











# THE STRATEGY OF THE 2014/2020 ERDF ROP

On I2 February 20I5 the European Commission, with Decision C(20I5)929, approved the 20I4-2020 ERDF Operational Programme (OP) of the Umbria region. Later, with Decisions C(20I7) I625 and C(20I7) 7788, the Commission approved the changes to the programme.

The contribution of the Operational Programme of the European Regional Development Fund to the European Union's strategy for smart, sustainable and inclusive growth outlines, in light of the specific characteristics of the area, the guidelines within the framework of which the action the Region of Umbria intends to support with the Operational Programme are to take place.

The ERDF Operational Programme of the Umbria region is developed in keeping with the framework of rules and regulations, transposing and adopting the inspiring principles of the 2014–2020 cohesion policy. The concentration of resources on a limited number of thematic objectives, the attention to the results, and the adoption of an integrated approach in the use of the available resources (Community, national, and regional) are the bases underlying the regional planning for the coming seven years.

Through the 2014-2020 ERDF Operational Programme, the Umbria region intends to support – in light of the demands identified, the needs detected by the economic and social partnership, the Council's recommendations, and what was expressed in the partnership agreement and National Reform Programme – incisive actions (actually "driving the impact") suitable for contributing to a smart, sustainable and inclusive growth of the region within the broader national and European context.

In this context, with a view to starting a path of growth and development that can be considered "smart, sustainable and inclusive", the Umbria region has aimed to undertake a number of measures on the following topics, as urgent challenges to be tackled with the Operational Programme: the specialisation and innovation of the regional system; the competitiveness of the production system; the protection and enhancement of the territory's resources; sustainable development; earthquake prevention.

At first the 2014-2020 ERDF ROP had a financial endowment of  $\\\in$  356.293.204, of which  $\\\in$  178.146.602 were from the European Regional Development Fund,  $\\\in$  124.702.622 from the State – under Law 183/87 – and  $\\\in$  53.443.980 from the regional government. After the earthquakes that struck the regions of Abruzzo, Lazio, Marche, and Umbria, starting on 24 August 2016, the European Commission allocated additional resources, under Reg. I303/2013 and Reg. I311/2013, to the regions involved. Therefore, a new Axis was introduced to support the areas hit by the earthquakes, with a total financial endowment of 56 million euro (28 million euro + 28 million euro from the State).

The total resources made available by the 2014-2020 ERDF ROP amount to € 412.293.204,00.

- In short, the intentions of the strategy outlined within the framework of the ERDF Operational Programme are to:
   strengthen research, technological development, and innovation. Research and innovation, meant in the broadest sense, provide an
- important opportunity for projecting the regional economic system into a global scenario, promoting skilled employment and the activation of knowledge-intensive initiatives, in line with what has been defined within the framework of the Regional Smart Specialisation Strategy;
- enhance access to, and use and quality of, ICT. The digitalisation of processes and promotion of an improvement in the access to ICT are crucial elements for the implementation of the regional strategy for a smart, sustainable and inclusive growth. This thematic objective constitutes a comprehensive line of action for all the selected thematic objectives;
- promote the competitiveness of SMEs. The structural fragility of the system of Umbrian businesses and the difficulties created by the crisis call for adequate measures for the revival and promotion of the situations of excellence and the potentials of the regional production system, with a focus on the construction of organised and structured networks/agreements among businesses;
- support the transition toward a low carbon footprint economy in all sectors. The importance attributed to the green economy in the regional context combines with the sustainable growth objectives promoted by the Programme, in particular for the purpose of promoting energy efficiency, the use of renewable energy sources, and sustainable, smart transportation systems;
- promote risk prevention and management. After the most recent events, the prevention of earthquake risks in public buildings has become a priority for the region;
- preserve and protect the environment and promote the efficient use of resources. The support provided for the implementation of integrated actions for the enhancement of environmental and cultural resources and their production chain pursued by the ERDF ROP aims to facilitate the access to and use of regional assets, promoting innovative forms of public-private relations.

The strategy underlying the set-up of this Operational Programme is perfectly in line with the need to outline a consistent and incisive development path for the regional territory focused on the three growth engines identified by the Europe 2020 Strategy for advancement of the economy of the Union (smart, sustainable and inclusive growth).



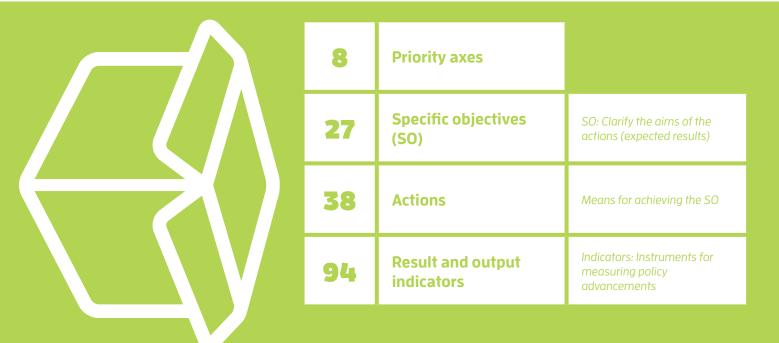
# THE STRUCTURE OF THE 2014-2020 ERDF ROP

The strategy pursued by the ERDF Operational Programme focuses on 6 of the Thematic Objectives stated in Article 9 of Regulation (EU) No. I303/20I3, with an initial concentration of 84,5% of the resources on the first 4 thematic objectives, reduced to 75,4% with the introduction of the Earthquake axis.

The ERDF Operational Programme will thus be structured into 8 priority axes, identified as follows:

NUMBER	AXIS	AMOUNT
1	Research and innovation	24,7% of the resources, equal to € 101.834.404
II	Digital growth	7,7% of the resources, equal to € 31.951.680
III	Competitiveness of SMEs	20,7% of the resources, equal to € 85.507.200
IV	Sustainable energy	I3,6% of the resources, equal to € 55.960.I20
V	Environment and culture	8,7% of the resources, equal to € 35.972.200
VI	Sustainable urban development	7,5% of the resources, equal to € 30.816.400
VII	Technical assistance	3,5% of the resources, equal to € 14.251.200
VIII	Earthquake prevention	I3,6% of the resources, equal to € 56.000.000
		TOTAL € 412.293.204

Each priority axis is broken down into one or more Specific Objectives (SO) and related expected results, to which are correlated the actions that will be co-financed by the Programme. The achievement of the specific objectives and related actions is measured by means of a set of result and output indicators.







#### Financial endowment: € IOI.834.404,00 (equal to 24,7% of the total ROP resources).

The research, development, and innovation themes, within the frame of reference of the Regional Smart Specialisation Strategy (RIS3), form the central element of the Programme.

The financial endowment of Axis I, with resources amounting to about ¼ of the total cost of the OP (24,7%), has been set with the aim of reducing Umbria's distance from the Europe 2020 target and the National Reform Programme (PNR) target, in light of the regional context of reference: Umbria is not an innovation leader among regions, but has a number of specialisations which – within the framework of a smart growth strategy – need support in order to innovate themselves and be projected into a broader scenario. This decision appears to be in keeping with the importance attributed by the Region to strengthening the regional research and innovation system and closely connected with the policies for competitiveness of Axis III.

#### Specific objectives and related actions

I. Increasing the innovation activity of enterprises

- Supporting the economic enhancement of innovation through experimentation and the adoption of innovative solutions in processes, products, and organisational formulas, as well as through the financing of the industrialisation of research results
- 2. Strengthening the regional and national innovative system
- System actions for supporting the participation of the actors of the territories in concertation platforms and national technological specialisation networks such as the National Technology Clusters, and in projects financed with other European research and innovation programmes (e.g. Horizon 2020)
- Supporting the carrying out of complex research and development activity projects on a few important thematic areas, and of the application of technological solutions for the specific purpose of achieving the strategies of S3
- 3. Increasing the incidence of innovative specialisations in highly knowledge-intensive areas
- Supporting the creation and consolidation of innovative, knowledge-intensive start-ups and research spin-off initiatives
- 4. Promoting new markets for innovation
- Supporting the generation of innovative solutions to specific socially relevant issues, also through the use of open innovation environments such as "living labs"

#### Main beneficiaries

Micro, SME, and large enterprises, also participating in National Technology Clusters, public and private research institutes and centres, local authorities, regional companies and agencies, the body implementing the financial engineering instruments, the Umbria Region.



# **AXIS II**Digital growth and citizenship



#### Financial endowment: € 31.951.680,00 (equal to 7,7% of the total ROP resources)

This axis is a fundamental and transversal component of the Programme strategy, underlying all the axes undertaken by the OP. Through Umbria's Telematic Plan, the Region intends to support the completion of the territory's infrastructure building, as well as initiatives aiming to guarantee the dissemination of e-government, e-procurement, and e-commerce services, with the aim of networking and interlinking the Umbrian system (jeopardised by excessive fragmentation) and providing citizens, businesses, and public administration offices with more efficient and accessible services.

#### Specific objectives and related actions

I. Reduction of the digital divides throughout the territories and dissemination of ultra-broadband connectivity (European "Digital Agenda")

- Contribution to the implementation of the "Digital Agenda Ultra-Broadband Strategic Plan" and other scheduled operations to ensure a connection of at least 30 Mbps throughout the territories, accelerating their implementation in the production areas and rural and remote areas, in compliance with the principle of technological neutrality in the areas permitted by the Community regulations
- 2. Strengthening the ICT demand from citizens and businesses in terms of use of online services, digital inclusion, and networking
- Technological solutions for literacy and digital inclusion, for the acquisition of advanced skills by businesses and the development of new ICT skills ("e-skills"), as well as to stimulate the dissemination and use of the Web, digital public services, and dialogue instruments, and cooperation and civic participation in a network ("open government"), with particular reference to disadvantaged citizens and to the internal and rural areas
- 3. Digitalisation of the administrative processes and dissemination of fully interoperable digital services
- Technological solutions for the digitalisation and innovation of the internal processes of the various areas of the Public Administration within the framework of the public connectivity system, such as, for example, healthcare, tourism, cultural activities and assets, and services for businesses

#### Main beneficiaries

Public bodies, Umbria region, the in-house company (CentralCom SpA or Consorzio Umbria Digitale), Ministry of Economic Development (MISE), businesses, municipal administrations and their associated bodies, consortia and other public entities, and the territory's schools and universities





#### Financial endowment: € 85.507.200,00 (equal to 20,7% of the total ROP resources)

In consideration of the structural characteristics of the regional economic and production system, as well as of the needs connected with the current economic-financial situation, it is necessary to promote and stimulate the competitiveness of the Umbrian economic and production system. In this sense, the OP intends to contribute to the revival of the production system's propensity for investments and to the consolidation and diversification of the territorial production systems, also through an easier access to credit, and to promote measures that permit the existing Umbrian businesses, first of all, to "survive" the challenges posed by the context of reference and, at the same time, to "evolve", to "become competitive", and to "open up" in international markets.

#### Specific objectives and related actions

I. Development of employment and production in territorial areas hit by a widespread crisis of their production activities

- Support measures to territorial areas hit by a widespread crisis of their production activities, aiming to lessen the effects of the industrial transitions on the individuals and enterprises
- 2. Consolidation, modernisation, and diversification of the territory's production systems
- Support for the development of products and services complementary to the enhancement of identified
  cultural and natural attractions of the territory, also through the integration among businesses of the
  cultural, tourism, sport, creative, and entertainment chains, and of the chains of traditional and typical
  local products
- Support to processes of aggregation and integration among businesses (business networks) in the construction of an integrated product in tourist destinations (also by experimenting innovative models, such as dynamic packaging, marketing networking, tourism information system, and customer relationship management)
- 3. Increase of the level of internationalisation of the production systems
- Export promotion projects targeting businesses and their groupings identified on a territorial or sectoral basis
- 4. Revival of the production system's propensity for investments
- Aid for investments in machinery, plant, and intangible assets, and assistance in company reorganisation and restructuring processes
- 5. Dissemination and strengthening of the economic activities with social content
- Support in the start-up and strengthening of entrepreneurial activities that produce socially desirable effects and public goods not produced by the market
- 6. Improvement of access to credit, of the financing of businesses
- Strengthening of the system of public guarantees for the expansion of credit in synergy between the national and regional guarantee systems, encouraging forms of rationalisation that also enhance the role of the most efficient and effective guarantee consortia.
- Contribution to the development of the risk capital fund market for business start-up in the pre-seed, seed, and early stage phases

#### Main beneficiarie

Businesses located in the crisis areas already identified; cultural and creative enterprises; temporary joint ventures; groupings of SMEs with the legal status of "network contract"; consortia; consortium companies; tourist enterprises (accommodation facilities and travel agencies). The body implementing the financial engineering instruments. Enterprises and groups of enterprises (networks, clusters, innovation hubs, etc.). SMEs; private social undertakings such as, for example, cooperatives, social enterprises, non-profit enterprises. Public or private body to be identified by means of a public procedure.



# **AXIS IV**Sustainable energy



#### Financial endowment: € 55.960.120,00 (equal to 13,6% of the total ROP resources).

In order to contribute to achieving the targets regarding the Europe 2020 indicators for energy sustainability (energy savings and increase of renewable sources), the ERDF OP, consistent with the Preliminary Document of the 2014-2020 Regional Environmental Energy Strategy (Regional Council resolution no. 1493 of 16/12/2013), intends to promote: i) a reduction of the gross final energy consumption by means of actions targeting the increase of efficiency in the final use of energy and the reduction of waste in the residential and public building sectors; ii) a reduction of energy consumption and emissions by enterprises, also with the integration of renewable sources; iii) an increase of the energy demand share covered by distributed generation, developing and producing smart distribution systems; iv) an increase of sustainable mobility in urban areas.

#### Specific objectives and related actions

- I. Reduction of energy consumption and emissions by enterprises and integration of renewable sources
- Incentives for the reduction of energy consumption and emissions of greenhouse gases by enterprises
  and production areas, including the installation of plants for the production of energy from renewable
  sources for their own consumption, placing priority on high-efficiency technologies
- 2. Reduction of energy consumption in public buildings and structures and those for public, residential, and non-residential use, and integration of renewable sources
- Promotion of eco-efficiency and reduction of primary energy consumption in public buildings and structures: operations for the restructuring of single buildings or building complexes, installation of smart systems for the remote control, setting, management, monitoring, and optimisation of energy consumption ("smart buildings") and pollutant emissions, also through the use of technological mixes
- 3. Increase of the energy demand share covered by distributed generation, developing and producing smart distribution systems
- Creation of intelligent energy distribution networks ("smart grids") and work on the complementary transmission networks for the purpose of directly increasing the distribution of energy produced from renewable sources, introduction of equipment with digital communication systems, intelligent measuring, and control and monitoring as an infrastructure of the "cities" and peri-urban areas
- 4. Increase of sustainable mobility in urban areas
- Renewal of rolling stock

#### Main beneficiaries

SMEs and large enterprises.

Region, local administrations, public bodies, healthcare and hospital structures, regional agencies, companies managing transmission and distribution networks, local administrations owning plants fuelled by non-programmable renewable sources (only for storage systems), municipal administrations, local public transport companies, and public or private providers of local public transport services which are also the performers of services of the companies subject to the Service Agreement rules, however assigned, and which manage fleets of motor vehicles. The body implementing the financial engineering instruments





#### Financial endowment: € 35.972.200,00 (equal to 8,7% of the total ROP resources).

In light of the valuable environmental and cultural assets of Umbria and for the purpose of an integrated enhancement of the territory's resources and skills, the strategy of the OP intends to promote the improvement of the conditions and standards of the offering and use of the cultural and natural assets.

#### Specific objectives and related actions

I. Improvement of the conditions and standards of the offering and use of the assets in the areas of natural attraction

- Measures for the protection and enhancement of areas of natural attraction and strategic importance (protected areas on land and at sea, protected landscapes), such that they consolidate and promote development processes
- 2. Improvement of the conditions and standards of the offering and use of the cultural assets in the areas of attraction
- Measures for the protection, enhancement, and interlinking and networking of the tangible and intangible cultural assets in the areas of attraction and strategic importance, in order to consolidate and promote development processes
- 3. Competitive repositioning of tourist destinations
- Support for the integrated use of cultural and natural resources and for the promotion of tourist destinations

#### **Main beneficiaries**

Umbria region, local bodies, AFOR (Regional Forestry Agency), public bodies and their associated entities.



## **AXIS VI**Sustainable urban development



#### Financial endowment: € 30.816.400,00 (equal to 7,5% of the total ROP resources)

The region of Umbria avails itself of the opportunity to create an axis to tackle the economic, environmental, climatic, population, and social challenges of urban areas. Although it is characterised by a scattered settlement model, Umbria exhibits phenomena of population concentration and presence of high-level services for vast areas in several urban hubs identified, consistent with the Partnership Agreement, on the basis of qualitative and quantitative criteria. These are: Perugia, Terni, Foligno, Città di Castello, and Spoleto – places which, albeit with specific population, economic, and social characteristics, present the trait of being, in their contexts, poles of attraction and drivers for the development of a vast area, potential "future workshops", points of attachment and a necessary factor for strengthening the capacity for innovation of the entire regional territory.

For this purpose the Region intends to promote the 5 urban hubs as the most innovative, efficient, and sustainable places to live and work, strengthening – in accordance with the "smart cities" paradigm – their attractiveness by means of a more sustainable and intelligent mobility and a development of digital services that facilitate a better accessibility and usability of the production and advanced service functions, also by acting on cultural engines.

#### Specific objectives and related actions

- I. Digitalisation of the administrative processes and dissemination of fully interoperable digital services
- Technological solutions for the creation of e-government services that are interoperable, integrated (joined-up services), and designed with citizens and businesses, and integrated solutions for smart cities and communities.
- 2. Reduction of energy consumption in public buildings and structures and those for public, residential, and non-residential use, and integration of renewable sources
- Adoption of technological solutions for reducing the energy consumption of public lighting systems, promoting the installation of automatic control systems (light sensors, remote control systems, and remote grid power management systems).
- 3. Increase of sustainable mobility in urban areas
- Creation of infrastructure and interchange nodes for the purpose of increasing collective mobility and for the eco-friendly distribution of goods and related transport systems
- Smart transport systems
- 4. Improvement of the conditions and standards of the offering and use of the cultural assets in the areas of attraction
- Measures for the protection, enhancement, and interlinking of the tangible and intangible cultural assets in the areas of attraction and strategic importance, which consolidate and promote development processes

#### **Main beneficiaries**

The beneficiaries of this action are the public bodies of the selected urban contexts and the in-house company Umbria Digitale, and the local public transport and infrastructure operators. Public-private partnerships.





#### Financial endowment: € 14.251.200,00 (equal to 3,5% of the total ROP resources)

The improvement of the administrative capacity of the bodies involved in the implementation and management of the Programme is an essential element for ensuring the achievement of the objectives and expected results. Axis VII supports technical assistance actions supporting ROP management, monitoring, assessment, information/communication, and control activities for the purpose of ensuring an effective and efficient implementation.

#### Specific objectives and related actions

I. Increase of the levels of effectiveness in the implementation of the Programme, and of the capacities of the bodies involved in its implementation and management

- Technical assistance and support for the management, monitoring, and oversight of the OP
- Assessment
- 2. Increase of the levels of transparency and visibility of the 2014-2020 ERDF ROP
- Information and publicity

#### Main beneficiaries

Management authorities and bodies involved in the implementation of the Programme.



#### **AXIS VIII**



## Earthquake prevention and support for the recovery of the territories struck by earthquakes

#### Financial endowment: € 56.000.000,00 (equal to I3,6% of the total ROP resources)

From 24 August 2016 through I8 January 2017, central Italy was struck by a series of earthquakes which involved, in the region of Umbria, the municipalities of the Valnerina area: Arrone (Terni); Cascia (Perugia); Cerreto di Spoleto (Perugia); Ferentillo (Terni); Montefranco (Terni); Monteleone di Spoleto (Perugia); Norcia (Perugia); Poggiodomo (Perugia); Polino (Terni); Preci (Perugia); Sant'Anatolia di Narco (Perugia); Scheggino (Perugia); Vallo di Nera (Perugia), to which was added the town of Spoleto.

With resolutions of the Council of Ministers of 25 August 2016, 27 and 31 October 2016, 20 January, and 10 February 2017, a state of emergency was declared.

For the Umbria region, the consequences of these events were extremely serious for the public and private heritage, and had a heavy impact on the production sector.

Pursuant to Article 92, paragraph 3, of Regulation (UE) No. I303/20I3 of the European Parliament and of the Council, of I7 December 20I3, Italy was assigned, for the three-year period 20I7-2020, additional European Cohesion Policy resources amounting to approximately I.645 billion euro, of which 200 million euro are to be used for measures to lessen earthquake risks and for the structural restoration of the territories of the four regions of central Italy affected by the recent earthquakes.

The Italian Government guaranteed additional co-financing equal to 50% of the amount of the Community funds, for a total of 400 million euro in resources under the European Regional Development Fund (ERDF) as per Regulation No. 1301/2013.

The resources assigned to the Umbria region amount to 56 million euro, to be used first and foremost for the implementation of seismic safety measures for strategic and important public buildings situated in the areas most at risk, with particular reference to the securing of the region's schools of all kinds, grades, and levels, through the conducting of seismic vulnerability assessments.

The idea of constructing a multi-objective Earthquake Axis derived from the awareness that there is a need to take action on the territories hit by means of a set of actions structured along the following two lines of intervention.

The first line concerns the implementation of safety measures against the risk of earthquakes for public buildings, including schools, integrating this action with measures to increase energy efficiency (TOs 4 and 5). The second line focuses on supporting the economic-social reconstruction of the areas hit – also through appropriate synergies with the actions under the Internal Areas strategy – intervening on the recovery of the cultural assets and by means of tourism promotion actions (TOs 5 and 6), as well as by envisaging support for the actors of the economic-production fabric, with particular regard to tourism (TO 3). In addition, also acknowledging the requests in this sense expressed by the European Commission, an intervention in compliance with TO I is planned, for the purpose of encouraging innovative activities connected with specific characteristics of the territory.

The structure of the Axis will consist of the following 5 thematic objectives: TOI – Research and technological development, TO3 – Competitiveness of SMEs, TO4 – Low-carbon economy, TO5 – Risk prevention and management, TO6 – Environmental preservation and protection, and 8 actions, envisaged by the Partnership Agreement.

#### Specific objectives and related actions

I.Promotion of new markets for innovation

- Supporting the development of innovative solutions to specific socially important issues, also through the use of open innovation environments such as "living labs"
- 2.Consolidation, modernisation, and diversification of the territory's production systems
- Support for the development of products and services complementary to the enhancement of identified cultural and natural attractions of the territory, also through the integration among businesses of the

cultural, tourism, sport, creative, and entertainment chains, and of the chains of traditional and typical local products

• Support for the competitive repositioning, the capacity to adapt to the market, and the attractiveness for potential investors, of the vital entrepreneurial systems within the region's boundaries.

3.Reduction of energy consumption in public buildings and structures and those for public, residential, and non-residential use, and integration of renewable sources

 Promotion of eco-efficiency and reduction of primary energy consumption in public buildings and structures: operations for the restructuring of single buildings or building complexes, installation of smart systems for the remote control, setting, management, monitoring, and optimisation of energy consumption ("smart buildings") and pollutant emissions, also through the use of technological mixes

4. Reduction of fire and earthquake risks

• Seismic microzoning and implementation of seismic safety measures for strategic and important buildings situated in the areas most at risk

5.Improvement of the conditions and standards of the offering and use of the assets in the areas of natural attraction

 Measures for the protection, enhancement, and interlinking and networking of the tangible and intangible cultural assets in the areas of attraction and strategic importance, in order to consolidate and promote development processes

6.Improvement of the conditions and standards of the offering and use of the cultural assets in the areas of attraction

 Measures for the protection, enhancement, and interlinking and networking of the tangible and intangible cultural assets in the areas of attraction and strategic importance, in order to consolidate and promote development processes

7. Competitive repositioning of tourist destinations

• Support for the integrated use of cultural and natural resources and for the promotion of tourist destinations

#### Main beneficiaries

Local bodies, regional companies and agencies, enterprises and groups of enterprises (networks, clusters, etc.), start-ups, public and private research entities located in the municipalities of the crater.

SMEs located in the municipalities of the crater. Region of Umbria, local bodies, AFOR (Regional Forestry Agency for the Casale Volpetti – Serravalle stretch), in-house company.

For actions 8.3.I. and 8.4.I. the beneficiaries are the Region, local administrations, public bodies for the territories with seismic danger indexes I and 2 (Seismic zones I and 2 of Regional Council Decree III/I2 as per Prime Ministerial Order 3519/2006).



## THE REGIONAL RESEARCH AND INNOVATION STRATEGY FOR THE SMART SPECIALISATION OF THE UMBRIA REGION

Investments in research and technological innovation form one of the fundamental cornerstones of the cohesion policy for the 2014–2020 programming phase, for the purpose of stimulating competitiveness and promoting regional development processes.

The European Union has asked all regions to draft a research and technological innovation strategy for smart specialisation ("Smart Specialisation Strategy" – RIS3), which permits a more efficient use of the structural funds and enhances the synergies among the Community, national, and regional policies, as well as between public and private investments.

The region of Umbria immediately saw the RIS3 as an opportunity and challenge to be seized in order to be able to define a unitary and complete regional innovation strategy in order to support, within the limits of its own resources, a socioeconomic change of the regional territory.

The document, which was adopted by the Regional Council with resolution no. 888 of 16 July 2014, thus constitutes the "road-map" for undertaking a path of change toward a more open, entrepreneurial, yet specialised, development model, focused on activating the local potentials by leveraging the regional assets and talents through access to the results of the research and promotion of a new entrepreneurship.

The main sectors that will be enhanced by the RIS3 are agri-food, life science, green chemistry, energy, and smart factory/aerospace industry. In these sectors, the region boasts not only a high and consolidated specialisation, but also a potential competitive advantage and an external/international recognition. Moreover, during the joint consultation process with the regional economic and social partnership, it became clear that it was necessary to not exclude the sectors of intervention relating to the creative industries and high tech, as well as the traditional production system and tourism sectors. Digital growth and ICT are a crucial and transversal aspect within the framework of the regional Smart Specialisation Strategy.

The RIS3 Umbria is the result of a process of reflection begun in 2012 and involving the regional actors who, observing the territory's situation, discussed the role played by research and innovation, and the importance such policies have in Umbria. They then contributed to identifying the levers on which to concentrate to build a competitive advantage that is sustainable for the territory (the "expected changes"), and the most suitable instruments for supporting such a transformation.

With a view to guaranteeing a unitary regional Research and Innovation strategy and to concentrating resources on the priorities identified, the RIS3 recognises 5 top priority levers which will correspond to targeted actions and instruments which will be activated at the level of the 2014-2020 Regional Operational Programmes (European Regional Development Fund, European Social Fund, and European Agricultural Fund for Rural Development). The 5 top priority levers are:

- Supporting the enhancement of the research results achieved in the region;
- Supporting the use by SMEs of the results of the research conducted in Italy and abroad;
- Promoting and supporting a new entrepreneurship based on international market-oriented knowledge;
- Promoting continuous, widespread innovation processes;
- Developing systems of innovative services for improving the quality of living of the citizenry.



The following table shows the correlation existing between the "expected changes" and the "levers", i.e. the variables on which it will be necessary to act using targeted actions and instruments.

#### **EXPECTED CHANGES**

Development of a culture of research enhancement.

Integration with the system of enterprises downstream of the research.

Territorial rooting of innovative production chains. Greater opening toward international markets.

Strengthening of the components of the chain with the greatest added value.

Increase of the entrepreneurial sector with particular regard to the knowledge-intensive sectors

Greater weight of the non-traditional sectors in the regional economic system.

Greater attractiveness for talents and qualified professionals.

Increase of contaminations ("related variety") among enterprises operating in different areas. Increase of the diversification of products and services.

Increase of the efficiency (productivity) of regional enterprises.

Increase of competitiveness on markets.

Improvement of the quality of living. Increase of the attractiveness of the territory.

#### **LEVE SU CUI AGIRE**

I. Supporting the enhancement of the research results achieved in the region

2. Supporting the use by SMEs of the results of the research conducted in Italy and abroad

3. Promoting and supporting a new entrepreneurship based on international market-oriented knowledge

4. Promoting processes of continuous and widespread innovation

5. Developing systems of innovative services for improving the quality of living of the citizenry

## TERRITORIAL DIMENSION

The new cohesion policy recognises with greater force and emphasis the role of cities and territories in European regional development, considering polycentrism as the central value in a system built, on the one hand, of strong metropolitan regions and, on the other, of other urban areas which can provide good access to the services of general economic interest. It is a system rich with cities and neighbouring urban areas where a total of around 70% of the European population live, and on which 2/3 of the EU laws, and therefore on economic, social, and environmental issues, are based. As a matter of fact, the European Urban Agenda and European Digital Agenda are two of the founding documents of the Europe 2020 Strategy, whose national and local expressions represent the reference point for the actions and interventions to be carried out through the 2014–2020 cohesion policies.

The decisions adopted by the Region for the 2014-2020 Community programming phase – consistent with the general arrangement of the Community Regulations and the Partnership Agreement presented by the Government – are characterised by a strong pressure toward a territorial approach in the ways the 2014-2020 Community Funds are used. This is an orientation that results in the definition of strongly inter-related strategies and approaches which, precisely because of their integration capacity, are able to promote regional development more effectively and better achieve the objectives and expected pre-set results.

This territorial approach is particularly evident in the Urban Agenda and Internal Areas strategies, the main territorial focuses envisaged by the cohesion policies and also included in the 2014-2020 Regional Strategic Framework.

Both these strategies envisage that, in the cities and territories identified, action be taken with programmes that envisage intersectoral actions and interventions, financed with resources coming from multiple funds, implemented in correlation with a number of different entities.

The territorial dimension within the framework of the ERDF will be developed focusing on the following aspects:

#### I. Sustainable urban development

It is planned for 5 integrated interventions to be carried out in the cities identified, implemented with an Axis specifically devoted to urban development.

With the Urban Agenda, the EU intended to place emphasis on sustainable urban development and on the value of integrated actions. Therefore, with the 2014-2020 programming, a greater involvement of the local level is acknowledged, also for the purpose of recovering a close dialogue with those urban contexts that represent the main hope for economic recovery and which are increasingly more recognisable as the laboratories of effective, innovative, and rich experimentations of recent years.

It is an actual Urban Agenda which considers the five cities of Perugia, Terni, Foligno, Città di Castello, and Spoleto as the main economic development engine.

It is a transversal objective since it is in the cities that production and social innovation, mobility, and physical and intellectual capital are concentrated, and they are places of connectivity, creativity, culture, and innovation. At the same time they have to deal with economic problems, conflicts, and social inequalities.

The OP will cover the implementation of the investments in the 5 urban hubs of Perugia, Terni, Foligno, Città di Castello, and Spoleto.

In these cities, the Urban Agenda in the ROP will concentrate on:

- digital innovation in the Public Administration (OT2)
- increase of energy efficiency and sustainable mobility (OT4)
- use and interlinking of cultural attractions (OT6)

#### 2. Strategy for internal areas

Three territorial contexts in which to implement the strategies for the internal areas have been identified.

In line with the approach promoted at the national level – Partnership Agreement and Stability Law 2014, paragraphs I3-I7 – the Umbria region has embarked on a shared, well thought out path aiming to identify the region's internal areas. The development of this path was also fine-tuned via specific meetings with the competent ministry structures, in order to better define the areas and reasons for the choices. In light of the analyses and first mappings performed, three internal areas were identified:



- NORTH-EAST area: corresponding to the Apennine zone, bordering on Marche (municipalities of Pietralunga, Montone, Gubbio, Scheggia e Pascelupo, Costacciaro, Sigillo, Fossato di Vico, Gualdo Tadino, Nocera Umbra, Valfabbrica); the strategy concerns all the municipalities listed, while the project area is limited to the following 7 municipalities: Pietralunga, Montone, Scheggia e Pascelupo, Costacciaro, Sigillo, Nocera Umbra, Valfabbrica;
- SOUTH-WEST area: corresponding to the municipalities of the Orvieto environs, bordering on Tuscany and Lazio (municipalities of Città della Pieve, Monteleone di Orvieto, Montegabbione, Parrano, San Venanzo, Ficulle, Fabro, Allerona, Castel Viscardo, Castel Giorgio, Orvieto, Porano, Baschi, Montecchio, Guardea, Alviano, Lugnano in Teverina, Attigliano, Giove, Penna in Teverina);
- VALNERINA area: corresponding to the municipalities of the South-East Apennine zone (municipalities of Cascia, Cerreto di Spoleto, Monteleone di Spoleto, Norcia, Poggiodomo, Preci, Sant'Anatolia di Narco, Scheggino, Vallo di Nera, Ferentillo, Arrone, Polino, Montefranco, Sellano).

Within the framework of an integrated territorial development approach (implemented with the contribution of national resources and others from the ERDF, ESF, and EAFRD Operational Programmes), the ERDF OP intends to support the regional strategy of the internal areas, allocating a share of at least 1% of the total OP resources to them.

### 3. Integrated territorial investments – Trasimeno ITI (Integrated and intersectoral development strategy for the Trasimeno ITI)

Among the aspects of 2017 that gave a boost to the achievement of the results of the 2014-2020 ERDF Programme, we can include the ITI instrument (Art. 36, Reg. (EC) No. I303/20I3), an instrument for the implementation of integrated territorial strategies whose activation had not been envisaged in the original programming of the 2014-2020 ERDF ROP. The decision to activate the ITI to accomplish the "Integrated Area Project for the Trasimeno", a territorial strategy already envisaged in the 2014-2020 RSF and mentioned in the 2014-2020 ERDF ROP (Sections 4 and 6), is intended to requalify and develop an area identified for its particular environmental value. The Trasimeno ITI (Regional Council Decree 93/I6) concerns the municipalities of Castiglione del Lago, Città della Pieve, Magione, Paciano, Panicale, Passignano, Piegaro, and Tuoro, eight municipalities singled out because they have a long history of cooperation, commenced with the 1982-85 Regional Development Plan and renewed more recently with a "Landscape Contract", a negotiated programming instrument that constitutes the landscape and urban planning context for the Trasimeno ITI (Regional Council Decree 62I/I5). The new collaboration for the Trasimeno ITI gave a strong boost to the associative intent of the 8 municipalities, which established the Union of Trasimeno Municipalities in 12/7/16. The resources for the ITI (Regional Council Decree no. II63/2015) fall under the ERDF, ESF, and RSP regional programmes, for a total of € 15 million, of which 5,5 million are from the ERDF ROP, 2,0 million from the ESF ROP, and 7,5 million from the EAFRD RSP.With Regional Council Decree no. 93/2016, the necessary decisions were thus made for the start-up of the Trasimeno ITI, within the framework of the Integrated Area Project of the Trasimeno Basin, and in particular a path of co-planning of the strategy with the municipalities involved, on the basis of the ITI intervention Axes, identified by the same Regional Council Decree, with the corresponding Thematic Objectives, Axes, and 2014-2020 Operational Programmes:

- Axis I: Protection and enhancement of environmental and cultural assets
- Axis 2: Competitiveness of SMEs
- Axis 3: Social inclusion
- Axis 4: Information and communication technologies
- Axis 5: Streamlining of the Public Administrations (including the unifiable functions)
- Axis 6: Technical assistance

The Trasimeno ITI contributes to the ESI Thematic Objectives (TO2, TO3, TO6, TO9, TOII) and the objectives of the 2020 European Strategy for a growth that is "smart" (infrastructure building and services in the field of information and communication technologies, Axis 4 ITI and orientation toward the RIS3, Axis 2 ITI), "sustainable" (protecting and enhancing environmental and cultural assets, Axis I ITI), and "inclusive" (infrastructure building and services for social inclusion, Axis 3 ITI). On the basis of the provisions of Regional Council Decree 859/I6, the financial endowment for the ITI (support of the EU) coming from the ERDF totals € 2.750.000,00, broken down among the ROP Axes as follows: Axis 3 € 900.000,00, Axis 5 € 1.750.000,00, and Axis 7 € 100.000,00.





AXIS I	INVESTMENT PRIORITY (Art. 5, Reg. (EU) I30I/20I3)	EXPECTED RESULTS	KEY ACTIONS
RESEARCH AND INNOVATION € 101.834.404 (24,7%)		I.I Increase of the innova- tion activity of enterprises	I.I.I Support of the economic enhancement of innovation through experimentation and the adoption of innovative solutions in processes, products, and organisational formulas, as well as through the financing of the industrialisation of the research results
NOVATION +,7%)	b) Promoting investments of enterprises in R&D, developing connections and synergies among enterprises, research and development centres, and the higher education sector, in particular promoting investments in the development of products and services, transfer of technologies, social innovation, eco-friendly innovation, applications in public services, stimulation of demand, networks, clusters, and innovation open to smart specialisation; also, supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and initial production, etc.	I.2 Strengthening of the regional and national innovation system	I.2.I System actions for supporting the participation of the actors of the territories in concertation platforms and national technological specialisation networks such as the National Technology Clusters, and in projects financed with other European research and innovation programmes (e.g. Horizon 2020)  I.2.2 Support of the carrying out of complex research and development activity projects on a few important thematic areas, and of the application of technological solutions for the specific purpose of achieving the strategies of S3
		I.3 Increase of the inciden- ce of innovative speciali- sations in highly knowle- dge-intensive application areas	I.3.I Support of the creation and consolidation of innovative, highly knowledge-intensive start-ups and research spin-off initiatives
		I.4 Promotion of new mar- kets for innovation	I.4.I Support of the creation and consolidation of innovative, highly knowledge-intensive start-ups and research spin-off initiatives

AXIS 2	INVESTMENT PRIORITY (Art. 5, Reg. (EU) I30I/20I3)	EXPECTED RESULTS	KEY ACTIONS
DIGITAL GROWTH € 31.951.680 (7,7%)	a) Extending the spread of broadband technology and launch of high-speed networks, and supporting the adoption of emerging networks and technologies in the digital economy field	2.1. Reduction of the digital divides throughout the territories and dissemination of ultra-broadband connectivity (European "Digital Agenda")	2.I.I Contribution to the implementation of the "Digital Agenda Ultra-Broadband Strategic Plan" and other scheduled operations to ensure a connection of at least 30 Mbps throughout the territories, accelerating their implementation in the production areas and rural and remote areas, in compliance with the principle of technological neutrality in the areas permitted by the Community regulations
	b) Developing ICT products and services, e-commerce, and the demand for ICT	2.2 Strengthening the ICT demand from citizens and businesses in terms of use of online services, digital inclusion, and networking	2.2.1 Technological solutions for digital literacy and inclusion, for the acquisition of advanced skills by businesses and the development of new ICT skills ("e-skills"), as well as to stimulate the dissemination and use of the Web, digital public services, and dialogue instruments, and cooperation and civic participation in a network ("open government"), with particular reference to disadvantaged citizens and to the internal and rural areas.
	c) Strengthening the applications of ICT for e-government, e-learning, e-inclusion, e-culture, and e-health	2.3 Digitalisation of the ad- ministrative processes and dissemination of fully inte- roperable digital services	2.3.1 Technological solutions for the digitalisation and innovation of the internal processes of the various areas of the Public Administration within the framework of the public connectivity system, such as, for example, healthcare, tourism, cultural activities and assets, and services for businesses.

AXIS 3	INVESTMENT PRIO- RITY (Art. 5, Reg. (EU) I301/2013)	EXPECTED RESULTS	KEY ACTIONS
COMPETITIVENESS OF € 85.507.200 (20,7%)	b) Developing and producing new activity models for SMEs, in particular for internationalisation	3.I Development of employment and production in territorial areas hit by a widespread crisis of their production activities	3.I.I Support measures to territorial areas hit by a widespread crisis of their production activities, aiming to lessen the effects of the industrial transitions on the individuals and enterprises
OMPETITIVENESS OF SMES 85.507.200 (20,7%)		3.2 Consolidation, modernisation, and diversification of territorial production systems	3.2.I Support for the development of products and services complementary to the enhancement of identified cultural and natural attractions of the territory, also through the integration among businesses of the cultural, tourism, sport, creative, and entertainment chains, and of the chains of traditional and typical local products 3.2.2 Support to processes of aggregation and integration among businesses (business networks) in the construction of an integrated product in tourist destinations (also by experimenting innovative models, such as dynamic packaging, marketing networking, tourism information system, and customer relationship management)
		3.3. Increase of the internationali-sation level of the production system	3.3.I Export promotion projects targeting businesses and their groupings identified on a territorial or sectoral basis
	c) Supporting the creation and expansion of advanced product and service capabilities	3.4. Revival of the production system's propensity for investments	3.4.1 Aid for investments in machinery, plant, and intangible assets, and assistance in company reorganisation and restructuring processes
		3.5 Dissemination and strengthening of the economic activities with social content	3.5.I Support in the start-up and strengthening of entrepreneurial activities that produce socially desirable effects and public goods not produced by the market
	d)Supporting the ability of SMEs to grow on regional, national, and international markets and take part in the innovation processes	3.6 Improvement of access to credit, of the financing of businesses	3.6.I Strengthening of the system of public guarantees for the expansion of credit in synergy between the national and regional guarantee systems, encouraging forms of rationalisation that also enhance the role of the most efficient and effective guarantee consortia 3.6.2 Contribution to the development of the risk capital fund market for business start-up in the pre-seed, seed, and early stage phases

AXIS 4	INVESTMENT PRIORITY (Art. 5, Reg. (EU) I30I/20I3)	EXPECTED RESULTS	
SUSTAINABLE ENERGY € 55.960.120 (13,6%)	b) Promoting energy ef- ficiency and the use of renewable energy in busi- nesses	4.I Reduction of energy consumption and emissions by enterprises and integration of renewable sources	4.I.I Incentives for the reduction of energy consumption and emissions of greenhouse gases by enterprises and production areas, including the installation of plants for the production of energy from renewable sources for their own consumption, placing priority on high-efficiency technologies
	c) Supporting energy efficiency, smart energy management, and the use of renewable energy in public infrastructure, including public buildings and in the residential building sector	4.2 Reduction of energy consumption in public buildings and structures and those for public, residential, and non-residential use, and integration of renewable sources	4.2.I Promotion of eco-efficiency and reduction of primary energy consumption in public buildings and structures: operations for the restructuring of single buildings or building complexes, installation of smart systems for the remote control, setting, management, monitoring, and optimisation of energy consumption ("smart buildings") and pollutant emissions, also through the use of technological mixes
	d) Developing and producing smart low- and medium-voltage distribution systems	4.3 Increase of the energy demand share covered by distributed generation, developing and producing smart distribution systems	4.3.1 Creation of smart energy distribution networks ("smart grids") and work on the complementary transmission networks for the purpose of directly increasing the distribution of energy produced from renewable sources, introduction of equipment with digital communication systems, smart measuring, and control and monitoring as an infrastructure of the "cities" and peri-urban areas
	e) Promoting strategies for low carbon emissions for all types of territory, in particular urban areas, including the promotion of sustainable multimodal urban mobility and specific adaptation and mitigating measures	4.4 Increase of sustainable mobility in urban areas	4.4.1 Renewal of rolling stock

AXIS 5	INVESTMENT PRIORITY (Art. 5, Reg. (EU) I30I/20I3)	EXPECTED RESULTS	KEY ACTIONS
ENVIRONMENT AND CULTURE € 35.972.200 (8,7%)	c) Preserving, protecting, promoting, and developing the natural and cultural he- ritage	5.I Improvement of the conditions and standards of the offering and use of the assets in the areas of natural attraction	5.I.I Measures for the protection and enhancement of areas of natural attraction and strategic importance (protected areas on land and at sea, protected landscapes), such that they consolidate and promote development processes
D CULTURE		5.2 Improvement of the conditions and standards of the offering and use of the cultural assets in the areas of attraction	5.2.2 Measures for the protection, enhancement, and interlinking and networking of the tangible and intangible cultural assets in the areas of attraction and strategic importance, in order to consolidate and promote development processes
		5.3 Competitive repositio- ning of tourist destinations	5.3.I Support of the integra- ted use of cultural and na- tural resources and for the promotion of tourist desti- nations



INVESTMENT PRIORITY AXIS 6 (Art. 5, Reg. (EU) I30I/20I3)		EXPECTED RESULTS	KEY ACTIONS
SUSTAINABLE URBAI € 30.816.400 (7,5%)	c) Strengthening the applications of ICT for e-government, e-learning, e-inclusion, e-culture, and e-health	6.I Digitalisation of the ad- ministrative processes and dissemination of fully inte- roperable digital services	6.I.I Technological solutions for the creation of e-government services that are interoperable, integrated (joined-up services), and designed with citizens and businesses, and integrated solutions for smart cities and communities.
URBAN DEVELOPMENT (7,5%)	c) Supporting energy efficiency, smart energy management, and the use of renewable energy in public infrastructure, including public buildings and in the residential building sector	6.2 Reduction of energy consumption in public buildings and structures and those for public, residential, and non-residential use, and integration of renewable sources	6.2.I Adoption of technological solutions for reducing the energy consumption of public lighting systems, promoting the installation of automatic control systems (light sensors, remote control systems, and remote grid power management systems).
	e) Promoting strategies for low carbon emissions for all types of territory, in particular urban areas, including the promotion of sustainable multimodal urban mobility and specific	6.3 Increase of sustainable mobility in urban areas	6.3.1 Creation of infrastructure and interchange nodes for the purpose of increasing collective mobility and for the eco-friendly distribution of goods and related transport systems
	adaptation and mitigating measures		6.3.2 Smart transport sy- stems
	c) Preserving, protecting, promoting, and developing the natural and cultural he- ritage	6.4 Improvement of the conditions and standards of the offering and use of the cultural assets in the areas of attraction	6.4.I Measures for the protection, enhancement, and interlinking and networking of the tangible and intangible cultural assets in the areas of attraction and strategic importance, in order to consolidate and promote development processes

AXIS 7	INVESTMENT PRIORITY (Art. 5, Reg. (EU) I30I/20I3)	EXPECTED RESULTS	KEY ACTIONS
TECHNICAL A 14.251.200 (3		7.I Increase of the levels of effectiveness in the implementation of the Programme, and of the capacities of the bodies involved in its implementation and management	7.I.I Technical assistance and support for the management, monitoring, and oversight of the OP 7.I.2 Assessment
SSISTANCE ,5%)		7.2 Increase of the levels of transparency and visibility of the 2014-2020 ERDF ROP	7.2.I Information and publi- city

AXIS 8	INVESTMENT PRIO- RITY (Art. 5, Reg. (EU) I30I/20I3)	EXPECTED RESULTS	KEY ACTIONS
EARTHQUAKE PRE AND SUPPORT FO OF THE TERRITORI BY EARTHQUAKES		8.I. Promotion of new markets for in-novation	8.I.I Supporting the generation of innovative solutions to specific socially important issues, also through the use of open innovation environments such as "living labs"
THQUAKE PREVENTION SUPPORT FOR THE RECOVERY HE TERRITORIES STRUCK ARTHQUAKES € 56.000.000,00 (I3,6%)		8.2. Consolidation, modernisation, and diversification of territorial pro- duction systems	8.2.I Support for the development of products and services complementary to the enhancement of identified cultural and natural attractions of the territory, also through the integration among businesses of the cultural, tourism, sport, creative, and entertainment chains, and of the chains of traditional and typical local product 8.2.2 Support for the competitive repositioning, the capacity to adapt to the market, and the attractiveness for potential investors, of the vital entrepreneurial systems within the region's boundaries.
?Y ,00 (I3,6%)		8.3 Reduction of energy consumption in public buildings and structures and those for public, residential, and non-residential use, and integration of renewable sources	8.3.I Promotion of eco-efficiency and reduction of primary energy consumption in public buildings and structures: operations for the restructuring of single buildings or building complexes, installation of smart systems for the remote control, setting, management, monitoring, and optimisation of energy consumption ("smart buildings") and pollutant emissions, also through the use of technological mixes
		8.4 Reduction of fire and earthquake risks	8.4.I Seismic microzoning and implementation of seismic safety measures for strategic and important buildings in the areas most at risk
		8.5 Improvement of the conditions and standards of the offering and use of the assets in the areas of natural attraction	8.5.I Measures for the protection, enhancement, and interlinking and networking of the tangible and intangible cultural assets in the areas of attraction and strategic importance, in order to consolidate and promote development processes
		8.6 Improvement of the conditions and standards of the offering and use of the cultural assets in the areas of at- traction	8.6.I Measures for the protection, enhancement, and interlinking and networking of the tangible and intangible cultural assets in the areas of attraction and strategic importance, in order to consolidate and promote development processes
-V-V-		8.7 Competitive repositioning of tourist destinations	8.7.I Support for the integrated use of cultural and natural resources and for the promotion of tourist destinations





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