



# RESEARCH AND INNOVATION STRATEGIES FOR SMART SPECIALISATION

## COHESION POLICY 2014-2020

The European Commission adopted [legislative proposals for cohesion policy for 2014-2020](#) in October 2011

This factsheet is one in a [series highlighting key elements of the future approach](#)

Table of contents

---

### [Introduction](#)

### [What is the issue?](#)

### [What is the aim?](#)

### [What is being proposed?](#)

### [What are the practical effects?](#)

### [What is different from 2007-2013?](#)

National/Regional Research and Innovation Strategies for Smart Specialisation (RIS3 strategies) are integrated, place-based economic transformation agendas that do five important things:

- » They focus policy support and investments on key national/regional priorities, challenges and needs for knowledge-based development.
- » They build on each country/region's strengths, competitive advantages and potential for excellence.
- » They support technological as well as practice-based innovation and aim to stimulate private sector investment.
- » They get stakeholders fully involved and encourage innovation and experimentation.
- » They are evidence-based and include sound monitoring and evaluation systems.

## What is the issue?

[↑ Top](#)

- » To recover from the economic downturn, the European Union (EU) needs smart, sustainable and inclusive growth<sup>(1)</sup>. This requires a **comprehensive European innovation strategy**, as set out in the **'Innovation Union'**<sup>(2)</sup> document published in October 2010. The focus is on **investing in research, innovation and entrepreneurship** in every EU Member State and region, so as to fully exploit Europe's potential.
- » The European Commission wants national and regional authorities across Europe to draw up **research and innovation strategies for smart specialisation**, so that the EU's **Structural Funds** can be used **more efficiently and synergies** between different EU, national and regional policies, as well as public and private investments, can be **increased**.
- » Smart specialisation means **identifying the unique characteristics and assets of each country and region**, highlighting each region's **competitive advantages**, and rallying regional stakeholders and resources around an **excellence-driven vision of their future**.

It also means strengthening regional innovation systems, maximising knowledge flows and spreading the benefits of innovation throughout the entire regional economy.

- » Smart specialisation is essential for truly **effective research and innovation investments**. In the European Commission's proposal for **cohesion policy**<sup>(3)</sup> in 2014-2020 it will be a **pre-condition for using the European Regional Development Fund (ERDF) in 2014-2020** to support these investments.

---

(1) [http://ec.europa.eu/europe2020/index\\_en.htm](http://ec.europa.eu/europe2020/index_en.htm)

(2) [http://ec.europa.eu/research/innovation-union/index\\_en.cfm](http://ec.europa.eu/research/innovation-union/index_en.cfm)

(3) COM(2011) 615, [http://ec.europa.eu/regional\\_policy/what/future/proposals\\_2014\\_2020\\_en.cfm](http://ec.europa.eu/regional_policy/what/future/proposals_2014_2020_en.cfm)

### The RIS3 policy rationale

#### » **To make innovation a priority for all regions**

'Europe 2020' requires policy makers to consider how the different aspects of smart, sustainable and inclusive growth are interrelated. Integrated smart specialisation strategies respond to complex development challenges by adapting the policy to the regional context.

RIS3 supports the creation of knowledge-based jobs and growth not only in leading research and innovation (R&I) hubs but also in less developed and rural regions.

RIS3 is a key part of the proposed EU Cohesion Policy reform supporting thematic concentration and reinforcing strategic programming and performance orientation.

#### » **To focus investment and create synergies**

RIS3 focuses economic development efforts and investments on each region's relative strengths, exploiting its economic opportunities and emerging trends, and taking action to boost its economic growth.

RIS3 enhances the added value, impact and visibility of EU funding. It ensures value for money in times of tighter budgets and scarce(r) public resources.

RIS3 ensures synergies between European policies and funding, complementing national and regional schemes and private investment.

#### » **To improve the innovation process**

RIS3 requires smart, strategic choices and evidence-based policy making. Priorities are set on the basis of strategic intelligence about a region's assets<sup>(4)</sup>, its challenges<sup>(5)</sup>, competitive advantages and potential for excellence<sup>(6)</sup>.

RIS3 involves making sure that the policy mix, i.e. the combination of policy instruments available in a given regional environment – grants, loans and other support – is effective in reaching the overall policy goals, helps businesses, and leverages private investment.

RIS3 entails developing result indicators and using them to drive, steer and adjust policies and programmes. They thus promote continuous policy evaluation and learning, sharing experience and good practices between regions.

#### » **To improve governance and to get stakeholders more closely involved**

RIS3 encourages all stakeholders to unite under a shared vision. It links small, medium-sized and large firms, encourages multi-level governance and helps to build creative and social capital within the community.

The RIS3 process must be interactive, regionally-driven and consensus-based. While the precise mix of organisations involved will depend on the regional context, it is important that all partners be fully involved in developing, implementing and monitoring smart specialisation strategies.

---

(4) Including industrial structures, clusters, universities, research institutes, science, technology, skills, human capital, environment, market access, governance systems, and linkages and connections with other regions.

(5) Including an ageing population, labour market mismatches, remote location and environmental aspects.

(6) For example, SWOT, foresight and trend analyses, technology mapping, cluster analysis, entrepreneurial knowledge of markets.

## The economic rationale

### » **To develop and implement strategies for economic transformation**

RIS3 requires an integrated and place-based approach to policy design and delivery. Policies must be tailored to the local context, acknowledging that there are different pathways for regional innovation and development.

These include:

- a) rejuvenating traditional sectors through higher value-added activities and new market niches;
- b) modernising by adopting and disseminating new technologies;
- c) diversifying technologically from existing specialisations into related fields;
- d) developing new economic activities through radical technological change and breakthrough innovations; and
- e) exploiting new forms of innovation such as open and user-led innovation, social innovation and service innovation.

### » **To respond to economic and societal challenges**

Europe faces relentless global competition for talent, ideas and capital. At the same time, fiscal austerity requires governments to focus oftentimes scarce resources on a few areas and measures that have genuine potential to create sustainable jobs and growth.

Most regions can only acquire a real competitive edge by finding niches or by mainstreaming new technology into traditional industries and exploiting their 'smart' regional potential.

Smart specialisation strategies can also be a powerful instrument to tackle social, environmental, climate and energy challenges, such as demographic change, resource efficiency, energy security and climate resilience.

### » **To make regions more visible to international investors**

By focusing on what gives a region its greatest competitive potential, smart specialisation helps position the region in specific global markets/niches and international value chains.

To attract private investment and to get the attention of international investors it is important to brand a region's expertise in a specific knowledge sector or niche market and to provide solid, integrated support to help strengthen this specialisation.

### » **To improve a region's internal and external connections**

Improving internal connections has long been a trademark of innovation policy (e.g. triple or quadruple helix networks, knowledge triangles, university-business cooperation, clusters, etc.).

However, regions also need to be outward looking, to position themselves in European and global value chains, and to improve their connections and cooperation with other regions, clusters and innovation players. This is important for the internationalisation of their companies, to achieve a critical potential of cluster activities and to generate inflows of knowledge relevant to the region's existing knowledge base <sup>(7)</sup>.

---

(7) <http://www.eurada.org/site/files/No%20Nonsense%20Guide-E.pdf>  
(EURADA, Directory of 'no-nonsense' activities to build S3-minded regions, November 2011).

## » **To avoid overlaps and replication in development strategies**

In the past, regions facing development challenges have often tried to replicate the same or similar priorities as other, leading, regions, even when they had few assets and little chance of becoming world leaders in their chosen fields.

RIS3 encourages regions to adopt policies realistically tailored to their capabilities, opportunities and needs.

International differentiation and technology diversification are key to (re-)positioning a region in a global, highly dynamic and changing context, and to making its strategy stand out from that of other regions.

## » **To accumulate a 'critical mass' of resources**

RIS3 can ensure that research and innovation resources reach critical mass, i.e. sufficient momentum to become self-sustaining, or critical potential, supporting them through targeted action to boost human resources and knowledge infrastructure.

It clearly pays to focus on areas of real potential and strength rather than spreading investments thinly over unrelated areas. Critical mass/potential can be accumulated either internally within the region or via insourcing and cooperation with other regions.

## » **To promote knowledge spillover and technological diversification**

The most promising way for a region to promote its knowledge-based growth is to diversify into technologies, products and services that are closely related to existing dominant technologies and the regional skills base. Knowledge spillover is most successful if it is within related industries (as opposed to a diversity of unrelated sectors).

New industries will grow out of the most successful existing clusters, but only if sectoral boundaries are abandoned. What matters is not diversification *per se* but rather specialised technological diversification in emerging economic activities. This starts from existing regional knowledge and economic capabilities and aims for related but higher value-added activities.

Regions should thus prioritise complementarity between related economic activities, and find better ways to combine their strengths so as to create new industrial capability in areas with high growth potential (e.g. cross-clustering).

## What is being proposed?

[↑ Top](#)

As part of EU Cohesion Policy in 2014-2020, the European Commission is proposing to make **smart specialisation a pre-condition** (so-called '*ex ante* conditionality') **for supporting investments** for two key policy objectives:

- 1 Strengthening research, technological development and innovation (the R&I target); and
- 2 Enhancing access to and use of quality of ICT (the ICT target)

### For the R&I target:

A national or regional research and innovation strategy for smart specialisation is in place that:

- is based on a SWOT analysis to concentrate resources on a limited set of research and innovation priorities;
- outlines measures to stimulate private research, technology and development (RTD) investment;
- contains a monitoring and review system;
- sees a Member State adopt a framework outlining available budgetary resources for research and innovation; and
- sees a Member State adopt a multi-annual plan for budgeting and prioritisation of investments linked to EU priorities (European Strategy Forum on Research Infrastructures – ESFRI).

### For the ICT target:

Within the strategy for smart specialisation, a chapter for digital growth is included that contains:

- budgeting and prioritisation of measures through a SWOT analysis carried out in alignment with the Scoreboard of the Digital Agenda for Europe;
- an analysis concerning the balancing of support for the demand and supply of information and communication technologies (ICT);
- measurable targets for the outcomes of action on digital literacy, skills, e-inclusion, eaccessibility, and e-health that are aligned with existing national or regional strategies in those fields; and
- an assessment of the needs for reinforced ICT capacity building.

The Commission is also proposing to make smart specialisation a **pre-condition for obtaining support from the European Agricultural Fund for Rural Development (EAFRD)** <sup>(8)</sup> in order to foster knowledge transfer and innovation in agriculture, forestry and rural areas.

## What are the practical effects?

[↑ Top](#)

The RIS3 *ex-ante* conditionality requires EU Member States and regions to **identify the knowledge specialisations** that best fit their innovation potential, based on their assets and capabilities.

They must do this through a process of '**entrepreneurial discovery**', i.e. involving key innovation stakeholders and business. Thus, rather than being a strategy imposed from above, smart specialisation involves **businesses, research centres and universities working together** to identify a Member State or region's most promising areas of specialisation, but also the weaknesses that hamper innovation there <sup>(9)</sup>.

(8) COM(2011) 627.

(9) [http://ec.europa.eu/invest-in-research/monitoring/knowledge\\_en.htm](http://ec.europa.eu/invest-in-research/monitoring/knowledge_en.htm)  
(cf. D. Foray et al., Smart Specialisation – the concept, June 2009).

The national or regional authorities must then draw up **a document outlining the proposed strategy for that country or region** and, in particular, the **planned public and private investments including from Structural Funds** in research, technology development and innovation.

This strategy should not only build on and/or aim at **regional scientific excellence** but also support **practice-based ('non-technological') innovation** <sup>(10)</sup> and include the adoption and diffusion of **knowledge and innovation**.

The strategy should be self-assessed and, if possible, peer-reviewed.

**More specific guidance** for regions and Member States on how to develop and implement research and innovation strategies for smart specialisation will be made available in the form of a methodological and practical guide to be published at the end of February 2012. This guide is currently being developed with support from the **Smart Specialisation Platform** that was launched in June 2011. The Platform is managed by a team at the Joint Research Centre (JRC-IPTS) in Seville, Spain. It is monitored by a Steering Team that includes experts from several European Commission departments. It also receives input from a Mirror Group of European high-level experts and network representatives. It will offer a range of services, including guidance, training, and support in peer-reviewing national/regional strategies. Member States and regions are encouraged to sign up for the Platform by accessing the platform homepage <sup>(11)</sup>.

## What is different from 2007-2013?

[↑ Top](#)

**Smart specialisation is not new.** Rather, it is a **refinement and upgrading of the existing methodology for Structural Funds programming**. It is based on 15 years of experience in supporting innovation strategies in the regions, and on **frontline economic thinking** by major international institutions such as the World Bank, the OECD and the IMF. The most advanced regions are already engaging in similar strategic exercises, as highlighted by the Regions for Economic Change initiative <sup>(12)</sup> or the Regional Innovation Monitor <sup>(13)</sup>. What is new is that the Commission proposes to make such strategies a **pre-condition for ERDF funding**. Thus EU Member States and regions **must have RIS3 strategies in place** before **their Operational Programmes supporting these investments are approved**.

---

(10) For instance, social and service innovations, action to address social challenges, new business models and demand-side measures such as public procurement.

(11) <http://ipts.jrc.ec.europa.eu/activities/research-and-innovation/s3platform.cfm>

(12) [http://ec.europa.eu/regional\\_policy/cooperate/regions\\_for\\_economic\\_change/index\\_en.cfm](http://ec.europa.eu/regional_policy/cooperate/regions_for_economic_change/index_en.cfm)

(13) <http://www.rim-europa.eu/>