The EU Long-term budget: reform and new priorities

Regleringsbrev nr 11, 2007
Dnr: 1-010-2007/0031

Report to the Swedish Ministry of Finance, 30 November 2007,
Government assignment 11

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Foreword

Multiple and complex issues are facing any long term reform of the EU budget. The Report is the final draft of a project carried out at the ITPS. It has been developed in dialogue with Katarina Gralén and Anders Bäckstrand of the Ministry of Finance.

Christer Christensen and Olof Sandberg of the Ministry of Enterprise, Energy and Communication, Britt-Marie Tygård of the Ministry of Education and Research, and Erik Rudal of the Prime Minister´s Office have participated in a group which has discussed the topics at hand from various angles. Professor Daniel Tarschys of the University of Stockholm has also contributed.

Thanks to all for insightful and helpful comments. However, ITPS alone bears the responsibility for the content of the report. The project team has included, Håkan Gadd, Anders Östhol (project manager), Torbjörn Danell and Jorge Núñez Ferrer of the CEPS (Centre for European Policy Studies).

Östersund, November 2007

Brita Saxton

Director-General

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Executive Summary

In this study we consider that substantial growth can be reached if EU moves closer to and gives priority to the Lisbon agenda. The EU has high growth ambitions and it is not realistic to reach the objectives by 2010. In this study we have focused on finding the right growth tools at the EU-level for speeding up the process of growth and discuss in principle what has to be changed to further increase growth with limited resources (EU-budget). The ambition is too high compared to the resources that are available in the short term. Lisbon objectives are more realistic if they are to be reached in 10 to 20 years (mid term), especially employment and R&D objectives.

In the short-term, the main focus should be on developing a strong innovation policy and an institutional system that promotes high productivity and competition within the EU and other regions. The EU can also, in the short term, reach objectives that increase integration and mobility between Member States. If we investigate the EU-budget for year 2007, the allocation of resources to activities with high growth potential has a limited share of the total expenditures (including improvement of human capital, employment and R&D investments).

Throughout the report the rationale for interventions at the EU level has been investigated. Opportunities to improve the allocation of resources through the long term budget in order to achieve two major requirements, European value added and a better growth orientation have been analyzed.

The European Union's budget has a role to play in fostering growth at EU level, if it concentrates on those actions which generate high value added at EU level which could not be achieved better by Member States alone. There are clear indications that there is a basis for considering that pooling of resources at EU level does generate endogenous economic growth. Effectiveness will, however, depend on the subsequent allocation, not only of resources but also responsibilities.

We are facing major problems in order to meet the objectives of the Lisbon strategy. We also have to deal with major difficulties in using EU-funding effectively from a growth perspective. We have 27 Member states in the EU and negotiations have become more complex and difficult to handle. The EU has a multifaceted and advanced strategy to reach ambitious objectives, however this strategy do not correspond well with the total amount of resources that EU has to offer to individual Member States. From our standpoint it seems impossible to achieve the main objectives according to Lisbon agenda (growth and employment) without making more radical changes in the responsibilities and allocation of resources in the budget.

We do not think it is possible to increase the size of the budget. The discussion should focus more on the need for reforming CAP and Cohesion policy to the extent that this is more in line with Lisbon agenda. From our standpoint, the CAP value added for EU is very low and this should be a responsibility and up to the individual Member States to decide its collective value.

EU should not be involved in trying to remove regional differences within a Member State. EU responsibility lies in reducing regional differences between Member States. The efficiency and effectiveness of EU cohesion policy has been challenged in our study. There are not entirely convincing arguments that the Structural funds add significant value in comparison to domestic initiatives in richer Member States. It seems better to concentrate

spending on the poorer Member States and abstain from supporting richer Members states apart from inter-regional and cross-border co-operation.

1 For agriculture and rural development, major reforms are needed to ensure that the expenditure creates a European value added. While European value added is dubious in some areas, food safety and environmental protection have a strong claim to achieve such value. In any case waste of resources is not acceptable. First of all, it is necessary to better link expenditure to objectives instead of using conditionality for misallocated resources (direct payment). For rural development, the eligibility criteria and targeting need reinforcing, while the scope of the policies should be further widened to non-agricultural areas.

2 For the cohesion policy, the report highlights that while the policy can create a European value added, it is ineffective, because it is based on unrealistic expectations on convergence and cohesion which are not easily transformed into realizable targets, and because intensity of support is by and large heavily influenced politically.

The eligibility criteria should be based on more indicators than GDP per capita, which gives an erroneous picture of actual personal incomes and the level of infrastructure, human capital and services in the regions. There is an excess allocation of finances to "relatively prosperous" convergence regions, mainly in the EU 15. Infrastructure investments need to be concentrated in the poorest regions.

The growth impact of policies is most effective when regions lack the basis for growth in terms of basic infrastructures and human capital, but the returns diminish quickly.

3 Research and development is an area where economies of scale and agglomeration are important, and separate national policies hamper its potential in several respects. It is not possible to create a single European research policy pooling all resources, but R & D at EU level can work as a catalyst and induce cooperation and mobility in key areas.

However, the system of R&D support is still too politicised and it is recommended that a body such as the European Research Council (ERC) evaluates needs and projects, to avoid excessive bureaucratic and political interference. Recommendations are given on expenditure needs, such as for large costly infrastructures that need multinational funding.

In addition, private R&D is low, suggesting that there is also a regulatory aspect to low investment in innovation, thus reforms are needed at EU *and* national level. It is also important to succeed with the creation of a Single patent system (creating a predictable framework for intellectual ownership questions) and in general improve public and private partnership (RTDI investments). These have a substantial value added for the EU.

4 The EU has a role to play in ensuring that the internal market is efficient, particularly in the transport and energy markets. Environmental policy in the budget has to be clarified and specific areas such as investments in energy efficiency require earmarked allocation levels.

5 For justice and home affairs, funding are currently weak and pooling of security resources has potential to increase efficiency by creating important economies of scale, and reducing costs. Security and growth are related. However, the priorities and the desired effects of more commitment to these areas will have to be carefully evaluated.

6 For external action, coherence, pooling of resources and coordination would improve EU actions abroad. Funding for neighbourhood actions should increase, as it is of vital

importance for the EU to foster wealthy and stable neighbours on its external borders. This is important for both stability and economic growth within the EU.

1 Growth perspective in the EU long-term budget

When discussing the EU budget, it is valuable to focus on the objectives within the EU that are ultimately determined by the Treaties. At the same time demands are imposed on adapting to the challenges which Member States jointly have to face in a changing world. This involves globalisation, new technology, demographic changes, energy supply, migration issues, as well as internal and external security. Prior to the review of the EU long-term budget 2008–2009, it is critical to pay greater attention to future priorities. Increasing capacity for adapting to structural changes, encouraging the knowledge economy, mobility, competitiveness, innovation, and adjustment to a service economy in Member States constitute the core issues for growth within the EU. Greater interest is devoted to climate change and the supply of energy which is related to strong technological orientation in infrastructure and product development.

The budget is not directly connected to a changing world. Prior to the planned review of the EU budget, ITPS has been given the task of analysing and making recommendations on what changes in measures financed by the EU budget would be appropriate in order to create better conditions for competition and growth. A substantial budget review will, however, have to involve not just focusing on technicalities and marginal percentage changes from one period to the next in already predetermined frameworks. The project has concentrated on a general view of the EU budget disregarding national positions or interests. The intention is not to give practical policy recommendations to any government. The purpose has been to take a thorough and questioning view of the budget under the assumption that major changes can be made at the European level. However, within the project we are fully aware that a fundamental review of the EU long-term budget might not be realistic. Different national positions and negotiations may also alter the conditions in fundamental ways during the course of the review of the budget during 2008–2009.

The time horizon in the long-term budget is seven years. One starting point is that the budget needs to be linked to ongoing changes in society and future expectations in order to provide the necessary linkage for action at the political level. We have throughout the report chosen to focus on the expenditure side instead of the revenue side of the EU budget.

In recent years, growth issues have come to the forefront, not least in relation to the Lisbon process and the open method of coordination within the EU which symbolizes greater confidence in individual Member States living up to pre-determined objectives and fewer budgetary burdens. Essentially there are three forms of policy by which the EU can make a difference by stimulating structural changes in the overall economy.

- *Expenditures*, policies with an arsenal of various types of grants linked to major programmes, as well as attempts to invest in relations between stake-holders in various ways, through co-financing, co-ordination, learning processes and partnership etc.
- *Regulation*, policies with the ambition of creating better functioning markets, the setting up of requirements and objectives (e.g. through the promotion of technology and procurement).
- *Deregulation*, policies aimed at creating better functioning markets, or providing better scope for market competition.

Below follows a brief background to the recent interest given to growth issues.

1.1 Why growth?

Within the EU growth is increasing, but it is still slow. During the period 2000–2004 GDP increased in the EU-25 Member States by 1.5 percent a year on average. What characterises the EU are the major differences that exist between countries. The lowest growth occurs in some of the richer Member States, whilst the highest growth can be found in some of the poorer Member States. This is natural since they are lagging behind. One problem is that growth in a number of the richer Member States with more than half of the population in EU 27 is not particularly strong. Countries such as Germany, France and Italy fall into this category. The higher rates of growth in the poorer member countries indicate that a convergence of income levels is taking place. The gap between richer and poorer Member States is still, however, large. In the second stage of the Lisbon process, Lisbon II, the focus is put on growth and employment.

The EU objectives from the Lisbon process were to achieve an average level of employment of 70 percent. During a four-year period (2000–2004) somewhat more than 4 million jobs were created within the EU. In order to reach the objective (70 percent) for EU 27, an additional 24 million jobs need to be created. This requires a 25 percent increase in employment in new Member States, and within the whole of the EU an increase in the level of employment by 12 percent. The “convergence regions" face major challenges and have a low level of GDP and high unemployment. The rate of growth in these regions is higher than in other Member States, but it is still not sufficient for achieving parity with the average EU level (GDP per capita) within the near future. The other regions have a high GDP per capita, but are typified by having low growth in many regions with a level of employment that lies below the objective of 70 percent. There is thus a great need to focus more on growth within the EU. Within the whole of the EU, there is a real need to focus more on the Lisbon objectives in order to increase growth potential. Growth, however, is far from being the only objective set up by the EU. Usually each expenditure area in the budget is related to a number of different objectives.

1.2 Main objectives of the EU

One way of proceeding justified by the fact that the long-term budget provides scope for review, is not to maintain a large number of sub-objectives, but rather focus on the fundamental objectives set out in the EU Treaties, an analysis by Filippa Figuera (2006) reduces the number of objectives to five. It is obvious that the EU policies embody a number of overall objectives stemming from the Treaties other than economic growth and competitiveness which are the main focus here. Figueira has used the declarations from the EU Treaty (Title 1, Article 2) to determine the objectives of the EU. From the wording, which is formulated in terms of overall objectives, one can summarize a minimum number of main objectives as:

- Economic Growth
- Sustainable Growth
- Convergence
- External Security
- Internal Security

These objectives widen the scope for a comprehensive growth and competitiveness policy substantially, which is realistic since no society is willing to jeopardise, for instance, its own security. External and internal security, basically, remains underdeveloped to this day.

The present EU budget is a result of the past interpretation of the means for achieving the objectives above. Earlier the EU did not consider growth oriented policies to be the main domain of the budget. The budget was concentrated on equity criteria, based on convergence ideas across regions and across sectors (the CAP). Convergence is a policy objective with strong connotations to what might be termed macroeconomics. Policy objectives such as cohesion might be justified on these grounds. However, convergence is likely to be best achieved by providing generally advantageous conditions for economic growth, not through additional spending to overcome income differences among regions within the EU area.

Similarly, sustainability was neglected and environmental policy was underdeveloped, a policy which fiscal federalism political economists consider by and large a collective good with important European wide externalities. Sustainable growth, however, may be attached to economic growth objectives in the more narrow sense of the term. However, the EU seems so far to distinguish this objective from economic growth which may be more effective, as long as the sustainable aspects are not yet fully included in the mainstream growth equation.

The more the policies distance themselves from “hard” needs on the ground, the stronger the focus of governments on net balances in national budgets becomes. The latest negotiations on the Financial Perspective were described by some participants as a mathematical calculation competition.

There is a clear indication that the present EU budget concentrates on a very narrow part of the main objectives and does so inefficiently (Table 1-1 presents a list of the present policies and the financial share of the main components).

Table 1-1 Expenditure headings and instruments of EU budget and fund share 2007.

EU Policy		**Share of budget**
Competitiveness	Education and training	0.7 %
	Research	4.4 %
	Competitiveness and innovation	0.3 %
	Energy and transport networks	0.8 %
	Social Policy Agenda	0.2 %
Cohesion	Convergence	27.9 %
	Regional competitiveness and employment	7.1 %
	Territorial cooperation	0.9 %
Preservation of natural resources	Agricultural expenditure and direct aids	33.8 %
	Rural Development	9.8 %
	Environment	0.2 %
Freedom Security and Justice	Security policy, migration policy Health and consumer protection Rapid response	0.5 %
Citizenship	Culture Media Public health and consumer protection	0.5 %
EU as a global partner	Pre accession instrument	1.0 %
	Neighbourhood policy	1.1 %
	Development cooperation	1.7 %
	Humanitarian aid	0.5 %
	Democracy and human rights	0.1 %
	Common foreign and security policy	0.2 %
	Stability instrument	0.1 %

Source: European Commission, 2007 budget figures.

Since the EU is by no means a final construction, focus is also put on e.g. increasing territorial cohesion and evening out income differences by de facto redistribution in the name of solidarity within the EU, which extends the ambition of also strengthening social cohesion. Further measures need to be taken to fully establish the internal market. A number of other objectives also exist in each policy area which relate directly or indirectly to economic growth, coherence, competitiveness, realisation of the internal market, free trade etc. Apart from this agenda, there is a need for security, not least on the grounds of the large income differences that exist along the EU's external borders.[1] These are measures that provide the basis for the EU budget with greater international credibility in the future. The EU wishes to become a global partner.

EU expenditures should correspond to what is desirable in terms of activities and measures. Instruments for achieving this are legislation, deregulation if there are barriers, influence on national expenditure and finances, coordination of policy and other softer forms of control, exchange of knowledge, "best practice", evaluations for policy development. Key figures on trade and competition have a very weak connection to the EU long-term budget.[2]

Structural policy aims at change and renewal of the economy mainly through active measures. The framework of structural policy incorporates measures which we have chosen to

[1] SEC 2007) 1188 final, 12/9 2007
[2] Ibid

call "growth oriented policy". Structural policy deals with change in the medium term. The Commission is concerned to do something new in upgrading and restructuring industry without using the old national industrial policies of European countries to rescue non-competitive industry in the short term. The EU favours structural transformation and the capacity of industry to adapt. The net contribution in this area can be described as structural measures that aim at having a general impact on the conditions of the economy. This means structural policy takes a self-evident place within the framework of EU policy for increasing competitiveness and growth, which also covers the ability to adapt and achieve reorientation. It also provides a good balance between macroeconomics where the EU still does not have all the powers that are needed e.g. the capacity to confront external shocks, use stabilization measures, coordinate interest rate adjustments etc. The monetary union has not been fully developed either, despite the fact that the Euro has maintained its position well. However, there is no agreed consensus in terms of policies with a perceived structural impact.

1.3 European value added

In the analysis that follows, the term European "value added" plays a prime role in determining as objectively as possible what belongs at the supranational European decision-making level, and what does not. It is not possible to disregard the fact that European value added is dependent on objectives having a greater impact by being implemented at the supranational level and not at other secondary decision levels.

The view is that EU policy should be assessed on the basis of existing policy instruments, as well as a priori determination of European value added.

Irrespective of which is the smallest unit, it is possible to see the effects of growth policy and intervene on growth policy issues at the micro level. As regards measuring competitiveness, this change in focus is of great relevance since national economies in principle do not compete with each other while firms do. This requires a radical shift in focus towards implementation of measures and policies which lead to a more targeted growth policy. This growth policy is represented in the budget by funds set aside to strengthen competitiveness and these are estimated to use up to 26 percent of the total appropriation in 2013 by the end of the long-term budget period. Included in the relevant expenditures, apart from competition (10.2 percent), are resources set aside for external activities (6.3 percent) and rural development (7.3 percent).

Growth policy cuts across decision-making levels. Enterprises, universities and individual inhabitants ideally ought to be able to notice the impact of EU policies. At this level the effects can be measured. From an overall perspective, growth policy is carried out independently of administrative units which are allowed to dominate e.g. the main agent in integration theories, in preference to a strict policy analysis where the effects of all investments are measurable and subject to careful deliberation in terms of who does what.

What is the appropriate decision-making level for the implementation of policy? This is the perennial question. For the individual enterprise or university, researcher or entrepreneur, it may not be so important as to where the funds come from, only that they are effective in terms of attaining objectives and provide value added at the lowest level. The pragmatic view of additional resources from the EU is that they may be considered as having "value added" only by virtue of the fact that the funds increase resources for a policy in specific areas is not satisfactory. The position here is that this is not sufficient.

Carrying out a targeted policy with respect to demarcated groups or enterprises is, however, controversial and hardly "fit for purpose" for the EU as a whole. For this reason, the model must be developed further and take into account what can be strategically accomplished in a good way at the European level.

The actions financed through the EU budget should create value added. In economic terms, this means that the economic return to recipients after an investment by the EU should be higher than without the investment. This criterion does not require the overall welfare return at EU level to be higher after a transfer. This may be desirable, but it is difficult to quantify and sometimes not possible, but should apply at least to recipients.

For some policies, value added may also not be quantifiable in economic terms, but substantial and important in political terms. This has to be taken into account, but in the case of growth oriented policies, where effective economic returns are to be maximized, such political criteria should not in principle be applied.

Subsidiarity and additionality are useful terms for determining what factors provide the conditions for EU policy to be successful. The EU Commission itself points out factors which gives reasons for action on its part:[3]

- supranational dimension
- potential for achieving economies of scale
- potential for achieving new opportunities (economies of scope)
- critical mass
- local preferences
- coordination costs

This means if there are to be reasons for transferring responsibility to common European institutions it has to be argued that this can be done better within the framework of the EU than nations themselves can be expected to achieve individually. Value added can also be narrowly regarded as the returns from money invested in the form of further funds, but there are also dynamic effects. European value added means that the effects of policy can be assumed to be greater through pooling resources at the European level. Either because there are economies of scale to grasp, or opportunities to share costs, and achieve more dynamic effects than through individual investments. The whole in a way becomes greater than the sum of its parts. This can be achieved through greater mobility, sharing the costs of research, or strengthening small and growing enterprises.

Basically the EU budget has very little to do with economic growth. The only way by which there is an evident linkage is through the financial system. Put very crudely, the EU costs money and this cost can as a result impede growth in Member States. It could also be counterproductive since the allocation of funds to the EU and the demand for a return gives the illusion that growth opportunities are being distributed between countries in the form of repayments to Member States. Without any firmer basis for evaluating EU policy, the opportunities for evaluating the total effects disappear.

The geographical perspective is interesting in the sense that one can ask where growth is taking place, and whether the dissemination effects are sufficient to justify talking about European value added. If the growth effects are excessively concentrated geographically, it is difficult to justify support for a European regional growth policy. Policy measures that

[3] SEC 2007, 1188 final, 12/9 2007, p. 9

strive to satisfy a specific group, individual enterprises or groups of enterprises or possibly distinguishable regions should be the exception, and not the rule.

The most powerful theory on the distribution of competence is fiscal federalism theory which advocates shared finances and some economic self-administration at the most cost-effective level. A multilevel system for decisions is a starting point for such analyses. Integration theory appears to focus excessively on national state boundaries and the overall European system in order to transform integration to become genuinely applicable as the reason for providing grants to develop growth policy. Such reasoning collapses since the smallest unit is not the municipality, the administrative region or even the state in its many forms. Instead the core of the question is the value added from investments at the EU level in comparison with national levels in terms of financing, return on investments made, and indirect dissemination effects (externalities).

By this we have narrowed down the means by which EU policy can provide enforcement of a more sound growth perspective. In practice, however, there are a number of secondary effects that create problems in the implementation of this policy, even though policy areas should have fulfilled the requirements set up for value added. Below, three of these are described in greater detail.

1.4 Key concepts

Three lock-in effects or inertias are evident within the framework of the current system:

1) Intergovernmental negotiations locks up the budget framework for a number of years and provide limited opportunities for adapting the budget for each budgetary year.

2) The focus of the Member States is predominantly on what is received in return in relation to what is paid – *juste retour* in Euro-speak

3) In each policy area under the EU, many players have already become financially dependent and have come to share perceptions to a large degree. This is visible particularly within the policy networks that have emerged around the major policy areas – agricultural policy, research policy, and structural policy. The significance of these concepts is presented below.

1.4.1 Inter-governmental negotiations provide “side-payments”

So called side-payments has been *legio* in the history of European integration. The general logic behind side payments is often suspect in character. Negotiated packages encourage odd choices in connection to inter-governmental deals, but the other side of the coin is that they also ease political solutions. For instance, in order to complete the internal market the accession of Spain and Portugal was accompanied with a demand for increased resources earmarked for these countries within the new structural funds in 1988 which were doubled as a result. Additional objectives were added to the budget when Sweden and Finland entered the EU in 1995 associated with sparsely populated areas and so forth. This was also a kind of side-payment in connection with the enlargement of the EU.

Also the British rebate is rather extreme in its inter-governmental logic since it explicitly adds an extra cost to each Member State to keep Great Britain in a good mood, or more accurately, in order to keep CAP (Common Agricultural Policy) it is the price that has to be paid – to Great Britain. At the time it resulted in subsequent demands from the major net-contributor Germany for compensation. According to the same logic these demands were accepted in a sort of vicious circle. EU policy, despite political economy arguments is hard to shift once established. Indeed, the history of the Common Agricultural Policy demonstrates the power of inertia in EU policy[4]. The underlying problem is that too much of the EU budget is devoted to the transfer of resources between Member States for redistributive purposes, and not enough is devoted to investment in genuinely European public goods. Consequently the main focus tends to be on the amounts transferred, in other words whether there is a *juste retour* or not.

1.4.2 Juste retour

The logic is that the Ministries of Finance see what goes out in terms of expenditures over the national budget, but see little in return. For this reason, it is evidently very hard to do away with the deadlocks associated with expenditure priorities in the EU budget. The perspective has often been fiscal with excessive focus on net-contributions, in practice GDP related fees that Member States pay. The proportion this form of financing accounts for has increased at a steady rate over the last 20 years and currently accounts for 75 percent of the financing. Member States have constrained expenditures by setting a ceiling on the fee at 1.24 percent of GDP. If the only remaining European value added is the reintroduction of funds to the Member States in the form of *juste retour*, then this does not satisfy the simplest criteria for what can be regarded as a rationale for growth policy.

The obsession with *juste retour* is not surprising nor is it entirely ungrounded. After all, as much as 90 percent of EU revenues stem from GNI related resources transferred from national budgets - intergovernmental transfers. It is hardly surprising that governments that can see what they pay into the EU system also expect some financial resources in return. The crux of the matter is that governments are not at ease with spending, whereas the flow of money back ends up elsewhere and is moreover hard to predict the use of. Estimating the dynamic effects of transfers is as already noted when discussing objectives and effects even harder. Member States naturally focus on their net contribution to the budget and what they get back in return. It makes sense that governments want to keep an eye on the costs and benefits of their membership. However, it is obvious that inter-governmental views tends to overshadow any type of anticipated dynamic effects which might be within reach, thus distorting spending priorities and creating unnecessary tensions between actors involved, in practice Finance ministers stand against other actors that see the benefits of EU financing at their ministries.

1.4.3 Policy networks

Cherished in the literature of political science are policy networks which consist of more or less dependent players attached to each policy area. In order to achieve a greater impact for their policy, players are involved outside the domain of authorities, social partners, civil society, but above all local and regional authorities are engaged. The resulting networks help the EU Commission to differentiate between member countries within the policy framework. By establishing multi-level dependence, a popular interpretation is that policy-networks may contribute to the empowerment of sub-national levels of government. The term *governance* has been widely used to replace the term *government*. The argument is that decisions are not taken in just one centre, and that a number of non-governmental representatives are represented due to their knowledge and interest, and this provides greater participation and support.

[4] Begg, I. "Subsidiarity in Regional Policy", p. 13

Governance has more positive connotations than policy networks mainly in terms of governability and predictability, but is closely related.

The argument here is that this creates unhealthy dependency relationships and gives rise to inactivity. Social learning is far too vague and undefined to be a satisfactory objective for EU policies. On the other hand, it probably increases the legitimacy of the EU. The mutual interdependence arising serves the purpose of implementing EU policy despite the limited capacity of authorities. The Commission has every interest in maintaining these, given its weak democratic legitimacy, and direct steering capacity in relation to Member States. A positive interpretation is that networks involve civil society in implementing EU policy and the value added in such cases is the increased capacity to coordinate otherwise vaguely formulated strategies. There are too many players with a variety of preferences to allow consensus and enable meaningful action in a more goal oriented manner. A dynamic relationship between a number of decision-making levels has a value added which should be utilized to get greater impact.

Policy networks perform to some extent a praiseworthy role, but they are nothing to build the implementation of a policy on in the long run. It cannot be considered a value added that policy networks come into existence since the unifying factors are resources and different forms of dependence. The definition of policy networks reads as follows - ”stable patterns of social relations between interdependent actors, which take shape around policy problems and/or policy programmes”.[5] For instance, the contribution to growth policy is at best limited. In all probability there is a non-growth policy element and policy objectives do not entirely match. Stake-holders’ capacity to formulate regional strategies has increased, but is not matched by necessary decision making capacity. For this reason policy networks are not sufficient, while *new governance* could provide a positive net contribution insofar as the emerging forms are providing formal decision-making capacity which better corresponds to the skills gained in running strategic development work. The solution to the problem lies in strengthening administrative capacity or political support at each decision-making level involved in implementing EU policy. Therefore there is scope for regional governance and influence on policies, the extent of which remains to be determined.

Since policy networks consist both of interested parties/recipients of grants and policy creators/formulators, opportunities for making satisfactory evaluations decrease. From this, it follows that cohesion can undoubtedly be a legitimate objective at the European level, but it is not an objective on which a growth policy capable of being evaluated can be based on.

This takes us to a difficult trade-off between centralization and decentralization, which we will return to later on when different steering forms are analysed. To examine formal responsibility, the term subsidiarity has been used since the Amsterdam Treaty in order to determine where decision-making competence should reside, at the supranational, national or regional level.

1.4.4 Subsidiarity

Though the distribution of competence between the EU-level and the Member States is a sensitive issue, we cannot disregard the dividing line between these two tiers of governance. The purpose of using the principle of subsidiarity is aimed at solving the problem of

[5] Kickert, W.J.M;. Klijn, E-H. & Koppenjan, J. F. M. Managing Complex Networks:Strategies for the Public Sector, SAGE, 1997. , p.6

distribution of powers whenever competences are shared between the Member States and the EU level. According to Article 5 in the Amsterdam Treaty, the Community may take initiatives under the subsidiarity principle only as long as sufficient measures cannot be taken by the Member States and can be better handled by the Community because the size of, or the scale of the effects. Normally, reasoning along these lines results in decentralisation, more often than not in favour of the transfer of responsibilities to Member States. However, there is always a temptation to interpret subsidiarity in terms of increased centralization.

The Maastricht Treaty of 1992 has already clearly spelled out the first characteristics of any EU policy or budget item, they should be subject to the principle of subsidiary, i.e. the EU should only act when it is better suited to do so compared to lower levels of governance. The exact wording in the Treaty actually only imposes such a rule for those areas in which the EU does not have exclusive competence.

Jacques Pelkmans (2006a) has developed several criteria for testing the principle of subsidiarity in a functional way. The major conclusion is that the concept despite its support in the Treaties may be used for both centralising and decentralising purposes. In areas of shared competences, the Community should be able to demonstrate a need to act in common, as when either economies of scale or cross-border externalities exist. Secondly, any action must be proportional to the desired objective. The principle requires the EU to justify greater competence on a case-by-case basis so that only powers necessary to attain an objective should be exercised at the central level.[6]

Basically, if cooperation cannot be achieved, or be credible, there is a case for centralization. The subsidiarity test can create assignments at EU level in three steps according to the following:

1 Identify whether a measure falls within the area of shared competences (if it is exclusive to the Community, the test does not apply).

2 Apply the criteria by asking if there are scale effects arguing in favour of action and/or externalities that further strengthen the arguments for action (Art. 5 of the Amsterdam Treaty). The occurrence of cross-border externalities is a major reason to act. For instance, this may appear if the positive effects resulting from the actions of region A are restrained by the positive effects that the actions have on the policy objectives of region B. A negative externality occurs whenever a measure taken by region A takes place at the expense of the welfare of region B.

3 The next step in the test is to verify if credible cooperation is feasible. If cooperation cannot be achieved, either because it is impossible to monitor effectively at other levels, or there is insufficient compliance with the objective there are grounds for the EU level to act.

If conditions 1 and 2 are fulfilled, and 3 not, then the assignment is appropriate at EU level. Finally, define to what extent (proportionality) implementation, monitoring and enforcement should be assigned at EU level, or, indeed, can be assigned to the Member States, perhaps in a common framework.[7]

[6] Pelkmans, J., *Testing for Subsidiarity*, BEEP briefing no. 13, College of Europe, Bruges, February, 2006

[7] Ibid, p. 8

1.4.5 Proportionality

The principle of proportionality is a fundamental principle of European Union law. According to this principle, the EU may only act in proportion to the extent that is needed to achieve its objectives, and no further. Based on estimates of the appropriate size and scale, the principle of proportionality is building in limitations to the commitment at EU level in order to live up to the spirit of the Treaties (Title III, Article 9 (4). Auditing, review and evaluation should wherever possible be in proportion to the size of the programs.[8]

This principle has ruled the European Union since its inception in 1957 and is explicitly mentioned in the new Treaty establishing a constitution for Europe. In practice, it may be difficult to apply the concept. However, there cannot be any doubt that the practical effect which the concept aims at is to put limits to over-extensive assignment of tasks to the EU level. There are more concepts designed to restrain centralizing forces.

1.4.6 Additionality

This principle is restricted to cohesion policy, but should apply throughout the entire budget process. It states that EU financial intervention should not substitute any national funding which would have occurred in the absence of the intervention. EU funding should in any case not reduce aggregate national public spending through substitution.

Value for money is a criteria which means that EU actions should be devised to be cost-effective and regular evaluation should be feasible.

1.5 Better regulations

Regulatory means such as competition policy, limitation on state aids and the regulation of the network industry sector are expected to have a beneficial impact on growth prospects if handled properly. EU Competition policy is designed to focus on the trade effects of dominant firms, mergers, and restrictive practices, to the extent that these affect trade patterns. The regulatory regime has the potential to substitute additional spending over the budget to enable the inclusion of new policy-areas. The internal market has been almost completed apart from the service sector, including the most crucial public sector domain. Whereas network industries were reformed with relative ease, core public sector functions such as health care meet substantial obstacles to thorough transformation.[9]

1.5.1 Establishment of the Internal Market

The hard core of the Economic Union is the internal market. An economically meaningful definition of the internal market reads as follows: ‘the free movement of goods, services and factors of production as well as the right of establishment across intra-EU frontiers, accompanied by all necessary common regulation and/or policies for this internal market to function properly’[10]. The internal market is close to completion, apart from the service sector. The service directive agreed on implies a number of restrictions on the functioning of the internal market.

[8] SIEPS, *From Policy Takers to Policy Makers: Adapting EU Cohesion Policy to the Needs of the New Member States*, SIEPS 2005:5

[9] Jfr. Falkenhall, B. & Zackrisson, M. *Sjukvårdssektorns tilläxtmöjligheter: En studie av erfarenheter från Kanada och USA*, A 2007:012, ITPS

[10] COM (2003) 238, 7th of May

1.5.2 Proper functioning Internal Market

A number of measures implemented at the EU level are designed to unleash dynamic effects in collaboration with Member States. In the framework of the internal market, the Commission operates as a watchdog for principles instrumental for establishing dynamic effects embedded in further integration. The removal of distortions hindering free competition, and promotion of further harmonization and standardization to make the internal market work more effectively is certainly at the top of the agenda. Some of the key issues to address are:

- Harmonization
- Lack of standards
- Removal of distortions

Financial market policies definitely appear as European value added since the supranational level in this area effectively intervenes in national policy to promote European wide objectives. The effects on productivity, the promotion of competition and structural transformation are in this area clear and within reach. On the other hand, there isn't only additional value in growth policy, but also additional European value in the regulation area. This area is also given priority by the Lisbon strategy which makes it evident that parts of competition policy and internal market policies may be included as targets of policy-packages as well as regulatory frameworks.

1.5.3 Labour market and product market policies

In order to achieve effective functioning labour markets, the EU should encourage mobility, flexibility, matching and development of competencies. Here the EU does not have a major role to play apart from encouraging mobility and flexibility of employment conditions, social protection systems. Most of the competence lies at the national level. Nevertheless, this area has also been the focus of Lisbon objectives. It is related to the employment objective and expectations related to lifelong learning and social protection.

Factors determining the degree of product market competition cover a whole range of issues, mainly distortions: policies that protect firms against domestic or foreign competitors, state control of businesses, legal and administrative barriers to entrepreneurship, market behaviour regulations such as shop closing hours, warranty regulation, and advertising regulation, impediments to market exit and entry, other than those resulting from policies and regulations mentioned so far. Market competition is expected to result, for instance, from removing administrative barriers to competition, opening up domestic markets to the entry of foreign firms and products, and anti-monopoly measures that succeed in reducing market concentration and pricing power of firms. Factors determining the speed with which the competitive edge of an innovator is eroded largely reflect laws governing the use of intellectual property such as patents, copyright, trademarks and so on.[11]

The conclusion must be that a number of regulations and de-regulations affecting product markets are not eligible for direct EU policy-packages. Competition policy seems to be the most effective regulatory framework with an impact on national policies that the EU Commission has at its disposal apart from the completion and monitoring of the internal market.

[11] EIB Papers, Vol. 11, No. 1, 2006

2 Quest for growth – the Lisbon strategy and beyond

One of the key recommendations from the Kok report is the following:

"The EU budget should as far as possible be reshaped to reflect the Lisbon priorities. Part of this reshaping should be an analysis of the possibilities to introduce budgetary incentives to encourage Member State achievement of Lisbon targets."[12]

2.1 Historical balances

As far back as the Treaty of Rome (1957), the need for dampening excessive inequalities was identified as a main objective in order to compensate for an agenda which in many respects was largely focused on economic growth.[13] In practice, the EU outlook has been oriented towards economic growth. Demands for policies have pointed in a somewhat different direction – the overall impression is that there is scope for compensatory policies to evolve at EU level. As Cotis & Elmeskov (2006) put it: the losers tend to be easy to identify, to suffer significant losses and to do so in the early phases of structural reform. By contrast, the gains from structural reform usually emerge only after some time and are usually spread thinly over broad groups, who are often not very well organized. Basically it puts a price on liberalization and market-oriented reforms, paving the way for counter-balancing policies. This has caused a number of obvious contradictions within the framework of EU policies which have proven hard to cope with and get public acceptance for.

1 Capital. It is a widely held opinion that the creation of the European Single Market tends to favour big business. Yet, this may lead to oligopoly or even monopoly powers which are, of course, contrary to the EU's avowed aims of fostering fair competition.

2 Social inequality. The main instrument applied by EU policy is the Social fund, which has targeted assistance to some of the more economically disadvantaged groups in society, such as migrants, the long term unemployed and handicapped persons.

3 Regional inequality. Some inequalities are endemic to capitalist economies. Subsequent enlargements have only served to widen these differences.

4 The environment. The fact that so many environmental problems are international in nature has highlighted the potentially important role EU has to play in this area. However, as in any other policy areas, the EU is beset by the need to balance sectoral interests and by the limitations of intergovernmentalism as a form of decision-making.

Moreover, the common policy framework of the EU does not match the essentially growth oriented regulatory framework. Neither is it likely that any larger degree of redistribution will have desired effects in ameliorating inequalities more than modestly, at best. It might be true that economic growth has been a major concern of the EU. However, as we have pointed out earlier, the policy framework does not reflect an agenda for growth. This reflects not only a gap between the Treaties and policies, but also between means and objectives.

[12] Commission of the European Communities, *Facing the Challenge: The Lisbon Strategy for Growth and Employment*, Report from the High Level Group, Chaired by Wim Kok, November 2004, p. 42
[13] Williams, A.M. *The European Community*, Basil Blackwell, 1991

Below the main policies of the EU will be presented. The question is to what degree the policy framework manages to fulfil the overall objectives of European value added criteria and economic growth simultaneously. In the following section, the Common Agricultural Policy (CAP), Cohesion policy (structural funds) and Innovation and growth policy and their European value added and growth relevance will be assessed. However, in order to pinpoint the design of growth policy and the scope for it, the Lisbon strategy shall be presented.

2.2 The Lisbon strategy

One of the key aspects for the Union and Member States is to implement the Lisbon strategy; the Wim Kok report underscores that countries should back up their words as far as possible with financial incentives. A large amount of money has already been allocated – directly or indirectly – to growth, employment and competitiveness. However, Kok claims that there still a lot of work to do in order to enhance further growth in the European economy.[14]

The construction of the knowledge society in Europe and the delivery of sustainable economic growth come with tough choices. In Gothenburg 2001, the European Council discussed "A Sustainable Europe for a better world: A European Strategy for Sustainable Development", proposed by the European Commission. It became a main step toward focusing on issues such as climate change.[15] Resources have to be refocused and structural change is never without its problems. Nevertheless, security is not achieved by resisting or delaying reform. Compared to the initiating of the Single Market 1992, the establishment of a single currency and enlargement, the Lisbon strategy has not been a success. A lack of understanding of the Lisbon strategy and its importance to Europe’s future has narrowed the co-operation between European institutions and Member States. Unfortunately, one of the reasons for this is that according to Kok’s report, progress has been inadequate, largely due to lack of commitment and political will. The report states that there needs to be more coherence and consistency between Lisbon’s means and ends together with a thorough overhaul and redesign of the processes for implementation and communication.[16]

The Lisbon strategy for growth and employment is an equally important project. The European Commission and Member States, together with social partners and other stakeholders throughout Europe, must now show that they are committed to the Lisbon process and accept their responsibility in implementing the agreed reform programme.[17]

The progress of the Lisbon strategy has been weak because Member States have not found ways to be more consistent when it comes to sharing the same objectives and developing policies which need to be mutually reinforcing and not pulling in opposite directions. From a European point of view, to achieve the aim of more growth and employment means ensuring that there is clear alignment between participants, policies and objectives. The Lisbon strategy is characterised by its many indicators, originally more than a hundred indicators have been associated with it. Too many indicators make this strategy ineffective and do not help the Member States to improve their record.[18] However, in this case, the

[14] Ibid, p. 42
[15] Communication from the Commission, *A sustainable Europe for a Better World: A European Union Strategy for Sustainable Development*, Commissions proposal to the Gothenburg European Council, Brussels, 2001
[16] Ibid, p. 39
[17] Ibid, p. 39
[18] Ibid, pp. 40-43

main problem is probably not the large number of indicators. It is possible to have a large number of indicators as long as they are directed to or correspond with the objectives.

If we study the implementation of the structural programme at regional level, it is clear that the regional players base their prioritised input areas on a reasonable foundation of knowledge concerning what needs to be done to safeguard the region's future requirements. The problem is that strategy issues themselves are not given sufficient priority, i.e. how the whole issue is underestimated and becomes an ineffective tool for achieving regional growth. Another problem is that the objectives are not always clear and measurable. Several objectives may emerge in the same formulation and, in many cases, these have a visionary nature. As a consequence, regional players have difficulties in defining a clear hierarchy of objectives showing a ranking of the different objectives. It may, for instance, be problematic to optimise a fixed objective without doing this at the expense of another objective, e.g. a growth target in relation to an environmental objective.[19]

In 2004, Member States were lagging behind in the implementation of directives and the lack of commitment was seen by the Kok report as a major problem. The open method of coordination had fallen short of expectations and the community method had not delivered what was expected. The governments have to show more commitment to implement the strategy at a national level. Much of the Lisbon strategy depends on the progress made in national capitals. There are no unique methods at a European level that can resolve the Member States' lack of commitment to the process.[20]

There are two dominating policies within the EU with a bearing on growth policy; competition and cohesion policy. Since the late 1980s, the Commission has been using competition policy as a tool for liberalizing markets. The Commission increasingly questioned whether a legal monopoly is necessary to ensure public access, gradually forcing open monopoly markets. The social policy aims at building an active labour market policy and the convergence policy is designed to promote regional convergence by allocating development funding to countries and regions on a non-competitive basis.[21]

The Lisbon process can very well identify objectives that relate to member countries' conditions for growth and competitiveness. The problem with this policy is not primarily the lack of focus on growth, but rather the unfortunate focus on expenditure objectives instead of output linked to objectives and dynamic effects. There is scope in this area for new types of policy, co-financing is a fundamental element, as is the opportunity for establishing a special growth fund. The advantage is there is no prior institutional history, no existing policy networks consisting of players who have made themselves dependent on the policy area. This provides the opening for a new start.

The main responsibility for fostering growth in the European Union lies with the Member States and their domestic structural reforms. In addition, the EU should continue to strive to complete the internal market and not have the ambition to reinvent sectoral industrial policies at the EU level. On the contrary it appears to be one of the possible mandatory criteria to foster policies with horizontal impact, aiming at having a cross-sectoral impact rather than targeting specific industries.

[19] ITPS A2007:003, *Förhandsbedömning av de operativa regionala strukturfondsprogrammen*, p. 97-98

[20] Commission of the European Communities, *Facing the Challenge: The Lisbon Strategy for Growth and Employment: Report from the High Level Group*, Chaired by Wim Kok, November 2004, p. 42 and p. 45

[21] Sapir A., *An Agenda for Growing Europe: Making the EU Economic System to Deliver*, Report 2003, p. 18

The EU budget has nonetheless a role to play in encouraging growth in the EU where collective action indicates economies of scale (increased efficiency and reduced costs). The EU Commission, however, in this area sees no scope for providing compensation for shortcomings in addressing the framework of growth policy as a whole. For this reason, the Open coordination method was introduced in connection with the Lisbon process. With the right balance, European value added can however be identified in this area, not only the EU level can create dynamic effects such as increased mobility and economies of scale in, for example, different research areas and spill over effects from large industry and research programmes that no individual member state would be able to manage on its own.

The expenditure objectives set up indirectly produce a demand for policy in the growth area. No resources are added which leads to a focus on expenditure objectives and indicators rather than output objectives, which is to say the least unfortunate. The open coordination method lacks linkages to any of the larger programmes of the EU, this far.

2.2.1 Lisbon II

During February 2005, the Commission proposed a new start for the Lisbon strategy. The EU's joint efforts should be focused on two parts: creating stronger continuing growth, and more and better jobs. This strategy and a new start have received full support from the European Parliament and the labour market partners at the EU level. The necessity for a new start is due to the need to modernize the EU economy. This involves increased investment in education, research and innovation with a focus on strengthening living conditions and opportunities for young people. There is today within the EU great potential in human resources which need to be tapped into. In order to attain our social and environmental objectives, greater focus needs to be put on growth and employment.[22]

In this new start for the Lisbon strategy, the crucial role of Member States is emphasized. Success requires: decision-making capability on the part of Member States to implement necessary structural reforms. Here, it is asserted that there is evident European value added if policy measures are coordinated at the EU level in concert with the national reforms based on the Lisbon Agenda. European value added is considered most evident where Community policy works to strengthen areas such as the internal market, infrastructure and conditions for enterprises. The EU needs to strengthen its competitiveness and this means greater investment in knowledge, education and competence.

With respect to programmes receiving support from the Cohesion fund and the Structural fund, the Commission has also proposed greater focus on investment in knowledge, innovation and research capacity, as well as improvements in basic and supplementary education. In the new Member States, vast investments are needed in infrastructure for transport, environment and energy. These are measures which are needed to achieve the objective of long-term convergence with the rest of the EU.[23]

The policy measures are related to three main areas: knowledge and innovation, increasing Europe's attractiveness for investment and working conditions, as well as creating more and better jobs. In the first main area, the aim is to strengthen research based on leading edge competence. Investments and measures are above all related to achieving the overarching EU objective that research investments should amount to 3 percent of GDP.

[22] Commission Communication COM (2005) 330 final, pp 2-3.
[23] Ibid, pp 3-5.

Legislation needs to be reviewed to increase support for co-operation between public research institutes and industry. In this main area, the Commission is also considering helping small and medium-sized enterprises to create better conditions for them to acquire and create new platforms for applying research findings and developing new products. The Commission also sees great potential in developing environmentally friendly energy efficient and renewable energy technologies. The Commission's effort to bring about an agreement on community patents is also on the agenda.

In the second main area (increasing the attractiveness of further investment in Europe), the Commission is considering giving the highest priority to the completion of the internal market and better legislation. These two are considered to be the two most important tools for creating jobs and increasing growth in this main area. In the third main area (creating more and better jobs), the Commission wishes to continue the work by eliminating obstacles to job change and mobility on the labour market. It is also considered important that the Community becomes better at forecasting and managing economic restructuring.[24]

The overall conclusion is that measures at the Community level should be directed to key areas such as support for knowledge and innovation in Europe, reform of the policies for state aids, better legislation, the elimination of obstacles to mobility and the social consequences of restructuring.[25]

Reallocation of priorities needed within the Lisbon strategy:

- Support of knowledge and innovation in Europe
- Reform of the state aid policy
- Improvement and simplification of the regulatory framework in which firms operates
- Completion of the Internal Market for services
- Completion of an ambitious agreement in the Doha round
- Removal of obstacles to physical, labour and academic mobility
- Development of a common approach to economic migration
- Support of efforts to deal with the social consequences of economic restructuring

Source: Commission Communication COM (2005) 330 final.

In recent years increased attention has been devoted to improvement of competitiveness. The EU is ready to take on a much more active role within certain fields which is perceived as having a considerable impact on opportunities for growth. Within the field of research we have the European Research Area (ERA) and attempts to deploy an innovation policy of some sort are clear examples of rising ambitions. Another field is demand for increased resources in the fields of human capital and skills development.

In many countries in the EU and other parts of the world, governments are investing in small and medium-sized enterprises to achieve growth. This involves for example, targeted financing, innovation and tax incentives to support and promote industrial R&D. Public investments in small and medium-sized enterprises have become one of many instruments

[24] Commission Communication COM (2005) 330 final, pp 6-10.

in competition between countries and regions. A policy consisting of the following main components is taking shape:

- European Research Area (ERA)
- Innovation policy
- Human capital and skills
- Competition policy for innovation & tech transfer and new merger control
- Deepening/widening internal market
- Cohesion/ Industrial clusters
- Incentives for green business, clean energy/tech
- Facilitating access-to-market outside the EU

On the basis of the agenda taking shape as a consequence of the re-launched Lisbon-strategy, we shall examine more closely to what degree the major policy-fields may relate to the economic growth objectives. We are asking, to what degree does CAP live up to the concept of European value added and, secondly, to what degree does the policy appear to be growth-oriented.

3 The Common Agricultural Policy (CAP)

The Common Agricultural Policy is the largest single item in the budget – 34 percent in 2007. It is also the policy which is facing the greatest criticism. At present, the few defenders of the present structure of the policy are mainly limited to the beneficiaries of the funds. Many of those sympathetic to a continuation of the agricultural policy consider the structure outdated and counterproductive. A considerable number of analysts and policy-makers want the policy to disappear.

It is stated that there is under- and overpayment and that certain countries are unnecessarily compensated in relation to other countries. There is criticism of how these areas are defined, and is in this context there is a problem of classifying these areas. It is notable that of the € 126.8 billion which will be spent during the period 2007-2013, on average 43 percent will go to the preservation and management of natural resources. Of this, 34 percent on average will go to agriculture (marketing expenditure and direct aid).

The CAP should in theory follow additional objectives of the Treaty specifically formulated for the sector (Article 33 of the Treaty). Even accepting the special place of agriculture, its policies are highly inefficient in reaching the objectives set. Further, while the CAP and Structural and Cohesion Funds formally address equity and convergence criteria, reality is very different. The redistributive nature of the policy has induced Member States to determine the distribution of the funds based on ‘pork barrel’ politics. Member States compete for funds and use the policies as a vehicle to maximize returns or minimize losses.

Calls to reform the CAP have resulted in a series of reforms, but the inability of decision-makers to tackle problems without taking net balances into account, has left the financial structure of the policy largely intact. Fresh attempts to make it more environmental and growth oriented through rural development policies have been very inefficient and plagued by distributional rigidities.

The regional development perspective has become clearer within CAP, but still evaluations have not shown any clear improvements from measures such as strengthening competitiveness in agrarian sectors. In addition, there has been too little focus on the environment and too much on improvement to the landscape. The policy still suffers from poor accuracy in fulfilling the objectives. Some European value added exists in e.g. areas such as the environment and safety concerning food products.[26] It should be reformed in the direction of greater market focus, and increased focus put on the environment and rural development programme. Its best satisfied by opening up markets to global trade.

3.1 Growth policy relevance of CAP

Subsidies have no growth policy relevance and can be questioned on the basis of the convergence criteria. In the first instance, EU support contributes to supporting countries with specific agricultural products, and this has not led to poor member countries in the EU benefiting, but primarily benefits richer countries such as France, Denmark and Belgium. It is a major problem that this expenditure has too much influence on how resources are allocated through the EU budget. This budgetary item can be questioned on the basis of the EU principle of additionality. The objective of agricultural policy has been to increase productivity, ensure a certain standard of living for farmers, stabilise markets, safeguard supplies

[26] Nunez-Ferrer, J., *EU budget and policy reforms to promote economic growth*, ITPS Working paper R2007:015, p 20.

and also ensure that consumers should have reasonable prices for the products. There are those who argue[27] that CAP has not succeeded in this. Support has contributed to increasing production, not productivity. It has favoured farmers who do not need income support. The supply of goods has been rapidly safeguarded, and later this has changed into a large surplus of products which either has to be dumped or destroyed. Inefficiencies in investments and difficulties in achieving the objective have contributed to higher prices for consumers.[28]

Measures and objectives for the period 2000-2006 have been reviewed. With regard to the objectives of improving and reorienting production by means of providing support for investment to agricultural enterprises, it is stated in the evaluation that this has led to more effective use and production costs have been decreased.

Is there a need to reform the EU agricultural policy (CAP)? The answer is clearly yes. During the 1960s there were concerns that there would be a shortage of food. It was in this spirit that EU agricultural policy was drawn up. During the beginning and the end of the 1990s, agricultural policy was reformed (Agenda 2000), and one question that can be put is whether this has contributed to making CAP more effective for the times and conditions we are now living in. The answer is clearly no. CAP for a long time has had poor objective attainment, high budget costs, as well as major difficulties in controlling the use of EU budget funds. One of the major problems is that changes were not sufficiently far-reaching. There have been changes between different forms of support, but still there are major shortcomings. The conditions for agricultural policy have changed at the same time as the objectives of agricultural policy are difficult to change. Based on an analysis of economic costs, it is not good to admit new Member States into a CAP which is essentially anachronistic. It leads to higher costs. An economic analysis cannot come to any other conclusion than that CAP adds costs for the economy. The question that should be put is whether it is worthwhile paying for this extra cost.[29] An excessively regulated sector can contribute to impeding competition (dynamic effects) leading to a deterioration in productivity and in the final analysis lower economic growth.

Another main objective of CAP is that it should contribute to a more even income distribution between individuals and regions. What can be stated is that the Common Agricultural Policy does not generate the intended distribution effects. Income differences between EU countries are large and CAP has not succeeded in changing this, as large parts of the support go to a minority of farmers in richer countries. In somewhat oversimplified terms, it has been stated that 80 percent of support goes to 20 percent of farmers.[30] CAP favours fertile and rich regions.

Another objective given prominence is that CAP should contribute to stabilizing the market, strengthening employment and the environment. Some criticism is also directed to this. Here it is claimed that the market is only stabilized in a superficial way, and this has not prevented prices of agricultural products from falling in real terms. Nor is there any support for the idea that support for employment or that CAP has contributed positive environmental effects. In overall terms, the income objective has been instrumental for the Common Agricultural Policy, at the same time as the objectives of this policy have not been clearly formulated. If one is to view CAP from the perspective that it involves an

[27] Nunez-Ferrer, J., *EU budget and policy reforms to promote economic growth*, ITPS, Working paper R2007:015.
[28] Ibid, p 18
[29] SLI 2000:1, *Varför bör CAP – EU:s gemensamma jordbrukspolitik reformeras,* Rapport.
[30] Ibid.

income problem which needs to be corrected, this can be solved in ways other than through the CAP. In connection with the implementation of Agenda 2000, support has remained virtually unchanged whilst the balance between different forms of support has changed.

This has not led to any major changes, but one objective that is given greater focus is rural development without any direct linkage to agriculture. This objective is also not easy to specify accurately. One of the problems which have arisen in connection with the attempt to have a Common Agricultural Policy in EU countries is that of maintaining clear definitions between different areas. It is not at all self-evident that rural areas can be distinguished from urban areas in terms of income level, access to service or unemployment. The problem may appear in a variety of different guises in different countries, thereby accentuating the difficulty of having a common policy for sparsely populated areas in the EU. Neither can it be stated that agriculture plays the same role it did earlier for rural development. Its role has decreased and the importance of other sectors has increased. In the environmental area, the Common Agricultural Policy can be developed, but then there must be more radical changes in its objectives.

3.2 European value added of CAP at EU level

One of the most important reasons for why we need to "nationalize" a large part of CAP is the lack of accuracy in the policy, and major shortcomings that exist in terms of impact on regional differences. The policy cannot generate increased value added for European countries as a whole by applying the convergence objective. One could also consider applying the subsidiarity principle to CAP, and transferring more responsibility for support to member countries and their specific preferences and needs. In this way support could better achieve its intended results. CAP plays a controversial role in the distribution of funds. The way it is designed it benefits the countries with the highest yields for specific products, and within these countries the largest and often wealthiest producers, as it overwhelmingly consists of direct payments per ha of land linked to historical yields. The results indicate that the present Common Agricultural Policy, which concentrates on income support, should be abolished altogether.

The highest yields are generally concentrated in the most developed countries. Cattle are also highly subsidized and concentrated in specific countries. The most supported product mix benefits Western continental Europe in particular (Ireland, a large beneficiary due to its large cattle herds). In terms of per hectare and farmer subsidies, countries such as Belgium, Denmark, France and Ireland are major beneficiaries, so much so that a prosperous country such as Denmark was a net beneficiary of the budget until year 2000 and Ireland is expected to remain so for the foreseeable future. The CAP strongly affects the distribution of the EU budget and the policy is considered largely responsible for intensive disputes over net balances.

From the very start, the policy was ill conceived for two reasons. Firstly, it masqueraded as a rural policy, even though rural areas are not exclusively dedicated to farming. Secondly, it introduced one of the most distorting mechanisms possible for supporting the sector: price subsidies. Price support and direct payments (market support mechanisms) are the main vehicles for addressing the objectives of CAP. This policy immediately contradicted two of the objectives: the reasonable price objective and the stabilization of markets (due to the adverse effects on other sectors and the world market). As a result of the highly inefficient market support mechanisms, large deadweight costs arose, the cost of the policy is in absolute terms roughly equal to the gross value added of the agricultural sector.[31]

The value added from CAP is that it can be important for cohesion, but mainly from coherence that consists of creating a community market for agricultural products, community regulation and a trade policy that contributes to creating equivalent conditions for competition. A review of the literature and an analysis of the policy structure reveal that many measures could be improved to increase their value added and that direct support is highly inefficient and detrimental in terms of efficiency and value added the way they are designed. For direct payments the reason is simple: the stated objectives and the policy design are unrelated. New aims and objectives have been added to payments that are not devised to address them. Payment intensity and distribution are based on yields from nearly two decades ago, routinely relabelled and obligations added to without any cost based approach. Benefits that may accrue from the policy are overshadowed by the over- or even under-compensation for costs incurred to implement the cross-compliance obligations. By being unrelated to objectives and uneven distribution across areas, farmers (read EU citizens) are also treated unequally.

CAP does not fulfil the principles of the EU for participating in such actions. There is no European value added to speak of. Instead of direct support, one possibility would be to guarantee access to the common market by means of regulations. Objectives are not fulfilled nor are they sufficiently precise. In fact the policy can have a negative effect on growth and cannot be defended on economic grounds. The costs are too high and inefficiency too great.[32] Neither is there any support which on any larger scale generates new investments and priorities for supporting sustainable development.

For the CAP direct payments:

- Direct payments at the moment have a suboptimal distribution given their stated objectives. From a value added point of view, it is recommended that payments be further aligned to their objectives and the cost of these, and eligibility criteria be tightened to ensure funds are allocated where needed. Farms with large turnover should be excluded from most of those payments.
- Improving the targeting of direct payments to particular objectives efficiently should free considerable resources, which could be used for increasing other budgetary actions.

CAP is now moving in the direction of providing greater support for the environment and rural development. Earlier it has been argued that such a policy would not contribute to reducing the need for a policy that takes account of an individual country's needs and preferences. It is doubtful whether a European policy is in any way more effective than national policy in these respects.[33]

3.2.1 The Rural Development Policy

As a response to the failings of the Common Agricultural Policy, there has been a shift toward the increasing importance of support for rural development, which can be categorized as being in line with convergence policies and sustainable growth. Rural develop-

[31] Wichern, R., *Economics of the Common Agricultural Policy*, Directorate of Economic and Financial Affairs, Economic paper No 211, European Commission, Brussels, 2004.
[32] SLI 2000:1, *Why should CAP – EU's, agriculture policy be reformed*, Report, p. 19
[33] SLI 2000:1, *Why should CAP – EU's, agriculture policy be reformed*, Report, p. 65

ment policy has a large number of measures which can be subdivided as having three objectives: Restructuring the farm sector and improving its competitiveness, improving the environment and assisting economic development of rural areas. The first objective absorbs the bulk of the funding, whereas the second and third are dominated by farms and farming, which indicates that rural development policy remains a farm policy, which goes against the recommendations of most academic research and work by the OECD (1996, 2001 and 2003). These clearly show that rural development is better achieved by holistic actions targeting all activities in the rural economy. Even in the most rural of all regions of the EU, employment in agriculture does not match employment in services and industry.

Rural development areas are facing major challenges and need to find new sources of employment and income. The ambition now is that after taking stock of the experiences gained from the earlier period (2000-2006) in creating greater flexibility (decentralize more decision-making on how resources are to be distributed) simplify procedures for allocating funds, as well as putting greater focus on achieving growth and environmental objectives set up in Lisbon and Gothenburg. There should also be greater focus on rural development that is not specifically intended for farmers. The main objectives to be focused on are that measures should lead to greater competition in agrarian industries such as agriculture and forestry. The measures should be in line with changing industry in the direction of fulfilling environmental objectives, as well as be a step towards in the improvement of living conditions (quality).

The decline in rural areas is generally attributed by the aforementioned studies to the decline of infrastructure quality and services, not farming. The rural development policy could be continued as long as it becomes a rural dimension of what the Structural Funds do on a larger scale at regional level. Many actions may even be better treated in other parts of the budget, rather than under the heading ‘natural resources’. The eligibility criteria needs to be better defined.

For rural development:

- A substantial share of support should be aimed at generating economic development on a ‘territorial’ basis, focusing on strategic actions to generate endogenous growth. The Leader programme has successfully demonstrated the positive implications of such a policy approach.
- Rural development funding should no longer be conceived as a way to subsidize farms to compensate for reduction in direct payments. Support for the agricultural sector should have stricter eligibility criteria to avoid deadweight costs. Economic development in rural areas, food safety, food quality standards, and environmental protection are very serious and important issues. Support for those should be carefully devised and targeted.

3.2.2 Environmental policy

There has barely been an important EU environmental intervention of note, especially in terms of funding. A big change is clearly needed under the headings of priorities and weighting of ‘natural resource’. Most of this budget is only tenuously linked to natural resources. On the principles for EU intervention a fully fledged environmental policy would score very well. At present, needs vastly exceed means, and therefore plenty of improvements are required.

It has been difficult to assess the effects of measures to stimulate environmentally friendly agriculture. There have been varying and contradictory results. Overall, evaluation does not indicate any clear results from the measures carried out, but states that it is difficult to draw more general conclusions concerning measures carried out during this period. It is not possible to determine if incomes has been affected nor whether there have been any major effects on employment, instead this is expressed in terms of existing employment being made more secure.[34] The evaluation carried out by Agra CEAS Consulting shows that reforms have had a marginal effect on agriculture in, for instance the UK. Investment patterns during the period investigated is stable.[35] However, the investigation examined a relatively short period so no conclusions can be drawn as to the long-term effects. The evaluations do not take up and discuss the value added of these measures from a European level. There are indications, but no clear analysis of the means by which these measures contribute to creating value added.

[34] *Synthesis of Rural Development Mid-term Evaluations*, Final report 2005.
[35] Evaluation of Agenda 2000

4 Regional/Structural and cohesion policies – scope and framework

During 1988, appropriations for structural policy were substantially increased, which made regional politicians and civil servants appear more important in the integration process. During the 1990s there was a full-scale debate on regions in Europe, but this has become much less intense and appears today to have lost some of its momentum.

To the extent that structural policy concerns redistribution, it is natural to question it. Redistribution takes place through the Common Agricultural Policy, the Cohesion Fund and Structural Funds, of which Cohesion covers the objective of convergence. In headings 1a and 1b in the EU budget, the objective is to strengthen sustainable growth by improving competition, as well as attempting to bring about greater convergence between member countries by means of cohesion policy. Within these two areas, growth policy relevance is more visible than within CAP, but this can be questioned.

In cohesion policy, spending is mainly allocated to achieving approximately 80 percent of the convergence objective, easily the largest item under heading 1. It aims at stimulating the growth potential of the least developed Member States and regions, comprising about a quarter of the European population, by improving the investment required to increase long-term competitiveness, job creation and sustainable development.[36]

The convergence objective is dominant in heading 1 and the cohesion policy, and the question is what growth policy relevance could there be in this category. We will define experiences concerning the policy of cohesion and what effects these have on growth. Cohesion policy consists of the structural funds (ERDF and ESF) which are directed to regions which have a level of GDP which is less than 75 percent of the average within the EU. Then there are the Cohesion funds which are directed to member countries with a GDP which is less than 90 percent of the average in the EU.

A basic starting point for cohesion policy is that it is what is paid for maintaining solidarity with other Member States, where European value added can be regarded as an attempt to create stronger economies among poorer member countries by providing tools and resources for nourishing growth in such regions. The main question for evaluating such a policy is not that it should be as strong as in the richer countries, but that the policy must be evaluated in terms of whether the support contributes to strengthening development or whether it is unimportant as there are other factors that have a greater impact, for example access to the community market.

Support has in some cases been questioned. We will first study the structural funds (ERDF and ESF). ERDF has the objective of reducing differences between different development levels. Resources are used to co-finance investments which create employment, infrastructure and contribute to supporting local development initiatives in industry with a specific focus on small and medium-sized enterprises. During the programme period 2000-2006, the focus was on these regions (Objective 1) based on the following indicators: Low levels of investment, higher unemployment than average, lack of service for industry and individuals, as well as weak infrastructure. Measures were carried out to strengthen condi-

[36] Sweco Eurofutures has contributed with an extensive discussion on the impact of particularly the structural policies in the EU budget. We are grateful for their insights, see Böhme, K. & Hallin, G., *How to spend it?: The territorial road to a modern EU budget*, Sweco Eurofutures, November 2007.

tions within these areas. In Objective 2 regions the focus was on supporting the development of industrial and service sectors. This touches on transition problems which occur, e.g. deterioration in traditional activities in rural development areas, or new crisis situations in urban areas. Measures have also been taken to handle difficulties in the fisheries industry. Different parts have inter alia been directed to co-operation between regions and the support of innovation strategies for starting up development in weaker areas.

Within the ESF, the main objective has been to support the Lisbon process with a focus on employment (programme period 2000–2006). Funds have been used to help the unemployed and inactive to enter the labour market, create opportunities for people with different types of disadvantages to enter the labour market, and also improve participation of women on the labour market. Within this fund, it has also been important to support lifelong learning and develop the vocational skills of employees.

The Cohesion Fund is used to support larger projects in the environment and transport sectors (infrastructure projects) which are directed to countries with a GDP which is less than 90 percent of the average in the EU. There is also an effort to support projects which are in line with developing environmentally friendly and sustainable development or projects which strengthen Trans-European networks.

What growth policy relevance is there in these areas in the structural funds, and how can the quality of the interventions and attainment of objectives be assessed? One conclusion is that ERDF which is attempting to reduce differences between different regions has not succeeded in attaining the convergence objective. However, this is not a realistic objective. There are still allocation problems which are linked to the distribution of the funds and country specific policies. ESF has its primary focus on employment, as well as the objective of increasing productivity and cohesion. ESF has not succeeded in achieving the objective, at the same time as the interventions have varied widely. It has been difficult to be assertive with respect to national labour market rules, which have contributed to weak effectiveness.

4.1 Growth policy relevance of Structural funds

Growth and employment are the main targets of the cohesion policies. Obviously, measures aimed at strengthening hard and soft infrastructure (location attractiveness), measures for re-training/ skill enhancement, support for adjustment after industrial decline/ rural stagnation, cross-border regional facilitation, and finally, the removal of environmental legacies may promote economic growth in various ways by providing an improved infrastructure for growth. They are designed to reduce disparities between the levels of development of various regions and Member States and the backwardness of the least favoured regions. However, there is a lack of consensus on how to define the regional element in relation to structural policy. Ongoing adaptation to meet the requirements of the Lisbon Agenda and more growth oriented measures cannot hide the fact that an unknown part of structural policy deals with redistribution to regions within nations. This can possibly be justified as a stage in evening out income differences between countries.

The measures of the structural funds are related to changing the conditions for a specific member state or region, and are based on the principle of cohesion. It is the cohesion principle which determines where measures and priorities should be carried out and allocated, whilst the Lisbon strategy is based on a different principle for the distribution of resources.

More precisely newer growth theory arguments as to how best resources can be distributed and priorities allocated between different areas to achieve growth for the whole of the EU.[37]

This means that the most optimal solution for the Lisbon strategy may lead to increased territorial differences between different regions within the EU. Another problem and risk is that conflicts will occur between the objectives of the different strategies due to the fact that these two strategies differ in the level at which the objectives are operational. The objectives of the structural funds are formulated in broad terms and have a thematic focus. The objectives of the structural funds are connected to a decentralised implementation system. The Lisbon Agenda consists of both broad objectives, but which have been supplemented by a number of highly specific operational objectives. The objectives are more clearly quantifiable and can thus more easily be measured based on actions taken.

Lisbon relies on the open coordination principle that the objectives are to be achieved and implemented at lower levels. One criticism that has been directed to this is that the objectives have become too specific, and there is no scope for making individual adaptations at national or regional level. This is the reason that the Lisbon Agenda is described as a top down controlling system. A third area where conflicts between objectives may evolve concerns infrastructural measures (physical). From a Lisbon perspective harder priorities are made to focus on investing resources in building up IT infrastructure. Here there is a view that excessive emphasis on such investments contributes to underestimating the value of measures made through more traditional investments. What opportunities are there to strengthen synergies between these two strategies and the evident risks of new conflicts occurring? Possibly the most important is to bear in mind that both the Lisbon strategy and the structural funds share a political consensus over the policy objectives of the EU. This consensus consists of sharing and giving priority to high economic growth, strengthening competition and employment in the future, growth which is compatible with social inclusion and sustainable development.

The conclusion to be drawn from this is that the structural funds can contribute to achieving the objectives which are also shared by the Lisbon Strategy. The Lisbon strategy takes no account of how regional growth will be distributed, but works from different logical premises. This makes it difficult for such a policy to have an impact if the Lisbon strategy is pushed to its extremes. One possible way out of this dilemma is to respect the cohesion principle as the basic framework to be followed. The starting point is an effort to have the structural funds working in a way that is more compatible with the Lisbon process.

Within the framework, growth oriented objectives can be emphasized more by reducing the number of priorities made. One conclusion is that economic growth objectives should be given greater weighting in regional and national programmes at the cost of other objectives. This would have the effect of giving higher priority to R&D and measures which lead to more innovation. It would also have an effect on measures influencing institutional factors of importance for incorporating research, development and innovation. Greater focus is needed and what are the best measures from a growth perspective, with account taken of each region's prerequisites? The Lisbon strategy is not always the best model for investment needs for a specific region. In certain cases excessive emphasis on the Lisbon

[37] See for instance ITPS, *Budgeting for Growth: A perspective on the long term budget of the EU*, first report to the Swedish Ministry of Finance, 7 May 2007

Agenda can lead to a situation where specific strengths, weaknesses, and structural opportunities existing in a region are not taken into account.[38]

The question is how general investment needs are within the EU? The EU can be involved in influencing priorities. On the basis of earlier field studies it is argued that it is the specific context that must determine what type of investments need to be made. Elements of the Lisbon Strategy are too operational and do not take account of the region's needs and development. Here it is proposed, amongst other things, that there are yet other needs such as decentralised decision-making in order to get increased growth, by focusing on strengthening measures in specific regions and improving the interaction between structural funds and the Lisbon Strategy. The structural funds can become an effective instrument for implementing the Lisbon Agenda and its objectives.[39] The problem with the Lisbon Strategy, in contrast to the structural funds, is that implementation structures are too weak and need to be developed. The main question thus becomes how opportunities for synergies and complementarities can be improved between the Lisbon strategy and the structural funds in the medium and long-term. One possible route is to strengthen coordination at the national level. Nationalisation of the process may contribute to greater emphasis and improve coordination between different growth measures, especially those focusing on strengthening the innovation systems of Member States.

The convergence objective (economic convergence) is not a primary objective in the Lisbon strategy. The structural funds programme is largely based on fulfilling this primary objective. The structural funds are based on the assumption that regions have varying potentials for growth. The options for a trade off between reducing regional differences and stimulating economic growth are a specific problem that is reflected in these two different strategies. What is good for the EU as a whole (overall growth) may have negative effects on specific regional levels during a certain phase. It may be the case that in some early growth phases, regional differences increase, and these are then replaced by lower regional differences (catching up processes) in later phases. This phenomenon often recurs. There is a whole host of different factors influencing economic growth. It has been suggested that up to 80 different variables have an impact on growth.[40] Based on this, it is not meaningful to try to achieve an optimal solution in terms of the composition of investment in different member countries or regions.

More reasonable would be to make further delimitations in the level of ambition and focus more on the need for public investments that generate positive externalities. In some cases market failure occurs, and this leads to a shortage of supply in certain goods and services. Public investments are of such a nature and can be divided into three categories of investments (physical infrastructure investments, human capital investments, as well as investment in and creation of knowledge and know-how - R&D). Also needed are investments in the institutional framework to reduce transaction costs in the economy. Some of the failure of structural fund investments is in many cases due to institutional quality in individual member countries.

All these parts have positive external effects and can contribute to strengthening overall economic growth in the EU. Based on such a perspective, the argument can be put forward

[38] Ibid pp 50-52.
[39] Danish Technological Institute, *Thematic Evaluation of the Structural Funds Contributions to the Lisbon Strategy; Strategic Evaluation on Innovation and the knowledge based economy in relation to the Structural and Cohesion Funds, for the programming period 2007-2013, Synthesis Report, 2006;* European Innovation, *Progress Report 2006*, DG Enterprise and Industry.
[40] Ibid,p 65.

that many parts of the structural funds are reasonable priorities from an economic perspective. However, using public funds with direct measures to support individual enterprises is a doubtful measure if this is not for direct R&D investments or environmental investments. Above all, small and medium-size enterprises do not have the same structural conditions as larger enterprises, which can lead to additional investments being required. Irrespective of whether physical infrastructure investments have a major impact on growth in weaker member countries, today some of the priorities made are being questioned. In particular, too little priority is given to supporting R&D investments and innovation. Innovation systems need to receive more support and this applies particularly in member countries where these systems are relatively weak. The structural funds underestimate the value of the institutional framework and its importance for growth. In their current form, these programmes do not support such investments and today within the EU there is a need for improved implementation, more effective public administrative capacity in a number of Member States and at different levels.[41]

Over a 15 year period, the EU has built up conditions and a structure for regional innovation systems. Despite this we can state that it is only in a few cases that a take-off has occurred in terms of innovation performance. The explanations provided are that there has been insufficient capacity for developing innovation as well as difficulties in matching local demand for innovation. Neither have strategies and policy steering been sufficiently developed to be able to lift performance to a sufficiently high level.

The structural funds have been in existence longer than the Lisbon strategy and represent an attempt on the part of the EU to achieve cohesion. In contrast to the Lisbon Strategy, the structural funds have access to a more institutionalised structure for the implementation of the common policy. There is a clear allocation of financial resources over a six-year period.[42]

How should Lisbon be regarded in relation to the structural funds? Do they complement each other well from a policy perspective, or are these two agendas in conflict with each other, and if so in what way? We can first study the areas within which they actually complement each other, and then examine areas where conflicts may occur. An objective common to both the Lisbon strategy and the structural funds is that economic growth is a community objective, as is the objective of high employment: The strategies complement each other also in the sense that economic growth is not to be achieved at the cost of the environment. Development in the long term should be sustainable. Another objective which they share is social inclusion. The Lisbon strategy strives for the reduction of poverty and fair opportunities and conditions on the labour market. There should also be a social protection system that is financially sustainable in the long term. No form of discrimination between genders, different ethnic groups or age groups should occur. It can also be stated that there are major similarities between the Lisbon Strategy and the ambitions of the structural funds to direct investment into certain areas, such as employment, IT, research and development, investment in human capital, sustainable development etc.[43]

The structural funds are important in order to support the Lisbon Strategy, but it can be stated that success has not been achieved in giving more priority to central growth areas which are connected to better performance in the innovation area. From an economic perspective, it is sometimes argued that the structural funds suffer from funds being allocated on political grounds, and this leads to sub-optimal allocation of resources. The second is

[41] Ibid, pp 73-75.
[42] Ibid, p 42.
[43] *The European Added value of Cohesion policy*, 2007, pp. 44-45

that expenditure itself has not been specifically effective from a regional perspective. The support provided to the production sector and infrastructure (70 percent of support) has not had a major impact on regional differences. Infrastructure investments have been important for the community market, but have not meant very much in counteracting regional differences.

4.2 European value added of the Structural funds at EU level

The cohesion fund may catch up with the richer member countries in Europe. Interventions have been positive whilst the results from the objectives have been more mixed. Some countries have developed rapidly whilst others have lagged behind. Nunez-Ferrer (2007) considers a problem which in many cases can be identified in the quality of the programme and individual policy actions. His view is that it is difficult to argue for EU interventions in these fields. It is largely up to member countries to implement these programmes and activities. The problem with the funds has more to do with proportionality. Whether it is realistic to believe that these funds can achieve the objective of reducing differences between regions can be strongly questioned. There is European value added in supporting and developing poorer regions in the EU, but the value added from investing EU resources in richer member countries' weaker areas can be questioned. Rich Member States have better opportunities in the form of social support and national funds to support their own weaker regions than is available to poorer Member States. Regional measures at the EU level could in this way be reduced further by focusing measures more on prioritised areas in weaker Member States.

Strong arguments can be put forward that income differences within countries are best evened out at the national level. The effects of European integration/economic growth at the European level are too small to justify redistribution between regions.[44]What remains is a general interest in maintaining the capability of regional adaptation to local conditions such as can be achieved by regional authorities. The allocation of resources associated with structural policy is a model which is hard to disregard entirely. The extent to which structural policy can achieve renewal through better adaptation to the growth oriented Lisbon strategy is examined below.

The impact of the grants which the structural funds provide for growth and employment as well as the effects of cohesion policy is unclear. Research indicates different results and there is a measure of criticism directed to the fact that these measures lead to greater convergence.[45] The reason for this variation in results may be due to the investment mix in the structural fund programmes. Weak institutional sensitivity and a tendency for the structural funds to be allocated to the richer parts of poor countries puts the redistributive function at the regional level in doubt. Infrastructural investments have not been sufficiently good. Ireland is one exception – here the structural funds have contributed to creating comparative advantages.

There are major differences between mechanisms for allocating regional policy resources in the future. The system for implementing structural funds after 2006 will become a very important question in the debate on reform. Many member countries are concerned over the administrative complexity and bureaucracy concerning funds, which has led to increasing demands for simplification. There are also many who are uncertain over the fun-

[44] *Korkman, S. Economic Policy of the European Union, Palgrave, 2005*
[45] Bachtler J. & Méndez C. & Wishlade F. & Yuill D., *The European Added Value of Cohesion Policy*, Final Report to the Ministry of Enterprise, Energy & Communications, Sweden, EPRC 2007, pp. 15-17

damental value added provided under the current system. In what way can management and administrative procedures contribute to increasing the quality of economic interventions?

The question is whether there is a need for a new system of implementation? In this examination, it appears that different growth policy measures in structural and innovation policy need to be made more effective, and there is a need for developing the EU common policy and implementation system. The EU budget is not especially large (one percent of the EU's GDP) and there are no resources available in the current situation for achieving all the ambitious objectives set up within the EU. What is needed is a selective and realistic starting point which means it may be necessary to make additional thematic and territorial priorities within the EU in line with the Lisbon Strategy.

There is broad consensus that EU regional policy should focus more on the least developed regions. However, there is no common view as to how these regions should be defined. In addition to different views concerning financial allocation and what should be given priority, the question of value added by the EU is not clear. The Commission's perspective is that the funds have a number of non-financial advantages. Their view is that there are a number of evaluations which show over time that most member countries have improved the implementation of structural funds. The question is, however, whether this will lead to value added (qualitatively or quantitatively). There has long been an effort to simplify implementation, but the implementation of the structural funds has become increasingly complex.

The Commission has also put forward a number of spatial and thematic priorities. Another involves the very mechanism for allocating funds. Here the EU needs to take into account the political dimension of the allocation process and the limited resources available. The objectives of the funds should be more in line with economic theory and practice to allow strategic planning to focus on realistic and useful outputs. The funds are to provide regions without means the fundamental tools to develop their potential based on their endowments.

There is a need to review the eligibility criteria of the funds, and bring the level of support in line with needs at the local level rather than setting an allocation of funds on the basis of a flawed indicator (GDP per capita PPP). Funds should concentrate on the poorest regions where needs for basic infrastructure and the development of human capital are the highest, and where local public and private financial capacity is limited. This means a larger reduction in funding in the present EU 15.

The European Social Funds (ESF funds) should concentrate funding on working programmes for training and reintegration of workers into the labour force, avoiding funding inefficient national programmes. Strategic planning needs to be reinforced, which requires a solid evaluation system for programmes ex-ante, midterm and ex-post. This should be undertaken under the supervision of external experts, rather than by the European Commission. The present division of responsibilities between the European Commission and the Member States is inefficient. The implementation of the projects should be controlled largely by EU agencies in the Member States.

4.2.1 Structural funds and innovation policy

In order to strengthen competitiveness during 2007, the highest focus was put on research, the building up of the information society and Trans-European networks such as lifelong learning.[46] A majority of the resources in the EU budget go to research and are a main

[46] Europeiska kommissionen, *Europeiska gemenskapens allmänna budget, Budgetåret 2007*, p 10f.

instrument for strengthening European competitiveness. Therefore there is a need to achieve synergies between several policy fields, for instance, between structural policies and innovation policy. Going back to the main objectives of the EU presented at the outset, it is evident that economic growth, sustainability and cohesion are the three main objectives which the EU makes efforts to promote in order to develop scope for new policies within the Community. The main responsibility for growth in the EU lies with individual Member States. The EU can never become a community that takes over this principal responsibility. However, the EU can be an important player in encouraging growth where opportunities exist by taking measures to increase economies of scale for Member States. The EU should be involved and participate in actions where there is clearly European value added. The areas which have been designated as more appropriate than others for such measures are: Research and development, education and transport.[47]

The main emphasis within the Union is nowadays on horizontal industrial policy. A sharp definition of what 'horizontal' means is not easy. The term originates from the desire not to intervene sectorally and to defend policy makers against ad hoc pressures for rescue operations and direct interventions in single enterprises.[48]

The question is what evaluation experiences can be drawn from the period 2000-2006 (structural funds). During this programme Member States were also encouraged to invest more in these two areas (innovation and knowledge). Results show that such investments, RTDI investments (RTDI= research, technological development and innovation), vary appreciably between different regions and member countries, from 0.3 percent to 15 percent of the structural funds in Objective 1 regions, from 2.2 percent to 29 percent in Objective 2 regions according to estimates. The results show very small parts of the structural funds have been spent in regions which have the worst conditions. The results also show that in the current situation, there is every reason to be doubtful of the capacity of the structural funds to fulfil the objectives of the Lisbon strategy. One hypothesis is that this is probably due to the fact that national policy and national innovation systems have a strong impact on RTDI strategy in the structural fund programmes. In absolute terms, however, structural funds are an important means of support for national R&D in Objective 1 regions by mainly trying to use resources to create an environment friendly to innovation, as well as implement measures in applied research. For Objective 2 regions, resources are mainly used to create innovative enterprises and effective transfer of knowledge.

One of the most fundamental problems of RTDI investments is that management of the investments has been administrative as opposed to strategic, with a consequent lack of synergy. It is also evident there is a lack of expertise at national and regional levels for managing such measures and that the links built up to regional innovation systems have been too weak.

A central lesson is that the strategic evaluations have indicated that strong partnership is more important than decentralisation of power/decision-making rights. The new framework for policies in regional, innovation and research areas provides many opportunities for synergies with the new structural funds programme and is a support for implementing the Lisbon strategy. More structured and permanent forms of coordination between local and regional players are necessary for this to succeed. During 2007–13, regional policy

[47] Nunez-Ferrer J., *EU budget and policy reforms to promote economic growth*, ITPS, Working paper R2007:015, p 13.
[48] Pelkmans, J. "European Industrial Policy", *BEEP briefing*, no. 15, July, 2006

should be the engine of system changes in the innovation system at both national and regional levels in order to match up to global changes.

The weaknesses in national regulatory environments and shortcomings in the co-ordination of ”stakeholders” in national and regional innovation systems must be addressed.

The Policy mix in the EU 27 in the area of innovation and knowledge is structured around a consensus over three traditional policy areas:

1 Knowledge transfer

2 Technological dissemination

3 Applied research and product development, as well as support for growing and innovative enterprises.

The conclusion is that the strategic evaluations indicate that strong partnership is more important than decentralisation of power/decision-making rights. The new framework for policies in regional, innovation and research areas provides many opportunities for synergy with the new structural funds programme and supports the implementation of the Lisbon strategy. More structured and permanent forms of coordination between local and regional players are necessary for this to succeed. Within the structural funds, there is a need to find a better balance between structuring infrastructure and reorienting behaviour of players within regional innovation systems.

Strategic planning needs to be reinforced, which requires a solid evaluation system for programmes ex-ante, midterm and ex-post. This should be undertaken under the supervision of external experts, rather than by the European Commission. The present division of responsibilities between the European Commission and the Member States is inefficient. The implementation of the projects should be controlled largely by EU agencies in the Member States.

A more detailed analysis of the importance of structural funds for the EU’s innovative capacity shows that the capacity of the structural funds to create a good environment for innovation in different Member States can be questioned. With a focus on Objective 2 regions, structural fund measures, measures for strengthening the environment for innovation, have been relatively small in relation to total investments. The investments have been on too small a scale and conservative, and in the majority of cases the structural funds have not had any crucial impact on the outcome of RTDI.[49]

There are major differences between the amounts each member state invested in developing environments for innovation. With a focus on Objective 1 programmes, a number of positive changes can be identified. During the period 2000–2006, structural funds have contributed significant resources to RTDI programmes in countries such as Greece, Spain and Portugal in addition to the new Member States from 2004. These structural funds are of importance for Objective 1 region's opportunities to develop and expand in the innovation area. It is stated that these investments are significant in terms of achieving increased convergence between Member States. However, in many regions, especially in the Objective 1 regions there are shortages in capacity and know-how in terms of managing and coordinating RTDI support. The structural funds have in many cases led to decentralization of RTDI interventions, a change which turns out not to have been easy to implement.

[49] *Strategic Evaluation on Innovation and the knowledge based economy in relation to the Structural and Cohesion Funds, for the programming period 2007–2013*, Synthesis Report 2006.

There are different examples of how different Member States have had different policies as their starting point in this field. Both the Netherlands and Finland have been highlighted as successful examples, where one member state invested resources in "hot spots", the second used resources as a complement to a national strategy for reinforcing weaker innovative structures.

An evident weakness in the EU is a lack of public and private partnerships in RTDI. This form of partnership is regarded as strong in only seven of the EU Member States. There are principally four barriers that contribute to reducing the effectiveness of the implementation of structural fund RTDI measures. The first is administrative rather than strategic steering of these RTDI measures, which contributes to a lack of synergy with other initiatives. There is also a lack of expertise at both national and regional level in managing these measures, coupled with too little focus on the demand side and links to regional innovation systems.[50]

This means innovation policy can be strengthened through concentration of measures to strengthen management and steering capacity for innovation. In the current situation, knowledge policy is the area that has been given lowest priority and is least developed. Only five of the 27 EU countries have given this high priority. It is also evident that there is a problematic gap between regional and national levels that needs to be bridged. Here strong partnerships are needed in this policy area. Many countries give priority to measures that facilitate the transfer of knowledge and technological dissemination to enterprises. However, there are different views concerning measures and the attempts to create innovation centres (pools, clusters). Some give this a high priority, others a low priority. It can also be stated that experiences from the programme period 2000-2006 show that the differences in national regulatory systems have a major impact. Here there may well be organisational, institutional or financial factors in specific innovation systems limiting opportunities for implementing certain types of interventions. It is important in the EU to discuss how to change parts of the institutional frameworks of certain member countries before certain types of interventions can be effectively implemented. Another experience is a high level of professional competence is required (financial, high-technology etc) to manage similar tasks.[51]

Lundvall (2007) emphasises in his analysis of national innovation systems that the key to transforming technical innovation into economic results largely depends on the capacity to implement new educational measures and organisational change.[52] Here the problem of focusing excessively on simple measurable indicators such as Patents and R&D is tackled. More is required to understand how specific national innovation systems function in different regions. It is simpler to make a quantitative analysis if organisational forms and learning are disregarded. Lundvall is critical of the ability of economic theory to make a relevant analysis of innovation systems. He considers it more relevant to study and understand processes for building up competence and innovation within different innovation systems.

There are contradictions in Europe in the sense that we are strong in research, but not in innovation and growth. Similar problems exist in many of our stronger European Member States. This paradox is strange and here there is a weakness in theoretical knowledge and

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[50] *Strategic Evaluation on Innovation and the knowledge based economy in relation to the Structural and Cohesion Funds, for the programming period 2007-2013*, Synthesis Report 2006.
[51] Ibid.
[52] Lundvall B-Å., *Teorier om nationella innovationssystem: Hur kan dessa studeras*, ITPS arbetsrapport 2007:015, p 13

analysis of innovation systems, which contributes to defending policy recommendations and how to give priority to limited EU resources within this field. Lundvall argues innovation systems are more context specific than one believes and that it is not easy to transfer "best practice" to another system. It is of importance to ask in what sense the old knowledge infrastructures can contribute to creating a more innovative environment and to what degree we have to build up a new knowledge infrastructure.[53] Nelson (1988) argues that the USA's strength in relation to Europe resides in the great diversity of support systems that have been built up to stimulate such a development.[54]

An analysis of Europe's performance in the innovation area shows that different Member States' shortcomings vary very widely. They are good in some parts, but worse in others. A central policy issue in this analysis is whether it is better to continue strengthening the parts which Member States are good at, or focusing on strengthening the weak areas. There are a number of main areas in this field such as governance, knowledge creation on demand, intellectual property, application, innovation drivers, innovation and entrepreneurship. The conclusion drawn is that it is better to perform well in all these areas than to be specifically good in a few, i.e. from the perspective of influencing member state performance in the field of innovation. This indicates that it is better to strengthen the weak parts than to invest further resources in areas where Member States are strong in performance. Optimisation for the individual member state involves being strong in all these areas and focusing more on the weaknesses that exist in different innovation systems.[55]

In large countries such as France, Germany and Italy, the transfer of knowledge has not been as effective as originally anticipated. The consensus on applied research and product development needs to be further investigated. The distinction between basic and applied research starts to be questioned in nano-technological and biotechnological contexts. Secondly, within the EU there has been too much focus on applied research and not so much on product development. There has also been a focus on identifying academic spin-offs in connection with trying to support the creation and growth of innovative enterprises. However, support for developing growth and innovation in small and medium-sized enterprises has not been given priority. This was regarded as fundamental in the Lisbon strategy. One main conclusion is that it is more important to develop strong partnerships than decentralise power. Networking between key players at different levels has not functioned and needs to be strengthened in order to build up management and implementation capacity. The new policy framework (CIP and FP7) provides many new opportunities for synergy with the structural funds programme as a support for implementing the Lisbon strategy.

[53] Lundvall B-Å., *Teorier om nationella innovationssystem: Hur kan dessa studeras*, ITPS arbetsrapport 2007:015, p 16, 22. 26.
[54] Nelson R.R. "Institutions supporting technical change in the United States", in Dosi G Freeman, C Nelson, R.R Silverberg G. and Soete L., (red) *Technology and economic theory*, London 1988.
[55] European Commission, *European Innovation. Progress Report 2006,* DG Enterprise and Industry, p 32-33.

4.2.2 Quantitative and qualitative aspects

The quantitative effects of the policy of cohesion and the contribution of structural funds to growth and employment are unclear. Research indicates a range of results and there is a measure of criticism directed to the fact that these measures lead to greater convergence.[56]

The reasons for this variation in results may be due to the investment mixture itself in the structural funds programmes, and weak institutional receptivity, and a tendency for structural funds to go to the richer parts of poorer countries. Nor have infrastructural investments been particularly good. Ireland is one exception – here structural funds have contributed to creating comparative advantages. The qualitative effects have also been questioned. A lack of strategic coherence, support for far too many different activities with no overall linkages to each other, and little evidence that this is a new form of "policy thinking". Research in the UK has questioned a number of the value added which have been claimed to be a result of the structural funds. EU supported projects were not noticeably different from domestic projects. The effects of partnership were limited in EU projects in relation to domestic projects.[57]

In other contexts, players have in different ways tried to demonstrate the positive effects of structural funds and cohesion policy: They have argued that they have stimulated projects and additional resources which would not have been available in the absence of structural funds. There have been more integrated and long-term solutions to regional development questions and they have been an important source of support for implementation. The funds have led to a shift of national focus to policy issues and have contributed to put greater focus on the importance of human capital, innovations, local development etc. In the final analysis, there have also been attempts to demonstrate that structural funds represent a new form of "governance". Also increased focus on monitoring and evaluation has contributed to more effective programme implementation. This means that structural funds stabilise/integrate as well as contribute a "learning effect", a framework for the exchange of experience and reciprocal learning based on different regional practices between countries and regions. This makes the EU more visible to the general public, but it is not a sufficient effect.

With support from earlier studies (CPB reports from 2005-2006), it is possible to make radical changes in the EU budget based on the subsidiarity principle. It is possible to simultaneously change direction and priorities, as well as reducing costs by more than half. The starting point is that EU policy measures are only desirable if they demonstrate additional value added (benefits) which are not covered by policies at the national or regional level. In today's situation, the budget focuses on providing support to the agricultural sector, and for remedying structural problems. It can be argued that conditions are now different than before, and it is now time to change direction. The main measure for succeeding in this will be to reduce EU support for agriculture and the structural funds by increasing national responsibility for implementing measures in these two areas.

The arguments are based on the following: There is no reason to give priority to rich countries with measures from EU structural funds. Rich countries have sufficient resources of their own to solve the difficulties of their own domestic regions lagging behind. National governments have better information than the EU, and it is easier for them, to local-

[56] Bachtler J. & Méndez C. & Wishlade F. & Yuill D., *The European Added Value of Cohesion Policy*, Final Report to the Ministry of Enterprise, Energy & Communications, Sweden, EPRC 2007, pp 15-17.
[57] Ibid.

ise and implement such measures more effectively. This means that it is better to give priority to investing EU resources in poorer member countries through structural measures. It cannot be argued that these measures are something that would favour the EU as a whole. They can just as well be managed by national governments. A clearer focus on using community resources for giving priority to relatively disadvantaged member countries and greater delegation of responsibility to the national level would contribute to noticeably reducing the burden of expenditure for individual Member States.

Member States can no longer get locked into a debate on countries' different net-contributions. Here there is a need for developing common and prioritised objectives for the EU in the future. The report argues that criticism of the EU and too strong a focus on countries' net payments to the EU could be moderated if the debate were to focus more on following the principle of subsidiarity. This would create the opportunity for new reforms and priorities within the EU budget. The differences between countries which are net contributors to the EU would decrease and contribute to eliminating a debate which has been going on now for a number of years.[58] Also the European value added associated with innovation has to adhere to the subsidiarity principle, since it is a cross-sectoral concept.

However, attempts are being made in different ways to demonstrate the following positive effects: Stimulated projects and additional resources which would not otherwise have been made in the absence of structural funds, more integrated and long-term solutions for regional development issues. This is important for their implementation. The funds have contributed to shifting national focus on policy issues from a traditional focus on infrastructural investments and support for enterprises to put greater focus on the importance of human capital, innovation, local development etc with partnership as the crucial new element. Partnership is one of the more important value added effects from structural funds. Partnership leads to greater exchange of experiences and the dissemination of information. It presupposes greater and more extensive co-operation with a range of local players.

[58] Gelauff G & Stolwijk H & Veenendaal P., *Europe's financial perspectives in perspective*, CPB Document no 101, 2005, pp. 3-11.

5 Research and Innovation policies

This heading covers not only growth policy objectives and economic focus on market performance and modern growth theories. Raising productivity and employment can be achieved through a combination of measures such as product and labour market reforms and policies that remove obstacles to investment in physical and human capital.[59] The focus in this policy area is quite naturally on investments in human capital via education and research funds. Interest here is primarily linked to research and innovation. There are substantial economies of scale to be obtained. In addition there are also positive effects through the dissemination of knowledge, also amongst policymakers. Finally there are reasons to reduce the negative externalities by to some extent protecting innovations and research.

The counter-arguments are basically three; there is a value in adaptation to local circumstances, there are opportunities for learning from a diversity of experiences and finally, there are incentives for policymakers to compete if variations in policies are allowed to co-exist.[60] On the other hand the question arises who should be the main actors when it comes to implementation – the states, regions, universities, central authorities or cooperating enterprises or universities? So far those who are receiving funds for research *and* innovation are mostly the universities.

The bulk of the resources devoted to research within the EU budget framework are located in the Seventh Framework Programme which is presented below.

5.1 Seventh Framework Programmes (FP7)

FP7 are the EU's main financial tools for supporting research and development activities in a broad range of scientific disciplines. They finance collaborative research projects in areas such as health, nanotechnologies, energy, environment or transport. The programmes also aim at supporting mobility of European researchers, strengthening research and innovation capacities throughout Europe and granting financial support to individual projects of outstanding scientific excellence.

The budget in the coming seven years (excluding the separate Euratom part) is € 50.5 billion and the Euratom budget for the coming five years amounts to € 2.7 billion. In total this amounts to an increase of 41 percent from the 7th Framework programme compared with 2004 year prices and 63 percent at current prices.

[59] European Investment Bank, *An industrial policy for Europe? context and concepts*, EIB Papers, Vol. 11, no. 1, 2006

[60] CPB Document, *Innovation Policy: Europe or the Member States?*, No. 132, November, 2006

7RP supports research in selected priority areas - and the aim is to make/maintain the EU as a world leader in these areas. The preconditions for participating in the EU Framework programme are nearly always that research takes place transnationally in a network of enterprises and/or universities and research institutes in different countries. This system appears to be sub-optimal in the sense that networks are pre-determined by nationality rather than exposed to free competition.

- Earmarked funds for small enterprises. The 7th Framework provides earmarked funds in the sub-programme "Capacity". During the period 2007–2013, Euro 1.3 million was allocated to European co-operation between innovative small and medium-sized enterprises. This was mainly for internationally oriented small enterprises with a capacity in technical innovation but with limited research resources of their own. Projects may be in any area.
- The largest budget in the framework programme is allocated to the ten thematic areas in the sub-programme "Co-operation". Here small enterprises can participate in co-operation projects with other small and large enterprises, universities, research institutes and others. The EU Commission has the ambition of involving small enterprises in these projects, and for this reason financing has been raised from 50 percent to 75 percent. A small enterprise participating in a project thus receives three quarters of the project cost from the EU Commission and contributes with a quarter.

7RP consists of four main departments with activities for four specific programmes, as well as Joint Research Centers. In addition there is a separate, special programme nuclear research (Euratom):

Co-operation takes place in the following sectors:

- Health
- Food, agriculture and biotechnology
- Information and communications technology
- Nano science, nano-technology, materials a new production technologies
- Energy
- Environment (including climate change)
- Transport (inclusive aeronautics)
- Social sciences and humanities
- Security
- Space

In the Seventh framework programme (2007–2013) the ambitions were further strengthened by an internal market for research, development and innovation (ERIA, European Research Innovation Area). In addition, the Framework Programme is an important tool for achieving the Lisbon objectives of growth, competitiveness and job creation. The aim is to ensure the participation of industry through new instruments such as Technology platforms and Joint Technology Initiatives (JTI).

There are certain arrangements that may be used for increased coordination, such as public-private partnerships, 50–50 co-financing. Public funding in private R & D is another field for expanded ambitions, as is support for entrepreneurship and venture capital. Legally, intellectual property rights and standards may be fields for further involvement on the part of the EU Commission. The Seventh Framework Programme is a natural instrument for increased ambitions in the field.

5.2 European Value Added of research at EU level

Is this spending structure optimal in terms of benefiting from EU value added? To reap the benefits described above, funding instruments need to be designed to promote economies of scale and mobility of researchers, without being influenced by net balance considerations of Member States.

The picture is mixed. On the one hand, the Commission appears to be basing its policies on the right principles: the funding instruments were designed with the concept of EU value added in mind. Therefore the funding goes mostly into public procurement of research and areas considered as "strategic", due to their potential to become competitive in Europe, receive more funding. Moreover, projects need to be international, fostering mobility and cooperation across Member States. EU funding also focuses on the economies of scale coming from lower average costs in expensive infrastructure, areas such as nuclear research and aeronautics receive more funding.

Fiscal federalism views research as an area where policymaking can be more efficient at a more centralised level, mainly due to *economies of scale*, so that research becomes more efficient if it is done on a larger scale. There are two reasons for this. Firstly, if research efforts are combined at the EU level, this will result in a bigger pool of researchers and research infrastructures. This will allow some countries to specialise in areas where they have the greatest comparative advantage and to create "centres of excellence". Moreover, there will be more competition between researchers leading to higher quality of research, while reducing needless duplication.

Secondly, in the case of large infrastructures, as is required for nuclear research or for aeronautics, pooling resources allow research to be undertaken which individual Member States would not have the resources to do alone. In addition, financing research at the EU level can help foster the mobility of researchers, as it generally involves the possibility to move to another EU country. This is useful not only for R&D, as it improves collaboration and sharing of knowledge among researchers, but also for the effective functioning of the EU's Single Market, itself a determinant of growth.

The case for a research policy at EU level is therefore very strong. However, it is unrealistic to consider that all government action on research should take place at EU level. Under such a scenario, it is likely that most of the centres of excellence would become concentrated in two or three large countries, with other countries forced to contribute towards the funding of those centres.

Contrary to classical theories on decision-making which assume perfect information and rational decision-making, “second generation" fiscal federalism takes the more realistic view that policy-making is not efficient. This theory looks at which level of government minimizes inefficiencies. Analyses show that since research is often inefficient and badly organised at the national level in European countries, harmonization, by increasing competition between the countries, could increase efficiency. Moreover, in some countries there is insufficient funding, funding at the EU level could thus reduce this problem by providing supplementary funding.

There is a real risk of strong misallocation of resources, due to *juste retour* or net balance disputes: the concept that Member States should get benefits from the EU budget in proportion to their contribution. This can lead to funds being distributed, not to the best research centres, but in accordance with location or nationality.

There are strong reasons to run research policy at EU level, as this can lead to significant improvements in the efficiency of R&D in Europe, with a potentially significant effect on economic growth. But at the same time for political reasons, a pooling of resources at EU level of research funding is not to be expected. Funding will be kept very limited, as Member States will want to keep their national research framework. The EU budget can only have an indirect impact as a catalyst.

5.2.1 Assessment of current spending

EU spending on research is channelled through the Framework Programme for Research and Technological Development (FP), a budgetary structure for research spending. It is divided into main blocks: "Cooperation", which funds research projects involving international research teams, and is the main budget line for research; "People", funding given directly to researchers, through scholarships and fellowships; "Capacities", which finances research infrastructures; "Ideas", which finances frontier research; the financing of the EU's Joint Research Centre (JRC), a network of seven research centres across the EU; and the financing of the Euratom nuclear research programme.

There is also scope for improvement. There are concerns that the Commission is not the right body for project selection, and that it is influenced by political considerations. Funds could be spent more effectively if they were handed over to an independent agency which could choose the best projects independently, based on scientific quality. This is already done in the US and in some European countries, and has proved to be more efficient. This would avoid any problems linked to *juste retour*. Even though the EU has launched this year a European Research Council (ERC) which awards funding independently, the ERC currently only has disposal over 15 percent of the FP7 budget.

It has been argued that, since funding is too limited to have a real impact, it should be focused on the areas where the EU research could be globally competitive, if enough resources were given to achieve a critical mass. The Aho Report, drawn up for the Commission by an Expert Group in 2006, identified a number of strategic areas of research: e-health, pharmaceuticals, energy, environment, transport and logistics, security and digital content. However, there are concerns that the EU is focusing too much on applied research, while basic research is neglected. Basic research is very important and will not be produced through private funding.

In summary, the performance of the EU on research is mixed. On the one hand, overall policy has been correctly designed, as it is directed towards capturing EU value added by fostering economies of scale and mobility. On the other hand, the policies are not sufficiently effective, as funding is influenced by political agreements rather than being determined by an independent agency, is distributed to too many areas, and is not sufficient. The result is a rather fragmented structure which is not encouraging for EU policy makers, one have to consider what can be carried out effectively in the policy domain, and when to abstain from action in a very complex interplay as this.

5.2.2 An R&D strategy for the future

Some policy recommendations can be derived from the previous section. Firstly, the ERC should be expanded to cover all areas of research rather than only 15 percent of the FP7 Programme. There is wide agreement that the efficiency of public spending on research can be greatly improved by selecting programmes independently according to merit. The ERC should be in charge both of selecting the programmes and determining spending priorities.

Secondly, it was argued that since funds are limited they should focus on a small number of strategic areas in order to reach a critical mass but, at the same time, the EU should still cover all scientific areas, so that funding is allocated to the best projects and researchers in all areas can be mobile. The ERC could evaluate these needs better. One possibility could be, within the existing "cooperation" and "people" parts of the research budget, to make more money available for programmes and researchers in the strategic areas. This should not come at the expense of the funding for the other areas of research. Instead, the additional funding should come either from an increase in the percentage of the EU budget allocated to research which, as will be argued below, is likely to happen, or by reducing spending on the least efficient areas of EU spending on research, by, for example, giving up (through nationalisation or privatisation) the Joint Research Centres.

Thirdly, it would be advisable to increase total funding allocated to research. This will depend on a reform of the structure of the EU budget. It is likely that the next Financial Perspective will move in that direction given the ongoing Mid-Term review of the budget. Alternatively, it has been argued that national research programmes could be opened to foreign participants – this would enable funding to be kept at the national level, while enabling cross-national funding in practice.

Fourthly, the EU needs to increase funding for necessary large scale infrastructures for large international research projects.

Finally, the EU should not have a research focus based on political decisions. The present focus on applied research ignores the groundbreaking work from basic research that creates the foundations for future applications. Crucial research for example is being carried out on climate change technologies with long-term goals set out to be reached 2030.

5.2.3 European Institute for Technology

In what concerns research centres, the creating of a European Institute for Technology (EIT) is questionable. The Joint Research Centre, made up of seven research centres run by the European Commission, has been criticized by most analysts as highly inefficient. The Commission is now preparing the creation of a European Institute for Technology.

In terms of economies of scale, the creation of a large institution will automatically lead to competition between researchers over the EU and a centre of specialisation with critical mass. However, this may be promoted on university level: the top academic institutions in the EU may attract the best researchers from all over Europe. Several observers have pointed out that in terms of critical mass, it would have been more effective to increase public funding to already existing centres.

However, the Commission also argued that the EIT would solve an inefficiency problem which currently exists at the national level; by incorporating into the structure of the institute interaction between researchers and companies. The EIT will, it is argued, solve the problem that new technologies are not effectively transformed into business opportunities. While in theory this could also be done by an institution at the national level, if this works it could be a case where an EU institution can achieve higher efficiency than at the national level, which would justify this production from the perspective of second generation fiscal federalism. Begg (2007b) is highly critical of the EIT, because the allocation of funding from the EU budget is very low, € 308 million annually, compared to its inspirational rival MIT's €, 1.55 billion or the University of Cambridge €, 760 million. To create a shadow of MIT is not a good proposition, and there is not much sense in spending these resources under such conditions. Against this background the expectations on EIT are moderate.

5.2.4 European Research Council ERC

Following strong pressure from researchers, the EU is now investing in a new European Research Council, ERC. The research community themselves should determine how the appropriations are to be used. A simple principle will apply: the most original ideas with the highest quality will win.

In the Seventh Framework programme the focus on "Ideas" the appropriation for basic research in Europe will be strengthened. Here ideas from the most prominent researchers will compete to propel Europe's leading edge research to higher levels. The appropriations will be distributed by the new European Research Council (ERC). In the first year the budget will be limited to Euro 0.3 billion, but by the end of the Framework programme in 2013, it is estimated that the budget will be Euro 1.7 billion. Researchers from different fields are welcome to submit their applications. The winners will then be determined by a traditional peer-review-process.

Individual projects can be rewarded, but the Research Council will encourage inter-disciplinary research. Other objectives which ERC has are that the application process should be transparent and non-bureaucratic. Those who wish to apply may submit a brief application initially. After review, the ERC will then request a more detailed description from those who could be allocated an appropriation.

5.2.5 Technology platforms – clearly European value added

Technology platforms are a new concept in the European research world. The platforms should focus on and concentrate European resources on some strategically selected important areas of technology - key areas which are of vital importance for technological and economic development. Each platform brings together different players - enterprises, research organisations, authorities, and consumers - who will draw up common strategies for development, implementation and the use of the technologies. This approach will lead to clear and evident European value added in the form of common standards with a very high proportion of national financing, approximately 90 percent.[61] There is, however, a risk that Member States will turn into *free-riders* within the emerging two level games or start to copy each other (horizontal copying). Technology platforms may, however, lead to new standards, new ideas, and new combinations.

Jacques Pelkmans (2006) argues that a further step should be taken in order to prevent the risk of free-riding taking place within the two level technology interplay by also proposing that national grants be examined through a peer review system. The first European Roadmap for Research Infrastructures was published in October 2006. Intellectual property rights and standards

A European patent body - EPO would definitely create European value added, if this proposal materializes. The economies of scale from a single patent system in the European

[61] Pelkmans, J. "European Industrial Policy", *BEEP briefing*, no. 15, July, 2006, p. 41

Union seem obvious. It would have positive effects on the costs for applying for patents. Open source alternatives are not an alternative to a legal patent system. Negative externalities are associated with having no patent institution at all. Generally, standards are being developed by standard setting organisations (SSOs). In recent years a lively debate has been carried out concerning open sources. Patent protection provides, however, protection for investments already made and gives the owner certain rights that can be protected and traded. There is a need to counteract the dominance of large enterprises. Not least to achieve better use of patents through dissemination of technology and commercialisation. Without putting patent rights at risk, there should be opportunities to encourage better utilization than today.

5.2.6 Spending vs. regulation

Concerning economies of scale from a larger research area, the main policy action needed is of a regulatory nature. Since most of the research is done by the private sector, the most efficient way to ensure that research is truly pan-European is to give companies the same regulatory environment throughout Europe. In particular, the system for patents should be harmonized and simplified. These measures should ideally be combined with EU-wide deregulation to reduce the regulatory burden on companies and make them more willing to invest in research.

One of the central problems in the EU is that research by private companies is low. National fiscal and regulatory systems need to be revised, as well as the regulatory framework at the EU level. However, this can be complemented with spending measures. Due to the existence of positive externalities in research, public procurement plays a significant role, as many research programmes are government-funded and governments also finance individual researchers through scholarships and fellowships. If this funding takes place at the EU level, this will also contribute towards creating a single research area, as researchers and programmes will be competing at the European level.

Concerning economies of scale in research, which requires very costly investments, and spending policies at EU level play an essential role, as these areas can require government funding to be viable. If this funding is done at EU level, it can be done on a larger scale, reducing average costs. Funding also plays an important role in stimulating mobility of researchers, as they are often dependent on government funding. If this funding is done at the European level, they will be able to move to other countries.

5.2.7 Coherence in innovation policy

What is the right decision making level for innovation policy? In order to determine this, account has to be taken of the degree of heterogeneity in policy objectives. Are differences between the economies of Member States too large, and if there is a need for measures, would it be better if they were managed to a greater extent at the national level? Innovation policy covers many areas. It affects research and development (R&D), small and medium-sized enterprises (SME), entrepreneurship and venture capital, as well as intellectual property rights and standards. The assessments made concerning this area are that investments in FP7 are in line with creating European value added and cannot be rejected on the basis of the subsidiarity principle. This program generates economies of scale and positive external effects. The same positive economies of scale apply to the attempt to build up a standard patent system for Europe. The measures for SMEs seem more in doubt. The majority of small and medium-sized enterprises operate at regional and national levels. They have their knowledge and innovation contacts at regional or local levels. It is only a minority of small and medium-sized enterprises that operate at international levels. Based on the subsidiarity perspective, there are no clear advantages involved in carrying out this SME policy at a European level, except where the national level is more appropriate.[62]

The qualitative effects can also be questioned. A lack of strategic coherence, support for far too many different activities with no overall linkages to each other, and little evidence that this is a new form of "policy thinking". Research in the UK has questioned the value added effects which it has been argued are a result of the structural funds. EU supported projects were not noticeably different to any of the domestic projects. The effects of partnership were limited in EU projects in relation to domestic projects.

Here there is a need to find new ways of thinking about policies, and supporting development of innovation potential in the EU. Regions will be given high priority within the frame of innovation policy in the future.

The key to getting European potential to flourish presupposes the following three main tracks:

1 Creating a technological platform (European level) to get R&D results onto the market. Bring together all public and private players to define a research and a technological agenda.

2 Create better links between universities, research and business. EIT should be a new innovation model for strengthening these links.

3 Improve the framework (patents – early financing)

The Aho report points out the need for a paradigm shift in R&D and information policy (ten point plan). The plan puts emphasis on acting at national and European levels to foster innovation as a main asset for the EU economy.

In conclusion, just as there is a role for policy intervention in research at the national level both in terms of regulations and in terms of funding, the same applies to the EU level.

[62] Hors A & Bas Straathof., *Innovation Policy: Europe or the Member States?*, CPB Document, Nov 2006.

6 Other policies with indirect growth relevance

Greater cooperation and integration of security agencies in Europe would increase the efficiency of the EU in this area considerably. This potentially at least could provide central efficiency gains and financial savings.

Similarly, a joint border control structure would improve structures and reduce unnecessary costs. Collaboration in the military area could increase the economies of scale in military development and the effectiveness of EU military forces. Many of these are only partially budgetary issues. On the regulatory front and to facilitate the functioning of the internal market, a joint immigration policy would be an asset. Also there is pressure for EU taking action in promoting entrepreneurship. Below we will consider a range of policy areas within the scope of the EU budget with more indirect effects on economic growth.

6.1 Support of entrepreneursip

Security in the region and trading partners has a very important role to play in generating European value added. Neighbouring countries are important trade partners and their stability and economic wealth has implications on EU exports and immigration.

Funds are extremely limited, while an intensive financial intervention can have very important effects in stabilising third countries and also bring them closer to EU interests. In addition, further increases in coherence for development aid, pooling resources, and avoiding duplication and lack of coordination of actions by separate Member States would increase the effectiveness of EU aid. Serious work has already been undertaken but the process looks very accurate and promising.

The European Union has allocated around 5.75 percent of the total budget for the period 2007–2013 to the external projection of its policies. Pre-accession assistance is helping the candidate countries prepare for the obligations and challenges of future membership to the European Union. Instruments such as financing investment in transition assistance, institution building, cross-border cooperation, regional development, human resources development and rural development, currently in western Balkans and Turkey, have proved effective.

The European neighbourhood policy finances specific country and multi-country programmes in providing support for measures leading to the progressive participation of neighbouring countries in the Union's internal market, including through the approximation of laws, increased regulatory convergence or institution-building. There are also expectations of the EU taking on a more active role in global trade issues, enabling it to make a difference on the global stage. However, there are both elements of free trade policy preferences and voices raised in favour of greater protection so there are doubts on which role to play.

6.2 Justice and Home Affairs

Security is quintessentially a good supranational policy candidate, and also one of the less welcomed due to the zealous interest of Member States to keep a monopoly over policing and information domestically.

Funding common border controls, having a common immigration policy and an effective European policy system for cross border crime would achieve large efficiencies of scale and reduce large amounts of costs incurred today. Moves in these fields would generate real European value added.

6.3 European Value Added of Trans-European Networks

For Trans-European transport networks, the European Commission and also independent evaluators consider that there is a value added at EU level, and that without EU interventions these networks would not be developed.[63] The financial instruments, which facilitate the realization of these networks, are notably the Cohesion fund, certain actions provided for under Structural Funds regulations, the loans of the European Investment Bank and the loan guarantees of the European Investment Fund.

The reason for European Value Added is that the TENs:

- Improve the internal market
- Improve mobility of goods, people and services
- Foster the economic development of peripheral areas
- Improve generally growth, competitiveness and economic and social cohesion (overall)
- Can reduce pollution (for shift to rail transport of people and goods)

Trans European links seen from a national perspective don't have the same value as at supranational level. Willingness of Member States to finance the construction of a transport corridor is only interesting if the value added to the country is high. Some corridors may have a very high European value added, but low for a key transit country. Thus, the most efficient transport links need to be organised by the EU at supranational level.

Some links with high European value added are too costly given the net value added for the Member States where these are built. In such cases some kind of supranational intervention is justified.

6.4 European Value Added of an EU Energy policy

The interest of Member States in having a functioning cross border trade in energy is limited. Markets in Member States are often dominated by large companies where shares are publicly owned or where the firms dominate the local market. Competition from abroad would damage the oligopolistic or monopolistic local markets which discourages connectivity. It is difficult to assess market efficiency in all Member States, but studies by London School of Economics (2007) and CPB (2006) show that there are indications that we are far from operating in an efficient and perfectly competitive market. The distortions may encourage the creation of cartels and regional monopolies. There has been evidence that the energy liberalisation process has fostered monopoly and oligopoly power rather than the opposite. The increase in cross border energy trade thus needs some supranational intervention. The value added from energy policy will depend on the increase in the efficiency of the energy companies open to competition.

Due also to wider strategic considerations of energy policy, the optimal European policy in terms of value added for the single market is not shared necessarily by the Member States.

[63] For example see van Exel et al. (2002) for a discussion of the European value added of the TENs.

The privatisation of the EU energy markets has not developed as expected, with many large companies, often under public control through public share ownership, dominating the energy market. EDF is 85 percent state owned and practically dominates electricity production in Europe, generating approximately half of the EU's electricity and is a major shareholder in other European generators. It is also the largest energy company in the world.

The EU has started a regulatory offensive to further liberalise the market reinforcing the unbundling requirements, separating generation from transmission and retailing. For companies such as EDF, this has been interpreted as the creation of subsidiaries, but the total separation of the management and control of these companies will have to be implemented, based on the regulations.[64]

From a growth perspective, privatisation and competition are important, even if unbundling of generation and retailing is not necessarily an optimal approach in economic terms, reducing oligo- and monopolistic markets in the EU is.

For the EU budget, there is a role in assisting the development of transnational energy trading exchanges and improving connectivity, systems which are not in the interest of national companies or national governments.

6.5 The Environment in the EU Budget

Environmental protection is one of the most well recognised areas for supranational action, in particular dealing with cross border pollution provides high value added. The value added is not directly growth oriented, but environmental protection can be an important element of future sustainability and growth. The EU budget, however, does not have a coherent environmental policy from a budgetary perspective. Environment is one of the areas where EU legislative power is more active, sometimes with a certain excess of zeal in compensation for the weak influence, in particular of the European Parliament, in other EU policy areas.

On the one hand, integrating environmental conditionalities and programmes across all areas of EU intervention is an important issue, but it does not clarify the lack of environmental focus in the EU budget. Is the integration of environmental concerns within other policies of cohesion, agriculture and research (FP7) enough?

The answer today is probably no. The EU is facing severe challenges to comply with climate change objectives and participates in international efforts to combat climate change or, for example, to safeguard marine resources.

6.5.1 Earmarking and clarifying

While environmental costs aiming at, for example, energy efficiency are eligible for support, the actual use of the measure is not necessary. From the point of view of absorption of funds, large conventional infrastructures are the easiest to implement, putting such measures at a disadvantage in the planning process seen from a purely financial point of view, which often dominates national administration choices.

[64] Atiyas I. and Núñez Ferrer J., 'Energy', in Second generation structural reforms: De-regulation and competition in infrastructure industries – The evolution of the Turkish energy, telecommunication and transport sectors in light of EU harmonisation, ed. Sinem Ülgen, EDAM CEPS project, 2007.

One approach involving a certain intensity of funding for the environment could be to earmark existing EU funds for environmental actions, in a way similar to how Lisbon actions are earmarked. This means that energy efficiency and conservation actions should be actively thought of in the preparations of programmes for EU structural or competitiveness funds.

Environmental protection is also very much a regulatory and fiscal policy issue. The EU has already considered the introduction of environmental taxation as a form of revenue for the EU budget. It could be envisaged to also link revenue through environmental taxation to pollution abating investments on the expenditure side. This would, however, require a very fundamental change in the EU budget revenue and expenditure system.

6.5.2 Climate change investments

Climate change is becoming a pressing issue. The EU needs to step up its efforts to combat climate change and adopt adaptation tools. Support for this is better coordinated at supranational level. EU funds should also finance research aimed at long term post 2030 technologies, which require high investments and are too long term for private companies or individual countries to fund.

7 Conclusions – toward a new agenda and a new long-term budget 2013

Our suggestion from this study, with higher focus on what creates substantial value added on the EU-level from the results of evaluations and knowledge of what generates growth for EU in general, is to focus more on growth and capacity building through *institutional development, integration and mobility, knowledge development and commercialisation* (see Figure 8-1) that generates substantial EU value added. EU should intervene where the value added is most obvious. We find it where intervention is connected to EU institutional development (system building) and integration. We also find it in attempts by the EU to improve commercialisation in specific areas and strengthen development of knowledge mainly through capacity building.

Previously there has been an increasing concern over new priorities within the EU budget framework, often opting for a more growth oriented approach. The Lisbon-agenda adopted in 2000, re-launched in 2005 is by and large in line with a more growth oriented approach to EU policies.

7.1 The Lisbon strategy

One way of measuring the effects of different instruments associated with the new Lisbon agenda is to make simulations. Additional expenditures are not always necessary, crucial, for instance, is the service market and the reduction of administrative burdens. The other most important objectives are human capital improvement, the 3 percent target on R&D expenditures, and the objectives on employment.[65] If the convergence objective is to be fulfilled within a reasonable time, it will require increased resources to be allocated to its objectives. Economically lagging Member States need to grow faster than is currently the case in order to close the gap with the richer Member States.

Within the Community the internal market is almost completed in terms of the markets for products. However, the record is not as good when it comes to the service sector. Within this sector, barriers remain which are contrary to the aim of achieving mobility on the labour market, and firms right to establish and the ability to export services.[66] In the event that these objectives are reached by 2025, GDP within EU would increase with approximately 12 percent. One crucial factor in achieving this is to live up to the 70 percent employment target within the community and succeed in increasing labour productivity by, for instance, allocating additional R & D resources. At the moment the new Member States and others are far from the employment objective and investments in R & D are also low.

Total factor productivity is determined by innovation, human capital and competition on the market. The European labour market has been improved a great deal from the 1990s and onwards, but not sufficiently. It is not easy to achieve all the objectives simultaneously since success in living up to the objectives on one parameter may result in negative effects on another. Higher employment levels in the short term may have a negative impact on the growth of productivity in the medium-term perspective.

Viewed over a longer time frame it is beyond doubt that labour productivity reflects a catching up phenomenon. Today Europe finds itself at the frontier in many respects. There-

[65] Gelauff G. & Lejour A., *The new Lisbon Strategy. An estimation of the Economic impact of reaching five Lisbon Targets*, CPB Netherlands Bureau for Economic Policy Analysis, 2006, p 9.
[66] Ibid, p 18.

fore to copy or merely achieve somewhat delayed adjustments to new technologies is not sufficient. In the U.S, both the production of and the application of ICT has been the main aim. Above all, it is the performance within ICT and the application of new technologies which differ in the U.S compared to Europe. On this point the U.S outperforms Europe. The growth in productivity is related to structural changes within the service sector, and the production and use of ICT. A common way to achieve higher productivity is to combine investments with innovation in industrial organisation and upgrade the competence of the labour force. R&D is at the heart of the development of innovations. Innovations are the driving force behind higher total factor productivity, particularly when a region finds itself at the frontiers of technological development.[67]

The employment target in the Lisbon strategy is expressed in both qualitative and quantitative terms. Investments in human capital should contribute to higher growth in productivity and higher salaries. However, differences in productivity between the U.S and Europe cannot be explained by investments in human capital alone. For instance, the education system is different in the U.S. The education is more general in its approach and may have found it easier to adjust to IT technologies. There is uncertainty about whether investments are sufficient throughout Europe. The reasons may be found in the composition of human capital. From a policy perspective it has been shown that it is most effective to invest from early childhood. However, the return from such investments may potentially be high, but on the other hand this is not part of the Lisbon process.[68]

The Lisbon strategy overlaps with several indicators designed to strengthen the internal market and its functioning. Thus, the Lisbon agenda has the advantage of allowing for various combinations of regulatory and deregulatory approaches along with expenditures over the EU budget. By improving the quality of the legislation and reducing the administrative transaction costs for firms the intention is to enhance competitiveness and the functioning of the market.

There is no easy explanation why the differences between the U.S and Europe's growth in productivity remain, so the approach has to be multi-faced. By means of an analytical framework which takes into account interaction effects it enables estimates of the impact.

If we assume that 5 of the many objectives within the Lisbon framework were achieved (see below). It may, according to calculations, result in a 12–23 percent growth and an increase in employment by some 11 percent, main targets could be aimed at the following targets the meta-level.

- The Employment target (70 percent)
- R & D target (3 percent of GDP)
- Human capital targets (life long learning, more graduates etc.)
- Decreasing administrative costs, and adjusting regulations in the Member States
- Improvements in the functioning of the common market (increased mobility, trade and free establishment)

Economic growth may increase by about 0.8 percent annually during the time-frame of a decade. However, this does not take into account the costs associated with achieving the targets. Higher productivity is basically achieved in two different ways – either by working

[67] Ibid, p 34-35.
[68] Ibid, p 39.

more or by working smarter by applying knowledge and technology, and by better organisation. In the short run as already noted working more will in fact tend to lower total factor productivity in the short run unless the working hours are not spent more productively per hour or per employee. Only by working more, GDP is estimated to grow by about 6-9 percent. An improvement in the efficiency of the working force contributes 0.5 percent and up to 3 percent depending on the share of highly skilled labour within the work force.

R&D has a strong effect on economic growth, between 3-12 percent, according to estimates. The positive effect from rationalization of the service markets is substantially lower, 0.2 percent measured in GDP, according to estimates. Somewhat higher effects are attainable by reducing administrative costs – 1.4 percent is a plausible estimate. One key target and the most important factor in stimulating technological development by investments, R&D, is rather costly to achieve. In order to go from 2 percent to 3 percent of GDP, expenditures must increase by 50 percent within less than a decade. It is claimed that more researchers are needed to fulfil the objectives. It is anticipated that some 30-60 percent more researchers are required to reach the R&D target.[69]

R&D investment is expected to generate many positive international spill-over effects. The target to reach up to 3 percent spending of GDP in the Member States seems to be very ambitious. There are many reasons to believe that this will not be accomplished for many years. One reason is that a transition to a service society is accompanied by a slowdown in investments. Assuming an expansion of the service sector, the level of R&D investments will initially fall because the service sector is considerably less R&D intensive than manufacturing. The economies of the fast growing new Member States are also less R&D intensive than within the EU on average.[70]

The results reveal that if the Lisbon targets are met the prospects for growth are considerable. The expectation now is that the EU manages to proceed and begin to implement the objectives that are set up. In contrast to Lisbon I, the re-launched Lisbon II (from 2005) seems to be more focused, and may be more successful. However, in order to prove more effective in deploying reforms, a lot remains to be done among the Member States.

Still the problem remains when it comes to deciding on appropriate modes of governance when economic reforms are carried out. In the implementation report (NRP), it turns out that Member States are well aware of the challenges that lie ahead. At the same time there are wide variations and levels of ambitions among the individual Member States. Judging from the analysis by Iain Begg (2007a), there is an open question concerning the real impact of the Lisbon-agenda and the economic improvements associated with it during recent years. Cyclical factors and not structural ones seem to be the prime explanation behind the slightly improved economic performance. The partnership seems to work according to expectations and the Community Lisbon Programme (CLP) has by and large been successful.

[69] Ibid, p 79.
[70] Ibid, p. 83.

One great disappointment is the lack of agreement on a Community patent. There are signs of improvements, but the pace, intensity and degree of participation in the reforms differs widely. There is also a tendency that the Member States focus too much on trendy measures often associated with research. Other indicators get less attention. One fundamental issue is if sufficient policy integration really has taken place, and the attention paid to the implementation of policies at the national level could increase considerably. Currently this does not seem to have happened. One of the problems is that there is no clear ownership in relation to the entire process. The coordinators only meet twice a year. Evidently this does not create an effective framework for implementation. The Lisbon strategy is not visible enough in the national debates, and in many Member States the quality of public administration and public service is insufficient.[71]

To summarize, the Lisbon strategy gives a positive impetus to enhance growth-oriented elements across policy areas. However, as is well-known the connection to any of the major programs remains to be realized in the coming years. The most powerful targets are the employment target set at 70 percent, and the R & D target of 3 percent of GDP. Targets such as lowering the administrative costs for firms and the monitoring of regulations with an impact on national policies and legislation are potentially highly effective in boosting growth enhancing policy capacity. The same also accounts for improvements in the internal market in general, including the service sector, trade and the ease with which new firms may be established. In the hands of the Commission, these are relatively instrumental tools for achieving major changes geared towards greater growth-orientation.

The growth-oriented perspective based on open-coordination is, however, not satisfactory with regard to the requirements that a thorough revision of the EU budget would create. In addition, we also have to let policy conclusions be guided by the estimated efficiency of policies in meeting the objectives set up. This raises questions not only about the Common Agricultural Policy (CAP), but also about the Structural funds.

One can discuss, in what sense the EU needs a new knowledge infrastructure. Commercialisation of products can also be improved, for the EU in general, if the transfer of technological knowledge between Member States is strengthened. Increased trade has also a high substantial value added. An increase of one percent in trade generates 0.2 percent increase in income on average. The EU 15 integration (internal trade) has increased income by 10 percent.[72] Growth and capacity building through knowledge development could be reached by a focus on first of all, improving R&D. This has a major impact on growth and employment in principle. However, such intervention can always be more problematic in reality. If we compare the EU and the US, this indicator is fairly stable over time, and it is difficult to observe the causality between growth and R&D. But several studies have shown its high relevance for growth. The large resources needed for exploiting the research frontier and restructuring fields such as the energy sector and environmental questions demand high capacity (knowledge) and extended co-operation and networks between Member States. There is a substantial value added at the EU level for such intervention.

Other important areas within EU knowledge development are to create new technical platforms. If intervention and activities enable the EU to reach the employment target (70 percent), the growth potential within the EU would rise substantially. Weak employment within EU 27 is a big problem and intervention that strengthens the knowledge

[71] Begg I., *Lisbon II, Two Years on: An Assessment of the Partnership for Growth and Jobs*, Special CEPS Report 2007.
[72] Ibid, p. 13.

development of different social groups, especially young people, could lead to substantial growth. Different actions within this field are important, for example, activities that are connected to lifelong learning. However, it is self-evident that it takes a long time before the growth effect from intervention in lifelong learning to be detected.

In terms of European value added, it is up to the EU level to prove that policies add value by being raised to the supra-national level. The burden of proof rests entirely on those arguing for greater supra-nationality. Secondly, within particular policy fields concerned, there has to be a degree of additionality. More precisely, policies provide certain qualities by being located at the EU level which would otherwise not have been the case. Thirdly, we cannot escape the issue of what is the appropriate level of governance. Besides informal policy capacity and allocation of powers in the enforcement of EU policies, there is a need to set up firm institutions in order to sort out formal competences and thereby avoid confusing and unclear implementation responsibilities. In other words some things should be fixed in a complex world in order to avoid fuzzy roles among actors, which will damage the effectiveness of policies and also cause extra costs and locking in administrative capacity.

7.2 The budget reform

The European Commission put forward its budgetary proposals for 2007–2013 in 2004. Negotiations between Member States are not an easy task and there are different views on the budgetary issue. One reason is the discussion on the size of the overall EU budget. Our view is that the size of the budget cannot be decided without devoting any attention to more fundamental needs for new priorities and changes in the budget. In this study our main concerns have been to look at priorities that are necessary for promoting growth within EU.

What opportunities exist today for changing the EU budget to get more in line with the challenges which we confront in the future as a result of increasing global competition? How can we take advantage of our common European interests in the best way to strengthen competition and growth in Europe. The EU budget is in many cases a symbol of the difficulties that the countries of Europe have in reaching agreement on a direction that will be of benefit to all countries. Countries have difficulties in finding new solutions and making priorities since they have got stuck in a discussion on inefficiency in Europe, and far too many national arguments concerning the allocation of overall EU resources. It has been difficult to reach agreement on more fundamental changes in the EU budget. New thinking concerning the budget is needed, thinking which leads to new proposals on how the EU budget could be changed to become more relevant to the challenges we are confronting in the immediate decades ahead. Today the EU is poorer than before and enlargement means that there is a greater need for priority in order to manage the structural and growth related challenges that exist in the EU today.

What are the advantages of greater economic integration within the EU? In order to measure the positive effects of trade, one can take as a starting point that a one percent increase in trade generates a 0.2 percent increase in incomes on average. This means that if trade increases by 50 percent, incomes will increase by 10 percent.[73] The administrative costs of running the EU are relatively small in relation to other costs. They amount to about 5 percent of total budget costs. Based on a subsidiarity perspective, the measures could be evaluated to determine whether they should be implemented at the EU level, and whether policy measures contribute to achieving the objectives.

[73] Ibid. p. 13.

Prior to implementing common European measures, there should be clear advantages for the EU as a whole. The core criteria for assessing this European value added are based on the principles of subsidiarity and proportionality. The EU should only act and steer when this is more appropriate than delegating to a lower level, and the EU should only act in direct proportion to what is necessary to achieve the objectives and no more.[74] European value added becomes in this way a question of identifying the supranational dimensions and finding external effects, the potential for economies of scale, and scope or critical mass requirements.

We are in a situation where we have 27 Member states in the EU and negotiations have become more complex and difficult to handle. The EU has a multifaceted and advanced strategy to reach ambitious objectives, however this strategy do not correspond well with the total amount of resources that EU has to offer to individual Member States. The budget is in itself not a large budget (1 percent of EU GDP), and from our standpoint it seems impossible to achieve the main objectives according to Lisbon Strategy (growth and employment) without making more radical changes in the allocation of resources in the budget. We see the EU-budget as a way of allocating the common resources and we have to find a way to integrate and balance the Lisbon agenda with intervention that is associated with the convergence objective.

Enlargement puts pressure on EU resources, but in our study we do not find it necessary, first of all, to increase the size of the budget. This is not going to solve the difficulties of reaching ambitious growth and employment objectives in the nearest future. It is now time to think differently and take more thorough steps towards a budget that pays more attention to the growth challenges that EU has to face. If we try to focus more on the value added and the knowledge and experience we have of what creates substantial growth on an EU-level, this will enable the development of new ideas for the construction of the budget and its allocation of EU-funds. The budget's effect on growth and employment is dependent on our ability to see how we should change the responsibilities between Member States and the EU. The budget performance is also dependent on the ability to make better allocation decisions at the right time, and finally budget effectiveness in terms of allocation depends not only on the ability to prioritise intervention, but also on our ability to create a system (institutional structure) that enables capacity to be built for effective allocation of EU funds.

Today there is not much flexibility in changing the direction of the budget, and it takes a long time to reach an agreement on the budget. This leads to the conclusion that we have to realize the difficulties and be cautious, from an EU-level, in trying to predict in detail interventions needed in individual Member states on the basis of long term agreement. The enlargement of the EU does not give us more resources to allocate to single Member States, on the contrary, it lead to increasing challenges. There is large growth potential within EU 27, but the new Member States are starting from a low level and need within a reasonable timeframe to catch-up with the richer Member States. The question is how? Can the large share of resource allocation to CAP and EU Cohesion policy secure such a development? The catch-up effect is an important step for increasing overall growth within EU, and an analysis of the distribution of resources within CAP and Cohesion policy reflects a tendency that a large share of the resources goes to the richer Member States. This is especially true for the CAP.

[74] Communication from the Commission, *Reforming the budget, changing Europe: A public consultation paper in view of the 2008/2009 Budget review*, SEC (2007), p 9.

We do not think it is possible to increase the size of the budget. The discussion should focus more on the need for reforming CAP and Cohesion policy to the extent that this is more in line with Lisbon Strategy. From our standpoint, the CAP value added for EU is very low and this should be a responsibility and up to the individual Member States to decide its collective value. If we could nationalize much of the resources that go to CAP, it could be possible to use these resources more effectively for stimulating growth in EU.

Our next argument for changing the budget radically is that EU should not be involved in trying to remove regional differences within a Member State. EU responsibility lies in reducing regional differences between Member States. From our analysis, it seems that these forms of policy interventions have not been successful and it should be left to Member States to decide how regional differences can be reduced within the country. The EU convergence objective should be more focused on developing a policy that reduces and stimulates growth in the Member States (catch-up effects). Therefore two critical points are necessary to make when reforming the budget. How much of the Cohesion policy needs to be changed, and how should the model for implementing EU policy be developed. The Treaty is a restriction of what can be done at the moment, but we have to assume that in the longer run also the treaties and general priorities may undergo considerable changes. The magnitude of the problem for many new Members can be showed by the following result: Many new Member States will have to achieve sustained economic growth of 2.5 percent above the EU 15 average for 20-30 years in order to reach a GDP per capita level of 75 percent of the EU 15.[75]

EU is facing major problems in order to meet the objectives of the Lisbon strategy. EU also has to deal with major difficulties in using EU-funding effectively from a growth perspective. These difficulties are to a large extent caused by weak institutional capacity in many Member States. The importance of first building up the necessary administrative capacity has been underestimated as an obstacle to using EU funding effectively in Member States.

The efficiency and effectiveness of EU cohesion policy has been challenged in our study. There are not entirely convincing arguments that the Structural funds add significant value in comparison to domestic initiatives. It seems better to concentrate spending on the poorer Member States and abstain from supporting richer Members states apart from inter-regional and cross-border co-operation.[76] Some Member States have been questioning the steep increase in proposed spending under competitiveness (Heading 1a) on the grounds of the value added of higher EU-level expenditure on R&D and TENs being unclear. Our view is that in principle, such an increase in funding in those areas has a major impact on growth. However, the efficiency of implementation may always be a problem and lead to unsuccessful results regardless of the area invested in.

In general we are facing the potential of fragmentation of resources and the risk of reducing the effectiveness of EU support. Today's EU budget is too fragmented and the common resources have to be more concentrated on factors that create high value added on an EU-level. In general, the funding has to be concentrated to fulfil three major objectives, i.e. *convergence*, *competitiveness* and *cooperation*. All three are important and can guide the search for new interventions for the promotion of growth within the EU. One problem is to decide the division of funding between these three objectives. Increased competitiveness and cooperation are important for achieving the Lisbon and Göteborg agenda. However,

[75] "Searching for Consensus: The Debate on Reforming EU Cohesion Policy", *European Policy Research Paper*, no 55, p 7.
[76] Ibid, p 43.

the increasingly competitive orientation of cohesion policy is not necessarily appropriate for less-developed Member States that still have deficiencies' in basic infrastructure and lack the pre-conditions for regional competitiveness strategies. If we want to move closer to those objectives, we have to create an institutional framework on the EU level that promotes such a direction more clearly than is the case today. There are different views from Member States concerning what EU should concentrate their funding on. For example, in Italy, they would like to see a more positive approach to the role of cities; rather than focusing on urban problems, they should be seen as motors of economic development. In France, there is a tendency to emphasize the importance of entrepreneurship.[77]

The indicative results can be seen in Figure 8-1 below.

Figure 8-1.

	Growth and Capacity building through Institutional development	**Growth and Capacity building through Integration and movement**
Substantial EU Value added	**Internal Market Effective Administration Administration for monitoring EU Border Control and Security Partnership between national and EU-level Stakeholder (development of a profession for innovation policy on national level, (know-how for monitoring public support and aid) Single patent system (creating a predictable framework for intellectual ownership questions) Improve public and private partnership (RTDI investments) Improve implementation structure for growth and employment**	**Trans-European Network Information society and media Employment improvement European regional co-operation Broad Innovative networks (Intra and inter regional networks) with focus on innovative firms. Infrastructure intervention in poor Member States Increased focus on the least developed Member States**
Small EU Value added	**Structural funds in richer Member States Structural funds with focus on innovation policy and product development**	**Reducing regional differences within Member States**

[77] Ibid, p 47.

	Growth and Capacity building through Knowledge development	Growth and Capacity building through Commercialisation
Substantial EU Value added	R&D (Research and development) Technological platforms Life-long learning High-tech research (nano- biotechnologies, energy, ICT and environment)	Promotion of transfer of know-how and promotion of applications between university and business Technological transfer of knowledge between Member States Trade
Small EU Value added	Preservation of natural resources in the current form	Direct payment support Market support Rural development

7.3 Modes for governance

The three major expenditures in the budget, CAP, structural policies and the research policies differ considerably in objectives, policy style and effectiveness. In all policy areas there are dimensions of centralization and decentralization.

7.3.1 Group subsidy culture – weak governance

CAP seems worst in terms of effectiveness and the search for a renewed role is quite disappointing so far. There are a number of problems associated with price subsidies, direct income support, surplus production and the close ties to land ownership in rural development objectives. Also the environment policy has limited effects within the frame of CAP. Therefore CAP can be questioned not only in terms of the resources devoted to it, but also in terms of its impact as a system for allocation for resources. Moreover, its distributional effects are questionable. For instance, if co-financing would be required in a similar manner to the structural funds, its support among Member States would probably run out of steam. All in all CAP is conservative since a major effect is defence of a system with little value added and insignificant growth impact.

7.3.2 Decentralized governance without clear objectives

The structural funds are imposing an entirely different mode of governance with greater regional involvement. It may be considered an value added in itself to get a regional say on the allocation of resources. Historically, the structural funds have been more effective in building up new structures for implementation of policy than getting lasting results in terms of economic growth. The objectives are many – cohesion, convergence, solidarity, regional growth and competitiveness. However, the effects are difficult to grasp. As a mechanism for allocation, the value added is regional involvement and greater ability for local adjustment, and there is a strong decentralizing element associated with policies which may explain its relative popularity (see Appendix I).

Regional actors may be happy to "by-pass" the central government and establish direct links with central EU institutions. They may also have learned how to mobilize regional resources. More people are simply getting involved. However, the contribution to growth is in doubt. First, there are too many objectives to realize, secondly, there is confusion on the structural impact since macro economic measures are frequently mixed with micro economic measures without sorting out in what way the structural policies are designed to make a real contribution. Third, the problems mentioned above may be solved by fixing the competences of the regional layer of government. However, that is not an issue for the EU level to handle. This would effectively put a limit on experiments with new governance on the regional level since it is associated with vast administrative costs. Overlapping regional administrative borders are causing confusion. The situation is worsened by the fact that competences are also unclear.

7.3.3 Emergence of centralizing forms of governance

All in all, the sectoral and specific EU industrial policies are by no means outdated as a mode of governance. The high ambitions within, for instance, research policy are bearing resemblance to centralized policy-making. Despite the observed European value added, governance styles may make policies ineffective. Research policy shows great trust in peer reviews, monitoring and the ability to achieve excellence with the competition mechanism as its hallmark. However, a lot remains to be demonstrated by the EU in order justify further centralization. Though the governance style has overall moved in the direction of non-interventionism the trend within the research field may in a number of ways have entered on a centralizing pathway.

One major weakness so far not seriously addressed is the failure to optimise the two-level problem. One cannot be surprised about the problem of 'free riding' at Member state level in a two-level technology policy game.

The EU level has no say on the national policies, their 'waste' or excessive duplication horizontally or with the EU, or indeed on their deplorable quality where relevant. However, the national spending is easily more than 90 percent of total European expenditure. The issue here is not whether a Member state would thereby lose its power to subsidize, but, rather, whether peer review can ensure a high minimum level of quality and originality. This is similar to technology platforms which may be characterized as a kind of informal peer review and stimulates high tech output at high minimum levels.

7.4 Policy improvements

If we first consider the institutional development that creates high value added for EU, we want to put emphasis on the importance of intervention that is concentrated on improving the internal market, creating an effective administration and implementation structure in Member States. The value added of the internal market has been shown earlier in many studies and the returns are large in relation to the costs. Its relevance for stimulating growth and employment is unquestionable. From the analysis and experience of intervention from the Cohesion funds and Lisbon, there is need to focus more on building up, in co-operation with several Member States, an institutional structure that can organize and implement EU resources effectively before moving to more concrete targets. EU-funding can not be allocated successfully until this difficulty has been resolved. Therefore it has a substantial value added for EU and all Member States, and contributes to high growth and employment in terms of better prerequisites for catch-up effects. We also have to speed up and continually improve the institutional structure for innovation. There are also strong arguments for more EU intervention in co-operation with Member States to improve stakeholder development of a profession for innovation policy on the national level and better know-how for monitoring public support and aid. It is also important to succeed with the creation of a Single patent system (creating a predictable framework for intellectual ownership questions) and in general improve public and private partnership (RTDI investments). These have a substantial value added for the EU. Member States have to work together. Improving security has a substantial value added in holding back economic crime that tries to exploit the EU internal market.

We will consider next the area of growth and capacity building, i.e. focus on more intervention by stimulating increased integration and movement. It can be stated that employment improvement increases mobility and may recover the EU employment degree. A key factor within this growth area is the development of the Trans-European Transport Network (TEN-T). It comprises roads, railways, inland waterways, airports, seaports, inland ports and traffic management systems which serve the entire continent and carry the bulk of long distance traffic and bring the geographical and economic areas of the Union closer together. The development of Trans-European networks is an element for the creation of the Internal Market and the reinforcement of Economic and Social Cohesion.

In particular, the EU policy of harmonization, liberalization, and implementation of new (cross-border) infrastructure for railways was doing well, as it raised productivity and hence competitiveness of the railway sector, which is more attractive for important economic sectors of several EU countries such as automobiles and chemicals. Both sectors significantly increased the demand for rail freight service e.g. for transport of automobiles on block trains.[78] The substantial added value for similar investments has a history of being important for stimulating growth and employment. Another close link is investment in physical infrastructure in poorer Member States. The substantial value added of this kind of investment is high on the EU-level. Overall, increased attention to the poorer Member States does have a significant impact on growth, as we have discussed earlier in this study. However, we have to balance this kind of investment with modern infrastructure investment in both new and older Member States. Key investments in such areas should be within Information society and media. Above all, investments in broadband are one of the most effective factors that can step up the progress of mobility and integration in the future, and give substantial value added at the EU-level and capacity building for growth and employment.

If we want to concentrate EU-funding more on growth and productivity, we need to give more attention to innovation and its prerequisites. From an integrative perspective, this kind of intervention demands greater focus on innovative firms and how the EU can contribute to creating broad innovative networks, intra and inter regional networks. The learning experience from earlier intervention is that innovative firms have not been given enough attention. The substantial value added of succeeding with such a partnership is high. We are not convinced of the value added (EU-level) of allocation of EU funding to richer Member States. There exists both good and bad examples of the effectiveness of structural funds, and one can claim that different activities would not have started without the help of structural funds. However, it seems reasonable, from other states' experiences, to argue that richer Member States are as good as the EU at meeting and solving similar intervention with their own resources. Our conclusion is that the value added is small and thus EU funding needs to become more concentrated than currently.

The experience from structural funds and their capacity to strengthen innovation policy and product development in richer Member States (Objective 2 areas) has not been a success. The added values from such activity have been small and have to be reconsidered. A suggestion is to increase national responsibility and coordination of such activities in richer Member States. Finally, we find small value added for EU in reducing regional differences within Member States. First of all, it is very difficult to reduce regional differences within

[78] Compete Final Report, *Analysis of the contribution of transport policies to the competitiveness of the EU-economy and comparison with the United States*, 2006, p 164

Member States, and one could question the feasibility of the approach from the EU in trying to reach such a target. Second, EU strategies have not been effective in reducing regional differences within Member States.

Further, we find small value added from EU intervention in areas that give direct aid to small and medium size companies. Market related expenditure and direct aid (CAP) also lead to small value added for EU. We do not see any high growth and employment figures concerning actions for improving rural development and preservation of natural resources. The responsibility for such actions could, to a large extent, be delegated to the national level. The argument for nationalizing such forms of collective products is strong. One conclusion is that the cost is too high compared to the social return at the EU level.

If we go to Figure 8-1 and what creates substantial value added (EU-level), our conclusion that growth and capacity building should also focus on developing knowledge in research and working life. The other “big area” that has a substantial value added for the EU is efforts to improve commercialisation. Europe’s university and academic traditions are tough to change, and at this point it seems to be more difficult in the EU than the US to discover suitable ways for commercialising products. The partnership between the public and private sector has not reached the level that is needed to succeed. It is a problem for the EU as a whole. The consequence of greater the transformation of knowledge and application of knowledge at the interface between university and business would constitute a substantial value added for EU.

Our conclusion is that the importance of different priorities should shift. Today the EU budget is too ambitious and sets out to reach too many objectives in a timeframe that is in general too short. The total amount of objectives should be reduced and EU should give higher priority to growth areas that we know generate high social returns. Our suggestion is to focus more of the EU-budget on funding in four areas: Institutional development, integration and mobility, knowledge development and commercialisation.

7.4.1 Innovation gap

If we consider the gap in innovation performance between the EU, the US and Japan, the results show that the US and Japan do better in 11 indicators and the EU only scores higher in 4–5 indicators that try to measure innovation performance. The positive factor is that the EU shows a higher trend than the US in several indicators. However, a problem is that many of the more innovative EU countries, when it concerns measuring business R&D, have been declining. The conclusion to be drawn is that the US and Japan are still far ahead of the EU25 and the innovation gap is relatively stable. EU innovation performance in relation to the other regions can mainly be explained by three indicators (USPTO patents, population with tertiary education and ICT expenditures). If we compare EU with Japan, the innovation gap between the EU 25 and Japan is increasing.[79] Europe is also behind the US in term of scientific output. It can be important to notice that US universities are also more integrated in the innovation process, and there is some evidence of a widespread European corporate weakness in terms of lower commitments to research and patenting. For this reason, innovation policy could be more effective in improving overall innovation performance by focusing on areas of weakness rather than strength.[80] A challenge for the EU's future policy and performance within the field of innovation is that trend

[79] *European Innovation, Progress Report 2006* (DG Enterprise and Industry – European Commission)
[80] Ibid

performance of many innovation indicators has not improved substantially over the period since the late 90s.

7.4.2 Five key dimensions of innovation performance

Innovation indicators have been classified into five categories to better take into account the different aspects of the innovation process (The EIS 2005 Strengths & Weaknesses report). These five categories cover different dimensions of innovation performance. The different dimensions measure the structural conditions required, the investments in R&D activities, innovation at the firm level, and performance expressed in terms of labour and business activities (entrepreneurship), and results achieved in terms of successful know-how (intellectual property).

From the learning point of view, it has been shown that countries with an even performance on each of the key dimensions perform better overall than countries with an uneven distribution. One way study different Member States and come to the same conclusion. It is not unusual that a Member State's average performance in one dimension is due to weakness in another key dimension. For example, one explanation that has earlier been put forward is that Germany's weak performance on innovation drivers might have hindered efforts in other key dimensions on the overall innovative performance of the country.[81] The implication, from a policy viewpoint, is that EU should try to identify and concentrate more on exploring areas of weaknesses. In the work of improving the EU's innovation performance, it is necessary to have an idea of what innovation efficiency stands for. It can be measured as the ability of firms to transform innovation inputs into innovation outputs. In most cases this is closely connected, the amount of input gives a certain output performance. Within EU there are some Member States that are better in output performance in relation to their input, and in other Member States the reverse holds.

If we consider past results of Member States' performance in this area there are very large differences. The EU covers a spectrum of highly innovative Member States to mid performing countries, and at one end we have Member States with poor performance in innovation output in relation to relatively large investments.[82] There is a large gap between old and new Member States. It is important for all Member States within the EU to strengthen innovation performance to promote further growth and employment in the future. As we have discussed earlier, this is a key factor for the EU and its success and we have to decide, in general, how we are going to succeed with other social and economic objectives. Within the EU there are nine Member States that are in a process of catching-up, seven Member States are losing ground, and ten of the Member States have an average performance.[83]

[81] Ibid
[82] Ibid
[83] Ibid

An estimate of how many years it would take for weaker Member States to catch-up and reach EU 25 average levels of performance has been done. The result is not good; the catching up process would take more than 50 years. The result also shows based on the current trend that it would take more than 50 years for the EU25 to reach the US level of innovation performance.[84] The priority given to this question should therefore be once again considered in the discussion on EU allocation of resources.

7.4.3 The importance of R&D in developing innovation capacity of EU firms

To improve innovation policies, we have to understand better the firm level and its importance in innovation performance. Different kinds of R&D-intensive firms have similar problems in their struggling for better innovation capacity. They have to absorb the underlying principles of the R&D, identify diffusion paths, lower their own cost of absorption, and learn how to create an organisation that can adjust to the changes brought about by innovation. These kinds of firms need competitive markets and strong partnership with other firms to maintain a powerful innovation capacity. They need access to specialized knowledge and high competence. R&D is increasing in many firms and new funds are preconditions for supporting and creating a business environment that succeeds in spreading the financial risks of early stage innovation across independent venture capital funds and private investors. It has been stated that more than two-thirds of all R&D funding come from the private sector.[85] The ultimate combination is considered to be when private sector funding is combined with research funding from government agencies and invested in specialized emerging fields such as biotech, nanotechnology, or materials.[86] The partnership between innovative small and large companies has developed. Large firms are finding it useful to use partners to explore new ideas before introducing it to their own organisation.

In the US, industry is increasingly relying on partnerships with universities. There industry/university research relationships have strengthened over the past few decades. For example, university participation in formal research joint ventures has increased steadily, the number of industry/university R&D centres has increased, and a survey of U.S. science faculties revealed that many desire even more partnership relationships with industry. R&D partnerships hold the key to meeting the challenge of transition that the US and the EU now faces. R&D enterprises will have to continue experimenting with different types of partnerships to respond to economic constraints, competitive pressures and technological demands that are forcing adjustments across the board.

R&D is crucial in new long term growth theories and models. R&D is seen as the driving force of accumulation and diffusion of technological knowledge, and leads to technological advance and economic growth. In this research field, there is strong emphasis on the importance of externalities such as technological spill-over for economic growth. Technological diffusion is important both at the level of the economy and the firm. Spillovers take place between and within an industry. The most important spill-over, knowledge spillover, can be considerable. Moreover, knowledge can be disseminated from many different areas. Studies of spillover effects show that their effects are large and social rates of return remain considerably above private rates. This kind of research finding implies that knowledge is a key driver of economic growth. However, despite R&D's significance for

[84] Ibid
[85] Ibid
[86] Ibid

economic performance, there are many things that can contribute to the failure of R&D investment. For example, there are other factors that can effect growth and the time lag between innovation and actual production can be problematic. The importance of business R&D can be shown by comparing its share of total R&D intensity.[87] New Member States within the EU often lack a high share of business R&D. Business R&D, especially, is the driving force for short-run economic growth. For the moment there is a high concentration of industrial R&D in a few Member States and sectors. The trend in funding R&D investment is different between new and old Member States. In old Member States, government funding is decreasing and in new States we see the opposite happening with increasing government funding. Overall there are three main characteristics that decide differences in the number of Member State R&D projects, i.e. the share of business funded R&D, tertiary education and size of the country (measured by population).[88] The problem with R&D investments from a policy perspective is that it is difficult to say something about the appropriate level. There exists no strong evidence, at the moment, for the conclusion that 3 percent of GDP level is the right level for the EU.

7.4.4 EU-budget, policy implications and toward a new innovations policy

The experience so far is that there are no quick and easy solutions and the innovation capacity of European firms can improve if:

- The EU can maintain and enhance the attractiveness of the innovation environment in the region.
- EU firms strengthen their competitiveness by engaging in global R&D operations.
- The EU succeeds in creating an efficient long-term institutional environment that promotes economic growth. Key areas are our ability to develop efficient markets and better educational systems
- The EU enhances an open attitude to other regions and partnership
- The EU can increase the innovativeness of the European business environment.
- The EU can get Member State governments to be part of developing partnership and laws that encourage innovative activities. The links between academia and the private sector are of crucial importance.[89]

Another experience is that the vast majority of countries' innovation policy objectives are still defined very vaguely. Several Member States do not set clearly defined objectives at a more strategic level or link the expected outcomes to specific sets of measures.[90] However, this is a more academic way of interpreting the difficulties of the outcome. Improved innovation performance does not always occur despite better target setting and policy mix.

[87] "The implications of R&D off-shoring on the innovation capacity of EU firms", PRO INNO EUROPÉ, January 2007.
[88] Ibid
[89] Ibid
[90] Ibid

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Appendix I: Delphi study - opinions of an expert panel (p. 1-5)[91]

European expert-based methodology – the Delphi Method

Approach to a complex mission to be carried out at short notice. The study has been carried out during October 2007. It was commissioned at short notice and with a tight deadline. In fact the contract was signed on October 4th with the final report to be delivered on November 5th. To accommodate these conditions, the research team decided to draw upon the insights and experiences of a range of selected experts. To do this and to allow for some feedback loops, the methodological choice fell on a Delphi-study approach involving selected experts across a relatively wide range of 'European issues', coming from different European countries and working under different thematic orientations.

The Delphi-methodology. The Delphi-method is known to have been developed by the American Rand-corporation 'think tank' after World War Two. It was designed to handle forecasting warfare strategies and the impact of technology on such strategies. The true Delphi-method involves asking questions over the future state of the system to a panel of experts. By confronting individual panel members with the other panel members' answers and asking the questions over again demanding that the panellists arrive at a unanimous answer the idea is that this should act as an experts' forecast for the system in question. Since then this Delphi-methodology has been an oft-used (and sometimes criticized[92]) method in futures-related studies across the world.

Our version of the Delphi-methodology. In this study we are not attempting to pursue a 'true' Delphi-study. Inspired by the methods we have conducted a two-step-questionnaire with a panel of widely defined experts. Our questions are not really designed to give the panels' view on a possible future state *per se* rather they invite the panellists to give us their informed views on the situation as it is now and on how they think it could be improved.

Identifying the Delphi-panel. Immediately after being awarded the contract the research team began the process of identifying a limited number of suitable candidates for the Delphi-panel. The minimum requirement for being selected to the panel was that the candidates should have demonstrated a thorough knowledge of European policies and experience from more than one policy field. Furthermore, candidates were supposed to represent no vested interests and should also, as a group, cover a range of European countries and policy fields. In total, 75 panellists were identified and invited to participate in the Delphi-study. The 75 panellists received an invitation to fill out an electronic web-based questionnaire of six questions. 61 of them answered the first round of the questionnaire. In the second round 47 of these 61 returned the questionnaire. The answers were anonymous.

Questions for the Delphi-panel. To break down the comprehensive topic of the study into feasible questions, some initial desk top research was carried out. Based on this, internal discussions with a wider set of colleagues from SWECO EUROFUTURES and a detailed discussion with the client, ITPS, the final questionnaire was developed. It carries questions on various policy fields, the possible contribution to economic growth, the relationship

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[91] *Böhme, K. & Hallin, G., How to spend it? The territorial road to a modern EU budget, Sweco Eurofutures, November 2007 (unpublished report to the ITPS).*

[92] *The main criticism has involved the strife for consensus integral to the methodology, allegedly leading to that interesting and possibly informative contradictory views are eradicated.*

between fiscal and non-fiscal instruments in relation to this, the potential for leverage effects, the *European Added Value* of policy fields and the room for improvement in the budget. The full questionnaire can be found in the annex.

International responses. Although each respondent was granted anonymity we are nevertheless able to provide some basic facts on the make up of the panel. Taken together the 61 replies from the first round came from 17 different European countries; Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, the Netherlands, Poland, Portugal, Spain, Sweden and the United Kingdom. Furthermore most of the respondents have lived in several European countries and/or work in a country other than their own country of origin. Sweden, Germany, Austria, Belgium, Italy and the Netherlands show a slightly higher representation than the other countries. However, it has to be taken into account that the answers by no means represent any official views from these countries. The main purpose of bringing in panellists from different countries was to avoid ending up with views solely originating from a mono-national discussion.

Multidisciplinary responses. Furthermore, all experts selected have a good overview on European policies and practical experience within several policy fields. The main fields covered are agriculture, economy, environment, political science, regional development, research & innovation and transport.

Administrative, academic and consultancy responses. Approximately two thirds of the respondents come from the field of consultancy and research. The remaining third are, in one way or another, involved in public sector administrative organisations - half of them at the national level – in various countries – a fair share at the European level and a few at the regional level.

Four policy fields stand out as having a high growth potential. The first question to our panel of experts concerned the possible contribution to overall economic growth of various EU policy fields. The panel came to the conclusion that *research and innovation* as well as *regional policies* stand out as prime contributors to economic growth. Furthermore *competition policies* and *economic and monetary policies* are highly ranked. This conclusion was evident already in the first round of the Delphi-study but became even more pronounced in the second round where results clearly clustered around these four areas. The results of the Delphi-study show very clearly a ranking of the 20 selected EU policy areas. The numbers indicate the percentage of respondents ranking the individual policy field as one of top 5 contributors.

Contribution to growth in general

	1st round	*2nd round*
Research and innovation	65	83
Regional policy	65	70
Competition	45	68
Economic and monetary affairs	43	64
Education, training, youth	35	40
Internal market	38	34
Transport	27	30
Enlargement	35	21
Enterprise	25	21
Employment and social affairs	20	17
Information society	20	15
Energy	21	11
External trade	33	9
Environment	7	6
Agriculture	7	4
External relations	10	4
Institutional affairs	3	2
Fisheries and maritime affairs	0	0
Development aid	0	0
Culture	0	0

(Source: SWECO EUROFUTURES 2007)

Four policy fields are believed to produce a clear European 'Added Value'. Our panelists were also asked to give there opinion as to which of the listed policy areas they thought produced the highest levels of European 'Added Value'. The results suggest that research and innovation policies as well as environmental policies are thought to have high *European Added Value*. These are followed by transport policies and regional policies. Energy policies are also viewed as having a high *European Added Value*. The results of the Delphi-study in this respect were even more pronounced in the second round than they were the first. The numbers indicate the percentage of respondents ranking the individual policy field regarding their Added Value as one of top 5.

Added value of selected European policies

	1st round	*2nd round*
Research and innovation	82	89
Environment	72	83
Transport	62	81
Regional policy	62	72
Energy	53	57
Education, training, youth	31	34
Information society	23	21
Enterprise	20	15
Agriculture	16	13
Employment and social affairs	16	11
Development aid	15	11
Fisheries and maritime affairs	23	6
Culture	7	4

Source: SWECO EUROFUTURES, 2007

Current contribution to growth and room for improvement

	Today's overall contribution	Contribution via financial measures	Contribution via non-financial measures	Room for improvement
Research and innovation	⬤	⬤	⬤	⬤
Agriculture	•	•	•	●
Regional policy	⬤	⬤	●	●
Energy and transport	●	●	●	●
Education and training	●	●	●	●

Source: SWECO EUROFUTURES, 2007

Calling for a reorientation of the EU budget. Another part of the Delphi-study tackled the panel's view on what budget reallocations they considered were needed in order to strengthen the focus on economic growth in the budget. The panel was asked to mark what changes they view as necessary to achieve such a growth focus.

6 budget lines to be strengthened. There seems to be a high level of consensus as to which fields of the budget that should be increased and which should be reduced in terms of resources allocated to them. The panel was united behind the need for reducing funding to agriculture and fisheries. The panel concluded that regional policy, enterprise, and development aid should remain at there present levels or slightly increase. There was large consensus over the need for increasing areas of

- research & innovation
- education, training & youth
- energy
- transport
- information society
- environment

Re-allocation of resources within the present size of the EU budget in order to achieve a higher contribution to economic growth

	Slash	decrease	Keep	increase	boost
Agriculture	22	**72**	4	0	2
Culture	2	9	**49**	38	2
Development aid	2	13	**49**	29	7
Education, training, youth	0	2	15	**72**	11
Employment and social affairs	4	9	**48**	37	2
Energy	0	0	20	**76**	4
Enterprise	2	11	**51**	33	2
Environment	0	0	24	**53**	2
Fisheries and maritime affairs	7	**59**	30	5	0
Information society	0	9	30	**59**	2
Regional policy	2	13	**50**	28	7
Research and innovation	0	0	2	**71**	27
Transport	0	4	31	**53**	11

Source: SWECO EUROFUTURES 2007