



PRO INNO EUROPE

# INNO LEARNING PLATFORM

## **Complementarities between Regional, National and EU Support Instruments**

*June 2008*

## **The present report was prepared by**

Slavo Radosevic (University College London School of Slavonic and East European Studies)

Michael White (Enterprise Ireland)

Aleardo Furlani (INNOVA Europe)

## **Disclaimer:**

The views expressed in this report are those of the authors and do not necessarily reflect the opinion or position of the European Commission and in no way commit the institution.

## Table of Contents

Executive Summary .....	1
1 Introduction: rationale for the study .....	4
2 Policy rationale and the issue of complementarities.....	6
2.1 Traditional rationales for deciding whether shared responsibility of policy is beneficial .....	6
2.1.1 <i>Economies of scale</i> .....	7
2.1.2 <i>Heterogeneity</i> .....	7
2.1.3 <i>Cross-border spillovers (positive and negative)</i> .....	8
2.1.4 <i>Frequency of use of instrument</i> .....	8
2.2 Strategic rationale for deciding on complementarities potential of innovation policy instruments.....	9
2.3 Guidelines for assessing potential for vertical complementarities and synergies of specific IP instruments .....	10
3 Pilot Assessment of potential for trans-European cooperation of Innovation Support Programmes and Priority Areas .....	12
3.1 Criteria for selection of policy instruments.....	12
3.2 Selected priority policy areas for transnational cooperation at EU level.....	13
3.2.1 <i>Programmes in support of regional clusters</i> .....	13
3.2.2 <i>Innovation in services and opportunities for European integration and coordination of innovation policies</i> .....	15
3.2.3 <i>Public procurement and opportunities for European integration and coordination of innovation policies</i> .....	17
3.2.4 <i>IPR and opportunities for European integration and coordination of innovation policies</i> .....	20
3.3 Conclusions from the pilot assessments of 10 IP instruments .....	24
4 Mechanisms for supporting vertical trans-European cooperation: discussion.....	27
4.1 Policy mix and the issue of vertical cooperation in innovation policy.....	27
4.2 Role of Open Method of Coordination and innovation policy networks in enhancing vertical complementarities in innovation policy .....	29
4.2.1 <i>The OMC in support of horizontal European transnational cooperation</i> .....	29
4.2.2 <i>Europe-wide initiatives in the field of IPR: the IPR-Helpdesk, the NPO Network and the IP-Base Project</i> .....	32
4.3 The OMC and INNO-Nets in support of vertical European transnational cooperation .....	34
5 Policy Recommendations.....	35
Annex 1: Pilot assessments .....	37

## Executive Summary

The need to enhance complementarities in innovation policy across Community, national and regional levels stems from an increasing segmentation and integration of markets, value networks and technologies. These processes call for better coordination of innovation policy not only between countries but also across vertical linkages, i.e. between Community, countries and regions. Although at present the majority of innovation policy instruments operate at national level, the long-term task is to expand policy measures to all three levels in a coordinated manner. This is an emerging concern which is essential for realisation of a European Innovation Area (EIA).

The study explores the potential for vertical cooperation and outlines methods of vertical coordination in innovation policy. In other words, it tries to answer on questions of both *where* and *how* of vertical cooperation: *Which* are policy areas with the greatest potential for vertical cooperation? *How* could vertical cooperation be supported?

*The which* question has been answered by developing a methodology that enables assessment of potential of individual policy areas for vertical cooperation. The *how* question has been answered by reviewing the existing methods of vertical cooperation, and suggesting new methods.

Our methodology provides an analytical framework for better understanding whether a specific innovation policy instrument should be used at all three levels (i.e. EU, national and regional), thereby sharing responsibilities and requiring coordination, or on the contrary, whether the instrument should be just applied at one level (in this case the need for policy coordination does not arise). If the policy instrument is to be applied at all three levels, the methodology provides a framework for a structured understanding of what the potential of that instrument is for enhancing synergies across the European innovation area.

The first step is based on somewhat modified traditional criteria of subsidiarity: economies of scale, heterogeneity, cross-border spillovers, and frequency of use of the instrument. This check of eligibility establishes the case for *shared or coordinated responsibilities* in innovation policy. The second step establishes the potential for complementarities (*network alignment potential*), which depends largely on whether stakeholders have complementary objectives. The questions which need to be answered in this step are: (1) *Who* are the stakeholders? (2) *How* do they interact? (3) *What* are their respective roles and interests?

The approach proposed in the present study recognises that multilevel cooperation in the implementation of innovation policy instruments is based upon a particular constellation of interests and power structures. The added value of this approach lies in the fact that it goes beyond traditional static criteria based on market failures and spillovers which ignore this essential aspect, and recognises that technological interdependencies, strategic interactions and collaboration are essential to the realisation of the European innovation area and Lisbon agenda.

The study applies this methodology to 10 innovation policy instruments. For each instrument we will conduct eligibility and alignment potential analysis, and briefly discuss how synergies and complementarities between Community, national and regional levels could be improved in application of that instrument. For four selected areas (regional clusters, service innovation, public procurement and support to intellectual property rights (IPR)), we will explore the potential for promotion of vertical complementarities.

The analysis of 10 innovation policy instruments from the perspective of their potential to promote EU-wide vertical cooperation has demonstrated the following:

- that there is no general case for the EU-wide transnational (vertical) cooperation potential;
- within policy areas where potential for vertical complementarities may seem quite limited, there are selective EU-wide areas with great potential for alignment or promotion of EIA;
- assessment of potential for vertical policy cooperation should not take interests and motivations of existing stakeholders as given. In fact, very often potential for vertical cooperation is hindered because a key stakeholder is undeveloped.

A detailed analysis of potential for trans-European cooperation of four policy areas (clusters, services, public procurement and IPR) has confirmed that the potential for EU-wide cooperation is present in specific policy areas:

- there is significant potential at EU level for supporting cross-border cluster initiatives;
- there is a strong case of EU-wide cooperation in knowledge-intensive services (KIS);
- there is a strong need for specific actions to support European integration in areas of public procurement (PP) which should be implemented through transnational and transregional cooperation between governments and industry;
- in the area of IPR, innovation policy cooperation should:
  - develop new EU legal instruments ensuring a stronger homogeneity and effectiveness of the European patent system;
  - enhance the role of the IPR-Helpdesk supporting the provision of an equivalent level of intellectual property protection throughout the whole European Community;
  - enhance legislative cooperation and enhance operational cooperation to strengthen the internal market and the overall competitiveness of European industry.

For each of these areas, the study has generated policy implications.

The study reviews the major mechanisms for supporting European vertical cooperation. The current innovation policy mix is dominated by national-level policy instruments. The policy mix does not involve the EU level jointly with the national and regional levels in its design or in its implementation. The issue is whether current mechanisms at EU level (Open Method of Coordination or OMC, ERA-NET/the 'ERA-NET Plus' and PRO INNO/INNO-Nets) are effective at promoting the EIA. The ultimate goal for mechanisms like INNO-Nets is to go beyond mere *policy learning*, advancing a step further and concentrating on *joint policy design and implementation* (i.e. the setting up of joint innovation programmes). In view of this study, OMC/INNO-Nets could be also used as an instrument for promoting dialogue between stakeholders at different policy levels (national, regional and EU). INNO-Nets should have a much higher share of joint pilot projects which include different organisations at different levels. However, vertically focused OMC should be confined to very specific policy areas and instruments where it is possible to identify complementarities of interests between different stakeholders. The exact profile of stakeholders should be *specific to each very specific policy area*. Both of these requirements could be satisfied after an in-depth assessment of the potential for vertical complementarities as outlined in this study.

In summary, the study recommends the following: (1) the application of the proposed methodology as a framework for assessing the potential for trans-European synergies in specific policy areas; (2) to continue with the existing mechanisms of horizontal cooperation which should be supplemented by mechanisms of supporting multilevel cooperation in innovation policy; (3) we propose application of OMC/INNO-Nets in issues of national, supranational, and/or regional cooperation as a mechanism of enhancing innovation

cooperation at EU level in specific new areas; (4) the study provides policy conclusions from four detailed assessments of IP instruments: clusters, services, public procurement and IPR.

# 1 Introduction: rationale for the study

How could synergies and complementarities between Community, national and regional innovation support instruments be improved? Which areas are most suited to trans-European cooperation and which mechanisms are available to foster such cooperation? This analysis should identify the scope for future cooperation between different innovation support programmes and provide new ideas on how to better link the different levels.

The task of this study group was to explore how synergies and complementarities between Community, national and regional innovation support instruments could be improved. Little research has been performed on the issues of European coordination of innovation policy so far. We are not aware of any study that explores specifically the issue of vertical integration or the issue of complementarities between regional, national and EU levels<sup>1</sup>.

The overall objective of this exercise is to highlight those areas of innovation policy (IP) where improved coordination between different policy levels would be advantageous to the promotion of the EIA from those policy areas where a clear division of responsibilities, rather than shared responsibilities, is more advantageous. As we are still far from real coordinative efforts at both horizontal and vertical levels, it is obvious that discursive and conceptual clarification of these issues is a first step in this direction.

The project task assumes that individual innovation policy instruments already operate at all three levels: regional, national and EU. However, by far the largest portfolio of innovation policy (IP) instruments exists at national level, and a much smaller number at EU and regional level (see Section 4). The long-term task is to expand policy measures to all three levels through coordination.

The study explores potential for vertical cooperation and outlines methods of vertical coordination in innovation policy. In other words, it tries to answer on questions of both *where* and *how* of vertical cooperation: Which are policy areas with the great potential for vertical cooperation? How could vertical cooperation be supported?

The *which* question has been answered by developing a methodology that enables assessment of potential of individual policy areas for vertical cooperation. The *how* question has been answered by reviewing the existing methods of vertical cooperation and suggesting new ones.

We developed a methodology which enables an assessment of which measures meet the following criteria: (1) shared responsibility i.e. criteria by which it is beneficial for an IP instrument to be used at several policy levels, as well as (2) criteria of beneficial alignment between different policy levels. The first criteria are necessary as it is pointless to discuss complementarities issues if there are no real advantages in applying instruments at all three or two levels. In a way, this could be considered as a static or eligibility criterion which would establish whether a policy instrument meets the criteria of shared responsibility or whether it is beneficial to implement it on several levels. The second criteria evaluate the degree of beneficial alignment between different levels, i.e. the degree to which cooperation will promote synergies and contribute to the EIA. The overall purpose of this is to demonstrate what the costs and benefits of synergies or complementarities are in vertical coordination of IP instruments.

---

<sup>1</sup> A recent thematic issue of *Science and Public Policy* (May 2008, Vol. 35, No 4) on political coordination of knowledge and innovation policies, analyses (among others) the issue of vertical coordination in federal countries.

These two groups of criteria form the basic framework which is then applied in Section 3. In this section, we pilot the use of the evaluation framework to 10 IP instruments. For each instrument, we will perform the following: (1) conduct eligibility and alignment potential analysis, and (2) briefly discuss how synergies and complementarities between Community, national and regional levels could be improved in the application of that instrument. Templates with assessments of each instrument are enclosed in the Annex.

We will explain the criteria for the selection of IP instruments and provide summary conclusions based on these assessments. We will then select four instruments and discuss at greater length their potential for trans-European cooperation. Section 4 analyses mechanisms for supporting vertical trans-European cooperation in innovation policy. First, we will draw on the 2008 *INNO Learning Platform (ILP) Input Report* and extract from this study evidence which illustrates the extent to which regional levels are coupled with the national policy level. Second, we will discuss the role of OMC and innovation policy networks in enhancing vertical complementarities in innovation policy. Third, we will propose the introduction of OMC and innovation policy networks as a mechanism for enhancing vertical cooperation in innovation. Here, we will also outline 'learning networks' as a new mechanism for enhancing cooperation in innovation across EU in new areas. Section 5 derives policy recommendations.

This study touches on issues of subsidiarity in innovation policy which is the subject of the mini-study *The principle of subsidiarity and innovation policy*. However, unlike this study, our objective is not to establish one optimal level of policy intervention but to develop a methodology and to discuss the issues of shared or coordinated responsibilities in innovation policy. This is significantly different and in some respect even contrasts with the objectives of the above-mentioned mini-study.

## 2 Policy rationale and the issue of complementarities

The need to enhance complementarities in innovation policy across Community, national and regional levels stems from an increasing segmentation and integration of markets, value networks and technologies. As segmentation and integration creates interdependencies, this in turn increases the need for both horizontal as well as vertical cooperation as a way to create synergies and overcome fragmentation. These processes call for better coordination of IP not only between countries but also across vertical linkages, i.e. between Community, countries and regions. This is an emerging policy concern which is essential for the realisation of the growth potential of the EIA.

The issue of complementarities entails two closely connected issues: firstly, the issue of whether an individual IP instrument should be used on all three or two levels, and secondly, assuming this is the case, the issue to be tackled is the potential of that instrument for enhancing synergies across the EIA. In Section 2.1 we first provide several traditional and new criteria for assessing whether joint application (i.e. shared responsibility) for IP instrument at EU, national and regional level is beneficial. Second, we provide a matrix which should be used for assessing the so-called alignment or potential for synergies of IP instruments across different policy levels.

### 2.1 Traditional rationales for deciding whether shared responsibility of policy is beneficial

With the emergence of the European research area (ERA) and EIA as policy objectives, the issue of the appropriate level for implementation of different IP instruments has emerged as a new policy concern. So far, a great majority of IP instruments have been implemented at national level. The dominant criterion in the issues of 'optimal level' for individual policy has been the criterion of subsidiarity<sup>2</sup>. Subsidiarity is the principle which states that matters ought to be handled by the smallest (or the lowest) competent authority<sup>3</sup>. According to this principle, the EU may act only if and 'in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community' (Article 5 of the Treaty).

The application of the subsidiarity principle implies that there is one 'optimal level' of policy (Horts, Lejour and Straathof, 2006)<sup>4</sup>. This is somewhat different from the idea of vertical coordination of individual policy instruments as well as concepts of the OMC and the ERA which challenge the absolute principle of subsidiarity<sup>5</sup>. These concepts require different rationales which often may contradict the absolute principle of subsidiarity if applied through its traditional criteria. For example, there may be conflicts between EU and national views regarding mobility policies for research scientists and engineers. From the EU perspective, mobility of personnel should be encouraged and is an essential part of the ERA, while from a national perspective, the establishment of research personnel should be seen as a priority.

A subsidiarity principle does not recognise the need for vertical policy cooperation. It assumes that there is one optimal policy level, although in practice there is an increasing scope and need for multilevel policy action. However, it does not follow from this that any

---

<sup>2</sup> The issue of subsidiarity or determining one optimal level of policy is the task of mini study *The principle of subsidiarity and innovation policy*. As pointed in the introduction and in Section 2, our objective is significantly different.

<sup>3</sup> See <http://en.wikipedia.org/wiki/Subsidiarity> online.

<sup>4</sup> Horts, A., Lejour A. and Straathof, B. (2006), *Innovation policy: Europe or the Member States?*, No 132, November, CPB Netherlands Bureau for Economic Policy Analysis.

<sup>5</sup> Pelkmans, Jacques (2006), 'Testing for Subsidiarity', *Bruges European Economic Policy Briefings*, BEEP briefing No 13, February 2006. Available at <http://www.coleurop.be/eco/publications.htm> online.

multilevel policy cooperation is beneficial. The case for multilevel policy action must be made and justified in a manner similar to that of subsidiarity-based policy action.

Traditional criteria are applied here with the objective of establishing whether there is a case for shared responsibilities between different policy levels (regional, national and EU), not whether there is a case for one optimal level of policy making. In that respect, we will apply traditional criteria, but the objective of their application is quite different. It is to establish the case for *shared* policy responsibility, not for one optimal level of policy. Adding the so-called 'alignment criteria' should ensure that policy interventions are those which maximise synergies across the EIA by examining the potential for complementarities between different stakeholders.

### 2.1.1 *Economies of scale*

Centralisation of an individual innovation policy instrument or area may be favoured on grounds of economies of scale. By this we mean that a centralised solution may be more effective based on *large fixed R&D or other innovation costs* which could be shared across number of countries. The best examples are the European Organization for Nuclear research (CERN) or the Galileo satellite, which are supported by many countries for reasons of scale<sup>6</sup>. In general, centralised funding of research and development (R&D) infrastructure is often justified based on this criterion. However, innovation policy instruments may not always be justified on this basis. Unlike typical 'big science', R&D infrastructure innovation projects are not so indivisible.

Alternative justifications for centralisation are *large administrative costs* and ensuing effectiveness and efficiencies which may arise through *centralised provision of IP* programmes. EU coordination and funding of R&D and other innovation projects may improve the diffusion of knowledge between countries or reduce risk of duplication of R&D projects. Harmonised and transparent regulations of venture capital could contribute to the promotion of new technology-based firms. Also, economies of scale in both better protection of IPR and in wide diffusion of knowledge strongly justify the Community Patent. On the other hand, scale is unlikely to affect the costs of administering innovation projects for small to medium-sized enterprises (SMEs) where even national level delivery of programmes may be ineffective.

It is obvious that the same criteria apply for decentralisation, i.e. in cases when criteria of 'critical mass' do not apply.

### 2.1.2 *Heterogeneity*

Criteria of economies of scale ('critical mass') may often favour centralised solutions. For example, heterogeneity in technical and other regulatory standards may reduce network effects and thus indirectly slow down the diffusion of new technologies. However, centralised solutions may often reduce ability to meet local needs and respect diverse national preferences. Centralised policy solutions may reduce adaptation to local circumstances, learning from a diversity of experiences, and reduce policy competition, which is one of objectives of OMC. Centralised funding of innovation projects may not be focused on solving local problems and may thus inhibit learning across different projects and lock in actors into an *ex post* suboptimal path of technological development. By defining policy agenda, overly centralised solutions may inhibit the search for national and regional policy priorities. In addition, similar objectives may be achieved by a variety of policy instruments which are better adapted to different political cultures and administrative traditions of different Member

---

<sup>6</sup> However, as the Pelkman scale highlights, an argument need not automatically imply centralisation. The CERN example illustrates that centralised facilities may be run on a cooperative basis.

States, not necessary by centralised provision. Alternatively, centralised provision can be achieved in a coordinated manner as already suggested by the CERN model.

### 2.1.3 *Cross-border spillovers (positive and negative)*

The EU-27 is an area of countries at different levels of innovation capability. Some countries are innovators on the technology frontier while others are catching-up economies for which knowledge diffusion is a key mechanism of growth<sup>7</sup>. This creates diverse market and knowledge interdependencies between countries which innovation policy should maximise. The traditional economist's viewpoint perceives such situations as problematic. The downside of this situation is that numerous interdependencies between Member States generate free flows of knowledge (spillovers) to which recipients have not contributed. As pointed out by Horst et al. (2006) these cross-border flows of knowledge weaken the relation between *national* gross domestic product (GDP) and *national* public R&D. Such situations generate disincentives to invest in knowledge generation, as producers know that they are not able to internalise all the benefits of their investments. In order to reduce disincentives to invest in knowledge, a solution is policy coordination at a higher level (national or Community). At higher levels, policy coordination can lead to a more efficient innovation policy as it can internalise these policy externalities. On the other hand, numerous interdependencies require continuous access to different networks. These are situations which generate positive spillovers and should be seen as advantageous to actors involved.

Cohesion policy is explicitly driven by criteria of appropriation of externalities by cohesion regions as mechanisms of catching up and capacity building. Large countries may internalise a larger proportion of the return to public R&D. This explains why they spend relatively more than smaller countries, but it also justifies policy coordination at EU level<sup>8</sup>. For example, national policies of Member States have unintended consequences on other Members, which can benefit from R&D subsidies.

Regional innovation activities have substantial interregional spillover effects which justify innovation policy at national level. Similarly, EU Framework Programmes enable the internalisation of externalities at an EU level. Also, an EU patent would enhance spillovers through diffusion of knowledge about patents and would reduce negative spillovers of poorly transparent national IPR systems.

### 2.1.4 *Frequency of use of instrument*

An important additional criterion for shared responsibility is the number of countries or regions using a specific policy instrument. The bigger the number of countries (regions) using a specific instrument, the greater the relevance of the other criteria. The bigger the number of countries that apply a specific instrument, the more important the issue of economies of scale becomes. On the other hand, the more countries (regions) are involved, the more important it becomes to consider the relevance of the issues of heterogeneity and also of cross-border spillovers of knowledge.

---

<sup>7</sup> For example, see the latest (2008) EU Innovation Scoreboard.

<sup>8</sup> Horts, A., Lejour A., and Straathof, B. (2006), *Innovation policy: Europe or the Member States?*, No 132, November, CPB Netherlands Bureau for Economic Policy Analysis.

## 2.2 Strategic rationale for deciding on complementarities potential of innovation policy instruments

Traditional rationales for deciding whether shared responsibility in IP is beneficial are *static* as they ignore real interests and processes that lay behind them. Interdependencies between different policy levels generate vertical complementarities or incompatibilities which have different potential for dynamic interaction. Whether complementarities are possible depends largely on whether stakeholders have complementary objectives. The aim of this rationale is to check whether credible cooperation is feasible. The potential for cooperation is relatively more important than criteria of what the optimal policy level is. As potential for alignment between different stakeholders is largely dependent on their objectives, this rationale and criteria are considered strategic.

Credible cooperation may not be feasible due to system coordination failures, i.e. inability of stakeholders to coordinate their actions in order to achieve agreed objectives. The key question thus becomes how to establish and maintain complementarities between actors at Community, national and regional levels. The issues are not incentives to appropriate or internalise technological R&D activities at different levels as in traditional criteria, but to assess potential for knowledge diffusion and connectivity across different policy levels<sup>9</sup>. The increase of positive externalities through technological spillovers and the internalisation of negative external effects could be achieved through the coordination of innovation policies, which requires coordination among stakeholders at Community, national and regional levels. Vertical complementarities should ensure better system coordination: they are more conducive to open innovation and could facilitate dynamic interaction between regional, national and Community policy levels. These are objectives which contribute to the promotion of the EIA and the Lisbon Agenda. Hence, the key dynamic criterion is the *strategic potential of specific IP instruments to promote the EIA and the Lisbon Agenda*. This criterion aims to assess dynamic complementarities or alignment between different stakeholders by using the following criteria:

- Who are the stakeholders in the application of an innovation policy instrument?
- How do they interact?
- What are their respective roles and interests?

This approach basically tries to explore whether there are complementarities between different stakeholders<sup>10</sup>. It recognises that multilevel cooperation in implementation of IP instruments is at any given time based upon a particular constellation of interests and power structures. Static criteria based on market failures and spillovers disregard this essential aspect which recognises that technological interdependencies, strategic interactions and collaboration are essential to the realisation of the EIA and the Lisbon Agenda. Traditional criteria do not take into account the fact that the interaction between different policy levels is essential to the maximisation of innovation capability of the EIA. The premise is that internalising the benefits of innovation cooperation at Community level is sufficient; the issues of strategic interaction and collaboration as drivers of technology integration are not considered.

---

<sup>9</sup> Larsen, Maria Theresa and von Tunzelmann, Nick (2006), *Non-market failure: the role of public science in the development of generic technology*. Paper presented at the DRUID summer conference 2006 on 'Knowledge, Innovation and Competitiveness: Dynamics of firms, networks, regions and institutions', Copenhagen, Denmark, June 18-20 2006.

<sup>10</sup> In that respect, this approach is inspired by the approach of Andersen and Konzelmann in their analysis of IPR policy. See Andersen B. and Konzelmann, S. (2008), 'In search of useful theory of the productive potential of IPR', *Research Policy* 37, 12-28. It also follows the approach co-developed by one of authors in the analysis of East-West industrial networks. See McGowan, F., Radosevic, S. and Tunzelmann, N. (Eds) (2006), *The Emerging Industrial Structure of the Wider Europe*, Palgrave, London.

As with Andersen and Konzelman (2008), central to this criterion is the assumption that the nature of stakeholder behaviour and interaction is essential to the organisation and performance of the EIA. Therefore, it is necessary to identify for each IP instrument *who* the stakeholders are in the evolution of specific innovation activity, *how* they interact, and *what* their respective roles and interests might be. This stakeholder impact assessment approach is to be conducted from the perspective of alignment of stakeholders' interests or its system effectiveness. Different policy stakeholders may come together for the purpose of jointly creating potential for innovation while at the same time achieving their specific objectives. The potential for achieving these objectives is usually based upon a particular constellation of interests and power which may secure their realisation.

Assessment should address the question of whether the overall cooperation (alignment) potential of IP instruments is such that the potential dynamic benefits of its multilevel application would exceed the overall costs of the multi-level policy support. However, this assessment should not be only *technical or functional* but should also be *sociopolitical*. By this we mean that it should involve the factors of the political receptiveness of the IP instrument, the varying views of different stakeholders, as well as the institutional preconditions for cooperation in particular instruments at different policy levels. The EIA potential of an individual IP instrument will be assessed by assessing the potential (technical and sociopolitical) for productive collaboration between stakeholders seeking different specific objectives from the implementation of the policy instrument.

### 2.3 Guidelines for assessing potential for vertical complementarities and synergies of specific IP instruments

In this section, we will provide a methodology to be used as a check list in assessing the potential of specific IP instruments to promote the EIA through vertical complementarities and synergies (Tables 1 and 2).

**Table 1: Summary of criteria for shared responsibility in innovation policy between Community, national and regional levels**

Specific objective of the measure	Economy of scale		Heterogeneity: differences in preferences of Member States or regions	Cross-border knowledge spillovers		Frequency of use of instrument
	Technical scale economies	Fixed costs of public administration		Positive spillovers	Negative spillovers	

Step 1: Choose a specific IP instrument for the exploration of its potential to promote vertical synergies and complementarities of the EIA.

Step 2: Apply the criteria for assessing shared responsibility in innovation policy between Community, national and regional policy levels. Please answer the following questions.

1. What is the specific objective of the policy measure? Which problematic areas are targeted by this measure? Are these problematic areas typical of the majority or minority of Member States or regions? Could this weakness be considered an overall EU weakness?
2. Does the measure require large investments which cannot be justified or sustained at national or regional levels? Are these investments of a technical and/or organisational (administrative) nature? What would the optimal implementation level for this measure be?

3. Are the objectives of countries/regions in realising the objectives of the measure quite diverse or relatively homogenous? Please explain.
4. Would the application of the measure increase inter-country or -regional knowledge spillovers, or reduce incentives of countries/regions to fund it due to 'leakage' of knowledge? Would the application of the measure ensure the majority of knowledge benefits within region, country or EU?
5. Is the measure currently in use in the majority or minority of Member States (regions)?

Step 3: Summarise answers on Questions 1 through 5, and in the light of the answers assess whether the measure is most suitable to be implemented at regional, national or Community level or as a shared responsibility of these levels. Please explain.

Step 4: Identify the part of the innovation process or function which is the focus of the innovation policy instrument.

Step 5: Identify major stakeholders in the implementation of the IP instrument at different policy levels (see Table 2).

Step 6: Identify objectives of individual stakeholders in the area of innovation activity specified in Column 3

Step 7: Identify the role of IP instrument in achieving stakeholders' objectives identified in Column 4.

Step 8: Summarise (in the bottom row) complementarities in objectives between stakeholders (Column 3) and the importance of the IP instrument in achieving these objectives (Column 4). Assess (mis)matching or cooperation potential between stakeholders in implementing this measure.

**Table 2: Methodology for assessing strategic potential for alignment between stakeholders at different policy levels**

Innovation process (function) in the focus of IP instrument	Dominant stakeholders	Stakeholder objectives	Role of IP instrument in achieving stakeholders' objective
1	2	3	4
	National governments (agencies)		
	Regions		
	EU		
	Enterprises		
	Public research organisations		
	Other		
Overall assessment of alignment potential of measure			

Step 9: Add and summarise answers under Steps 3 and 8 and explain potential of instrument in promoting the EIA and the Lisbon Agenda.

### 3 Pilot Assessment of potential for trans-European cooperation of Innovation Support Programmes and Priority Areas

#### 3.1 Criteria for selection of policy instruments

The study applies the proposed methodology to 10 innovation policy instruments. They are generic IP instruments in operation in EU-27 Member States, selected based on the TrendChart database: (1) programmes in support of regional clusters, (2) R&D cooperation, (3) direct support of business R&D, (4) recruitment of skilled personnel in enterprises, (5) support of sectoral innovation in manufacturing, (6) support of innovative start-ups including gazelles, (7) support of risk capital, (8) support of innovation in services, (9) support of public procurement programmes, and (10) support of IPR.

The primary criteria for the selection of these instruments are:

1. their generic character, i.e. applicability in a large number of areas and contexts;
2. existence of measure within PRO INNO TrendChart policy measures database;
3. balanced representation of measures within the PRO-INNO TrendChart policy framework.

The table below highlights major innovation policy areas as defined as by PRO INNO TrendChart policy framework for IP. Bold categories indicate those policy areas within specific measures which have been chosen for our analysis (see Criteria 3).

**Table 3: Areas of PRO INNO Trendchart innovation policy framework**

1.3 Horizontal programmes/measures
2.1 Research organisations
2.2 Science-Industry linkages
2.3 State aid measures in support of business R&D
3.2 Research personnel
3.3 Skills development and recruitment
4.1 Support of sectoral innovation programmes
4.2 Support of entrepreneurial innovation
4.3 Support of start-ups and access to finance
5.1 Measures in support of innovation culture
5.2 Support of the creation of new markets
5.3 Intellectual property protection and standards

In addition, we have also used the criterion of novelty, i.e. we have chosen innovation in services and public procurement as policy areas which are very infrequent (based on PRO INNO Trendchart database) but which have strong potential for vertical trans-European cooperation.

For each of the 10 instruments, we conducted eligibility and alignment potential analysis, and briefly discuss how synergies and complementarities between Community, national and regional levels could be improved in application of that instrument. The presentation of assessment issues is elaborated through evaluation tables given in the Annex and thus is

quite brief. In view of the pilot nature and limited scope for the mini-study, this is inevitable. We envisage that the full application of the methodology would require it to be applied to a specific innovation policy instrument or action. In turn, this would require some analytical work including interviewing stakeholders.

Section 2.1 points out that instruments which promote the EIA and the Lisbon Agenda are those which have the greatest potential for synergies across EU, national and regional levels. Hence, policy instruments with the biggest vertical complementarities are those which are best suited to this objective. Following this, we discuss vertical trans-European cooperation potential at greater length for four selected IP areas (Section 3.2). Section 3.3. derives conclusions from the pilot assessments of the 10 IP instruments.

### **3.2 Selected priority policy areas for transnational cooperation at EU level**

In this section, key issues involved in European transnational cooperation of selected priority policy areas are elaborated at greater length. In consultation with the study sponsor we have chosen four policy areas: programmes in support of regional clusters, support of innovation in services, support of public procurement and support of IPR.

#### *3.2.1 Programmes in support of regional clusters*

Programmes in support of regional clusters encompass a variety of different networking activities. The Trendchart database identifies a variety of programmes which fall within umbrella of clusters: facilitation of clusters and cooperation networks, competitiveness poles, networks of competence, technology districts, and regional cluster programmes. The common objective of these programmes is to enhance innovation cooperation and they are very frequently used instruments of innovation policy in the EU-27. So, although support programmes for clustering are quite numerous in the EU, these initiatives are not well structured (see EC, 2002)<sup>11</sup>. The majority of countries have not yet developed a strategic approach to cluster-form organisations.

Given the high heterogeneity of regional preferences, these programmes are diverse. Limited technical scale economies and relatively low fixed costs of their administration suggest that there are no particular benefits in moving management of these programmes to higher levels. Also, in view of diverse regional preferences, it seems that knowledge spillovers to neighbouring regions are not necessarily high but also are not negative, i.e. regions are not in direct competition. As these programmes are frequently used, this may justify the exchange of learning experiences at national and even more at EU level. Overall, from a traditional perspective, the potential for shared responsibilities is limited to the exchange of learning experiences at EU level.

The core objectives of regional clusters programmes are the exchange of business and technical information and know-how, joint development, mutual commercial relationships, joint strategic planning and common training. However, the objectives of stakeholders are not identical: this raises the issue of vertical complementarities or potential for mutual cooperation. For example, very often local actors are not involved in the definition and implementation of cluster policies, which weakens their effectiveness. National agencies for regional development are broadly interested in the success of programmes, while regional development agencies (RDAs) are also interested in their effective implementation. As noted by the EC (2002)<sup>12</sup>, 'the national authorities focus on designing and coordinating policies, while regional or local authorities take on the implementation phase. These latter do indeed have better knowledge of the local and social environment' (p. 11). EU DG Regional Policy is

---

<sup>11</sup> EC (2002), *Final Report of the Expert group on Enterprise Clusters and Networks*, EC DG Enterprise.

<sup>12</sup> Ibid.

also an important actor interested in regional clustering, especially provided that clusters cooperate with other regions. SMEs are nominally the key actor of regional clusters as final beneficiaries of public support programmes and thus should be extremely interested in taking part in supporting activities provided that funding is substantial and knowledge support is firm tailored. Public Research and Technology Organisations (RTOs) and training/consulting organisations are also highly interested, provided there is substantial private and public (programme) demand for their services. In summary, each of the stakeholders has interests in the success of clustering programmes but these interests may differ in intensity and may not necessarily coincide with their specific objectives. This naturally weakens alignment potential and thus reduces effectiveness of programmes that involve actors at different levels. In addition, potential for shared collaboration is weakened due to the absence of intermediary organisations for collaborative actions of regions. These organisations, despite being interested in transregional cooperation in innovation, are still undeveloped<sup>13</sup>. Yet their objectives are naturally strongly aligned with those of firms and other stakeholders. In essence, they have the biggest potential to play a catalytic role in inter-cluster cooperation and in all issues related to vertical cooperation.

The complexity of the conditions needed for effective clustering requires that policy towards clusters should be primarily focused on support of the existing and emerging clusters rather than trying to create them *de novo*. A policy which would provide large-scale support to the development of entirely new groups of firms could be costly and have very unremarkable effects. In essence, cluster policies that are too specific are difficult to implement (EC, 2002, p. 65) as clustering is basically a market-driven process. Also, when actors or firms are weak (this is especially case in new Member States), clustering will in advance have limited effects. In such situations, it would be more appropriate to support individual organisations, including companies, as opposed to clusters.

In summary, vertical-alignment potential or complementarity of objectives between stakeholders at different levels is moderate. Potential horizontal alignment is quite strong at regional level, provided that the demand and supply expectations of stakeholders are matched. Limited economies of scale, and spillovers combined with heterogeneous preferences limit the potential for shared responsibilities in the exchange of learning experiences at EU level. Potential for vertical alignment of stakeholders' objectives is limited unless reinforced by support of intermediary organisations for collaboration among regions.

Support of regional clustering from EU level should be focused on transnational and transregional cooperation between emerging and established clusters as outlined in *The European Cluster memorandum: Promoting European Innovation through Clusters Prepared by the High-Level Advisory Group* (chaired by senator Pierre Laffitte), and strengthen support to intermediary organisations for collaborative actions of regions ('support the weakest link'). There is significant potential at EU level for supporting cross-border and inter-country cluster initiatives. In these types of initiatives, inter-dependencies and potential benefits would justify EU assistance.

On the other hand, the EU has been promoting clusters by developing a common methodology that aims at identifying local clusters and by providing a platform for exchange of information and good practice between clusters. Programmes like the European Innovation Platform for clusters aim to support active cooperation between clusters focused on organisations from different Member States and regions. There may be a need to examine the effectiveness of these incentives by focusing assistance more towards organisations for regional collaborations ('umbrellas'), whose task would be to strengthen inter-firm relationships. These organisations could be co-funded based on how many SMEs are actively taking part in inter-regional 'learning networks'. These potential 'clusterpreneurs' should be supported and the EU should fund programmes for developing their capabilities. In

---

<sup>13</sup> Some of these organisations are listed as members of the European Cluster Alliance.

addition, as pointed out by the European Cluster memorandum *Promoting European innovation through clusters* (2007)<sup>14</sup>, the EC should 'strengthen its support for results-oriented transnational cooperation between clusters, taking into account proximity involving neighbouring countries, and mutual interests as motivating factors of the participants' (p. 6).

It is essential to find a balance between support of intermediary organisations for support and linkages between clusters and programmes which on a pilot basis support exploitation of joint R&D between SMEs or specific clusters. It is important to avoid situations whereby organisations supporting regions are as viable as their EU funding. Hence, sustainability and support from the EU, the national and the regional level is essential in addition to user orientation and market focus.

Last but not least, we should bear in mind that framework conditions and market-driven specialisation within the EU is actually a much stronger motor for cluster formation. Hence, inter-regional clustering would also have to receive impetus through venture capital funds, mutual guarantee schemes and subcontracting arrangements which are all activities that can be effectively supported at EU level as well as by enhancing labour mobility across borders.

### 3.2.2 *Innovation in services and opportunities for European integration and coordination of innovation policies*

Innovation in services is a main enabler for the creation of a knowledge-based economy and is therefore also a priority for Community action in support of the Lisbon Agenda. Policy for service innovation is for the time being very rudimentary in the EU-27. The PRO INNO Trendchart database of IP measures contains only four measures which fall broadly in the area of support for innovation in services. Hence, assessment of vertical cooperation in this area is oriented towards future potential for cooperation and towards outlining the emerging role of the EC in this process.

Various studies (OECD, 2006<sup>15</sup>) and CEC, 2007<sup>16</sup>) have indicated that innovation in the service sector cannot be treated as a homogenous area for policy. The heterogeneity of the service sector calls for a cautious approach when drawing general conclusions about the innovativeness of the services sector. From an innovation point of view, *knowledge-intensive services* are the areas which probably deserve the biggest attention. Other services are far less innovative or tend to innovate in a more continuous and incremental way, not based on technology.

In view of this, it seems inappropriate to develop a separate policy for service innovation. At the same time, it is important that the EU develops a *specific* support to service innovation. So, in essence the task is to enhance and shape an emerging division of labour in this policy area between regional, national and EU level policies. This task may be somewhat easier than others as most national and regional actors in Europe have not yet designed policies, activities and programmes specifically supporting innovation in services and EU activities in this field have only started. So, in considering the potential for vertical complementarities in this area, all these factors should be taken into account.

The overall objective of policies in this area is to improve the take-up of innovation in services in Europe. Scarce technical- and administrative-scale economies and relatively high differences in preferences of Member States and regions are limiting the benefits of vertical cooperation in this area. However, in view of novelty of this policy area, positive spillovers of cooperation would be high in terms of raising awareness and establishing best practice. At

---

<sup>14</sup> Prepared by Centre for Strategy and Competitiveness, CSC, European Cluster Observatory.

<sup>15</sup> OECD (2006), *Innovation and Knowledge-Intensive Service Activities*, OECD.

<sup>16</sup> CEC (2007), *Towards a European strategy in support of innovation in services: Challenges and key issues for future actions*, Commission Staff Working Document, Brussels, SEC (2007) 1059.

the same time, in view of diversity of innovation in services, it is likely that negative spillovers in terms of potential underinvestment in other regions or countries would be minimal. Also, potential for vertical cooperation is limited in view of the currently still sporadic use of this instrument. As already pointed out, in the EU-27, only four programmes target service innovation explicitly. So, in summary, limited-scale economies, high heterogeneity of preferences and almost non-existent explicit policy instruments do not support EU-wide actions in this area. However, in view of the great importance of innovation in services for building EU as knowledge-based economy, there is justification for policy actions in *specific* areas which would increase awareness and diffuse the best policy practice in this area. The area in which potential positive interdependencies are highest is knowledge-intensive services. An even greater heterogeneity of other (traditional) areas of services coupled with the fragmented nature of innovation and limited positive spillovers restricts support at EU level.

As suggested by our methodological framework, EU-wide cooperation hinges on similarities and complementarities between stakeholders' objectives. In the case of innovation in services — which is an undeveloped policy area — policy actions are most likely to be focused on promotion of best practices and dissemination of toolboxes and standards. These should be restricted exclusively to very specific areas in which toolboxes and standards could be of real significance for SMEs. Cooperation in the form of innovation programmes would most likely be premature since there are no services-related innovation programmes yet in place in the EU-27. However, in view of our assessment framework and as a way to kick-start the process, cooperative innovation programmes at EU level which would initiate cooperation in specific areas of KIS could be justified.

The objectives of stakeholders at national and regional levels are still vague. They seem to be broadly interested in the success of such programmes provided that appropriate policy instruments are designed and implemented. This interest is much more specific at regional level, especially those trying to develop clusters of activities focused on service innovation (multimedia, software, etc.).

KIS organisations' providers, users and customers are potentially very interested in such support activities provided that programme support is tailored to their specific (or sectoral) specific needs. However, in view of uncertainties and knowledge asymmetries in this process of matching supply and demand, a few preconditions should be established. Firstly, an awareness of KIS on the main aspects of service innovation needs to be developed. Secondly, knowledge asymmetries between suppliers and users need to be addressed, for instance, by certification of services and through publicly funded demonstration projects. So, on the whole, the alignment potential of support for innovation in services exists, but mainly in *sector-specific areas*, primarily KIS, where it would be necessary to enhance closer links between knowledge creation, incubation, finance and clusters. This would require trans-European cooperation via sectoral partnerships at the EU level and development of new policy measures targeting issues that are central to the development of KIS and services innovation, like KIS platforms.

The EC should enhance a transnational learning process that consolidates the experience and good practices developed by national and regional level actors in KIS. A variety of 'piloting' activities would be the most appropriate for that purpose as they produce new practical knowledge and offer opportunities for good practice exchange and benchmarking. In addition, this area is quite amenable to promotion via a few ERA-NETs which would aim at developing and strengthening the coordination of national and regional research programmes.

As pointed out above, the present effort by the European Commission to foster innovation in the services sector is still quite limited. A joint effort is required to enhance KIS platforms with

data collection, value judgements, standards and policy coordination involving the Structural Funds. Therefore, specific actions to support European integration in the area of services innovation should be focused on the following measures.

- Identify the innovation service sectors and KIS organisations which require priority assistance. Specific technical studies, rigorous market inquiries and data collection, and identification of the market failures in innovation in the service sector are to be carried out by expert groups. This is a preliminary step to be undertaken in order to carry out a value judgement of the priorities and of the potential impact of new policies in favour of innovation in services.
- The Structural Funds are the key policy instrument which can sustain the take-up of service innovation. The Structural Funds application is based on a number of complementary objectives and principles and this process can guarantee the institutional linkages and an optimal balance between the three levels (European, national and regional) concerned. To this end, a process of early dialogue with the relevant KIS organisations and the inclusion of regional aspects of service innovation into national and Commission programming documents related to innovation services should be envisaged.
- Establishment and promotion of European best practices, advanced toolboxes and quality standards in the service sector.
- Ensure continuous support activities of the European innovation platform for knowledge-intensive services (Phase 2) by focusing on the development and practical implementation of new or better tools and business support services through public private partnerships with explicit commitments from all partners, as outlined in *The European Services Innovation Memorandum*.

However, equally or even stronger support to service innovation is possible through indirect policy measures (skills, and service orientation of RTOs), through the development of framework conditions facilitating the role of KIS in innovation (lead markets, reducing regulatory burden) or by making existing innovation policies more service-friendly (adapting financing and assistance criteria so that services-related innovation projects get better access to existing policies).

### 3.2.3 *Public procurement and opportunities for European integration and coordination of innovation policies*

The use of public demand to spur innovation has recently seen a significant increase in political support. Public procurement policies promise improvement of public services on all state levels, combined with a contribution to innovation dynamics. It has become clear that strong efforts are needed to mobilise procurement at all state levels for innovative markets. These efforts need to be based on a better understanding of how public procurement works to contribute to more innovative activity in industry and to the growth or even creation of markets for innovative products and services<sup>17</sup>.

In EU countries, innovative procurement is systematically promoted in very few countries and cases. With the exception of the UK, where policies are explicit and actively pursued, innovative procurement occurs more as a result of good ad hoc policies, good culture and good people. Two EU Member States appear in the process of adopting strategic practices, namely the Netherlands and Germany. In a number of countries (Austria, Belgium, Finland), the debate on innovative procurement is ongoing and there is now a momentum for increased vertical alignment of interests and transnational cooperation.

---

<sup>17</sup> Source: study carried out for the EC (No ENTR/03/24): *Innovation and public procurement. Review of issues at stake*.

The country analysis carried out by the study *Innovation and public procurement. Review of issues at stake*<sup>18</sup> also shows that the absence of an explicit general policy does not imply an absence of innovative procurement. The report identifies good practices mainly in two areas: Sustainability or Green Procurement, and ICT. Sustainability and Green Procurement are applied in many countries such as Austria, Germany, Denmark, Sweden, and Belgium. ICT is also attractive for innovative procurement because of the rapid technological changes in the sector (the Netherlands, Italy, Greece, and Belgium).

Procurement can be organised in a centralised or decentralised manner. There is some evidence that central procuring agencies might serve as a means to overcome attitudes hampering the procurement of innovation, either by leading the movement towards innovation, by a strong political mandate or by building up critical mass. However, there is no direct causal link between centralisation and innovative policies. Where good networks operate, economies of scale and innovative features can appear in both centralised and decentralised systems through cooperation and coordination. Furthermore, evidence suggests that the impetus to centralise has most often been efficiency and saving money rather than the more complex search for innovation in the marketplace. Thus, the introduction of innovation calls for investment in organisational cultures and training. The role of individual actors is important and their opposing interests can sometimes make the process very difficult.

Policy intervention at national level to increase the propensity of involved actors towards innovative procurement can best be performed through training to create intelligent customers. Professionalism, skills and training are elements important to implementing a new cooperation policy. At EU level, a continuous exchange of practical experience and full political commitment are strongly required. Lessons learnt from public procurement should be well documented and shared among public procurement professionals and managers.

The aim is to stimulate the demand for innovation in Europe by supporting contracting authorities to purchase innovative goods and services in lead markets such as health, construction and recycling, and to act as launch customers. The EU legal framework for public procurement supports the Lead Market Initiative by addressing market fragmentation and encouraging the development of competitive solutions. Here, the idea is as follows: to strengthen transnational cooperation by creating networks of contracting authorities with the aim of enabling contracting authorities to improve their knowledge of innovative solutions that are available or being developed by suppliers; to allow a better coordinated and articulated dialogue with suppliers about the future needs of contracting authorities; and to benefit from transnational cooperation in exchanging experiences in procurement practices and in undertaking joint or coordinated actions.

Economies of scale generated by cooperation justify its application at EU level even if — in general — knowledge spillovers can generate disincentives to invest in knowledge generation as the producers know that they are not able to internalise all benefits of their investments. In order to reduce disincentives to invest in knowledge a solution is policy coordination at a higher level, national or Community. At higher levels, policy coordination can lead to a more efficient innovation policy. These policy externalities can be internalised at national and regional level: in fact, the adoption and implementation of the legislative proposals modernising EU public procurement law and the evolution towards more innovation-friendly public procurement rules and practices can improve SMEs' competitiveness, providing them with a larger base of technology suppliers and enabling them to quickly achieve the market penetration needed for global commercial success.

---

<sup>18</sup> Ibid.

Quite heterogeneous regional preferences are offset by positive spillovers. The potential for shared responsibilities is based not only on the exchange of learning experiences at EU level but also on the following: (1) the development of joint PP platforms developing new solutions leading to better interoperability and exchangeability in the European market which is today quite fragmented, (2) the setup of specialised networks engaging contracting authorities, (3) promoting professionalism in public procurement, and (4) the monitoring of new developments and trends.

Vertical alignment potential (complementary objectives between stakeholders at different levels) is strong. There is a need to proceed with sectoral actions in order to offset the strong heterogeneity. Heterogeneity in public procurement can be demonstrated using a number of examples: public infrastructure is an important funding source for some industries in areas such as transport, communications and defence. However, EU governments tend to request established technologies in their tendering procedures, and this rigid approach discourages innovation. Moreover, continuing fragmentation and heterogeneity of EU procurement markets in some areas reduces rewards for innovative risk-takers in the EU vis-à-vis those in the USA<sup>19</sup>.

In conclusion, substantial economies of scale and positive spillovers (exchange of knowledge, promotion of industrial aggregation, the take-up of new technology approaches and standards) are not affected by the heterogeneous preferences. The potential for shared responsibilities in the exchange of learning experiences at EU level is very high. Changes in public procurement could have a substantial impact on increasing private investment in the industries concerned. Also, the potential for vertical alignment of stakeholders' objectives is significant.

Public procurement is one of the principal instruments which can be used by the Commission to open up the European Single Market and foster innovation. However, most of the existing eProcurement systems were conceived, designed, and implemented prior to the adoption of the new public procurement directives, and are therefore based on existing national legislative frameworks. As a result, none of the operational systems can fully support the necessary functionalities required by the new directives, and the overall fragmentation is still a constraint to the take-up of European public procurement practices.

Another heterogeneous aspect in Europe is that of the terminology used. Currently, the lack of a unified terminology can potentially cause misconceptions amongst EU institutions and/or economic operators involved in public eProcurement in Europe.

A new legislative framework is required for public procurement and electronic commerce in Europe to ensure that governments and businesses do not suffer a competitive disadvantage in the electronic future of world trade.

- The new framework should define a common terminology, the functional requirements and the guidelines for public procurement technical specifications in compliance with the new EU public procurement legislative framework
- New procurement workflows must be modelled, as described in the new EU legislation, and demonstrators must be developed. The demonstrators are to be made available to Member States for educational and experimentation purposes, assisting in the definition of eProcurement system requirements and elaboration of functional requirements for systems that are fully compliant with the EU public procurement legislation.

These specific actions to support European integration in the area of PP should be implemented through transnational and transregional cooperation between governments and industry as outlined in the DG Enterprise and Industry consultation document of May 2008 *Establishing Public Procurement Networks In Support Of The Lead Market Initiative*:

- Where appropriate, and in close cooperation with industry, to encourage more systematic development and use of common European standards. This could notably

---

<sup>19</sup> See EC Communication, *More Research for Europe*, 2002.

be promoted in the context of the creation of technological platforms bringing together the various stakeholders interested in the development, testing and use of new technologies.

- Creation of thematic networks of contracting authorities, including government organisations promoting professional public procurement in the lead market areas. The stakeholders' needs are to be assessed with particular attention to the identification of areas where new or reinforced measures should be considered.
- Strengthen support of public administrations for collaborative PP initiatives involving developing areas ('support the weakest link').

#### 3.2.4 IPR and opportunities for European integration and coordination of innovation policies

IPR (patents, copyright, authors' rights, design rights, trade secrets, trademarks, and generally rights that recognise and reward intellectual creation) are to be considered an integral part of the institutional basis of science, technology and innovation. The function of IPR is to ensure adequate protection for all actors investing in technology creation, development and financing. The mechanism is based on two factors:

- granting the IPR owners exclusive rights to exploit the results of their investment;
- providing the visibility necessary to increase the society's knowledge base, generated by the disclosure of the knowledge on which the rights are acquired.

Strong IPR protection is crucial to achieving the goals and benefits of global integration. Countries with high standards of IPR protection tend to attract more investment and stimulate more innovation, thereby developing more rapidly. Countries with inadequate protection are often vulnerable to patent, copyright, and trademark infringements that hinder trade flow and economic development. Therefore, stronger transnational policy cooperation in IPR is necessary in Europe for several reasons.

- There is a strong heterogeneity in IPR perception and exploitation in Europe. From the cultural stand point, there are different perceptions of European SMEs of investment in generation, as well as acquisition, transfer and exploitation of knowledge). From the legislative standpoint, there are different regulatory approaches and orientations concerning software (SW) patenting, employment legislation regarding ownership of inventions by employees; rules of ownership and disclosure of knowledge generated in public research institutions and public). From the ethical stand-point, there are unprecedented challenges of an ethical nature, such as DNA manipulation, and the launch of R&D programmes focused on genetic research dealing with ethical issues connected to IPR. Increased European cooperation in IPR can induce more constructive and homogeneous behaviours in the various administrative, industrial and legal environments at European, national and regional level.
- On the other hand, examining the more global scenario, IPR are becoming increasingly subject to international negotiations and agreements (World Intellectual Property Organisation or WIPO, and *Agreement on Trade Related Aspects of Intellectual Property* or TRIPs)<sup>20</sup>, which create a very important layer of regulation of issues in Europe relating to the extension beyond European borders of trade, competition and investment rights in technology. In fact, the increasing internationalisation of research, technology transfer, cooperation and competition are affecting the 'local' character of IPR.

---

<sup>20</sup> The WTO agreement contains (among others) an agreement on IP, namely, the *Agreement on Trade Related Aspects of Intellectual Property* (TRIPS). This Agreement made protection of intellectual property an enforceable obligation of the Member States. TRIPS Agreement sets out minimum standards of intellectual property protection for Member States.

A key element for the Lisbon strategy is to improve the way IPR are managed in Europe, since it is linked to innovation which is in turn an important contributor to competitiveness. The EC believes that an improved system is necessary if Europe is to fulfil its potential for innovation. However, in the Member States, protection of IP is hampered not only by the fragmentation and associated costs of the available IPR systems but also by a lack of awareness on these issues and a reluctance of small firms to apply for IPR. It is therefore of crucial importance for the Member States to coordinate efforts and work towards consensus and real progress in this field. Over the past years, the EC has launched and financed several initiatives to reinforce the system and to create a collaborative environment among national authorities. EU-funded pilot projects under the Fifth Framework Programme (FP5) were IP Europe, IPR Guide, LIPP and the 'one-stop shop' project (initiated in 2001 by the Austrian Patent Office).

The key European innovation policy issues are related to the following: (1) the industrial and technological competitiveness of Europe, and (i1) the diffusion and exploitation of technological knowledge to provide for the quality of life of European citizens. Innovative policies are required that have the intention to reinforce IPR regimes, rules and regulations, thereby strengthening European competitiveness. Discrepancies and fragmentation of patenting regulation can prevent SMEs from establishing a structured IPR protection strategy; high patenting costs may induce secretive approaches which in the long term will weaken the overall industrial competitive base.

European cooperation in IPR innovation policies should respond to a number of major challenges regarding technology and industrial policy.

- How to improve IPR utilisation by European firms and research institutions in Europe and abroad, as a means of acquiring powerful competitive positions in important technologies, and information about competitors and potential sources of technologies?
- What are the IPR-related impediments to increasing policy cooperation among Member States? How to reinforce the European complex IPR system with respect to US and Japanese institutions?
- How to strengthen EU and Member States IPR? How should institutions interact and collaborate to accomplish the expected policy cooperation?

Innovation Policy cooperation goals will be the elaboration and analysis of policy issues and options on strategic dimensions of IPR in Europe. In particular, cooperation is needed to assess short-and long-term policy options, policy means to improve the concordance of existing IPR rules and regulations with the pursuits of the policy, as well as possible changes to the existing IPR laws, rules and regulations.

From the policy impact standpoint, IPR is a very sensitive and complex topic and generates cross-references for trade policy (concerned with the exchange of intellectual property embedded in goods, services, licences and agreements), competition policy (concerned with the monopolistic positions established through intellectual property), and science and technology (where intellectual creation and its diffusion is the aim of the policy).

There are three areas of law that are relevant to IPR in the EU: national, EU, and international laws.

- National laws involve the laws of an individual country. Although, in some cases, it is the EU as a whole that has the authority to regulate IPR, national offices in specific Member States often provide registration services and information to protect IPR.

- EC Regulations are automatically binding on Member States. The Directive 2004/48/EC procedure<sup>21</sup> covers the measures needed to ensure that IPR are respected throughout the EU. The legislative context is now in a period of consolidation: the European Member States must make a positive and collaborative effort to 'animate' the directive, to ensure that it is the spirit of the law which is put into place, as well as the letter.
- International treaties that are relevant to IP protection are effectively those that are maintained by the World Intellectual Property Organization (WIPO), which aims to promote the effective use and protection of IP worldwide.

Regarding patents, there are currently several patenting systems in Europe: national patent systems and the European patent system. The European patent system is not based on an EU legal instrument. Nevertheless, this system, which is managed by the [European Patent Office](#) (EPO), makes it possible to file a single patent application which will be examined centrally and hopefully lead to the grant of a European patent. After its grant, however, this patent is equivalent to a bundle of nationally enforceable patents, which are subject to national legislation and national courts. There are two opposing views on how the EPO can function best. Some countries are in favour of a decentralised approach whilst others are for a more centralised system. The *Madrid Declaration* clearly stated that the EPO and the national offices have important roles to play and that the future of the European patent system will be more secure if cooperation is optimised. Such cooperation should be centred around three core activities: harmonising national practices; long-term training; and creation of databases and tools. In order to increase efficiency for customers, a cooperative network between the 25 National Patent Offices (NPOs) was formally set up in 2005 (the EPO and the Office for Harmonization in the Internal Market (OHIM) are also part of this network), with the EC's DG Enterprise acting as the coordinator and the IPR-Helpdesk as the secretariat of the network.

The National Patent Offices Network is therefore the instrument for cooperation in Europe in the field of patents and comprises the patent authorities of all EU countries. The network's vision is that the national patent authorities should be able to offer business in the respective countries a point of entry for all customer service questions relating to IPR, regardless of the country the question refers to, and there is ongoing debate as to how the EPO should cooperate with its Member States in order to provide the best service to European industry. The network's main objectives are the following: (1) enhance and support the role of NPOs in raising awareness about IP; (2) NPOs should act as single contact points for national customers — providing professional information about domestic, foreign national, regional and international IP procedures — and providing services (free and commercial); (3) improve the exchange of information, experience and concepts among NPOs; and (4) intensify cooperation between NPOs and European bodies such as Innovation Relay Centres (IRCs), EuroInfo Centres and the IPR-Helpdesk.

A new IPR Innovation policy cooperation agenda launched by the Commission should deal with the following issues.

1. Cooperation is needed to develop new [EU legal instruments](#), ensuring a stronger homogeneity and effectiveness of the European patent system. The European Patent System makes it possible to file a single patent application, which can lead to the grant of a European patent. After its grant, however, this patent is equivalent to a bundle of nationally enforceable patents, which are subject to national legislation and national courts.

---

<sup>21</sup> Directive 2004/48/EC of the European parliament and of the Council of 29 April 2004 is based on the enforcement of intellectual property rights and provides specific legal measures and procedures to be taken in case of infringement of IPR.

The adoption of the Community patent — for which the Commission adopted a Regulation proposal in 2000 — could go a long way to resolve drawbacks such as high cost (partly linked to translation requirements defined by contracting Member States) and legal certainty issues (linked to the absence of a central court system).

Therefore it is of primary importance to improve the existing patenting systems. In particular, a streamlining of the post-grant translation requirements for European patents (through the *London Agreement*) would reduce their cost, and the setting up of a central court (through the *European Patent Litigation Agreement*) would address issues related to legal certainty, even if these agreements are ratified by some EPO-contracted States only.

2. As a temporary measure — while policy reflections on how the European Patent System (EPS) should be implemented are ongoing — it is necessary to enhance the role of the IPR-Helpdesk supporting the provision of an equivalent level of intellectual property protection throughout the whole European Community, following the scope and objectives of Directive 2004/48/EC and ensuring direct assistance to industry and research centres to minimise the drawbacks already mentioned above.

3. Eventually innovation policy cooperation could cover the two following areas.

a. Legislative cooperation to strengthen the internal market and the overall competitiveness of European industry.

- i. Define potentially conflicting regulatory areas and identify enforcement mechanisms, solving potential conflicts between different European patent systems.
- ii. Policy cooperation may also encompass measures to ensure that IPR are respected in third countries too. On 10 November 2004, the Commission published its *Strategy for the Enforcement of Intellectual Property Rights in Third Countries* which, among other things, identified priority countries in which the problem needed to be tackled, means of increasing awareness of the issue in both bi- and multi-lateral agreements between the EU and third parties, and external initiatives involving technical assistance, private-public partnerships, and the dissemination of best practice.
- iii. Survey the legal basis for university-industry IPR cooperation in Europe, also with a special view to assisting new Member States in developing beneficial legal frameworks for such cooperation and Members States where there is not sufficient IPR protection, like Hungary, Italy, Lithuania, Poland, and Romania.

b. Operational cooperation to strengthen the internal market and the overall competitiveness of European industry.

- i. Develop a comprehensive package of measures against counterfeiting and piracy, as strongly called for by European industry. One area where piracy is a growing phenomenon is broadcasting. Pirates deflect a broadcasting organisation's signal onto their own platform, usually the Internet, and retransmit the broadcasters' coverage 'live', i.e. simultaneously with the broadcast itself.
- ii. IPR conventions (patents, copyright, etc.) to regulate new and future economic activities in knowledge production and in knowledge-intensive service sectors, mobility of researchers, and cross-European University spin-offs.
- iii. Promote 'enlightenment' activities, which raise the awareness of the European public and firms, concerning intellectual property.
- iv. Support European IPR cooperation among regional clusters and among regional research institutions. Identify existing national provisions and practices which

have been found to be particularly effective and should be applied across the EU as a whole.

- v. Design of more favourable fiscal conditions promoting IPR, like the introduction of tax incentives and other fiscal instruments to increase IPR investments, especially by SMEs.

One of the main objectives is to ensure that cooperation results in closer relations and better understanding among the different stakeholders: EC DG Enterprise, EC DG Research, Ministries of Industry, Ministries of Research, Ministries of Education, Ministries of Trade, universities, development agencies and industry). Collaboration amongst stakeholders will enable the permanent exchange of information on legislative changes and examination techniques.

### 3.3 Conclusions from the pilot assessments of 10 IP instruments

The analysis of 10 IP instruments from the perspective of their potential to promote EU-wide transnational cooperation has shown the following.

1. There is no general case to be made for EU-wide transnational (vertical) cooperation potential. This potential has to be demonstrated in each individual case and would require some prior analytical work and be applied to a very specific elaborated policy proposal. Vertical complementarities are most often quite specific and rarely general, i.e. applicable across broad policy areas.

2. Within policy areas where potential for vertical complementarities may seem quite limited, there are selective EU-wide areas with great potential for alignment or promotion of the EIA. For example, recruitment of skilled personnel in enterprises generally has moderate potential for transnational collaboration, but in some selected areas, especially those where the EU is deficient on a large scale, this potential may be quite significant. Moderate alignment potential of programmes for risk capital could be significantly changed by EU legislation in this area. Potential for trans-European cooperation in service innovation and public procurement is possible in *sectoral* partnerships at EU level. In the case of innovative start-ups, the potential for vertical complementarities may be improved provided that understand better understanding of the mechanisms and processes of firms' growth is gained, especially in high-tech areas and in segments where gazelle-type companies operate. This further reinforces our first conclusion that the assessment would have to be as specific to the individual policy instrument as possible.

3. Among IP instruments assessed by our methodology, the greatest potential for vertical alignment or transnational/regional cooperation is present in the case of risk capital promotion measures, which is followed by R&D cooperation measures. There is moderate potential overall, but it is very strong for vertical trans-European cooperation in specific sectors of service innovation, public procurement and IPR support.

Lower and similar potential for vertical cooperation is present in the case of R&D grants, sectoral innovation programmes, start-ups, regional clusters and recruitment of Regional Strategy for Enterprise (RSE) in enterprises. These 'rankings' are derived from information generated in templates for individual policy areas as presented in the Annex. These qualitative assessments are compared and policy areas grouped based on their potential for complementarities between stakeholders. However, in view of Conclusions a and b, this ordering should be taken as merely illustrative and should not be used as a guide for policy making<sup>22</sup>. In addition, comparative assessment of all 10 policy areas as well as detailed

---

<sup>22</sup> It is possible to make this ordering more 'objective' by grading each of factors in templates on scale from 1 to 7, and then to generate aggregate rank by summarising individual marks as simple sums or as averages. However,

assessment of 4 policy areas indicates that none of them represent the case for EU-wide cooperation *en bloc*. The potential for EU-wide cooperation or vertical synthesis is present in specific sub-areas. It is necessary to undertake a more systematic assessment of sub-areas in order to determine which sub-areas have this potential to the greatest degree.

4. Assessment of potential for vertical policy cooperation should not take interests and motivations of existing stakeholders as given. In fact, very often potential for vertical cooperation is hindered because a key stakeholder is either 'weak' (undeveloped) or missing. From our perspective, a key policy objective would be to enhance or assist the growth of the 'weakest link', i.e. a stakeholder essential to the process of strategic vertical interaction but that is either not developed or not oriented towards EIA objectives. Our pilot assessments have identified several of the actors who could be considered as 'the weakest link', and accordingly policy to address these issues could be described as one 'supporting or reorienting the weakest link'. For example, vertical cooperation in support of regional clusters has limited potential largely due to weak intermediary organisation for collaborative actions of regions. R&D grants and loans have moderate potential for vertical cooperation due to the limited role of EIB and the absence of national governments in funding joint programmes in this area. Similarly, vertical policy cooperation in programmes of R&D cooperation is limited due to the orientation of national governments exclusively towards national programmes. A detailed assessment of potential for vertical (i.e. trans-European) cooperation for the four IP areas being considered (clusters, innovation services, public procurement and IPR) has demonstrated the following.

5. There is significant potential at EU level for supporting cross-border **cluster** initiatives but not necessarily for clusters in general. The EU authorities should support pilot projects between clusters and organisations for regional collaborations ('umbrellas') whose task would be to strengthen inter-firm relationships. These organisations could be co-funded based on how many SMEs are actively taking part in inter-regional 'learning networks'. These potential 'clusterpreneurs' should be supported and the EU should fund programmes for the development of their capabilities.

6. There is a significant potential for support to **innovation in services** in KIS. Specific actions to support European integration in the area of service innovation should be focused on the following measures.

- a. Identify the innovation service sectors and KIS organisations which require priority assistance, using the methodology developed in this study, among other tools.
- b. The Structural Funds should be used as the key policy instrument which can sustain the take-up of service innovation. To this end, it should be envisaged as a process of early dialogue with the relevant KIS organisations and inclusion of regional aspects of service innovation in national and Commission programming documents related to innovation services.
- c. Establishment and promotion of European best practices of advanced toolboxes and quality standards in the service sector.
- d. Ensure continuous support activities of the European innovation platform for KIS (Phase 2) by focusing on the development and practical implementation of new or better tools and business support services through public-private partnerships with explicit commitments from all partners, as outlined in *The European Services Innovation Memorandum*.

7. Specific actions to support European integration in the area of **PP** should be implemented through transnational and transregional cooperation between governments and industry as

---

this would unjustifiably give a degree of objectivity to an area which is inherently complex and where assessments are necessarily highly subjective.

outlined in the DG Enterprise and Industry consultation document of May 2008, *Establishing Public Procurement Networks in Support of the Lead Market Initiative*.

- a. Where appropriate, and in close cooperation with industry, encouraging more systematic development and use of common European standards. This could notably be promoted in the context of the creation of technological platforms bringing together the various stakeholders interested in the development, testing and use of new technologies.
- b. Creation of thematic networks of contracting authorities, including government organisations promoting professionalism in public procurement in the lead market areas. The stakeholders' needs are to be assessed with particular attention paid to identifying areas where new or reinforced measures should be considered.
- c. Strengthen support to public administrations for collaborative PP initiatives involving developing areas ('support the weakest link').

In addition, a new legislative framework is required for public procurement and electronic commerce in Europe to ensure that governments and businesses do not suffer a competitive disadvantage in the electronic future of world trade.

8. In the area of **IPR**, EU-wide cooperation should deal with the following issues.
  - a. Cooperation is needed to develop new EU legal instruments ensuring stronger homogeneity and effectiveness for the European patent system.
  - b. As a temporary measure, it is necessary to enhance the role of the IPR-Helpdesk supporting the provision of an equivalent level of intellectual property protection throughout the whole European Community, following the scope and objectives of Directive 2004/48/EC and ensuring direct assistance for industry and research centres to reduce the negative drawbacks indicated above.
  - c. Enhance legislative cooperation to strengthen the internal market and the overall competitiveness of the European industry.

## 4 Mechanisms for supporting vertical trans-European cooperation: discussion

The above analysis has focused on developing a methodology for assessing the potential of specific policy instruments for vertical cooperation, and on its application in several specific areas. In this section, we will discuss mechanisms which have been developed for vertical trans-European cooperation. In Section 4.1., we will discuss the current policy mix in EU countries, which leans heavily in the direction of national levels, or at best of a mix of instruments at national and regional level. There is paucity of instruments, i.e. a policy mix which would involve the EU, and national and regional levels in parallel. In Section 4.2., we will discuss the emerging new mechanisms which are essential to realisation of a policy mix that would jointly involve the EU, and national and regional policy levels. In Section 4.3., we will discuss the use of the OMC and Inno-Nets as mechanisms to support vertical policy coordination. In addition, we will suggest a new mechanism — 'learning networks' — in support of trans-European innovation cooperation.

### 4.1 Policy mix and the issue of vertical cooperation in innovation policy

The 2008 *ILP Input Report* has demonstrated that innovation policy mix is dominated by national-level policy instruments. The policy mix does not involve (in its design or in its implementation) EU levels, national levels and regional levels conjointly. Following this, we will show the presence of regionality or the extent to which regional levels are coupled with the national policy level (using this study).

- In some countries, like Denmark, Finland, Ireland, Luxembourg, and Portugal, innovation support is largely governed at national level.

In Denmark, the regions have had little impact on the allocation and strategic use of funds. In broad terms, the national government manages the overall innovation, growth policy and coordination between business, education, transport, employment and other innovation-related policy fields.

Also, in Finland, many innovation programmes with regional importance are governed at national level. Over time, however, the regions and regional players have also become active players. The EU Structural Funds have supported the implementation of measures focusing on innovation at regional and local levels.

In Ireland, innovation support operates under national authorities, not under regional authorities.

In Portugal, innovation support policy has been, to a very significant extent, centrally defined and managed. This situation changed with the 2007–2013 National Strategic Reference Framework (NSRF). Some incentive systems, especially those addressed to small firms, are now managed at regional level (although coordination with nationwide organisations is also involved). Despite these changes, it can be said that the main measures specifically dealing with innovation support are still managed at national level.

- Other countries such as France, Germany, Greece, Italy, Spain, Sweden and the UK, are characterised by national and regional policy mixes.

France does have a clear organisation of the innovation policy mix between national and regional levels in the same way as in other policy domains. While innovation support measures governed at regional level can differ from one region to another, those governed by the state are, in principle, the same for beneficiaries in every French region.

Innovation policy measures in the Federal Republic of Germany are governed and delivered both by the federal government and by each of the 16 state governments. Each government level is free to design, implement and run innovation policy programmes. There is exclusive competence of the states in education policy, with the exception of further education, vocational training and those areas of higher education policy in which the state governments have agreed to cooperate with the federal government.

In Greece, since the Common Support Framework 2000–2006 (in the last year of its implementation), innovation measures have also been enforced through the regional operational programmes. Entrepreneurship was subsidised both at regional and national levels. RTD and technology-based innovation was subsidised at national level. The regional administrations' selected measures are introduced at national level with strong national administrative support (i.e. evaluation, funding, monitoring).

In Italy, regions are in charge of the promotion of applied research, innovation, and technology transfer programmes and projects. R&D and innovation regional policy initiatives and plans have been developed by the regions, with the provision of specific instruments whose application has been launched at local level with increasing success.

Although the Spanish Government is the main actor in innovation policy in Spain, there is a decentralisation that increases the complexity of the Spanish innovation system due to the devolution of responsibilities and funding to the regional authorities. The regional governments continue supporting the development of their own regional science, technology and innovation systems and policies.

The main bulk of policies in the UK are organised nationally but some are organised at regional levels, especially in the devolved administrations. The RDAs have responsibility for funding or co-funding and delivery of a few innovation policy measures (e.g. the Higher Education Innovation Fund (HEIF), Regional Innovation Fund, Business Link, etc.). Here they have the power to develop a joint strategy between RDAs to promote science and innovation initiatives (e.g. the Northern Way initiative between three adjacent RDAs) and to develop the notion of 'Science Cities' as a focal point for businesses seeking to collaborate with world-class research establishments in the regions (for instance, these have recently been developed in Manchester, Newcastle, York, Birmingham, Nottingham and Bristol).

In Belgium, national and regional competencies are divided: education and research are responsibilities of the communities, innovation of the regions and tax measures are a federal responsibility.

In many of the examples above, the EU Structural Funds may provide an important source of co-financing for innovation at regional level.

Concerning the organisation of funding between national and regional levels, the general funding patterns tend to match the arrangements noted above. Thus, where innovation support is largely governed at national level, the majority of the funds also originate at national level. The only exception to this is in the case of the EU Structural Funds, although these are of course also disbursed by the national government. Structural Funds can, however, represent significant sources of funding for regional-level activities, including innovation support.

Information on the role of national and regional governance structures was also strongly related to the organisation of the innovation policy mix as outlined above. The 2008 *ILP Input Report* illustrates this with examples of countries with central coordination bodies and those engaged in national/regional dialogues, as shown below:

- central coordination body, council, lead ministry or similar (Denmark, Greece, Italy, Ireland and Germany (although in Germany, in innovation policy specifically, there are informal or ad hoc coordination arrangements));
- national/regional dialogues (Portugal, Spain, the UK, France).

## 4.2 Role of Open Method of Coordination and innovation policy networks in enhancing vertical complementarities in innovation policy

The OMC is the key mechanism for supporting horizontal European transnational cooperation. There are two major forms of this mechanism: ERA-NET/the 'ERA-NET Plus' and the PRO INNO/INNO-Nets. ERA-NET activities are targeted at research. In the field of innovation, there are the PRO INNO Europe initiative and the INNO-Nets, initiatives very similar to the ERA-NET, at least in the intention to foster transnational cooperation in specific fields (the areas chosen) but in the innovation field. The ultimate goal of the INNO-Nets is to go beyond mere *policy learning*, advancing a step further and concentrating on *joint policy design and implementation* (i.e. the setting up of joint innovation programmes)<sup>23</sup>. In Section 4.2.1., we review these initiatives as mechanisms of horizontal trans-European cooperation. In Section 4.2., we review Europe-wide initiatives specifically in the field of IPR: the IPR-Helpdesk, the NPO Network and the IP-Base Project.

### 4.2.1 The OMC in support of horizontal European transnational cooperation

In 2003 it was decided that the OMC would be applied to R&D policy making, and the Competitiveness Council entrusted the Scientific and Technical Research Committee of the European Union (CREST) to be the operational interface between Member States when applying the OMC. The aim was to achieve greater convergence towards EU goals by helping Member States progressively improve their own policies in areas where policy competence lies primarily at national level. The means mainly consisted of the following: (1) mutual learning, (2) concerted/joint actions between Member States or regions, and (3) community initiatives reinforcing actions at Member-State level. Since November 2003, four cycles have been launched<sup>24</sup>, the last one covering the period from January to December of 2008. CREST has organised *expert groups*<sup>25</sup> in specific fields (e.g. public research and links with industry, fiscal measures for research, IP and research, etc.) and at the end of each cycle it produces reports with recommendations.

Building on this initiative, the EC decided to launch the OMC-NET scheme with the objective of reinforcing and complementing OMC application to investment in research. In practice, OMC-NET's aim is to offer limited groups of Member States and/or their regions the possibility to develop policy coordination activities on issues of their own interest and to obtain financial resources to implement those activities. The expected outcomes of OMC-NET projects are as follows: (1) the development of national and regional R&D policies through mutual learning and peer review; (2) the identification and possibly the transfer of good practices; (3) the development of concerted or joint policy initiatives between groups of countries and/or regions; and (4) the identification of issues requiring Community action in support of actions undertaken at national or regional level.

<sup>23</sup> In addition, the cooperation between national or regional innovation programmes should continue beyond the duration of the INNO-Net contract itself.

<sup>24</sup> First cycle (November 2003-June 2004); second cycle (November 2004-May 2006); third cycle (December 2006-December 2007); fourth cycle (January 2008-December 2008)

<sup>25</sup> groups made up of Member State experts

OMC-NET has been implemented through calls for proposals for Coordination and Support Actions, the target audience for these calls being mainly national and regional R&D policy makers. A pilot call was launched under the Sixth Framework programme (FP6) at the end of 2005, where 10 projects were supported under different topics covering R&D policy mix, technology transfer, research infrastructures, foresight, public procurement, SMEs and governance. Exploring the possibilities of a new tool for policy coordination was considered as an interesting experience.

The first OMC-NET call for proposals under the Seventh Framework programme (FP7) was launched on October 2007 under the FP7 Capacities Work Programme; the call closed at the end of June 2008. Proposals were welcomed on specific research policy issues:

- developing an appropriate R&D policy mix;
- creating appropriate framework conditions for stimulating private R&D investment;
- improving the cooperation and transfer of technologies between public research institutes and private enterprises, including the development of public-private partnerships as a means to achieve this;
- developing and making better use of incentives to leverage private R&D;
- modernising the management of research institutions and universities;
- enhancing the career development and the European, international as well as inter-sectoral mobility of R&D personnel.

The supported activities will be:

- peer reviews of national and regional policies;
- exchange of experience and personnel;
- joint evaluations and impact assessments;
- development of quantitative comparisons of the effectiveness of national and regional EU policies;
- identification of good practices;
- formulation of policy recommendations;
- design and implementation of transferability scenarios or the development and implementation of joint initiatives;
- large-scale dissemination results, conferences;
- studies;
- working groups;
- networking activities.

#### **4.2.1.1 ERA-NET and the new ERA-NET: the 'ERA-NET Plus' action**

The objective of the ERA-NET scheme was to support the cooperation and coordination of research activities carried out at national or regional level. The scheme has been re-launched because despite some progress, fragmentation of R&D systems, policies and programmes still remains. The objective of ERA-NET always remains to develop and strengthen the coordination of national and regional research programmes<sup>26</sup> and now this is achieved through two specific actions: 'ERA-NET actions', which provide a framework for actors implementing public research programmes to coordinate their activities (e.g. by developing joint activities or by mutually supporting joint calls for transnational proposals), and 'ERA-NET Plus actions', which provide, in a limited number of cases with high European added value, additional EU financial support to facilitate joint calls for proposals between national and/or regional programmes.

---

<sup>26</sup> Under the ERA-NET scheme, national and regional authorities identify research programmes they wish to coordinate or open up mutually. The participants in these actions are therefore programme 'owners' (typically ministries or regional authorities defining research programmes) or programme 'managers' (such as research councils or other research funding agencies managing research programmes).

The ERA-NET Plus action is a new approach in the field of coordination of national and/or regional research programmes under FP7. This approach may lead to greater alignment of programme strategies between national programmes and FP7 themes; it may assure, for the areas concerned, more complementarities between national and Community programmes and therefore contributes to the structuring of ERA.

ERA-NET Plus actions will provide a new type of funding opportunity for researchers to enter into transnational research projects. In this respect, ERA-NET Plus actions, through close links to national programmes, should provide fast, easy and simple ways to set up transnational projects. The projects financed via an ERA-NET Plus joint call shall address predefined areas of common interest between the Community and a certain number of Member States.

ERA-NET Plus actions comprise the launching, managing and financing of a joint call between several national programmes. They require programme owners or programme managers from at least five different Member or Associated States to plan a single joint call with a financial commitment from the participating national research programmes. The main deliverable of an ERA-NET Plus joint call shall be an agreed list of selected transnational projects for funding and the formal commitment of the participating programmes to finance these projects. The main result of the ERA-NET Plus actions will be transnational projects addressing predefined areas of common interest between the Community and a certain number of Member States.

#### **4.2.1.2 The PRO INNO Europe initiative and the INNO-Nets**

PRO INNO Europe, the innovation policy initiative of the DG Enterprise and Industry, is part of the overall policy coordination with the Member States in the field of innovation. The initiative, in line with the OMC, provides the focal point for innovation policy analysis, learning and development. PRO INNO Europe follows an integrated approach with the ultimate objective of learning from the best and preparing for more and better transnational innovation policy cooperation in Europe.

One of the building blocks of PRO INNO are the INNO-Nets, which are actions aimed at stimulating transnational cooperation among different national or regional innovation programmes. The INNO-Nets build on the ERA-NET scheme introduced by RTD in FP6 as a bottom-up scheme for coordination of research and innovation programmes to reduce fragmentation of the national programmes. The intention of bringing together regional and/or national innovation programmes is to prepare for joint initiatives at programme level. The activities foreseen are the systematic exchange of information and good practices, the exchange of ideas concerning national and regional planning of innovation programmes, and the development and implementation of jointly coordinated transnational innovation activities and/or programmes. Although collaboration among innovation policy makers and innovation-oriented agencies is stimulated through all these activities (these activities may involve different levels of cooperation and coordination, depending on the specific participants), the ultimate goal of INNO-Nets is to go beyond mere *policy learning*, advancing a step further and concentrating on *joint policy design and implementation* (i.e. the setting up of joint innovation programmes)<sup>27</sup>.

The first INNO-Nets call has supported 10 projects under the form of Specific Support Actions (SSA) and Coordination Actions (CAs) focused on cluster policy cooperation, support of knowledge-based SMEs and start-ups, transnational knowledge valorisation, links

---

<sup>27</sup> In addition, the cooperation between national or regional innovation programmes should continue beyond the duration of the INNO-Net contract itself.

between industry and research and innovation in services. All these are areas where the stimulation of practical cooperation and coordination/alignment between EU, national and regional policies is of paramount importance.

Two very interesting examples of INNO-Nets that are developing and implementing joint policy instruments are INNET and VALOR. INNET (led by Oseo Anvar) attempts to promote interactions and cooperation between regional, national and European funding schemes, to strengthen SMEs' activities in wide technology clusters and to facilitate cross-border cooperation for SMEs in technology clusters. These are the project's strategic objectives but from an operational standpoint, the aim of INNET is to design a cross-border innovation/technology transfer and funding scheme in favour of SMEs and to test it through joint pilot calls for proposals<sup>28</sup>. The first pilot call for proposals has already been launched under the name of 'Innovation Express', which will fund a set of innovation support activities to initiate/develop/enhance technological cooperation between European clusters for the benefit of their SME members.

The objective of the VALOR project (led by Pera) is to coordinate and network key players in innovation policy to develop a common agenda and a joint action plan for the valorisation process across Europe, enabling innovations with high potential to be identified and supported at an earlier stage, thus allowing the appropriate supporting measures to be put in place, and maximising the effectiveness and scope of the programmes that are currently ongoing at national or regional levels. Also VALOR has just launched a pilot call aimed at supporting and funding a set of activities and services targeted at optimising cooperation and the commercialisation of knowledge acquired by national SMEs from foreign laboratories, technical centres, and other SMEs.

Building on the first round of INNO-Nets, the EC is planning to launch a second call of INNO-Nets focused on key strategic areas such as cluster policy and support of innovation in services. Success in these two areas requires stronger transnational cooperation and concerted efforts in support of the development and implementation of both cluster and services innovation policies. Therefore, the activities foreseen in the calls go in the direction of stimulating and strengthened practical cooperation and networking (e.g. through the creation of 'reflection groups') and, above all, of joint development of initiatives. However, focus on joint development of policies and tools as envisaged for the second generation of INNO-Nets may not be sufficient. In view of our assessment of potential for vertical synergies and trans-European cooperation, there is strong need in very specific technology areas to support joint implementation of innovation projects.

#### *4.2.2 Europe-wide initiatives in the field of IPR: the IPR-Helpdesk, the NPO Network and the IP-Base Project*

One of the most successful projects funded by the European Commission has probably been the IPR-Helpdesk. The IPR-Helpdesk was set up in 1998 within the EC's Innovation Programme and has become the central reference point for intellectual property inquiries and advice throughout the European Union. It provides free support on issues concerning the protection and exploitation of intellectual property and also assists potential applicants to Community-funded research programmes on all matters related to intellectual property.

The IPR-Helpdesk achieves the following aims.

---

<sup>28</sup> First joint pilot call in November 2007 and second joint pilot call in November 2008.

- To make the European public more aware of the importance of intellectual property in the field of innovation. Particular attention is given to RTD projects financed by the European Union and the resulting technology transfer.
- To encourage the use of technical and patent databases as a way of determining the state of the art before embarking on any R&D activity.
- To provide useful tools for exploiting and transferring technology and helping to disseminate and protect the results of Community RTD projects.

The IPR-Helpdesk offers two main services:

- general information on the importance of protecting and exploiting intellectual property rights by means of the IPR-Helpdesk's Internet site;
- personal assistance by telephone and e-mail for individuals, companies and research institutes interested in intellectual property matters.

The IPR-Helpdesk acts as a catalyst between those needing assistance in the field of intellectual property and those offering such assistance. In order to carry out these tasks, the IPR-Helpdesk has established wide-ranging contacts with the EPO, national patent offices, patent lawyers, universities, and other institutions involved in intellectual property within Europe.

A step further in networking and strategic cooperation between EU Member States, in particular between managers of service-related IPR programmes, come with the implementation at European level of the IP-BASE Project, promoted in November 2007 by the EC. The IP-BASE project<sup>29</sup> brings together two existing important Europe-wide initiatives under one umbrella action: InnovAccess, a web portal created by the National Patent Offices Network to provide information on their services for the end user, and IPR-Helpdesk, helpline and training mechanisms for current and potential contractors in EC-funded RTD Framework Programme projects. These initiatives, together with further actions foreseen in the project aim to target and improve usage of and access to research, exploitation and innovation in Europe.

The participation in the project of 19 National Patent Offices and the establishment of a transnational website including an extranet network of European helpdesks will boost the Europe-wide perspective of the project. It will create stronger and sustainable relations between each NPO and the local intermediaries at national level as well as provide a voice in those Member States participating who are able to communicate directly with national governments, other national and regional actors, businesses and the European Commission.

---

<sup>29</sup> IP Base project (November 2007–November 2010). Project partners: 19 National Patent Offices; 4 research organisations (University of Alicante, Centre de Recherche Public Henri Tudor, Estonian Patent Library and Institute Européenne Entreprise et Propriété Intellectuelle); an Innovation Agency (Innolux) specialised in the IP field; a Textile Technology Centre (CETEMMSA) with wide experience in analysis of sectoral issues and a specific interest in IP; and a non-profit trade organisation, dedicated to the promotion of the European textile and apparel industry (EURATEX).

Objectives: (1) to raise SMEs' interest and knowledge about IP issues; (2) to raise SMEs' understanding of the need to integrate IP in their innovation strategies and their business planning; (3) to improve the protection of SMEs' IP rights (internationally as well as nationally) and increase the use of non-registered protection methods through their effective promotion; (4) to improve protection and enforcement by SMEs of their IP rights from infringement, whether this originates from within or outside the EU; (5) to raise SMEs ability to fight counterfeiting and increase knowledge on the methodologies available to detect it; (6) to develop actions to promote awareness on IPR protection to educate the fashion and design industries (textiles, leather, footwear and furniture) on the risks counterfeiting poses and on the existing means and procedures to combat it; (7) to promote and support the use of IP rights in international research, development and technology transfer activities, providing an IP rights support service to actual and potential beneficiaries of CIP and Research Framework Programme actions, especially high-tech SMEs and Public Research Organisations.

#### 4.3 The OMC and INNO-Nets in support of vertical European transnational cooperation

The OMC has been mainly applied as a tool for horizontal coordination of activities of Member States. As pointed out by Edler and Kuhlman (2005): 'For the time being, the OMC means integration of methodological approaches, discursive practices and normative orientations in policymaking administrations rather than integration of policy making itself' (p. 63).

The task of enhancing vertical complementarities represents a new challenge for the OMC. ERA-NET is a good example of horizontal integration facilitated by the EU. INNO-Nets also represent a new initiative to enhance horizontal collaboration in areas of innovation policy with the aim to go beyond policy learning and towards joint design and implementation. However, a brief overview of INNO-Nets projects suggests that the balance is still too biased towards learning and diffusion of best practice and much less towards supporting joint pilot projects. In addition, there is strong need to enhance vertical cooperation in innovation policy, especially through jointly implemented projects supported by the EU, country and regions.

A stronger emphasis on vertical synergies would mean that diversities should be considered not only between countries (horizontal synergies) but also between regions, countries and Community level. A vertical coordination should facilitate integration of policy making itself. In that respect, the OMC seems to be only the first step in the process of identifying areas appropriate for EU-wide vertical cooperation.

How could OMC/INNO-Nets be used in promoting the EIA, especially in promoting vertical policy cooperation, i.e. cooperation between EU, national governments and regions? So far, OMC/INNO-Nets have been primarily used as an instrument for promoting cooperation between national governments. In view of this study, OMC/INNO-Nets could also be used as an instrument for promoting dialogue between stakeholders at different policy levels (national, regional and EU). INNO-Nets should be designed with a much higher share of joint pilot projects which include different organisations at different levels. However, there are two major differences when compared to established OMC which follow from our assessment of potential for transnational cooperation or vertical integration of the 10 policy areas. Firstly, vertically focused OMC should be confined on very specific policy areas and instruments where it is possible to identify complementarities of interests between different stakeholders. Secondly, the exact profile of stakeholders should be *specific to each very specific policy area*. Both of these requirements could be satisfied after an in-depth assessment of potential for vertical complementarities as outlined in this study.

## 5 Policy Recommendations

1. There is no general case for EU-wide transnational (vertical) cooperation potential. This potential has to be demonstrated in each individual case and would require some prior analytical work and be applied to a very specific and elaborated policy proposal. Vertical complementarities are most often quite specific and rarely general, i.e. applicable across broad policy areas.

2. Within policy areas where potential for vertical complementarities may seem quite limited, there are selective EU-wide areas with great potential for alignment or promotion of EIA. However, assessment of complementarities' potential of individual policy areas would have to be systematic. We believe that the proposed methodology represents a good framework for such evaluations.

3. There is huge scope for enhancing synergies in innovation support across the EU. It is desirable to continue with the existing mechanisms of horizontal cooperation. However, these should be supplemented by mechanisms for multi-level cooperation in supporting innovation. We propose the application of OMC/INNO-Nets in issues of national/supra-national/regional cooperation, as well as support for 'learning networks' as mechanisms of enhancing innovation cooperation at the EU level in specific new areas. INNO-Nets should be expanded to joint implementation of innovation projects.

4. There are several policy conclusions from four detailed assessments of IP instruments (clusters, services, public procurement and IPR).

a. There is significant potential at EU level for supporting cross-border cluster initiatives. The EU authorities should support pilot projects between clusters and organisations for regional collaborations ('umbrellas') whose task would be to strengthen inter-firm relationships. These organisations could be co-funded based on how many SMEs are actively taking part in inter-regional 'learning networks'. These potential 'clusterpreneurs' should be supported and the EU should fund programmes for developing their capabilities.

b. There is a strong case of EU-wide cooperation in KIS. A joint effort is required to enhance KIS Platforms with data collection, standards and policy coordination involving the Structural Funds. Specific actions to support European integration in areas of service innovation should be focused on the following measures.

- i. Identify the innovation service sectors and KIS organisations which require priority assistance by using the methodology developed in this study, among other tools.
- ii. The Structural Funds should be used as the key policy instrument which can sustain the take-up of service innovation. To this end, a process of early dialogue with the relevant KIS organisations and the inclusion of regional aspects of service innovation into national and Commission programming documents related to Innovation services should be envisaged.
- iii. Establishment and promotion of European best practices of advanced toolboxes and quality standards in the service sector.
- iv. Ensure continuous support activities of the European innovation platform for KIS (Phase 2) by focusing on the development and practical implementation of new or better tools and business support services through public private partnerships with explicit commitments from all partners, as outlined in *The European Services Innovation Memorandum*.

c. Specific actions to support European integration in area of PP should be implemented through transnational and transregional cooperation between governments and industry as outlined in the DG Enterprise and Industry consultation document of May 2008 *Establishing Public Procurement Networks In Support Of The Lead Market Initiative*.

- i. Where appropriate, and in close cooperation with industry, encouraging more systematic development and use of common European standards. This could notably be promoted in the context of the creation of technological platforms bringing together the various stakeholders interested in the development, testing and use of new technologies.
- ii. Creation of thematic networks of contracting authorities, including government organisations promoting professionalism in public procurement in the lead market areas. The stakeholders' needs are to be assessed with particular attention to identifying areas where new or reinforced measures should be considered.
- iii. Strengthen support to public administrations for collaborative PP initiatives involving developing areas ('support the weakest link').

In addition, a new legislative framework is required for public procurement and electronic commerce in Europe to ensure that governments and businesses do not suffer a competitive disadvantage in the electronic future of world trade.

d. In areas of IPR, IP cooperation should deal with the following issues.

- i. Cooperation is needed to develop new EU legal instruments ensuring a stronger homogeneity and effectiveness of the European patent system.
- ii. As a temporary measure — while the policy reflections on how the EPS should be implemented — it is necessary to enhance the role of the IPR-Helpdesk supporting the provision of an equivalent level of intellectual property protection throughout the whole European Community, following the scope and objectives of Directive 2004/48/EC and ensuring direct assistance for industry and research centres to reduce the negative draw-backs indicated above.
- iii. Enhance legislative cooperation to strengthen the internal market and the overall competitiveness of European industry.

## Annex 1: Pilot assessments

### Pilot 1: Programmes in support of regional clusters

Programmes in support of regional clusters:

- facilitation of clusters and cooperation networks
- competitiveness poles
- networks of competence
- technology districts
- regional cluster programmes.

<i>Specific objective of the measure</i>	<i>Economy of scale</i>		<i>Heterogeneity - differences in preferences of Member States or regions</i>	<i>Cross-border knowledge spillovers</i>		<i>Frequency of use of instrument</i>
	<i>Technical-scale economies</i>	<i>Fixed costs of public administration</i>		<i>Positive spillovers</i>	<i>Negative spillovers</i>	
<b>Programmes in support of regional clusters</b>						
Enhancing innovation cooperation	Economies of scale are limited to regions	Economies of scale in administrating programme are not significant	Heterogeneity of regional preferences is quite diverse	Knowledge spillovers are limited	Spillovers to other regions are limited	Very frequent in EU-27 regions
<p><i>Summary:</i> There are no economies of scale which would justify its application at EU level. Quite heterogeneous regional preferences and limited positive and negative spillovers do not generate interdependencies. Instrument is in frequent use, which may justify exchange of learning experiences at national and even more so at EU level. Overall, the potential for shared responsibilities is limited to the exchange of learning experiences at EU level.</p>						
<i>Innovation process (function) in the focus of IP instrument</i>	<i>Dominant stakeholders</i>		<i>Stakeholder objectives</i>	<i>Role of IP instrument in achieving stakeholders' objective</i>		
<ul style="list-style-type: none"> <li>• Exchange of business and technical information and know-how</li> <li>• Joint development</li> <li>• Mutual commercial relationships</li> <li>• Joint strategic planning</li> <li>• Common training</li> </ul>	National agencies for regional development		Regional development	Broadly interested in success of programme		
	Regional development agencies		Regional innovation capacity	Strongly interested in success and effective implementation of programme		
	EU DG Regional policy		Cooperation between regions at EU level	Interested provided that clusters cooperate with other regions		
	SMEs		<ul style="list-style-type: none"> <li>• Funding for growth</li> <li>• Knowledge for growth</li> </ul>	Highly interested provided funding is substantial and knowledge support is firm tailored		
	Public research organisations		<ul style="list-style-type: none"> <li>• Provision of R&amp;D services to regional SMEs</li> </ul>	Highly interested provided there is substantial private and public (programme) demand for their		

		<ul style="list-style-type: none"> <li>Use of public funds for regional R&amp;D support</li> </ul>	services
	Training and consulting organisations	Provision of training and consulting services	Highly interested provided there is substantial private and public (programme) demand for their services
	Intermediary organisations for collaborative actions of regions. (However, this stakeholder is still undeveloped).	Transregional cooperation in innovation	Their objectives are strongly aligned with those of firms and other stakeholders.
Overall assessment of alignment potential of measure	Vertical alignment potential (complementary objectives between stakeholders at different levels) is quite moderate. Potential horizontal alignment potential is quite strong at regional level provided that demand and supply expectations of stakeholders are matched.		
<i>Potential for trans-European cooperation in support of regional clusters</i>			
Limited economies of scale, and spillovers combined with heterogeneous preferences limit the potential for shared responsibilities in the exchange of learning experiences at EU level. Very limited potential for vertical alignment of stakeholders' objectives. In summary, limited potential for shared responsibilities coupled with limited potential for vertical alignment make this instrument of limited relevance for trans-European cooperation. Potential for alignment is strongly dependent on how strong intermediary organisations for collaborative actions of regions are.			
<i>Specific actions to support European integration in area of regional clusters</i>			
<ul style="list-style-type: none"> <li>Strengthen the support for transnational and transregional cooperation between emerging and established clusters as outlined in <i>The European Cluster memorandum: Promoting European Innovation through Clusters Prepared by the High-Level Advisory Group</i> (chaired by Senator Pierre Laffitte).</li> <li>Strengthen support to intermediary organisations for collaborative actions of regions ('support the weakest link').</li> </ul>			

## Pilot 2: R&D Cooperation

R&D Cooperation:

- technology transfer funds
- cooperative R&D centres
- support to international R&D collaboration — Eureka
- competence centres
- cooperative R&D for SMEs.

<i>Specific objective of the measure</i>	<i>Economy of scale</i>		<i>Heterogeneity — differences in preferences of Member States or regions</i>	<i>Cross-border knowledge spillovers</i>		<i>Frequency of use of instrument</i>
	<i>Technical-scale economies</i>	<i>Fixed costs of public administration</i>		<i>Positive spillovers</i>	<i>Negative spillovers</i>	
<b>R&amp;D Cooperation</b>						
Enhancing innovation cooperation and bridging gap between research and market, avoiding duplications, enhancing critical mass initiatives	Yes. However, this effect may differ significantly across different R&D areas. R&D cooperation can be focused on specific themes requiring critical mass	Economies of scale in administrating R&D programmes are significant	Limited heterogeneity, especially for large Member States	Yes. R&D cooperation at all three levels should facilitate the internalisation of externalities at EU level	Not present, except for countries and regions not involved in R&D cooperation	Very frequent in EU-27 Member States and regions
<p><i>Summary:</i> There are economies of scale and positive spillovers which justify a common approach at all three levels at EU level. R&amp;D cooperation can generate constructive interdependencies and synergies across the European innovation area. The instrument is frequently used at the three levels which justify a more structured exchange of learning experiences at national and even more so at EU level, especially on specific topics and investments requiring critical mass. Technological Areas with strong regional impact and focus on industrial application niches are not to be addressed.</p>						
<i>Innovation process (function) in the focus of IP instrument</i>	<i>Dominant stakeholders</i>		<i>Stakeholder objectives</i>	<i>Role of IP instrument in achieving stakeholders' objective</i>		
<ul style="list-style-type: none"> <li>• Operational innovative solutions through research</li> </ul>	Ministries of Research		Enhance national capacity	Strongly interested in the success and effective implementation of the programme		
<ul style="list-style-type: none"> <li>• Mobility of researchers</li> </ul>	Large companies and SMEs' associations		Benefit from economies of scale and long-term	A medium-term funding commitment and easy access to		

<ul style="list-style-type: none"> <li>• Joint development and customisation</li> <li>• Enhanced IPR protection</li> <li>• Mutual commercial relationships</li> <li>• Joint R&amp;D planning</li> <li>• International positioning</li> </ul>		planning	results
	Public research organisations	Ensure funding for large-scale projects	A medium-term funding commitment and simple management procedures
	EU DG Research	Improve R&D investment impact to enhance competitiveness	Broadly interested in the success of the programme
	Regions	Enhance regional capacity	Strongly interested in the success and effective implementation of the programme and in the involvement of regional firms
	DG Enterprise and Industry	<ul style="list-style-type: none"> <li>• Foster sustainable competitiveness of EU enterprises (especially SMEs)</li> <li>• Encourage entrepreneurship and innovation</li> </ul>	Broadly interested in the success of the programme
Overall assessment of alignment potential of measure	Vertical alignment potential (complementary objectives between stakeholders at different levels) is significant. However, effectiveness of alignment significantly depends on the extent to which R&D cooperation projects match interests and R&D strategies of EU large companies, SMEs and PROs. Potential horizontal alignment potential is quite strong at national level, provided that it is focused on large-scale initiatives which meet the expectations of stakeholders.		
<i>Potential for trans-European cooperation in support of R&amp;D cooperation</i>			
Possible economies of scale and spillovers combined with homogeneous preferences are possible for specific topics (aerospace, nanotechnologies, biotechnologies, emerging technologies in specific sectors). The potential for shared responsibilities and exchange of learning experiences at EU level can be significant. Vertical alignment of stakeholders' objectives is achievable. In summary, for specific application areas, there is a potential for shared responsibilities at all three levels which makes this instrument of certain relevance for trans-European cooperation. Potential for alignment is strongly dependent on national governments' engagement.			
<i>Specific actions to support European integration in area of R&amp;D cooperation</i>			
Ensure stronger commitments of national governments in funding cooperative R&D projects ('incentivise the missing link')			

### Pilot 3: Recruitment of skilled personnel in enterprises

Recruitment of skilled personnel in enterprises:

- Co-financing RSE in enterprises;
- teaching company schemes.

<i>Specific objective of the measure</i>	<i>Economy of scale</i>		<i>Heterogeneity — differences in preferences of Member States or regions</i>	<i>Cross-border knowledge spillovers</i>		<i>Frequency of use of instrument</i>
	<i>Technical-scale economies</i>	<i>Fixed costs of public administration</i>		<i>Positive spillovers</i>	<i>Negative spillovers</i>	
<b>Recruitment of skilled personnel in enterprises</b>						
Enhancing innovation in enterprises	Economies of scale are limited to regions	Economies of scale in administrating programme are not significant	Heterogeneity of regional preferences is quite diverse	Knowledge spillovers are limited	Negative spillovers to other regions are limited, except in neighbouring regions in cases of 'brain drain'	Not frequent in EU-27 Member States and regions
<p><i>Summary:</i> Relevant topic, but there are no economies of scale which would justify its application at EU level. Quite heterogeneous regional preferences and limited positive and negative spillovers do not generate interdependencies. The instrument is not frequently used and thus, the exchange of learning experiences at national and even more so at EU level is not justified. Overall, the potential for shared responsibilities is limited to the exchange of learning experiences at EU level. Potential for cooperation and synergies at the three levels could probably be created if focused on a specialised area: supply of skilled professional profiles presently lacking at European level (SW programmers).</p>						
<i>Innovation process (function) in the focus of IP instrument</i>	<i>Dominant stakeholders</i>		<i>Stakeholder objectives</i>	<i>Role of IP instrument in achieving stakeholders' objective</i>		
<ul style="list-style-type: none"> <li>• Valorisation of business and technical information and know-how</li> <li>• On-the-job training</li> <li>• Solution-oriented approach</li> <li>• Support especially for SMEs</li> <li>• Common training</li> </ul>	SMEs' Associations		Fast selection and recruitment process, fiscal incentives	Broadly interested in the success of the programme		
	Ministry of Labour		Maximisation of employment at national level	Strongly interested in the success and effective implementation of the programme		
	Ministry of Research		Mobility of researchers within the country	Strongly interested in the success and effective implementation of the programme within the country		
	EU DG Employment, Social Affairs and Equal Opportunities		Enhancement of EU policies towards higher education	Broadly interested in the success of the programme		

	DG Enterprise and Industry	<ul style="list-style-type: none"> <li>Foster policy cooperation on sustainable competitiveness of EU enterprises (especially SMEs)</li> <li>Encourage entrepreneurship and innovation</li> </ul>	Broadly interested in the success of the programme
	Public research organisations	Ensure immediate job creation for young graduates and researchers	Highly interested provided there is substantial private demand for young graduates and researchers
	Enterprises	Assistance in improving technological capacity	Assistance in solving technical problems or in building R&D capacity by subsidising RSE labour force
Overall assessment of alignment potential of measure	Vertical alignment potential (complementary objectives between stakeholders at different levels) is low primarily due to heterogenous preferences and difficulties in matching objectives of different policy levels. Potential horizontal alignment potential is possible at regional level provided that demand and supply expectations of stakeholders are matched.		
<i>Potential for trans-European cooperation in support of recruitment of skilled personnel in enterprises</i>			
Limited economies of scale, and spillovers combined with heterogeneous preferences limit the potential for shared responsibilities in the exchange of learning experiences at EU level. There is limited potential for vertical alignment of stakeholders' objectives, except on a regional basis. In summary, limited potential for shared responsibilities coupled with limited potential for vertical alignment make this instrument of limited relevance for trans-European cooperation, for the time being. However, the relevance of the measure may lead to a more in-depth evaluation of the potential and the elaboration of a case to be carried out with some key stakeholders.			
<i>Specific actions to support European integration in area of recruitment of skilled personnel in enterprises</i>			
Identify EU-wide areas of deficiencies in RSE and skills which could be assisted by EU-wide support programmes			

#### Pilot 4: Direct support of business R&D (grants & loans)

Direct support of business R&D (grants and loans):

- support to industrial R&D projects;
- support to innovation programmes;
- loans for R&D to enterprises;
- clean and environmental technologies programmes;
- support to innovative start-ups;
- technology development funds.

<i>Specific objective of the measure</i>	<i>Economy of scale</i>		<i>Heterogeneity — differences in preferences of Member States or regions</i>	<i>Cross-border knowledge spillovers</i>		<i>Frequency of use of instrument</i>
	<i>Technical-scale economies</i>	<i>Fixed costs of public administration</i>		<i>Positive spillovers</i>	<i>Negative spillovers</i>	
<b>Direct support of business R&amp;D</b>						
Enhancing cooperation in the financial and banking sector in promoting new products for SMEs and supporting the take-up of environmental and clean technologies.	Yes, though they vary across areas from low to very high	Not significant economies of scale in administrating grant programmes. Policy cooperation in loans administration may work in just the opposite way, though harmonised loan support could contribute to promotion of new technology and innovation	Significant heterogeneity. Centralised solutions may reduce the ability of local operators to meet local needs and diverse preferences, and also increase the risk of the loan direct support.	Significant. Only if there is cooperation at all three levels can the internalisation of externalities at EU level for the grant side be enabled	Limited	Very frequent in EU-27 Member States and regions
<p><i>Summary:</i> There are economies of scale and positive spillovers which justify a common approach at all three levels for the support schemes based on grants. For the loan side, this could be an opportunity to increase cooperation in providing access to funds for innovation, but since loan activity is managed by private banks and financial institutions, the economies of scale and spillovers can generate resistance. However, in general, direct support of business R&amp;D can generate constructive interdependencies and synergies across the EIA. The instrument is frequently used at the three levels which justify at least a more structured exchange of learning experiences at national and even more so at EU level, especially involving financial operators. The role of EIB instruments and financial guarantee schemes can play an important role in bringing about additional guarantee schemes. Also, possible improvements of the BASEL-2 agreement in favour of SMEs could be designed.</p>						
<i>Innovation process (function) in the focus</i>	<i>Dominant stakeholders</i>		<i>Stakeholder objectives</i>	<i>Role of IP instrument in achieving stakeholders' objective</i>		

<i>of IP instrument</i>			
<ul style="list-style-type: none"> <li>Operational innovative solutions generating short-to medium-term impact</li> <li>Faster access to funding through loans for close-to-market initiatives</li> <li>More careful estimation of returns and cash flow on the part of SMEs.</li> <li>Enhanced relationships between financial world and SMEs</li> </ul>	Ministries of Research	Enhance national capacity	Strongly interested in success and effective implementation of programme
	SMEs' Associations	Share benefits for a larger population of SMES	A medium-term funding commitment and easier access to funds
	Banks and other financial Institutions	Ensure more closeness to SMEs' business and needs	A scheme to support new approaches and risk-management procedures to promote the introduction of innovation in SMEs
	EU DG Research	Improve R&D investment impact to enhance competitiveness	Broadly interested in the success of the programme
	Regional Development Agencies	Enhance local SMEs' fabric capacity to access innovation financing	Strongly interested in the success and effective implementation of the programme and in involvement of regional firms.
	DG Enterprise and Industry	Foster policy cooperation on sustaining EU SMEs in an area where market failure is evident (lack of fast mechanisms to support innovation in SMEs)	Interested in the success of the programme as an initiative to leverage extensive policy cooperation in this field
Overall assessment of alignment potential of measure	Vertical alignment potential (complementary objectives between stakeholders at different levels) is significant to moderate, due to resistance from the financial operators and difficulties in operational issues across different levels		
<i>Potential trans-European cooperation in support of business for R&amp;D</i>			
Economies of scale and spillovers are possible for the grant side of support to business R&D (grants and loans). The potential for policy cooperation from the loan side is strong since the market failure is evident: lack of financial resources to innovation in SMEs, rigid approach to credit from banks aggravated by the BASEL-2 agreement. Pilot policy cooperation actions based on exchange of learning experiences at the EU level can be significant. Vertical alignment of stakeholders' objectives is achievable. Potential for alignment is strongly dependent on national governments but also on financial Institutions engagement.			
<i>Specific actions to support European integration in area of business R&amp;D</i>			
<ul style="list-style-type: none"> <li>Consider larger role of EIB in provision of grants and loans.</li> <li>Coordination of national governments based on OMC principles.</li> </ul>			

## Pilot 5: Support to sectoral innovation in manufacturing

Support to sectoral innovation in manufacturing:

- promotion of joint industrial research;
- support to sector-specific programmes.

<i>Specific objective of the measure</i>	<i>Economy of scale</i>		<i>Heterogeneity — differences in preferences of Member States or regions</i>	<i>Cross-border knowledge spillovers</i>		<i>Frequency of use of instrument</i>
	<i>Technical-scale economies</i>	<i>Fixed costs of public administration</i>		<i>Positive spillovers</i>	<i>Negative spillovers</i>	
<b>Programmes in support of sectoral innovation in manufacturing</b>						
Enhancing innovation cooperation in sectoral manufacturing	Varied. Economies of scale are in general limited to regions but in certain sectors there could be a strong transnational scope.	Economies of scale in administrating programme are not significant	Heterogeneity of regional preferences is quite significant	Knowledge spillovers could be significant for participating regions and firms	Spillovers to other regions are to be evaluated on a case by case basis	Not frequent in EU-27 regions
<p><i>Summary:</i> There are no <i>a priori</i> significant economies of scale which justify its application at EU level. However, in selected areas, these economies may be quite strong. Quite heterogeneous regional preferences and limited and positive spillovers do not generate short-term interdependencies. However, support to sectoral innovation in manufacturing through the promotion of joint industrial research in specific sectors can have potential for shared responsibilities and exchange of learning experiences at the EU level. This may be the case for fields like those of biotechnology (large-scale facilities development), environment protection (joint research effort for specific purposes), and renewable energy (manufacturing facilities).</p>						
<i>Innovation process (function) in the focus of IP instrument</i>	<i>Dominant stakeholders</i>		<i>Stakeholder objectives</i>	<i>Role of IP instrument in achieving stakeholders' objective</i>		
<ul style="list-style-type: none"> <li>• Increase innovation valorisation to a larger scale — foster regional competitiveness and excellence</li> <li>• Improve use of structural funds</li> <li>• Joint</li> </ul>	Ministry of Industry/Ministry of Environment		Support the take-up of large-scale facility development programmes for industry/environment	Broadly interested in success of programme		
	Regional development agencies		Enhance regional innovation capacity in specific fields	Strongly interested in success and effective implementation of programme		
	EU DG Regional Policy		<ul style="list-style-type: none"> <li>• Cooperation between regions at EU level</li> <li>• Better use of structural</li> </ul>	Interested, provided that local beneficiaries cooperate with other regions		

development <ul style="list-style-type: none"> <li>• Mutual commercial relationships</li> <li>• Joint strategic planning</li> <li>• Common training</li> </ul>		funds	
	DG Enterprise and Industry	Foster policy cooperation on sustaining EU SMEs in an area where market failure requires public intervention (too narrow regional scope of innovation cooperation in manufacturing).	Interested in ensuring extensive policy cooperation in this field.
	Public research organisations	<ul style="list-style-type: none"> <li>• Provision of R&amp;D services to regional SMEs</li> <li>• Use of public funds for regional R&amp;D support</li> </ul>	A highly interested provided there is substantial private and public (programme) demand for their services
	Training and consulting organisations	Provision of training and consulting services	Highly interested provided there is substantial private and public (programme) demand for their services
	Intermediary organisations for collaborative actions of regions.	Transregional cooperation in innovation	Their objectives are strongly aligned with those of firms and other stakeholders
Overall assessment of alignment potential of measure	Vertical alignment potential (complementary objectives between stakeholders at different levels) is moderate, except in specific areas where it can be quite strong. Potential horizontal alignment potential is quite strong at regional level provided that the focus on appropriate target sectors/application areas is ensured.		
<i>Potential for trans-European cooperation in support of sectoral innovation in manufacturing</i>			
Economies of scale and spillovers are present for some initiatives making a strong industrial impact. The decision about the possible application areas for policy cooperation should be taken in a participative manner. Potential for vertical alignment of stakeholders' objectives is also possible but the risk of failure is relatively high, given the fact that the process may be time-consuming and complex. In summary, potential for shared responsibilities and vertical alignment exist, and this instrument may bear limited relevance for trans-European cooperation.			
<i>Specific actions to support European integration in area of sectoral innovation in manufacturing</i>			
Strengthening support for transnational and transregional cooperation in sectoral innovation in manufacturing is possible: (1) for sectors/application of significant relevance in Europe, (2) featuring significant set-up and running costs, (3) requiring R&D investment on a large scale, and (4) regional impact.			

## Pilot 6: Support to innovative start-ups, including gazelles

Support to innovative start-ups including gazelles:

- business incubators
- support to NTBFs.

<i>Specific objective of the measure</i>	<i>Economy of scale</i>		<i>Heterogeneity — differences in preferences of Member States or regions</i>	<i>Cross-border knowledge spillovers</i>		<i>Frequency of use of instrument</i>
	<i>Technical-scale economies</i>	<i>Fixed costs of public administration</i>		<i>Positive spillovers</i>	<i>Negative spillovers</i>	
<b>Programmes in support of innovative start-ups, including gazelles</b>						
Enhancing innovation cooperation in supporting high tech start-ups	Economies of scale are in general limited to regions	Economies of scale in administrating programme are not significant	Heterogeneity of regional needs and features is quite significant	Knowledge spillovers are not significant	Spillovers to other regions are not relevant	Frequent in EU-27 regions
<p><i>Summary:</i> There are no economies of scale which justify its application at EU level. Quite heterogeneous regional preferences and limited positive spillovers do not generate short-term interdependencies. Support programmes to high-tech start-ups are a quite consolidated practice in Europe and the perception is that economies of scale and positive spillovers are very limited. Potential for shared responsibilities and exchange of learning experiences at EU level is present on the grounds of the study of the growth dynamics of gazelles and the methodologies to facilitate their early detection.</p>						
<i>Innovation process (function) in the focus of IP instrument</i>	<i>Dominant stakeholders</i>		<i>Stakeholder objectives</i>	<i>Role of IP instrument in achieving stakeholders' objective</i>		
<ul style="list-style-type: none"> <li>• Increase innovation valorisation at a very early stage</li> <li>• Foster regional economic growth</li> <li>• Improve use of start-up funds — joint strategic planning</li> <li>• Development of a common knowledge base</li> </ul>	Ministry of Industry		Support the early detection and consolidation of technology-based start-ups	Broadly interested in success of programme and in the process dynamics of start-up creation and take-up		
	Regional development agencies		Enhance regional support to entrepreneurship	Strongly interested in the success and effective implementation of the programme		
	DG Enterprise and Industry		Foster policy cooperation on sustaining IP where market failure requires public intervention (limited support measures for gazelles).	Interested in evaluating potential of policy cooperation in this field		
	Training and consulting organisations		Provision of training and consulting services	Highly interested provided there is substantial private and public		

			(programme) demand for their services
	Start-up firms	Funding for growth Knowledge for growth	Highly interested provided that finding is substantial and knowledge support firm tailored
Overall assessment of alignment potential of measure	Limited vertical alignment potential (complementary objectives between stakeholders at different levels) is moderate. Potential horizontal alignment potential is possible at regional level in terms of shared understanding of the dynamics: policy cooperation can take place for the identification of the most appropriate communication and training approaches in order to support the continuous take-up of NTBFs.		
<i>Potential for trans-European cooperation in support of start-ups, gazelles and NTBFs</i>			
This instrument may bear relevance for trans-European cooperation to raise the number of high-growth innovative SMEs. However, economies of scale and spillovers are not relevant. Potential for vertical alignment of stakeholders' objectives is possible but the risk of failure is relatively high, given the fact that the process may be time-consuming and complex. In summary, some potential for shared responsibilities and vertical alignment exists only at regional level in order to create a favourable environment for start-ups/gazelles to further develop and grow.			
<i>Specific actions to support European integration in support of start-ups, gazelles and NTBFs</i>			
Strengthen the support for transnational and transregional cooperation for start-ups, gazelles and NTBFs through the development of specific studies on the development dynamics of the new ventures, the design of appropriate training and coaching schemes, and the suitable marketing services.			

## Pilot 7: Support to risk capital

Support to risk capital:

- venture capital funds;
- seed and pre-seed finance.

<i>Specific objective of the measure</i>	<i>Economy of scale</i>		<i>Heterogeneity — differences in preferences of Member States or regions</i>	<i>Cross-border knowledge spillovers</i>		<i>Frequency of use of instrument</i>
	<i>Technical-scale economies</i>	<i>Fixed costs of public administration</i>		<i>Positive spillovers</i>	<i>Negative spillovers</i>	
<b>Support to risk capital (VC funds, seed and pre-seed finance)</b>						
Enhancing cooperation in the private equity sector	Yes. Policy instruments' cooperation at all three levels can generate economies of scale	Significant economies of scale in administrating grant programmes involving private equity funds. Policy harmonisation could contribute to promotion of increase private equity support of innovation	National heterogeneity exists. However, policy cooperation can meet local needs and diverse national preferences	Cooperation at all three levels can enable the internalisation of externalities at EU level	Not obvious	Very frequent in EU-27 Member States and regions
<p><i>Summary:</i> There are economies of scale and positive spillovers which justify a common approach at all three levels for increased cooperation on support to risk capital (VC funds, seed and pre-seed finance). Policy cooperation can increase access to funds for innovation: economies of scale and spillovers are to be evaluated. However, in general, this measure can generate constructive interdependencies and synergies across the EIA. The instrument is frequently used at the three levels which justify at least a more structured exchange of learning experiences at national and even more so at EU level, especially involving financial operators. The EIB instruments in association with the private equity operators and the development agencies can bring additional value to policy cooperation.</p>						
<i>Innovation process (function) in the focus of IP instrument</i>	<i>Dominant stakeholders</i>		<i>Stakeholder objectives</i>	<i>Role of IP instrument in achieving stakeholders' objective</i>		
<ul style="list-style-type: none"> <li>Operational financial solutions generating short- to medium-term impact in fostering Innovation</li> </ul>	Ministries of Research		Enhance national support for innovative ventures	Strongly interested in success and effective implementation of programme		
	SMEs' associations		Share benefits for a larger population of SMEs	Facilitate the establishment of the deal-flow		
	Private equity Institutions (EVCA ,European Business Angels Association)		Increased awareness of the private equity role in supporting innovation	New fiscal and organisational schemes to support introduction of innovation in SMEs		

<ul style="list-style-type: none"> <li>Foster access to private equity funding</li> <li>Enhanced relationship between financial world and SMEs</li> </ul>	EU DG Research	Improve <i>ex post</i> R&D investment impact of research results	Broadly interested in the success of the programme
	Regional Development Agencies	Enhance local SMEs' fabric capacity to access innovation financing	Strongly interested in the success and effective implementation of the programme and on the involvement of regional firms.
	DG Enterprise and Industry	Foster policy cooperation on sustaining innovation take-up in an area where market requires new policy support	Interested in the success of the programme as an initiative to leverage extensive policy cooperation in this field
Overall assessment of alignment potential of measure	Vertical alignment potential (complementary objectives between stakeholders at different levels) can be significant. Potential horizontal alignment potential is expected to be slow.		
<i>Potential for trans-European cooperation in support of risk capital (VC funds, seed and pre-seed finance)</i>			
Possible economies of scale, and combined spillovers are possible for the support to risk capital (VC funds, seed and pre-seed finance). The potential for policy cooperation from the loan side can be significant — market failure is evident in the majority of Member States: cultural resistance from SMEs, limited fiscal incentives, bankruptcy laws limiting the take-up of risk capital (VC funds, seed and pre-seed finance). Pilot policy cooperation actions based on exchange of learning experiences at EU level can be significant. Vertical alignment of stakeholders' objectives is achievable. Potential for alignment is strongly dependent on national governments but also on private equity institutions engagement.			
<i>Specific actions to support European integration in area of business R&amp;D</i>			
Strengthen support for transnational and transregional cooperation (training, cross-regional awareness actions) between private equity operators and regional development agencies providing pre-seed capital. Enhance cross-learning among major fund providers and promote private equity European legislation alignment for investment in innovative ventures.			

## Pilot 8: Support of innovation in services

Support of innovation in services:

- support to knowledge intensive services;
- support to new service-product offerings;
- new customer/delivery interfaces through project grants and toolboxes.

<i>Specific objective of the measure</i>	<i>Economy of scale</i>		<i>Heterogeneity — differences in preferences of Member States or regions</i>	<i>Cross-border knowledge spillovers</i>		<i>Frequency of use of instrument</i>
	<i>Technical-scale economies</i>	<i>Fixed costs of public administration</i>		<i>Positive spillovers</i>	<i>Negative spillovers</i>	
<b>Support to innovation in services</b>						
To improve take-up of service innovation in Europe	Limited	Limited	Differences in preferences of Member States and regions are probably high	High in terms of raising awareness and establishing best practice	Limited	In EU-27, only four programmes explicitly target service innovation
<p><i>Summary:</i> Limited scale economies, high heterogeneity of preferences and almost non-existent explicit policy instruments do not support EU-wide actions in this area. However, in view of great importance of service innovation for building up the EU as a knowledge-based economy, there is justification for policy actions which would increase awareness, and diffuse the best policy practice in this area. The heterogeneous character and the multidimensional, multilayer nature of services innovation calls for a policy approach that involves cooperation and coordination between different policy areas as well as between actors at different levels (national, EU and regional).</p>						
<i>Innovation process (function) in the focus of IP instrument</i>	<i>Dominant stakeholders</i>		<i>Stakeholder objectives</i>	<i>Role of IP instrument in achieving stockholder's objective</i>		
<ul style="list-style-type: none"> <li>• Innovation in new business models/concepts</li> <li>• Innovation in new customer/delivery interfaces</li> <li>• Innovation in new service-product offerings</li> </ul>	National ministries and public agencies		Promotion of best practices, toolboxes and take up of service innovation	Broadly interested in success of programme (provided that appropriate policy instruments are designed and implemented)		
	EC DGs		Promotion of best practices, toolboxes, standards and take-up of service innovation	Interested in success of the programme as an initiative to leverage extensive policy cooperation in this field		
	Regional development agencies		Enhance local SMEs' capacity to use and develop service innovation	Strongly interested in the success and effective implementation of the specific region-oriented programme		
	KIS organisations providers		Interested in supporting in-house development or commercial development of service innovation	Significant interests provided that programme support is tailored to their specific (sectoral) needs		
	Users and customers of KIS		Interested in support for	Significant interests provided that		

		take-up of service innovation	programme support is tailored to its specific needs
Overall assessment of alignment potential of measure	Potential for vertical complementarities at EU level exist mainly in <i>sector specific areas</i> where it would be necessary to enhance closer links between knowledge creation, incubation, finance and clusters.		
<i>Potential for trans-European cooperation in support of service innovation</i>			
Potential for trans-European cooperation is possible in <i>sectoral</i> partnerships at EU level and in development of new policy measures targeting issues that are central to the development of KIS and services innovation, like KIS platforms. However, equally or even stronger support to service innovation is possible through indirect policy measures (skills, and service orientation of RTOs), by development of framework conditions facilitating the role of KIS in innovation (lead markets, reducing regulatory burden) or by making existing innovation policies more service friendly (adapting financing and assistance criteria so that services-related innovation projects get better access to existing policies).			
<i>Specific actions to support European integration in area of service innovation</i>			
<ul style="list-style-type: none"> <li>• To support the development of services IP and activity at national and European level as outlined in <i>The European Services Innovation Memorandum</i>.</li> <li>• To continue support activities of the European innovation platform for KIS (Phase 2) by focusing on the development and practical implementation of new or better tools and business support services through public private partnerships with explicit commitments from all partners.</li> </ul>			

## Pilot 9: Support of IPR

<i>Specific objective of the measure</i>	<i>Economy of scale</i>		<i>Heterogeneity – differences in preferences of Member States or regions</i>	<i>Cross-border knowledge spillovers</i>		<i>Frequency of use of instrument</i>
	<i>Technical-scale economies</i>	<i>Fixed costs of public administration</i>		<i>Positive spillovers</i>	<i>Negative spillovers</i>	

### Programmes in support of IPR

Enhance European cooperation in increasing standards of IPR protection in order to stimulate innovation	Moderate and confined to encouraging development of cooperative approaches in stimulating the take up of IPR culture, especially by SMEs	Economies of scale in administrating programme are not very significant	Heterogeneity of regional preferences can be diverse, also due to different sectoral focus	Knowledge spillovers can be significant among Member States and regional agencies (promoting new measures to support IPR)	No negative spillovers are foreseen	Not frequent in EU-27 regions
---	--	---	--	---	-------------------------------------	-------------------------------

*Summary:* Intellectual property rights are an integral part of the institutional basis of innovation and require policy cooperation and policy coordination. The present fragmentation and (in some Member States) limited IPR culture are constraints to be dealt with through transnational cooperation. Economies of scale are limited but knowledge spillovers are quite relevant and can generate new incentives to invest in knowledge and innovation.

At higher levels (national or Community), policy coordination is important and can lead to a more efficient IPR system in Europe through the elaboration and analysis of policy issues and options on strategic dimensions of IPR in Europe. In particular, cooperation is needed to assess short- and long-term policy options, the policy means to improve the concordance of existing IPR rules and regulations with the pursuits of the policy, as well as possible changes to the existing IPR laws, rules and regulations.

In Europe, there is a certain degree of heterogeneity both from the cultural standpoint (different perception of European SMEs about investment in the generation, acquisition, transfer, diffusion and exploitation of knowledge) and from the legislative standpoint ( e.g. different regulatory approaches and orientations toward SW patenting, unprecedented challenges of an ethical nature like DNA manipulation, employment legislation regarding ownership of inventions by employees; rules of ownership and disclosure of knowledge generated in public research institutions and public research programmes).

Quite heterogeneous regional preferences are offset by positive spillovers. Instrument is not in frequent use which may justify

<i>Innovation process (function) in the focus of IP instrument</i>	<i>Dominant stakeholders</i>	<i>Stakeholder objectives</i>	<i>Role of IP instrument in achieving stakeholders' objective</i>
<ul style="list-style-type: none"> <li>Exchange of technical information and know-how</li> <li>Design of new IPR</li> </ul>	National Government	Networking and cooperation among national IPR Authorities	Broadly interested in success of programme

<p>promotion measures</p> <ul style="list-style-type: none"> <li>Defining conflicting regulatory areas</li> <li>Identification of enforcement mechanisms</li> </ul>	EC DG Enterprise, EC DG Research	Development process of new solutions could lead to better interoperability and exchangeability	Strongly interested in success and effective implementation of programme
	Regional development agencies	<ul style="list-style-type: none"> <li>Learning on IPR strategies and practices</li> <li>Implementation of Innovation support measures</li> </ul>	A highly interested stakeholder in enhancing IPR culture among regional SMEs and clusters
	Universities	Networking and cooperation	<ul style="list-style-type: none"> <li>Facilitated access to European IPR opportunities,</li> <li>increase awareness of researchers</li> </ul>
	IPR- Helpdesk	Networking and cooperation	Strongly interested in success and effective implementation of programme
Overall assessment of alignment potential of measure	Vertical alignment potential (complementary objectives between stakeholders at different levels) is strong. There is the need to proceed with sectoral (e.g. broadcasting, counterfeiting) or horizontal (training, awareness) actions in order to offset strong heterogeneity.		
<i>Potential for trans-European cooperation in support to IPR</i>			
Limited economies of scale but positive spillovers (exchange of knowledge, promotion of new approaches, increasing awareness, supporting European researchers) can reduce the heterogeneous preferences. The potential for shared responsibilities in the exchange of learning experiences at EU level is high. Also, the potential for vertical alignment of stakeholders' objectives is significant.			
<i>Specific actions to support European integration in area of IPR</i>			
<ul style="list-style-type: none"> <li>IPR conventions (patents, copyright, etc.) to regulate new and future economic activities in knowledge production and in knowledge-intensive service sectors, mobility of researchers, cross-European University spin-offs.</li> <li>Promote 'enlightenment' activities, which raise the awareness of the European public and firms concerning intellectual property.</li> <li>Support European IPR cooperation among regional clusters and among regional research institutions. Identify existing national provisions and practices which have been found to be particularly effective and should be applied across the EU as a whole.</li> <li>Design of more favourable fiscal conditions promoting IPR, like the introduction of tax incentives and other fiscal instruments to increase IPR investments, especially by SMEs.</li> </ul>			

## Pilot 10: Public Procurement

<i>Specific objective of the measure</i>	<i>Economy of scale</i>		<i>Heterogeneity — differences in preferences of Member States or regions</i>	<i>Cross-border knowledge spillovers</i>		<i>Frequency of use of instrument</i>
	<i>Technical-scale economies</i>	<i>Fixed costs of public administration</i>		<i>Positive spillovers</i>	<i>Negative spillovers</i>	
<b>Programmes in support of Public Procurement</b>						
Stimulate the demand for innovation in Europe by supporting public contracting authorities	Potentially significant by reducing market fragmentation and encouraging development of competitive solutions	Economies of scale in administrating programme can be significant	Heterogeneity of regional preferences can be diverse	Knowledge spillovers can be significant among public administration/	Disincentives to invest in knowledge generation are possible due to limited internalisation of investment benefits	Frequent in EU-27 regions
<p><i>Summary:</i></p> <p>Economies of scale would justify its application at EU level but knowledge spillovers can generate disincentives to invest in knowledge generation as producers know that they are not able to internalise all benefits of their investments. In order to reduce disincentives to invest in knowledge, a solution is policy coordination at a higher level, (national or Community). At higher levels, policy coordination can lead to more efficient IP as it can internalise these policy externalities.</p> <p>Quite heterogeneous regional preferences are offset by positive spillovers. The potential for shared responsibilities is not only based on the exchange of learning experiences at EU level, but also on the following: (1) the development of joint PP platforms developing new solutions leading to better interoperability and exchangeability in the European market, which is today quite fragmented, (2) the set-up of specialised networks engaging contracting authorities, (3) the promotion of professionalism in public procurement, (4) the monitoring of new developments and trends.</p>						
<i>Innovation process (function) in the focus of IP instrument</i>	<i>Dominant stakeholders</i>	<i>Stakeholder objectives</i>	<i>Role of IP instrument in achieving stakeholders' objective</i>			
<ul style="list-style-type: none"> <li>• Exchange of technical information and know how</li> <li>• Joint development</li> <li>• Joint strategic planning</li> </ul>	National government	Networking and cooperation among European public procurers	Broadly interested in success of programme			
	Public Procurement Department of Regional Public Administrations	Development process of new solutions could lead to better interoperability and exchangeability	Strongly interested in success and effective implementation of programme			

	SMEs/Technology providers of IT solutions for PP	Learning on procurement strategies and practices, including technical specifications, use of standards, risk management, and implementation of contracts	A highly interested stakeholder provided that networking and knowledge support are ensured
	SMEs/providers of PP goods and services in the sectors of construction, protective textiles, bio-based products, recycling	Networking and cooperation between public procurers	<ul style="list-style-type: none"> <li>• Facilitated access to European PP opportunities</li> <li>• Increase quality standards</li> <li>• Face competition from overseas suppliers</li> </ul>
Overall assessment of alignment potential of measure	Vertical alignment potential (complementary objectives between stakeholders at different levels) is strong. There is the need to proceed with sectoral actions in order to offset strong heterogeneity.		
<i>Potential for trans-European cooperation in support of PP</i>			
Substantial economies of scale and positive spillovers (exchange of knowledge, promotion of industrial aggregation, the take-up of new technology approaches and standards) are not affected by the heterogeneous preferences. The potential for shared responsibilities in the exchange of learning experiences at EU level is very high. Also, the potential for vertical alignment of stakeholders' objectives is significant.			
<i>Specific actions to support European integration in area of PP</i>			
<ul style="list-style-type: none"> <li>• Strengthen the support for transnational and transregional cooperation between governments and industry as outlined in DG Enterprise and Industry consultation document of May 2008 <i>Establishing Public Procurement Networks in Support of the Lead Market Initiative</i>.</li> <li>• Creation of thematic networks of contracting authorities, including government organisations promoting professionalism in public procurement in the lead market areas.</li> <li>• Strengthen support to public administrations for collaborative PP initiatives involving developing areas ('support the weakest link').</li> </ul>			