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Synergies among EU programmes and cohesion policies in the Bioeconomy and Blue Economy domains: sharing information for co-designing more effective funds synergies

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The Regional R&I Ecosystem



7 National and International Research Centres
7 Universities with 166K students + Bologna Business School
65 IR ESFRI
2 European Agencies/Authorities (Efsa e Ecmwf)
34 Incubators and accelerators
91 R&I Accredited laboratories
1 National Champion (Big Data)
1 National Ecosystem
11 Clust-ER



1st Region in ITALY «Regional Innovation Scoreboard 2021»

1° Region in export per capita
 1° Region in patents per capita



→ **43.000 manufacturing companies**
 → **500 multinational companies**

4 UNESCO cities (Ferrara, Modena, Bologna, Ravenna)
9 UNESCO sites
543 Museums
1 CLC of KIC ICC



CLUST-ER AGRIFOOD
AGROALIMENTARE

CLUST-ER BUILD
EDILIZIA E COSTRUZIONI

CLUST-ER GREENTECH
ENERGIA E SOSTENIBILITÀ

CLUST-ER CREATE
CULTURA E CREATIVITÀ

CLUST-ER HEALTH
SALUTE E BENESSERE

CLUST-ER INNOVATE
INNOVAZIONE NEI SERVIZI

CLUST-ER MECH
MECCATRONICA E MOTORISTICA

M UN ER
MOTORVEHICLE UNIVERSITY OF EMILIA-ROMAGNA

BigData
associazione
from volume to value

ART-ER
ATTRACTIVENESS RESEARCH TERRITORY

lepoda

arpae
agenzia protezione ambiente energia emilia-romagna

New CLUST-ER:
Tourism and urban economy

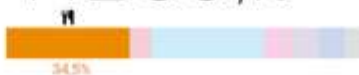
Impact of S3 2014-2020

Total

FINANCED PROJECTS
5.296



MIL € INVESTEMENTS
1.250,10



MIL € CONTRIBUTES
629,68



5.424 ENTERPRISES (SMES) FINANCED



432 RESEARCH LABORATORIES SUPPORTED



26 NEW COMPANIES



36 PATENTS GENERATED



428 NEW RESEARCHERS



30.070 TRAINED PEOPLE



1.913 RESEARCH GRANTS



320 TOTAL PATENTS



215 INNOVATIVE START-UPS



FINANCED PROJECT
12.217



MIL. € OF INVESTMENTS
3.621,75



MIL € CONTRIBUTES
1.883,86



8.386 ENTERPRISES (SMSE) FINANCED



1.551 RESEARCH LABORATORIES SUPPORTED



248 NEW COMPANIES



291 TOTAL PATENTS GENERATED



2.660 NEW RESEARCHERS



72.866 TRAINED PEOPLE



13.351 RESEARCH GRANTS



4.635 PATENTS



2.347 TOTAL INNOVATIVE START-UPS



Focus on Bioeconomy
Agrifood, blue-bio-economy, bio-based industries

Focus: Horizon 2020 – Emilia-Romagna ecosystem participation

DATA	EXPLANATION
494	N°of entities participating
1317	N°of project granted
1802	N°of total participation
581,3	Mil€ contribution received
706	N°of enterprises

*Bioeconomy is about
13% of the total*

Source: Cordis – Elaborated by ART-ER, August 2022

S3 2021-2027: main objectives and content

		A smarter Europe	A greener Europe	A more connected Europe	A more social and inclusive Europe	A Europe closer to citizens
Industrial Specialization systems	Agri-food	<ol style="list-style-type: none"> Clean, affordable and secure energy Circular economy Climate and natural resources (air, water and land) Blue growth Innovation in materials Digitalisation, Artificial Intelligence, Big Data (firms and PA) Manufacturing 4.0 and future evolutions Connectivity of ground and space systems Sustainable and innovative mobility and motor industry Cities and communities of the future Heritage and identity of the region: cultural assets and contents, creative activities, tourism and Made in E-R products Wellbeing, nutrition e lifestyle Health Social innovation and social participation Inclusion and social cohesion, education, jobs, territories 				
	Building and Construction					
	Mechatronics and Motor Engineering					
	Health and Wellness Industries					
	Cultural and Creative Industries					
	Tourism Industry					
	Energy and Sustainable Development					
	Innovation in Services					

Bio-economy keywords in the S3 2021-2027

SPECIALISATION #	KEYWORDS
1. clean energy	green hydrogen, bio-energy, biogas
2. circular economy	organic matters circularity (i.e. agro-food systems, organic wastes valorisation, organic waste recycling)
3.climate	CO2 emission reduction, nature based solutions
4.blu-economy	Bio blu-economy
5.materials	new bio-based materials
6. AI-digitalisation	use of big data and AI in bio-economy applications
7.Industry 4.0	manufacturing processes sustainability bio-based industries
12.wellbeing	bio-based food ingredients, cosmetics and medicines
15.territories	territories renovation in upgrading traditional bio-based industries

The Bio & Blue Economy Players

UNIVERSITIES

Bologna, Ferrara, Parma, Modena and Reggio-Emilia, Politecnico of Milan (Piacenza), Sacro Cuore Catholica Univ. (Piacenza)

NATIONAL RESEARCH CENTRES

CNR, ENEA, CMCC, Marine Research Centre (CRM), CREA

REGIONAL AGENCIES

ART-ER and ARPAE & CLUST-ER

COMPANIES AND SPIN-OFF

Biosphere s.r.l., Biotec sys s.r.l., Caviro Distillerie s.r.l., Centro di ricerche Produzioni animali (CPRA), Coopbox Group S.p.a., Endura S.p.a., Eni Versalis (production plant of Ferrara e Ravenna), Eridania Sadam S.p.a., Fondazione Raul Gardini, Temix Oleo, Granarolo, ...

Policy tools and mix for the S3 implementation

The policy tool for implementing the S3 focus on 7 main pillars:

1. Technopoles, laboratories and research infrastructures
2. Research and innovation projects (laboratories and companies)
3. Skills development and higher education
4. Operational Groups for Innovation (GOI)
5. Development and growth of innovative startups
6. Development of the Emilia-Romagna Data Valley
7. Networks, partnerships, cooperation and synergies with EU programs

S3 implementation investment, total resources: 5.000 Mil€

Policy synergies for the S3 implementation

Regional Productive Activities Program 2023-2025 includes **Activity 1.6**
- Support for participation in EU R&I programmes – up-stream approach

- The Region supports the extensive participation in European programs with particular reference to Horizon Europe.
- It concerns all the 3 Pillars of Horizon Europe, as well as other coherent European programmes.
- Methods of intervention: Tenders, expressions of interest, direct interventions also in co-financing, negotiated procedures

On going activities and further synergy' examples to build on

- European exascale HPC Leonardo
- PNRR – National R&D Champion: Hub BIG Data, HPC and Quantum Computing
- PNRR - Innovation Ecosystem: Ecological Transformation
- PNRR - Research and Innovation Infrastructures (New materials)
- Bologna Technopole: new location for international research activities
- Ferrara and Ravenna Technopoles on Blue Economy
- United Nations University «Human Development»
- Smart Specialisation Thematic Platform, Industrial Modernisation: Bioeconomy; Chemicals and European hydrogen Valleys

Two more examples of synergies operated
(not exclusively linked to the bio-economy)

Cumulative synergy through the contribution of the
Joint Undertaking ECSEL projects with additional (**non-
structural**) funds to the national funding to support the
participation of local universities

Integrated Life project Prepair synergies with the **POR
funds** of the regions of the Po Valley

Thank You !