

INNOVATION IN ENTERPRISES | YEARS 2022-2024

Small enterprises drive the rise in innovation

Over the three-year period 2022–2024, 62.9% of industrial and services enterprises with 10 or more employed persons carried out innovation activities, an increase of 4.3 percentage points compared with the 2020–2022 period.

The increase in innovation propensity was exclusively among small enterprises (+5.1 percentage points), while medium-sized and large enterprises, respectively with shares exceeding 70% and 80%, showed a slight decrease (-0.6 and -0.7 percentage points).

Manufacturing and other industry activities remain the most innovation-intensive sector, with 69.2% of enterprises undertaking innovation activities, followed by services (60.7%) and construction (53.1%).

Process innovations remained predominant, involving 57.6% of enterprises, an increase of 4.6 percentage points, driven primarily by small enterprises. Product innovation remained broadly stable but less widespread (32.7%); only 15.5% of enterprises introduced products that were new to the market.

38,5

Billion euros spent in innovation in 2024

6.200 expenditure per employee

18,7%

The share of innovation active enterprises co-operated with others for innovation

-4,0 p.p. compared with 2020-2022

15,1%

The share of innovation active enterprises receiving public support for innovation

-4,9 p.p. compared with 2020-2022

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A marked recovery in the propensity to innovate among small enterprises

During the 2022-2024 period, 62.9% of industrial and service enterprises with 10 or more persons employed have undertaken innovation activities (hereafter, *innovation active enterprises*), with an increase of 4.3 percentage points (p.p.) compared with 2020-2022.

The share of innovative enterprises rose from 61.0% among small enterprises to 73.7% among medium-sized enterprises and 84.0% among large enterprises. However, compared with the previous three-year period, the increase was concentrated among small firms (+5.1 p.p.), while the share declined slightly among medium-sized (-0.6 p.p.) and large enterprises (-0.7 p.p.).

Industry remained the most innovation-intensive sector, with 69.2% of firms undertaking innovation activities, followed by Services (60.7%) and Construction (53.1%). Innovation activity increased across all three sectors, by 4.1 p.p. in Industry, 4.6 p.p. in Services and 6.5 p.p. in Construction. Within Industry, pharmaceuticals recorded the highest share, with 90.0% of innovation active enterprises, followed by electronics and chemicals, both above 80%. High levels are also recorded in the machinery and in the automotive industry, where more than 78% of enterprises were innovation active. Among Services, the highest shares were in research and development (86.4%), information technology (85.6%) and insurance (81.0%).

During 2022–2024, 60.8% of enterprises successfully introduced at least one product or process innovation, either onto the market or within the enterprise (hereafter, *innovative enterprises*). Large enterprises have a substantially higher propensity to introduce product or process innovations (81.1%, compared with 59.0% among small firms), while Industry has the highest sectoral share, at 66.2%.

KEY INDICATORS ON ENTERPRISES' INNOVATION

Years 2022-2024, percentages on total enterprises (unless otherwise specified)

MACRO-SECTOR AND SIZE CLASS	Enterprises with innovation activity*	Innovators**	Product innovators	Process innovators	Innovative enterprises with co-operation agreements***	Innovation expenditure per employee (billion euros)**Year 2024
Industry in the strict sense	69,2	66,2	37,3	62,4	21,5	8,1
Construction	53,1	51,5	23,2	49,2	10,9	4,2
Services	60,7	59,2	32,1	56,2	18,2	4,7
Small enterprises (10-49 employed persons)	61,0	59,0	31,1	55,8	16,0	7,2
Medium enterprises (50-249 employed persons)	73,7	70,6	40,5	67,6	28,5	5,1
Large enterprises (250 employed persons and more)	84,0	81,1	57,0	78,4	52,0	6,2
Totale	62,9	60,8	32,7	57,6	18,7	6,2

(*) Innovative activities completed, ongoing, or abandoned as of the end of 2024.

(**) Enterprises that successfully introduced product or process innovations, either in the market or within the company, during the 2022–2024 period.

(***) % on total enterprises with innovation activities.

Process innovation remains the main driver of innovation activities

Process innovation remained the most widespread form of innovation, involving 57.6% of enterprises, an increase of 4.6 p.p. compared with 2020-2022 (Figure 1). The increase was particularly pronounced among small enterprises, where the share rose from 50.2% to 55.8%, while it declined slightly among medium-sized and large enterprises (-0.6 p.p.). Process innovations encompass a broad range of business functions. The most widespread concerned work organization and human resource management (33.0%), followed by production processes and methods (30.7%) and information systems (29.1%). Marketing methods were affected by innovation in 25.7% of enterprises, while more than 20% introduced innovations in accounting and administrative operations and in business practices for organizing procedures or external relations.

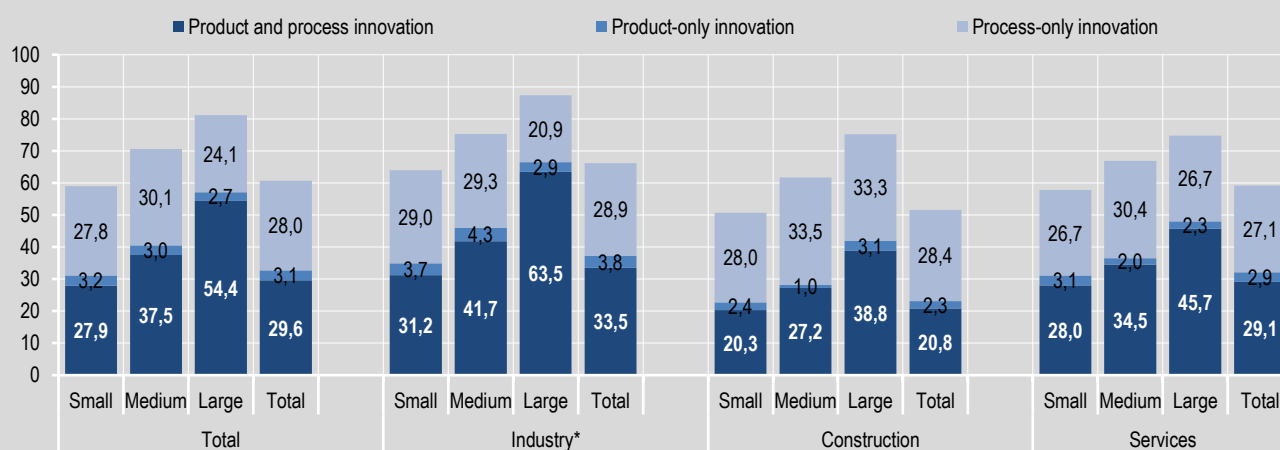
The propensity to introduce product innovations remained broadly stable. During 2022-2024, 32.7% of enterprises introduced at least one product innovation. Industrial enterprises have the highest propensity to introduce new products (37.3%) and the share is considerably higher among large industrial enterprises, where approximately two out of three enterprises introduced product innovations. In Services, fewer than one-third of enterprises were product innovators, while the corresponding share in Construction was 23.2%.

Among enterprises, undertaking product innovation, only around half—equivalent to 15.5% of all Italian enterprises—introduced products that were not previously offered by any competitors, that is new to their reference market. This share remained broadly unchanged compared with the previous three-year period. Market novelties were more common in Industry, where they involved 19.4% of enterprises, compared with 14.5% in Services and 8.7% in Construction. Their incidence increased substantially with firm size, reaching 34.7% among large enterprises and peaking at 45.2% among large enterprises in Industry.

In 2024, products that were new either to the firm or to the market accounted for 18.0% of total turnover. Products new to the market alone accounted for 4.5%. Compared with 2022, the overall share increased by 3.2 p.p., while the share from market novelties remained broadly stable (+0.4 p.p.).

Although innovation strategies have increasingly evolved towards integrated and systemic approaches combining product and process innovation, with reference to 2022-2024 period the data point to a growing tendency among enterprises to focus exclusively on process innovation. Small enterprises accounted for most of the growth of process-only innovation, while the adoption of complex innovation strategies increases substantially among larger enterprises, exceeding one-half of large enterprises compared with 27.9% of small enterprises, and reaching 63.5% among large industrial enterprises.

FIGURE 1. INNOVATIVE ENTERPRISES BY TYPE OF INNOVATION, MACRO-SECTOR AND SIZE CLASS. Years 2022-2024, percentages on total enterprises



*Industry without Construction (Nace Sections B-E)

Source: Istat, Rilevazioni sull'Innovazione nelle Imprese

Innovation expenditure rises with R&D accounting for the largest share

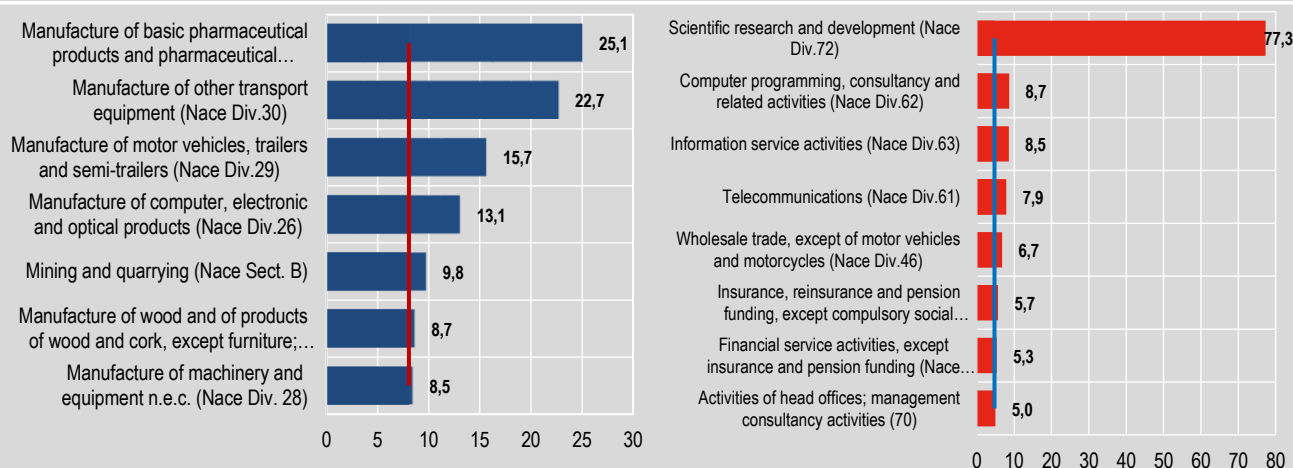
In 2024, total expenditure on innovation activities reached 38.5 billion euros, representing a 25.7% increase in current-price terms compared with 2022. Innovation intensity, measured as expenditure per employee, also increased, from 5,400 euros in 2022 to 6,200 euros in 2024. In Industry and Construction, expenditure per employee increased among small and medium-sized enterprises, while in Services it rose across all firm-size classes.

Within Industry, the highest levels of innovation expenditure per employee were in pharmaceuticals (25,100 euros) and the manufacture of other transport equipment (22,700) (Figure 2). Other highly innovation-intensive industries, with expenditure per employee above 10,000 euros, included automotive (15,700) and electronics (13,100). Within Services, research and development recorded by far the highest expenditure per employee (77,300), followed by information technology (8,600) and telecommunications (7,900). Within information technology, expenditure per employee amounted to 8,700 in software production and 8,500 in other IT services.

Research and development (R&D) remained the largest component of innovation expenditure, accounting for 63.6% of total expenditure. Intramural R&D accounted for 53.6%, while extramural R&D represented a further 10.0%. Other significant components included capital expenditure (12.9%), purchases of goods and services (10.0%) and expenditure on internal personnel working on innovation (9.7%). The composition of innovation expenditure differs substantially across sectors. Historically innovation-intensive industries rely heavily on R&D. Automotive and other transport equipment, pharmaceuticals and electronics, together with research and development and information technology, allocated more than three-quarters of their innovation expenditure to R&D. By contrast, sectors characterized by substantial economies of scale - including mining and quarrying, energy and water supply, and paper industry - as well as transport, financial and insurance activities, and retail trade, relied more heavily on other forms of innovation expenditure.

FIGURE 2. INNOVATION EXPENDITURE PER EMPLOYEE OF HIGHLY INNOVATIVE SECTORS – INDUSTRY* AND SERVICES.

Year 2024, thousands euros (sectors with expenditure values per employee above the sectoral average)



*Industry without Construction (Nace Sections B-E)

Source: Istat, Rilevazioni sull'Innovazione nelle Imprese

Public support for innovation becomes less widespread

During 2022-2024, 15.1% of innovation active enterprises received public support for innovation, 4.9 p.p. less than in 2020-2022 (Figure 3). The proportion of beneficiaries increased with firm size, from 14.5% among small enterprises to 24.6% among large enterprises, reaching 31.8% among large industrial enterprises. The sharpest declines compared with 2020-2022 were recorded among small enterprises (-5.1 p.p.) and in Industry (-5.7 p.p.), whereas the share of large enterprises receiving public innovation funding remained broadly stable. Public funding for innovation was provided primarily by national government and regional/local authorities. Overall, 9.1% of enterprises with innovation activities reported receiving funding from central government administrations, while 7.2% received funding from regional or local authorities. Only a small proportion received direct support from the EU Programme for Research and Innovation (Horizon) or through other EU financial support (respectively, 1.0% and 1.6%). Firm size and economic sector play an important role in determining access to European public funding: 7.6% of large enterprises benefited from the Horizon programmes, compared with 0.7% of small enterprises. The gap is even wider in Industry, where 9.2% of large enterprises accessed Horizon funding, compared with 0.6% of small enterprises.

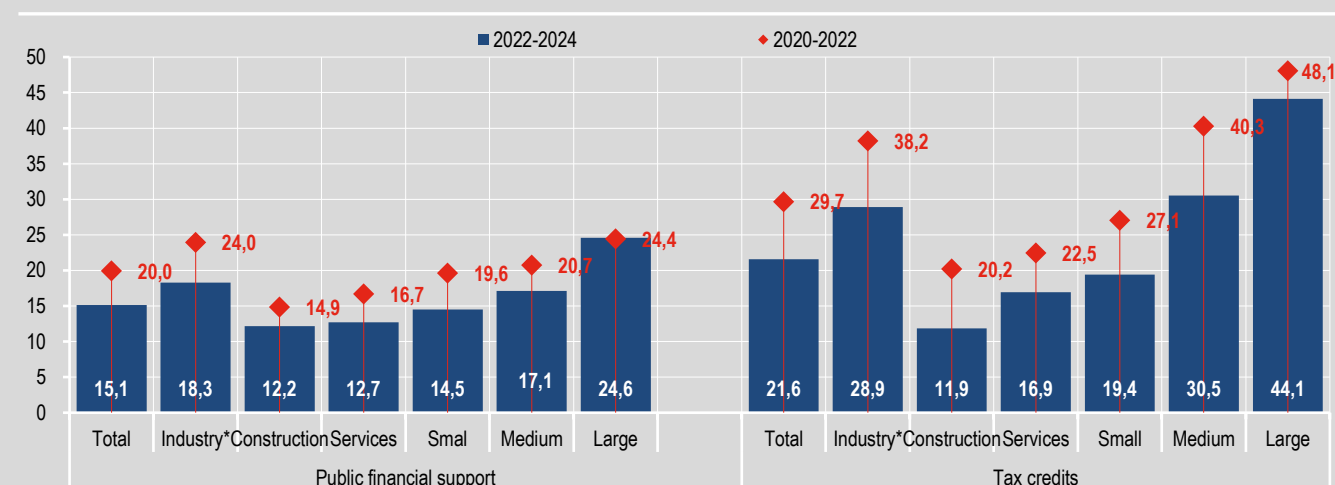
Tax incentives and allowances for innovation were more widely used, benefiting 21.6% of innovation active enterprises. Large enterprises were the main beneficiaries (44.1%), followed by medium-sized enterprises (30.5%) and small enterprises (19.4%). Industry recorded the highest use of tax incentives, at 28.9%, compared with 16.9% in Services and 11.9% in Construction. Compared with 2020-2022, the share of enterprises using tax incentives declined by 8.1 p.p. The largest reductions are among SMEs, with declines of 7.7 p.p. among small enterprises and 9.8 p.p. among medium-sized enterprises. At sector level, the largest decreases occurred in Industry (-9.3 p.p.) and Construction (-8.4 p.p.).

Cooperation in innovation activities declines among SMEs

Between 2020-2022 and 2022-2024, the share of innovation active enterprises that co-operate with other organizations for innovation purposes fell from 22.7% to 18.7%. The decline was driven by small and medium-sized enterprises. In particular, the share fell to 16.0% among small enterprises (-3.6 p.p.) and to 28.5% among medium-sized enterprises (-4.8 p.p.). Large enterprises followed a different pattern: approximately one in two co-operated with external partners, a proportion that remained stable compared with the previous period.

Innovative enterprises primarily selected domestic partners. Cooperation with Italian partners involved 18.3% of innovative enterprises, compared with 4.1% cooperating with foreign partners. Foreign partners were more frequently selected by large enterprises (25.9%) and by approximately one in three large industrial enterprises. Cooperation with universities remained relatively limited, involving 4.9% of innovative enterprises. However, this form of cooperation was considerably more common among large enterprises (29.7%), approximately one-third of which also cooperated with suppliers and consultants.

FIGURE 4. ENTERPRISES OBTAINING A PUBLIC SUPPORT TO INNOVATION BY TYPE OF MEASURE. Years 2022-2024 and 2020-2022, percentages on innovation active enterprises



*Industry without Construction (Nace Sections B-E)

Source: Istat, Rilevazioni sull'Innovazione nelle Imprese

Resource constraints remained a significant barrier to further innovation

Most innovation active enterprises expressed a positive assessment of their innovation choices. Just under half (44.8%) reported that they had not undertaken additional innovation activities because they did not consider them necessary. However, 24.6% reported a lack of financial or human resources, while the remaining 30.6% identified other factors (strategic reasons, not the right time to innovate, other priorities, risks too high, low expected returns, etc.) that had limited their innovation activities. Industry was the sector in which resource constraints represented the most significant barrier to further innovation: 27.2% of enterprises reported such constraints, compared with 22.6% in Construction and 22.5% in Services.

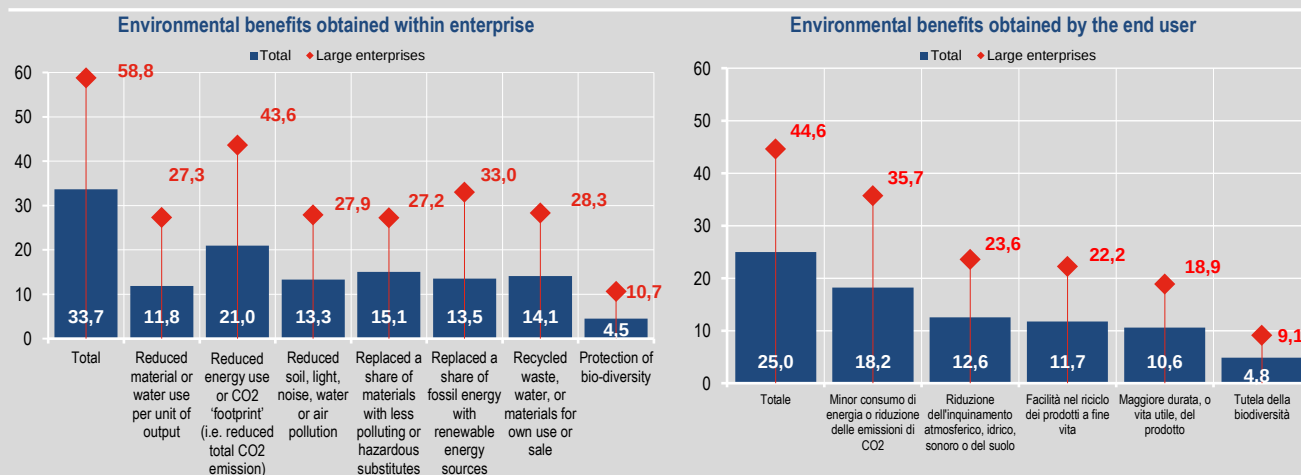
Large enterprises maintain their focus on eco-sustainable innovation

The objective of combining innovation with environmental protection was pursued by 37.2% of innovative enterprises, a decline of 2.9 p.p. compared with the previous three-year period. Large enterprises show the strongest focus on environmental sustainability, with 61.7% adopting eco-sustainable innovations compared with 35.1% of small enterprises. Among large enterprises, the incidence remained broadly stable (-0.4 p.p.), whereas it declined by 2.8 p.p. among small enterprises. At sector level, Industry (43.2%) and Construction (39.8%) continued to show a stronger commitment to environmental innovation than Services (30.1%).

The most widespread measures focused on reducing energy use and CO₂ footprint, both during production (21.0%) and during the consumption of goods and services (18.2%). These were followed by replacing conventional materials with less polluting or hazardous substitutes (15.1%) and by practices for recycling waste, water and materials (14.1%). Slightly lower shares were recorded for measures aimed at replacing fossil fuels with renewable energy sources (13.5%) and reducing pollution, both during production (13.3%) and consumption (12.6%). Similar shares were reported for measures aimed at facilitating the recycling of products after use (11.7%) and extending product lifetimes (10.6%). By contrast, initiatives aimed at protecting biodiversity remained limited, both during production (4.5%) and in post-sale activities (4.8%). Large enterprises show better performances than smaller enterprises especially in measures related to energy efficiency, CO₂ emissions reduction and the replacement of fossil fuels with renewable energy sources.

The improvement of enterprise's reputation was the most frequently cited factor encouraging the adoption of environmental innovations, identified as relevant by 69.9% of enterprises. Other major drivers included high costs of energy, water and materials (65.3%) and the need to comply with existing environmental regulations (59.4%). More than half of enterprises also considered the availability of government grants, subsidies and other financial incentives, as well as voluntary initiatives promoting good environmental practices, to be important drivers of sustainable innovation. Environmental taxation, by contrast, was considered an important factor positively influencing the eco-innovation choices of just one third of enterprises.

FIGURE 5. ENTERPRISES THAT INTRODUCED ENVIRONMENTAL INNOVATIONS. Years 2022-2024, percentages on innovative enterprises



Source: Istat, Rilevazioni sull'Innovazione nelle Imprese

Methodological appendix

Introduction

The Community Innovation Survey (CIS) is conducted based on EU Regulation No. 2152/2019, which aims at collecting information on the innovation activities of European enterprises. Specifically, the survey provides an integrated set of indicators able to quantify innovation (in terms of involved enterprises and expenditures sustained for it) and to qualify related innovative activities. Additionally, the survey seeks to analyze enterprises' strategies, behaviors and innovation performances, as well as the factors that hinder or support innovation and the complex systemic interactions that occur among participants in the innovation process. The survey's ultimate goal is to help measure the complexity and heterogeneity of innovation processes within enterprises. A dedicated section of the questionnaire focuses on environmental innovations.

The survey is conducted biennially (since 2004) based on standardized definitions and methodologies common to all EU countries and follows the conceptual framework outlined in the "Oslo Manual," which has been the reference for measuring technological innovation within enterprises since 1992 (OECD/Eurostat, 2015).

The demand for quantitative and qualitative indicators on enterprises' innovation activities comes not only from the scientific community but also from policymakers seeking increasingly comprehensive, reliable, and timely information. In particular, the European Commission's need for indicators on enterprises' innovation processes to guide innovation support policies at European level has become increasingly urgent. The CIS is, in fact, one of the main tools for the systematization and updating of science and technology indicators used by the European Commission to evaluate policies. The statistics produced by the CIS are widely used for the annual update of the *European Innovation Scoreboard*, a tool created by the European Commission to compare the innovation performance of member states for monitoring and evaluating innovation policies carried out in each country.

Target Population and Units of Survey and Analysis

The target population for the survey includes all the enterprises with at least 10 employed persons active in 2024 in the following Nace sectors: extractive activities (B); manufacturing (C); electricity, gas, steam, and air conditioning supply (D); water supply, sewage, waste management, and remediation (E); construction (F); wholesale and retail trade and repair of motor vehicles and motorcycles (G); transportation and storage (H); information and communication services (J); financial and insurance activities (K); real estate activities (L); and professional, scientific, and technical activities (M, except division 75).

Starting from the 2022 edition, the units of analysis are "enterprises" as defined by the Asia-Ent Register (Ent=enterprise). Previously, these were considered as Legal Units (LU) that conducted productive activity for at least six months in the reference year. Changes in the definition process for the statistical unit of the enterprise were introduced to fully apply the EU Regulation 696/93 definition. Since certain legal units operate exclusively on behalf of another legal entity for administrative purposes without economic relevance, their activities are treated as auxiliary to the primary legal entity to which they belong, forming the "enterprise" entity used for economic analysis. An enterprise is thus identified on the basis of chains of control and links among its constituent units. According to this new interpretation of the enterprise (ENT) definition from Regulation 696/93, an enterprise may be a simple or complex unit, meaning it may have a single or multiple relationships with LUs.

Although the Asia-Ent register and, consequently, the reference universe are mostly composed of simple enterprises (one enterprise corresponding to a single legal unit), they also include complex units in certain cases, which are combinations of multiple LUs. Additionally, in defining ENT, LUs may be considered as a whole if they participate exclusively in the activities of an enterprise. If they perform ancillary activities for multiple complex enterprises, they are considered

on a pro-rata basis, dividing each LU across several enterprises according to the percentage of its association with each enterprise. Thus, ENT, as "groups" of LUs, can consist of one or more legal units, while a single LU may belong to one or more ENT based on its percentage association.

The target population for the survey comprises 175,820 enterprises (Ent).

Sampling Design

The overall sample size was 24,527 units in terms of ENTs, and 38,987 units in terms of LUs. The sampling design is a stratified cluster sample. Clusters represent enterprises, which are stratified based on economic activity sector (Nace division), size class based on employed persons (three categories: 10-49, 50-249, and 250 or more employed persons), and region of residence (21 categories, corresponding to level 2 of the European NUTS classification), resulting in a total of 2,558 strata. ENTs with at least 250 employees were included in the sample with certainty, whereas those with between 10 and 249 employees were selected using a probability sampling design. All legal units (LUs) belonging to the sampled ENTs and falling within the scope of the survey were included in the sample. The theoretical sample includes 24,527 enterprises and 38,987 LUs. The number of enterprises (ENTs) to be selected within each stratum was determined using a multi-domain allocation approach, consistent with the main domains of dissemination of the estimates, while imposing a maximum relative error, expressed in terms of the coefficient of variation (CV), for estimates of the number of employees and turnover.

The domains of interest and the CV-based error limits are as follows:

Domains	Description	Coefficients of variation	
		Number of employed persons	Turnover
DOM1	NACE Rev.2 Division (excluding Construction, for which the Section level is considered)	0.020	0.056
DOM2	NACE Rev.2 Section x Size Class (three size classes are defined: 10-49 employed persons, 50-249 employed persons, and 250 or more employed persons).	0.020	0.080
DOM3	Sector ('EU Core', 'EU Non-core') x Size Class x NUTS Region. Sectors are divided into 'EU Core' and 'EU Non-core' categories. The term 'EU Core' refer to specific sector classification defined for comparing data across European countries because the sectors included in it are surveyed by all the member states. EU Non-core is the complement to 1 of Eu core. Each of these categories is further subdivided by two size classes: 10-249 employed persons and 250 or more employed persons. Additionally, each of these strata is analyzed across 21 regions based on the NUTS 2 classification.	0.025	0.082
DOM4	Nace Rev.,2 Section x Sector ('EU Core', 'EU non-core')*	0.015	0.025

Data Collection and Response Rate

The reference list for units to which the questionnaire was sent was the Statistical Archive of Legal Units active for at least six months (Asia LU). The initial sample consisted of 38,987 active LUs in 2023.

Data collection was conducted through a self-administered electronic questionnaire, formatted as multiple web pages grouped into various thematic sections. Respondents accessed the

questionnaire via the [Istat statistical Portal for enterprises](#) using a personal username and password provided by Istat. Initial contacts and reminders were sent via certified email.

The data collection period ran from October to December 2023. Out of the theoretical sample of 24,257 ENT, 17,157 were found to be indirect respondents, corresponding to a response rate of 69.95%. Similarly, out of the theoretical sample of 38,987 LUs, 26,177 completed the questionnaire, corresponding to a response rate of 67.14%. In addition, 146 LUs did not complete the questionnaire but, during the data collection phase, were found to have experienced business events (e.g., cessation of activity, liquidation, etc.), as reported either directly by the enterprises or identified through our ASIA Register of Active Enterprises. These units were therefore classified as being outside the survey scope at the end of the data collection period. The resulting final response rate was therefore 67.5%.

Data Processing: Procedure, Tools, and Techniques

Validation and Correction of Responding LUs' Data

The data from responding Legal Units (LU) underwent a multi-phase validation and correction process based on Eurostat's standard procedures. This involved three main steps:

- 1 Detection of non-sampling errors. The initial step focused on identifying deterministic errors, including domain errors, partial non-responses, anomalous values, inconsistencies, and coding errors. These errors were identified using Eurostat-specified edits, which are based on internal questionnaire rules.
- 2 Imputation of missing and erroneous values. Missing and incorrect values were addressed through a sequence of automated deterministic and probabilistic imputation procedures, selected according to variable type (quantitative or qualitative) and the error identified. This correction process comprised three stages:
 - Logical-Deductive Imputation. An initial pass of logical-deductive imputation procedures eliminated internal inconsistencies within each record by applying a system of constraints and logical relationships between variables.
 - Imputation of Quantitative Variables. For quantitative variables, a "ratio estimator" was used. This estimator is based on predefined relationships between the variables needing imputation and auxiliary variables with a high correlation to the target values.
 - Imputation for Qualitative Variables. For qualitative (dichotomous or ordinal categorical) variables, the "hot deck donor" method was used. This involved finding the "nearest" donor record, whose values allowed the recipient to meet all edit checks. The donor was selected to minimize the distance between donor and recipient records.
- 3 Data Validation. The data was validated by comparing aggregated and weighted corrected data with historical or auxiliary data to identify any suspicious patterns or inconsistencies.

Transition from Corrected LU Microdata to ENT Microdata

After completing the validation and correction process for LUs, the next step was to estimate the variables at the enterprise (ENT) level based on the new enterprise definition, which considers an ENT as the "most suitable" combination of LUs. Key steps included:

1. Identification of the Representative Cluster. A "representative cluster" was identified for each ENT, representing the subset of LUs that comprise each enterprise.
2. Consolidation of Variables. Variables were categorized as additive or non-additive for consolidation:
 - Additive Variables. Variables like expenditures and employed persons were aggregated by summing the values for the LUs within each ENT, adjusted according to each LU's share of the ENT.
 - Non-Additive Variables. For non-additive qualitative variables (dichotomous or categorical), different rules were applied. For binary variables (e.g., 1=success, 0=failure), if both values

were present, the ENT inherited a "1" for success. For what concerns the variables with multiple non-ordered categories, they were converted to binary indicators, where "0" represented absence and "1" presence of each category. The binary rule applied as with other binary variables. Finally, for ordinal variables (e.g., importance levels), the value was derived as the weighted average of the responses from each LU, using the number of employed persons as weights. For example, if an ENT comprises three LUs of different sizes (10, 100, and 1000 employed persons) that rated a factor influencing the adoption of low-impact innovations differently (e.g., 3=high, 2=medium, 1=low), the ENT's final value for the variable (e.g., ENV_ENREP for "improvement of corporate reputation") was calculated as "1," reflecting the weighted average of the responses.

Calibration of sample weights and sampling errors

To account for non-response and to ensure that the estimates were consistent with the 2023 totals from the ASIA LU and ASIA ENT Registers, the sampling weights of the responding enterprises were adjusted through a calibration step. In the calibration step, the system of sampling weights was constrained to reproduce the register totals, within each of the following domains of interest, for:

- the number of ENTs;
- the number of LUs;
- the number of employees in ENTs;

resulting in a total of 1,167 calibration constraints. Calibration was performed using a linear distance function with a lower bound of 0.1, in order to prevent negative weights. To produce estimates at both the ENT and LU levels, two mutually consistent sets of weights were derived: the weights for ENTs, resulting from the calibration process, and the weights for LUs. The latter were obtained by assigning each LU the weight of the ENT to which it belongs. For LUs belonging to more than one ENT, the weight was obtained by summing the weights of all ENTs to which the LU belongs. After the calibration process, the weights assigned to the responding units reproduced a total of 175,820 enterprises (ENTs) and 221,628 legal units (LUs) in the reference population of the survey.

To evaluate the accuracy of the survey's estimates, sampling error was calculated and expressed in terms of relative error or Coefficient of Variation (CV). These relative errors are presented in Table 1, showing the CIS key indicators across size classes and macro-economic sectors.

Table 1 – Coefficients of variation for the key innovation indicators

Macro-sector/Size class	Innovation active enterprises (% on total)	Innovative enterprises (% on total)	Product innovators (% on total)	Enterprises introducing products new to the market (% on total product innovators)	Process innovators (% on total)	Enterprises with R&D activities (% on total)	Innovation expenditure per employee	Expenditure on R&D (% on total)	Enterprises that co-operate with others for innovation (% on total)	Enterprises benefiting from public financial support (% on total)	Enterprises introducing environmental innovation (% on total)
Total	1,0	1,1	1,9	3,1	1,2	2,0	3,4	2,2	3,3	3,9	2,3
Industry (Nace: B-E)	1,5	1,6	3,0	4,7	1,8	2,8	4,5	2,3	4,9	5,7	3,3
Construction (Nace: F)	3,2	3,3	6,4	11,2	3,5	7,8	13,8	14,0	14,0	11,8	5,9
Services Eu core (Nace: 46-H-J-K-71-72-73)	2,0	2,1	3,3	5,5	2,2	3,5	5,9	4,7	5,5	6,7	4,6
Services not Eu core (Nace: 45-47-L-69-70-74)	2,3	2,4	4,2	7,2	2,5	5,8	8,9	9,6	8,6	11,3	5,4
Small and medium enterprises	1,1	1,1	2,0	3,3	1,2	2,1	5,1	3,8	3,6	4,1	2,4
Large enterprises	0,4	0,4	0,8	1,4	0,4	0,6	4,4	2,0	0,7	1,8	0,8

Output: Main indicators

The CIS objective is to provide useful indicators for analyzing strategies, behaviors, and innovative performance of European enterprises. The main phenomena observed are: the type of innovation (product, process); the types of innovation development; the activities performed and the expenditures incurred for innovation; the public support for innovation and forms of private financing for innovation; the cooperation agreements in innovation; the factors that hinder the

initiation or implementation of innovative activities; the introduction of innovations with positive environmental impact.

Data Confidentiality Information

Data collected by the survey are protected by statistical confidentiality and are subject to personal data protection regulations. These data may be used, including in subsequent processing, exclusively for statistical purposes by entities within the National Statistical System and may be disclosed for scientific research purposes under the conditions and procedures established in Article 7 of the Code of Ethics for the processing of personal data within the National Statistical System. Estimates are disseminated in aggregate form so that it is not possible to trace back to the subjects who provide the data or to whom the data refer.

Coverage and Territorial Detail

Key innovation estimates will be also available at the regional level.

Timeliness

As per EU Regulation No. 2152/2019, estimates for 2022-2024 were submitted to Eurostat within 18 months, i.e., by June 2026.

Data Dissemination

The complete set of information will be available in the coming months at the ADELE laboratory. The ADELE Laboratory (for Elementary Data Analysis) is a "secure" environment where researchers from universities, institutes, research entities, or organizations—who are subject to the Code of Ethics for statistical processing outside the National Statistical System (annex A.4 of Legislative Decree 30 June 2003, No. 196)—can conduct statistical analyses that require the use of microdata.

Some innovation indicators are also disseminated through the following Istat publications:

[Annuario Statistico Italiano](#); [Noi Italia](#); [Rapporto sulla competitività dei settori produttivi](#); [Rapporto Bes](#);

[Rapporto SDGs: Informazioni statistiche per l'Agenda 2030 in Italia](#).

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The initiative aims to enhance the quality, relevance and usability of statistical production, whilst promoting transparency and participation.

The consultation is open to institutional stakeholders, the scientific community, researchers, journalists, enterprises, associations, interested citizens.

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