

Manual – Survey on research and development activities in the business enterprise sector 2025

This manual contains information about the survey and the key concepts. The manual introduces the questionnaire, and includes examples of research and development (R&D) as well as innovation.

About the survey Statistics Denmark produces the official statistics on research and development activities in the business enterprise sector.

The purpose of the statistics is:

- to provide an overall account of Danish enterprises' expenditure and labour input related to research, development and innovation.
- to ensure that the results can be used for analysis and for the development of Danish and international research and business policy.

Statistics Denmark collects the information in accordance with § 8 of the Act on Statistics Denmark. The legal text is available at www.dst.dk/lovgivning. All information is treated confidentially and used solely for statistical purposes. The survey is questionnaire-based, and approximately 3,500 enterprises have been selected to report. The enterprises are selected based on information about their industry and size (number of employees).

Responses covering
multiple CVR numbers

Covered CVR numbers

As a general rule, the response should only cover the CVR number selected for reporting. If the activities cover several legal units, or if the response is provided at group level, the reporting may include multiple CVR numbers.

If reporting is done at group level or for a group of enterprises, all enterprises (independent legal units) included in the reporting must be listed with both CVR number and name in question 1. A legal unit is defined by having its own CVR number.

Regardless of whether the reporting is at group level or for a group of enterprises, the response must only cover Danish enterprises (see Annex 1 for further information on enterprise groups).

The questionnaire

The questionnaire is divided into 14 sections. However, the enterprise's answers to individual questions may result in some questions being skipped.

Topics in the questionnaire	<ol style="list-style-type: none">1. Covered CVR numbers2. The enterprise's research and development – R&D3. R&D personnel and full-time equivalents in Denmark4. Expenditures for in-house R&D and innovation activities carried out in Denmark5. Financing of total expenditures for in-house R&D6. Distribution of current expenditures for in-house R&D7. Expenditures for in-house R&D distributed by research areas8. Selected strategic areas – expenditures for in-house R&D and innovation9. Green research, development and innovation – expenditures10. Digitalization11. Expenditures for purchased R&D from external actors12. Financing of expenditures for purchased R&D carried out by external actors13. Sale of in-house R&D14. Financing of the enterprise's activities
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2. The enterprise's research and development – R&D

Definition of research and development

The definition of research and development (R&D)¹:

- creative work carried out on a systematic basis in order to increase existing knowledge, and
- utilization of this knowledge to devise new applications.

Research and experimental development is identified in practice based on the following five criteria:

- **Novelty:** The objective of an R&D activity is to obtain new knowledge.
- **Creativity:** R&D is creative work. It is based on new concepts and/or hypotheses and does not include routine activities such as updates or maintenance of software.
- **Uncertainty:** The results of the R&D work are not known in advance.
- **Systematic work:** R&D projects are carried out in a systematic and planned manner.
- **Reproducible:** An R&D activity can, in principle, be repeated by other researchers who would be able to reproduce the results.

Research and development may include, for example, the development of a product whose expected use, characteristics, design, service or materials differ significantly from previous products. The purpose may also be to introduce new or significantly improved production methods or to build general knowledge.

¹ The definition of research and development has been prepared by [OECD \(Frascati Manualen\)](#).

What should not be counted as R&D

R&D does **not** include:

- Production planning and work studies
- Sales and market analyses
- Technical services provided to other departments of the enterprise or to customers
- Patent and license work

Types of research

There are three types of R&D:

Basic research, i.e. experimental or theoretical work undertaken primarily to acquire new knowledge and understanding, without any particular application in view.

Applied research, i.e. experimental or theoretical work undertaken to acquire new knowledge and understanding, but directed primarily towards specific practical applications.

Experimental development, i.e. systematic work based on knowledge gained from research and/or practical experience, undertaken to produce new or significantly improved materials, products, processes, systems or services.

Resources used for R&D and innovation

The enterprise must report its use of resources for in-house R&D and innovation in questions 3 to 5. Innovation may be introduced with or without prior research and development activities.

Resources for R&D personnel must be reported both as number of persons and in full-time equivalents. In addition, the enterprise must report expenditures for its own R&D and innovation activities.

All amounts must be stated in DKK 1,000, excluding VAT.

The questions on resources used cover only the year 2025. If accounting information is not available, the enterprise is asked to provide an estimate.

3. R&D personnel and full-time equivalents in Denmark

Question 3

All persons engaged in research and development for at least 10% of their working time (approx. 160 hours per year for a full-time employee) and employed by the enterprise must be reported. This also applies to enterprises that perform R&D for other enterprises (e.g. medical trials), including other enterprises within the same group.

Researchers and other specialists

Researchers and other specialists include the following:

- Development of new concepts and ideas, creation of new knowledge about products, processes, methods and systems.
- Planning, coordinating and leading the scientific or technical aspects of R&D projects.
- Employees with specialized knowledge based on long-term education or practical experience, including engineers, other academics, as well as non-academics who perform R&D work.

- Other personnel, including technical personnel
- Other personnel, including technical personnel:
- Other R&D personnel who do not directly contribute to the R&D work but ensure that the framework for R&D activities is in place, such as secretaries, skilled/unskilled workers, and other administrative staff involved in financial or personnel-related tasks.
 - General administration, where activities are directly linked to R&D projects.
 - Technicians who carry out R&D tasks defined by researchers and specialists. Technicians contribute to the R&D work and apply concepts and ideas developed by researchers and specialists.
 - Technicians include, for example, the following personnel groups supporting R&D work: mechanical and electrical technicians, marine engineers, programmers, laboratory technicians, technical assistants and academics.

4. Expenditures for in-house R&D activities and innovation activities carried out in Denmark

Question 4 Expenditures for in-house R&D activities carried out in Denmark include both current and capital expenditures. Use the definition in section 1 of this manual to determine whether an activity is R&D. In practice, for an activity to be classified as R&D the five criteria must be jointly satisfied. The five criteria are: novelty, creativity, uncertainty, systematic work, and reproducibility.

- Current expenditures for R&D
- Wages and social costs related to in-house R&D:
- Includes only expenses incurred by the enterprise in connection with R&D activities in Denmark. This covers wage costs for the share of the enterprise's personnel engaged in R&D work. R&D work performed for other enterprises must also be included. Amounts should be reported including statutory pension contributions (ATP) and holiday pay.

- Other current expenditures for in-house R&D include:
- Current expenditures not included in wage costs
 - Rent, electricity, heating, travel and office supplies
 - Materials, laboratory animals, etc.
 - Minor apparatus. Equipment with a purchase price above DKK 50,000 and with a multi-year lifetime must be reported under: Capital expenditures for R&D – equipment and instruments
 - Specific services for R&D provided by, for example, a central IT department or a library
 - Services from central accounting and HR
 - Security, cleaning, maintenance, canteen services, etc.

Depreciation of buildings, machinery and equipment, as well as loan repayments, must not be included.

Purchased R&D services must not be included here but reported in question 11 – see section 7 of this guide.

- Capital expenditures for R&D
- Buildings used for R&D:
- Only actual payments for the acquisition of buildings or major renovations (investments) should be reported.

Equipment and instruments for R&D activities:

- Only actual payments for the acquisition of equipment and instruments (investments) should be reported – not depreciation.
- The purchase price must exceed DKK 50,000 and the equipment must have a multi-year lifetime.

This section further covers expenditures for the share of innovation activities that are not R&D. For expenditures related to R&D, see section 4 “Expenditures for in-house R&D carried out in Denmark”. The expenditures are divided into current and capital expenditures, as well as other expenditures for innovation activities (e.g. patents and consultancy services).

Current expenditures for innovation, excluding R&D

Current expenditures may include activities and technical preparations for the introduction of new products or work processes. Current expenditures include wages, holiday pay and statutory pension contributions (ATP), as well as other current costs — but not expenditures already reported under current expenditures for R&D.

Machinery, equipment and software for innovation

Buildings, machinery, instruments, transport equipment and other equipment (expenditures for the purchase of physical capital goods), as well as ongoing leasing costs for such equipment. This includes, for example, advanced machinery, equipment or software used to develop new products, work processes or production methods.

Depreciation of buildings, machinery and equipment, as well as loan repayments, must not be included.

Other expenditures for innovation, excluding R&D

Purchase of external rights (patents, designs, etc.) includes:

- Administrative and legal costs related to application/registration, documentation, management, monitoring, trading and enforcement of own intellectual property rights. This also includes expenses for purchasing or licensing the intellectual property rights of others (e.g. patents, industrial designs, etc.).
- Copyright and other rights to artistic products, such as books, must not be included. Software licenses not used in the innovation process must not be included.

Acquisition of other external knowledge:

- For example, non-patented inventions, know-how or other knowledge.

Consultancy services

- For example, studies of customer or market needs.

5. Financing of total expenses for in-house R&D

Question 5

Here, the enterprise must indicate who has financed its R&D activities — whether the financing comes from the enterprise itself and/or from other enterprises and institutions.

The total financing must correspond to the expenses for in-house R&D.

If the enterprise has received funding for R&D that extends over several years, only the share of the funding that has been used for the R&D carried out in 2025 must be reported.

6. Distribution of current expenditures for in-house R&D

Question 6 Here, the enterprise must indicate the percentage share of its current expenditures for in-house R&D that spent on basic research, applied research, and experimental development.

Basic research, i.e. experimental or theoretical work undertaken primarily to acquire new knowledge and understanding, without any particular application in mind.

Applied research, i.e. experimental or theoretical work undertaken to acquire new knowledge and understanding, but directed primarily towards specific practical applications.

Experimental development, i.e. systematic work based on knowledge gained from research and/or practical experience, undertaken to produce new or significantly improved materials, products, processes, systems or services.

7. Expenses for in-house R&D distributed by fields of research and development (FORD)

7.1 Expenses for in-house R&D distributed by FORD

Question 7.1 The survey includes six main scientific fields and a number of sub-fields. The six main fields are:

- Natural sciences
- Engineering and technology
- Medical and health sciences
- Agricultural and veterinary sciences
- Social sciences
- Humanities

Please see Annex 2 for examples and descriptions of the main scientific fields and sub-fields.

7.2 Expenses for in-house R&D applied to interdisciplinary research areas

Question 7.2 If the enterprise's R&D (or parts of it) is interdisciplinary, meaning that it covers multiple scientific fields listed in question 9.1, the enterprise may indicate here what share of its total in-house R&D expenses has been applied to the specified interdisciplinary research areas.

Some research projects may fall under more than one of the listed areas. In such cases, the amount must be included in all relevant categories ("double-counted").

8. Selected strategic areas – expenses for in-house R&D and innovation

Question 8 The purpose of reporting expenses for research and innovation within the selected strategic areas is to highlight activity in areas of societal interest.

Some research projects may fall under more than one of the listed areas. In such cases, the amount must be included in all relevant categories (“double-counted”).

9. Green research – expenses for in-house R&D and innovation

Question 9 Green research must be reported here. The definitions of the different green research areas are provided in the questionnaire. Expenditures may only be included once, even if a research activity covers multiple areas. Please, base the allocation according to your best estimate.

Please see the Ministry of Higher Education and Science’s website on [Green research](#) for a detailed description of green research and the individual research areas.

10. Digitalisation – expenses for in-house R&D and innovation

Question 10 If the enterprise’s R&D or innovation activities fall within one or more of the digital research areas listed, they must be reported here. The definitions of the digital areas are provided in the questionnaire. Each expense may only be included once, even if a research activity covers multiple areas.

11. Expenses for purchased R&D from external actors

Question 11 In this question, the enterprise must report its expenses for purchased R&D from external actors. Expenses for purchased R&D include purchases made both in Denmark and abroad. The expenses must be allocated to the enterprises/institutions from which the R&D work was purchased. If precise information is not available, the enterprise must provide an estimate. Amounts must be stated in DKK 1,000, excluding VAT.

Example of purchased consultancy work A consultancy firm performs a task for an enterprise as part of a research or innovation project. In such cases, the consultancy firm must register the consultants as its own R&D personnel and R&D full-time equivalents, provided the work qualifies as R&D (see the definition of R&D).

The enterprise must register the expenses for the consultant’s work under question 11. “Expenses for purchased R&D carried out by external actors”, or under question 10. “Other expenses for innovation, excluding R&D – consultancy services” (for the part of the innovation activities that is not R&D).

The purpose of this is to avoid double-counting of the R&D personnel and to ensure that all persons engaged in R&D are included in the statistics.

R&D work purchased from parts of the enterprise group located outside Denmark must be reported under “enterprises within the same group”. See also the section on multinational enterprises in Annex 1.

12. Financing of expenditures for purchased R&D carried out by external actors

- Question 12 Here, the enterprise must indicate who has financed its purchase of R&D services — whether the financing comes from the enterprise itself and/or from other enterprises and institutions. The total financing must correspond to the total amount of purchased R&D services reported in question 11. If the enterprise has received funding for the purchase of R&D services that covers several years, only the share of the funding used for purchases in 2025 must be reported.

13. Sales of in-house R&D

- Question 13 The enterprise must report sales of in-house R&D. Amounts must be stated in DKK 1,000 and excluding VAT.

R&D work sold to parts of the enterprise group located outside Denmark must be reported under “enterprises within the same group”. See also the section on multinational enterprises in Annex 1.

14. Financing of the enterprise’s activities

- Question 14 Here, the enterprise must indicate whether it has attempted to obtain financing through:

- Transfer of equity to an investor
- Taking out loans

If the enterprise has attempted to obtain financing through either of these two types, it must indicate whether the financing was actually received, and whether the funds were used wholly or partly for research and innovation activities.

In the second part of the question, the enterprise is asked whether it has received public support in the form of grants, subsidized loans or loan guarantees from:

- Municipalities or regions
- The state
- The EU’s research and innovation program (Horizon Europe)
- Other financial support from an EU institution

The questions on financing of the enterprise’s activities cover the three-year period 2023–2025.

Annex 1: Reporting for groups and multinational enterprises

Groups

As a general rule, the reporting must cover the research and innovation activities carried out within the legal entity associated with the CVR number used to log in to Virk.dk.

A group is defined as two or more enterprises, whether located in Denmark or abroad, that have relations in terms of ownership. An ownership is considered to exist if one enterprise owns more than 50% of another enterprise or exercises control. (In accounting terms, this corresponds to affiliated companies)

The ownership relationship does not need to be direct. For example, two companies are considered part of the same group if they are controlled by the same parent company (either directly or indirectly), even if they do not control each other.

If it is not possible to allocate the group's research and innovation activities to the individual legal entities within the group, the group may report the entire Danish part of the group's research and innovation activities in a single report. If the report covers other legal entities within the group, this must be indicated in question 1, including which CVR numbers are covered.

If the group's research and innovation activities take place outside the parent company in a legal entity with fewer than 100 employees, you are asked to inform Statistics Denmark. Enterprises with fewer than 100 employees are selected through sampling, and if that specific enterprise is not included in the survey, the group's research and innovation activities will not be recorded.

Multinational enterprises

Research and innovation activities in multinational groups are often organized, managed and financed at group level. In such cases, it is important to distinguish between research and innovation carried out in Denmark and abroad. If you are unsure how to report expenses for specific R&D projects, you are welcome to contact Statistics Denmark.

Example A: A Danish parent company has a branch in Sweden. Swedish employees carry out part of the company's research and innovation work, and the results are later used by the parent company in Denmark. The Swedish personnel involved in these projects, as well as their wage-related expenses, must be recorded in the Swedish R&D statistics. The Danish parent company must answer "yes" to question 2.3 "Did the enterprise purchase R&D work from others in 2025?", and must report the expenses as purchased R&D in question 11 "Expenses for purchased R&D within the same group".

Example B: The same parent company sends Danish employees to Sweden to participate in a research project in the Swedish branch. These employees, as well as their wage-related expenses, must be recorded in the Danish R&D statistics. The personnel must be reported in question 3 "How much of the enterprise's personnel performed, supported or administered R&D in Denmark in 2025?", and the wage-related expenses must be reported under question 5.1 "Wages and social costs related to R&D".

Annex 2: Descriptions of scientific fields (question 9.1)

Natural sciences

- **Computer science:** The study of data and data processing — especially by means of machines and computers; i.e. the study of the theoretical foundations for all forms of data processing.
- **Chemistry:** The science of the internal structure of substances and the resulting properties, as well as the transformations that may occur due to changes in external conditions, such as contact with other substances or changes in pressure and temperature.
- **Biochemistry:** The study of chemical processes in living organisms. Biochemistry includes the study of the structure and function of cellular components such as proteins, lipids, carbohydrates and many other organic molecules.
- **Other natural sciences**

Engineering and technology

- **Construction, civil engineering and transport**
- **Electronics, electrical engineering and communication**
 - **Electronics:** The science and technology of electronic circuits consisting of components such as transistors, integrated circuits, resistors and coils. The fundamental understanding of how electronic components function is a physical discipline (solid-state physics, electromagnetism), while the design and construction of electronic circuits is an engineering discipline. This knowledge is applied in devices that process information in the form of signals or convert or distribute electrical energy.
 - **Electrical engineering:** The study of the practical application of electricity in technology.
 - **Communication:** Knowledge about the exchange of information, messages and signals between people, animals or machines, especially through the use of symbolic systems such as language.
- **Mechanical engineering and production technology**
- **Chemical engineering:** For example, separation processes, reaction engineering, power and process control, process and plant design, unit operations, combustion and high-temperature processes, fluid mechanics and applied thermodynamics.
- **Materials science**
- **Medical engineering:** Technologies and methods used for diagnosing and treating diseases. Medical engineering increasingly relies on advanced systems based on modern information technology. The research area also includes technologies and systems that support people in everyday life by enhancing safety, mobility, social interaction and daily activities, e.g. hearing aids.
- **Energy engineering:** Knowledge of the energy processes underlying the production, distribution and consumption of energy.
- **Environmental engineering:** Technology for investigating, describing, controlling and protecting or improving the environment.
- **Biotechnology for energy and the environment:** For example, research focused on the conversion of biomass into bioenergy and

valuable by-products. This includes the use of biotechnology for the sustainable production of energy, food, chemicals and materials from biomass. The sustainability aspect implies that nutrients and energy are utilized and recycled as efficiently as possible to reduce the consumption of global resources and to maintain ecological balance, ensuring that the living conditions of future generations are not compromised.

- **Industrial biotechnology:** Technologies and processes for the production of food and other consumer goods, as well as fuels for heating and transport. This includes, for example, industrially relevant cell-factory systems such as bacteria, yeast, filamentous fungi, mammalian cells and plants.
- **Nanotechnology:** The development and application of material structures and functional components measured on the nanometer scale (nm, 10^{-9} m), i.e. far smaller than the components used in today's computer chips. Nanocomponents may be individual molecules as small as roughly ten times the size of a hydrogen atom. Nanotechnology is an interdisciplinary field involving physics, chemistry, biology, medicine and several engineering disciplines.
- **Other** engineering and technology

Health sciences

- **Pharmacy and pharmacology:** Pharmacy: The preparation and formulation of medicinal products. A central aspect is the technical formulation and manufacturing of medicines, including knowledge of how active substances and excipients must be handled in order to be combined into a specific dosage form, how formulation ensures that the active substance works as intended, practical storage and use of medicines, and methods for developing new medicinal products.
- **Pharmacology:** Knowledge about medicines, including their development, distribution, physicochemical and biological properties, and their effects on disease processes in humans and animals. Pharmacology includes studies of the use of medicines in disease treatment (pharmacotherapy).
- **Medical biotechnology:** (“red biotechnology”) Research and development of medicines produced using biotechnological processes.
- **Other health sciences**

In addition to the scientific fields listed above, data must also be reported for **Agricultural and veterinary sciences, Social sciences, and Humanities.**