CVR-number: _____

Development activities in enterprises – R&D 2024

1. Innovation

'Innovation activity' includes all developmental, financial and commercial activities, undertaken by a firm, which are intended to result in an innovation.

Product innovation

A **product innovation** is a new or improved good or service that differs significantly from the firm's previous goods or services and has been introduced on the market.

Include:

- significant changes to the design of a good
- digital goods or services

Exclude: the simple re-sale of new goods and changes of a solely aesthetic nature

During the three years 2022 to 2024, did your enterprise introduce any:

	Yes	No
New or improved goods	☐	☐
New or improved services	☐	☐

If 'no' to all options go to question 2
Otherwise go to question 1.1 – 1.3

1.1 In the three years 2022 to 2024, did your enterprise introduce any new or improved products (goods or services) that were:

	Yes	No
Not previously offered by any of your competitors? Not previously available on the market.	☐	☐
Identical or very similar to products already offered by your competitors? Already previously available on the market.	☐	☐

1.2 Using the definitions above, please estimate the percent of your enterprise's total turnover in 2024 from:

1. Products introduced during the three years 2022 to 2024 that were **not previously offered by any of your competitors** ☐☐☐%
2. Products introduced during the three years 2022 to 2024 that were **identical or very similar to products already offered by your competitors** ☐☐☐%

☐☐☐% Please provide a combined estimate of sales from innovative products when not able to differentiate between items 1 and 2.

3. Products that were **unchanged or only marginally modified** during the three years 2022 to 2024 (include the resale of new products purchased from other enterprises) ☐☐☐%

Total turnover in 2024 **1 0 0 %**

1.3 Who developed these product innovations?

Tick all that apply

Your enterprise by itself ☐

Your enterprise together with other enterprises or organisations. ☐

Include independent enterprises plus other parts of your enterprise group (subsidiaries, sister enterprises, head office, etc.). Organisations include universities, research institutes, non-profits, etc.

Your enterprise by adapting or modifying products originally developed by other enterprises or organisations ☐

Other enterprises or organisations ☐

1.4 Does your enterprise expect to introduce new or improved products during 2025?	**Yes** ☐	**No** ☐

2. Business process innovation

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 brought into use by the firm.

During the three years 2022 to 2024, did your enterprise introduce any of the following types of new or improved processes that differ significantly from your previous processes?

	Yes	**No**

Methods for producing or developing goods or providing services	☐	☐
Logistics, delivery or distribution methods	☐	☐
Methods for information processing or communication	☐	☐
Methods for accounting or other administrative operations	☐	☐
Business practices for organising procedures or external relations	☐	☐
Methods of organising work responsibility, decision making or human resource management	☐	☐
Marketing methods for promotion, packaging, pricing, product placement or after sales services	☐	☐

If 'no' to all options go to question 3
Otherwise go to question 2.1 – 2.2

2.1 Who developed these process innovations?

Tick all that apply

Your enterprise by itself	☐
Your enterprise together with other enterprises or organisations. Include independent enterprises plus other parts of your enterprise group (subsidiaries, sister enterprises, head office, etc.). Organisations include universities, research institutes, non-profits, etc.	☐
Your enterprise by adapting or modifying processes originally developed by other enterprises or organisations.	☐
Other enterprises or organisations.	☐

	Yes	**No**
2.2 Does your enterprise expect to introduce new or improved business processes during 2025?	☐	☐

3. Research and Development (R&D)

Research and Development (R&D) comprises 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. For an activity to be an R&D activity, it must satisfy five core criteria.

- Research and scientific development are identified on the basis of the following five criteria:
- Novelty: The goal of an R&D activity is to gain new knowledge

- Creative: R&D is creative work. This means that it is based on new concepts and / or hypotheses, and thus not routine procedures such as updates and maintenance of software.
- Uncertain: The results of the R&D work are not known from the beginning
- 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 want to achieve the same result

In 2024 did your enterprise (applies only to activities that have resulted in expenses for the company)

Research and Development (R&D)		Yes	No
In-house research and development (R&D) activities*?		☐	☐
If 'yes': did your enterprise perform in-house R&D			
Continuously (your enterprise had permanent R&D staff)	☐		
Occasionally (as needed only)	☐		
Contract-out R&D to other enterprises (include enterprises in your own group) or to public or private research organisations)		☐	☐

	Yes	No
Ongoing innovation activities at the end of 2024 The innovation activity was not completed at the end of 2024 and will be continued in 2025.	☐	☐
Abandoned or suspended innovation activities The innovation activity was discontinued during 2022 to 2024 either with plans to resume the activity later ('suspended activity') or without such plans ('abandoned activity')	☐	☐
Completed innovation activities not leading to the introduction of an innovation in your enterprise The innovation activity was completed at the end of 2024 but has not resulted in any implemented innovation in your enterprise by the end of 2024, e.g. because it concerned only a part of a product or process, or because the implementation is foreseen to happen later, or the implementation is taking place in another enterprise.	☐	☐

Performed in-house: R&D undertaken **by your enterprise** to create new knowledge or solve scientific or technical problems. **Include** current expenditures including labour costs and capital expenditures on buildings and equipment specifically for R&D)

R&D contracted out: Your enterprise contracted-out R&D to **other** enterprises (include enterprises in your own group) or to public or private research organisations.

Answer the following question if 'no' to all options in question 1, 2 and 3.

Which of the following statements best describes why the enterprise has not undertaken innovation activities during the period 2022–2024

Tick all that apply

Lack of resources (e.g. lack of finance, qualified personnel,, materials) ☐

Other (e.g. strategic reasons; timing, other priorities, high risk, low expected return of investment) ☐

No need for innovation ☐

Answer the following question if "yes" to at least one option in question 1, 2 or 3.

Which of the following statements best describes why the company has not undertaken more innovation activities during the period 2022–2024

Tick all that apply

Lack of resources (e.g. lack of finance, qualified personnel,, materials) ☐

Other (e.g. strategic reasons; timing, other priorities, high risk, low expected return of investment) ☐

No need for additional innovation activities ☐

4. R&D personnel and full-time equivalents

How many of the enterprises' own personnel have carried out, supported or administered R&D in Denmark in 2024?

	Number of persons with R&D activities in 2024	Calculated number of full-time equivalents in 2024
Researchers and other specialists	_____	_____
Other personnel, including technicians	_____	_____
Total personnel with R&D activities	_____	_____

How many external personnel have carried out, supported or administered the enterprise's R&D in Denmark in 2024?

	Number of persons with R&D activities in 2024	Calculated number of full-time equivalents in 2024
Researchers and other specialists		
Other personnel, including technicians		
Total personnel with R&D activities		

5. Expenses for Research and Development in Denmark in 2024

	In 1.000 DKK
Labour costs (internal personnel)	
External personnel costs	
Other current costs	
Total current costs	
Capital expenditure on buildings for R&D	
Expenditure on equipment specifically for R&D	
Total capital costs	
Total expenses for In-house R&D	

Answer Question 6 if Yes to at least one of the following innovation activities in Question 3:

- Ongoing innovation activities at the end of 2024
- Abandoned or suspended innovation activities
- Completed innovation activities

6. Expenditures for Innovation excluding R&D in 2024

	In 1.000 DKK
Labour costs for innovation	_____
Other current costs for innovation	_____
Total Current expenditure for innovation	_____
Acquisition of machinery, equipment, software & buildings (Exclude expenditures on these items that are for R&D)	_____

Other expenditures for innovation activities excluding R&D 2024

	In 1.000 DKK
• Purchase of external rights (registered trademarks, design, patents or utility models purchased or licensed in in order to make new products)	_____
• Acquisition of other external knowledge, e. g. non-patentet inventions, knowhow etc.	_____
• Consultancy services, e.g. market surveys	_____
Total expenditures on innovation activities	_____

7. Total expenditures on innovation and R&D activities _____

8. Expenses for in-house R&D and innovation distributed by interdisciplinary research areas

The issue includes research, development and innovation related to some strategic research areas. The purpose of the questions is to make R&D efforts visible areas of strategic interest. If the activity can be attributed to some of the strategic research areas, an estimate is given here of the expenses that can be attributed to each area.

Expenses to be reported in percentages. The sum may be bigger or smaller than 100 or 0.

Cancer

The topic includes research, development and innovation in the fields of the understanding of cancer, cancer prevention, the early detection of cancer, cancer diagnosis and treatment as well as the quality of life of cancer patients and cancer survivors.

Own R&D **Innovation**

[ ] % [ ] %

Democracy research

The topic includes research, development and innovation regarding the democratic form of government. It can e.g. include research, development or innovation that studies the institutions and processes of democracy, such as the relationship between the institutions of democracy, the role of political parties, the democratic decision-making process, the role of the administration, the relationship between the different political levels locally, nationally and internationally as well as the relationship between economic and political power. It can also include the importance of the development of technology and the media for the democratic processes, and research that study the democratic community, civil society and the relationship between the population and those in power. Additionally, it can include the development of and transition to democracy and rule of law in non-democratic countries.

Own R&D **Innovation**

[ ] % [ ] %

Gender and identity research

The topic includes research, development and innovation within the understanding of gender and identity as well as the understanding of the meaning of gender and identity in and for society – including the technological development. It can e.g. include research, development or innovation that studies gender and identity in relation to discrimination, equality, democracy, education, the labor market, health, criminal law etc. It can also include research, development or innovation that studies gender-related biological factors in relation to drug development and diagnoses or that study the importance of gender and identity for e.g. development and use of digital solutions, transportation patterns etc.

Own R&D **Innovation**

[ ] % [ ] %

Psychiatry

The topic includes research, development and innovation in the field of mental illness and health including medical treatment, other forms of treatments such as psychological and psychotherapeutic treatment, risk factors, prevention, rehabilitation and effects of psychiatric initiatives. It also includes basic scientific research relevant to the field of psychiatry, e.g. within brain research and molecular and cell biology.

Own R&D **Innovation**

[ ] % [ ] %

Food safety

The topic includes research, development and innovation with the purpose of avoiding pathogenic bacteria and undesired residuals in food including food related microbiology, biochemistry, risk control, quality of raw food materials, health, production processes, taste, smell, preservation of food, biotechnology, hygiene, antibiotic resistance, novel foods, ingredients, additives, polluting substances, pesticide remnants, herbicide remnants, GMO, foodborne diseases, feed, packaging and traceability.

Own R&D **Innovation**

[ ] % [ ] %

Polar research

The topic includes research, development and innovation performed on the basis of material and data from the polar regions (the Arctic and Antarctica) that treats topics and issues related to the polar regions or has the aim to be applied directly in the polar areas.

Own R&D **Innovation**

[ ] % [ ] %

Pandemic preparedness and response

The topic includes research, development and innovation in the fields of pandemic preparedness and response (including in a One Health approach) – e.g. surveillance and monitoring, development of countermeasures, production technologies, risk assessment and evidence for public health initiatives. The topic also includes the social and socio-economic aspects of pandemic preparedness and response that can inform policy development.

Own R&D **Innovation**

[ ] % [ ] %

Covid-19

The topic includes research, development and innovation related to COVID-19. This may include vaccine research or other health-related research. It may also involve research in areas such as social conditions, emergency preparedness, communication, etc

Own R&D **Innovation**

[ ] % [ ] %

9. Green research, development and innovation

Green research, development and innovation contribute to the green transition of society - specific solutions and technologies as well as basic knowledge.

Green research and development is categorised in seven sub-topics:

1. *Sustainable energy technologies and production etc.*
2. *Energy efficiency*
3. *Sustainable food production, agriculture and forests*
4. *Climate friendly transportation*
5. *Environmental protection, circular economy and environmental technology*
6. *Nature conservation, biodiversity and climate change*
7. *Sustainable behaviour and societal consequences*

Sustainable energy technologies and production etc

The topic includes research, development and innovation in the field of sustainable energy research with focus on development of green technology and production of sustainable and renewable energy e.g. solar energy, wind power, hydropower, bioenergy, geothermal energy as well as carbon capture and storage (CCS)/utilisation (CCUS). The topic also includes storage and conversion technologies such as Power-to-X, Power-to-Gas and fuel cells as well as energy planning and regulation.

Own R&D **Innovation**

[ ] % [ ] %

Energy efficiency

The topic includes research, development and innovation in the field of energy efficient construction, infrastructure and building renovation, sustainable building materials and improvements of energy efficiency in existing buildings, cities and industry. The topic also include optimisation of production processes and systems, sustainable and intelligent/smart grid and integrated energy systems, district heating and cooling, refrigeration and heating systems as well as thermostats, heat pumps, ventilation, lighting and technical installations. Finally, the topic includes energy planning and regulation.

Own R&D **Innovation**

[ ] % [ ] %

Sustainable food production, agriculture and forests

The topic includes research, development and innovation in the field of green and sustainable production systems, methods, technologies and solutions within agriculture, food, soils, forests, fishery and aquatic production including research in emissions, capture, sequestration, storage, uptake and cycle of nutrients, CO2 and other greenhouse gasses in soils, forests and the aquatic environment. The topic also includes climate friendly as well as more environmentally and nature friendly production systems and management along with climate adaption of production, products and land use. Furthermore, the topic includes research in new and alternative protein sources plus novel foods and other bio-based products

Own R&D **Innovation**

[ ] % [ ] %

Climate friendly transportation

The topic includes research, development and innovation in the field of climate friendly transportation and logistics of both cargo and individuals on water, on land and in the air as well as optimising transport capacity, infrastructure and planning. The topic also includes research in sustainable fuels for individual and cargo transportation including electrification, hybrid, electrofuels (Power-to-X) and biofuels with a focus on transition of heavy transport, international shipping and aviation. Furthermore, the topic includes research in facilitating behavioural changes towards more climate friendly transportation.

Own R&D ☐ %

Innovation ☐ %

Environmental protection, circular economy and environmental technology

The topic includes research, development and innovation with the purpose of avoiding pathogenic bacteria and undesired residuals in food including food related microbiology, biochemistry, risk control, quality of raw food materials, health, production processes, taste, smell, preservation of food, biotechnology, hygiene, antibiotic resistance, novel foods, ingredients, additives, polluting substances, pesticide remnants, herbicide remnants, GMO, foodborne diseases, feed, packaging and traceability.

Own R&D ☐ %

Innovation ☐ %

Nature conservation, biodiversity and climate change

The topic includes research, development and innovation in the field of circular economy and recycling of waste including e.g. plastic, textiles and polymers. The topic also includes research in environmental protection and pollution of air, soil and water with focus on minimising the emission of polluting materials and substances in addition to the development of new technological solutions to improve the air, soil and aquatic environment. Furthermore, the topic includes sustainable water resources and technologies to ensure the protection of groundwater and drinking water, improved water supply, water cleaning and utilisation of wastewater as well as a clean water environment in both groundwater, surface water and the seas. Finally, it includes climate adaptation of cities, coastal and land areas.

Own R&D ☐ %

Innovation ☐ %

Sustainable behaviour and societal consequences

The topic includes research, development and innovation in the field of conservation, restoration and management of nature and biodiversity, ecosystem services and understanding of ecosystems with focus on processes, dynamics, functions and structures. The topic also includes research in impact of and adaptation to climate change on nature and biodiversity as well as further development of cli-mate models and monitoring e.g. with focus on development in sea levels and melting of sea ice, glaciers and the polar ice caps.

Own R&D ☐ %

Innovation ☐ %

10. Digitalisation

The topic includes research, development and innovation that contributes to the digitalisation of society - specific solutions and technologies as well as basic knowledge. It applies to research, development and innovation of digital technologies and solutions, application of digital solutions, societal consequences – both positive and negative, cybersecurity and information security, robot and drone technology, artificial intelligence, big data and quantum research.

Research, development and innovation in digitalisation is categorised in five sub topics:

Cybersecurity and information security

The topic includes research, development and innovation in the field of technologies for protection of confidential data sources and for defence against cyber-attacks on data or systems.

Own R&D ☐ %

Innovation ☐ %

Robot and drone technology

The topic includes research, development and innovation in the field of robots and drones – e.g. design, construction, operation and use of robots. It includes both mechanical units and software for these. Research, development and innovation of robots consisting strictly of software (such as virtual assistants and chatbots) is not included.

Own R&D ☐ %

Innovation ☐ %

Artificial intelligence and Big Data

The topic includes includes research, development and innovation in the field of artificial intelligence/machine learning, where systems based on algorithms analyse patterns i.a. with regard to control, prediction and supervision. Additionally, the topic includes includes research, development and innovation in the field of Big Data such as data management, data processing, data analysis and data quality control, interoperability, verification etc.

Own R&D ☐ %

Innovation ☐ %

Quantum research

The topic includes e.g. natural sciences and technical sciences researc, development and innovation in fields such as quantum computing, quantum programming, quantum simulation, quantum communication, quantum encryption, quantum sensing/quantum sensors, quantum photonics, quantum meteorology, quantum technology, quantum physics, quantum chemistry, quantum materials and quantum systems.

Own R&D ☐ %

Innovation ☐ %

Other digitalisation research

The topic includes research, development and innovation in the field of digital research/digital technology that is not included in the above four topics, e.g. network technologies and architectures, cloud computing, micro-/nanoelectronics, augmented/virtual/mixed reality, digital twins, interactions between people and digital technology, societal implications of digitalisation etc.

Own R&D ☐ %

Innovation ☐ %

11. Expenses for external R&D in 2024

Distribute expenses for R&D purchased in Denmark and other countries by:

In 1.000 DKK

Enterprises within the same enterprise group

- In Denmark _____
- In other countries _____

R&D purchase in Denmark from

- Other enterprises, _____
- Consultants _____
- Advanced Technology Groups (GTS), _____
  (Alexandra Instituttet Bioneer, DBI (Dansk Brand- og sikringsteknisk Institut), DELTA (Dansk Elektronik, Lys & Akustik), DFM (Danmarks Nationale Metrologiinstitut), DHI (Institut for vand og miljø), Force Technology, Teknologisk Institut)
- Universities and other institutions of higher education _____
- Other public research institutions _____

- Other _____

R&D purchase in other countries from
- Other enterprises _____
- Consultants _____
- Public research institutes, universities etc. _____

Total expenditures on purchase of R&D _____

12. Business finance

During the three years from 2022 to 2024, did your enterprise try to obtain the following types of funding?

	Try to obtain funding			If your enterprise obtained funding, was this partly or fully used for R&D or other innovation activities?	
	Yes, successfully obtained some funding of this type	*Tried, but not successful*	*No*	*Yes*	*No*
Equity finance (finance provided in exchange for a share in the ownership of the enterprise)	☐	☐	☐	☐	☐
Debt finance (finance that the enterprise must repay)	☐	☐	☐	☐	☐

During the three years from 2022 to 2024, did your enterprise receive any public financial support from the following levels of government?

Include financial support via grants, subsidised loans, and loan guarantees. Exclude revenues from public sector* procurement contracts.

			If your enterprise received financial support: was part of this used for R&D or other innovation activities?	
	Yes	**No**	**Yes**	**No**
Local or regional authorities*	☐	☐	☐	☐
National government*	☐	☐	☐	☐
EU Programme for Research and Innovation (Horizon 2020, Horizon Europe)	☐	☐	☐	☐
Other financial support from a European Union institution*	☐	☐	☐	☐

* Include financial support via grants, subsidised loans, and loan guarantees. Exclude financing of activities under contract by the public sector*. The public sector includes government owned organisations such as local, regional and national administrations and agencies, schools, hospitals, and government providers of services such as security, transport, housing, energy, etc.

13. Co-operation about R&D or other innovation activities

During the three years 2022 to 2024, did your enterprise co-operate with other enterprises or organisations?

Co-operation occurs when two or more participants agree to take responsibility for a task or series of tasks and information is shared between the parties to facilitate the agreement.

	Yes	No
a) On R&D	☐	☐
b) On other innovation activities (excluding R&D)	☐	☐
c) On any other business activities	☐	☐

Please indicate the type of innovation co-operation partner by location.

Tick all that apply

Type of co-operation partner	Denmark	Other EU or EFTA	USA	China/ India	All other countries	Not relevant
Consultants, commercial labs, or private research institutes	☐	☐	☐	☐	☐	☐
Suppliers of equipment, materials, components or software	☐	☐	☐	☐	☐	☐
Enterprises that are your clients or customers	☐	☐	☐	☐	☐	☐
Enterprises that are your competitors	☐	☐	☐	☐	☐	☐
Advanced Technology Groups (GTS)	☐	☐	☐	☐	☐	☐
Other enterprises	☐	☐	☐	☐	☐	☐
Enterprises within your enterprise group	☐	☐	☐	☐	☐	☐
Universities or other higher education institutions	☐	☐	☐	☐	☐	☐

Government or public research institutes	☐	☐	☐	☐	☐	☐
Clients or customers from the public sector***	☐	☐	☐	☐	☐	☐
Non-profit organisations	☐	☐	☐	☐	☐	☐

Co-operation with Danish universities
Tick all that apply

University of Copenhagen	☐
Aarhus University	☐
The University of Southern Denmark	☐
Roskilde University	☐
Aalborg University	☐
Technical University of Denmark	☐
IT University of Copenhagen	☐
Copenhagen Business School	☐

14. Barriers to innovation

During the three years 2022 to 2024, how important were the following factors in hampering your enterprises' decision to start innovation activities*, or its execution of innovation activities* ?

	Degree of importance			
	High	**Medium**	**Low**	**Not a constraint**
Lack of internal finance for innovation	☐	☐	☐	☐
Lack of credit or private equity	☐	☐	☐	☐
Difficulties in obtaining public grants or subsidies	☐	☐	☐	☐
Costs too high	☐	☐	☐	☐
Lack of skilled employees within your enterprise	☐	☐	☐	☐
Lack of collaboration partners	☐	☐	☐	☐
Lack of access to external knowledge	☐	☐	☐	☐
Uncertain market demand for your ideas	☐	☐	☐	☐
Too much competition in your market	☐	☐	☐	☐
Different priorities within your enterprise	☐	☐	☐	☐

* Any activity on new or improved products or processes, including ongoing or abandoned activities.

15. Environmental innovations

- An innovation with environmental benefits is a new or improved product or process of an enterprise that generates lower environmental impacts, compared to the enterprise's previous products or processes, and that has been made available to potential users or brought into use. The environmental benefit can be the primary objective of the innovation or a by-product of other objectives.

- The environmental benefits of an innovation can occur during the production of a good or service, or during its consumption or use by the end user of a product. The end user can be an individual, another enterprise, the government, etc.

During the three years 2022 to 2024, did your enterprise introduce innovations with any of the following environmental benefits, and, if yes, was their contribution to environmental protection rather significant or insignificant?

Environmental benefits obtained within your enterprise	**Yes, significant**	**Yes, but insignificant**	**No**
Reduced material or water use per unit of output	☐	☐	☐
Reduced energy use or CO2 'footprint' (i.e. reduced total CO2 emission)	☐	☐	☐
Reduced soil, light, noise, water or air pollution	☐	☐	☐
Replaced a share of materials with less polluting or hazardous substitutes	☐	☐	☐
Replaced a share of fossil energy with renewable energy sources	☐	☐	☐
Recycled waste, water, or materials for own use or sale	☐	☐	☐
Protection of bio-diversity	☐	☐	☐

Environmental benefits obtained during the consumption or use of a good or service by the end user	**Yes, significant**	**Yes, but insignificant**	**No**
Reduced energy use or CO2 'footprint'	☐	☐	☐
Reduced air, water, soil, light or noise pollution	☐	☐	☐
Facilitated recycling of product after use	☐	☐	☐
Extended product life through longer-lasting, more durable, or easier-to-repair products	☐	☐	☐
Protection of bio-diversity	☐	☐	☐