

**THE REGIONAL STRATEGY OF
RESEARCH AND INNOVATION FOR
SMART SPECIALIZATION"**

RIS3 UMBRIA

Background document

Short introduction about the region.

Umbria is a region of central Italy of 884.640 inhabitants, located in the heart of the peninsula. With an area of 8.456 km² (of which 6.334 in the province of Perugia and 2.122 in the province of Terni), it is the only region not located on the political or maritime borders of the State. The region borders to the east and north-east with the Marche , west and north-west with Tuscany, south and south-west with Lazio.



The situation of the regional economy

The economy of Umbria shows a picture of a substantial improvement in economic conditions starting in 2016: there are

some encouraging signs such as, for example, the good dynamics of young companies, the increase in employment that persists, the export that is growing In 2017 private consumption was consolidated (+ 1.3%), investments (+ 1.6%), supported by the latter thanks to strong growth in the manufacturing sector (+ 10%) and exports increased.

The dichotomy between the most "dynamic" companies and the majority of the remaining companies, generally of smaller size, and which have the greatest difficulty in positioning themselves on a path of more sustained and longer-lasting growth, seems increasingly evident. The main available economic data are shown below.

The entrepreneurial dynamic

The regional entrepreneurial fabric has 80.785 companies in 2016. The entrepreneurial density is equal to 91 units for every 1000 inhabitants a value higher than that calculated for central Italy (88) and for the whole country – Italy- (85) .This greater propensity to entrepreneurship is explained above all by the noteworthy incidence of the primary sector (21%) which together with the commercial sector make up more than half of the entire entrepreneurial fabric. The incidence of artisan enterprises on the total of the regional business system is equal to 26.9%, a share that is slightly higher than the national average (26.3%). Also in the first quarter of 2016 the tendency to reduce the number of companies is confirmed (-371 units). With regard to the manufacturing sector, the production trend would accelerate by 4.3% compared to the first quarter of 2016 in all the sectors except for -1.2% of the mechanical industries and the means of transport. Confirming the trends of recent years, this increase would be almost entirely due to medium-large enterprises, while smaller companies would be more penalized by the economic cycle with a decrease in production of 1.4% compared to the second quarter of 2015. the size class of companies, the so-called small and very small ones (from 0 to 9 employees) recorded a figure equal to 66.1%, those between 10 and 49 employees stood at 77.7% while that of companies over 50 employees equal to 72.8%.

The weight of **exports** to the regional GDP (an indicator to measure the opening of the regional economy compared to trade with the outside world), presents an increase of 0.1% in 2016 compared to the previous year. Data on Umbria exports for 2017 compared to 2016 show signs of recovery for the Umbrian economy (+2.4%), with positive signs for almost all sectors and remaining among those where the weight of Umbria is higher, wood (+4.2 percent), furniture (+3.2), agriculture (+1.5), textiles (+3.3) and clothing (+5.5) and chemicals (+7.3). Signs less for paper (-9 percent), pharmaceutical (-14.5) and rubber articles (-5.4).

On the **labor market front** in 2016, following mainly the earthquake that hit our region, the occupation of Umbria, as well as that of the other regions affected by the earthquake, showed a decrease (-6,000 units) that in the 2017 has been marginally recovered. In fact, the Umbrian occupation in 2017 stood at 355,000, 1,000 units above 2016, a level still 12,000 units lower than the pre-crisis one (-3.4%). At the same time, unemployment recorded significant new growth (+5,000), returning to 42,000, after the 2016 decline, the same level of two years earlier, to 2,000 units from the peak reached in 2014 and a whopping 24,000 units higher than that of 2008.

The employment rate (62.9% in 2017, +0.2 points compared to 2016), continues to be higher than both the average of the central regions (62.8%) and the Italian average (58.2%). The **unemployment rate** rises to 10.5% (+ 0.9%), a value slightly higher than the center average (10.0%) but lower than the Italian average (11.2%).

The performance of Umbria in research and innovation

The Region registers a **rate of public expenditure in research and development** as a percentage of GDP for 2016 equal to 0.69% compared to an Italian average of 0.51%, ranking in 4th place at national level (after the regions Lazio, Sardinia and Friuli Venezia Giulia). However, the Region has one of the lowest values in Italy of the indicator “**Rate of private expenditure in research and development** as a percentage of GDP. In 2015 the indicator is equal to 0.26%, ranking in 18th place , after the regions Puglia and Sicily.

As regards the **rate of patenting**, Umbria has a **patent rate in the high technology sectors** for 2012 of 2.55%, lower than the Italian average (4.93%); this fact places the region in 12th place in the ranking of Italian regions. Similar delays are also found in the **rate of patents presented to the EPO in ICT** in 2012 (the regional percentage stands at 2.49% compared to a national average of 8.48%, placing Umbria at the 14th place among the other regions) and in the rate of patents presented to the EPO in biotechnology (the regional contribution stands at 1.87% in 2012 against the national average of 1.74% placing Umbria in 8th place among the Italian regions) . As regards the **number of patents presented in total to the European offices**, the figure available for 2012 (equal to 33.36%) shows a reduction compared to the value of 2011 (which was equal to 37.78%), thus placing the Umbria in 11th place in the Italian ranking. In relation to the **rate of investments in risk capital (early stage)**, the region has a percentage of 0.003% compared to a national average of 0.005%, given that it places Umbria in 8th place at the national level. The **rate of diffusion of broadband in the enterprises** recorded in Umbria a value of 98.4% in 2017, slightly higher than the national average of 95.7%. The region thus ranks 3rd among the Italian regions. Similar results can be found in the **percentage of internet use by families**. In this context, Umbria records a circulation rate of 69.1% in 2016 compared to a national average of 69.2%, ranking in 12th place among the Italian regions. In 2017, the **index of the diffusion of company websites** recorded a percentage of 74.1% in Umbria compared to a national average of 72.1%. In this context, the region ranks 7th among the Italian regions. Lastly, as regards **companies active in IT**, Umbria recorded a value of 1.50% compared to an Italian average of 1.82%. The region thus ranks 15th among the Italian regions.

Indicators	Umbria	Italia
R&D Public expenditure (% of GDP) (2015)	0,69%	0,51%
R&D Private expenditure (% of GDP) (2015)	0,26%	0,78%
Employment rate (2017)	62,9%	58,2%
High technology Patent rate (2012)	2,55%	4,93%
ICT patent applications to the EPO (2012)	33,36%	76,04%

Regional Innovation Scoreboard 2017

Umbria is ranking as a **Moderate + Innovator**, and innovation performance has increased over time.

The radar graph shows relative strengths compared to Italy (red line) and the EU (blue line), highlighting relative strengths (e.g. Marketing & organisational innovations) and weaknesses (e.g. Business R&D expenditures).

The Regional strategy of Research and Innovation for smart specialization" (RIS3 Umbria)

RIS3 represents the strategic framework at the base of the research and innovation policies of the Umbria Region for the 2014-2020 period

The Strategy represents the roadmap to undertake a *trajectory of change towards a more open and entrepreneurial development model, but at the same time specialized, aimed at activating the potential locals using regional assets, talents, access to research results and the promotion of new entrepreneurship.*

In particular, RIS3 is at the heart of the new regional planning relating to the ROP ERDF 2014-2020 also because it directly concerns the management of the actions contained in the Axis I "Research and innovation" and in Axis II "Digital Growth and Citizenship", which represent a significant portion of the ROP (37.6% of the expenditure).

The **priority areas** on which the strategy focused are those Agrifood, Life Science, Green Chemistry, Energy and Smart Factory/Aerospace Industry. Subsequently, in 2018, these choices have been partially revised and currently the priority areas are the following:

1. Made in Italy, Design, Creativity;
2. Smart Factory/Aerospace;
3. Energy and Environment;
4. Green Chemistry;
5. Agrifood;
6. Healthy;
7. Smart secure and inclusive Communities.

Umbria RIS3 is the result of a shared and participatory process (**Entrepreneurial discovery process**) initiated by the regional administration with the regional economic and social partnership and with the citizens, who have questioned the role of research and innovation in Umbria and have outlined a shared perspective of "expected change" aimed at "building the bases" to create a sustainable competitive advantage of the region. The contributions of the partnership and citizens were collected both during the

meetings organized as part of the "Umbria Allianz 2015"¹ and through the e-democracy section of the Umbria Region website dedicated to RIS3. The process of entrepreneurial discovery continued in concomitance with the implementation of the Strategy and the Operational Program.

The Governance system of Umbria RIS3

The **governance system of Umbria RIS3** was defined as a result of that process and in order to support stakeholders involvement in a continuing way. In particular, the structure of RIS3 Governance is articulated on three levels:

STEERING GROUP:

It is the structure responsible for the elaboration and integration/review of RIS3. It is appointed to monitor the progress of the strategy within the framework of regional programming and regional operational programmes. The group will meet twice a year. The Steering Group is coordinated by Regional Administration who participates in the process of monitoring also through the Management Team.

Steering group is composed by the Managing Authority of ROP ERDF, the Responsible of the ROP ERDF Actions involved in the implementation of RIS3 and by the regional Agency for Innovation (Sviluppumbria S.p.A.). It is also composed by:

- 1 Representative of the university;
- 1 Representative of the cameral system (Chambers of Commerce)
- 1 representative of the territorial local autonomies
- 1 representative of the enterprises system
- 1 representative of the manufacture system
- 1 representative for the service industry system
- 1 representative of the agriculture
- 1 representative of the sector of cooperation
- 1 representative of the trade association
- 1 representative of the Forum of the Third sector Forum

During 2018, the Steering Group met twice to elaborate and approve the revision of the Strategy. In particular, the first revision proposal was presented and discussed within the Steering Group which took place on July 31, 2018 and subsequently revised and adopted in the final version as part of the second Steering Group which met in December 2018

¹ The instrument "Umbria 2015" - A new development alliance, through the work of the thematic table "Economic development, knowledge economy and green economy" of the Alliance Umbria 2015 is identified as an institutional and comparison site¹.

MANAGEMENT TEAM:

It is the structure dedicated to the implementation of the strategy, under the guidance of the Steering Group, with responsibility for monitoring; siding with the European Commission and national authorities responsible for the national strategy of smart specialisation; drafting of reports on the progress of the strategy and further insights to be presented annually at the ROP Monitoring Committee; coordination of evaluation activities of the strategy; participation in meetings organized at national and community level (relations to other Italian regions, participation in Peer Review organized by S3 platform, etc.). Management Team is composed by the Managing Authority of ROP ERDF, the Responsible of the ROP ERDF Actions involved in the implementation on RIS3. The Managing Team is also composed by external Expert that will be consulted, if necessary.

THEMATIC WORKING GROUPS:

Structures dedicated to involve the business community and the research and academic sector in the process of RIS3 implementing. In particular, the TWGs have been established one for each RIS3 priority initially identified (Agro-food, Energy, Green Chemistry, Life Sciences, Smart Factory/ Aerospace industry) and realised with the involvement of local entrepreneurs belonging to National and Regional Technology Clusters. The Working groups are coordinated by the Managing Authority of ROP ERDF 2014-2020. Thematic Working Groups contribution is collected through participation in meetings and surveys.

During the period September 2016 – December 2017 Umbria Region has organized five Thematic Working groups - Agro-food, Energy, Green Chemistry, Life Sciences, Smart Factory/ Aerospace industry – in order to involve entrepreneurs, research, and academic sector in the process of continuous implementing of the strategy.

The involvement of local entrepreneurs in the five TWG activated was made according to their belonging to National and Regional Technology Clusters referring to the specific RIS3 priority areas identified. The entrepreneurs involved also act a gate-keeper in their chain, disseminating information to other local entrepreneurs and by pulling them into the implementation of RIS3 Thematic Working Groups contribution is collected through participation in meetings, workshops and surveys.

TWG added value is linked to the opportunity for Regional Administration

- to verify the specific research trajectories identified with reference to the different RIS3 priorities
- to intercept new trajectories of research and development of new products
- to evaluate and reviewing RIS3 priorities
- to collect feedback about open or closed Calls in order to remove barriers and facilitate the access to a larger participation
- to actively involve main actors in regional economic development
- to support networking among companies and between companies and the research/academic sector