



Expenditure on internal R&D by execution sector. 2022

Execution sector	Millions of euros	%	Expenditure on internal R&D (% GDP)	Inter-annual variation ¹ %
Total	19,324.8	100.0	1.44	12.0
Companies and NPI*	10,969.0	56.8	0.81	12.5
Higher education	5,026.0	26.0	0.37	9.6
Public administration	3,329.7	17.2	0.25	14.4

* Private non-profit institutions.

R&D constitutes 1.44% of the GDP

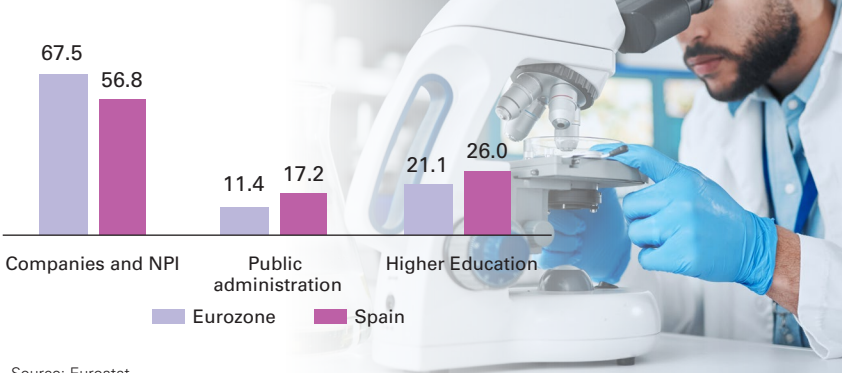
According to the Statistic on scientific research and technological development (R&D) activities, the internal expenditure in research and development was estimated at 19,324.8 million euros in 2022. In relative terms, this expenditure represented 1.44% of the Gross Domestic Product (GDP), or 402.2 euros per average inhabitant.

In a total of 56.8% of the research and development expenditure was done by the Companies and Private Non-profit Institutions (NPI) sector, while the Eurozone averaged at 67.5%.

The number of researchers increased 4.9%

A total of 263,407 full-time employees (FTE) are engaged in internal R&D activities in 2022. The number of FTE researchers amounts to 161,751, which represents 7.9 per thousand of the total number of employed and an increase of 4.9% compared to 2021.

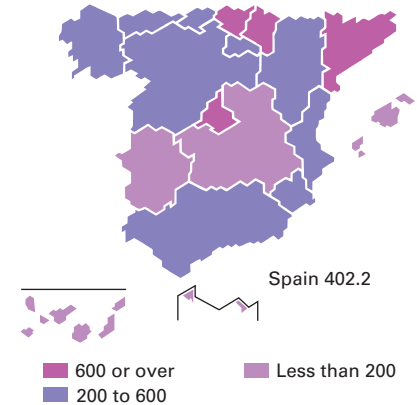
Distribution of internal R&D expenditure by execution sector. 2022



Source: Eurostat

R&D expenses per inhabitant. 2022

Euros



R&D spending. 2022

	% of GDP
European Union¹	2.2
Belgium	3.4
Sweden	3.4
Austria	3.2
Germany	3.1
Finland	3.0
Netherlands	2.3
France	2.2
Slovenia	2.1
Czechia	2.0
Estonia	1.8
Portugal	1.7
Greece	1.5
Poland	1.5
Spain	1.4
Croatia	1.4
Hungary	1.4
Italy	1.3
Lithuania	1.0
Luxembourg	1.0
Slovakia	1.0
Ireland	1.0
Bulgaria	0.8
Cyprus	0.8
Latvia	0.8
Malta	0.7
Romania	0.5
Denmark	:

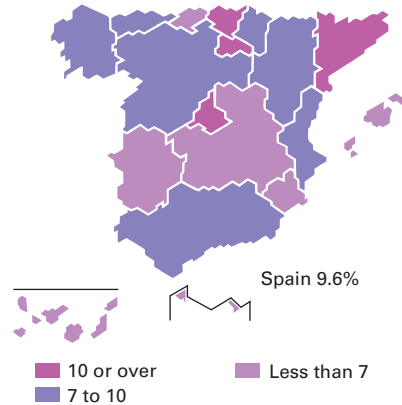
1. Estimate.

: Data not available.

Source: Eurostat

Use artificial intelligence (AI) technologies. 2023

Company %



Companies with a very low index of Digital Maturity*. 2022

	%
European Union	4.8
Denmark	16.2
Finland	14.7
Sweden	14.6
Ireland	13.4
Austria	8.4
Netherlands	7.7
Slovenia	7.6
Luxembourg	7.1
Germany	5.8
Czechia	5.4
Croatia	4.9
France	4.6
Slovakia	4.3
Estonia	4.2
Portugal	4.1
Hungary	4.0
Spain	3.5
Poland	3.5
Italy	3.1
Lithuania	2.6
Greece	2.1
Latvia	1.8
Cyprus	0.9
Bulgaria	0.8
Romania	0.8
Belgium	:
Malta	:

: Data not available.

* All companies, except the finance sector (10 or more payroll employees and self-employed workers). Version 4 of the Eurostat index.

Source: Eurostat

Use of ICT in companies with 10 or more employees

% companies. First quarter of 2023

	Total	Variation in percentage points
Personnel using computers for business purposes	66.2	0.1
Personnel using computers connected to the internet for business purposes	61.2	0.1
Companies employing ICT specialists	16.4	-0.8
Companies with internet connection of which:	99.0	0.7
Internet connection and website/page*	78.5	0.0
Use digital signature*	63.6	-3.2

* Percentage over total companies with an Internet connection.

9.6% of the companies use Artificial Intelligence (AI)

Two out of every three employees at companies with 10 or more workers use computers for business purposes, and 61.2% use computers that have an Internet connection.

Of these companies, 16.4% employ ICT specialists, and 34.2% allow teleworking (6.6 points less than the previous year).

Of the new technologies used in companies, the most widespread is Enterprise Resource Planning (ERP), which is used by 57.4% of companies. And the least used is Artificial Intelligence, used by 9.6% of companies.

E-commerce turnover grows by 20.3%

A total of 31.7% of companies with 10 or more employees made sales via e-commerce in 2022. Turnover generated by these sales reached 377,058 million euros, resulting in a 20.3% increase compared to 2021.

Companies that have made e-commerce sales by number of employees. 2021-2022 (%)

