

Innovation expenditure for 2020 was estimated at €178 million.

Business Innovation: 2018-2020

Cut-off date:
30 June 2022

This news release shows the data collected through the Community Innovation Survey for the three-year period 2018 to 2020.

Between 2018 and 2020, 843 enterprises employing at least 10 persons, or 33.9 per cent of the surveyed enterprises, undertook innovation activity. Results show that 295 enterprises were engaged in both product and business process, 473 enterprises were engaged in business process innovation only, 44 enterprises were solely engaged in product innovation, and 31 enterprises performed either Research and Development (R&D) or other innovation activities (Chart 1).

Innovation expenditure for 2020 was estimated at €178.0 million. Innovation expenditure (excl. R&D) was predominant with a total of €81.0 million (45.5 per cent), followed by intramural R&D amounting to €48.6 million (27.3 per cent). Enterprises with the highest total expenditure were in Information and communication (NACE J); Manufacturing (NACE C) and Financial and insurance activities (NACE K) amounting to 36.1, 25.0 and 15.2 per cent respectively of the total expenditure (Chart 2, Table 2).

The survey shows that 17.1 per cent of all innovative enterprises indicated that they had at least one cooperation arrangement with other enterprises or organisation. 43.1 per cent of these enterprises had a cooperation with a private business enterprise outside the enterprise group (Table 3).

Only 10.7 per cent (267 enterprises) of the surveyed enterprises applied for an intellectual property right or licence. Most enterprises (120 enterprises) applied for a trademark only. This was followed by enterprises which applied for more than one type of intellectual property rights (IPR) or licensing (82 enterprises) and those which used a trade secret only (42 enterprises) (Table 4).

Chart 1. Number of enterprises by type of innovation activity: 2018-2020

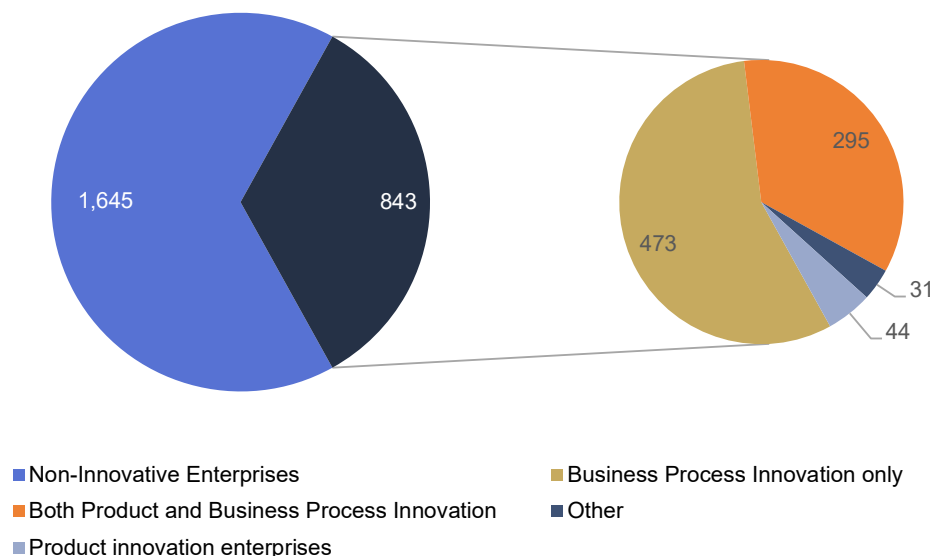
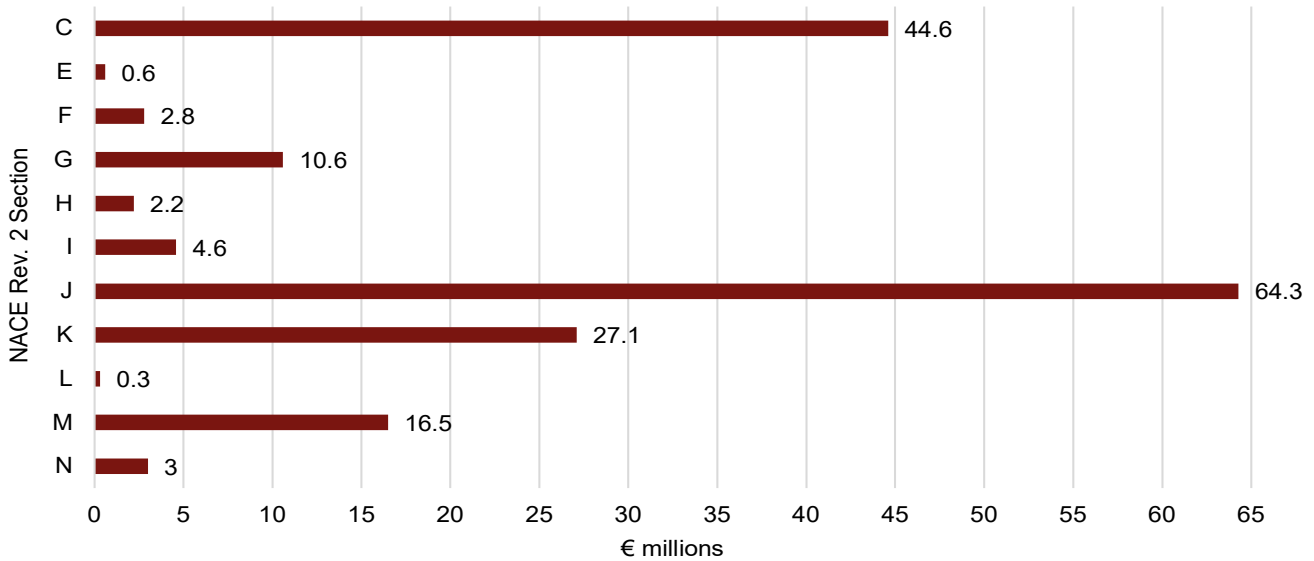


Chart 2. Innovation expenditure by industry: 2020



The most commonly identified constraints to innovate included: excessive competition in the market (113 enterprises), innovation costs too high (109 enterprises) and different priorities within the enterprise (93 enterprises) (Chart 3, Table 5).

Only 16.8 per cent of the total innovative enterprises successfully obtained either equity or debt finance, and only two in every five of these enterprises used (partly or fully) these fundings for R&D or other innovation activities (Table 6).

11.9 per cent enterprises introduced innovations which reduced energy use or CO₂ footprint within their enterprise. These were followed by enterprises that recycled waste, water, or materials for own use or sale (10.3 per cent) (Table 7).

Out of the total enterprises surveyed, 37.3 per cent formed part of an enterprise group, of which 74.8 per cent had their head office located in Malta while the remaining companies had their head office located in the European Union (EU), the European Free Trade Association (EFTA) and the Rest of the world, amounting to 13.4, 1.1 and 10.9 per cent respectively (Table 8).

Table 1. NACE Rev. 2 Classification

| Section | Division | Description |
|----------------|-----------------|--|
| A | 01 - 03 | Agriculture, forestry and fishing |
| B | 05 - 09 | Mining and quarrying |
| C | 10 - 33 | Manufacturing |
| D | 35 | Electricity, gas, steam and air conditioning supply |
| E | 36 - 39 | Water supply, sewerage, waste management and remediation activities |
| F | 41 - 43 | Construction |
| G | 45 - 47 | Wholesale and retail trade; repair of motor vehicles and motorcycles |
| H | 49 - 53 | Transportation and storage |
| I | 55 - 56 | Accommodation and food service activities |
| J | 58 - 63 | Information and communication |
| K | 64 - 66 | Financial and insurance activities |
| L | 68 | Real estate activities |
| M | 69 - 75 | Professional, scientific and technical activities |
| N | 77 - 82 | Administrative and support service activities |
| O | 84 | Public administration and defence; compulsory social security |
| P | 85 | Education |
| Q | 86 - 88 | Human health and social work activities |
| R | 90 - 93 | Arts, entertainment and recreation |
| S | 94 - 96 | Other service activities |
| T | 97 - 98 | Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use |
| U | 99 | Activities of extraterritorial organisations and bodies |

Table 2. Enterprises with innovation expenditure by type and industry: 2020 ...

| NACE Rev. 2 | Economic Industry | No. of enterprises | Innovation (excl. R&D) ¹ | Intramural R&D ² | Extramural R&D | Total | Percentage total |
|-------------|--|--------------------|-------------------------------------|-----------------------------|----------------|--------|------------------|
| | | | €000 | | | | |
| 10 | Manufacture of food products | 8 | 1,587 | 575 | - | 2,162 | 1.2 |
| 18 | Printing and reproduction of recorded media | 3 | 762 | 96 | 100 | 958 | 0.5 |
| 21 | Manufacture of basic pharmaceutical products and pharmaceutical preparations | 8 | 162 | 3,073 | 152 | 3,387 | 1.9 |
| 22 | Manufacture of rubber and plastic products | 9 | 4,008 | 902 | 1,936 | 6,846 | 3.8 |
| 23 | Manufacture of other non-metallic mineral products | 4 | 237 | 15 | - | 252 | 0.1 |
| 25 | Manufacture of fabricated metal products, except machinery and equipment | 3 | 785 | 45 | - | 830 | 0.5 |
| 26 | Manufacture of computer, electronic and optical products | 6 | 245 | 2,079 | 25 | 2,349 | 1.3 |
| 27 | Manufacture of electrical equipment | 7 | 650 | 988 | 90 | 1,728 | 1.0 |
| 28 | Manufacture of machinery and equipment n.e.c. | 3 | 75 | 475 | - | 550 | 0.3 |
| various | Other manufacturing (see methodological note 4.2.1) | 9 | 20,033 | 4,405 | 1,050 | 25,488 | 14.3 |
| 38 | Waste collection, treatment and disposal activities; materials recovery | 3 | 146 | 25 | 68 | 239 | 0.1 |
| 43 | Specialised construction activities | 9 | 222 | 38 | 88 | 348 | 0.2 |
| 46 | Wholesale trade, except of motor vehicles and motorcycles | 28 | 777 | 6,768 | 165 | 7,710 | 4.3 |
| 47 | Retail trade, except of motor vehicles and motorcycles | 26 | 2,742 | - | 15 | 2,757 | 1.5 |
| 49 | Land transport and transport via pipelines | 3 | 229 | - | 5 | 234 | 0.1 |
| 52 | Warehousing and support activities for transportation | 8 | 1,855 | 65 | 27 | 1,947 | 1.1 |
| 55 | Accommodation | 4 | 133 | - | 2 | 135 | 0.1 |
| 56 | Food and beverage service activities | 18 | 4,308 | - | 150 | 4,458 | 2.5 |
| 58 | Publishing activities | 4 | 191 | 1,778 | 100 | 2,069 | 1.2 |

... Table 2. Enterprises with innovation expenditure by type and industry: 2020

| NACE Rev. 2 | Economic Industry | No. of enterprises | Innovation (excl. R&D) ¹ | Intramural R&D ² | Extramural R&D | Total | Percentage total |
|--------------|---|--------------------|-------------------------------------|-----------------------------|----------------|----------------|------------------|
| | | | €000 | | | | |
| 62 | Computer programming | 47 | 18,059 | 18,162 | 23,145 | 59,366 | 33.3 |
| 64 | Financial service activities, except insurance and pension funding | 7 | 3,016 | 250 | 13,242 | 16,508 | 9.3 |
| 65 | Insurance | 3 | 25 | 23 | - | 48 | 0.0 |
| 66 | Activities auxiliary to financial services and insurance activities | 28 | 1,818 | 1,433 | 7,253 | 10,504 | 5.9 |
| 68 | Real estate activities | 3 | 78 | 100 | 113 | 291 | 0.2 |
| 69 | Legal and accounting activities | 10 | 675 | 376 | 18 | 1,069 | 0.6 |
| 70 | Activities of head offices; management consultancy activities | 12 | 10,639 | 515 | 132 | 11,286 | 6.3 |
| 71 | Architectural and engineering activities; technical testing and analysis | 13 | 907 | 1,195 | 34 | 2,136 | 1.2 |
| 73 | Advertising and market research | 4 | 563 | 631 | 160 | 1,354 | 0.8 |
| 74 | Other professional, scientific and technical activities | 6 | 143 | 438 | 65 | 646 | 0.4 |
| 77 | Rental and leasing activities | 3 | 3 | 386 | 1 | 390 | 0.2 |
| 78 | Employment activities | 4 | 202 | - | - | 202 | 0.1 |
| 81 | Services to buildings and landscape activities | 3 | 28 | - | - | 28 | 0.0 |
| 82 | Office administrative, office support and other business support activities | 7 | 1,294 | - | 165 | 1,459 | 0.8 |
| various | Other non-manufacturing (see methodological note 4.2.2) | 19 | 4,424 | 3,786 | 99 | 8,309 | 4.7 |
| Total | | 332 | 81,021 | 48,622 | 48,400 | 178,043 | 100.0 |

¹ This is composed of expenditure arising due to own personnel working on innovation, services, materials, supplies purchased from others for innovation, and capital goods for innovation (acquisition of machinery, equipment, software, IPRs, buildings etc.).

² Intramural R&D coverage in the survey is based on the Innovation methodology. Actual R&D expenditure for 2020 should be taken from NSO News Release 125/2022 due to a more extensive coverage (refer to methodological note 4.1).

Table 3. Innovative enterprises having cooperation arrangements by size class: 2018-2020

| | Employment size class | | | |
|--|-----------------------|------------|-----------|------------|
| | 10-49 | 50-249 | 250+ | Total |
| Total innovative enterprises | 628 | 174 | 41 | 843 |
| No cooperation arrangement | 533 | 144 | 22 | 699 |
| At least one cooperation arrangement | 95 | 30 | 19 | 144 |
| Private business enterprises outside the enterprise group only | 42 | 12 | 8 | 62 |
| Enterprises within the enterprise group only | 3 | 2 | - | 5 |
| Private business enterprises outside the enterprise group and enterprises within the enterprise group only | 19 | 3 | 3 | 25 |
| Private business enterprises outside the enterprise group and universities or other higher education institutes only | 6 | 2 | 2 | 10 |
| Universities or other higher education institutes, government or public research institutes, clients or customers from the public sector and non-profit organisations only | 3 | 3 | - | 6 |
| Combination of multiple cooperation partners ¹ | 22 | 8 | 6 | 36 |

¹ This includes enterprises which had a combination from all the six types of cooperation partners.

Table 4. Enterprises applying for intellectual property rights or licensing by size class: 2018-2020

| | Employment size class | | | |
|--|-----------------------|------------|-----------|--------------|
| | 10-49 | 50-249 | 250+ | Total |
| Total enterprises | 1,990 | 420 | 78 | 2,488 |
| No type of intellectual property rights or licensing | 1,788 | 373 | 60 | 2,221 |
| At least one type of intellectual property rights or licensing | 202 | 47 | 18 | 267 |
| Registered a trademark only | 91 | 23 | 6 | 120 |
| Use trade secrets only | 29 | 11 | 2 | 42 |
| Applied for a patent only | 9 | 2 | - | 11 |
| Claim copyright only | 10 | - | 1 | 11 |
| Registered an industrial design right only | 2 | - | - | 2 |
| Applied for more than one type of intellectual property rights or licensing ¹ | 61 | 11 | 9 | 81 |

¹ This includes enterprises which had a combination from all types of intellectual property rights or licensing.

Table 5. Non-innovative enterprises by type of obstacle to innovate: 2018-2020

| Constraint | | Degree of importance | | | |
|-------------------|--|----------------------|--------|-----|------------------|
| | | High | Medium | Low | Not a constraint |
| <i>Financial</i> | Innovation costs too high | 109 | 184 | 110 | 1,242 |
| | Lack of internal finance for innovation | 54 | 138 | 145 | 1,308 |
| | Difficulties in obtaining public grants or subsidies | 54 | 108 | 152 | 1,331 |
| | Lack of credit or private equity | 32 | 100 | 172 | 1,341 |
| <i>Market</i> | Uncertain market demand for the enterprise's ideas | 44 | 113 | 165 | 1,323 |
| | Too much competition in the market | 113 | 152 | 127 | 1,253 |
| <i>Management</i> | Different priorities within the enterprise | 93 | 146 | 151 | 1,255 |
| | Lack of skilled employees within the enterprise | 91 | 183 | 129 | 1,242 |
| | Lack of collaboration partners | 30 | 81 | 165 | 1,369 |
| | Lack of access to external knowledge | 30 | 97 | 170 | 1,348 |

Chart 3. Non-innovative enterprises by type of obstacle to innovate and scale of importance: 2018-2020

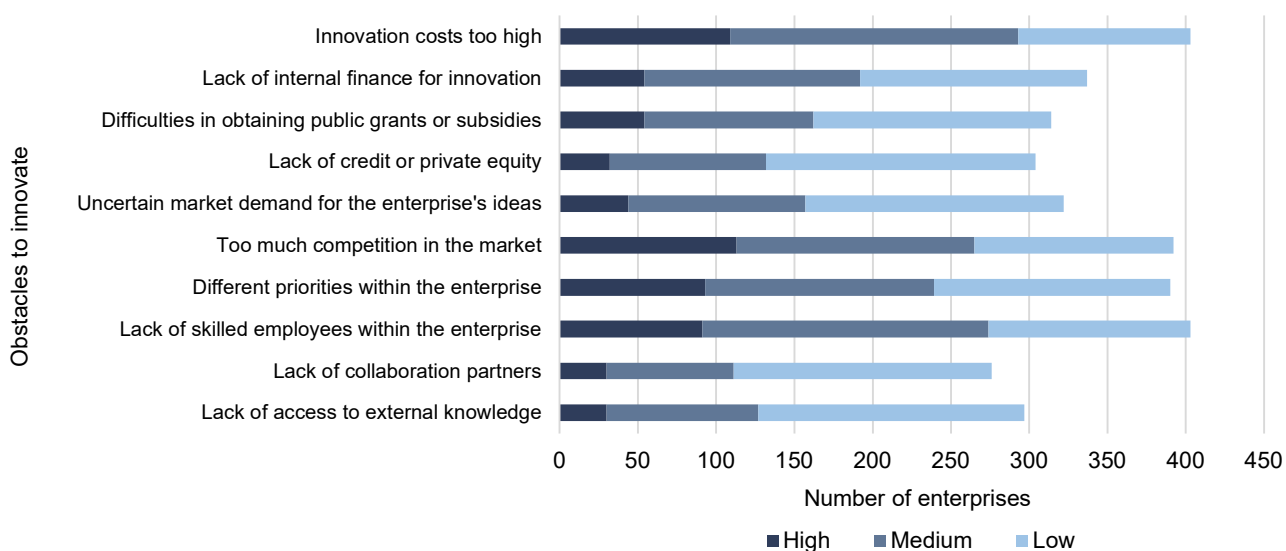


Table 6. Funding prospects for innovative enterprises: 2018-2020

| | Type of funding | |
|--|-----------------|--------------|
| | Equity finance | Debt finance |
| Total innovative enterprises | 843 | 843 |
| Have not tried to obtain funding | 805 | 717 |
| Funding attempt unsuccessful | 7 | 15 |
| Funding attempt successful | 31 | 111 |
| of which was partly or fully used for R&D and/or other innovation activities | 18 | 41 |

Table 7. Enterprises having introduced innovations with environmental benefits by size class: 2018-2020

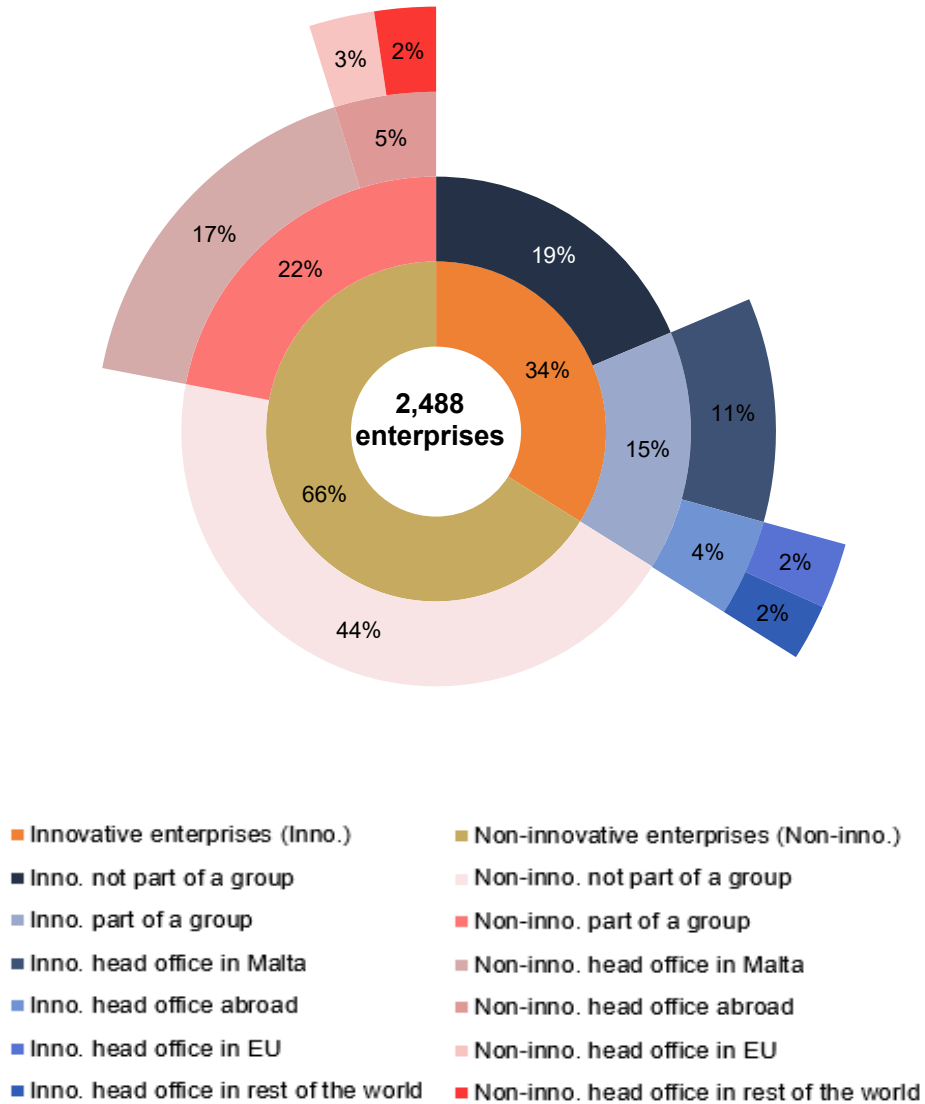
| | Employment size class | | | |
|---|-----------------------|------------|-----------|--------------|
| | 10-49 | 50-249 | 250+ | Total |
| Total enterprises | 1,990 | 420 | 78 | 2,488 |
| of which:¹ | % | | | |
| Obtained within the enterprise | | | | |
| Reduced material or water use per unit of output | 8.5 | 13.6 | 25.6 | 9.9 |
| Reduced energy use or CO ₂ 'footprint' (i.e. reduced total CO ₂ emission) | 9.9 | 16.7 | 37.2 | 11.9 |
| Reduced soil, noise water or air pollution | 5.4 | 8.8 | 17.9 | 6.4 |
| Replaced a share of materials with less polluting or hazardous substitutes | 6.8 | 10.7 | 24.4 | 8.0 |
| Replaced a share of fossil energy with renewable energy sources | 4.3 | 6.9 | 19.2 | 5.2 |
| Recycled waste, water, or materials for own use or sale | 9.0 | 13.1 | 26.9 | 10.3 |
| Obtained during the consumption or use of a good or service by end user | | | | |
| Reduced energy use or CO ₂ 'footprint' | 7.8 | 11.9 | 32.1 | 9.3 |
| Reduced air, water, soil or noise pollution | 5.9 | 7.4 | 19.2 | 6.6 |
| Facilitated recycling of product after use | 8.2 | 14.0 | 25.6 | 9.8 |
| Extended product life through longer-lasting, more durable products | 5.7 | 8.8 | 12.8 | 6.5 |

¹ Enterprises may have a combination of more than one environmental benefit.

Table 8. Enterprises forming part of a group by innovation status: 2020

| | Innovative enterprises | Non-innovative enterprises | Total |
|--|------------------------|----------------------------|--------------|
| Total Enterprises | 843 | 1,645 | 2,488 |
| Not part of an enterprise group | 464 | 1,097 | 1,561 |
| Part of an enterprise group | 379 | 548 | 927 |
| of which the head office is located in Malta | 265 | 428 | 693 |
| of which the head office is located abroad | 115 | 120 | 235 |
| European Union (EU) | 62 | 62 | 124 |
| European Free Trade Association (EFTA) | 6 | 4 | 10 |
| Rest of the world | 47 | 54 | 101 |

Chart 4. Percentage distribution of enterprises forming part of a group by innovation status: 2020



Methodological Notes

1. The Community Innovation Survey collects information about innovative activities carried out in a specific three-year period in the business sector. The target population is the minimum coverage requested, namely total enterprises with 10 employed persons or more.
2. The statistical unit surveyed is the enterprise as per Council Regulation (EEC) No 2186/93. The Survey is conducted in accordance with the Commission Regulation on Innovation Statistics No 995/2012 and the Oslo Manual (2018 edition).
3. The following activities (NACE Rev. 2) are included in the target population:
 - Mining and quarrying (NACE B: 05-09)
 - Manufacturing (NACE C: 10-33)
 - Electricity, gas steam and air conditioning supply (NACE D: 35)
 - Water supply; sewerage, waste management and remediation activities (NACE E: 36-39)
 - Wholesale trade, except of motor vehicles and motorcycles (NACE 46)
 - Transportation and storage (NACE H: 49-53)
 - Information and communication (NACE J: 58-63)
 - Financial and insurance activities (NACE K: 64-66)
 - Architectural and engineering activities; technical testing and analysis (NACE 71)
 - Scientific research and development (NACE 72)
 - Advertising and market research (NACE 73)

Additional coverage was also conducted for the following non-core activities:

 - Agriculture, forestry and fishing (NACE A: 01-03)
 - Construction (NACE F: 41-43)
 - Wholesale and retail trade and repair of motor vehicles and motorcycles (NACE 45)
 - Retail trade, except of motor vehicles and motorcycles (NACE 47)
 - Accommodation and food service activities (NACE I: 55-56)
 - Real estate activities (NACE L: 68)
 - Legal and accounting activities (NACE 69)
 - Activities of head offices; management consultancy activities (NACE 70)
 - Other professional, scientific and technical activities (NACE 74)
 - Veterinary activities (NACE 75)
 - Rental and leasing activities (NACE 77)
 - Employment activities (NACE 78)
 - Travel agency, tour operator and other reservation services and related activities (NACE 79)
 - Security and investigation activities (NACE 80)
 - Services to buildings and landscape activities (NACE 81)
 - Office administrative, office support and other business support activities (NACE 82)
4. Enterprises with innovation expenditure by type and industry (table 2)
 - 4.1 Research and Development (R&D) Intramural Expenditure reported (table 2) is collected from the Community Innovation Survey (CIS) 2020, which due to difference in the coverage of the survey is to be used only for the compilation for the Total Innovation expenditure for 2020. Actual R&D expenditure for 2020 should be taken from News Release 125/2022 - Research and Development in Malta: 2018-2020.
 - 4.2.1 **Other manufacturing includes NACE divisions:**
 - Manufacture of beverages (NACE 11)
 - Manufacture of motor vehicles, trailers and semi-trailers (NACE 29)
 - Manufacture of furniture (NACE 31)
 - Other manufacturing (NACE 32)
 - Repair and installation of machinery and equipment (NACE 33)
 - 4.2.2 **Other non-manufacturing includes NACE divisions:**
 - Fishing and aquaculture (NACE 3)
 - Other mining and quarrying (NACE 8)
 - Electricity, gas, steam and air conditioning supply (NACE 35)
 - Water collection, treatment and supply (NACE 36)

- Construction of buildings (NACE 41)
- Civil engineering (NACE 42)
- Sale of motor vehicles (NACE 45)
- Air transport (NACE 51)
- Postal and courier activities (NACE 53)
- Programming and broadcasting activities (NACE 60)
- Telecommunications (NACE 61)
- Information service activities (NACE 63)
- Travel agency, tour operator reservation service and related activities (NACE 79)
- Security and investigation activities (NACE 80)

5. More information relating to this news release may be accessed at:

Statistical concepts: <http://nso.gov.mt/metadata/concepts.aspx>

Metadata: <https://metadata.nso.gov.mt/ConceptDetails.aspx?id=2189#>

Classifications: <https://nso.gov.mt/metadata/classificationdetails.aspx?id=NACE%20Rev.%202>

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7. Definitions

> Total enterprises:

> Enterprises with innovation activity

> Product and/or business process innovation

> Product innovators only

> Business process innovators only

> Both product and business process innovation

> Enterprises with completed, abandoned and/or ongoing innovation activity and/or R&D

> Non-innovative enterprises

> Enterprises which did not record any innovation activity in the reference years

- A product innovation is a new or improved good or service that differs significantly from the firm's previous goods or services and which has been implemented on the market. It includes significant changes to the design of a good and digital goods or services while excludes the simple re-sale of new goods and changes of a solely aesthetic nature.

- A business process innovation is a new or improved business process for one or more business functions that differs significantly from the firm's previous business processes and which has been implemented within the firm.

Business Innovation Expenditure

- R&D performed in-house is undertaken by the enterprise to create new knowledge or solve scientific or technical problems. This includes current expenditures including labour costs and capital expenditures on buildings and equipment specifically for R&D. R&D comprise creative and systematic work undertaken in order to increase the stock of knowledge – including knowledge of humankind, culture and society – and to devise new applications of available knowledge.

- R&D contracted out: The enterprise contracted-out R&D to other enterprises or to public or private research organisations.

- Other innovation expenditure consists of all other activities related to the development of new or significantly improved products and processes. This includes own personnel working on innovation, and services, materials, supplies purchased from others for innovation, and capital goods for innovation (acquisition of machinery, equipment, software, IPRs, buildings etc.).