

**DRAFT THEMATIC GUIDANCE FICHE FOR DESK OFFICERS**  
**RESEARCH AND INNOVATION**  
**VERSION 3 - 13/03/2014**

**RELEVANT PROVISIONS IN THE LEGISLATION**

Regulation	Articles
<p><a href="#"><u>Common Provisions Regulation</u></a>  <b>No 1303/2013</b></p>	<p>Article 9 (1) - Thematic objective: strengthening research, technological development and innovation</p> <p><b>Related provisions:</b></p> <p>Article 2 – definition of 'smart specialisation strategy'</p> <p>Article 9 - Thematic objectives (2), (3), (8)</p> <p>ANNEX I, section 4.3 (synergies with Horizon 2020), section 7.2 (cross-border and transnational cooperation)</p> <p>ANNEX XI, part I, Thematic ex ante conditionalities 1.1., 1.2. and 2.1.</p>
<p><a href="#"><u>European Regional Development Fund Regulation</u></a>  <b>No 1301/2013</b></p>	<p>Article 5(1) - Investment priorities relating to TO1 (strengthening research, technological development and innovation)</p> <p><b>Related provisions:</b></p> <p>Article 3 (1) b, d, e, f - Scope of support from the ERDF</p> <p>Article 5(2) - Investment priorities relating to TO2 (enhancing access to and use and quality of ICT)</p> <p>Article 5(3) - Investment priorities relating to TO3 (enhancing the competitiveness of SMEs)</p> <p>Article 5(4) (f) - Investment priority: promoting research in, innovation in and adoption of low-carbon technologies;</p> <p>Article 5(6) – Investment priorities: (6) f <i>promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution;</i> (6) g <i>supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors;</i></p> <p>Article 5(8) a - Investment priority: <i>supporting the development of business incubators and investment support for self-employment, micro-enterprises and business creation.</i></p>
<p><a href="#"><u>European Social Fund Regulation</u></a>  <b>No 1304/2013</b></p>	<p><b>Related provisions:</b></p> <p>Article 3(2)c - Scope of support: contribution to TO 1</p> <p>Article 9 - Social innovation</p>

<p><b><u>European Territorial Cooperation Regulation</u></b> <b>No 1299/2013</b></p>	<p><b>Related provisions:</b> Recital 7 - cooperation between innovative research-intensive clusters</p>
<p><b><u>EAFRD Regulation</u></b> <b>No 1305/2013</b></p>	<p><b>Related provisions:</b></p> <p>Article 5 (1) (a) <i>fostering innovation, cooperation, and the development of the knowledge base in rural areas; and (b) strengthening the links between agriculture, food production and forestry and R&amp;I, including for the purpose of improved environmental management and performance;</i></p> <p>Article 14 - Knowledge transfer and information actions</p> <p>Article 26 - Investments in forestry technologies and in processing, in mobilising and in the marketing of forest products</p>
<p><b>EMFF Regulation</b></p>	<p><b>Related provisions:</b></p> <p>Article 6 (2) and (3) innovative, competitive and knowledge based fisheries and aquaculture</p> <p>Article 28 and 45 – Innovation</p>

*This is a draft document based on the new ESIF Regulations published in OJ 347 of 20 December 2013 and on the most recent version of the relevant Commission's draft implementing and delegated acts. It may still require review to reflect the content of these draft legal acts once they are adopted.*

## 1. INTRODUCTION

---

This guidance explains issues related to Thematic objective 1 “Strengthening research, technological development and innovation” and the related investment priorities for the ERDF.

## 2. STRATEGIC FRAMEWORK

---

### 2.1. *Innovation as key driver for economic development and transformation*

Support to strengthening research, technological development and innovation is a priority for the ESI Funds: Thematic objective 1 (TO1) is part of thematic concentration requirements (80% of the ERDF allocation in more developed regions / 60% in transition regions / 50% in less developed regions).

Innovation is necessary for countries and regions to become/remain competitive by increasing companies' productivity, accessing new, higher added-value markets and ultimately leading to sustainable employment creation in a context of fierce global competition. It can also be a cost-efficient way of improving services delivery to meet societal needs. Innovation is therefore central to the Europe 2020 strategy.

The EU, the US and Asia continue to be the strongest regions for R&D&I spending with a combined total of nearly 92% of all global investment<sup>1</sup>. However, Europe's competitor nations focus on translating basic research into advanced products, goods and services through significant investment on applied research and experimental development<sup>2</sup>. In the US, China and South Korea public R&D funds go mainly into applied research and development (between 90% and 76%)<sup>3</sup>. The EU Member States dedicate far less (around 64%) to this close to the market and competitiveness related activity. This makes it even more urgent to address the “European Paradox”, i.e. the difficulties that European countries have in transforming their success in basic research into commercial success. A systematic rebalancing of the public investment of European Commission and Member States resources towards applied research and product development is therefore necessary to meet future competitiveness challenges.

Research and innovation are not the same:<sup>4</sup>

- Research<sup>5</sup> (basic research, applied research and experimental research) is a creative work undertaken on a systematic basis in order to increase the stock of knowledge and the use of this stock of knowledge to devise new applications. **Basic research** is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view. **Applied research** is also original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective. **Experimental development** is systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.

---

<sup>1</sup> Science, Engineering, Indicators Digest. National Science Board. NSF. January 2012.

<sup>2</sup> According to the OECD Frascati agreed taxonomy for classifying public investment in research and innovation. Frascati Manual. OECD. 2002.

<sup>3</sup> KETs High-level group report (2011):

[http://ec.europa.eu/enterprise/sectors/ict/key\\_technologies/kets\\_high\\_level\\_group\\_en.htm](http://ec.europa.eu/enterprise/sectors/ict/key_technologies/kets_high_level_group_en.htm)

<sup>4</sup> “Research is the transformation of money into knowledge. Innovation is the transformation of knowledge into money”, as Geoffrey Nicholson, the CEO of 3M puts it. The [EU state aid framework for R&I](#) contains further definitions of fundamental research, industrial research, experimental development, prototypes etc. The framework is currently under revision.

<sup>5</sup> See for research [OECD's Frascati Manual](#)

- **Innovation**<sup>6</sup> is related to a process connecting knowledge and technology with the exploitation of market opportunities for - compared to what is available on the internal market - **new or significantly improved products (goods or services), or processes**<sup>7</sup>, **new marketing methods, or new organisational methods** in business practices, workplace organisation<sup>8</sup> or external relations. Innovation encompasses a certain degree of risk that is higher than for ordinary business activities.

ERDF investments are about socio-economic development and thus should clearly aim at innovation, technological development and applied R&D and be related to business needs and capabilities. **R&D projects for purely scientific purposes without any direct practical application or use in view are therefore not a priority for the ERDF.**

The ERDF vocation to helping building the "**stairway to excellence**" is one element for enabling less developed MS/regions to participate in Horizon2020. It has to be noted that other support to build up such "research excellence" could come from Horizon2020 (in particular in the form of ERA Chairs, twinning, Marie Curie scholarships, etc.) and from Erasmus+ to strengthen skills of researchers. **The main role of ERDF is thus to invest in "innovation excellence"**, i.e. to translate knowledge into value/business opportunities, including applied research, cooperation between enterprises, R&D centres and higher education, product and service development, technology transfer, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, etc.

Nonetheless, ERDF investments in building **fundamental research infrastructures and purchasing equipment for fundamental research** may be supported under the following conditions:

- (1) the research fields must be in line with the smart specialization strategy (RIS3),
- (2) there must be a justification on how the results of the research will be used to benefit the economic development of the region concerned,
- (3) in case of major projects, all the CBA and other planning aspects (in particular a business plan to ensure financial sustainability of the investments) have to be taken into account at the earliest stage, preferably as part of the OP,
- (4) preference should be given to such projects that are part of the ESFRI roadmap or a regional partner facility of ESFRI infrastructures and in line with smart specialisation strategy.

## 2.2. *The role of smart specialisation strategies, as set out in the CPR.*

Smart specialisation strategy (RIS3) means the national or regional innovation strategies which **set priorities** in order to **build competitive advantage by developing and matching research and innovation own strengths to business needs in order to address emerging opportunities and market developments in a coherent manner**, while avoiding duplication and fragmentation of efforts; a smart specialisation strategy may take the form of, or be included in, a national or regional research and innovation (R&I) strategic policy framework<sup>9</sup>.

---

<sup>6</sup> See for innovation [OECD's Oslo Manual](#)

<sup>7</sup> 'Process innovation' means the implementation of a new or significantly improved production or delivery method (including significant changes in techniques, equipment and/or software). See R&I state aid framework

<sup>8</sup> 'Organisational innovation' means the implementation of a new organisational method in the undertaking's business practices, workplace organisation or external relations. See R&I state aid framework

<sup>9</sup> Art. 2(3) of the CPR.

Member States shall develop national and/or regional 'smart specialisation' strategies in line with the National Reform Programme, where appropriate. Such strategies may take the form of or be included in a national or a regional research and innovation strategic policy framework for 'smart specialisation'. Smart specialisation strategies shall be developed through involving national or regional managing authorities and stakeholders such as universities and other higher education institutions, industry and social partners in an **entrepreneurial discovery process**. The authorities directly concerned by Horizon 2020 shall be closely associated with that process. Smart specialisation strategies shall include:

- a) "Upstream actions" to prepare regional R&I players to participate in Horizon 2020 ("stairways to excellence") to be developed, where necessary, through capacity- building. Communication and cooperation between Horizon 2020 national contact points and managing authorities of the ESI Funds shall be strengthened.
- b) "Downstream actions" to provide the means to exploit and diffuse R&I results, stemming from Horizon 2020 and preceding programmes, into the market with particular emphasis on creating an innovation-friendly environment for business and industry, including SMEs and in line with the priorities identified for the territories in the relevant smart specialisation strategy<sup>10</sup>.

Member States shall, where appropriate, make use of the possibility of carrying out **interregional and transnational actions** with beneficiaries located in at least one other Member State within the framework of the operational programmes under the Investment for growth and jobs goal, including on the implementation of relevant research and innovation measures **emanating from their 'smart specialisation' strategies**.<sup>11</sup>

For more details, please consult **RIS3 guide**: <http://s3platform.jrc.ec.europa.eu/s3pguide>

### 2.3. *Smart specialisation strategies as ex-ante conditionality*

**The existence of a national and/or regional smart specialisation strategy (RIS3) is the *ex ante* conditionality for investments under Thematic objective 1. All operations funded under TO1 have to contribute to the implementation of the relevant smart specialisation strategy (RIS3).**

The thematic ex-ante conditionality related to the smart specialisation strategies does not apply to the Investment Priorities outside TO1. However, research and innovation activities can also contribute to the other investment priorities (see also Section 3.6).

## 3. REGULATORY SCOPE OF SUPPORT

---

### 3.1 *Scope of support of the ERDF*

In line with the results orientation of the new legislative framework for Cohesion policy, the ERDF regulation distinguishes clearly between:

- the **scope of support** for the ERDF (the activities it may support) and
- the **investment priorities (IP) for each thematic objective** (objectives to which the ERDF shall contribute).

---

<sup>10</sup> Annex I of the CPR, Section 4.3(2)

<sup>11</sup> Annex I of the CPR, Section 7.5

The investment priorities should form the basis for the definition of **specific objectives** within programmes that take into account the needs and characteristics of the programme area<sup>12</sup>.

**For an operation to be eligible for ERDF support it must contribute to a specific objective defined for an investment priority and fall within the scope of the fund's activities.**

Primarily the **ERDF supports** the development of endogenous potential in research and innovation. It allows fixed investment (infrastructure, equipment), support for enterprises and research and innovation bodies, networking, cooperation and technical assistance. It may also support investment in research, innovation and business infrastructures such as science parks or research centres of competence. Moreover, productive investment irrespective of the size of enterprises can be supported for the R&I investment priority set out in article 5.1 of the ERDF regulation (Art.3 (1.b)). Thus, **productive investments carried out by large firms** might be supported under this investment priority

See Article 3.1. (scope of the ERDF):

*b) productive investment, irrespective of the size of the enterprise concerned, which contributes to the investment priorities set out in points (1) and (4) of Article 5, and where the investment involves cooperation between larger enterprises and SMEs, in point (2) of Article 5.*

*d) investment in social, health, research, innovation, business and educational infrastructure;*

*(e) investment in the development of endogenous potential through fixed investment in equipment and small-scale infrastructure, including small-scale cultural and sustainable tourism infrastructure, services to enterprises, support to research and innovation bodies and investment in technology and applied research in enterprises;*

*(f) networking, cooperation and exchange of experience between competent regional, local, urban and other public authorities, economic and social partners and relevant bodies representing civil society, referred to in Article 5(1) of Regulation (EU) No 1303/2013, studies, preparatory actions and capacity-building.*

**ERDF does not support** research and pilot projects in the areas of decommissioning or construction of nuclear power stations, tobacco and in undertakings in difficulty, as well as running/operating costs of existing research and innovation infrastructures that are not linked to specific ERDF operations.

### *3.2 Investment priorities of the ERDF*

ERDF Investments under the thematic objective "strengthening research, technological development and innovation" shall contribute to the following investment priorities (cf. Art. 5 (1) of the ERDF regulation):

*1) (a) enhancing research and innovation (R&I) infrastructure and capacities to develop R&I excellence, and promoting centres of competence, in particular those of European interest;*

*1) (b) promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies.*

---

<sup>12</sup> Cfr. Recital 7 of the ERDF Regulation: (...) investment priorities should set out detailed objectives, which are not mutually exclusive, to which the ERDF is to contribute. Such investment priorities should form the basis for the definition of specific objectives within programmes that take into account the needs and characteristics of the programme area.

References to innovation are mentioned in several of the other ERDF investment priorities. In reality, the results of the R&I work are underlying elements for the realisation of the projects of other thematic objectives. For example, the use of innovative, more resilient construction materials in infrastructure projects could be a climate adaptation measure under investment priority 5. Therefore, it is important that the possible synergies of TO1 with the other thematic objectives are explored and used. The process for the development of smart specialisation strategies could be a useful tool for identification of such interlinkages and possibilities.

### 3.3. *Synergies with other EU programmes*

As provided for in section 4.3. of the Common Strategic Framework, set out in Annex I to the CPR, synergies will have to be sought between research and innovation-related investments under ESI Funds and Horizon 2020, whilst respecting their distinct objectives and management modalities. Specific guidance on this will be available by mid-2014.

### 3.4. *ESF investments in innovation*

The ESF shall promote social innovation within all areas falling under the scope of the ESF (ESF Art. 9). The ESF shall also contribute to TO 1 (see ESF Article 3 (2) c), through the development of post-graduate studies, the training of researchers, networking activities and partnerships between higher education institutions, research and technological centres and enterprises.

### 3.5. *EAFRD investments in innovation*

The EAFRD will invest in innovation and the knowledge base in rural areas, strengthening links between agriculture and forestry and R&I, knowledge transfer and investments in new forestry technologies and in processing and marketing of forestry products.

According to Art. 35 of the EAFRD Regulation, however, this innovation support has to be based on and foster co-operation involving at least two entities, in particular between different actors in the agriculture or food chain or forestry sector, contribute to the objectives and priorities of rural development policy, or the creation of clusters and networks or the establishment and operation of operational groups of the EIP for agricultural productivity and sustainability (see Article 55 EAFRD).

Since the ERDF may also invest in R&I in the agro-food field, a clear demarcation line needs to be determined in the relevant OPs. In particular, if an investment is subject to agricultural State aid rules it should be funded by EAFRD as this facilitates the compliance with these rules and CAP specificities. If an investment is not subject to agricultural State aid rules, then there is a choice between the funds which will depend on what is in the programmes (in particular their specific objectives for SME development) and the availability of resources.

In addition to IP 1, explicit mentioning of innovation in the ERDF Regulation is included under:

- TO 3 (enhancing the competitiveness of SMEs),

- *economic exploitation of new ideas and fostering the creation of new firms, (...) developing and implementing new business models for SMEs, (...) supporting the creation and the extension of advanced capacities for product and service development, (...) supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes (Art. 5(3)(a-d))*

- TO 4 (supporting the shift towards a low-carbon economy in all sectors)
  - *promoting research and innovation in, and adoption of, low-carbon technologies* (Art. 5(4)(f)),
- TO 6 (preserving and protecting the environment and promoting resource efficiency):
  - *promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil or to reduce air pollution* (Art. 5(6)(f)),
  - *promoting eco-innovation* under investment priority (Art. 5(6)(g)).

Research and innovation is also possible and can contribute to TO 2 (ICT: products and services, e-commerce, e-government, etc.), TO 5 (climate adaptation: innovative technologies for adaptation and risk prevention), v 7 (promoting sustainable transport and removing bottlenecks: innovative solutions for environmentally friendly and low-carbon transport systems), TO 8 (entrepreneurship skills should include innovation management) and TO 11 (administrative capacities can be enhanced through innovation).

To determine whether IP 1a), b) or one of the other IPs should be used, the main purpose of operations and the objectives/indicators should be scrutinised to determine its main focus. A possible re-classification under a different IP could be requested.

#### **4. KEY MEASURES LINKED TO INVESTMENT PRIORITIES**

---

Several investment priorities are related to the Thematic objective 1 “strengthening research, technological development and innovation”<sup>13</sup>, notably:

##### *4.1. Investment priority 1.a:*

*enhancing research and innovation (R&I) infrastructure and capacities to develop R&I excellence, and promoting centres of competence, in particular those of European interest;*

##### *4.1.1 Research infrastructure and capacity*

Research infrastructure and capacity refers to facilities used by private or public researchers to conduct research, development and testing. Such facilities may include scientific equipment or sets of instruments, knowledge-based resources such as collections, archives or structured scientific information, ICT-based e-Infrastructures (networks, computing resources, software and data repositories). Research infrastructures may be 'single-sited' or 'distributed' (a network of facilities). Investments in research infrastructures can be combined with education and other measures to attract researchers, e.g. related to the Horizon2020 "[ERA chairs](#)" and [Marie-Curie fellowships](#) for researchers, and also related to ESF investments<sup>14</sup>.

<sup>13</sup> Research operations are covered by TO 1. Innovation support operations are mainly under TO 1, but are also possible under other TO s, e.g. IP 2 b and c (e-government, e-commerce etc.), 3 (SME competitiveness hinges often on innovation), 4 to 6 (eco-innovation), 8 (entrepreneurship skills should include innovation management) and 11 (administrative capacities can be enhanced through innovation). The deployment of innovations, e.g. through public procurement, could be funded under other TOs, for instance TO 4 and 7 to purchase environmental or transport innovations.

<sup>14</sup> See ESF regulation: "development of post-graduate studies, training of researchers, networking activities and partnerships between higher education institutions, research and technological centres and enterprises"



Research infrastructures in the [ESFRI roadmap](#) are considered as being of European interest as they enable EU researchers to stay at the global forefront of science and technology. Nevertheless, a mention in the ESFRI roadmap does not guarantee neither a positive socio-economic impact of a research infrastructure nor the absence of duplication. Therefore, this type of project should ensure arrangements for linking this infrastructure to other complementary R&I facilities and to industrial partners and should be in line with smart specialisation strategy. In this sense, requesting the development of a business plan for future private funding of the infrastructure could be useful. Please note that R&Is beyond EUR 50 million investment volume have to follow the major projects procedures (see separate guidance).

Moreover, in some instances it might be more cost-effective and speedy to invest in such an infrastructure in another region either through a contribution to the building/equipment or by buying laboratory time, issuing vouchers, etc. (see Art. 70.2 (b); Art. 90.2 (c) v CPR). This is also valid for ESI Funds support to Knowledge and Innovation Communities (KICs), European Innovation Partnerships (EIPs), Joint Programming Initiatives and Joint Technology Initiatives (platforms).

Recommended reading & good practice: [Connecting universities to regional growth: a practical guide, Potsdam-Golm Science Park](#) ; JASPERS: [State Aid in RDI Infrastructure projects](#) ; [Project Preparation and CBA of RDI Infrastructure Projects](#)

#### *4.1.2 Innovation infrastructure and capacity*

Innovation infrastructure and capacity generally refers to facilities for business-to-business or business-academia/education cooperation, such as technology or science parks, technology centres or competence centres. It also covers infrastructure providing facilities to creative hubs facilitating the concentration of a critical mass of creative businesses in particular cultural and creative industries and ICT.

Although large firms can benefit from investments under IP1, it is recommended to check that the ESI funds money does not simply replace the private budgets of large firms. Selection criteria could be therefore drafted so that large firms may only benefit from such support if also a substantial number of SMEs, NGOs or public sector bodies benefit.

Technology/science parks (STP) – including with links to universities - might also be cost-effective investments under this investment priority. Guidance for national/regional authorities on this is in preparation. STP need to have from the start a realistic business plan and respond to the needs and potential of the industrial and skills profile of a territory to have a chance of success in the sense of being financially self-sustained after the ESI Funds support. The best performing parks combine their offer of R&D space and equipment with advanced business services (financial, intellectual property, design, marketing, etc.) and shared spaces to facilitate the cluster-like serendipity effects that can trigger innovation.

Recommended reading & good practice: [Cultural and Creative Industries handbook](#); [guide to service innovation](#), [guide to innovation-based incubators](#), [Aalto University](#) fusion of technology, arts and business faculties.

#### 4.2. Investment priority 1.b:

*promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies.*

##### 4.2.1 Promoting business investment in R&I

Enhancing private R&I investment might be achieved by incentivising innovation investments by endogenous enterprises and by attracting Foreign Direct Investment (FDI).

For endogenous firms **typical instruments are**: research/innovation vouchers, financial instruments, technology audits, advisory services and platforms e.g. for innovation management, intellectual property management and acquisition, creative thinking<sup>15</sup>, design innovation<sup>16</sup>, user-centred innovation<sup>17</sup>, incubators, business angel networks, university-business cooperation schemes, placement schemes for researchers and innovation assistants, large scale demonstrators<sup>18</sup> that allow the testing of innovations in a real-life environment, as for instance in the case of testing the social acceptance and usability of electric cars, etc.

For **attracting foreign direct investment** (FDI) the instruments can be political, taxation, etc. but also the provision of infrastructures. Not all FDI fosters innovation and economic transformation towards higher knowledge intensity and added value. Many FDI decisions by multi-national companies (MNC) are made on the basis of cheap labour provision, which is not sustainable in the long run. In order to be a priority under TO1, the FDI attraction should fit into the economic transformation vision of the smart specialisation strategy, e.g. foster the emergence of new fields of economic activity or new clusters. There might be **attempts to disguise simple productive investments in large firms/FDI attraction as innovation support**, in particular as close to the market innovation activities or process or organisational innovation measures that are not specifically referenced in the investment priority text. However, the R&I state aid framework<sup>19</sup> makes it clear that the **following is NOT considered as innovation** and if funded may lead to reimbursement claims against the MA:

- minor changes or improvements, an increase in production or service capabilities through the addition of manufacturing or logistical systems which are very similar to those already in use,
- ceasing to use a process,
- simple capital replacement or extension,
- changes resulting purely from changes in factor prices, customisation, regular seasonal and other cyclical changes,
- trading of new or significantly improved products,

---

<sup>15</sup> E.g. **creative hubs** (see for instance [Aalto university's design factory](#)) or creative thinking coaching [Flanders Creative District](#),

<sup>16</sup> [http://ec.europa.eu/enterprise/policies/innovation/policy/design-creativity/index\\_en.htm](http://ec.europa.eu/enterprise/policies/innovation/policy/design-creativity/index_en.htm)

<sup>17</sup> E.g. **LivingLabs** for development and testing of innovations (products and services see [ENoLL](#)), **Internet platforms** for user-involvement in innovation processes

<sup>18</sup> For instance: <http://www.mobilise-europe.mobi/large-scale-demonstrators-real-live-testing>

<sup>19</sup> See [R&I state aid framework of 2006](#) valid until June 2014 – please note that the framework is currently under revision

- changes in business practices, workplace organization or external relations that are based on organizational methods already in use in the undertaking,
- changes in management strategy,
- mergers and acquisitions,
- simple capital replacement or extension, changes resulting purely from changes in factor prices, customisation, regular seasonal and other cyclical changes, trading of new or significantly improved products.

Actions to **attract or educate innovation talents**, i.e. creative thinking experts, boundary spanners between technologies and sectors, marketing/branding experts, etc. can also be considered<sup>20</sup>.

It is important to note that in 2014-2020 programming period ESI Funds support to this thematic objective can also be provided through **Financial Instruments** (FIs) set-up at EU, national, regional, transnational or cross border level, under the form of equity, quasi-equity investments, venture capital, early stage venture funds, seed capital, loan guarantees, soft loans or other risk-sharing instruments. FIs can be used in support of virtually all of the actions. See detailed guidance in separate fiche.

Recommended reading & good practice: [European Service Innovation Centre](#) (ESIC) to support regions in the design of better policies to transform existing, and boost emerging industries by unlocking the transformative power of service innovation, [proof of concept](#) (Scottish Enterprise, UK), [innovation assistants](#) (Austria), [voucher scheme](#) (UK), [innovation management: self-assessment tool & training](#); [EU Eco-Innovation Action Plan](#) (EcoAP)

#### 4.2.2 *Technology transfer and open innovation*

Technology transfer and open innovation can be achieved through private or public technology transfer centres and support services (e.g. intellectual property management), voucher schemes, such as technology scouting<sup>21</sup>, technology audits in firms to identify their needs and (staff) capacity for technology absorption, participation in networking and cooperation platforms, promotional events for technology promotion and partnering (e.g. brokerage events), support to the protection and licensing of intellectual property rights (IPRs).

In this context, it is important to note that beyond RDI infrastructures and equipment, creative and sociological perspectives can improve the results of innovation efforts, e.g. through opening up to user-driven innovation, design, co-creation and social innovation.

It is important to note that **just buying machines/equipment that contain new technologies is not technology transfer** and therefore do not contribute to the research and innovation thematic objective. Technology transfer means that the acquired technology is further developed, adapted or integrated with other technologies or services. In this sense, it is important to seek cooperation beyond the borders of the OP territory. The [Enterprise Europe Network](#) (co-funded from the [COSME programme](#)) may provide business and technology contacts, and cooperation with the National Contact Points of Horizon2020 may provide access to technology providers.

<sup>20</sup> ESF could contribute according to Art. 3(2) ESF)

<sup>21</sup> [Technology Scouting](#) contributes to Technology Management by (1) identifying emerging technologies, (2) channelling technology related information into an organization, and (3) in a corporate context supports the acquisition of technologies.

It is worth reminding that surveys suggest that the preferred method of firms for acquiring new technologies is not via licensing and cooperation agreements, but via hiring knowledgeable staff (which could be supported in particular under the ESF, but also by the ERDF<sup>22</sup>).

Recommended reading & good practice: [Henry Chesbrough on open innovation](#) ; [Eric von Hippel on user-driven innovation](#); Anthony Ulwick on outcome-driven innovation.

#### *4.2.3 Social innovation*

Social innovation<sup>23</sup> is an emerging concept that brings together user-driven innovation methods (co-creation of innovations with customers or actors along the value chain, crowd-sourcing, i.e. outsourcing a task or problem to an undefined public, etc.) and include in their delivery civil society actors (citizens, neighbourhood initiatives, non-for-profit enterprises, environmental groups etc. - community-led local development strategies or innovative actions for sustainable urban development could be instrumental for this), but limit their application to issues that are of societal importance, e.g. social, health, education, immigration, working conditions, etc. and environmental issues.

Recommended reading & good practice: [Social innovation guide](#), [Social Innovation Europe](#) web-site, [Charles Leadbeater](#), [C. K. Prahalad](#) "Co-Creating Value with Customers" (2004), report to the OECD on the [New Nature of Innovation](#) (2009)

#### *4.2.4 Eco-innovation*

Eco-innovation is defined as any form of innovation resulting in or aiming at significant and demonstrable progress towards the goal of sustainable development, through reducing impacts on the environment, enhancing resilience to environmental pressures, or achieving a more efficient and responsible use of natural resources. The current EU policy is defined in the 2011 [Eco-innovation Action Plan](#) (EcoAP) in which the Commission foresees among others measures that could be considered for ESI Fund support, e.g. demonstration projects and partnering to bring technologies that have been suffering from low uptake to the market, financial instruments, support services for SMEs, develop emerging skills and jobs and related training programmes to match the labour market needs.

Recommended reading & good practice: [Project examples of the CIP-EIP eco-innovation market replication projects for SMEs](#); [European Innovation Partnerships](#) for raw materials, sustainable agriculture, and water; guide on [Connecting Smart and Sustainable Growth through Smart Specialisation](#); see also the thematic guidance fiches for TO4 and TO6.

#### *4.2.5 Public service/sector innovation*

Public service/sector innovation is the development of innovative ways of organising public administrations and their service delivery. This can concern all branches of the public sector, i.e. also public hospitals, care facilities, police, judiciary, schools, fiscal authorities, etc. the methods for this type of innovation can concern all forms of innovation, e.g. technology-driven, e-government, organisational/workplace innovation, citizen-centred innovation, etc.

Recommended reading & good practice: [public sector innovation](#) site of ENTR, incl. Public Sector Innovation Scoreboard, [MindLab of Denmark](#)

---

<sup>22</sup> See for instance innovation assistant scheme in Austria: [http://www.kwf.at/?inhalt=10\\_Jahre\\_KWF-Innovationsassistent&id=4-1-0-0](http://www.kwf.at/?inhalt=10_Jahre_KWF-Innovationsassistent&id=4-1-0-0)

<sup>23</sup> ESF (Art 9) has the vocation to promote social innovation within all areas falling under the scope of the ESF, in particular with the aim of testing and scaling up innovative solutions to address social needs. The Commission shall facilitate capacity building for social innovation.

#### 4.2.6 Demand stimulation for innovations

Most innovation policies still focus on enabling firms to develop innovations, but do not provide innovators with what they need most directly: first customers that can serve as testers and reference for future sales and that bring in first returns on investments. The ESIF can support or facilitate private and public sector adoption of innovative solutions.

A frequently used method for public sector demand for innovations is public procurement of innovations (PPI), i.e. setting demanding technical or performance levels that require development work as they do not exist as such. PPI helps public sector organisations improving their efficiency (in terms of energy, HR, etc.) and quality of services and infrastructures.

Support for the market access of innovations can also be through trademarks and standards or incentives for private purchases of innovations (e.g. SMEs adopting eco-innovations for water purification) or promotion of innovations. In this sense, it is important to note that losses of MSs and regions in tax income due to tax breaks for buying innovations (e.g. low-carbon cars, heat insulation for buildings, solar panels) cannot be compensated by ERDF.

Also pre-commercial public procurement (PCP), i.e. the procurement of R&I services and possibly a prototype, can be considered, if new knowledge or technologies are required to address specific public sector challenges (e.g. sensor system for prevention of breaking dikes in the Netherlands, innovative solutions for affordable healthcare in the UK NHS, public transport solutions, etc.). Nevertheless, PCP involves a higher degree of risk than PPI, both in terms of technological risks (require earlier stage R&D, prototyping, testing, etc.) and/or in terms of non-technological risks (more uncertain return on investment period, higher risk of uncertainty in cost estimations, etc). PCP therefore normally implies sharing not only the risks, but also the benefits between public procurers and suppliers. This makes PCP State aid relevant.

Recommended reading & good practice: [public procurement of innovation](#) DG ENTR site, including links to networks of public procurers, [Innovation Procurement Forum](#), [SBIR procurement programme of the Dutch Government](#), DG CNECT publications on [pre-commercial public procurement](#), [risk management for procurement of innovation](#) , good practices: [RIM: demand side innovation policies at regional level](#) ; Spanish programme [INNOCOMPRA](#) (in ES)

#### 4.2.7 Networking and clustering

Networking and clustering is a classic method of fostering the cooperation among innovation actors (incl. SMEs, large firms, universities, training providers, supply chain connections etc.), and is promoting more efficient and better integrated/connected innovation systems. Evaluation results consistently show that that the level of innovation, turnover and exports in firms participating in cluster initiatives is slightly higher than for other firms.

Clusters tend to be sector/technology specific. The ESI Funds support can either go to the secretariat that animates the cooperation, branding<sup>24</sup>, etc. activities, or to the actual firms participating in the cluster, e.g. for joint R&I activities.

Advanced thinking about cluster support advocates the need to seek cooperation beyond geographical and sectorial boundaries. Please note that under the ETC InterregVC OP cooperation between innovative research-intensive clusters will be supported.

---

<sup>24</sup> **Branding** is the process of image communication to a target market - in the case of clusters, the development of a name, logo, slogan, and/or design scheme associated with the cluster to make possible suppliers and clients of the cluster firm, cooperation partners and political decision-makers associate certain capacities and qualities with the cluster. This can help to attract investments and new firms choosing the cluster as location.

Networks can be along value chains and include education, research public sector bodies, etc. beyond enterprises. Nevertheless, for a cluster initiative to function, it is absolutely crucial that there is sufficient critical mass in terms of companies, human resources, social capital (i.e. relationships and norms that shape the quality and quantity of social interactions) in a territory that allows generating the necessary cooperation among the cluster firms. Therefore, cluster initiatives that are created purely by political decision and do not correspond to the needs of enterprises mostly fail.

The quality of the cluster/network support provided by cluster secretariats depends on the professionalism of their personnel. Clusters that do not cooperate with others and are purely inward looking and aiming to preserve existing industry structures deliver less innovation impacts than others. The European Cluster Policy Group therefore noted in its recommendations: “38% of all European employees work in industries that concentrate regionally – in clusters (...) The focus of cluster programmes needs to shift from capacity building (...) towards a clear orientation on excellence, focusing on clusters with the ability to upgrade in the face of global competition and ensuring the consistent provision of public knowledge infrastructure (...)”

Recommended reading & good practice: Cluster guide (available as of April); [European Cluster Observatory](#), [European Cluster Excellence Initiative](#)

#### *4.2.8 Applied Research and technological development activities*

Applied Research and technological development activities include direct co-funding of individual or collaborative R&D projects of firms and/or research centres/universities (non-repayable grants to enterprises, grants supporting joint research projects between firms), vouchers to obtain R&D services for an individual firm and university-industry cooperation platforms amongst others.

Separate guidance is being developed regarding the possibilities to facilitate synergies between ESI Funds investments and Horizon2020 and on the interpretation of CPR Art 65(11).

#### *4.2.9 Pilot lines, validation actions, advanced manufacturing capabilities, first production in key enabling technologies and other multi-purpose technologies*

Key enabling technologies (KETs) are defined as Micro and Nano-electronics, Advanced Materials, Nanotechnology, Biotechnology, Photonics, but also other multi-purpose technologies, including information and communication technologies (ICT) should be considered. Public support in the EU for investments in KETs related pilot lines, validation actions, advanced manufacturing capabilities<sup>25</sup> and first production, i.e. close-to-market investments, is so far much lower than in countries such as US and China. However, such support can be crucial for the anchorage of industries in a region that translates research results into jobs and growth.

It is important to underline that the intensities and conditions for direct funding for such activities are still in discussion in the framework of the revision of the state aid framework for research and innovation.

---

<sup>25</sup> “**Advanced manufacturing**” is a sub section of existing manufacturing technologies or production processes which have the potential, if applied, to improve the productivity, the production speed, the operating precision, the energy and materials consumption, or improve the waste and pollution management of manufacturing. The definition of advanced manufacturing is technology neutral and sector independent: Advanced manufacturing is not limited to high tech manufacturing sectors. It can also originate or find applications in low tech, traditional manufacturing sectors. Advanced manufacturing can originate both from cutting edge technologies for manufacturing or from non-technological innovations which lead to improvements of existing manufacturing products, processes and business models and to the production and diffusion of new ones.

Recommended reading & good practice: report of [High-Level Expert Group on Key Enabling Technologies](#) of DG ENTR; [Exchange of good policy practices promoting the industrial uptake and deployment of Key Enabling Technologies support](#)

#### 4.3 SME innovation vs. SME competitiveness?

Given the importance of SMEs in terms of GDP and employment and given the specific size-related problems, investments into both fostering the creation of innovative start-ups and embracing innovation in existing SMEs are major priorities, also under TO1 and more specifically IP 1(b).

Innovation is also one of the major drivers for SME competitiveness, i.e. could be funded under TO3 that explicitly mentions typical innovation activities: *the economic exploitation of new ideas, new business models, business incubators, advanced capacities for product and service development and engagement in innovation processes.*

Recommended reading & good practice: thematic fiche on TO3 – SME competitiveness; Smart Guide to SME support in RIS3 ([http://s3platform.jrc.ec.europa.eu/documents/10157/0/SMEs\\_guide.pdf%20-%20Adobe%20Acrobat%20Pro.pdf](http://s3platform.jrc.ec.europa.eu/documents/10157/0/SMEs_guide.pdf%20-%20Adobe%20Acrobat%20Pro.pdf) )

### 5. LESSONS FROM THE PAST AND RESULT ORIENTATION

---

The nature of the innovation process makes it particularly challenging to identify impacts and only hints of evidence are available: innovation is rarely linear from R&D to a specific new product or service within the same firm, but lives on trial and error, on user/client and inter-firm cooperation, on inspiration or knowledge absorption from outside, may get triggered rather by spotting a market opportunity than by a R&D result, and may be aborted in the end as a competitor managed to be faster or blocks the entry in the distribution chain, etc.

Past evaluations suggest the following lessons in relation to different forms of support:

a) Concerning grants and vouchers:

- Significant increase of profitability of firms supported to carry out joint projects
- Size of grant seems weakly correlated with the size of impact: better little than big grant
- Grants to large firms may not change innovative behaviours as expected

b) Concerning soft loans, loan guarantees, seed capital, early stage venture funds, business angels networks:

- Less adapted for research activities than grants, more adapted for innovation (closer to the market)
- Hints of positive impact on investment

c) Concerning non-financial support: advice (in finance, law, marketing...), audit, networking, etc.

- Hints that combined financial and non-financial support is more cost effective than financial support alone
- Consider the cost and time involved in setting up and running schemes

The choice of the specific objectives and of support measures and their combination will depend on the situation of the Member State or region (level of development of research capacity, effectiveness of innovation system, capability of firms to absorb innovation, assets or fields of excellence, connectivity with other MS/regions' innovation actors, etc.).

Examples of possible result indicators<sup>26</sup> include:

- Number of new high tech firms/of spin-off companies
- Share of turnover based on innovation
- Productivity (e.g. measured by Gross Value Added (total or by sector)/head)
- Share of knowledge-intensive personnel (see: new [Europe 2020 headline indicator for innovation](#))
- R&D personnel as percentage of total employment
- Community innovation survey indicators (available for Member States and some regions)
- [Innovation Union Scoreboard](#) or [regional innovation scoreboard](#) indicators
- Number of business/enterprise partnerships
- Number of cooperations between businesses and universities/research centres
- Number of patents/prototypes/registered trademarks or designs

Programmes should not multiply result indicators and should ideally pick up one per specific objective. For each of these it is important to know how the programmers plan to collect data for result indicators. Defining a precise quantified target that is achievable within the programming period may prove difficult for research and innovation activities. Programmers could use qualitative targets (i.e. an expected direction of change, a range of value).

Furthermore, as research and innovation activities require time to result in new products or services on the market, programmes may need to use result indicators targeting intermediate steps in the intervention logic. For example, a programme wishing in the medium-long term to increase participation by regional researchers and companies in international research and innovation activities (e.g. Horizon2020, inter-cluster cooperation) may target as intermediate result an increased number of foreign research personnel or contracts between regional firms with firms or research centres or universities abroad.

---

<sup>26</sup> Result indicators should be linked with the needs identified in the Member State or region and specific programme objectives, which of course is not the case of the theoretical examples given in this list.



**Example:** Region X wants to boost the performance of a medical device cluster opening it more widely to international markets. Region X expects as a long term effect higher international recognition of the cluster, making the region more attractive to world class researchers and companies of the sector but recognises that this may be achieved only at the very end of the programming period or beyond.

Result indicator: Increased GVA/head of regional firms active in the sector.

Ideally the indicator would be high-tech exports of regional firms. However, this information is not available at regional level. For this reason Region X selects another result indicator whose value is influenced by regional firms' exports. The baseline would be GVA/head before the support. These data are available in regional statistics. Region X identified different factors contributing to the objective. One of them is the propensity of firms to use collective services available in the cluster which is rather low. These services provide advice and information on international markets, possible collaborations with external firms, technology watch, etc. Another factor is the need to reinforce collaboration between research institutes and firms to boost technology transfer within the cluster.

Based on lessons learnt from a similar cluster in another country, the region decided to set up a voucher scheme to incite SMEs to use research and innovation management services. The voucher covers the whole cost and no private co-financing is required.

Output indicators: 3 common indicators are relevant in this example (In sections "Productive Investment" and "Research/Innovation"): all of them should be selected.

- Number of enterprises receiving grants
- Number of enterprises cooperating with research institutions.
- Number of enterprises receiving support

In this example as many others where a change of strategic business behaviours is sought (and not just a temporary cost reduction through a direct subsidy), an evaluation is needed to understand how the firms' response to the voucher scheme lead to the results, and to assess the impact.

**Annex: Links and relevant sources of policy know-how in this field**

	All MS	Regional level	Accession countries
<b>Guidance &amp; good practices</b>			
<b>RIS3 guide:</b> <a href="http://s3platform.jrc.ec.europa.eu/s3pguide">http://s3platform.jrc.ec.europa.eu/s3pguide</a>			
<b>University guide:</b> <a href="http://s3platform.jrc.ec.europa.eu/guides">http://s3platform.jrc.ec.europa.eu/guides</a>			
<b>Incubator guide:</b> <a href="http://s3platform.jrc.ec.europa.eu/guides">http://s3platform.jrc.ec.europa.eu/guides</a>			
<b>Service innovation guide:</b> <a href="http://s3platform.jrc.ec.europa.eu/guides">http://s3platform.jrc.ec.europa.eu/guides</a>			
<b>State aid framework for R&amp;D and innovation:</b> <a href="http://ec.europa.eu/competition/state_aid/legislation/horizontal.html">http://ec.europa.eu/competition/state_aid/legislation/horizontal.html</a>			
<b>JASPERS guidance for major research infrastructures, higher education and science and technology parks:</b> <ul style="list-style-type: none"> <li>• <b>State Aid in RDI Infrastructure projects</b> <a href="http://www.jaspersnetwork.org/jaspersnetwork/display/for/State+Aid+in+RDI+Infrastructure+projects">http://www.jaspersnetwork.org/jaspersnetwork/display/for/State+Aid+in+RDI+Infrastructure+projects</a></li> <li>• <b>Project Preparation and CBA of RDI Infrastructure Projects</b> <a href="http://www.jaspersnetwork.org/jaspersnetwork/display/for/Project+Preparation+and+CBA+of+RDI+Infrastructure+Projects">http://www.jaspersnetwork.org/jaspersnetwork/display/for/Project+Preparation+and+CBA+of+RDI+Infrastructure+Projects</a></li> </ul>			
<b>ERAC peer review results</b> on national research systems: <a href="http://ec.europa.eu/research/era/partnership/coordination/erac_omc_cycle_en.htm">http://ec.europa.eu/research/era/partnership/coordination/erac_omc_cycle_en.htm</a>			
Exchange of good policy practices promoting the industrial uptake and deployment of Key Enabling Technologies (Annex): <b>guide with selected good practices on KETs support</b> <a href="http://ec.europa.eu/enterprise/sectors/ict/files/kets/ex_of_practice_ket_final_report_en.pdf">http://ec.europa.eu/enterprise/sectors/ict/files/kets/ex_of_practice_ket_final_report_en.pdf</a>	X		
Using <b>Standards to support growth, competitiveness and innovation</b> <a href="http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.2_sme_standards_en.pdf">http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.2_sme_standards_en.pdf</a>	X		
<b>Access to finance: Quick guide to indirect funding</b> (descriptions of national sources of finance – mostly financial instruments, + EIF managed EU funds per country ) <a href="http://ec.europa.eu/enterprise/policies/finance/guide-to-funding/indirect-funding/index_en.htm">http://ec.europa.eu/enterprise/policies/finance/guide-to-funding/indirect-funding/index_en.htm</a>	X		
<b>EU Eco-Innovation Action Plan</b> (EcoAP), including map of national strategies and project examples <a href="http://ec.europa.eu/environment/eco-innovation/index_en.htm">http://ec.europa.eu/environment/eco-innovation/index_en.htm</a>			
<b>Data material &amp; analysis</b>			
<b>Innovation Union Scoreboard = benchmarking of innovation potentials and performances:</b> <a href="http://ec.europa.eu/enterprise/policies/innovation/facts-figures-analysis/innovation-scoreboard/">http://ec.europa.eu/enterprise/policies/innovation/facts-figures-analysis/innovation-scoreboard/</a> <ul style="list-style-type: none"> <li>• Regional: <a href="http://ec.europa.eu/enterprise/policies/innovation/policy/regional-innovation/index_en.htm">http://ec.europa.eu/enterprise/policies/innovation/policy/regional-innovation/index_en.htm</a></li> <li>• IUS dashboard for graphics (country comparisons, spider-web graphs on</li> </ul>	X	X	X

	All MS	Regional level	Accession countries
different innovation indicators, scatterplots etc.): <a href="http://ec.europa.eu/enterprise/archives/ius2013/IUS2013.html">http://ec.europa.eu/enterprise/archives/ius2013/IUS2013.html</a>			
<b>ERAWATCH = description of national and regional research systems, policies, governance structures</b> and programmes, R&D investment rates, searchable inventory of policy measures: <a href="http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/">http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/</a>	X	X	X
<b>Research and Innovation performance in EU Member States and Associated countries - Innovation Union progress at country level 2013:</b> <a href="http://ec.europa.eu/research/innovation-union/pdf/state-of-the-union/2012/innovation_union_progress_at_country_level_2013.pdf">http://ec.europa.eu/research/innovation-union/pdf/state-of-the-union/2012/innovation_union_progress_at_country_level_2013.pdf</a>	X		X
<b>Innovation Union competitiveness report = country-specific statistical analysis on selected R&amp;D indicators</b> (FP7 participation etc.) <a href="http://ec.europa.eu/research/innovation-union/index_en.cfm?section=competitiveness-report&amp;year=2011">http://ec.europa.eu/research/innovation-union/index_en.cfm?section=competitiveness-report&amp;year=2011</a>	X	(X)	x
<b>Industrial R&amp;D Investment Scoreboard = information on the top 1000 EU companies</b> and 1000 non-EU companies investing the largest sums in R&D in the last reporting year: <a href="http://iri.jrc.ec.europa.eu/home">http://iri.jrc.ec.europa.eu/home</a>			
<b>FP7 country profile:</b> updated every six months, provides a set of key data on the <b>involvement of each MS in FP7</b> (participation and success rates, level of involvement of SMEs, key collaborative links, most active thematic areas, type of participant, geographical concentration and most active participating organisations). Will be provided by RTD	X	?	X
<b>European Cluster Observatory = mapping of clusters and cluster organisations</b> in Europe by sector; search function <a href="http://www.clusterobservatory.eu/index.html">http://www.clusterobservatory.eu/index.html</a>	X	X	
Innovation Policy TrendChart = <b>innovation policy analysis, trends, key challenges and country comparisons</b> <a href="http://ec.europa.eu/enterprise/policies/innovation/facts-figures-analysis/trendchart/index_en.htm">http://ec.europa.eu/enterprise/policies/innovation/facts-figures-analysis/trendchart/index_en.htm</a> Country challenges: <a href="http://ec.europa.eu/enterprise/policies/innovation/facts-figures-analysis/innovation-scoreboard/country-reports_en.htm">http://ec.europa.eu/enterprise/policies/innovation/facts-figures-analysis/innovation-scoreboard/country-reports_en.htm</a>	X		X
<b>Regional Innovation Monitor = sub-national innovation policy analysis</b> , profiles, benchmarking tool, <b>good practice</b> dissemination: <a href="http://ec.europa.eu/enterprise/policies/innovation/policy/regional-innovation/monitor/">http://ec.europa.eu/enterprise/policies/innovation/policy/regional-innovation/monitor/</a>		X	
<b>Public Sector Innovation Scoreboard = benchmarking of public sector innovation</b> performances ( <a href="http://ec.europa.eu/enterprise/policies/innovation/policy/public-sector-innovation/index_en.htm">http://ec.europa.eu/enterprise/policies/innovation/policy/public-sector-innovation/index_en.htm</a> ) Eurobarometer survey on Business perception of public sector innovation: <a href="http://ec.europa.eu/public_opinion/whatsnew2012_en.htm">http://ec.europa.eu/public_opinion/whatsnew2012_en.htm</a>	X		
<b>Industrial performance scoreboard 2013</b> <a href="http://ec.europa.eu/enterprise/policies/industrial-competitiveness/monitoring-member-states/files/scoreboard-2013_en.pdf">http://ec.europa.eu/enterprise/policies/industrial-competitiveness/monitoring-member-states/files/scoreboard-2013_en.pdf</a>	X		
<b>Lessons from a Decade of Innovation Policy analysis (DG ENTR):</b> <a href="http://ec.europa.eu/enterprise/policies/innovation/facts-figures-">http://ec.europa.eu/enterprise/policies/innovation/facts-figures-</a>			

	All MS	Regional level	Accession countries
<a href="#">analysis/trendchart/index_en.htm</a>			
<b>Eurostat : Science, technology and innovation in Europe - 2013 edition</b> <a href="http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-GN-13-001/EN/KS-GN-13-001-EN.PDF">http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-GN-13-001/EN/KS-GN-13-001-EN.PDF</a>			
<b>OECD: regional innovation systems:</b> <a href="http://www.oecd.org/governance/regionaldevelopment/regionalinnovation.htm">http://www.oecd.org/governance/regionaldevelopment/regionalinnovation.htm</a>			
<b>OECD work on innovation:</b> <a href="http://www.oecd.org/innovation/">http://www.oecd.org/innovation/</a>			
<b>OECD <a href="#">synthesis report on innovation driven growth in regions: the role of smart specialisation</a></b>			