



Capital: Rome

Area: 301,340 km²

Population: 58,853,482

million (2022)

Language: Italian with English widely spoken

Currency: EURO

Unemployment rate: 11.1%

GDP per capita: \$54,258



Discovery Italy at italia.it/en

Largest universities:

Sapienza University of Rome

University of Naples Federico

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University of Bologna

University of Turin

University of Padua



Main research institutes:

National Research Council

Italian Space Agency

National Institute for

<u>Astrophysics</u>

National Institute for Nuclear

Physics

EURAXESS members in focus: Italy

Italy, officially the Republic of Italy, is a founding member state of the European Union, located in southwestern Europe. Italy is a unitary parliamentary republic and has a population of about 59 million, making it the third largest state in the European Union. The capital city is Rome.

The Italian national research system is composed of public and private entities that carry out scientific and technological research. The objective of the Ministry of University and Research (MUR), a department of the Italian government in charge of university administration and scientific and technological research, is to foster new knowledge, capacities, products and production processes.

To date, with 20 Nobel laureates, Italy ranks seventh in the world in terms of the number of citizens awarded this prestigious prize.

Research and innovation in Italy

The Italian research and innovation (R&I) strategy is currently managed by the MUR. Nationwide, the Italian higher education system of universities and equivalent tertiary institutions are normally divided into three levels, with some exceptions.

There are 99 mostly state-run university institutions joined by the seven specialorder universities of excellence, legally recognised traditional non-state universities, and several newer online universities.

High schools for linguistic mediators (SSML), which are legally recognised and authorised to award only first- and second-level degrees, complete this system.

In terms of numbers, Italy ranks fourth in the EU with about 161,000 researchers (2022)¹.

National Research Programme 2021-2027

Italy has published its National Research Programme (NRP, 2021-2027), which is divided into system priorities, major areas of R&I and related areas of focus, national plans, and missions. The system priorities are designed to consolidate the strengths and overcome the weaknesses of the Italian research system. There are six core focus areas reflecting the six clusters of Horizon Europe while taking into consideration the National Strategy for Smart Specialisation. Research and innovation activities are also broadly aligned with the national context articulated through consultation with and contributions from the administrations involved.

¹ https://ec.europa.eu/eurostat/databrowser/view/rd_p_persocc/default/table?lang=en



Main research institutes:

Zoological Station

Area Science Park

National Institute of Geophysics and Volcanology

National Institute of Oceanography and Applied Geophysics

National Metrology Institute

Enrico Fermi Study and Research Center

<u>Italian Institute of Germanic</u> Studies

National Institute of High Mathematics



nobelprize.org

Giorgio Parisi, Nobel Prize in Physics 2021

EURAXESS – Researchers in Motion is an initiative of the European Research Area (ERA) that addresses barriers to the mobility of researchers and seeks to enhance their career development. This pan-European effort is currently supported by 43 countries, of which we will profile one in each of our quarterly enewsletter.

The NRP guides research action carried out by central and regional public administrations. Together, through their respective competencies and specialties, they enrich the national R&I system. Local initiatives, contributions and realities as well as European and international dimensions of research are reflected in the NRP.

In fact, the NRP aims to foster greater harmony and more effective coordination of research policies at the European, national and regional levels, and to strengthen the presence and competitiveness of Italian researchers both in the European Research Area and on the world scene.

The NRP acts as a guiding document for research policies in Italy and a mechanism through which state administrations contribute to MUR priorities and overall coordination of different themes and programmes.

Funding programmes and thematic areas

- Basic research. This aims to expand scientific and technical knowledge, even if not directly linked to immediate industrial or commercial objectives. However, its results can have very important spin-off applications.
- Industrial research. With the Italian Ministerial Decree 593 of 26 July 2016² (issued following a profound process of revising the regulatory framework for funding research projects initiated by Legislative Decree 83 of 2012), MUR established new procedures to regulate the use and management of the Fund for Investments in Scientific and Technological Research (FIRST).
- <u>Projects of Significant National Interest</u>. The regulations for the funding of Projects of Significant National Interest include a new mechanism for allocating funds based on co-funding, group research work, and peer review.
- Pre-commercial Procurement of Research and Development.
 Recently, an intense debate has been taking place among insiders on how public procurement can better support R&D activities, i.e. new and more effective solutions.
- <u>Italian Science Fund</u>. The ISF supports fundamental research in the context of highly qualified research programmes to the tune of EUR 50 million for 2021 and EUR 150 million from 2022.

Space research

Space represents a fundamental area of research with deep spillovers in the development of economies and the growth of nations including Italy. It is no longer considered as an adjunct or singular research sector, but rather as a connected economic activity or opportunity in a similar fashion to the telecommunications and satellite navigation market.

MUR is involved in this area through the funding of programmes and overall supervision of the **Italian Space Agency**, a national body established in 1988

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² http://attiministeriali.miur.it/anno-2016/luglio/dm-26072016-(3).aspx



with the aim of defining and implementing national space policy, addressing both the research and industrial sectors, and in line with governmental guidelines.

Through this Agency, Italy today plays a leading role both at the European level, where it is the third largest contributor to the **European Space Agency** (ESA), and at the global level, thanks to its close collaboration with the US national space agency NASA. Indeed, Italy has participated in many of the more interesting scientific missions of recent years, including the International Space Station.

Investment in research and innovation

About EUR 26 billion was spent on research and development in 2021. Due to the Covid-19 pandemic emergency, R&D spending by companies is expected to be lower in 2022, according to preliminary data. Analysts estimate that R&D investment will return to 2021 levels and beyond for 2023: business spending is expected to increase to around EUR 16 billion (+5.2% compared to 2022).

Reasons to study/research in Italy

Four of the ten oldest universities in the world are located in Italy! They are the University of Bologna (1088), the University of Padua (1222), the University 'Federico II' of Naples (1224) and the University of Siena (1240). Europe's first Conservatory is also Italian and was established in Naples in 1808, and the world's first art academy was founded in Florence by Giorgio Vasari in 1563.

Italy's special and distinctive ability to combine tradition with innovation distinguishes the country. Indeed, a certain *savoir faire* has been handed down from generation to generation, a talent for turning the known or expected into something altogether new. Small and medium-sized enterprises make up 92% of active businesses and collectively contribute to Italy's commercial reputation and worldclass brands.

Moreover, thanks to its vital links to the Mediterranean, Italy has historically been at the centre of a continuous exchange of civilizations. A cultural flow that has made it rich in precious treasures, both tangible and intangible. Italy has 58 sites registered on the UNESCO World Heritage List, the highest number in the world.

Science and technology international cooperation

The Ministry of Foreign Affairs and International Cooperation (MAECI) promotes the internationalisation of Italian research and scientific diplomacy as fundamental tools for the development of cooperation with the rest of the world.

MAECI firmly believes in economic development through innovation and support for scientific research, and that maintaining competitiveness in increasingly complex global markets requires the constant application of novel technologies to boost production processes and new products with high added value. From this belief comes an increasingly careful use of resources in this field, as an investment for the country's growth, especially in the most innovative sectors, with positive economic and commercial spin-offs.

Italian research collaboration with EURAXESS Worldwide countries



The General Directorate for the Promotion of the Country System, through the Central Directorate for Research and Innovation, makes use of a network of scientific officers and experts, mostly from state and public entities acting to boost excellence in scientific and technological research and support Italian companies operating in advanced technology sectors. Many of these agents and experts hold Italian diplomatic posts within Europe and across other regions, including the Middle East, Americas, Africa, Asia, Australia, and Oceania.

The main functions of the **scientific officers** are:

- supporting and developing bilateral cooperation, both in negotiations and implementation of executive protocols;
- o promoting the Italian scientific and technological system;
- advising on the scientific systems and science policies implemented by accredited countries;
- collaborating with the INNOVITALIA IT platform and the RISeT information network;
- promoting and managing contacts with both Italian and Italian descended researchers working abroad and with foreign researchers;
- carrying out promotional initiatives for Italian science and technology;
- coordinating with Italian cultural institutes to organise events promoting Italian scientific culture;
- coordinating with embassy commercial offices, ICE Agency Offices and local chambers of commerce to promote the Italian high-tech industry.

A number of experts operate within Italian embassies in Washington and Prague, and the permanent representations to the European Union in Brussels. Other experts operate within international organisations in Paris as 'Space Matters Officers' to maintain effective contact between agencies and institutions responsible for space and aerospace, and to consolidate Italy's action and international cooperation in the field.

Italian EURAXESS Centres

The Italian EURAXESS Centres and Local Contact Points provide free and customised assistance to all mobile researchers and their families seeking advice on issues related to their relocation across borders.

EURAXESS centres are spread throughout Italy:

- Bologna Alma Mater Studiorum
- Cagliari University of Cagliari
- Camerino University of Camerino
- Catania University of Catania
- Cosenza University of Calabria
- Foggia University of Foggia
- Milano University of Milan
- Padova University of Padua
- Roma Agency for the Promotion of European Research (APRE); Italian National Research Council (CNR); The Conference of Italian University Rectors (CRUI); Libera Università Maria Ss. Assunta
- Siena University of Siena



- **Torino** University of Turin
- Trento Bruno Kessler Foundation; Edmund Mach Foundation
- Trieste Area Science Park
- Udine University of Udine
- Verona University of Verona

Sources

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