

“INNOVATION, DIGITALIZATION AND SUSTAINABILITY FOR THE DIFFUSED ECONOMY IN CENTRAL ITALY”

DIGITAL, INDUSTRY & AEROSPACE



TARGET:

Introduction and presentation of the Ecosystem

From the point of view of research aimed at innovative territorial development, the innovations will include digital technologies, materials sciences and nanotechnologies, engineering, architecture and design, physics, energy technologies, medical sciences and biotechnology, biomedical engineering, psychosocial and communication sciences. From the point of view of transferring the results of the research, the production and service areas involved will be: the home and furniture system, architecture and design; mechanics of automotive, shipbuilding and aerospace; composite materials; the fashion system; agriculture and food; production sectors and services related to culture and education; sectors related to personal health, assistance and social inclusion; the large service and tourism sector engaged in digital transformation.

Connecting elements of the Ecosystem's areas of specialisation with the scientific and economic vocations of the territorial area / territory of reference

The socio-economic, urban and territorial characteristics that unite the Abruzzo, Marche and Umbria Regions are the low population density; their significant historical, environmental and landscape value; the diffusion of the production sector made up mainly of SMEs; the relative concentration of infrastructures along the coast; the widespread presence of valuable primary productions; and a structured and significant presence of Universities and Research Centres. Innovative solutions to increase service coverage, improve quality, safety and sustainability – as homogeneously as possible – of production systems, public administrations and living and working conditions are crucial to fully exploit the development potential of local production systems –as highlighted also by main programming documents. The ongoing post-earthquake reconstruction was an opportunity for the three regional territories to introduce significant elements to enhance the strengths of their widespread territorial systems, starting with cooperation and coordination on a supra-regional scale, essential for a new and more effective infrastructure and services offered.

The nine Universities within the territories, now applying to create the present Ecosystem, have already successfully demonstrated their effective partnership in the programmatic definition of research development and building relationships with local production systems.

With reference to the latter, in recent decades there has been a weakening of the propulsive capacity for the local economies of small business systems and industrial districts, where they are not strongly connected to innovation systems. This is mainly due to the difficulty of finding skills and building collaborations to incorporate new skills that support innovation.

These difficulties have resulted in a significant decline in competitiveness in regions characterised by this type of entrepreneurship. It is, therefore, essential to forge new paths of technological transformation, innovation and production diversification within the various production chains.

The production systems of Abruzzo, Marche and Umbria, where there limited multinational settlements, are made up of apparently traditional sectors, but they are potentially capable of hosting many advanced technologies to improve competitiveness, sustainability and the ability to respond to emerging needs of the people and of the communities. Furthermore, an efficient innovative ecosystem – as is the objective - is one of the key determinants of attractiveness for large and multinational companies present in the territories. The social and urban characteristics of the territory could favour the pursuit and achievement of this objective in the unique way typical of a diffused territory, composed of small towns, villages and countryside. With the aim of reviving the economic and production systems, the Universities have already been called upon to contribute to the definition of the economic revitalization strategies of the areas repeatedly hit by the earthquake in the recent past. As part of a fund complementary to the NRRP for post-earthquake reconstruction and development in Central Italy, the "Relaunch" package saw all the Universities of the three Regions an

active and central part for the development of programmes relating to seismic safety, agricultural and food, circular economy and health, and enhancement of cultural and environmental heritage.

It should be noted that the Ecosystem is representative of 9.1% of all Italian higher education institutions, public or private (9 out of 98), as well as 13.4% of all public universities (9 out of 67). A total of 116,9504 students are enrolled at universities that are part of the Ecosystem, 6.52% of the total number of students enrolled in a public and private higher education institution (1,793,210), as well as 7.6% of the total number of students enrolled in a public university (1,543,717).

The research guidelines proposed by the Ecosystem were therefore defined in considering strong knowledge and complementarity of the needs of the different regional contexts, as highlighted by the SWOT analysis below of the broader area of Abruzzo, Marche and Umbria.

SECTION PARTNERS

TOTAL NO. OF PARTNERS: 24

Proposer: Università dell'Aquila

Participants

PUBLIC SUBJECTS

Universities

- Università di Chieti e Pescara
- Università di Perugia
- Università di Teramo
- Università di Urbino Carlo Bo
- Università del Molise
- Università di Camerino
- Università di Macerata
- Università Politecnica delle Marche

Research Institutes

- Consiglio Nazionale delle Ricerche
- Istituto Nazionale di Astrofisica
- Gran Sasso Science Institute
- Istituto zooprofilattico di Teramo
- Istituto Nazionale Ricovero e Cura per Anziani

PRIVATE ACTORS:

Research Organisations

- Fondazione Bruno Kessler
 - Croce Rossa Italiana
-

Companies

- COSMOB
- Dompé farmaceutici S.p.A.
- Graphene Company
- Meccano
- Novamont SpA
- PTP
- Synergo Group
- Thales Alenia Space Italia SpA
- COSMOB
- Graphene Company
- Novamont SpA
- PTP

SPOKE

Spoke n. 1 *Megalithic: Methods and Technologies enhancing Local specializations strategies in Health*

Leader spoke: Università degli studi dell'Aquila

Spoke members:

- Università di Teramo
- Università di Macerata
- Università del Molise
- Croce Rossa Italiana
- Dompé farmaceutici S.p.A.

Spoke n. 2 *ASTRA – Advanced Space Technologies and Research Alliance*

Leader spoke: Gran Sasso Science Institute

Spoke members:

- Università di Perugia;
- Istituto Nazionale di Astrofisica
- Fondazione Bruno Kessler
- Thales Alenia Space Italia SpA.

Spoke n. 3 - *Innovative food production: matching sustainability and quality of life*

Leader spoke: Università di Teramo

Spoke members:

- Università Politecnica delle Marche
- Università di Perugia
- Istituto zooprofilattico di Teramo

Spoke n. 4 - *One-Health Telemedicine and environment*

Leader spoke: Università di Chieti e Pescara

Spoke members:

- Università di Urbino Carlo Bo;
- Synergo Group

Spoke n. 5 - *Environmental, economic and social sustainability of living and working environments*

Leader spoke: Università Politecnica delle Marche

Spoke members:

- Università di Camerino
- Università di Perugia
- Istituto Nazionale Ricovero e Cura per Anziani
- Meccano
- COSMOB

Spoke n. 6 *Innovation and safety of living environments in the digital transition era*

Leader spoke: Università di Camerino

Spoke members:

- Università di Urbino Carlo Bo
- Meccano
- COSMOB

Spoke n. 7 - *Smart solutions and educational programs for anti-fragility and inclusivity*

Leader spoke: Università di Macerata

Spoke members:

- Università dell'Aquila
-

- INRCA
- Meccano
- COSMOB

Spoke n. 8 - Innovative Therapeutic Approaches: New Chemical Entities, Biologics and Drugs Delivery

Leader spoke: Università di Urbino Carlo Bo

Spoke members:

- Università di Perugia
- Università di Camerino
- Meccano
- COSMOB

Spoke n. 9 - Nanostructured materials and devices; Spoke 10 - Bio based and bio compatible materials and devices

Leader spoke: Università di Perugia

Spoke members:

- Università Politecnica delle Marche
- Università di Camerino
- Consiglio Nazionale delle Ricerche
- Graphene Company

Spoke n. 10 - Bio based and bio compatible materials and devices

Leader spoke: Università di Perugia

Spoke members:

- Consiglio Nazionale delle Ricerche
- Novamont SpA
- PTP

FINANCIAL DATA (by concession decree)

Total amount: € 120.992.481,04

MUR grant: € 115.996.558,73

Project calls: 30% of project amount
