

CIS_ESQRS_2_NL_2016_0000

National Reference Metadata in ESS Standard for Quality

Reports Structure (ESQRS)

Compiling agency: Centraal Bureau voor de Statistiek

Time Dimension: 2016-20

Data Provider: NL1

Data Flow: CIS_ESQRS_2



Eurostat metadata

Reference metadata

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For any question on data and metadata, please contact: [EUROPEAN STATISTICAL DATA SUPPORT](#)

1. Contact

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1.1. Contact organisation	Centraal Bureau voor de Statistiek
1.2. Contact organisation unit	Statistiekproductie Bedrijfseconomische Statistieken
1.5. Contact mail address	Centraal Bureau voor de Statistiek Postbus 4481 6401CZ Heerlen

2. Statistical presentation

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2.1. Data description

The purpose of this report is to get an overview of the quality of the Community Innovation Survey (CIS) carried out in each Member State, EFTA, Candidate or Associated country. The quality report is therefore to be established for the each CIS wave.

This quality assessment will be based on different quality dimensions and indicators. The quality dimensions are based on the standard ones as defined in the Eurostat standard statistical quality framework. Also the indicators themselves are in line with the recommendations. All the information requested in this quality reporting refers to enterprises with 10 or more employees included in the Core NACE coverage as described in the Commission Regulation 995/2012 on innovation statistics (i.e. market activity enterprises in the NACE Rev. 2 sections B, C, D, E, H, J, K and in the NACE Rev. 2 divisions 46, 71, 72 and 73).

Furthermore, national CIS questionnaire is asked to be annexed to this report (national languages and/or in English).

Annotation: Please consider CIS t to be the survey that refers to the same year of the quality report and CIS t-2 to be the previous survey. e.g. CIS 2016= CIS t then, CIS t-2=CIS 2014

2.2. Classification system

Not available.

New concept added with the migration to SIMS 2.0.

Information (content) will be available after the next collection.

2.3. Coverage - sector

Not available.

New concept added with the migration to SIMS 2.0.

Information (content) will be available after the next collection.

2.4. Statistical concepts and definitions

Not available.

New concept added with the migration to SIMS 2.0.

Information (content) will be available after the next collection.

2.5. Statistical unit

Not available.

New concept added with the migration to SIMS 2.0.

Information (content) will be available after the next collection.

2.6. Statistical population

Not available.

New concept added with the migration to SIMS 2.0.

Information (content) will be available after the next collection.

2.7. Reference area

Not available.

New concept added with the migration to SIMS 2.0.

Information (content) will be available after the next collection.

2.8. Coverage - Time

Not available.

New concept added with the migration to SIMS 2.0.

Information (content) will be available after the next collection.

2.9. Base period

Not available.

New concept added with the migration to SIMS 2.0.

Information (content) will be available after the next collection.

3. Statistical processing

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3.1. Source data

Restricted from publication

3.2. Frequency of data collection

[Not requested]

3.3. Data collection

12.3.1 Survey participation

Please indicate whether the survey is mandatory or voluntary

Mandatory

12.3.2 Survey type

Data are collected through a census, sample survey or a combination of both. Please indicate the survey type used

Sample survey, although for the higher size classes the sampling probability was 1 for most NACE.

In case of combination of both, please, provide the criterion to conduct a census (e.g. size class, specific sector...)

12.3.3 Combination of sample survey and census data

Please indicate the population classes which are covered by sampling and those which are covered by complete enumeration (census) if applicable

12.3.4 Data collection method

Please indicate the data collection method used (e.g. face-to-face interview, telephone interview, postal or electronic questionnaires, other). Please specify whether interview data collection was computer-assisted or not.

Electronic questionnaire

3.4. Data validation

[Not requested]

3.5. Data compilation

Weights calculation method (short description) – only for sample surveys

Please select the weight calculation method used with a simple cross in the column vis-a-vis

	Select the applied method with a cross	Comments
Inverse sampling fraction	X	
Non-respondent adjustments	X	
Other		

Please indicate the data source used for deriving population totals (universe description).

National business register

Please indicate the variables used for weighting.

Number of enterprises

3.6. Adjustment

Please describe the calibration method and the software used.

MS ACCESS, SPSS

4. Quality management

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4.1. Quality assurance

Not available.

New concept added with the migration to SIMS 2.0.

Information (content) will be available after the next collection.

4.2. Quality management - assessment

Restricted from publication

5. Relevance

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Relevance is the degree to which statistics meet current and potential users' needs. It includes the production of all needed statistics and the extent to which concepts used (definitions, classifications etc.) reflect user needs. The aim is to describe the extent to which the statistics are useful to, and used by, the broadest array of users. For this purpose, statisticians need to compile information, firstly about their users and their needs.

The CIS is based on a common questionnaire and a common survey methodology, as laid down in the 3rd edition of Oslo Manual (2005 edition), in order to achieve comparable, harmonised and high quality results for EU Member States, EFTA countries, Candidates and Associated countries.

5.1. Relevance - User Needs

Users and users' needs at national level (an example is given in the table)

[Please add as many rows as needed, using the "Insert row after" button in the ribbon above]

Users' class	Classification of users	Description of users	Users' needs
1	European level	The European Commission (DG ENTR)	Innovation Union Scoreboard
1	National level	Ministry of Economic Affairs	Policy evaluation
2	National level	Employers' associations	Benchmarking
4	National level	Researchers at universities	Empirical testing of theories on innovation

Eurostat recommends the following user classes. However you may report by user class defined for national purposes, even if different from the recommended ones:

1- Institutions:

- *European level*: Commission (DGs, Secretariat General), Council, European Parliament, ECB, other European agencies etc.
- *In Member States, at the national or regional level*: Ministries of Economy or Finance, Other Ministries (for sectoral comparisons), National Statistical Institutes and other statistical agencies (norms, training, etc.), and
- *International organisations*: OECD, UN, IMF, ILO, etc.

2- Social actors:

Employers' association, trade unions, lobbies, among others, at the European, national or regional level.

3- Media

International, national or regional media – specialized or for the general public – interested both in figures and analyses or comments. The media are the main channels of statistics to the general public.

4- Researchers and students

Researchers and students need statistics, analyses, ad hoc services, access to specific data.

5- Enterprises or businesses

Either for their own market analysis, their marketing strategy (large enterprises) or because they offer consultancy services

Main users are consulted regularly (at hearings, task forces, ad hoc meetings) for their needs and are involved in the process of the development of the model questionnaires at a very early stage. User needs are considered throughout the whole discussion process of the model questionnaires aiming at providing relevant statistical data for monitoring and benchmarking of European policies.

Please add information concerning the involvement of users at national level in the final national questionnaire (if available):

None

5.2. Relevance - User Satisfaction

To evaluate if users' needs have been satisfied, the best way is to use user satisfaction surveys.

Please describe the national user satisfaction survey, if it has been undertaken, and provide a summary of the feedback received by users (e.g. request for more detailed breakdowns/statistics, better timeliness, accessibility of CIS data, etc.).

No satisfaction survey was undertaken.

5.3. Completeness

Please comment in general on completeness aspects. Missingness issues due to derogation should also be reported here.

All data needed for the statistics are complete and available.

5.3.1. Data completeness - rate

[Not requested]

6. Accuracy and reliability

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6.1. Accuracy - overall

Accuracy in the statistical sense denotes the closeness of computations or estimates to the exact or true values. Statistics are not equal with the true values because of variability (the statistics change from implementation to implementation of the survey due to random effects) and bias (the average of the possible values of the statistics from implementation to implementation is not equal to the true value due to systematic effects).

6.2. Sampling error

If sampling is used (either sample survey or combination of sample and census survey), continue with the following sub-section 5.2.1; otherwise proceed with Section 5.3.

6.2.1. Sampling error - indicators

The aim of this sub-chapter is to measure the sampling errors for CIS data. The main indicator used is the coefficient of variation (CV).

Definition of coefficient of variation:

Coefficient of Variation = (Square root of the estimate of the sampling variance) / (Estimated value)

Formula:

$$CV = \frac{\hat{\sigma}}{\bar{X}}$$

where

$$\hat{\sigma} = \sqrt{\frac{\sum_{i=1}^n (x_i - \bar{X})^2}{n-1}}$$

$$\bar{X} = \frac{\sum_{i=1}^n x_i}{n}$$

Please provide the coefficient of variation as a percentage (%) in the following table.

Coefficient of variation (%) for key variables by NACE categories and for enterprises with 10 or more employees

NACE	Size class	(1)	(2)	(3)		

Core NACE (B-C-D-E-46-H-J-K-71-72-73)	Total	0,69	1,36	1,38		
Core industry (B_C_D_E - excluding construction)	Total	0,59	1,34	1,24		
Core Services (46-H-J-K-71-72-73)	Total	0,75	1,37	1,51		

[1] = Coefficient of variation for the percentage of innovative enterprises (ENT_POPU12/INNO) in the total population of enterprises (ENT_POPU12/TOTAL).

[2] = Coefficient of variation for the turnover of product innovative enterprises with improved products NEW to the market (NEWMAR_TURN/INPDT), as a percentage of total turnover of product innovative enterprises (TURN12/INPDT).

[3] = Coefficient of variation for percentage of product and/or process innovative enterprises (incl. enterprises with abandoned and or on-going activities) involved in any innovation co-operation arrangement (CO_ALL/INNOACT)), as a percentage of total population of product and/or process innovative enterprises (ENT_POPU12/INNOACT).

Comments

Variance Estimation Method

Please indicate the method used for variance estimation including whether the sample design (e.g. clustering) and weighting have been taken into account.

Sample design and weighting were not taken into account.
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6.3. Non-sampling error

Non-sampling errors occur in all phases of a survey. They add to the sampling errors (if present) and contribute to decreasing overall accuracy. It is important to assess their relative weight in the total error and devote appropriate resources for their control and assessment.

6.3.1. Coverage error

Coverage errors (or frame errors) are due to divergences between the target population and the frame population. The frame population is the set of target population members that has a chance to be selected into the survey sample. It is a listing of all items in the population from which the sample is drawn that contains contact details as well as sufficient information to perform stratification and sampling.

Please comment on the groups of the target population that are under covered and on any observed over-coverage in the frame population (in Core NACE: B-C-D-E-46-H-J-K-71-72-73 and enterprises with 10 or more employees)
--

The target population should be fully covered by the national business register. So there is no under coverage or over-coverage.
--

Please indicate whether the CVs reported under 5.2.1 incorporate the effects of coverage errors.
--

N.A.

Misclassification rate

The approach to compute this indicator is to subtract from the total of the enterprises those that remained in the same stratum between the time the frame was last updated and the time the survey was carried out.

Definition of misclassification rate:

Misclassification rate (%) = $100 - (100 * (\text{Number of enterprises that remained in the same stratum} / \text{Number of enterprises in the sample that belong to the stratum}))$

Frame misclassification rate by size class (in Core NACE: B-C-D-E-46-H-J-K-71-72-73 and enterprises with 10 or more employees).

Size class

	10-49	50 - 249	250+	TOTAL
Number of surveyed enterprises in the stratum (according to frame)	0	0	0	0
Number of enterprises that remained in the same stratum (after inspection of their characteristics)	0	0	0	0
Misclassification rate	0	0	0	0

Comments

6.3.1.1. Over-coverage - rate

[Not requested]

6.3.1.2. Common units - proportion

[Not requested]

6.3.2. Measurement error

Measurement errors occur during data collection and generate bias by recording values different than the true ones. The survey questionnaire used for data collection may have led to the recording of wrong values, or there may be respondent or interviewer bias.

Please describe those errors if existing.

-

Please describe measures taken for reducing measurement errors (i.e. minimum standards for interviewer experience, training, questionnaire testing etc.).

We use standerzized wording (e.g. for turnover) for all business surveys.

6.3.3. Non response error

Restricted from publication

6.3.3.1. Unit non-response - rate

Restricted from publication

6.3.3.2. Item non-response - rate

Restricted from publication

6.3.4. Processing error

Between data collection and the beginning of statistical analysis on the base of the statistics produced, data must undergo a certain processing: coding, data entry, data editing, imputation, etc. Errors introduced at these stages are called processing errors. Data editing identifies inconsistencies in the data which usually represent errors.

Please indicate the data entry method (data keying, scanning/OCR, CAPI, CATI, responses through online questionnaires) applied and the respective error estimates (ratio between wrongly records to total number of records), if available.

Responses received through online questionnaires. All records were received in good condition.

Please describe the editing process and method (give the editing rates^[1] if possible).

Our electronic questionnaire contains error checks in the survey. Furthermore we use an automated process to detect inconsistencies in the respons. These are then manually checked by employees of Statistics Netherlands and if necessary we contact the respondent to get clarification. Editing rates are not available.

Please indicate the variables for which coding was performed and the respective estimates of coding

errors (ratio between wrongly coded records to total number of records) if available.

Not available

Please indicate whether the CVs reported in table under section 5.2.1 incorporate the effects of processing errors.

Not incorporated in the CVs

[1] Failure rates of edits are useful, as indicators of the quality of the original data (prior to correction). Editing rates for key variables should be reported. They may be higher due to measurement error (for instance, because of poor question wording) or because of processing error (for instance, data capture errors).

6.3.4.1. Imputation - rate

Restricted from publication

6.3.5. Model assumption error

Statistical models often need to be estimated and used in the estimation phase of a survey. They are necessary, for example, in the methods of calibration, generalized regression estimators, seasonal adjustment etc.

Please provide information on:

a. Purposes for which statistical models are used

No statistical models are used.

b. Potential inaccuracies arising from errors in the models' assumptions

N.A.

c. Whether these inaccuracies are taken into account the CVs reported earlier

N.A.

6.4. Seasonal adjustment

[Not requested]

6.5. Data revision - policy

[Not requested]

[Not requested]

6.6. Data revision - practice

[Not requested]

6.6.1. Data revision - average size

[Not requested]

7. Timeliness and punctuality

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Timeliness and punctuality refer to time and dates, but in a different manner.

The timeliness of statistics reflects the length of time between their availability and the event or phenomenon they describe.

Punctuality refers to the time lag between the release date of data and the target date on which they were scheduled for release as announced officially.

7.1. Timeliness

Time lag between the end of reference period and the release date of the first/provisional results:
- Indicator: (Release date of provisional/ first results) - (Date of the end of reference period for the data)

Note: It corresponds to the 3rd row of table below

Time lag between the end of reference period and the release date of the first results

Events	
End of reference period	31-12-2016
Date of first release of national data	22-12-2017
Lag (Months)	12

7.1.1. Time lag - first result

[see 6.1]

7.1.2. Time lag - final result

[Not requested]

7.2. Punctuality

Punctuality of time schedule of effective publication:
(Actual date of the effective publication) - (Scheduled date of the effective publication)

7.2.1. Punctuality - delivery and publication**Punctuality with regard to national publication**

Events	Date	Explanation in case of delays
Scheduled date of effective national publication	22-12-2017	
Actual date of effective national publication	22-12-2017	
Delay (Months)	0	

Punctuality with regard to data transmission to Eurostat (deadline is set 18 months from the end of the reference period)

Events	Date	Explanation in case of delays
Actual date of transmission of the data	02-08-2018	
Delay (Months) compared to the above deadline	1	

Comments if any

8. Coherence and comparability[Top](#)

Comparability aims at measuring the impact of differences in applied statistical concepts and definitions on the comparison of statistics between geographical areas, non-geographical domains, or over time.

The coherence of statistical outputs refers to the degree to which the statistical processes by which they were generated used the same concepts (classifications, definitions, and target populations) and harmonised methods. Coherent statistical outputs have the potential to be validly combined and used jointly.

8.1. Comparability - geographical

This part focuses on reporting the deviations from the harmonised CIS questionnaire.

Methodological deviations

List and comment on questions included in the Harmonised Questionnaire and not included in the national questionnaire (if any)

Questions included in the Harmonised Questionnaire and not included in our national questionnaire:
- Question 1.1 "In 2016, was your enterprise part of an enterprise group?" We can derive this information from our Business Register. We can use our UCI-list to define the country of the head office.

- Question 1.4 "During the three years 2014 to 2016, how important were each of the following strategies to your enterprise?" Excluded in order to reduce the burden for enterprises that receive our national survey.
- Question 5.3 "How much do you expect your enterprise's total innovation expenditures to change in 2017 and 2018?" Excluded in order to reduce the burden for enterprises that receive our national survey.
- Question 7.1 "During the three years 2014 to 2016, how important to your enterprise's innovation activities were each of the following information sources?" Excluded in order to reduce the burden for enterprises that receive our national survey.
- Question 10.1 "During the three years 2014 to 2016, how important were the following factors in hampering your innovation activities?" Excluded in order to reduce the burden for enterprises that receive our national survey.
- Question 11.1 "Please assess the effect of the following legislation or regulations on your enterprise's innovation activities during the three years 2014 to 2016." Excluded in order to reduce the burden for enterprises that receive our national survey.
- Question 11.2 "During the three years 2014 to 2016, has legislation or regulations affected your enterprises' innovation activities in the following ways?" Excluded in order to reduce the burden for enterprises that receive our national survey.
- Question 14.1 "During the three years from 2014 to 2016 did your enterprise introduce any of the following innovations in logistics?" Excluded in order to reduce the burden for enterprises that receive our national survey.
- Question 14.2 "Approximately what percent of your operating expenses were for logistics in 2016?" Excluded in order to reduce the burden for enterprises that receive our national survey.
- Question 14.3 "How important were the following reasons for your enterprise to introduce innovations in logistics?" Excluded in order to reduce the burden for enterprises that receive our national survey.
- Question 14.4 "Approximately how much did your enterprise spend on innovations in logistics in 2016?" Excluded in order to reduce the burden for enterprises that receive our national survey.
- Question 14.5 "Which of the following best describes why your enterprise did not introduce any innovations in logistics during 2014 to 2016?" Excluded in order to reduce the burden for enterprises that receive our national survey.

None of the excluded questions are mandatory according to the EC regulation.

In Question 15.1 we only asked for the turnover for 2016. Not the turnover of 2014 since we asked this in CIS 2014 and part of both samples overlap. Furthermore we have administrative data on the turnover for 2014.

In Question 15.3 we only asked for the average number of employees in 2016. Not the the average number of employees in 2014 since we asked this in CIS 2014 and part of both samples overlap. Furthermore we have administrative data on the average number of employees in 2014.

List and comment on questions included in the national questionnaire and not included in the Harmonised Questionnaire (if any)

We kept two questions from the last harmonised CIS in our national survey because we wanted to keep adding new data to these long time series

- "Were any of your process innovations introduced during the three years 2014 to 2016 new to your market?"
- "Did your enterprise undertake any innovation activities as part of a contract to provide goods or services to a public sector organisation?"

List and comment on changing in the filtering compared to the Harmonised Questionnaire (i.e. deviations in targeted enterprises) (if any)

None

8.1.1. Asymmetry for mirror flow statistics - coefficient

[Not requested]

8.2. Comparability - over time

Restricted from publication

8.2.1. Length of comparable time series

Restricted from publication

8.3. Coherence - cross domain

Restricted from publication
8.4. Coherence - sub annual and annual statistics
[Not requested]
8.5. Coherence - National Accounts
[Not requested]
8.6. Coherence - internal
[Not requested]

9. Accessibility and clarity

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Accessibility and clarity refer to the simplicity and ease for users to access statistics using simple and user-friendly procedure, obtaining them in an expected form and within an acceptable time period, with the appropriate user information and assistance: a global context which finally enables them to make optimum use of the statistics.

9.1. Dissemination format - News release

Mean of dissemination	Yes/no	Level of access (e.g. free of charge, membership/ password is required, a part of data/statistics are provided, etc.)
Press release	Yes	free of charge

9.2. Dissemination format - Publications

Mean of dissemination	Yes/no	Comments, links, ...
General paper publication	Yes	
Specific paper publication (e.g. sectoral provided to enterprises)	no	
Online publication	Yes	
Specific online publication (e.g. sectoral provided to enterprises)	no	

9.3. Dissemination format - online database

Mean of dissemination	Yes/no	Comments, links, ...
On-line database	Yes	http://statline.cbs.nl/Statweb/publication/?DM=SLNL&PA=80066NED&D1=a&D2=a&HDR=T&STB=G1&VW=T

9.3.1. Data tables - consultations

[Not requested]

9.4. Dissemination format - microdata access

Mean of dissemination	Yes/No	Comments, links, ...
SAFE centre	Yes	for external researchers the microdata is accessible via a safe terminal
CD-ROM	No	

9.5. Dissemination format - other

Mean of dissemination	Yes/No	Comments, links, ...
Other:		

9.6. Documentation on methodology

Please describe what type(s) of accompanying meta-information is available together with the data.
The publication database contains links to explanations for variables. Furthermore a short description of the research design is online available.

9.7. Quality management - documentation

Please comment on your users' feedback on clarity and the assistance available to users

No feedback received so far

9.7.1. Metadata completeness - rate

[Not requested]

9.7.2. Metadata - consultations

[Not requested]

10. Cost and Burden

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Restricted from publication

11. Confidentiality

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11.1. Confidentiality - policy

CIS data are transmitted to Eurostat via EDAMIS using the following consignment: CIS_CIS_32. This safe, secure procedure guarantees a method of tracking transmission. All necessary steps will be taken to ensure that the EDAMIS system is working at national level.

Please indicate if there are some deviations.

Comments

No deviations, Edamis is used for transmission of the data to Eurostat.

11.2. Confidentiality - data treatment

Please, list the rules that have been applied to flag confidential cells (i.e. national confidentiality rules)?

We flagged cells for which the denominator consists of 4 or less (unweighted) number of observations.

12. Comment

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[National Survey](#)