” as compared with “optimal” prices (dependent on market failures in this field). Besides this, the investments in Combined Transport will be at the expense of investments in other parts of the economy (plus other unintended consequences such as rent-seeking and crowding out). Whether market conditioned are improved or worsened depends on whether the new relative prices (combined versus road transportation / transportation versus all other goods and services) are superior to the old relative prices in terms of optimising the allocation of capital in the economy.	
Real wage costs	Real wage costs might increase due to the demand for specific labour skills. This in turn stimulates replacement by capital thus reducing employment	
Real wages / non-pay rewards		
Physical Capital	Investments in Combined Transport will increase employment in this sector (to some degree at the expense of employment in the road transportation sector). Resources invested are, however, diverted from other areas of the economy with adverse effects on employment there. The shift away from road transport unto other modes will improve overall utilisation of existing infrastructure.	
Human Capital		Technological developments in the Combined Transport sector (see below) may increase demand for human capital, increasing job quality.
Social Capital		
Technology	Combined transport solutions are organisationally more complex than door-to-door road transport. Thus auxiliary services may be required resulting in new job creation	Investments in Combined Transport will spur technological development and thus raise the job quality of workers employed in this sector. This will be at the expense of investments foregone in other sectors of the economy.

Prices of goods and services	Cost of transportation (especially Combined Transport) will drop, creating jobs in the transportation sector (especially Combined Transport) as well as improving employment in general (through lower prices of goods transported). Some of this employment will be at the expense of employment in the road transport sector (as a consequence of the change in relative prices of transportation). The net employment effect will depend on labour intensiveness in the sectors affected. Because of the low total costs of the programme, any negative effects on the economy as a whole will be minute.	
Attitude and reputation		More specialised jobs and job diversity might improve the attitude towards this sub-sector thus improving job quality
Industrial relations system		

Table 10-4 Expected outcome table ALTENER II

	Job Creation	Spending Job Quality
Market conditions	The restoration of more "correct" relative prices of energy (renewable versus traditional) will improve market conditions. On the other hand, energy prices overall will still be "too low". Besides, investments in renewable energy will be at the expense of investments in other parts of the economy (plus other unintended consequences such as rent-seeking and crowding out). Whether market conditions are improved depends on whether the new relative prices (renewable versus traditional energy / energy versus all other goods and services) are superior to the old relative prices in terms of optimising the allocation of capital. If they are, employment should be increased.	
Real wage costs		
Real wages / non-pay rewards		
Physical Capital	Investments in renewable energy will increase employment in this sector – especially during construction phases (to some degree at the expense of employment in the traditional energy sector). Resources invested are, however, diverted from other areas of the economy with adverse effects on employment there.	
Human Capital		Investments in R&D increase the demand for skills / human capital in the renewable energy sector, thus increasing job quality. Other sectors will be deprived of funds, leading to reductions (or lack of improvements) in job quality there.

Social Capital Technology		Investments in renewable energy will spur technological development and thus raise the job quality of workers employed in this sector. This will be at the expense of investments (improved job quality) foregone in other sectors of the economy.
Prices of goods and services	Investments in the renewable energy sector will reduce the price of (renewable) energy, leading to lower costs in all sectors dependent on energy, thus increasing profits and possibilities of job creation in these sectors. However, investments must be diverted from other sectors (raising all other costs in the economy), making the net economic impact dependent on energy consumption (the higher the energy consumption, the greater the advantage and vice versa). Any net employment effect will depend on labour intensiveness in high energy consuming sectors as supposed to low energy consuming sectors.	
Attitude and reputation Industrial relations system		

Table 10-5 Expected outcome table SAVE

	Job Creation	Spending Job Quality
Market conditions	To the extent that investments in energy consumption decrease the consumption of (traditional) energy, this will reduce the externalities associated, thus improving market conditions and overall employment. On the other hand, energy prices overall will still be "too low" (in fact, they will maybe be even lower) as compared with "optimal" prices. Besides this, the investments in energy conservation will be at the expense of investments in other parts of the economy (plus other unintended consequences such as rent-seeking and crowding out). Whether market conditioned are improved or worsened depends on whether externalities are sufficiently lowered relative to costs.	
Real wage costs		
Real wages / non-pay rewards		

Physical Capital	Investments in energy conservation will increase employment in this sector (to some degree at the expense of employment in the energy sector). Resources invested are, however, diverted from other areas of the economy with adverse effects on employment there.	
Human Capital		Investments in R&D increase the demand for skills / human capital in the energy conservation sector, thus increasing job quality. Other sectors will be deprived of funds, leading to reductions (or lack of improvements) in job quality there.
Social Capital		
Technology		Investments in energy conservation will spur technological development and thus raise the job quality of workers employed in this sector. This will be at the expense of investments foregone (improved job quality) in other sectors of the economy.
Prices of goods and services	Any investments in energy conservation will have to be diverted from other sectors, increasing the general price of goods and services in the economy, thus lowering employment. The investments may also lower the price of energy (and all goods / services highly dependent on energy) spurring employment in high energy consuming sectors. Net impact on employment from changes in prices will depend on labour intensiveness in energy intensive / extensive sectors.	
Attitude and reputation		
Industrial relations system		

10.3 Validation of assumptions

In the following some results from the empirical validation are briefly summarised. For the more elaborate validation, please refer to the Annex Report.

10.3.1 Working Time Directive

No firm conclusions can be drawn, since the Directive is yet to be implemented. Two different impact assessments carried out for the Commission and for the Irish LP Gas Association respectively (Cambridge Policy Consultants 1998, Durkan, J & M McDowell 1999) agree that the *number* of chauffeurs will probably increase, and that so will their wages (at least compared to working time). Job quality may be further improved by the limitations on excess

working-hours etc, but may on the other hand be deteriorated as a consequence of increased stress (in order to comply with the rigid limitations on working time). The two studies, however, seriously disagree as to the Directive's impact on road safety, competition, and costs on the wider economy. Whereas the Business Impact Assessment carried out for the Commission envisages reductions in the number of road accidents, improved competition, and insignificant costs to the economy at large; the other assessment envisages no such road safety improvements and distorted competition, while at the same time calculating (on the basis of Ireland) a quite substantial economic cost of the Directive, which could harm employment.

10.3.2 TEN-T

In terms of possible effects on employment, the long-term job creation potential in the TEN-T programme is substantial. According to estimates by the Commission services, the original programme (investment of EUR 400 Billion) should have the effect of increasing Community GDP by more than EUR 500 Billion by 2030 and creating between 600.000 and 1.000.000 new permanent jobs, a ratio of 2.5 additional jobs per million EUR invested in TEN-T as *compared to the average alternative investment*. Such effects depend, however, not only on the success of the TEN-T programme, but to a significant degree on complementary competitiveness factors. Short-term effects are assessed as between 270.000 and 460.000 for 1996/97, but without taking into account alternative costs. While there cannot be much doubt that the long-term employment effects of infrastructure investments such as those envisaged in the TEN-T programme will be positive, it is beyond the scope to verify the estimates for employment presented by the Commission. The question remains to what degree Community funding under the programmes add to the total investments in infrastructure, and to what degree it merely crowds out national investments. Particularly it needs to be addressed to what degree national governments hold out planned (or would-be planned) infrastructure projects until they are able to secure Community funding for these projects.

10.3.3 PACT

At the micro-level available evidence (AEA Technology Environment 2000) indicate that crowding out could be a considerable problem, although no clear conclusions can be reached. Empirical evidence also points to a lack of commercial viability, which must be seen as a precondition for any long-term employment impacts, due to intense competition from road transportation, and the difficulties presented to Combined Transport by cumbersome customs procedures and railway organisation. Nonetheless, estimates suggest that the PACT programme contributes to about 1 percent of total cross-border combined transport in the Community, which is quite substantial given the budget of PACT and which could have

some effects also with regard to employment. No firm conclusions with regard to employment effects can, however, be reached on the basis of the available empirical data.

10.3.4 ALTENER II

Available evidence indicates that the ALTENER II programme could have very positive long-term employment effects especially resulting from biomass fuel production (ECOTEC 1999). Estimates suggest that job gains are greatest in the agriculture and manufacturing industrial sectors, and that employment effects may be particularly positive in remote agricultural areas, where shifts to biomass production may halt the current decline in jobs. Employment creation could occur in all Member States, with Germany, France, and Italy benefiting from the greatest *absolute* employment increases, whilst Denmark, Greece, and Austria could achieve the highest *proportional* employment increases relative to the size of their labour force. As for temporary employment effects, all technologies should generate a net increase in jobs during the construction phase. For some technologies however there are net employment losses during the operational phase. It should be mentioned that the expected positive effects is at the expense of productivity in the sense of energy output per production factor.

10.3.5 SAVE

A previous assessment of ongoing or recently implemented energy efficiency investment programmes (Association for the Conservation of Energy 2000) found that in the majority of cases, energy efficiency investment programmes increased employment, although the number of jobs created was typically small compared to the size of the investments. The assessment suggests that employment was often created in sectors, locations, and skill groups that are normally prioritised in employment policies: the residential sector, less populated areas, unskilled manual labour. In general, however, the study found the job-creating investments to be less cost-effective in terms of saving energy, indicating a trade off between employment creation and reduction of externalities.

10.4 Conclusion

This study has – by taking point of departure in specific transport and energy programmes and regulations – considered the influence of European transport and energy policies on employment. The study subsequently looked for empirical evidence that can validate the assumed links. Although previous studies and existing data do provide some evidence for the unfolding of some of the theoretical mechanisms, evidence for a substantial number of the links are not available. In addition, a main problem with regard to the validation is connected to the relatively small size of the policy initiatives, which makes it extremely difficult to meas-

ure the meta-level impact of the programmes. Therefore it is generally difficult to draw firm conclusions with regard to the employment impacts.

In particular, the inability to draw more firm conclusions is especially due to the fact that:

- Except for the Working time Directive, which has a rather direct impact on employment, and to some extent TEN-T, the activities, which the analysed policy initiatives affect directly, are at a relatively long ‘socio-economic’ distance from their potential consequences for employment
- Hence, the information provided on the specific EU policy initiatives, through studies and evaluations, are focused on variables that relate more to the immediate objectives of the initiative rather than on its wider consequences, including employment, which in turn makes the validation of the employment effects extremely difficult
- Due to the small size of the spending initiatives and the presence of co-funding, it has not been possible to distinguish between expenditures related to EU measures from expenditures that would have taken place anyhow, because of national or regional regulation or initiatives, or because of market pressure. Therefore, it is not clear from the available evidence, to what degree the employment connected to the various programmes can be considered as additional employment or whether the jobs would have been created anyway without EU funding.

Overall though the empirical evidence investigated in the study seem to indicate that the mechanisms are unfolding as assumed in the theoretical section.

The study indicates that programmes providing financial support to infrastructure especially affects the *physical capital* driver, which in turn increases short-term employment in the sector, while long-term employment in the economy as a whole is mainly affected through reduced transport costs (*prices of goods and services* driver) and thus improved *market conditions*.

By aiming at correcting a market failure and restoring more “correct” relative prices, programmes providing financial support to the *development* and market penetration of sustainable *technologies* especially affect the *market condition* driver, which in turn have an impact on long-term employment. Short-term sector employment is mainly affected through the *physical capital* driver as a direct consequence of investments in the field. Also, the study has shown that initiatives aiming at affecting the institutional framework especially influence the *market condition* driver and the related drivers *real wage costs* and *prices of goods and services*. With respect to the Working Time Directive, these drivers may be expected to have a rather direct impact on employment, as shown in our analysis.

It is difficult to draw more firm conclusions on the impact of the analysed transport and energy initiatives on the quality of employment. In so far as the programmes lead to a more capital-intensive structure of the economy, either through investment in technology (PACT, ALTENER II, SAVE), investment in infrastructure (TEN-T) or by a possible substitution of labour by capital (Working Time Directive), one might expect a positive effect on the quality of labour. This is particularly so in the case of intangible (human and social) capital. However, although a substantial part of the transport and energy programmes deals with research and technological innovation, we do not know to what degree the knowledge economy is enhanced as a result of those investments. It seems clear, however, that the Working Time Directive constitutes the most direct impact on job quality. By limiting the maximum working hours, we would expect to witness an increase in chauffeur's job quality. However, limitations of working time might also increase stress and thereby decrease job quality. The final outcome will depend on *how* the Directive is implemented.

Finally, it should be emphasised that while the abovementioned may be considered as a representative picture of employment effects connected to spending programmes within the transport and energy area these do not constitute the complete picture of EU energy and transport policy. Such should also take into account the liberalisation of the energy and transport sectors. Through a close dialogue with the Commission, it was, however, decided not to include liberalisation of the transport and energy sectors in order to avoid studying the very same mechanisms, which specifically are given attention in the 'Market liberalisation' study.

11 Conclusions

This study has had two primary objectives. The first was to develop a methodology or tool, which can be used to assist Community services or other actors to assess the employment potential or the employment consequences of a given policy intervention. The second was to illustrate the application of this methodology through 8 policy studies of selected Community policy areas. This concluding section will therefore address the applicability of the methodology on the basis of the preceding policy studies and will address some considerations concerning validation that have emerged from the policy studies.

11.1 Methodology

The methodology was worked out as a combination of a policy model and an analytical framework as described in chapter 2 above, which combines policies, evolution drivers, and quantitative respectively qualitative outcomes on employment. This design was adopted in response to the main requirement of the methodology, which was that it should allow for assessing employment impacts at policy level, while allowing for application *across policy areas* regardless of the scope, aims and objectives, measures, and policy instruments of these policy areas. Hence, the methodology should be applicable to policies directly addressing employment as well as to policies not immediately concerned with employment. This very strong requirement necessitated that the methodology produced as the output of the study would have to be of a quite general and flexible nature in order to be sufficiently adaptable to the differences in the variables listed above.

The methodology proposed compels actors to formally consider the employment implications of a given policy, by specifying which policy instruments and mechanisms are in play, how they are assumed to operate and how they will eventually affect the labour sector and consequently employment. The applicability of the methodology has been demonstrated in the 8 different Community policy studies, which are summarised in the preceding monographs.

Economic theory and an economic understanding of the functioning of the labour sector have inspired the policy model, which is the foundation for the analytical framework and the understanding of how employment is eventually affected. Within this overall understanding, the methodology does not, however, require a strict economic analysis, but leaves room for insights and evidences from other disciplines, which can be seen as an enhancement of the applicability of the framework. The different usages are evidenced in the policy studies. Whereas e.g. the 'Rural development' study utilises a governance approach focusing on competences and capacities in rural regions, the study on the Structural Funds draws more

heavily on economics. Both studies do, nonetheless, adhere to the same overall understanding of the policy model and approach to assessing employment effects.

In short, the methodology can be seen as a multidisciplinary approach that enables relevant actors to identify the most critical – positive or negative - causal links between a policy or programme and employment and on this basis make a balanced consideration concerning employment effects of that policy.

11.2 Validation of employment effects

If the proposed methodology were to be used to evaluate more precisely employment consequences of a proposed policy, one would want to collect primary data concerning the programmes or policy areas impact on those evolution drivers that have been identified as central to the quantitative or qualitative employment effects in order to make an employment impact statement. Due to the scope of the present study however, the validation of policy assumptions had to be based solely on already existing information including previous studies, evaluations and available statistical data. The study has confirmed that focus in the collection of data about effects of policy initiatives most frequently is only on the intended effects in relation to the primary objectives while data on wider socio-economic consequences or side effects of that policy (including employment) are not collected. Consequently, for most policy areas the validation of the existence and direction of links between policy initiatives within that policy field and employment creation has been quite difficult.

Only the Structural Funds stand out in this respect, in that a substantial number of previous analyses have directly addressed the employment impacts. A main reason for this is that the promotion of employment is one of the main objectives of the funds. Hence, it has to a large extent been possible to a large extent to assess whether the policy model is a valid representation of the structural funds and the environment in which they operate. On the other hand, 'Research and development and life-long learning' is clearly an area, where existing evaluation studies were not explicitly designed to test the wider socio-economic consequences, but rather e.g. implementation and delivery.

As a result of the lack of availability of data, in some instances it has not been possible to validate with certainty the steps beyond the primary objectives of a given measure or the indirect effects such measures may have. In other words the studies have not found evidence that can be used to trace all the assumed causalities to employment. This obstacle however, is not exclusive to the present framework. Thus alternative methods for assessing wider socio-economic impacts that have been reviewed in some of the studies, e.g. studies em-

ploying general equilibrium models, also do have considerable problems handling some of the relationships assumed in the policy studies. Even where a causal link has been established in theory, the argument concerning the weight of the relationship or its position within the overall model is often contestable. This is particularly true for the causal links connecting direct policy outcomes (which can usually be validated with a high degree of precision) to the employment drivers. To take just one example, the outcome table for the CREA programme states that “Technological improvements in SMEs increase the demand for human capital, increasing job quality”. This statement holds two assumptions, which – although founded in economic theory and at the face plausible – have proved impossible to validate due to lack of relevant data. To validate such links with certainty would demand that empirical investigations are made into questions like: Under which (economic, geographical, industrial...) circumstances do improvements in technology increase the demand for human capital? Which aspects of human capital are influenced? Which aspects of job quality (which indicators) are influenced, if demand for human capital is increased?

These reservations aside, it has nonetheless proved feasible for all the eight policy areas to validate a number of the causalities that were hypothesized. Thus, in most cases available evidence have in fact provided an indication of the unfolding of the policy assumptions.

In order to obtain a more complete validation of the causalities illustrated in the policy field flowcharts, future policy evaluations would need to have a more keen focus on some of the links relating to employment. Such an expanded focus should, however, be eased

- If ex ante considerations and specifications of the causal links between policy and employment take place, and
- If indicators are specified and monitoring systems put in place that will allow a proper documentation of whether the causal relations do indeed work out as hypothesized. E.g.: Is it in real life possible to demonstrate that a certain R&D programme does in fact influence technology within a specific field? Does this specific technological change lead to more efficient production?

This would facilitate that data collection carried out in connection with evaluations and studies would have access to data that could contribute to validation of employment related links and hence to a still better and more precise understanding of how policies impact on employment.

In the course of the study we have found, that the empirical evidence underpinning the links from policies to employment creation differ markedly not only quantitatively but also as re-

gards theoretical as well as empirical analyses of such links. Looking at the drivers for employment that have been identified, we find that some drivers are quite well researched, while others are more poorly examined in connection with employment.

The examinations of empirical evidence show that the connections between industrial economics and employment are generally quite well examined and hence there is among scholars widespread consensus about the importance for employment creation of the employment driver physical capital and prices of goods and services. On the other hand, drivers relating to the knowledge economy, such as technological change and intangible capital (human and social capital) are empirically less well established. Finally, there is very little evidence to prove the links to and from drivers for job quality. Thus, while a number of the policy studies have dealt with changes in *human capital* and *social capital* it has proven more difficult to actually validate empirically this assumed link to employment. Also several of the studies have treated innovation as a source for growth and consequently employment, although this link is both theoretically and empirically less well researched.

As for quality of jobs, analysis is hampered by the lack of conceptual clarity concerning job quality, which means that the links between policies and quality of jobs in general and more specifically with regard to the selected drivers are less well theoretically examined. Not surprisingly then, it has been difficult to empirically validate the assumed links, since previous studies have only rarely examined these causalities. In this respect, an implementation in monitoring systems of the work carried out by the Employment Committee on dimensions and indicators of job quality could prove instrumental in gaining a better knowledge about different policies' impact on job quality.

Overall, the studies have thus indicated a need for future examination both *theoretical* with regard to the links between drivers (especially within the knowledge economy) and employment and *empirical* with regard to the establishment of indicators and monitoring mechanisms, prior to implementation of policies, which might affect employment.

In conclusion, while the methodology developed and applied in the course of study does not provide the complete and final picture of the employment related effects of Community pictures, the Consortium does feel that the study provides important pointers to facilitate the mainstreaming of employment objectives by enabling policy makers to look into components of policies of particular importance to employment creation and employment quality and by pointing to where indicators and monitoring mechanisms should be in place if a more thorough assessment of employment effects should be possible.

Appendix A: References by chapter

A. 1 Introduction

There is no literature references to the introductory chapter.

A. 2 Methodology

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A. 11 Conclusions

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Appendix B: Perspectives on the future employment impact of Community policies

Introduction

According to the ToR, the objective of including the scenario planning methodology in the project on Potential of EU Policies for Employment Promotion is outlined as (quote) *develop scenarios on the expected short term and medium term influence of Community policies* (unquote).

In general, the purpose of using scenario planning is to create a sort of 'mental road map' for the possible future development. As the future is, per definition, uncertain, scenarios offer the opportunity to apply several distinct images of plausible future worlds. The ultimate objective, however, is to use the framework created by the scenarios to assess and evaluate current strategies, policies and actions in the light of the scenarios to answer fundamental questions such as: How well are we prepared to meet future challenges? How suitable are our current strategies, policies and actions as instruments in building a bridge to the future?

Such questions were explored during the final phase of the project at a two-day workshop. The approach of the workshop, and of this section, is to pursue the above questions by assessing the policy areas and the findings of the policy studies against a set of possible futures.

The workshop, which took place in Brussels on the 15 – 16 April 2002, involved the consortium partners, the policy area experts as well as representatives from the European Commission. The workshop was planned partly as an element in the validation of the study and partly as the strategic and forward-looking component of the project. The following sections build on the discussions at the workshop and synthesize some of the main findings.

The overall framework for the discussion was a set of scenarios – the “Scenarios Europe 2010”-project (CEC 1999) – previously (in 1999) developed by a task force under the auspices of the European Commission’s Forward Studies Unit²⁰. The discussions at the workshop included four of the scenarios²¹ as a framework for the discussion:

²⁰ The name of this service in the European Commission was later changed to Group of Policy Advisers.

²¹ A summary of the four scenarios, taken from the original publication, is enclosed in an annex to the main report. The original study included five global scenarios for the future of Europe, but it was decided to reduce the number of scenarios applied in this study to four, in order to simplify the analysis.

- **Triumphant Markets:** A scenario that includes i.a. an overall trend towards a reduced importance of government organised and funded services in favour of market based services, as well as an expansion of the European market on liberal, free-market conditions.
- **The Hundred Flowers:** The scenario stresses the anarchic nature of a possible future situation for Europe and describes the relative weakening the European Union and of national governments due to the growing influence of grassroots organisations and community initiatives at the local level.
- **Shared Responsibilities:** A ‘neo-corporatist’ scenario in which well-known institutions at the European and national levels are strengthened due to their willingness to seek mutually beneficial solutions.
- **Turbulent Neighbourhoods:** The predominance of security policy issues characterises this scenario due to a rise in global terrorism, unstable political developments in Central and Eastern Europe, civil unrest and armed conflicts on the European fringe.

By using the above scenarios as the overall framework, this section will address the following topics:

- A brief presentation of the conceptual linkages between scenarios, policies, employment drivers and employment.
- Strengths and weaknesses of Community policies based on the findings of the policy studies.
- Future challenges to Community policies posed by the scenarios.
- The impact of the scenarios on employment drivers.
- An assessment of various types of policy instruments and their application in future scenarios.

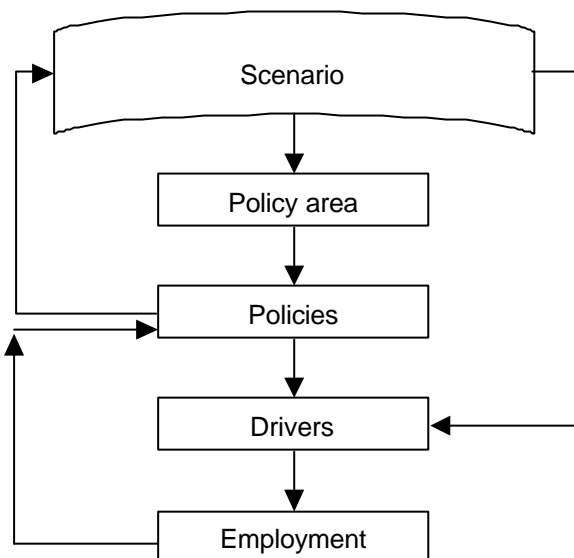
It should be noted that the discussions at the workshop were explorative in the sense that they attempted to mirror past experiences in the various policy areas with future situations. Therefore, the points listed in the following sections should be treated with caution and be considered as indicative findings that may generate hypotheses to be pursued in later studies.

The connection between scenarios and employment

Figure 1 shows the interrelatedness of scenarios, policy areas, policies, employment drivers and employment. Firstly, the scenarios as laid out in the *Scenarios Europe 2010* form the political, social, economic and institutional framework within which a given policy area has to operate. The policy area can in this respect be defined as a socially or politically constructed

theme according to a specific target group or focal point, whereas the policies are the actual instruments and measures applied to meet the objectives of the policy area. The employment drivers for number of jobs and job quality are to different extents influenced by the policies, with subsequent impacts on employment. Policies are, however, not the only elements affecting drivers and employment. Thus, drivers are also directly affected by the political, social, economic and institutional realities that exists regardless of the individual policies, in other words by the scenarios.

Figure 1 Interrelatedness of scenarios, polices, drivers and employment



The feedback loop from policies to scenario illustrates that not only does the individual scenario affect policies, but the policies also shape the reality in which they take place. Hence, policies have been among the driving forces that have actually resulted in the scenarios. Further, to the extent that employment objectives are integrated into other policies, the employment situation is likely to affect the formulation of policies and will thus also have an affect on the scenarios themselves. Since the focus has been on how policies and drivers are affected in different given settings, these reciprocal connections have received less attention, but should ideally be considered if one where to assess how the scenarios and policies would develop over time.

Strengths and weaknesses of Community policies

This section will briefly summarize some predominant and important strengths and weaknesses of Community policies. While the eight policy studies include rather detailed accounts of strengths and weaknesses related to each policy area and Community initiatives in each

policy area, the following will synthesize strengths and weaknesses that cut across policy areas and thus characterise Community initiatives more generally.

One of the important strengths of Community initiatives is the trans-European perspective of most Community initiatives. From this perspective Community initiatives may be seen as adding value to the efforts of national governments and as adding a European dimension to the development of the continent, which is hard to obtain through national or bilateral initiatives.

Secondly, a range of Community initiatives, most notably the Structural Funds, explicitly pursues the objective of redistribution among weak and strong regions in Europe for the benefit of the continent as a whole. Such initiatives are the direct offspring of the idea of increased economic and social cohesion within Europe. Therefore the underlying conceptual thinking of the initiatives carry with them the potential for spending Community funds in locations and sectors where they serve the greatest needs and add most value to existing national and local funding and initiatives and hence obtain the highest impact.

Thirdly, the studies show several examples of Community initiatives that seek to address market failures. Examples may be found in as diverse policy areas as enterprise policy, research and lifelong learning and structural funds. While this does not in practice eliminate the risk of duplicating or even replacing well-functioning markets, policy-makers are very conscious that addressing market failures is the fundamental rationale behind Community initiatives. The discussions at the workshop clearly pointed towards this as a strength that should be attributed to existing Community initiatives.

Given the focus on the employment perspective in the present study, it may be listed as a weakness that it is more often than not very difficult, if possible at all, to derive valid data from existing data (e.g. evaluations) on the employment impact of Community policies.

There seem to be several reasons for this and the reasons vary to some extent between the policy areas. Across the policy areas, some factors behind this observation are important. Firstly, it is difficult from a methodological perspective to measure the net employment impact of Community policies. Secondly, while employment may be one among several objectives in the overall development objective, the employment objective is rarely among the immediate objectives of the initiatives. As a consequence, policy-makers and programme designers do not formulate explicit expectations to the employment impact and hence monitoring and evaluations do typically not seek data on this variable. The exception from this general rule is

the Structural Funds, where employment is among the main objectives, and consequently some effort is demonstrated to measure the impact.

Moreover, spending-based Community policies may entail problems with crowding-out of investments and spending of national governments as well as rent seeking. This perspective is explained in more detail in a separate section and will therefore not be elaborated here.

Scenarios and challenges

The overall observation is that the different scenarios seem to pose different challenges to the policy areas. Moreover, a particular scenario may create opportunities for Community initiatives in one policy area while at the same time increasing obstacles and problems for Community initiatives in another policy area.

Across the policy areas, the analysis indicates that each of the four scenarios would create some overall challenges:

The 'Triumphant Markets' scenario implies constraints on public budgets at national as well as at Community level. Sustaining the current level of spending in Community initiatives across the board does for this reason not seem to be realistic. Most policy areas would consequently need to rethink and refocus their priorities and they would most likely have to downsize the total level of activities and spending.

In the "Hundred Flowers" scenario the main challenge for Community initiatives seems to a lesser extent to be rooted in levels of spending but more in the anarchic nature of the involvement of local communities, business and cross-border interaction. The 'unruly' nature of this scenario seems likely to imply enhanced implementation and accountability problems for Community initiatives and consequently also reduced impact of Community initiatives. This scenario describes a European setting where traditional partners at the local levels within Member States to a lesser extent than in the past can be trusted to implement activities, where it is difficult to strike an effective dialogue between the European Union and local decision-makers and opinion leaders, and where it is increasingly difficult and complex to assess which type and content of Community initiatives would actually be the best suited to achieve their objectives.

As a contrast, the 'Shared Responsibilities' scenario generally appeared as the most favourable to the incremental continuation of existing Community initiatives. This view is mainly founded in the continued, or revitalized, strength of existing institutions in the societies

across Europe, which is likely to function as a buffer to abrupt changes in the set-up and content of policies.

Due to the vision of the risk of 'balkanisation' and the return of armed conflict to the European continent, the 'Turbulent Neighbourhoods' scenario evidently stands out as the most disturbing of the four scenarios. If transformed into reality, this scenario would create a multitude of challenges – or more precisely: problems – to the European Union. Among these, the problems for the various policy areas included in this study at the immediate glance seem of a lesser scale compared to the security problems that in this scenario have come to overshadow the daily lives in many parts of the continent and in neighbouring areas.

However, some likely implications for the policy areas may be mentioned. Firstly, as the European political agenda would most likely be preoccupied with security issues the political attention and prioritisation of the matters of the various policy areas would probably be reduced. In addition to reduced political attention, this development is likely also to entail reduced funding available to Community initiatives in most policy areas, partly caused by a slowdown in economic growth, partly caused by reprioritization of public, including Community, funds. Secondly, in an increasingly inward-looking Europe where Member States realign along short-term national interests in the political and economic realms, Community initiatives that are promoting a trans-European perspective and economic redistribution among rich and poor regions within Europe, which is a common feature of many Community initiatives, seem likely to face an uphill struggle.

The impact of the scenarios on the employment drivers

In the text below the analysis seeks to extract the impact of the various scenarios on the employment drivers. The basic principle of the analysis is to explore, first, which employment drivers appear to be the most affected across the scenarios and policy areas, and, second, to what extent each of the four scenarios make it easier (i.e. positive influence on the employment driver) or more difficult (i.e. negative influence on the employment driver) for policy initiatives within the various policy areas to contribute to the creation of employment through the driver.

However, in order to provide a truly well-founded and valid answer to the latter issue by looking at all combinations of drivers, scenarios and policy areas, a comprehensive and deep analysis would be required which goes beyond the scope of this exercise. We will therefore limit the analysis to some overall observations to indicate the influence on the drivers at the general level.

In this regard it is hardly surprising that the influence of the scenarios on each of the drivers vary between the policy areas and between the general level and the policy area level. As an example of the differences between the general level and the policy area level the case of technology (job creation) may serve to illustrate this point: Under the 'Triumphant Markets' scenario the technology driver for job creation is generally assumed to be positively influenced. This reasoning is based on the assumption that the increased competitiveness (which the scenario describes) generally spurs technology innovation within industries and this may at the end of the line have a positive impact on employment. The exception from this general observation may be found in the sustainable development policy area where sustainable energy technology etc. are often sponsored in the initial phases by public funding (national governments or EU) and take some time to be sufficiently mature to be picked up by private markets. As the scenario implies reduced public funding in general, it must be assumed that public funding for sustainable technology R&D is also reduced. Therefore there is a negative influence of the scenario on the technology driver in the case of the sustainable development policy area.

The long list of employment drivers for, respectively, job creation and for job quality is presented in the table below.

Employment drivers

Employment drivers for job creation	Employment drivers for job quality
<ul style="list-style-type: none"> • Market conditions • Real wage cost • Physical capital • Technology • Human capital • Social capital • Prices of goods and services 	<ul style="list-style-type: none"> • Real wages and non-pay rewards • Technology • Human capital • Social capital • Attitude and reputation • Industrial Relations System

The analysis and discussions at the workshop primarily focussed on the employment drivers for job creation. On this background the influence of the scenarios on each of the employment drivers for job creation is described and briefly summarized while the employment drivers for job quality will not be analysed. The influence of the scenarios on the employment driver is indicated as follows:

- ++ = very positive influence of the scenario on the employment driver which makes it easier for policy initiatives to contribute to job creation
- + = positive influence, etc.
- = negative influence, etc.
- = very negative influence, etc.

In cases where the influence is difficult to estimate, it is noted that the influence seems to be unclear.

Employment driver: Market conditions

Triumphant Markets	Hundred Flowers	Shared Responsibilities	Turbulent Neighbourhood
++ Market conditions are influenced positively through the freeing up of market dynamics.	- Enterprises face difficult market conditions with the expansion of the informal economy.	+ Stability in the evolution of market conditions is favourable to business, but lack of dynamics through maintenance of structural inflexibility in the economy.	-- Rising security concerns are detrimental to market conditions.

Employment driver: Real wage cost

Triumphant Markets	Hundred Flowers	Shared Responsibilities	Turbulent Neighbourhood
-/+ Economic growth entails rising real wage growth.	-/+ Growth in the informal (black) economy means real wage growth for those involved.	-/+ Real wage growth through stable, but moderate, economic growth.	+ Security concerns causes economic slowdown which may influence real wage growth negatively.

Employment driver: Physical capital

Triumphant Markets	Hundred Flowers	Shared Responsibilities	Turbulent Neighbourhood
+ Economic growth spurs increasing private investments in physical capital.	? Unclear.	+ Economic growth spurs increasing private investments in physical capital.	-- Rising security concerns deter investors and companies.

Employment driver: Technology

Triumphant Markets	Hundred Flowers	Shared Responsibilities	Turbulent Neighbourhood
++ Virtuous circle of improved competitiveness and technology investments and development	+ High tech sectors are expanding.	+ Technology development takes place in both the public and the private sector and through public-private partnerships.	-/+ Technology development within security related industries may have spin-off effects on non-military industries.

Employment driver: Human capital

Triumphant Markets	Hundred Flowers	Shared Responsibilities	Turbulent Neighbourhood
+ Qualified labour is in high demand.	? Unclear.	+ Qualified labour is in high demand	- Rising unemployment has a negative influence on human capital.

Employment driver: Social capital

Triumphant Markets	Hundred Flowers	Shared Responsibilities	Turbulent Neighbourhood
? Unclear.	? Unclear.	? Unclear.	? Unclear.

Employment driver: Prices of goods and services

Triumphant Markets	Hundred Flowers	Shared Responsibilities	Turbulent Neighbourhood
++/(-) Competitive markets will drive prices down (lower prices for energy and other resources may alter the capital employment ratio negatively with regard to employment)	- Lower productivity and decreased competitiveness will lead to higher prices.	-/(+) Focus on environment and sustainable development lead to increasing prices for energy and resources (higher prices of energy and resources may alter the labour capital ratio positively with regard to employment).	--/(+) Marked increase in energy prices due to conflict, uncertainty and reduced international trade (increased energy prices may alter the capital labour ratio positively with regard to employment).

Assessment of policy instruments

The policy studies have applied a categorization of various policy instruments into three types of instruments, respectively spending policies, dialogue-based policies and regulation. The analysis tries to assess these policy instruments against the scenarios and comment on the extent to which the policy instruments seem to be robust tools for the future. The robustness of the policy instruments may be understood in broad terms as, first, whether it is realistic and feasible to apply them and, second, as their ability to achieve employment objectives as well as and other objectives in different scenarios.

Spending policies

In two scenarios ('Triumphant Markets' and 'Turbulent Neighbourhoods') the level of public spending at national and at Community level will or is likely to drop. In the 'Triumphant Markets' scenario the reduction is a result of policy choices and in the 'Turbulent Neighbourhoods' it is a consequence of a slowdown in overall economic growth. Spending policies in the Community within the various policy areas are therefore likely to come under pressure in these scenarios, which do not indicate that this type of policy instrument will be highly prioritised.

While it seems unclear whether spending policies will be a feasible or preferred policy instrument in the 'Hundred Flowers' scenario, the spending policy instrument seems, to the extent it is applied in this scenario, likely to encounter increased implementation problems in many areas.

In contrast, the spending policy instruments seems to fit well with the thinking and preferences of policy-makers in the 'Shares Responsibilities' scenario, who will continue to address 'market failures' within different policy areas with direct injections of funding. In this scenario, the institutions, which are supposed to ensure that implementation takes place as planned, are also in place.

Dialogue based policies

As the 'Triumphant Markets' scenarios describes a general turn towards a hands-off style of government, it seems unlikely that dialogue-based policies will be a preferred policy instrument in this scenario. In the 'Hundred Flowers' scenario, dialogue-based policies may be desired by policy-makers and institutions at the European level as well as central institutions at the national level as a means to reach out to local communities, but is it doubtful whether local communities and their opinion-leaders would be willing to engage themselves in any effective dialogue. In the 'Shared Responsibilities' scenario, which suggests a renewed neo-corporatist trend and relationship between policy-makers and various stakeholders and insti-

tutions, dialogue-based policies would clearly play an important role in the ongoing bargaining games between policy-makers and stakeholders at different levels.

In the 'Turbulent Neighbourhoods' scenario, it could be argued that dialogue-based policies is the only sustainable way out in order to counterbalance the rising level of civil unrest and armed conflicts and establish a dialogue with e.g. ethnic and religious groups. While this observation applies to issues related to matters of security, it seems uncertain how the feasibility, use and efficiency of this type of policy instrument would be in most of the various policy areas included in this study, although the structural funds and social inclusion would probably be affected in this respect.

Regulation

Although the type and content of regulation policies would vary in the different scenarios (e.g. the 'Triumphant Market' scenario would most likely focus mainly on market oriented regulation that would be considered as essential to ensure or improve the smooth functioning of markets), regulation policies seem to be a feasible policy instrument in three scenarios ('Triumphant Markets', 'Shared Responsibilities' and 'Turbulent Neighbourhoods') and possibly all four scenarios.

The 'Hundred Flowers' scenario appears to be the most difficult scenario as regards the effectiveness of regulation policies. It is likely that target groups do not react and behave in accordance with the regulation policies given the nature of this scenario. The enforcement and implementation of regulation policies may well encounter serious obstacles in this scenario. However, regulation policies that aim to influence the behaviour of target groups through incentive structures, that create sorts of "win-win situations" for target groups and policy-makers/regulators, could prove to be useful and effective.

Overall assessment

In conclusion, the various types of policy instruments seem to face different kinds of challenges under the four scenarios. The application of spending policies and dialogue-based policies seem to be feasible in some scenarios but difficult in others. Regulation seems to be the type of policy instrument that possesses the greatest potential to function as a feasible and effective tool across the scenarios.

Literature:

CEC (1999). *Scenarios Europe 2010. Five Possible Futures for Europe*. European Commission Forward Studies Unit.

Appendix C: Alternative spending, crowding out and rent-seeking: unintended consequences of Community action

This section explores the three main unintended consequences of Community action – or, indeed, of any governmental action: the problems concerning alternative ways in which funding diverted through Community action could have been spent, and – in the context of this study – assessing how this **alternative spending** would have affected employment.

Closely related to the problems of alternative spending are the problems of **crowding out**, which essentially is when Community action in one area ‘crowd out’ similar public or private action in that same area. Thus, total resources spent in said area does not necessarily increase as a result of the Community action, but the *source* of these resources are merely shifted: either from private agents to the EU or from national governments to the EU. The task lies in assessing how this shifting of ‘resource allocator’ may influence employment.

Finally, there is the related problem of **rent-seeking**, which is – in short – the action by which private agents or national governments, try to assure that Community action will benefit them. Again, this need not be in the form of securing direct or indirect transfers, but can also be in the form of encouraging favourable EU regulation (e.g. protection from competition). All Community action represents a value to some agents, who will thus be willing to invest resources trying to obtain said value. The task is assessing how many resources are wasted this way, and how the alternative allocation of these resources might have influenced employment.

Alternative spending

The problems in connection with alternative spending can be likened to the notion of ‘alternative costs’ often applied in the context of standard business economics. One cannot only consider what good an investment in one area brings, without considering what good the same investment might have done elsewhere; without treating the returns thus foregone as *alternative (opportunity) costs*. This is of course especially true when evaluating big budgeted spending programmes such as the Structural Funds, but the principle holds true for lesser projects too.

Community action invariably diverts resources away from some areas of the economy and into others: indeed, one might say, this is the whole purpose of Community action. While the benefits to the areas at the receiving end are often highly publicised, the effects at the other end are often ignored – a bias that is only strengthened by the fact that benefits are often concentrated and highly visible, while the negative side effects are often diffuse and harder

to grasp. It is plain to see the good that is produced as a result of Community action, but harder to assert what might have been, had the action not been taken. It is a distinction between *what is seen and what is not seen* that is imperative to any analysis of public spending.

When Community action diverts the resources of national (or regional / local) governments, what is not seen is how those governments might otherwise have spent those same resources. To the extent that the affected governments choose not to increase taxes they will have to raise the needed resources by diverting resources away from areas of public spending hitherto seen as more important. Maybe governments will choose to divert resources away from the same area as the one targeted by the Community action, in which case this action will merely *crowd out* governmental action.

To the extent that governments choose to increase taxes to cover the resources diverted by Community action – or when Community action directly diverts the resources of private agents – what is not seen is how those private agents would have otherwise used the same resources. Again, there will either be *crowding out* of private resources allocated to the targeted area of the market (see below), or there will be other areas of the market receiving less resources.

The mechanism of alternative spending / alternative cost is thus quite banal and a logical consequence of the scarcity of resources: every decision excludes other decisions and thereby has alternative costs – it is a fact of life. The question is not whether there are alternative costs to Community action, but rather how high these costs are and – more importantly – whether the costs are outweighed by benefits. The problem is one of knowledge: who knows best where resources should be allocated? The Community? National, regional or local government? Or the market?

Some lines of economic thought see the market as ultimately superior to governments in gathering information and acting upon it rapidly and appropriately. Not only in the long run, but in the short run as well, they see all government intervention as hampering the optimal allocation of resources and thus economic growth and employment. Others take a more positive view of governments' ability to gather information and act appropriately – especially in the shorter run. To these economists the question becomes one of subsidiarity, i.e. at what level of government are resources allocated most efficiently.

Finally, there is the more pragmatic view that a free market may very well be the 'optimal allocator' of resources, but such a free market is not a realistic option. Public interference in

the market is widespread – and for many other reasons besides securing ‘optimal resource allocation’ and improving employment. This interference already distorts the free market and while the ‘optimal’ (‘first best’) solution may be the removal of all public interference, the realistic (‘second best’) solution may very well be *more* government interference in order to ‘re-store’ the market signals to something resembling what they might be without public interference.

In any case though, the total amount of extra *public* resources allocated to a given policy area (Community resources after allowing for any reductions in other public spending, that may be the result of the community policy) will have to be carried by taxes on private agents. This increase in taxation will lower the incentive to work and thus lower the overall supply of labour.

Crowding out

As mentioned above, some private and public agents will react to Community action in a certain area by reducing their own activities in that same area. To the extent that this happens, Community action will not increase the amount of resources invested in the target area, but will merely replace – or crowd out – existing resources. At first sight nothing may have seemed to change (the same amount of resources are allocated as before); however, there may be some noteworthy side effects from the crowding out of existing investments by Community action.

Basically, the problems following from crowding out are the same as those mentioned above, namely the questions concerning the knowledge problem and subsidiarity – although a bit more narrowly applied: Are specific problems (those potentially targeted by community action) better handled by governments than by the market? And if so: at what level of government are they handled most efficiently? National – or even regional or local – governments may have a better feel of what is needed than the EU. And left to the market, the problem may even be solved automatically.

As it should be clear, the problems following from crowding out are mainly due to lack of flexibility and thus primarily relevant in the longer run. In the shorter run, Community action should only be able to crowd out governments or private agents if the same problems are targeted as have already been identified as ‘problems’ by those agents. The Community thus circumvents the knowledge problem by acting on knowledge already gathered by other agents. However, the knowledge problem resurfaces if and when circumstances change and the lesser agents – having been crowded out – are not present to gather information as be-

fore. And to the extent that they are still present, there may be concerns as to their trustworthiness.

Community action crowding out similar action of governments or private agents may seem efficient in the short run as processes are rationalised and optimised. In the longer run, however, concerns are that community action will be hampered by inflexibility and lead to the misallocation of resources and – as a consequence of this – lower economic growth and employment.

There is even the risk that the mere *potential* of Community action will lead to the crowding out of private and – especially – other public action in important areas of Community interest. If local or national governments expect the Community to step in as soon as problems become ‘big enough’, they may have less of an incentive to solve those problems themselves – even where this might have been done at a much lower cost than later Community action. The presence of Community focus on a specific policy area will induce national governments to reallocate their own resources away from that area in the anticipation that Community funds will eventually fill the void.

Rent-seeking

The last unintended consequence of Community action may be rent-seeking and the negative effects this activity has on growth and employment, as public and private agents waste their resources trying to divert Community resources towards themselves directly, or towards ends, which ultimately benefit themselves.

As mentioned above, the trustworthiness of public and private agents decline, as they are crowded out of a certain activity by Community action. The fact that they were investing resources in that activity in the first place may be taken at face value as proof that the activity in question represented an economic value to them – otherwise they would not have undertaken that activity. Hence they will have interest in seeing the activity continued or even expanded, and ultimately be willing to invest resources in securing this.

The amount of resources agents will be willing to spend on rent-seeking will be equivalent to the benefits they expect from the activity – adjusted for the chance of actually being able to influence community action. For private agents, the logic behind rent-seeking is no different than the logic behind any ‘normal’ market investment: the resources invested are weighed against potential benefits and risk of failure. Likewise for national, regional, and local governments, where resources allocated to rent-seeking are weighed against the benefits to be obtained from investments elsewhere.

The misallocation of resources resulting from rent-seeking may be exacerbated to the extent that rent-seekers are successful in securing investments for projects that do not represent a value to the Community as a whole, but only to the agent securing the funds. This may be possible if knowledge problems are present, forcing the Community to rely on information from private or public agents, who – as a logical consequence of their ‘involvement’ in the matter – may have an agenda different from the one of the Community and thus a bias towards other goals.

As with the other unintended consequences of Community action, this misallocation of capital can be expected to reduce economic growth and employment.

Concluding remarks and flowchart

The preceding sections have presented different theoretical perspectives on mechanisms that may lead to Community Action having unintended consequences:

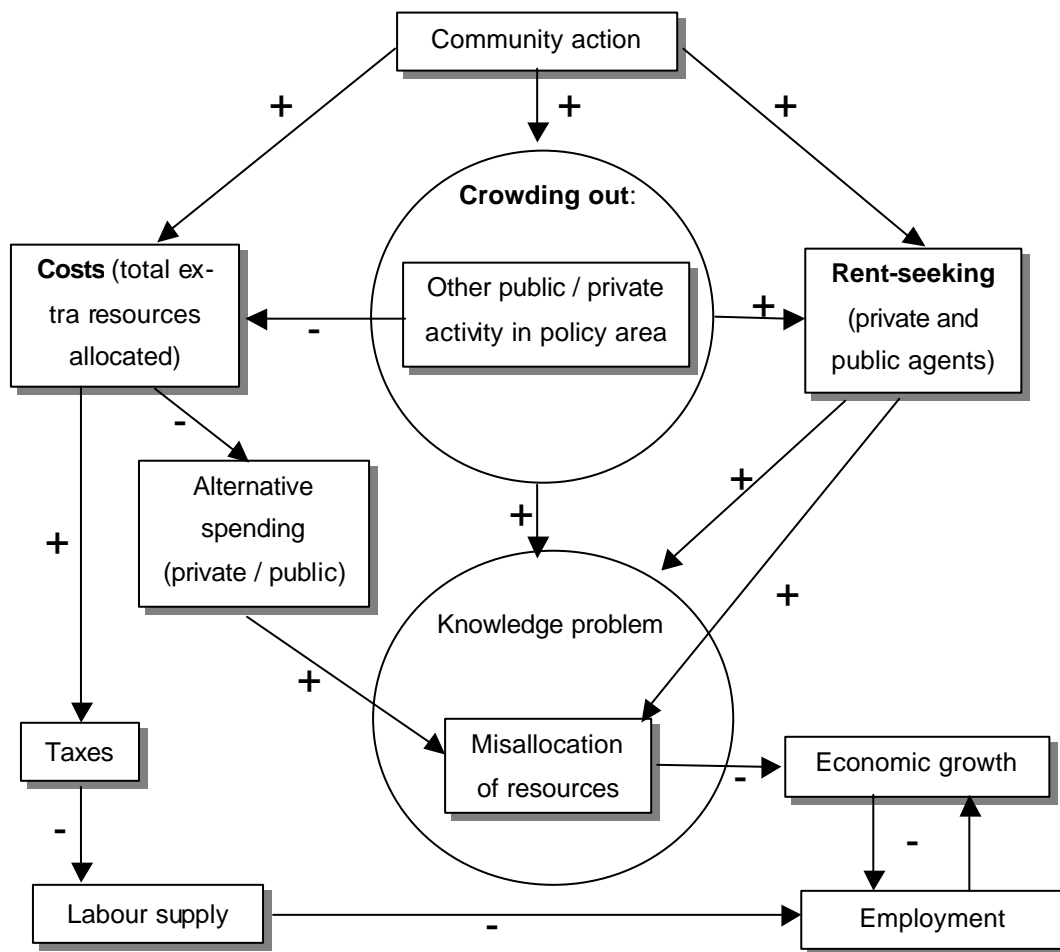
- Foregone alternative spending
- Crowding out of other public or private activities
- Rent-seeking by private and public agents

These mechanisms are all very elusive and hard to quantify. Estimating the cost associated with these activities requires in principle a detailed knowledge of the counterfactual, i.e. what would have been, had there not been Community action.

Although they are clearly beyond the scope of the present study to estimate, the unintended consequences of Community action should not be ignored. Below, we have included a flow-chart summarizing some unintended consequences of Community action and how they may potentially hamper employment through the three identified drivers: Costs, Crowding out, and Rent-seeking. As we analyse each Community policy, we shall indicate how that policy may affect the drivers and the reader may then refer to this section to follow the effects through to employment.

We would also refer readers to the analysis of the Community policy on state aid, as this policy (reduction and redirection of State aid) may be said to have the explicit aim of reducing some of the unintended consequences of actions taken by Member States, which are analogue to the consequences of Community action discussed here.

Flowchart: unintended consequences of Community action:



Appendix D: Summary of Scenarios Europe 2010

Scenario 1: Triumphant Markets

- Increasing mismatch between welfare states and the demands of the economy.
- Europe won over to liberalism by American success
- No alternative model
- Shift of European political debate to liberalism and individualism, and replacement of the political class.
- Reduction in unemployment benefits and labour legislation and creation of a two-tier job market.
- Reduction in unemployment.
- Reduction in public expenditure, privatisation of social services and downsizing of the state.
- Value for money for public expenditure, but longer-term public investment is neglected.
- Good macro-economic situation in Europe.
- Rapid growth in small businesses and increasing openness to the international environment.
- Almost unanimous consensus in favour of free trade.
- Russia and China follow the movement against a background of good economic results.
- Prospects of monetary coordination in the YES (yen, euro, dollar) zone and a world free trade area.
- The world economy in a virtuous circle.
- Increase in the number of Western-style consumers, but growing inequalities worldwide.
- The EU's agricultural and regional policies revised downwards.
- The budget debate settled in favour of the net payers.
- The most political aspects of the European project abandoned: slow progress on justice and home affairs, foreign and security policy not considered a priority.
- No political will to develop environmental or social dimension.
- No reform of the institutional system.

- Enlargement of the Union to include the other Western European countries, Central and Eastern Europe, Turkey, Cyprus and Malta.
- Towards a huge market from Sahara to Siberia.
- Proliferation of non-military risks and rapid deployment of international organised crime networks.
- Inadequacy of international police cooperation.
- Increased damage to the environment because of spread of Western lifestyles.
- Rapid increase in social and regional inequalities both globally and domestically.
- Individualistic and fragmented societies, mainly concerned with the short term.
- Widespread security concerns.

Scenario 2: The Hundred Flowers

- Irreversible weakening of old-style government and decline of the administrations.
- Reform attempts lack clout.
- Open public dissatisfaction with the economic and political system.
- Proliferation of political scandals and deterioration of social conditions.
- 2000-2005: crisis of confidence, explosion of complaints and direct action against big businesses and administrations.
- Withdrawal into the underground economy, the family and the local community.
- New shared values and rising local identities.
- Strong local activity, exponential growth of neighbourhood structures and the non-profit sector.
- Multiplication of cross-border contacts thanks to communications technologies.
- Far-reaching changes in the economy to cater for new demands.
- Information technologies and knowledge the main engines of growth.
- Boom in made-to-measure goods and services.
- Self-regulation of the European economy following the voluntary de facto withdrawal of the public authorities.

- Widespread intermingling of legitimate business, petty corruption and the informal economy.
- Greater social and geographical fragmentation.
- Welfare systems disorganised but continue to oil the wheels of society.
- Political fragmentation: the strongest regions gain authority while others descend into medieval anarchy.
- The EU a victim of the national governments' lack of legitimacy.
- Eastward enlargement slowed down – and eventually abandoned after the accession of four Central and Eastern European countries.
- Failure of enlargement exacerbating economic and political instability in the region.
- Differences of opinion between larger Member States over foreign policy priorities.
- Low EU profile in the area of justice and home affairs.
- The euro and single market still in place despite some bending of the rules.
- An increasingly ominous international situation.
- A more introspective United States.
- A divided Asia.
- Russia still a major source of instability.
- Serious risk of the international system coming to a standstill.

Scenario 3: Shared Responsibilities

- New principles and a fundamental change in the way public actors perform their tasks – already underway in the 1990s.
- Increasing signs of discontent in the general public.
- The new actors yearn for more responsibility.
- Wide-ranging audits reveal major inconsistencies in the implementation of public policies throughout Europe.
- A Committee of Wise Men to find ways to improve the situation.
- Four fundamental principles proclaimed: decentralisation, openness, subsidiarity and duty to co-operate.
- Far-reaching reform of the public sector (2002 – 2005).

- Accountability principle applied to all public policies.
- Unemployment reduced through involvement of those acting at grassroots level and systematisation of local employment pacts.
- Proactive industrial policies in the field of information technologies.
- Renewal of social dialogue ('competitive corporatism') and rebalancing of labour law and welfare schemes in favour of 'outsiders'.
- Pension and sickness schemes reformed towards greater accountability of the citizens and better balance between generations.
- Competitiveness in good shape, the world acknowledges the existence of a 'European model' based on co-operation and consensus building.
- Slight improvement in regional and social cohesion despite persisting development and income gaps.
- Civil society on the rise but active citizenry is still a minority.
- The general public accepts the reforms with fatalism.
- Europeans converge around shared values: confidence, solidarity, responsibility.
- The EU still in the process of digesting its eastward enlargement.
- CEECs well engaged in economic, environmental and social modernisation.
- European political project reinvigorated around 2005 thanks to a large pan-European debate on the objectives of the EU.
- Major reform of EU institutions in 2007 and strong commitment towards 'more Europe' to face the main political challenges.
- Major progress in the field of foreign policy, EU's neighbourhood reinforced by a series of all-encompassing partnerships.
- Europe the defender-in-chief of the multilateral institutions – and of its own values: social dimension, human rights, sustainable development.
- Emergence of regional constituencies (in parallel with the reinforcement of world institutions).
- South East Asia heading towards a regional rapprochement under China's auspices.
- Russian comeback on the international stage – free trade agreement with EU.
- US developing a more multilateral and co-operative approach to world affairs.

Scenario 4: Creative Societies

This scenario was not included in the discussions at the workshop.

Scenario 5: Turbulent neighbourhoods

- An international backdrop of increasing global political instability.
- Proliferation of small-scale conflicts.
- Globalisation fails to deliver.
- Rich countries inattentive to new threats until the start of the 21st century.
- Increasing tensions on the EU's doorstep.
- Growing public anxiety over insecurity in Europe.
- US progressive detachment from European concerns.
- Lack of a coherent foreign and security policy.
- Major armed conflict erupts in the Union's backyard.
- Terrorists export the conflict to the EU.
- Military response from Europe, led by the big Member States.
- US declines to take part.
- EU profoundly changed by war experience.
- Establishment of European Security Council and security agencies.
- More intergovernmentalism in EU's approach to foreign policy and internal security.
- Chaos in the former Soviet Union and Eastern Europe.
- Intractable problems with illegal immigration.
- The Euro-Mediterranean partnership left to crumble.
- Turkish liberal elites weakened, deterioration in relation with the EU.
- Political instability in the Southern Mediterranean.
- Religious parties and the military more and more present in politics.
- World increasingly split into regional blocs and spheres of influence.
- US focuses attention on the Americas.

- China and Japan jockey for position in Asia.
- Erosion of fundamental rights and freedoms.
- “European area of freedom, security and justice” takes on repressive character.
- An unsettled passive and increasingly intolerant European public.
- Structural reform of the economy not on top of the agenda.
- Declining European competitiveness, state interventionism on the increase.
- Passive acceptance of degradation of public services.

Appendix E: Life-long Learning and Other EU Policy Areas

The treatment of life-long learning in this study has been linked directly to its role in strengthening R&D activity in the EU through promoting human resource development, especially among scientists, engineers and related support professions. Here, this kind of life-long learning has been termed 'continuing professional development' (CPD) because it *continues* beyond the initial phase of professional education or training and it is clearly related to the pursuit of learning within the framework of a career in a *professional area*. This allows for the acquisition of generic skills and for progression and mobility that may ultimately take the individual into related professions or into management but it still arises out of the original professional profile.

EU HRDF measures carried out within the Framework Programme (FP) represent a huge CPD initiative. Even if they are not mainly targeted at experienced people in the middle or latter parts of their professional lives as such and, therefore, in a sense, cannot be said to be an 'ambitious' form of CPD, they deal with personnel who are beyond the immediate stage of initial professional education or training. Moreover, the support for high quality projects, experience of which is so crucial to the development of researchers at all stages, and which has been a key objective of successive FPs, means that 'professional development' is a by-product even of those activities of the FP which are not aimed at the mobility and training of researchers *per se*. Indeed, there are actually very few 'ambitious' forms of CPD in operation at national and EU levels that stress development over much of the working lifecycle rather than only at the start or soon afterwards.

Certain other EU policies, also aim to introduce the promotion of life-long learning as part of the strategy in the area concerned. Indeed, the rhetoric of life-long learning often seems to have spread considerably beyond both the reality of its current significance in most policy areas and the plausibility of its future significance. In some of the areas in which it is advocated. This applies at both EU and national levels. Taking a broader perspective, however, we may consider, first, CPD rooted in other occupational or sectoral areas and, second, life-long learning which goes beyond that associated with the world of work alone.

Thus, we may approach life-long learning from a number of different perspectives. Those that seem particularly important in the present context are:

- The development and reform of policies in the education and training fields (notably, *Final Report on the Implementation of the First Phase of the Community Action Programme Leonard da Vinci (1995-1999)*, CEC(COM (2000) 863);

- The importance of ‘valorisation’ as part of the learning process in both policy development and practice (*Valorisation Strategy for the Leonardo da Vinci Vocational Training Programme*, CEC DG Education and Culture (B/3/D5/ds D(2002) 148).
- The evolution of the knowledge-based economy and society and the Lisbon strategy and related initiatives to promote an understanding of its implications and a harnessing of its potential to achieve higher quality economic and social life for all Europe’s citizens (in particular, emanating from the Feira European Council, *Making a European Area of Life-long Learning a Reality* CEC (COM(2001) 678);
- The continuing implementation of the European Employment Strategy and the monitoring of national performance;

The term ‘knowledge-based policies’ has been applied to those measures concerned with innovation, research, education and training collectively put forward as one of the four ‘fundamental pillars’ of the EU’s internal policies as advanced in the Agenda 2000. Those policies relating to research and innovation have already been covered in the main part of the ‘research and life-long learning’ study. Some measures relating to training have been covered under that part of the PCP project dealing the evaluation of the impact of activity under the ESF on employment and human capital. In the latter case, it may be argued that some of these activities should be seen as part of a strategy to promote life-long learning; this would apply, for example, in the case of subsidising the training and redeployment/mobility of older workers currently long-term unemployed. A key characteristic of life-long learning policy though is that it should provide opportunities throughout (working) life so as to avoid chronic labour market disadvantage arising in the first place, not in extremis when the problem has already become acute.

As regards the reconfiguration of EU policy towards ‘education, training and youth’ applicable to the period 2000-06, the **Leonardo de Vinci programme** is most concerned with life-long learning in general whereas Socrates is principally targeted at training and mobility *within* the education and training *sector*, and Youth for Europe focuses on broader youth policy relating to social integration and citizenship.

A key aspect of Leonardo, introduced after the evaluation of the 1995-99 programme (see reference above) is the concept of valorisation which aims to intensify the effectiveness of the programme by ensuring a much greater focus on the exploitability of what has been learnt from the projects carried out and on the dissemination and implementation of good practice where it has been reliably established. In a sense, this amounts to embedding a more rigorous ‘system-based learning’ process within the policy development system itself. It is some-

what comparable to the promotion of peer review of active labour market policies under the European Employment Strategy.

However, in the context of the National Action Plans scrutinised under the European Employment Strategy, most of the indicators under the heading of lifelong learning included in the 'employability pillar' relate to educational and/or training activities where most of the expenditure falls on initial post-compulsory learning. Evaluators generally find it impossible to attribute an employment effect to the policies in this area.

So, as regards policy that targets expenditure on the life-long learning cycle of *individuals*, this is still very much in its infancy at both EU and national level. At this stage, if we were to speculate about the likely effects of reformed policy under Leonardo, the main conclusion would be that to date its influence has operated through enhancing the quality of human capital: the consequences of this for employment are likely to be similar to those traced through in Chapter 3, in the case of mainly vocational training under the ESF, or in the present chapter where the increase in human capital for the R&D process provides some indication of the sort of impact that life-long learning applied to higher level professions outside the science and technology system might have.



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