Instructions for

Community Innovation Survey 2022-2024



Introduction

Your contribution is important. A high response rate is necessary for the statistics to provide a fair and accurate description of the innovation activities in Swedish enterprises.

Aim of the survey

The aim of the survey is to describe the innovation activity amongst Swedish enterprises. The results from the survey are primarily used by government offices, interest organisations but also by researchers and international organisations such as the EU and OECD. The survey follows the international principles for innovation statistics laid down in the Oslo Manual published by OECD.

Dissemination of results

Results from the survey will be published on Statistics Sweden's website:

Community Innovation Survey (scb.se)

Example questionnaire

On the respondent's page (LINK) you can find an example questionnaire including instructions for each question. This document is a complement to the example questionnaire with additional explanations and examples.

Obligation to provide information

It is mandatory to answer the survey. Exceptions to the obligation to provide information apply to questions 1, 11, 12, 13, 20, 21, 22, 25, 32, 41, and 42. These questions are marked with "optional information".

Local innovation indicators

In cooperation with the research center under the EU-commission, Joint Research Center (JRC), the survey contains 11 questions which aims to measure innovation activities by degree of urbanisation. These questions are marked with "optional information".

Definitions and explanations

Definitions and explanations related to innovation activities and innovation comes from the fourth edition of the Oslo Manual (2018). The definition of R&D comes from the Frascati Manual (2015).

Innovation

Innovation is a new or significantly improved product (good or service), process, or combination thereof, that differs significantly from the firm's previous products or processes and that has been made available to potential users or brought into use by the firm ¹.

A product or process is **not** an innovation if it only entails:

- **Routine changes or updates.** This includes software updates that only identify and remove coding errors and seasonal changes in e.g. clothing fashion.
- **Simple capital replacement or extension.** This includes the purchase of identical models of installed equipment or minor extensions and updates to existing equipment or software. New equipment or extensions must be new to the firm and involve a significant improvement in specifications.
- Product introductions that only involve **minor aesthetic changes**, such as change in colour or a minor change in shape that does not change the function of the product ².

Innovation activities

Innovation activities include all developmental, financial, and commercial activities undertaken by a firm that are **intended to result in an innovation** for the firm. Innovation activities can be ongoing, abandoned, suspended, or completed. An innovation activity can therefore be an activity that has not, yet, or ever, resulted in a new or significantly improved product or process, even if it was the purpose of the activity³.

The Oslo Manual defines eight types of activities that firms can undertake with the intention of introducing an innovation:

- Research and development (R&D)
- Engineering, design, and other creative work activities
- Marketing and brand equity activities
- IP-related activities
- **Employee training activities**
- Software development and database activities
- Activities related to the acquisition or lease of tangible assets
- Innovation management activities

¹ OECD, Oslo Manual 2018 | OECD (OM2018), p.68

² OM2018, p.78-79.

³ OM2018, p.68

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 that has been introduced to potential users⁴.

Goods and services

Goods are physical, produced objects for which a demand exists, over which ownerships rights can be established and whose ownership can be transferred from one institutional unit to another by engaging in transactions on markets.

Services are the result of a production activity that changes the conditions of the consuming units or facilitates the exchange of products or financial assets. They cannot be traded separately from their production. Services can also include some knowledge capturing products.

Knowledge capturing products

Knowledge-capturing products concern the provision, storage, communication, and dissemination of information, advice, and entertainment in such a way that the consuming unit can access the knowledge repeatedly.

Product novelty

Products can have different types of novelty, each of the types are described below.

Products only new to the firm

Products only new to the firm are goods or services that differ significantly from the firm's previous goods or services but are identical or very similar to products already offered by the firm's competitors.

Products new to both the firm and the firm's market

Products new to both the firm and to the firm's market are goods or services that differ significantly from goods or services already available on the market served by the firm.

Unchanged or marginally modified products

Unchanged products are goods or services that do not differ significantly from previous products, or where the change is solely of an aesthetic nature.

⁴ OM2018, p	. 70-71
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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 that has been brought into use by the firm⁵.

The following types of business process innovations are included in the survey:

- 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 for organising work responsibility, decision making, or human resource management
- Marketing methods for promotion, packaging, pricing, product placement, or after sales services

Start-ups and innovation

Newly created firms (so called start-ups) have particular guidelines when defining and innovation. According to the definition of innovation, new or significantly improved compared to the firm's previous products or processes, all activities in a start-up could be categorised as innovations. Products and processes within a start-up should therefore not be compared to the firm's previous products or processes, but to other firms on the market served by the start-up.

A product of a new firm is an innovation if it differs significantly from products available on its markets. Likewise, a business process of a new firm is a process innovation if it differs significantly from the business processes used by its competitors⁶.

Innovations with environmental benefits

An innovation with environmental benefits is a new or significantly improved product or process of a firm that generates lower environmental impacts, compared to the firm's previous products or processes. The product or process should also have been made available to potential users or brought into use.

The environmental benefit can be the primary objective of the innovation or a byproduct 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 firm, the government, etc.

⁵ OM2018, p. 72-73.

⁶ OM2018, p. 79-80

Software development and innovation

Software development and database activities is one of eight types of innovation activities according to the Oslo Manual. These include:

- The in-house development and purchase of computer software, programme descriptions, and supporting materials for both systems and applications software
- The acquisition, in-house development, and analysis of computer databases and other computerised information, including the collection and analysis of data in proprietary computer databases and data obtained from public available reports or the internet
- Activities to upgrade or expand the function of information technology (IT) systems, including computer programmes and databases. This includes statistical data analysis and data mining activities.

Software development **is** an innovation activity when:

Used to develop new or improved business processes or products

Software development is **not** an innovation activity when:

Used to make minor upgrades to existing software e.g. changes solely of aesthetic nature

Changes of aesthetic nature are changes that only affect the design of a product and not the function or technique of the product.

Research and development (R&D)

Research and development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge and to devise new applications of available knowledge⁷.

According to the Frascati Manual's definition, R&D activities must be:

- Novel: An R&D activity must be undertaken to generate new knowledge and to device new applications of available knowledge.
- **Creative:** R&D activities must be based on original concepts or hypotheses.
- **Uncertain:** The outcome of R&D activities is generally uncertain. There is also uncertainty related to the cost or time needed to achieve the expected results.
- Systematic: R&D activities are performed systematically and are planned and budgeted.
- **Transferable and/or reproducible:** An R&D activity should lead to results that could possibly be transferable and/or reproducible.

Intramural R&D

Intramural R&D is R&D activities carried out in Sweden by the firm's own personnel, or by consultants in an R&D project led by the firm, where the firm's personnel have

OECD, Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development (FM2015), p.44

worked together with consultants. R&D performed for another party (contract research) is considered intramural R&D.

Extramural R&D

Extramural R&D is R&D activities that the firm has commissioned others to carry out as well as support for R&D that the firm has provided to others, for example grants to universities and colleges.

When is product development R&D?

Product development is the process of turning an idea or a need into a new or improved product (good or service). In order for the product development process to constitute R&D there has to be an appreciable element of novelty, even to someone familiar with the basic stock of common knowledge and techniques for the area concerned. There should also exist an element of uncertainty about the results of the product development, which could be negative. The product development activities no longer count as R&D when the criteria for R&D (novel, creative, uncertain, systematic, and transferable/reproducible) are no longer met.

When is software development R&D?

For a software development project to be classified as R&D, its completion must be dependent on a scientific and/or technological advance, and the aim of the project must be the systematic resolution of a scientific and/or technological uncertainty.

R&D associated with software as an end product or software embedded in an end product could be classified as R&D when the R&D criteria apply. Software development is an integral part of many projects that in themselves have no element of R&D. The software development component of such projects, however, may be classified as R&D if it leads to an advance in the area of computer software. Therefore, an upgrade, addition, or change to an existing program or system may be classified as R&D if it embodies scientific and/or technological advances that result in an increase in the stock of knowledge. The use of software for a new application or purpose does not by itself constitute an advance.

Examples of when software development is R&D:

- The development of new operating systems or languages.
- The design and implementation of new search engines based on original technologies.
- The effort to resolve conflicts within hardware or software based on the process of reengineering a system or a network.
- The creation of new or more efficient algorithms based on new techniques.
- The creation of new and original encryption or security techniques.

Examples of when software development is **not** R&D:

- The development of business application software and information systems using known methods and existing software tools.
- Adding user functionality to existing application programs (including basic data entry functionalities).

- The creation of websites or software using existing tools.
- The use of standard methods of encryption, security verification, and data integrity
- The customisation of a product for a particular use, unless during this process knowledge is added that significantly improves the base program.
- Routine debugging of existing systems and programs, unless this is done prior to the end of the experimental development process.

The delimitation between R&D and innovation

R&D is included in the Oslo Manuals definition of innovation activities. When the criteria for R&D (novel, creative, uncertain, systematic, transferable/reproducible) are no longer fulfilled, the activity should not be classified as R&D. However, it could still be an innovation activity. Compared to innovation activities, innovation requires a finished product or process that has been introduced to potential users or **implemented** in the firm. R&D activities end before the innovation is introduced or implemented. Hence, all activities performed after the R&D-activity is finalised up until the innovation is introduced/implemented should be treated as an innovation activity excluding R&D.

When listing the expenditures for R&D and innovation, separate the R&D activities from other innovation activities. All expenditures concerning R&D (intramural or extramural) shall be reported on the items intramural and extramural R&D. The innovation activities, or part of innovation activities, that do not fulfill the criteria for R&D are to be reported under innovation expenditures (excluding R&D). Expenditures that have been reported under R&D are **not** to be reported under innovation expenditure, since this creates double counting.

All expenditures exclude deductible VAT and depreciations for material and intellectual property rights.

General information

Questions in the survey refer to the period 2022-2024. Some questions refer to the last year in the reference period, 2024.

All answers should reflect the enterprises own activities in Sweden. Exclude activities of all subsidiaries or parent enterprises.

A. Strategies and intellectual property rights

In this part of the survey, you're asked to answer questions about the importance of strategies to the firm's economic performance and the firm's activities related to intellectual property rights.

B. Innovation

In this part of the survey, you're asked to respond to questions regarding the firm's product innovations, business process innovation, and other innovation activities including R&D.

B1 Product innovation

In this subsection there are questions on the firm's new or significantly improved goods and services (product innovations). The subsection also includes questions on the novelty of the product innovations, turnover from product innovation by novelty and who developed the product innovations.

B2 Business process innovation

In this subsection there are questions on the firm's new or improved processes (business process innovations) by business function and who developed the business process innovations.

B3 Innovation activities including R&D

In this subsection you're asked to respond to questions regarding the firm's other innovation activities including R&D.

Here you're asked to report the firm's expenditure for intramural R&D, extramural R&D and innovation excluding R&D. All expenses must be written in **SEK thousand**, e.g., 100 000 SEK is written as 100. If exact information is missing, an estimate can be made.

Expenditure on intramural R&D

Intramural R&D is R&D activities carried out in Sweden by the firm's own personnel, or by consultants in an R&D project led by the firm, where the firm's personnel have worked together with consultants. Expenditures on intramural R&D include

operating expenses and investments that occur within the firm's own R&D activities. The following is included in operating expenses and investments respectively.

Operating expenses:

- Employee renumeration (salaries and wages, travel allowances, bonuses and stock options, statutory payroll taxes, contributions to pension fund, and other social security payments as well as renumeration concerning management and R&D administration)
- Consultant fees
- Materials, equipment, and services used in the firm's R&D activities (heating, power, cost of leased premises, repair and maintenance, consumables, lease of machinery or equipment, royalties, and licenses for the use of software and other intellectual property rights)

Investments:

- Investments in land and buildings (land acquired for R&D use, construction of buildings, and major improvements, modifications, and repairs).
- Investments in machinery and equipment (purchase of or costs incurred for major machinery, other fixtures, and fittings, tools, and equipment).
- Investments in software (purchase of or costs incurred for software)
- Other intangible assets (purchases of patents, long-term licenses, and other intangible assets).

Report amounts excluding deductible VAT and depreciations. The question refers to expenditures in 2024.

Expenditure on extramural R&D

Expenditures for extramural R&D include expenditure on R&D activities that the firm has commissioned others to carry out as well as support for R&D that the firm has provided to others, for example grants to universities and colleges.

The question refers to expenditures in 2024.

Expenditure on innovation excluding R&D

Expenditures on innovation excluding R&D include all expenditures related to the firm's innovation activities excluding R&D. Expenditures should be reported on four posts: 1. Expenditure on own personnel working on innovation (excluding R&D), 2. Expenditure on services, materials, or supplies purchased from others for innovation (excluding R&D), 3. Expenditure on capital goods for innovation (acquisition of machinery, equipment, software, IPR's, buildings, etc.) (excluding R&D) and, 4. Other expenditure on innovation (excluding R&D).

Exclude deductible VAT and depreciation for material and intellectual property rights. The question refers to expenditures in 2024.

B4 Cooperation

In this subsection you're asked to provide information on the firm's cooperation during 2022-2024. If the firm had cooperation on R&D or other innovation activities, you're also asked to report information on cooperation partner and location.

B5 Business finance and support for innovation activities

In this subsection you're asked to report whether the firm tried to obtain financial support through equity finance or debt finance. You're also asked to report if the firm received public financial support by level of government.

B6 Specific factors and actions

In this subsection you're asked to report information about consequences of climate change during 2022-2024, risks to the firm's business activities during 2024 and actions taken to mitigate risks during 2022-2024.

The questions regarding risk refer to different periods in time. The first question asks you to state which risks were relevant to the firm's activities in 2024. The second question asks you to state if the firm took measures to mitigate any of the listed risks during 2022-2024.

B7 Environmental innovations

This subsection concerns innovations with environmental benefits. The section is divided in three questions: 1. Environmental benefits from innovation obtained within the firm, 2. Environmental benefits from innovation obtained during consumption and, 3. Driving factors behind innovation with environmental benefits.

Other information

In this section you can leave information regarding the time it has taken to submit the information requested in the questionnaire. Include the time it took to compile any documents or information necessary to be able to answer the questionnaire. It is also possible to leave a comment on the survey. *It is voluntary to report on this section*.

Thank you for your participation!