STATISTICS DENMARK

Documentation of statistics for Public Sector Innovation 2016

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1 Introduction

The purpose of these statistics is to uncover the extent and types of public sector innovation. The survey is conducted according to EU and OECD guidelines concerning innovation statistics.

2 Statistical presentation

These statistics are an annual measurement of the share of innovative workplaces in the public sector. The statistics are grouped by industry, in groups of business sizes and by type of innovation at the individual workplace, degree of novelty, initiator and obtained values.

2.1 Data description

The purpose of the survey is to uncover the extent and types of innovation in the public sector, including also purposes, processes, effects etc.

The most important indicators are: Share of innovative public workplaces, including distribution on innovation in products, services, organization and communication with external parties.

2.2 Classification system

Size class of workplace, based on average number of employees in 2013.

The survey cover public workplaces within the following activities:

- Government administration and service - integrated units, 71
- Government administration and service - non-integrated units, 72
- Regions administration and service – integrated units, 74
- Regions administration and service – non-integrated units, 75
- Municipal administration and service – integrated units, 76
- Municipal administration and service – non-integrated units,, 77

Sectors are based on Dansk Branchenomenklatur 2007 (DB07), and comprises:

- Public administration etc.: activities 841100, 841200, 841300, 781000
- Defense, police etc..: activities 842100, 842200, 842300, 842400
- Education: activities 852010, 852020, 853110, 853120, 853200, 854100, 854200, 855200, 855900, 856000
- Health.: activities 861000, 869010, 869020, 869030, 869090
- Caretaking of elderly and disabled: activities 871010, 871020, 872010, 872020, 873010, 873020, 879010, 879020, 879090, 881010, 881020, 881030
- Child care: activities 889110, 889120, 889130, 889140, 889150, 889160
- Culture, sports and other activities: activities 522110, 562100, 602000, 712010, 811000, 812100, 812900, 900110, 900400, 910110, 910120, 910200, 931100, 960110

2.3 Sector coverage

The public sector.

2.4 Statistical concepts and definitions

Innovative: The Oslo manual (see below) definition of innovation is: ”An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations.” Innovation is defined as a new or significantly changed way to improve activities and results. Innovations may be new or significantly changed services or products, working processes, ways of organizing work and ways in which to communicate with externals.

- Innovations must be new to the workplace, but may be developed, introduced or used by others previously.
- Innovations must be implemented during 2015-2016, but the work may have been started earlier.
- Small changes, which have not led to improved activities or results at the workplace should not be included.
- Innovations may be developed by the workplace itself or by others.

The definition of public innovation was formulated in the questionnaire as::

A new or significantly changed way to improve the activities and results of the working place. Innovations may be • new or significantly improved products • new or significantly improved services • new or significantly improved processes/ways to organize work, as well as • new or significantly improved ways to communicate med

The Oslo manual is OECD’s and Eurostat's guide to collection and interpretation of innovation data. The existent regulation concerning production and development of community statistics on science and technology (No. 995/2012 of 26. October 2012) states in article 4: "It is necessary to ensure that European statistics on science and technology are consistent with other international standards. To that end, work carried out by the Organisation for Economic Cooperation and Development (OECD) and other international organisations should be taken into account. In particular, the Frascati Manual on research and development statistics, the Canberra Manual on statistics on human resources devoted to science and technology, the OECD Patent Statistics Manual, published by the OECD, as well as the Oslo Manual on innovation statistics, published jointly by the OECD and the European Commission (Eurostat), should provide a reference framework."

2.5 Statistical unit

Workplace.

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2.6 Statistical population

The population is drawn from an extract of Business Enterprise Register containing units at workplace level, which were active by the end of 2015. The population is defined taking sector code, type of enterprise/institution and activity into account.

Sector code:

- 71: Government administration and service - integrated units
- 72: Government administration and service - non-integrated units
- 74: Regional administration and service - integrated units
- 75: Regional administration and service - non-integrated units
- 76: Municipal administration and service - integrated units
- 77: Municipal administration and service - non-integrated units

Type of enterprise/institution:

- 90: Fund
- 230: Government administrative unit
- 245: Region
- 250: Municipality
- 280: other typesof enterprisesinstitutions

Subsector based on Dansk Branchekode 2007 (DB07):

- 841100, 841200, 841300, 781000: public administration
- 842100, 842200, 842300, 842400: Defense, police etc.
- 852010, 852020, 853110, 853120, 853200, 854100, 854200, 855200, 855900, 856000: Education
- 86.10 -86.90: Health etc.
- 87.00-88.10: Caretaking of elderly and disabled
- 88.91: Child care
- 522110, 562100, 602000, 712010, 811000, 812100, 12900, 900110, 900400, 910110, 910120, 910200, 931100, 960110: Culture, sports and other activities

After this, workplaces with less than 3 employees were excluded, leaving a frame population with approximately 15.300 public workplaces with 820,000 employees.

For the drawing of the sample the frame population was stratified by number of employees (3-49 employees, 50-99 employees, 100-249 employees and 250(+) employees), by Region (Region Nordjylland, Region Midtjylland, Region Syddanmark, Region Hovedstaden, Region Sjælland) and by subsector.

The total sample for the survey consists of 3,568 public workplaces.

2.7 Reference area

Denmark.

2.8 Time coverage

2015-2016

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2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

Percentages.

2.11 Reference period

2015-2016

2.12 Frequency of dissemination

The survey is a continuation of a survey carried out for the reference period 2013-2014, but due to changes in stratification, coverage of activities and data collection makes comparisons between the two surveys difficult.

2.13 Legal acts and other agreements

The survey is voluntary for the respondents, no legal acts are therefore required.

2.14 Cost and burden

The burden on the respondents has not been calculated.

2.15 Comment

Theme page concerning R&D and Innovation

3 Statistical processing

The statistical treatment of data primarily concerns the creation of derived variables and formatting of the data.

3.1 Source data

The statistics is based on a survey questionnaire and based on responses from 2,363 public workplaces, from a sample of 4,766 workplaces among a population of approximately 15,102 public workplaces. Workplaces are randomly drawn depending on number of employees, government level (Government, Regions, Municipalities) and the activity of the workplace.

3.2 Frequency of data collection

The survey is a continuation of a survey carried out for the reference period 2013-2014, but due to changes in stratification, coverage of activities and data collection makes comparisons between the two surveys difficult.

3.3 Data collection

A Web-questionnaire was used for the collection of data.

3.4 Data validation

No checking of data has been implemented, as the questions are all of qualitative character, where the viewpoint of the respondent is the base of the response. At the same time, the use of a web-based survey has meant that no questions could be left unanswered, and neither was it possible for respondents to give answers to questions they should no respond to (item non-response).

3.5 Data compilation

The data collected has been weighted to correct for non-response.

3.6 Adjustment

Not relevant for these statistics.

4 Relevance

Ministries, departments. municipalities, regions, decision makers, workplaces and employees in the public sector, who have the possibility to compare the innovation activities of their workplace in comparison to others, and to get inspired for new solutions. Researchers and consultants working with innovation in the public sector will be able to use the material for analyses.

4.1 User Needs

Ministries, departments. municipalities, regions, decision makers, workplaces and employees in the public sector, who have the possibility to compare the innovation activities of their workplace in comparison to others, and to get inspired for new solutions. Researchers and consultants working with innovation in the public sector.

4.2 User Satisfaction

The user satisfaction cannot be estimated before the publishing of the results.

4.3 Data completeness rate

Not relevant for these statistics.

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5 Accuracy and reliability

The survey was voluntary with a response rate of 50 per cent, and therefore the uncertainty will be higher than in a survey with a much higher response rate. Measurement errors are believed to be very small, as nearly all questions in the survey are qualitative.

5.1 Overall accuracy

As the survey is based on a sample, uncertainty is attached to all the figures in the form of random variation. This applies, in particular, to the results broken down according to the most detailed industry, region and size figures, where the figures should only be regarded as normative.

5.2 Sampling error

Sampling errors have not been calculated for this statistics.

5.3 Non-sampling error

The 50 per cent non-response is believed to be the primary source of uncertainty.

5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

There has been a thorough test of the questionnaire, which should secure a good understanding of the questions for the respondents. At the same time, the population has been scrutinized carefully, and the electronic questionnaire has guided the respondents through the relevant questions. Nearly all questions are qualitative, which - according to previous experiences - result in fewer mistakes than quantitative questions.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the Revision Policy for Statistics Denmark. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

5.8 Data revision practice

Not relevant for these statistics.

6 Timeliness and punctuality

From the end of the reference period (December 2016) to the day of publication, 10 months have passed.

6.1 Timeliness and time lag - final results

Ten months have passed between the end of the reference period (December 2016) to publication.

6.2 Punctuality

Not relevant for these statistics.

7 Comparability

There are no comparable statistics from other countries, and there is therefore no comparable international data. The survey is a continuation of a survey carried out for the reference period 2013 -2014, but due to changes in stratification, coverage of activities and data collection makes comparisons between the two surveys difficult.

7.1 Comparability - geographical

There are no comparable statistics from other countries, and therefore it is not possible to make international comparisons at the time being.

7.2 Comparability over time

The survey is a continuation of a survey carried out for the reference period 2013-2014, but due to changes in stratification, coverage of activities and data collection makes comparisons between the two surveys difficult.

7.3 Coherence - cross domain

The statistics may to some extent be compared to statistics on innovation in the business enterprise sector. Both statistics are compiled according to EU and OECD guidelines. Among the central variables product- and process innovation may be compared. On the other hand there is a range of crucial differences between the two statistics: Innovation in the public sector is a voluntary survey, whereas statistics on innovation in the business enterprise sector i compulsory. The reference period diverge: in the business enterprise sector survey most questions regard the latest three-year period, whereas innovation in the public sector concerns the latest two-year period. Finally there is a general and important reservation concerning comparison, that the frame conditions may very well be different in a private enterprise in a competitive market and a public sector institution with a political management.

7.4 Coherence - internal

High consistency in the data, as an electronic web-based questionnaire has been used, guiding the respondents to the relevant questions.

8 Accessibility and clarity

The statistics is published in a Danish press release. In the StatBank, these statistics can be found under the subject Innovation. For more information, go to the subject page for these statistics, or visit the webpage of Centre for Public Innovation.

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.2 Release calendar access

The Release Calender can be accessed on our English website: Release Calender.

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

8.4 News release

These statistics are published in a Danish press release.

8.5 Publications

Not relevant for these statistics.

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8.6 On-line database

The statistics are published in the StatBank under the subject Innovation in the following tables:

- OIN01DK: Innovative workplaces in the public sector by government - sector- size class, type of innovation and time
- OIN02DK: Innovative workplaces in the public sector by government - sector- size class, degree of novelty and time
- OIN03DK: Innovative workplaces in the public sector by government - sector- size class, initiator and time
- OIN04DK: Innovative workplaces in the public sector by government - sector- size class, obtained values and time

8.7 Micro-data access

Researchers and other analysts from authorized research institutions, can be granted access to the underlying micro-data by contacting Research Services.

8.8 Other

See Center for Public Innovation, where examples of public innovation can bee found.

8.9 Confidentiality - policy

Data Confidentiality Policy at Statistics Denmark.

8.10 Confidentiality - data treatment

On the existing level of publication there is no need for discretion.

8.11 Documentation on methodology

Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data.

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative placement of these statistics are in the division of Business Dynamics. The person responsible is Helle Månsson, tel. +45 39 17 31 13, e-mail: hej@dst.dk

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