

Research and Development

Current definitions

Applied research

Original work performed in order to acquire new knowledge for the purpose of a practical and specific application.

Basic research

Experimental or theoretical work with the aim of acquiring new knowledge on the underlying principles of observable facts and phenomena, without a specific application or use.

Capital spending for *intra-muros* R&D activities

Expenses for R&D activities that directly or indirectly affect capital formation.

Current spending on *intra-muros* R&D

Current expenses for R&D activities, such as staff expenses, purchase of goods and services or payment of external consultants' fees for direct collaboration in *intra-muros* R&D activities.

Economic activity

Activity producing goods or services with work, plants and raw materials. An economic activity is characterised by the use of production factors, a production process and one or more products (goods or services). For statistics purposes, economic activities are classified using an international nomenclature. The European nomenclature is known as Nace Rev. 2 (which in the Italian version is called Ateco 2007) and Nace Rev. 1.1 (which in the Italian version is called Ateco 2002).

Enterprise (or undertaking)

Economic and legal unit that produces goods or services destined for sale, and which is entitled by current legislation or company statute to distribute profits to its shareholders, whether public or private. An enterprise is managed separately or jointly by one or more natural persons or by one or more legal entities. Enterprises include: sole proprietorships, partnerships, corporations, cooperatives and special companies owned by municipalities, provinces or regions. Self-employed workers and professionals are also included in enterprises.

European System of Accounts (Esa)

In 1970, the statistical office of the European Community (Eurostat) adopted a harmonised accounting system, based on the 1968 United Nations System of National Accounts (Sna68). In 2014 this system was modified in line with the new Member States' National Account System Sna2008, drafted by the United Nations and other international organisations, among which Eurostat. Esa2010, approved as an European Regulation (Eu Regulation n. 549 of the European Parliament and Council dated 21 May 2013), allows for a complete and comparable qualitative description of the Eu Member States' economies through an integrated system of flow accounts and balance sheets for the entire economy and by groups of economic operators (institutional sectors).

Experimental development

Systematic work based on existing knowledge acquired through research and practical experience, performed in order to complete, develop or improve materials, products and productive processes, systems and services.

Full-time equivalent (Fte)

The average time actually dedicated to research during one year. Therefore, six months' work in the reference year by a full-time research worker will be counted as 0.5 Full-time equivalent (Fte) units. In the same way, if a full-time research worker dedicates half his/her time to research activities during an entire year, the result will still be 0.5 Full-time equivalent (Fte) units. As a result, one worker involved in research activities for 30% of his/her contractual working time and another worker working for 70% will correspond to one Full-time equivalent (Fte) unit.

Institutional sectors

Groups of institutional units (enterprises, sole proprietorships, households, public authorities, etc.) which demonstrate independence and decision-making capacities in economic-financial matters and which keep regular accounting books (with the exception of households).

***Intra-muros* research spending**

Expenses for R&D activities performed by enterprises and public institutions using their own staff and equipment.

Non-profit organisation (private or public)

Legal-economic institution with or without legal personality, either public or private, which produces goods and services, which may or may not be destined for sale and which, according to current legislation or regulations, cannot distribute, even indirectly, profits or other income other than remuneration for the work performed by its founders or shareholders. Some examples of private non-profit organisations include foundations, non-governmental organisations, volunteer organisations, social cooperatives and other socially useful Npos, political parties, trade unions, category associations and legally recognised religious institutions.

Other research staff

All staff supporting research activities: specialised or generic workers, administrative and secretarial staff.

Public Administration sector (S.13 List)

Based on the European System of Accounts, Istat composes the list of the institutional units within the "Public Administration" sector (Sector S13), whose accounts contribute to the construction of the Consolidated Economic Account for Public Administration. The compilation of the list complies with classifications and standards of definition set out by the national and European statistics system.

Esa2010 requires each institutional unit to be classified within Sector S13 according to prevalently economic criteria, regardless of its legal status. This sector gathers institutional units whose main functions are producing non-market services for the community and redistributing the country income and wealth. The main resources are derived from compulsory payments directly or indirectly paid by units belonging to other sectors. The Public administration sector is divided into three subsectors:

- central government, including State administration (ministries) and constitutional bodies; central bodies with jurisdiction over the entire territory of the country (Anas, Cri, Coni, Cnr, Istat, etc.);
- local government, including public bodies whose jurisdiction is limited to a portion of territory. They include: Regions, Provinces, Municipality, public hospitals and other economic, cultural, care local entities, chambers of commerce, universities, companies for promoting tourism, etc.;
- security funds, including central and local institutional units, whose main activity is supplying social benefits paid by compulsory contributions (Inps, Inail, etc.).

Public institution

Economic and legal unit whose core purpose is to produce goods and services not destined for sale and/or the redistribution of income and wealth, and that are prevalently funded by obligatory contributions made by households, enterprises and non-profit institutions or unlimited transfers from other public administration institutions.

R&D worker

A person working in a legal-economic unit and directly involved in R&D activities, either as employee or self-employed (full time, part time or on a training contract), even when temporarily absent (for work, holiday, illness, suspension from work, income support fund, etc.). The definition includes both fixed term

and permanent contracts, employees with ongoing collaboration contracts (*collaborazione coordinata e continuativa*), consultants directly involved in onsite R&D activities and scientists assigned research funding.

Research and Development activities (R&D) The range of creative work organised in a systematic manner with the aim of extending knowledge (including knowledge about mankind, culture and society) or applying this knowledge in new ways. The R&D activity is of three types, namely basic research, applied research and experimental development.

Researchers

Scientists, engineers and specialists in the various scientific disciplines involved in creating new knowledge, products and processes, methods and systems, including managers and administrative staff involved in planning and directing the technical aspects of a research project.

Spending on *extra-muros* R&D

Expenses for experimental research (R&D) on request by external bodies.

Technicians

Staff involved in research projects who perform technical or scientific duties under the supervision of a researcher.

University

Includes all universities on the national territory, both state-run, private and free universities.