

13 Mapping industrial actors and technologies

Type of support / service available

JRC monitors business research and innovation activities. It provides data and analyses of the main industrial players. The key strength is that the different databases on company performance, location of subsidiaries, patents and technological profiles and scientific citations are matched from a company perspective. This allows JRC to investigate how these companies and their knowledge creation and innovation activities act as drivers of territorial competitiveness and employment.

Based on several indicators (patent analysis, scientific publications, etc.), JRC builds the technological profiles of the patent portfolios of both regions and companies. In particular, their technological competences in a series of key strategic, high R&D sectors, as well as their capacity to develop Advanced Manufacturing Technologies, Key Enabling Technologies (KETs) and emerging technologies. Depending on the level of disaggregation of the data it is possible to analyse the main patterns and trends at the world, national and regional levels.

Relevance for regional authorities

The mapping of the technological competences of the regions and of their main industrial players can facilitate regional partnering and contribute to the identification of opportunities for cross-regional cooperation. JRC can provide specific analytical support to regions in the context of thematic smart specialisation platforms and more concretely to the S3 thematic platform on Industrial Modernisation, as well to the one on Energy with respect to renewable technologies for example. In addition, such mapping of technological and industrial regional competences can be used to assess region's RIS3 thematic priorities, identifying concrete strengths and weaknesses at different levels of sectoral and technological disaggregation.

Policy context

New initiatives to boost the competitiveness of the manufacturing sector are underway around the world. The European Commission has placed special emphasis on a set of technologies labelled key enabling technologies (KETs) (**COM/2009/0512 final**). It has also highlighted the importance of stimulating investment in innovation and new technologies to maintain competitiveness and a strong industrial base for Europe's economic recovery (COM (2014) 14/2). To fully benefit from the single market, the European Commission has identified the need to digitise the European industry (COM(2016) 180 **final**).

How to use

JRC publishes annually the EU R&D Scoreboard. This publication identifies main industrial players in key industrial sectors, and provides data and analysis on their R&D investments and economic performance¹.

Additional JRC instruments provide further insights of companies' investments in R&D by establishing direct contact with them and collecting up-to-date information on trends and main factors: the EU R&D Surveys and techno-economic analyses of key industrial sectors².

Impact

Regions can better design, implement and evaluate measures to achieve two flagship initiatives of the Europe 2020 strategy using this evidence and analysis, namely:

1. Available at: <http://iri.jrc.ec.europa.eu/research/scoreboard.htm>

2. Available at: <http://iri.jrc.ec.europa.eu/survey.html>, <http://iri.jrc.ec.europa.eu/other-reports.html>

- The **research and innovation agenda (Innovation Union)** and the 3% investment target: Measures to increase the level of business R&D in Europe
- The **Industrial Modernisation agenda**: increase companies' investments in advanced manufacturing and reinforce the competitiveness of the EU industry in key enabling technologies.

The evidence gathered helps build understanding on how region's technological specialisations impact their economic development. These insights could support the process of setting priorities and selecting projects in the context of their RIS3. It could also help attract knowledge-based investments, from world top R&D investors and from local industries.