Connact
Research & Innovation

APRE
Agenzia per la Promozione della Ricerca Europea

# RESEARCH & INNOVATION SCENARIO ANALYSIS: EUROPE AND ITALY

**Brussels,** 4 February 2026

Connact
Annual Meeting
IL SISTEMA ITALIA E LE PRIORITÀ DELL'UNIONE EUROPEA

# THE EUROPEAN SCENARIO

## INDICATIONS FOR DISCUSSION - CONNACT RESEARCH & INNOVATION TABLE

- Need to ensure that research and innovation have a **central role** in **Europe's strategy to achieve a competitive, resilient, and sustainable future**.

- Negotiations are underway for the new **Horizon Europe 2028 – 2034 (FP10)**, which will support universities, research organisations, companies, and research and innovation performers in their R&I activities and the realisation of their ideas, transforming knowledge into practical solutions for the benefit of citizens.

- **Guide Questions**:. What is the evaluation of the proposals of the new Multiannual Financial Framework regarding funds for Research and Innovation? What initiatives and activities need to be undertaken to ensure the increase in allocations? What benefits can result for the national R&I sector?

# THE EUROPEAN SCENARIO

## PERFORMANCE IN R&I

**403.1 € Billion**

EU spending on R&I in 2024, an increase of 3.36% compared to 2023

**2.24%**

EU R&D intensity (R&D expenditure/GDP) in 2024 (slightly decreasing from 2.26% in 2023)

**€897 per inhabitant**

EU average R&D expenditure in 2024

**2,15 million**

EU researchers (FTE) in 2024

**9.2%**

the share of Framework Programmes of total public R&I funding.

**3%**

the share of Framework Programmes of total R&I funding at EU level

about **650 thousand**

scientific publications produced by the EU in 2022, an increase of 2.6 % compared to 2020

**+12.6%**

increase of the EU's innovative performance between 2018 and 2025

**-0.4%**

the reduction of the EU's innovation performance from 2024 to 2025

SCENARIO ANALYSIS RESEARCH & INNOVATION: EUROPE AND ITALY

**Brussels**, 04 February 2026

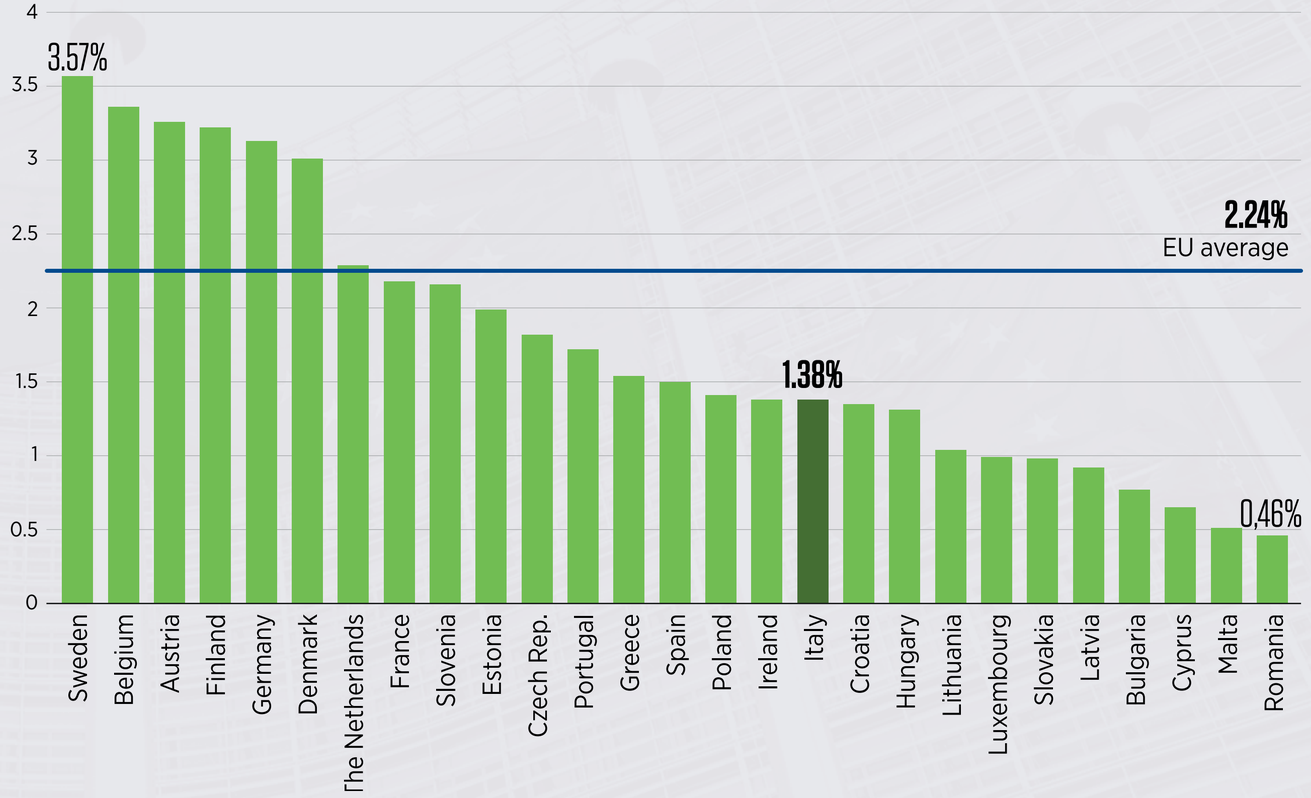
# THE EUROPEAN SCENARIO

## GAPS BETWEEN EU COUNTRIES ON R&D

- **The gap between countries remains significant**:
  Few states are above the EU target of 3% of GDP, while several remain below 1%.
- **Italy** ranks 17th with **an R&D intensity of 1.38%**.
- **The countries with the highest R&D intensity** in 2024 are: Sweden (3.57%), Belgium (3.36%), Austria (3.26%), Finland (3.22%), Germany (3.13%), Denmark (3.01%).
- **Countries with lower R&D intensity** in 2024 (below 1% of GDP) include: Romania (0.46%), Malta (0.51%), Cyprus (0.65%), Bulgaria (0.77%), Latvia (0.92%), Slovakia (0.98%), Luxembourg (0.99%).

### Research and development intensity in the European Union

Expenditure on innovation as % of GDP, 2024




SCENARIO ANALYSIS RESEARCH & INNOVATION: EUROPE AND ITALY

**Brussels**,
04 February 2026

# THE GLOBAL SCENARIO

## THE INNOVATION GAP BETWEEN EU COUNTRIES

Between 2018 and 2025, **all EU countries have improved their innovation performance**.

Remains an **innovation divide** between "Innovation leaders" and "Emerging innovators".

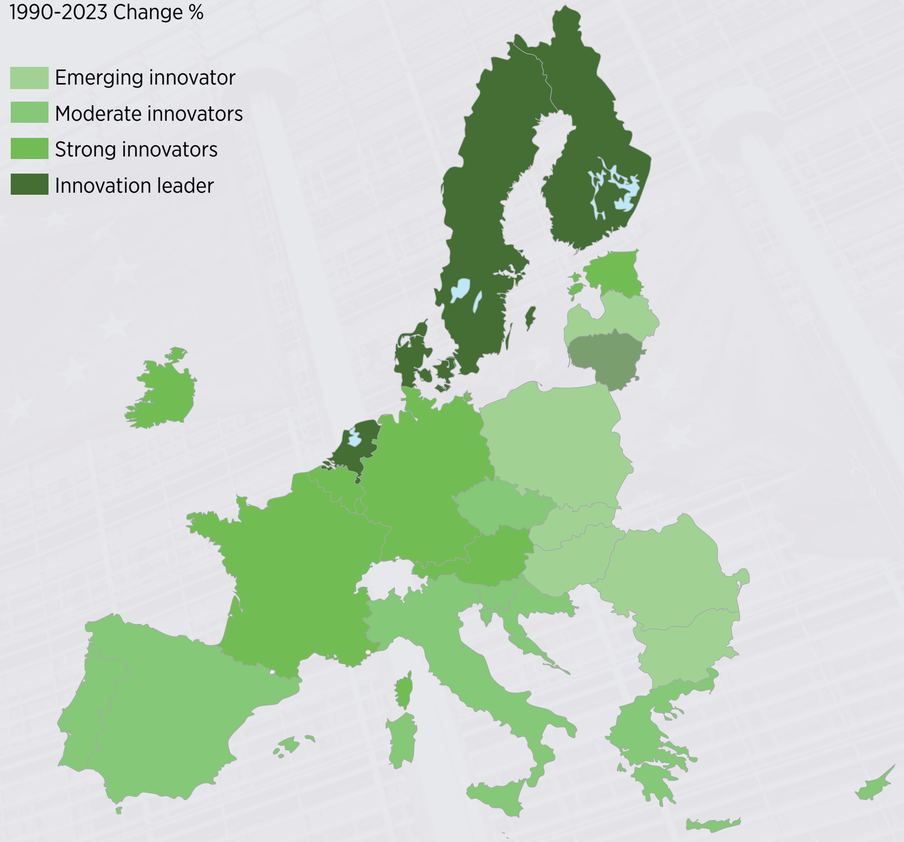
**Italy ranks 14th** and is among the "Moderate Innovators", with a performance below the EU average.

**Most Innovative Countries**:. Sweden, the Netherlands, and Denmark.

**Less Innovative Countries**:. Romania, Bulgaria, and Latvia.

### The innovation gap between EU countries

1990-2023 Change %

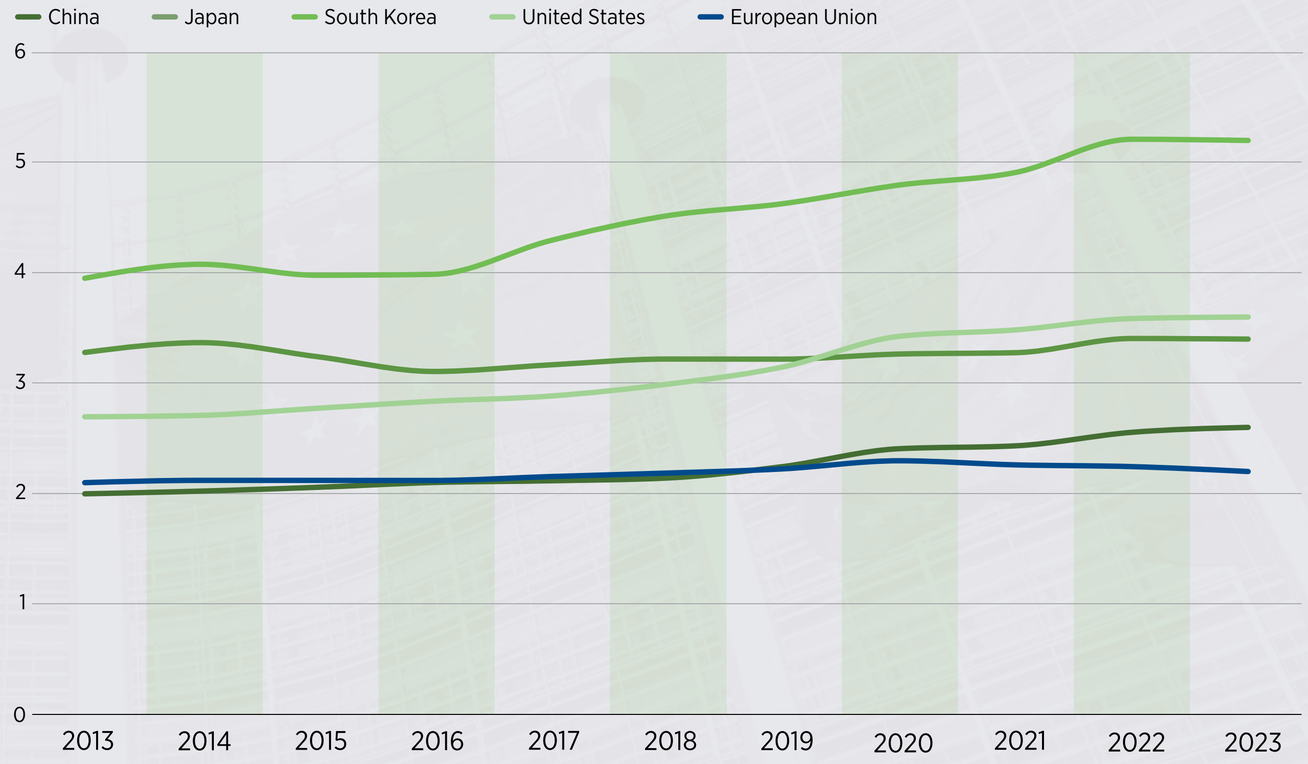


# THE GLOBAL SCENARIO

## COMPARISON WITH GLOBAL COMPETITORS

- **The EU invests 2.24% of GDP in R&D** (2024), remaining below its main global competitors.
- **South Korea (4.96%), the USA (3.45%), Japan (3.44%), and China (2.58%)** in 2023,maintain **a much higher R&D intensity than the EU**.
- **Business R&D in the EU**: 1.49% of GDP (2024), lower than the US (2.70%), Japan (2.72%), and South Korea (3.93%) (latest comparable data).
- **Scientific Output**: The EU is second in the world with 18.1% of the world's publications, amounting to around 650,000 (2022). China is first at 27%, and the USA is third at 13.1%. Between 2020 and 2022, publications grow >30% in China, compared to +2.6% in the EU, while in the US they decrease by -2.3%.

**R&D expenditure**




Source: World Bank

# THE ITALIAN SCENARIO

## THE COUNTRY IN THE EUROPEAN CONTEXT: PERFORMANCE AND R&I GAP

**Expenditure on R&D**:
in 2024 Italy it is about **1.38% of GDP**, compared to EU's 2.24%.

**Innovation** (EIS 2025): **Italy 14th in the EU**, "Moderate Innovators" group; Summary Innovation Index = 93.0 (EU=100).

**Positive but slow trend**: EIS Italy performance +15.4 points vs 2018 and +3.4 vs 2024.

**Patents**:
in 2024, **4,853 patent applications were submitted to the EPO** by Italian applicants (**Italy 5th in the EU and 11th in the world**).

**Publications**:
in 2022 Italy accounts for ~2.7% of global scientific output (EU as a whole 18.1%)

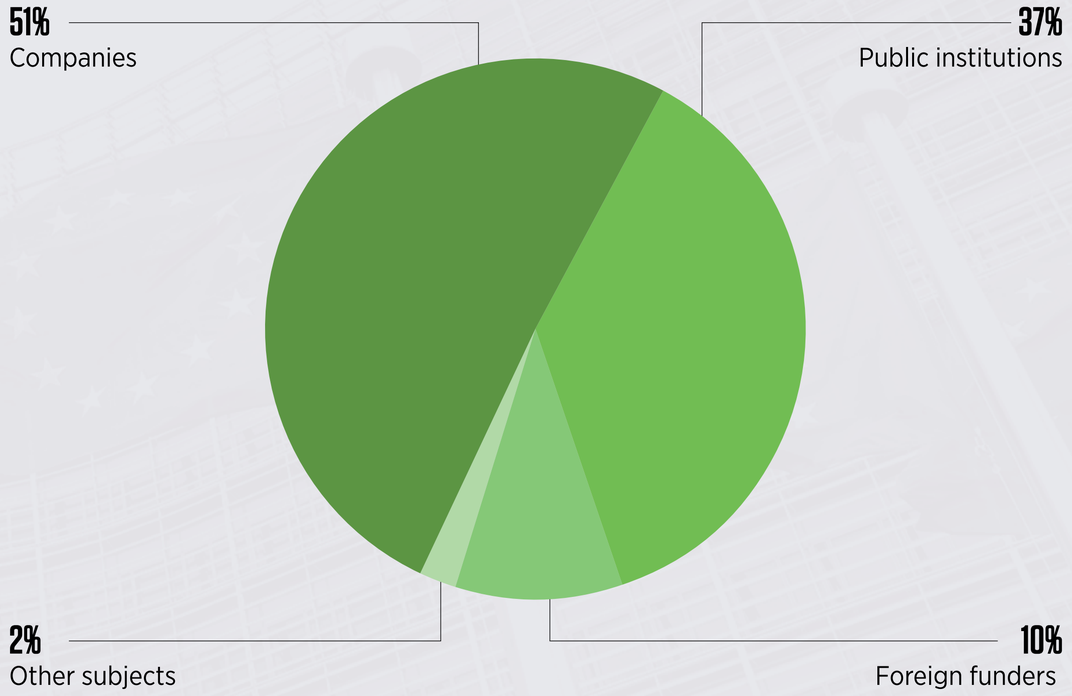
# THE ITALIAN SCENARIO

## INVESTMENT AND STRUCTURE OF R&D EXPENDITURE

- **Intra-Muros R&D Expenditure 2023**: €29.4 billion (+7.7% vs 2022).
- **Quotas of funding**: in 2023, **51.1%** of R&D expenditure is **financed by businesses**; **36.9%** from **public institutions**(University 25% of the total).
- **Growth for public institutions and universities**: public institutions +14.5%; universities +9.9% (2023 vs 2022).
- **Enterprises**: +5.4% in 2023, but small enterprises decline (-2.3%) > widening size gap.

### Structure of Italian R&D expenditure (2023)

2023 data




Source: ISTAT

# THE ITALIAN SCENARIO

## NRRP: IMPACTS ON RESEARCH & INNOVATION IN ITALY

### MISSION 4 - EDUCATION AND RESEARCH | COMPONENT 2: "FROM RESEARCH TO ENTERPRISE"

- **Objective:** Strengthen research (basic and industrial), strengthen technology transfer and public-private partnerships, open up infrastructures and doctoral programs to the productive world.
- **Budget: €11.44 billion**
- **Enabling Interventions**: Extended partnerships, National Centres (R&D champions), Innovation Ecosystems (+ investment in infrastructure and innovative doctoral programs) to cover the whole "research > enterprise" chain
- **Accounted expenditure (up to May 2025)**: 44% of funds
- **Skilled employment**: over 12,000 new researchers hired
- **Funds to enterprises via "cascading calls"**: 424 tenders for approximately €822 million
- **Conclusion**: the CNR (National Research Council) highlights uncertainty over sustainability after 2026, linked to the absence of structural measures to ensure continuity (including employment) and consolidate results: it is necessary to transform NRRP investments into permanent policies (stable funding, governance, and ongoing instruments), to prevent impacts from remaining "one-off".

# THE ITALIAN SCENARIO

## STRUCTURAL CRITICALITIES OF THE SYSTEM

1. **Underinvestment in R&D**:. Italy has an R&D expenditure intensity of 1.38% of GDP in 2024 (1.37% in 2023), well below the EU average (2.24%). The gap is particularly pronounced in the private sector: **companies' R&D expenditure accounts for 51% of the national total, compared to 66% of the European average** and significantly higher values in the leading innovator countries: Sweden (74.4%), Belgium (73.6%), Germany (68.2%), the Netherlands (69%), and France (66%).

2. **Finance for growth/scale-up**: Weak productivity is also linked to still underdeveloped venture capital, which slows down the adoption of new technologies especially in SMEs.

3. **Difference between large and small companies**: R&D expenditure grows overall, but small companies reduce investment (-2.3%).

4. **Post-NRRP sustainability**: urgency to transform the results of the NRRP into structural and non-episodic measures (continuity, simplification, integration with the production system).

5. **Human capital**: in EIS 2025, Italy is weak on human resources

# EU POLICIES AND PROGRAMMES

## THE VON DER LEYEN II COMMISSION'S STRATEGIES FOR R&I

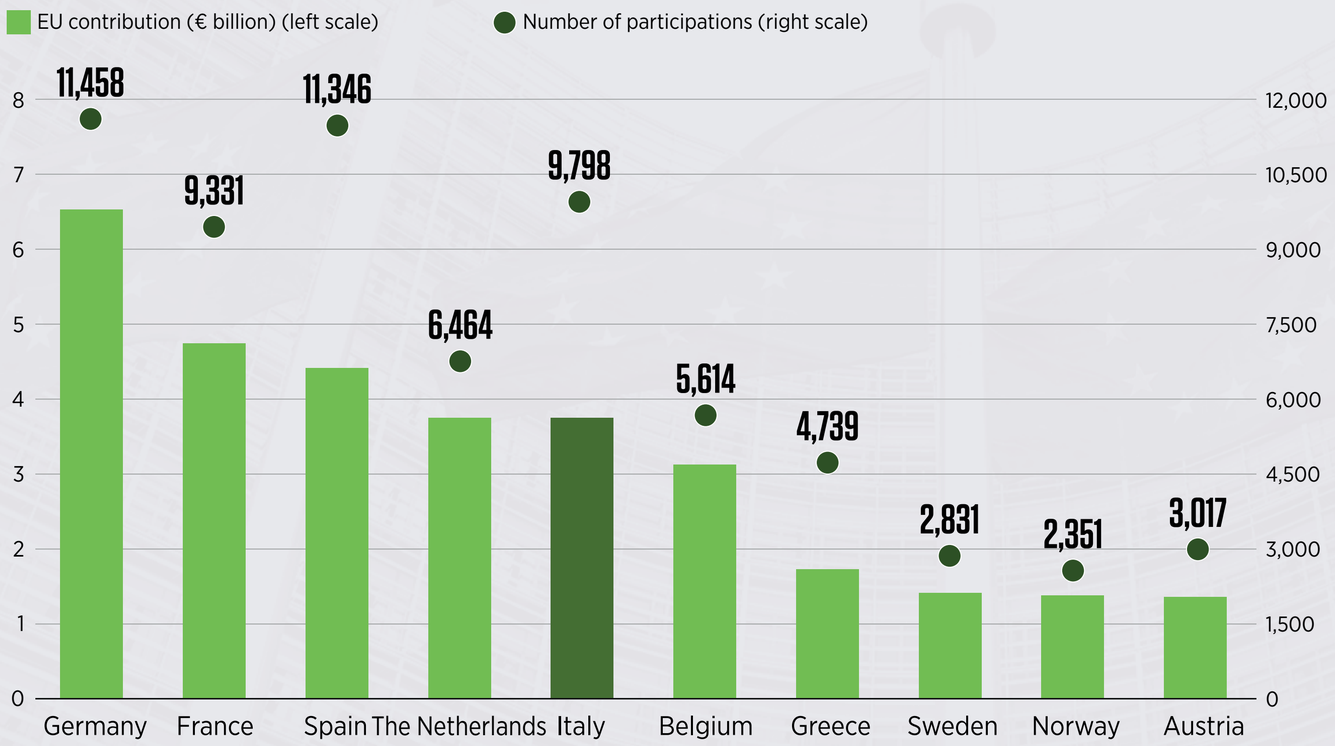
- **Competitiveness Compass**: EU roadmap to boost productivity and competitiveness; aims to close the innovation gap with measures on scale-up, diffusion, simplification and priority on strategic technologies.
- **ERA Act (European Research Area Act)**: legislative initiative to make the European Research Area more effective: push for the 3% R&D/GDP target, better career and mobility conditions for researchers, open science, and protection of research values.
- **Choose Europe for Science**:. Package to make Europe the most attractive destination for global talent
- **European Innovation Act**:. "Horizontal" regulatory framework to reduce barriers to lab-to-market: valorisation of results, IP, industry-academia collaboration, access to finance/markets/talents, more innovation-friendly procurement and sandboxes.
- **EU Startup & Scaleup Strategy**: strategy to strengthen the startup/scaleup ecosystem: more favourable rules, access to finance (including late-stage), support for growth in the single market, talent attraction, and access to infrastructure/ecosystems.
- **Sectoral Initiatives**:. Clean Industrial Deal, Apply AI, RAISE...

# ITALIAN PARTICIPATION IN HORIZON EUROPE

## THE 2021–2024 TREND

### Ranking of the ten best-performing countries in EU

By size of participation and financial contribution (coordinators + partners)



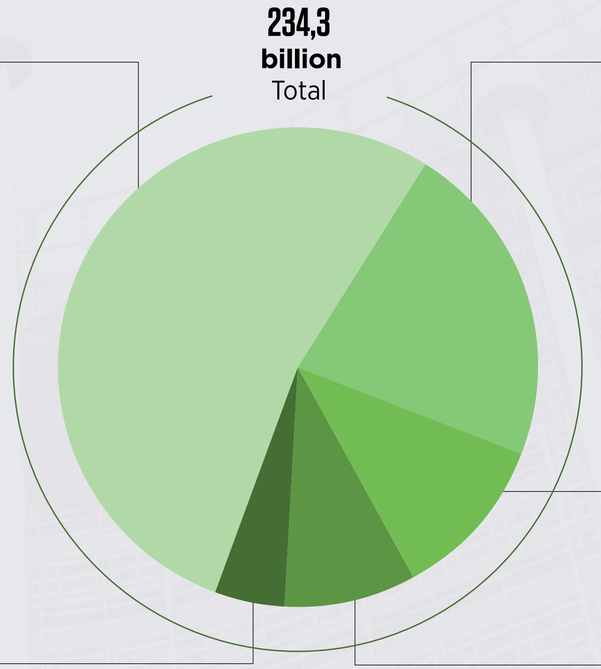

- Italy ranks among the top ten countries in terms of funding received, but remains behind large economies such as Germany, France, and Spain.
- Italy is in an intermediate position, with a financial return not commensurate with its capacity to participate.

# THE COMPETITIVENESS FUND

## OBJECTIVES AND ALLOCATED RESOURCES

### The Competitiveness Fund

- **Infrastruttura/ implementazione**
- **Produzione**
- **Implementazione industriale**
- **Scaling-up/ innovazione**
- **Ricerca**




**€125,2 billion**
Resilience and security, defence and space industry

**€51,5 billion**
Digital leadership

**€26,2 billion**
Clean transition and industrial decarbonisation

**€11 billion**
ECF InvestEU Instrument
Project consulting, collaboration between SMEs and expertise

**€20,4 billion**
Health and biotechnology, agriculture and the bio-economy

# THE NEW HORIZON EUROPE

## THE FOUR PILLARS OF THE PROGRAMME

### I Pillar:
### EXCELLENT SCIENCE

- European research council
- Actions Marie Skłodowska-Curie
- Science for EU policies

### II Pillar:
### COMPETITIVENESS AND SOCIETY

**Competitiveness:**

- Clean transition and industrial decarbonisation
- Health, biotechnology, agriculture and the bio-economy
- Digital leadership
- Resilience and security, defence and space industry

**Society:**

- Global social challenges
- EU Missions
- Instrument for the New European Bauhaus

### III Pillar:
### INNOVATION

- European innovation council
- Innovation ecosystems and the knowledge triangle

### IV Pillar:
### EUROPEAN RESEARCH AREA

- European Research area Policies
- Research and technology infrastructure
- Widen participation and spread excellence