

European business statistics compilers' manual for PRODCOM

2021 edition



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manual for PRODCOM**

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1

Introduction to PRODCOM

PRODCOM is an annual survey for the collection and dissemination of statistics on the production of industrial (mainly manufactured) goods, both in value and quantity terms, in the European Union (EU). The title comes from the French "PRODUCTION COMMUNAUTAIRE" (Community Production).

The PRODCOM survey is based on a list of products called the PRODCOM List, which currently comprises about 4000 headings relating to industrial products and some industrial services. These products are detailed at an eight-digit level. The first four digits refer to the equivalent class within the Statistical classification of economic activities in the European Community (NACE) ⁽¹⁾, and the next two digits refer to subcategories within the Statistical classification of products by activity (CPA) ⁽²⁾. Most PRODCOM headings correspond to one or more Combined nomenclature (CN) ⁽³⁾ codes.

1.1. Historical background

PRODCOM is the title of the EU production statistics for Mining and quarrying, Manufacturing (with the exception of military products and some energy products) and Materials recovery (38.3), that are sections B, C and E of NACE Rev. 2.

The evolution of PRODCOM dates back to 1985 when there were the first meetings of the working party on "Production Statistics". Its objective was to harmonise the various ways industrial production statistics were collected in the Member States.

Although in most countries statistics were collected on production, these covered the national situation, and national nomenclatures were used and different survey methods applied.

The basis of PRODCOM is to enable these national statistics to be compared and where possible aggregated to give a picture of the developments of an industry or product in the European context. This aim became more urgent with the creation of the single market in 1992, and with rapid changes occurring in Europe, the statistical system had to adapt to these changes.

The first year for the survey was 1993, with 1992 national data, which are as close as possible to the PRODCOM List to be sent at a later date. As data for early years are not considered reliable, only data from 1995 onwards are now published.

For 1995 to 2007, the data collection was based on NACE Rev. 1.1. and has been converted where possible to the data based on NACE Rev. 2. Therefore, the PRODCOM data from 1995 onwards provide a series of data available on NACE Rev. 2.

⁽¹⁾ NACE Rev.2 - Statistical classification of economic activities

⁽²⁾ Statistical Classification of Products by Activity; Commission Regulation (EU) No 1209/2014 of 29 October 2014 establishing a new statistical classification of products by activity (CPA)

⁽³⁾ Combined Nomenclature; Commission Implementing Regulation (EU) No 2020/1577 of 21 September 2020

The survey conducted between 1995 and 2020 was based on the Council Regulation (EEC) No 3924/1991 on the establishment of a Community survey of industrial production, which stated that production is to be recorded according to the product headings of the PRODCOM List. This was needed as in the original EU treaties there had been no mention of a register for production statistics.

For reference periods before 2021, the survey covered the physical volume of production and the value and volume of production sold during the survey period. The Sold Production reported the value or volume of production sold, i.e. excluding any production that the enterprise needed for further processing. The Total Production referred to the total volume of production, whether it was sold or used by the enterprise for further processing.

The Commission Regulation (EC) No 912/2004 assisted the Member States in interpreting the above-mentioned Council Regulation.

Between 2003 and 2005, some steel products were reported in PRODCOM monthly by volume.

For reference period 2021 and onwards, The Commission Implementing Regulation EU 2020/1197 (*) is laying down technical specifications and arrangements pursuant to Regulation (EU) 2019/2152 of the European Parliament and of the Council.

According to the requirements in the EBS General Implementing Act, the following three variables for industrial production are specified:

- Variable 251001 (Sold production): national currency (thousands) and (except for industrial services) quantity as defined in the PRODCOM List in force at the end of the reference period.
- Variable 251002 (Production under sub-contracted operations): (except for industrial services) national currency (thousands) and quantity as defined in the PRODCOM List in force at the end of the reference period.
- Variable 251003 (Actual production): quantity as defined in the PRODCOM List in force at the end of the reference period.

1.2 Purpose of PRODCOM

The purpose of PRODCOM is to inform the European business sector (including business associations, business consultants and firms), the Commission, and the DG's of for example Environment, Enterprises, Industry, Agriculture, Business Negotiation and Competition, on the EU supply of industrial products.

- Industrial products are, according to PRODCOM, products from activities listed in sections B, C and E in the Statistical classification of economic activities in the European Community, NACE (Rev. 2).
- PRODCOM monitors – together with trade data – EU supply of industrial products.

1.3 Summary of EBS regulation

1.3.1 Introduction

The Commission Implementing Regulation EU 2020/1197 (hereafter referred to as EBS regulation) is to be found in the Official Journal No L271, which stipulates country-level business statistics on industrial production to be collected for three variables 251001 Sold production, 251002 Production under sub-contracted operations and 251003 Actual production actually carried out on its territory. This means

(*) Commission Implementing Regulation (EU) 2020/1197 of 30 July 2020

that the production of subsidiary undertakings, which takes place outside the enterprise's territory, is not included in the survey.

1.3.2 What data are collected?

The following information is requested for each variable carried out during the reference period and within the economic territory of each country:

- **Variable 251001:** The sold production (including industrial services) is defined as sold (invoiced) production, which may be carried out under the primary or secondary activities of the enterprise. It includes production sold (invoiced) between different kind-of-activity units ⁽⁵⁾ belonging to the same enterprise.
- **Variable 251002:** The production under sub-contracted operations, which has been sold (invoiced) to the principal in line under the conditions for sub-contracted operations as specified by the CPA guidelines ⁽⁶⁾. The production may be carried out under the primary or secondary activities of the enterprise.
- **Variable 251003:** The actual production includes any production carried out during the reference period and within the economic territory of each country. It includes those products which, either in the kind-of-activity unit itself, or in another kind-of-activity unit belonging to the same enterprise:
 1. are intended for sale,
 2. are processed into another product,
 3. are fitted into another product, or
 4. are put into stock.

1.3.3 Changes compared with regulations repealed by the EBS regulation

For the reference years 1995 – 2020, the data transmitted to Eurostat by the Member States had to contain a record for:

- Sold production
 - a. values = values of the sold production produced on own account (including industrial services) + values of the sold production produced under sub-contracted operations
 - b. quantities = quantities of the sold production produced on own account + quantities of the sold production produced under sub-contracted operations

This was used for reporting the value or volume of production sold, i.e. excluding any production that the enterprise uses for further processing.

- Total production (no changes comparing to EBS variable 251003) = quantities of the production on own account + quantities produced under sub-contracted operations

Since 1995 onwards, this is used for reporting the total (actual) volume of production, whether it is sold or used by the enterprise for further processing. For reference years 1995 – 2020 the EBS variable 251002 (production under sub-contracted operations) was not required.

⁽⁵⁾ European business statistics methodological manual for statistical business registers (europa.eu)

⁽⁶⁾ EUROPA > European Commission > CIRCABC > Eurostat > NACE Rev. 2 - CPA 2008
European Commission > Eurostat > CPA > CPA Ver. 2.1
CPA rev. 2.1 Handbook part 6 - Outsourcing

1.3.4 Which countries report PRODCOM data?

In addition to the Member States, the EFTA countries (Norway and Iceland) are bound by the EBS regulation to conduct PRODCOM survey and transmit the data to Eurostat. National data for all non-Member State countries are published individually but not included in EU totals.

Three Member States (Cyprus, Luxembourg and Malta) are exempted on providing the PRODCOM data based on the economic size of the country. The 1% rule is applied, i.e. it is not necessary to compile data for the variables 251001, 251002 and 251003, if a related indicator of the Member States is less than 1% of the EU total.

1.3.5 When are data to be collected

- PRODCOM survey is primarily an annual survey.
- Member States can choose to run their survey monthly, quarterly or annually as long as the data are supplied to Eurostat as annual data.
- PRODCOM List is in force at the end of the reference period.
- The first reference period under the EBS regulation is 2021.

1.3.6 How are data to be collected?

- Member States use a survey questionnaire, which conforms to the requirements of the EBS regulation. They may also use administrative or other sources of information to supplement the survey.
- Enterprises are asked to give true and complete information within the stipulated deadlines.

1.3.7 Transmission of results

After data have been collected, Member States send annual data to Eurostat within 6 months after the end of the reference year. Data, which under national law are confidential, are also transmitted to Eurostat, and handled under the rules of the Statistical Law (?).

When data already transmitted to Eurostat are subject to revision, Member States shall transmit the revised data by the time of their dissemination at national level at the latest, or, if they are not disseminated at national level, no later than one month after they have become available to a national statistical authority.

1.4 The PRODCOM classification

Before data collection could begin, it was necessary to draw up a common list of products to be covered. Drawing up the PRODCOM List was a unique opportunity for Eurostat, the NSIs and the European Trade Associations (FEBIs) to work together to produce a classification that would work on the micro, national and European level. The two principal aims were to measure production and to enable a calculation of apparent consumption by linking production statistics to foreign trade statistics. The link between the two, production statistics and external trade data refers to Europroms.

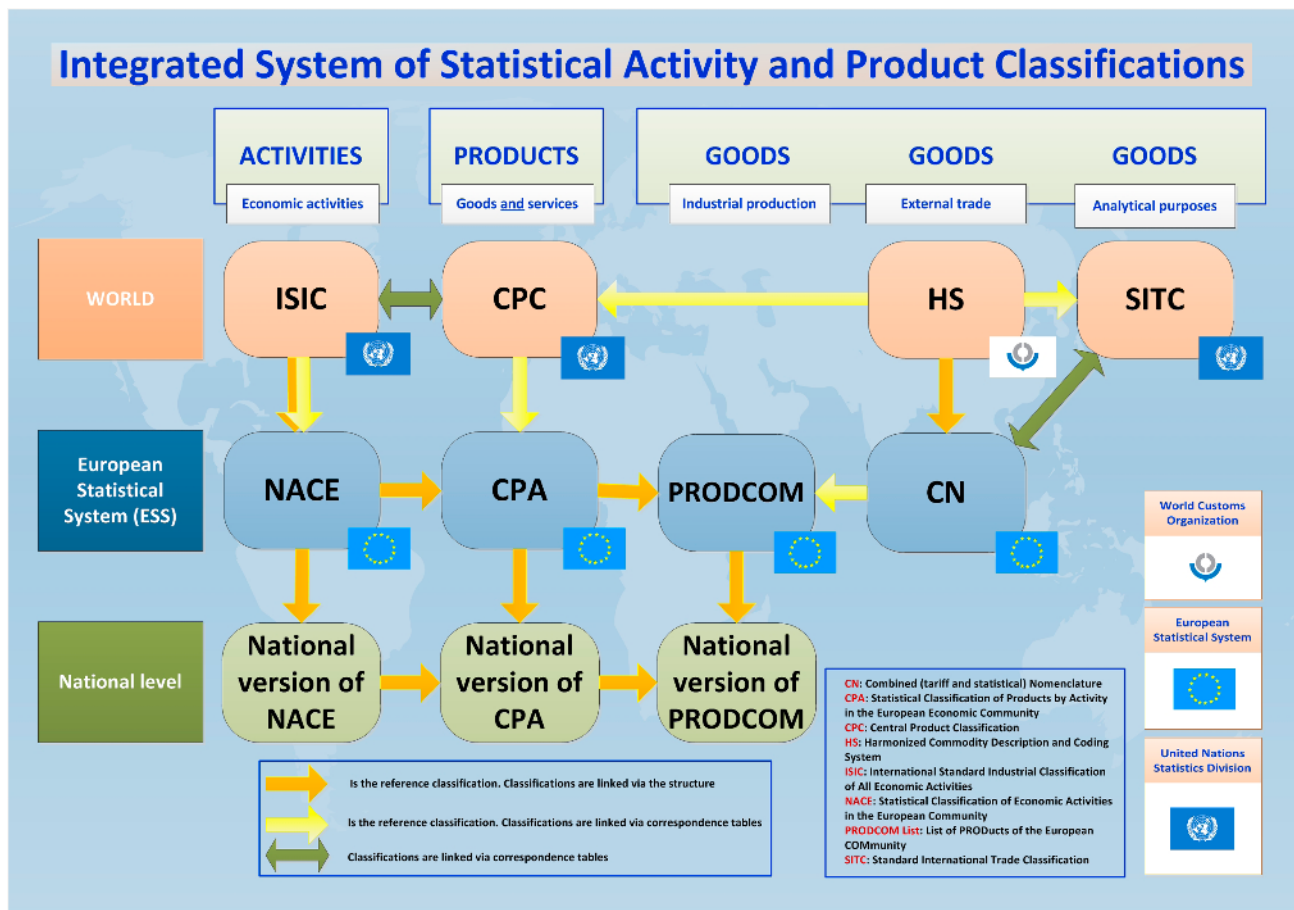
The PRODCOM statistics have to be comparable with external trade statistics, which are based on the Combined Nomenclature (CN), there had to be a close relationship between the two nomenclatures. Furthermore, the basic building blocks for PRODCOM are NACE (Rev. 2, as from 2008) and the CPA

(?) [Legal framework for European statistics - The Statistical Law - Products Statistical Books - Eurostat \(europa.eu\)](#)

(Classification of products by activity); therefore the PRODCOM List had to be developed in close association with these nomenclatures.

To understand how the different nomenclatures fit together, and their links to worldwide nomenclatures it is useful to consider the diagram below, which gives an overview of the revised system of integrated statistical classifications. This diagram shows the clear links between the PRODCOM List and the CN, which then links up to the Harmonised System (HS) at a worldwide level.

Figure 1.1: Statistical classifications



PRODCOM headings are directly derived from the two nomenclatures to its left on the diagram – NACE and the CPA. The 8-digit PRODCOM code takes its first 4 digits from NACE and digits 5 and 6 from the CPA, thus enabling a consistent link to these two classifications.

However, there were instances where the CN classification gave too much detail in how it broke down products within a specific category. It did not meet the needs of the likely end users of PRODCOM data such as the European federations and other professional associations.

The box below gives an example of how one industrial sector can be broken down into different headings.

Box 1.1: Classification of products

NACE 11.02

Detail			
■11.02	Manufacture of wine from grape		
■11.02.12	Wine of fresh grapes, except sparkling wine; grape must		
11.02.12.11	White wine with a protected designation of origin (PDO)		Detail
11.02.12.15	Wine and grape must with fermentation prevented or arrested by the addition of alcohol, put up with pressure of CO ₂ in solution ≥ 1 bar < 3, at 20 °C (excluding sparkling wine)		Detail
11.02.12.17	Quality wine and grape must with fermentation prevented or arrested by the addition of alcohol, with a protected designation of origin (PDO) produced of an alcoholic strength of ≤ 15 % (excluding white wine and sparkling wine)		
11.02.12.20	Wine and grape must with fermentation prevented or arrested by the addition of alcohol, of an alcoholic strength ≤ 15 % (excluding sparkling wine and wine (PDO))		Detail
11.02.12.31	Port, Madeira, Sherry and other > 15 % alcohol		Detail
11.02.12.50	Grape must (excluding alcohol duty)		Detail

Source: Europa - RAMON - Reference And Management Of Nomenclatures

That was the reason to base the PRODCOM List on the CN but with some modifications. The result was a list of 5765 headings, which was published in November 1993 in all nine official languages of the Union. Now they are available in all EU languages. Because of changes in an industry, some modifications are made to the list to improve it. These can range from a new breakdown of the codes used for products, an improvement to the translation of a heading for a languages or a restructuring of some headings.

Over the years, the List has been added to in various ways to satisfy the demands of different users. The List has become increasingly complex, and little attention was paid to the feasibility of collecting data on all the required headings. A process of consultation was therefore conducted in 2004 with a view to simplifying the List and thus improving its quality. These were applied to the 2005 List, with further simplifications being applied in subsequent years. The PRODCOM Expert Group prepared the PRODCOM List annually until 2016, after it was decided to be updated every 2 or 3 years.

Currently, there are about 4000 products available in the PRODCOM List. The PRODCOM Working Group of November 2016 agreed to keep the list stable and update it only with the frequency required by the technological changes in the industries and as driven by the related nomenclatures (i.e. the PRODCOM List will be updated if the NACE and the HS/CN classification are updated).

The correspondence tables between PRODCOM Lists of two reference periods and PRODCOM List compared to Combined Nomenclature are published here: [Europa - RAMON - Index of Correspondence Tables](#).

1.5 Some hints about PRODCOM data

1.5.1 What is PRODCOM?

PRODCOM is a community scheme, based on the Regulation of 1991, for producing detailed product output information at the EU level. It involves compilation of EU production data from information provided by the Member States plus Norway and Iceland, mainly on an annual basis, for several thousand of selected products (= commodities and services) specified in the PRODCOM List.

- The PRODCOM List includes the codes of the products and their descriptions. It is updated every 2-3 years by the PRODCOM Expert Group.
- PRODCOM products derive from activities listed in sections B, C and E in the NACE Rev. 2.
- The products are included in PRODCOM according to their eight-digit code, the PRODCOM List. The first four digits of a PRODCOM code refer to the NACE classification, and the first six digits refer to the CPA classification. The last two digits are created specifically for PRODCOM.
- Most eight-digit PRODCOM codes have a complete reference to the Combined Nomenclature (CN). A complete reference means full comparability between data from PRODCOM and data from foreign trade classified by the Combined Nomenclature.

Exemptions from this main rule are:

- PRODCOM codes that are more detailed than CN.
- PRODCOM codes that cover industrial services (because the CN only includes commodities). Nevertheless, PRODCOM codes on industrial services might have a reference to CN codes. This reference only gives information on the products to which the services apply.
- The corresponding trade data on volume cannot be provided for PRODCOM codes for which unit of measure is not consistent with unit of measure given in CN, even if a PRODCOM code has a complete CN reference.

The consequences of this way of creating PRODCOM codes are:

- PRODCOM codes do not cross CPA (or NACE) classes. Each PRODCOM code belongs to only one CPA (or NACE) class.
- Trade data can only be provided for PRODCOM codes with a complete reference (clear link) to the CN.

1.5.2 PRODCOM information

- PRODCOM includes data on national production and EU aggregates since 1995. Data is recorded on an annual basis, and were on a monthly basis for steel products between 2003 and 2005.
- Normally, data on the value and quantity of production of each PRODCOM heading is published. Exact information on the data to be reported for each eight-digit PRODCOM code is included in the PRODCOM List. A new List was prepared annually until 2016, after it is updated every 2 or 3 years. The PRODCOM List is to be used to survey production during that year.
- Each PRODCOM code has a 'Description', a 'Volume Physical unit' (except services and codes covering products of diversified physical features), a 'Production type' and occasionally a 'Reference to Notes'. Detailed information on these fields is included in the first – 60 – pages of the PRODCOM List.

1. The 'Description' is a short, self-explanatory, stand-alone text
2. The CN reference refers to the CN codes covered by the PRODCOM heading
3. The 'Volume Physical unit' indicates the measurement unit for this heading
4. The 'Production type' indicates the concept of production
5. The 'Reference to Notes' includes reference to any specific information on this heading

2

Data requirements

It is necessary to specify the data requirements for the production of PRODCOM statistics in order to produce comparable data between the Member States and achieve harmonisation across all Business Statistics domains.

This chapter gives general information about PRODCOM and the data to be transmitted to Eurostat.

2.1 The PRODCOM List

The basis of the PRODCOM data that Member States must report to Eurostat is the PRODCOM List. The List is published every 2 or 3 years as the subject of a Commission Regulation.

The data transmitted to Eurostat by the Member States must contain one record for each heading in the List, to report the national production of the product referred to by the heading.

The List provides a number of characteristics for each heading. The following are important in reporting data for the heading:

- The heading type, which indicates the combination of production types required.
- The volume unit to be used to express volumes for this heading. If no volume unit is specified the volume of production does not have to be reported. The section 4.6.3 lists the valid volume units by code and label.

It is important to respect the characteristics indicated for each heading. Eurostat must have homogeneous data in order to calculate EU totals, and data that deviates from the prescribed characteristics is unusable and is discarded.

2.2 Data transmission deadline

Annual PRODCOM data have to be provided within 6 months after the end of the reference year. For revision data, please see the section 1.3.7.

2.3 Use of approximations and quality requirements

Regulation 2020/1197 requires the Member States to provide data with a sufficient degree of representativeness at CPA level.

A series of simplification measures are in place, as follows: the use of CETO-flagged data as defined in Annex III.B to this regulation and the 1 %-rule as defined in Annex III.A.1 based on production at CPA class level may be applied.

As specified in Annex I.B (Table 26) and III.B of the EBS General Implementing Act, Member States may mark data for use as a contribution to European totals only (CETO) for some variables. Eurostat shall not publish those data, nor shall Member States mark nationally published data as CETO. The number of statistics that can be marked as CETO by a Member State differs between small, medium and large countries.

The overall grouping of Member States is done based on their share in the EU sold production of CPA divisions under the scope of the PRODCOM List. The thresholds set at 1 % and 4 % are to be used to distinguish between small, medium and large Member States. The grouping of Member States is listed in Annex 1 and is then applicable for 5 consecutive years.

The number of statistics that can be marked with a CETO flag:

- (a) For small countries: no more than 20 % of the data per division (2-digit level).
- (b) For medium countries: no more than 15 % of the data per division (2-digit level). In addition, if, in any of these Member States one PRODCOM heading represents less than 0,1 % of the total over all individual PRODCOM headings, those data may additionally be sent as CETO- flagged.
- (c) For large countries: no more than 10 % of the data per division (2-digit level).

Concerning the 1% simplification rule, Member States of which national production represents less than 1% the EU total could be exempted from providing all PRODCOM data. This is currently the case for Cyprus, Malta and Luxembourg.

2.4 EBS variables on industrial production

According to the requirements in the EBS General Implementing Act, the following three variables for industrial production are specified:

- **Variable 251001 (Sold production):** national currency (thousands) and (except for industrial services) quantity as defined in the PRODCOM List in force at the end of the reference period.
- **Variable 251002 (Production under sub-contracted operations):** (except for industrial services) national currency (thousands) and quantity as defined in the PRODCOM List in force at the end of the reference period.
- Variable 251003 (Actual production): quantity as defined in the PRODCOM List in force at the end of the reference period.

Box 2.1: EBS variables on industrial production shall include the following data

The variable 251001 shall include values of the sold production produced on own account (including industrial services) and quantities of the sold production produced on own account. It includes production sold/invoiced during the reference period.

The variable 251002 shall contain values equal to the fee received by subcontractor/ paid by principal and quantities produced under sub-contracted operations. It includes production paid to the sub-contractor by the principal during the reference period.

The variable 251003 shall be a sum of quantities of the actual production on own account and quantities produced under sub-contracted operations. It includes production carried out during the reference period.

2.5 Heading Types

The heading type indicates the combination of production types that are required for the heading:

- Type S. For headings of this type both the value and volume ⁽⁸⁾ of sold production and production under sub-contracted operations shall be reported.
- Type T. For headings of this type the value and volume of sold production, production under sub-contracted operations and actual production shall be reported.
- Type I. (Industrial Services). No volume data is required for headings of this type. The fee paid to the service provider should be reported as the value. The value of sold production is the only variable that shall be reported.
- Type V. Only the volume of the actual production shall be reported.

⁽⁸⁾ If a volume unit is specified in the PRODCOM List.

3

Reporting the production variables

This chapter provides the necessary guidelines for the practical implementation of the European Business Statistics (EBS) legal requirements related to the compilation of the statistical data on sold production and production under sub-contracted operations.

In the data transmitted to Eurostat the production under sub-contracted operations shall be completely separated from the sold production variable.

3.1 General information

3.1.1 Level of detail of the production Variables

The sold production and the production under sub-contracted operations should be collected and reported at the level of the PRODCOM product code, meaning that the distinction should be done at the most detailed level of the PRODCOM List (as required in the Implementing Act of the EBS regulation).

3.1.2 National coverage

Production shall be reported only if it is carried out within the economic territory of each country, which has been sold (invoiced) during the reference period. Enterprises with plants abroad should exclude the production done outside the economic territory from the data. The production may be carried out under the primary or secondary activities of the enterprise.

In any sub-contracted operation, the principal unit and the sub-contractor unit must be different enterprises. Sub-contracted operations between different plants (KAUs) belonging to the same enterprise are not possible, nor to be recorded under PRODCOM statistics.

3.1.3 The production on own account VS. the production under sub-contracted operations

The distinction between the production on own account and the production under sub-contracted operations shall be based on one of the two methods listed below:

A. The main material input principle:

The value of the material inputs provided shall be used as the criterion for identifying the main material input, as set out by the CPA guidelines. This is a quantifiable and rather objective measurement unit. The threshold for the main material input is set to 80 %, thus indicating that the

ratio main/secondary inputs must be high. Nevertheless, this threshold was adopted arbitrarily and should therefore be interpreted with flexibility. Intangible assets (software, patents, etc.), as well as machines or tools provided by the principal unit are however not to be considered as material inputs. Software products for instance are used in the production process in the same way as machines and other equipment, i.e. they are not incorporated or transformed into the final product. They are thus to be regarded as capital goods and not as physical material inputs. This rule of the main material input owned by the principal is just a general guiding principle having exceptions.

B. The ownership of the final product principle:

Alternatively, another principle could be used to establish the relation between the parties in the case of sub-contracted operations when the share of the value within the material input owned by the principal and by the sub-contractor is difficult to identify. In this case, it is recommended to use the contractual relationship between the two parties and to consider who has the ownership of the final product.

If at least one of the above criteria is met, the respective production should be recorded under the variable 251002 – Production under sub-contracted operations.

3.2 Reporting of the production variables

The production on own account

Box 3.1: Production carried out on own account should be collected from the producer

The producer company reports:

- Sold production value produced on own account (including industrial services) sold/invoiced during the reference period
- Sold production quantities produced on own account sold/invoiced during the reference period
- Actual production quantities produced on own account during the reference period

variable 251001 Sold production:

- a. values = values of the sold production produced on own account (including industrial services) sold/invoiced during the reference period
- b. quantities = quantities of the sold production produced on own account sold/invoiced during the reference period

The production under sub-contracted operations

Box 3.2: Production under sub-contracted operations should be collected from the subcontractor

The subcontractor reports:

- Sold production value equal to the fee received by subcontractor/paid by principal during the reference period
- Sold production quantities produced under sub-contracted operations paid to the subcontractor by the principal during the reference period
- Actual production quantities produced under sub-contracted operations during the reference period

variable 251002 Production under sub-contracted operations:

- a. values = value equal to the fee received by subcontractor/paid by principal during the reference period
- b. quantities = quantities produced under sub-contracted operations paid to the subcontractor by the principal during the reference period

The Actual production

The actual production as stated above is calculated by summing up all production carried out during the reference period and within the economic territory of each country, whether produced on own account or under sub-contracted operations.

variable 251003 Actual production = quantities of the production on own account + quantities produced under sub-contracted operations

The distinction between the production on own account and the production carried out under sub-contracted operations has to be made (in order to avoid over reporting or under reporting).

The producer is reporting the production data either as sold production on own account, or as production under sub-contracted operations when meeting the requirements defined in this section.

3.3 Basic examples

Five examples, covering all the possible cases of residence of the companies involved in the sub-contracted relationship, together with the correct way to report the production data are presented in this section.

For each case, the first table shows the production data for each company.

The second table shows the data that should be reported to EUROSTAT at the country level (countries "A" and "B", "C" is a non-EU country, hence, out of scope). This table contains also the calculated total at EU level for all the cases.

The following can be assumed:

1. Companies (only) know the quantities that they manufacture and/or invoice and the amount (price) that they invoice or that they are invoiced.
2. Statistical institutions do not have information on the relation between a principal and a subcontractor (who is sub-contracted by whom). Nevertheless, the NSIs should know the type of producer, sub-contractor, principal or producer on own account.
3. S1 and S2 are sub-contractors; they are contracted by other companies to manufacture goods. They receive raw materials and a fee from these companies and do not own or sell the goods they produce.
4. P1 and P2 are principals; they contract other companies to manufacture goods that they sell without carrying out production activities themselves.
5. N1 is manufacturing company, that sells goods they have manufactured themselves (production on own account). Companies having the role of subcontractors or principals could in practice produce on own account as well, same rules as for N1 apply to them only for the part of their production on own account.

Case No.1

The principal and the sub-contractor are based in the same country

	Country	Invoiced amount	Invoiced quantity	Manufactured quantity
S1	A	10	100	100
S2	A	100	500	500
P1	A	100	200	0
P2	A	300	400	0
N1	A	600	1000	1000

PRODCOM data that should be reported to EUROSTAT

Country	Sold production		Sub-contracted production		Actual production
	value	quantity	value	quantity	quantity
A	600	1000	110	600	1600
EU	600	1000	110	600	1600

Case No.2

The principal and the sub-contractor are from different countries (principal from country B and sub-contractor from country A)

	Country	Invoiced amount	Invoiced quantity	Manufactured quantity
S1	A	10	100	100
S2	A	100	500	500
P1	B	100	200	0
P2	B	300	400	0
N1	A	600	1000	1000

PRODCOM data that should be reported to EUROSTAT

Country	Sold production		Sub-contracted production		Actual production
	value	quantity	value	quantity	quantity
A	600	1000	110	600	1600
B	0	0	0	0	0
EU	600	1000	110	600	1600

Case No.3

The principal and the sub-contractor are from different countries (either in A or B country)

	Country	Invoiced amount	Invoiced quantity	Manufactured quantity
S1	A	10	100	100
S2	B	100	500	500
P1	B	100	200	0
P2	A	300	400	0
N1	A	600	1000	1000

PRODCOM data that should be reported to EUROSTAT

Country	Sold production		Sub-contracted production		Actual production
	value	quantity	value	quantity	quantity
A	600	1000	10	100	1100
B	0	0	100	500	500
EU	600	1000	110	600	1600

Case No.4

The sub-contractor 2 is located out of the EU (in country C)

	Country	Invoiced amount	Invoiced quantity	Manufactured quantity
S1	A	10	100	100
S2	C	100	500	500
P1	B	100	200	0
P2	A	300	400	0
N1	A	600	1000	1000

PRODCOM data that should be reported to EUROSTAT

Country	Sold production		Sub-contracted production		Actual production
	value	quantity	value	quantity	quantity
A	600	1000	10	100	1100
B	0	0	0	0	0
EU	600	1000	10	100	1100

Case No.5

The principal 1 is located out of the EU (in country C)

	Country	Invoiced amount	Invoiced quantity	Manufactured quantity
S1	A	10	100	100
S2	B	100	500	500
P1	C	100	200	0
P2	A	300	400	0
N1	A	600	1000	1000

PRODCOM data that should be reported to EUROSTAT

Country	Sold production		Sub-contracted production		Actual production
	value	quantity	value	quantity	quantity
A	600	1000	10	100	1100
B	0	0	100	500	500
EU	600	1000	110	600	1600

4

Building a PRODCOM record and data file

This chapter presents the list of the fields to be provided for each record in the data files to be transmitted to Eurostat, instructions on the information they should contain and on how the data file should be built.

For the transmission of the data required under European regulations, data exchange standards are generally agreed at the level of the Working Groups. In order to allow fully benefiting from the harmonisation induced by the EBS regulation and possibly cross-domain comparisons, the data exchange standards for all datasets required under this regulation are harmonised to the extent possible.

The PRODCOM data flow is currently modelled in SDMX following the main principles used for data exchange standards for EBS regulation statistics and a PRODCOM SDMX DSD (Data Structure Definition) will be defined.

In order to allow enough time for the implementation at Member State level and to ease the transition process to the new data exchange standard, the textual format (.csv) will be allowed for data transmission during the first years after the entry into force of the EBS regulation together with the gradual introduction of the newly defined SDMX format.

4.1 SDMX format conversion

In order to produce and transmit SDMX files, data files, which are SDMX compliant, need to be converted into SDMX using the transformation service.

Data files are SDMX compliant when the structure of the file, the codes and concepts correspond to what has been defined in the relevant Data Structure Definition(s) (DSD).

The transformation service can be called upon to convert an SDMX-compliant file from a data provider into the preferred .xml file format. This conversion service is based on the SDMX converter tool.

All the SDMX objects related to the PRODCOM standard format (DSD, code lists, data flows) are stored in the [Euro SDMX Registry](#). The Euro SDMX Registry provides a user interface to search, view and download SDMX objects as well as a standard web service interface to retrieve SDMX objects.

The transformation service (SDMX Converter) allows the transformation of the SDMX-compliant data files from non-SDMX formats (e.g. csv, Fixed Length Record, Excel etc. ...) to SDMX standard formats by making use of the domain specific DSD and the associated code lists. Usually the format converters provide both a Graphical User Interface and a Command Line Interface to perform transformations.

More details on the SDMX IT tools and processes are available on the [Eurostat's SDMX InfoSpace](#) together with the necessary installation guides, user manuals, training and other useful resources for working with SDMX formats and files.

4.2 The PRODCOM record

The recommended way to prepare the PRODCOM file is to build a character-delimited text file **using a semicolon (;)**, as the delimiter in the input file. In order to avoid confusion between delimiter characters and data, neither the semicolon, nor the colon, may be used for data. The examples in this handbook use the semicolon (;) as the delimiter for the text file.

This handbook refers to a single data item as a field. This corresponds to the characters between two successive delimiters. If two delimiters have no text between them (;) the field is taken to contain a blank character. If 'trailing' delimiters are missing (there are fewer delimiters than the expected number of fields), each of the remaining fields is taken to contain a blank character. **In the input file, 28 concepts are required, separated by 27 delimiters.**

An easy way to create a character delimited file is to create the data in an Excel spreadsheet. Each row contains one record (the data for one heading) and each column contains one field of the record. To convert the Excel file to the character-delimited format, perform 'Save As' and select the .csv format. The delimiter that Excel will use depends on the options that are set in your version of Excel; it should be set to semicolon. Care must be taken with character strings that Excel might treat as numbers: by default, **123456E1** is converted to **1.23E+06** and **07101000** is converted to **7101000**. This can be avoided by preceding the string with a single quote ('123456E1) or by formatting the cells as text before you type or copy the numbers into them.

Further, number format Scientific is not supported and the number must be **Big Integer** (no decimals). The header (PrcCode, year, value...) shall not be recorded in the file. The file containing doubled PrcCode(s) is not to be forwarded for validation. **For the first transmission, each PrcCodes** fully consistent with the current Prodcom List **shall be recorded**, missing or doubled PrcCode(s) is/are listed in the Pre-Validation report in Edamis.

General remark: the PRODCOM record must be completed as specified above. Respecting the structure and organisation of a dataset is important because it allows further data processing. Chapter Five describes the usage of the Pre-Validation/Validation service offered by Eurostat.

4.3 The record layout

Table 4.1: The overview of fields in the PRODCOM record layout

	Field number	Field name	Field description	Possible values
Header Section	1	Country	Two-letter code of the reporting country	FR, NL, DE, IT etc.
	2	Period	Period	2021, 2022 etc.
	3	PrcCode	PRODCOM code	
Sold Value section	4	Sold Num Enterprises	Number of enterprises for sold production	
	5	Sold Value Conf Flag	Confidential flag for monetary value	A, B, C, S, N
	6	Sold Value Conf Qualifier 1	Qualifier of confidential flag A, B or C	1 - 5 for A, 70 - 100 for B or C, otherwise blank
	7	Sold Value Comment	E for reliable estimate, U for low reliability estimate	E, U or blank
	8	Sold Value	Monetary value	
	9	Currency	Currency code	EUR, PLN etc.

	Field number	Field name	Field description	Possible values
Sold Quantity section	10	Sold Qnt Conf Flag	Confidential flag for the sold quantity	A, B, C, S, N
	11	Sold Qnt Conf Qualifier 1	Qualifier of confidential flag A, B or C	1 - 5 for A, 70 - 100 for B or C, otherwise blank
	12	Sold Qnt Comment	E for reliable estimate, U for low reliability estimate	E, U or blank
	13	Sold Quantity	Quantity of sold production expressed in the volume unit required for this heading	
Sub-contracted Value section	14	Sub-contracted Num Enterprises	Number of enterprises for production under sub-contracted operations	
	15	Sub-contracted Value Conf Flag	Confidential flag for monetary value	A, B, C, S, N
	16	Sub-contracted Value Conf Qualifier 1	Qualifier of confidential flag A, B or C	1 - 5 for A, 70 - 100 for B or C, otherwise blank
	17	Sub-contracted Value Comment	E for reliable estimate, U for low reliability estimate	E, U or blank
	18	Sub-contracted Value	Monetary value	
	19	Currency	Currency code	EUR, PLN etc.
Sub-contracted Quantity section	20	Sub-contracted Qnt Conf Flag	Confidential flag for the sold quantity	A, B, C, S, N
	21	Sub-contracted Qnt Conf Qualifier 1	Qualifier of confidential flag A, B or C	1 - 5 for A, 70 - 100 for B or C, otherwise blank
	22	Sub-contracted Qnt Comment	E for reliable estimate, U for low reliability estimate	E, U or blank
	23	Sub-contracted Quantity	Quantity of sold production expressed in the volume unit required for this heading	
Actual Quantity section	24	Actual Num Enterprises	Number of enterprise for Actual Quantity	
	25	Actual Qnt Conf Flag	Confidential flag for the total quantity	A, B, C, S, N
	26	Actual Qnt Conf Qualifier 1	Qualifier of confidential flag A, B or C	1 - 5 for A, 70 - 100 for B or C, otherwise blank
	27	Actual Qnt Comment	E for reliable estimate, U for low reliability estimate	E, U or blank
	28	Actual Quantity	Quantity of total production expressed in the volume unit required for this heading	

The confidentiality based on the p-percent rule can be expressed using Qualifier 1 (fields 6, 11, 16, 21 and 26).

4.4 Description of the fields

The characteristics of each field are as follows.

4.4.1 The Header Section

This section contains general information about the product. The country and period must be repeated in every record even though all records must contain the same settings throughout the file.

Country

The ISO-Alpha-2 code for your country (the reporting country) should be given. See section 4.6.1 for a list of countries and their codes.

Examples: FR, DE, HU.

Period

The period to which the data refers (the reference period). Only data for one period should be included in a file. For annual data the 4-digit year should be given.

Examples: 2021, 2022.

PRCode

The PRODCOM code for the heading to which the record refers. The file must contain one record for every heading in the PRODCOM List for the reference period.

Examples: 10111140, 25734071.

4.4.2 Fields used in the Sold Value, Sold Quantity, Sub-contracted Value, Sub-contracted Quantity and Actual Quantity Sections

Num Enterprises

The number of enterprises producing this product. It should be a positive numeric value. The Eurostat system assumes maximum 16 digits. If the field (4) contains '0' and the rest of the record to the right of this field is blank for all three sections (Sold/Sub-contracted/Actual production), the Eurostat system interprets this as 'zero production' for the product for all production variables and automatically fills in the correct values for the remaining fields, including zero in the value and volume fields as appropriate.

If the fields (4, 14 and 24) contain anything other than 0 or a positive integer it is taken to mean that production for this heading is not reported. This will trigger an error (with severity INFO) and cause data to be estimated for the heading.

The confidential flag and qualifier fields

This description applies to the confidentiality fields in the Sold value, Sold quantity, Sub-contracted value, Sub-contracted quantity and Actual quantity sections.

Note: References in this text to the qualifier relate to Qualifier 1.

Table 4.2: The Confidentiality flags and qualifiers relate to the target fields

Flag	Qualifier	Target field
Sold Value Conf Flag	Sold Value Conf Qualifier 1	Sold Value
Sold Qnt Conf Flag	Sold Qnt Conf Qualifier 1	Sold Quantity
Sub-contracted Value Conf Flag	Sub-contracted Value Conf Qualifier 1	Sub-contracted Value
Sub-contracted Qnt Conf Flag	Sub-contracted Qnt Conf Qualifier 1	Sub-contracted Quantity
Actual Qnt Conf Flag	Actual Qnt Conf Qualifier 1	Actual Quantity

The Flag indicates whether the content of the target field is confidential, with the following values:

- <blank>: the target is not confidential
- A: the target is confidential because there are too few enterprises
- B: the target is confidential because one enterprise is dominant
- C: the target is confidential because two enterprises are dominant, or because it fails the p-percent test
- S: the target is confidential to protect other data in national publications (secondary confidentiality)

If the target value or quantity field is not 0 or a positive number, the item is marked as missing, regardless of the content of the confidentiality flag. This will lead to an error being signalled in the validation report if the required data is not present in the record.

The Qualifier field is used to provide additional information about a confidentiality setting:

Flag	Qualifier
<blank>	not used – leave blank
A	the number of enterprises
B	the percentage dominance of the enterprise
C	the percentage dominance of the two enterprises, or $1/(1+x)$ calculated from the p-percent test (see below)
S	not used – leave blank

Examples:

Flag	Qualifier
<blank>	<blank>
A	1
B	85
C	93
S	<blank>

CETO: contribution to European totals only

The Member States may mark data for use as a contribution to European totals only (CETO) for all three variables. The data shall be flagged with an N and shall not be published at the national level. This data will not be either disseminated by Eurostat, however will be used for calculating the EU totals. The EU totals will be flagged by E on Eurostat's website.

The flag N applies to the confidentiality fields in the Sold value, Sold quantity, Sub-contracted value, Sub-contracted quantity and Actual quantity sections.

The Member States grouped by size shall mark with an N flag for CETO a number of statistics as defined below:

Small countries: no more than 20 % of the data per division (2-digit level).

Medium countries: no more than 15 % of the data per division (2-digit level). In addition, if, in any of these Member States has less than 0,1 % of the total over all individual PRODCOM headings, those data may additionally be sent as CETO.

Large countries: no more than 10 % of the data per division (2-digit level).

The grouping of Member States, which is applicable for 5 consecutive years, is listed in Annex 1.

4.4.3 Use of the p-percent rule

If a country uses the p-percent rule to determine whether a cell is confidential, flag C should be used to signal the confidentiality. The formula used to test the condition is:

$$x = \frac{|Z_1 - (Z_{ij} - Z_2)|}{Z_1}$$

If $x < p$ (where p is the threshold chosen by the country) then the data will be flagged confidential.

This means that flag C may be used as follows:

- either to indicate the dominance of two enterprises (the (2, k) rule) and the qualifier should be the combined percentage of the two dominant enterprises.
- or to indicate confidentiality based on the p-percent rule and the qualifier should be $1/(1+x)$, where x is the result of the test shown above.

The confidentiality flags for the value and volume fields in a single heading do not all have to have the same setting ^(*). However, the confidentiality settings for all items should be consistent with the value in the Num Enterprises field: a qualifier for a confidentiality flag 'A' should contain the same value as Num Enterprises, and Num Enterprises should be at least 2 or 3 if a confidentiality flag is set to 'B' or 'C' respectively.

The decision to set a confidentiality flag is for the NSI to make: Eurostat does not judge whether it should have been set or not. A flag that is set non-blank is an instruction to Eurostat to maintain the confidentiality of the target value. Eurostat accepts this instruction and respects it without question. However, NSIs are obliged to transmit confidential data to Eurostat, so the target field associated with a flag must always be set to 0 or a positive number if the flag is non-blank. If no value is present, in the target field, the confidentiality setting is ignored and the item is treated as missing.

The confidentiality based on the p-percent rule can be expressed using Qualifier 1 (fields 6, 11, 16, 21 and 26).

4.4.4 The comment fields

This description applies to the comment fields in the Sold value, Sold quantity, Sub-contracted value, Sub-contracted quantity and Actual quantity sections.

The comment fields are used to signal the estimated figures. They can contain two different values:

- E: reliable estimate**
- U: low reliability estimate**

The estimated data (flagged E) signals that the values are reliable estimates, considered accurate enough to be published at the national level. These figures will be disseminated and flagged accordingly in dissemination, both at EU level and at the national level.

The low reliability estimates should be flagged with U in the comment field. Such estimates will be suppressed from the national data published by Eurostat but will be included in calculation of the EU totals. These totals will be flagged with E.

^(*) For cases where there are too few enterprises, all items must have the same confidentiality setting. However, in cases of dominance the value for the largest enterprise(s) may be above the dominance threshold while the volume is below, or vice versa.

Although not published at the national level, U flagged figures will not be treated as confidential and EU aggregates will not be rounded in order to protect them.

4.4.5 The Sold Value Section

This section contains information about the monetary value of production produced on own account for the product. It should be completed for the heading types S, T and I.

Box 4.1: The sold value produced on own account

Sold Num Enterprises

Sold Value Conf Flag

Sold Value Conf Qualifier 1

See section 4.4.2 on the confidential flag and qualifier fields

Sold Value Comment

See section 4.4.4 on the comment fields

Sold Value

The monetary value of production of the product. A value should only be given for heading types S, T and I. For heading type V, it should be blank. If the field is not blank, it must contain 0 or a positive numeric value. The Eurostat system assumes maximum 25 digits.

Note that the value is expressed in national currency, **in thousands**. The value shall not contain a decimal point (integer only).

Currency

The currency code for the currency in which the value in Val is expressed. The code appropriate for each monetary unit is given in the section 4.6.2.

4.4.6. The Sold Quantity Section

This section contains information about the volume ⁽¹⁰⁾ of sold production produced on own account for the product. It should be completed for the heading types S and T.

⁽¹⁰⁾ The Sold Quantity shall be blank if no volume unit is specified.

Box 4.2: The sold quantity produced on own account

Sold Qnt Conf Flag

Sold Qnt Conf Qualifier 1

See section 4.4.2 on the confidential flag and qualifier fields

Sold Quantity Comment

See section 4.4.4 on the comment fields

Sold Quantity

The sold quantity of production of the product, expressed in the volume unit specified for the heading in the PRODCOM List. The volume should only be given for heading types S and T. For heading types I and V, it should be blank. If the field is not blank, it must contain 0 or a positive integer numeric value (no decimal point). The Eurostat system assumes maximum 25 digits.

4.4.7 The Sub-contracted Value Section

This section contains information about the monetary value of production equal to the fee received by subcontractor/paid by principal for the product. It should be completed for the heading types S and T.

Box 4.3: The sub-contracted value paid by principal to subcontractor

Sub-contracted Num Enterprises

Sub-contracted Value Conf Flag

Sub-contracted Conf Qualifier 1

See section 4.4.2 on the confidential flag and qualifier fields

Sub-contracted Value Comment

See section 4.4.4 on the comment fields

Sub-contracted Value

The monetary value of production/work under sub-contracted operations. A value should only be given for heading types S and T. For heading type I and V, it should be blank. If the field is not blank, it must contain 0 or a positive numeric value. The Eurostat system assumes maximum 25 digits.

Note that the value is expressed in national currency, **in thousands**. The value shall not contain a decimal point (integer only).

Currency

The currency code for the currency in which the value in Val is expressed. The code appropriate for each monetary unit is given in the section 4.6.2.

4.4.8 The Sub-contracted Quantity Section

This section contains information about the volume ⁽¹⁾ of sold production produced under sub-contracted operations for the product. It should be completed for the heading types S and T.

Box 4.4: The sub-contracted quantity produced by subcontractor

Sub-contracted Qnt Conf Flag

Sub-contracted Qnt Qualifier 1

See section 4.4.2 on the confidential flag and qualifier fields

Sub-contracted Quantity Comment

See section 4.4.4 on the comment fields

Sub-contracted Quantity

The sold quantity of production of the product, expressed in the volume unit specified for the heading in the PRODCOM List. The volume should only be given for heading types S and T. For heading types I and V, it should be blank. If the field is not blank, it must contain 0 or a positive integer numeric value (no decimal point). The Eurostat system assumes maximum 25 digits.

4.4.9 The Actual Quantity Section

This section contains information about the quantity produced on own account and the quantity produced under sub-contracted operations for the product ⁽²⁾. It should be completed for heading types T and V.

Box 4.5: The actual quantity produced on own account and by subcontractor

Actual Num Enterprises

Actual Qnt Conf Flag

Actual Qnt Qualifier 1

See section 4.4.2 on the confidential flag and qualifier fields

Actual Quantity Comment

See section 4.4.4 on the comment fields

Actual Quantity

The actual quantity of production of the product, expressed in the volume unit specified for the heading in the PRODCOM List. The volume should only be given for heading types T and V. For heading types S and I, it should be blank. If the field is not blank, it must contain 0 or a positive integer numeric value (no decimal point). The Eurostat system assumes maximum 25 digits.

⁽¹⁾ The Sub-contracted Quantity shall be blank if no volume unit is specified.

⁽²⁾ The Actual Quantity shall be blank if no volume unit is specified

4.5 Examples

The examples given here show the layout from an Excel file, first row indicates **the field names (header)**. It can be useful to include this row when preparing the data in Excel, to check that each column contains the correct items. Note: **the header must be removed before saving the data in .csv format.**

The headings used are based on the 2021 PRODCOM List. All values and volumes may be up to 25 digits. To help distinguish the different cases, all amounts given are as follows, except for zero production:

- Sold value: 1000
- Sold volume: 2000
- Subcontracted value: 100
- Sub-contracted volume: 200
- Actual volume: 2200

In some cases the same record is repeated several times to show examples of various confidentiality and comment settings, although not all combinations are shown.

If a confidentiality flag is set to A, it must be set to A for all reported indicators, and all the qualifier fields must have the same number (the same as the number in the “Num enterprises” field). The qualifier field may have a different value for actual quantity section.

For a confidentiality flag of B or C the percentages for the different indicators may vary, as it depends on the respective data for the different enterprises. In some cases the percentage may be above the national threshold for the value but below the threshold for the volume (or vice versa), so it is possible for one to be confidential and the other not.

4.5.1 Zero production

This table 4.3 shows how to indicate zero production, and is valid for any heading. It is also possible to indicate zero production by using the layouts shown in later examples, and setting the number of enterprises, the value and the volume(s) all to zero.

Table 4.3: Zero production recording

Country	Period	PrcCode	Num Enterprises	Sold Value Conf Flag	Sold Value Conf Qualifier 1	Sold Value Commentq	Sold Value	Currency	Sold Qnt Conf Flag	Sold Qnt Conf Qualifier 1	Sold Qnt Comment	Sold Quantity	Sub-contracted Num Enterprises	Sub-contracted Value Conf Flag	Sub-contracted Value Conf Qualifier 1	Sub-contracted Value Comment	Sub-contracted Value	Currency	Sub-contracted Qnt Conf Flag	Sub-contracted Qnt Conf Flag	Sub-contracted Qnt Conf Qualifier 1	Sub-contracted Qnt Comment	Sub-contracted Quantity	Actual Num Enterprises	Actual Qnt Conf Flag	Actual Qnt Conf Qualifier 1	Actual Qnt Comment	Actual Quantity
XX	2021	20414100	0																									

4.5.2 Type S heading

For type S headings must be reported: the sold value, the sold volume, the sub-contracted value and the sub-contracted volume. Exceptionally, if there is no volume unit as i.e. for PrcCode 20414100 in the PRODCOM List, the fields for all quantity sections shall be left blank. As the PRODCOM List specifies kg as the volume unit for PrcCode 20301150, the sold/sub-contracted quantities are expressed in kg.

Table 4.4: S-type production recording

Country	Period	PrcCode	Sold Num Enterprises	Sold Value Conf Flag	Sold Value Conf Qualifier 1	Sold Value Comment	Sold Value	Currency	Sold Qnt Conf Flag	Sold Qnt Conf Qualifier 1	Sold Qnt Comment	Sold Quantity	Sub-contracted Num Enterprises	Sub-contracted Value Conf Flag	Sub-contracted Value Conf Qualifier 1	Sub-contracted Value Comment	Sub-contracted Value	Currency	Sub-contracted Qnt Conf Flag	Sub-contracted Qnt Conf Qualifier 1	Sub-contracted Qnt Comment	Sub-contracted Quantity	Actual Num Enterprises	Actual Qnt Conf Flag	Actual Qnt Conf Qualifier 1	Actual Qnt Comment	Actual Quantity
XX	2021	20414100	2				1000	EUR																			
XX	2021	20301150	2	A	2		1000	EUR	A	2		2000						EUR									
XX	2021	20301150	3	B	87		1000	EUR	B	87		2000						EUR									
XX	2021	20301150	4	C	91		1000	EUR	C	92		2000						EUR									
XX	2021	20301150	2	S			1000	EUR	S			2000						EUR									
XX	2021	20301150	2	A	2		1000	EUR	A	2		2000	2	A	2		100	EUR	A	2	2		200				
XX	2021	20301150	3	B	70		1000	EUR	B	70		2000	3	B	85		100	EUR	B	85	85		200				
XX	2021	20301150	4	C	80		1000	EUR	C	82		2000	3	C	90		100	EUR	C	92	92		200				
XX	2021	20301150	2	S			1000	EUR	S			2000	1	S			100	EUR	S				200				
XX	2021	20301150	2			E	1000	EUR			E	2000						EUR									
XX	2021	20301150	2			E	1000	EUR				2000						EUR									
XX	2021	20301150	2	N			1000	EUR			E	2000	1			E	100	EUR					200				
XX	2021	20301150	2			U	1000	EUR				2000	1			E	100	EUR					200				
XX	2021	20301150	2	A	2	U	1000	EUR	A	2		2000	1	A	2		100	EUR	A	2	2		200				

4.5.3 Type T heading

For type T headings must be reported: the sold value, the sold volume, the sub-contracted value, the sub-contracted volume and actual volume. As the PRODCOM List specifies kg as the volume unit for PrcCode 20152030, the quantities are expressed in kg.

Table 4.5: T-type production recording

Country	Period	PrcCode	Sold Num Enterprises	Sold Value Conf Flag	Sold Value Conf Qualifier 1	Sold Value Comment	Sold Value	Currency	Sold Qnt Conf Flag	Sold Qnt Conf Qualifier 1	Sold Qnt Comment	Sold Quantity	Sub-contracted Num Enterprises	Sub-contracted Value Conf Flag	Sub-contracted Value Conf Qualifier 1	Sub-contracted Value Comment	Sub-contracted Value	Currency	Sub-contracted Qnt Conf Flag	Sub-contracted Qnt Conf Qualifier 1	Sub-contracted Qnt Comment	Sub-contracted Quantity	Actual Num Enterprises	Actual Qnt Conf Flag	Actual Qnt Conf Qualifier 1	Actual Qnt Comment	Actual Quantity
XX	2021	20152030	2				1000	EUR				2000															2000
XX	2021	20152030	2	A	2		1000	EUR	A	2		2000						EUR					A	2			2000
XX	2021	20152030	3	B	87		1000	EUR	B	87		2000						EUR					B	87			2000
XX	2021	20152030	4	C	91		1000	EUR	C	92		2000						EUR					C	92			2000
XX	2021	20152030	2	S			1000	EUR	S			2000						EUR					S				2000
XX	2021	20152030	2	A	2		1000	EUR	A	2		2000	2	A	2	100	EUR	A	2		200	4	A	2			2000
XX	2021	20152030	3	B	70		1000	EUR	B	70		2000	3	B	85	100	EUR	B	85		200	6	B	85			2000
XX	2021	20152030	4	C	80		1000	EUR	C	82		2000	3	C	90	100	EUR	C	92		200	7	C	90			2000
XX	2021	20152030	2	S			1000	EUR	S			2000	1	S		100	EUR	S			200	3	S				2000
XX	2021	20152030	2			E	1000	EUR			E	2000						EUR								E	2000
XX	2021	20152030	2			E	1000	EUR				2000						EUR									2000
XX	2021	20152030	2	N			1000	EUR			E	2000	1			E	100	EUR			E	200	3			E	2000
XX	2021	20152030	2			U	1000	EUR				2000	1			E	100	EUR				200	3				2000
XX	2021	20152030	2	A	2	U	1000	EUR	A	2		2000	1	A	2	100	EUR	A	2		200	4	A	2			2000

4.5.4 Type I heading

For type I headings (Industrial Services), only the sold value must be reported.

Table 4.6: I-type production recording

Country	Period	PrcCode	Sold Num Enterprises	Sold Value Conf Flag	Sold Value Conf Qualifier 1	Sold Value Comment	Sold Value	Currency	Sold Qnt Conf Flag	Sold Qnt Conf Qualifier 1	Sold Qnt Comment	Sold Quantity	Sub-contracted Num Enterprises	Sub-contracted Value Conf Flag	Sub-contracted Value Conf Qualifier 1	Sub-contracted Value Comment	Sub-contracted Value	Currency	Sub-contracted Qnt Conf Flag	Sub-contracted Qnt Conf Qualifier 1	Sub-contracted Qnt Comment	Sub-contracted Quantity	Actual Num Enterprises	Actual Qnt Conf Flag	Actual Qnt Conf Qualifier 1	Actual Qnt Comment	Actual Quantity
XX	2021	33111200	2				1000	EUR																			
XX	2021	33111200	2	A	2		1000	EUR																			
XX	2021	33111200	3	B	87		1000	EUR																			
XX	2021	33111200	4	C	91		1000	EUR																			
XX	2021	33111200	2	S			1000	EUR																			
XX	2021	33111200	2	A	2		1000	EUR																			
XX	2021	33111200	3	B	70		1000	EUR																			
XX	2021	33111200	4	C	80		1000	EUR																			
XX	2021	33111200	2	S			1000	EUR																			
XX	2021	33111200	2			E	1000	EUR																			
XX	2021	33111200	2			E	1000	EUR																			
XX	2021	33111200	2	N			1000	EUR																			
XX	2021	33111200	2			U	1000	EUR																			
XX	2021	33111200	2	A	2	U	1000	EUR																			

4.5.5 Type V heading

For type V headings, only the actual volume must be reported.

As the PRODCOM List specifies kg as the volume unit for 2410T110, the actual quantity is expressed in kg.

Table 4.7: V-type production recording

Country	Period	PrcCode	Sold Num Enterprises	Sold Value Conf Flag	Sold Value Conf Qualifier 1	Sold Value Comment	Sold Value	Currency	Sold Qnt Conf Flag	Sold Qnt Conf Qualifier 1	Sold Qnt Comment	Sold Quantity	Sub-contracted Num Enterprises	Sub-contracted Value Conf Flag	Sub-contracted Value Conf Qualifier 1	Sub-contracted Value Comment	Sub-contracted Value	Currency	Sub-contracted Qnt Conf Flag	Sub-contracted Qnt Conf Qualifier 1	Sub-contracted Qnt Comment	Sub-contracted Quantity	Actual Num Enterprises	Actual Qnt Conf Flag	Actual Qnt Conf Qualifier 1	Actual Qnt Comment	Actual Quantity
XX	2021	2410T110																					2	A	2		2000
XX	2021	2410T110																					2	B	87		2000
XX	2021	2410T110																					3	C	92		2000
XX	2021	2410T110																					4	S			2000
XX	2021	2410T110																					2	A	2		2200
XX	2021	2410T110																					2	B	85		2200
XX	2021	2410T110																					3	C	90		2200
XX	2021	2410T110																					4	S			2200
XX	2021	2410T110																					2			E	2000
XX	2021	2410T110																					2	N			2000
XX	2021	2410T110																					2			E	2200
XX	2021	2410T110																					2				2200
XX	2021	2410T110																					2	A	2		2200

4.6 Code lists

4.6.1 Reporting countries

Country	ISO Alpha-2 code
Belgium	BE
Bulgaria	BG
Czechia	CZ
Denmark	DK
Germany	DE
Estonia	EE
Ireland	IE
Greece	GR
Spain	ES
France	FR
Croatia	HR
Italy	IT
Cyprus	CY
Latvia	LV
Lithuania	LT
Luxembourg	LU
Hungary	HU
Malta	MT
Netherlands	NL
Austria	AT
Poland	PL
Portugal	PT
Romania	RO
Slovenia	SI
Slovakia	SK
Finland	FI
Sweden	SE
Iceland	IS
Norway	NO
Montenegro	ME
North Macedonia	MK
Serbia	RS
Turkey	TR
Bosnia and Herzegovina	BA

4.6.2 Monetary units

Coded value	Description – ISO 4217 / 1981.05.15 (E/F)
EUR	Euro
BGN	Bulgarian Lev
CZK	Czech Koruna
DKK	Danish Krone
HRK	Croatian Kuna
HUF	Hungarian Forint
PLN	Polish Zloty
RON	Romanian Leu
SEK	Swedish Krona
ISK	Iceland Krona
NOK	Norwegian Krone
MKD	Macedonian denar
RSD	Serbian dinar
TRY	Turkish Lira
BAM	Bosnia-Herzegovinian convertible mark

4.6.3 Volume units

Code	Description	Definition
1000	GT	Gross register ton (2.8316 m ³)
1050	CGT	Compensated Gross Tonnes
1100	c/k	Carats (1 metric carat = 2 x 10 ⁻⁴ kg)
1200	ce/el	Number of elements
1300	ct/l	Carrying capacity in metric tonnes
1400	g	Gram
1500	kg	Kilogram
1510	kg Al ₂ O ₃	Dialuminium trioxide
1511	kg B ₂ O ₃	Diboron trioxide
1512	kg BaCO ₃	Barium carbonate
1513	kg Cl	Chlorine
1514	kg F	Fluorine
1515	kg HCl	Hydrogen chloride
1516	kg H ₂ O ₂	Hydrogen peroxide
1517	kg KOH	Potassium hydroxide (caustic potash)
1518	kg K ₂ O	Potassium oxide
1519	kg K ₂ CO ₃	Potassium carbonate
1520	kg N	Nitrogen
1521	kg NaOH	Sodium hydroxide (caustic soda)
1522	kg Na ₂ CO ₃	Sodium carbonate
1523	kg Na ₂ S ₂ O ₅	Sodium pyrosulphide
1524	kg PbO	Lead monoxide
1525	kg P ₂ O ₅	Diphosphorus pentoxide (phosphoric anhydride)
1526	kg S	Sulphur
1527	kg SO ₂	Sulphur dioxide
1528	kg SiO ₂	Silicon dioxide
1529	kg TiO ₂	Titanium dioxide
1530	kg act.subst.	Kilograms of active substance
1531	kg 90% sdt	Substance 90% dry
1532	kg HF	Hydrogen Fluoride
1533	kg effect	Effective kilogram
1700	km	Kilometre
1800	kW	Kilowatt
1900	1000 kWh	Thousand Kilowatt hours
2000	l	Litre
2100	l alc 100%	Litre pure (100%) alcohol
2200	m	Metre
2300	m ²	Square metre
2400	m ³	Cubic metre
2500	pa	Number of pairs
2600	p/st	Number of items
2900	TJ	Terra Joule
1534	Kg H ₂ SO ₄	Kilogram of sulfuric acid

5

Data transmission and Eurostat's Validation Services

This chapter deals with the tools available for the transmission of the data files to Eurostat as well as the usage of the Validation service offered by Eurostat. It is recommended to read the instructions hereinafter before official data transmission. The usage of the Pre-Validation service serves for testing; it is optional and not related to Official Transmissions.

5.1 Data transmission - EDAMIS

The transmission and the delivery of datasets to Eurostat is managed by EDAMIS. In May 2009, the European Statistical System Committee (ESSC) endorsed the use of EDAMIS for the transmission of all data files from national statistical authorities to Eurostat. The ESSC has thus adopted EDAMIS as the unique entry point for the transmission of data to Eurostat.

Box 5.1: Data transmission - quick links

EU login: <https://webgate.ec.europa.eu/cas/help.html>

SDMX Registry: <https://webgate.ec.europa.eu/sdmxregistry/>

EDAMIS application (version 4): <https://webgate.ec.europa.eu/edamis4>

EDAMIS 4 info space (including video tutorials): <https://webgate.ec.europa.eu/fpfs/wikis/display/EDAMIS4MIG/EDAMIS+4+Migration+Info+Space>

EDAMIS 4 browser version: <https://webgate.ec.europa.eu/fpfs/wikis/pages/viewpage.action?pagelId=275024497>

STRUVAL Validation Report description: https://webgate.ec.europa.eu/fpfs/wikis/display/RMSDE/User+guide+to+structural+validation+reports_2020

Statistical Domain Support: ESTAT-PRODCOM@ec.europa.eu

EDAMIS Support: ESTAT-SUPPORT-EDAMIS@ec.europa.eu

SDMX Support: ESTAT-SUPPORT-SDMX@ec.europa.eu

If you already have an active EU Login account and access to EDAMIS along with your dedicated statistical domain, you can proceed to the section 5.2.

5.1.1 EU Login

To access the EDAMIS application and other services provided by the European Commission, an active [EU Login](#) account is required. Under the provided link, you will find a systematic [User Guide](#) how to create an account and further details about this authentication service.

5.1.2 EDAMIS – access to your statistical domains

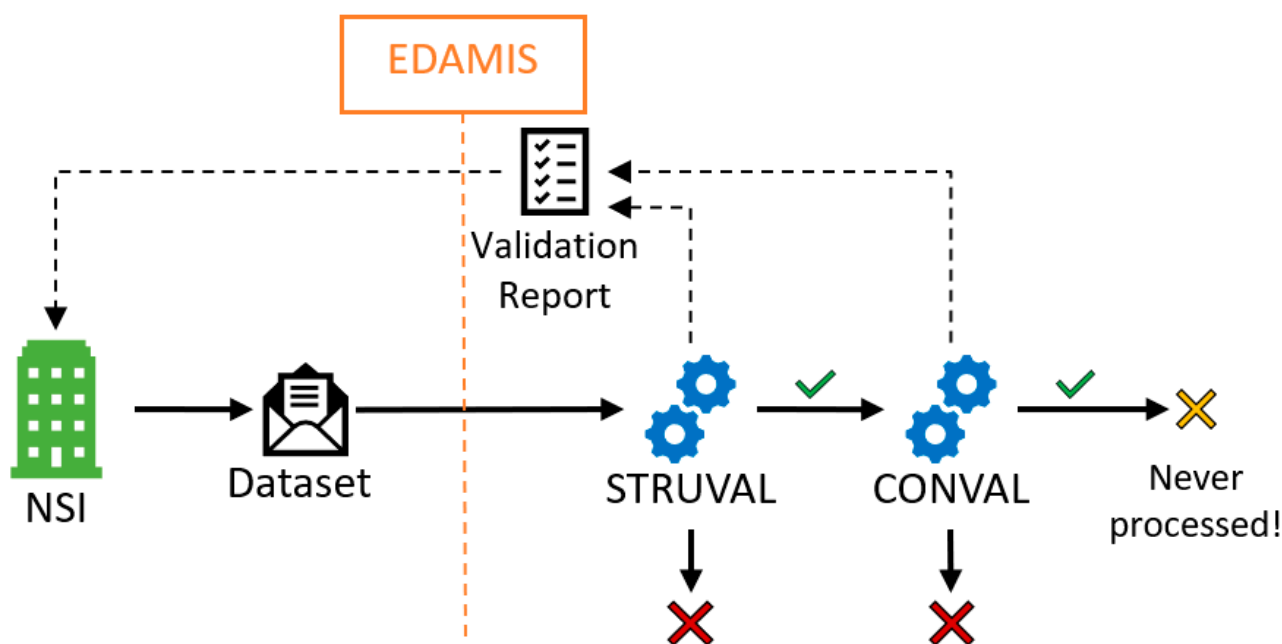
In order to access the video tutorials, you need to acquire an active EU Login account first. The preliminary registration is mandatory, as users are also able to use the forum to ask questions or to leave a comment.

EDAMIS is the single-entry point for transmitting data to Eurostat. Once you have an active EU Login account, you can login to the EDAMIS application. If you are missing access rights for a specific Domain or related Datasets, you can request additional rights [here](#). The following short [video](#) will provide you additional information on this topic. Once you receive the confirmation that access was granted, you will be able to use the Domain & Dataset(s) in EDAMIS.

5.2 Pre-validation/validation services

Eurostat facilitates the Pre-Validation service for Reporting Countries to test their Datasets before the Official Transmission. It eliminates the need to implement the validation services on local premises and it replicates the exact same validation rules, which are used for Official Transmissions. **When using the Pre-validation service, no data is further processed or published;** it is just a convenient and straightforward way to check your data. **For the Official Transmission, the Validation service shall be successfully processed.**

Figure 5.1: Schematic representation of the Pre-Validation/Validation workflow



The workflow in Figure 5.1 comprises Eurostat's two corporate Validation Services, STRUVAL (Structure Validation) and CONVAL (Content Validation). Each time a Dataset is uploaded via EDAMIS for (Pre-) Validation, the data file is validated first by STRUVAL and if valid, subsequently by CONVAL. Every service call generates a Validation Report, which is provided via EDAMIS for download. At the same time, an

email notification is sent to the Reporting Country including the validation result preview like Validation successful or Errors detected. In case of an invalid Validation Report, please go to EDAMIS and download the related report to retrieve further details. After correcting the Dataset, re-upload the corrected Dataset and the validation workflow starts from the beginning.

There is no limitation on the number of validation attempts or any statistics collected for Pre-Validation Datasets and therefore, not affecting Quality Reports. Pre-Validation Datasets are cached for a short time period, just in case support is required to resolve any validation or technical issues.

1. STRUVAL (STRUCTURE VALIDATION)

The Structure Validation is checking the structure and organisation of a dataset. For correct data record, please read the chapter 4 - Building a PRODCOM record, particularly the section 4.2 – The PRODCOM record and the section 4.3 - The record layout.

In the following box 5.2 more rules that are important are specified for respecting the structure format.

Box 5.2: The STRUVAL service covers the following checks

- **SDMX compliant .csv data format (30 semicolons as the csv separator are required)**
- **Mandatory data fields – completeness check for each Observation**
- **Format checks on data fields – e.g. STRING, Integer, ...**
- **Code list checks – if a Code is part of the PRODCOM Code list for the reporting year**
- **Regular Expressions – pattern checks, which are not a standard data format or of type Code list**
- **Header causes a failure in STRUVAL**
- **Any paragraph marks or other hidden formatting symbols cause a failure in STRUVAL (Notepad++ > Show all characters)**

2. CONVAL (CONTENT VALIDATION)

The Content Validation Service (CONVAL) enables the content validation (domain-specific) of the statistical data files based on a set pre-defined validation rules e.g. Business Requirements. CONVAL is the second step within a sequence of automated data validation activities Eurostat conducts, before the statistical processing and dissemination of the collected data.

5.2.1 Transmission – detailed activity steps

For data transmission, it is necessary to upload a file dataset PRODCOM_A_A_CC⁽¹³⁾_YEAR_0000_V0001 (VPRODCOM⁽¹⁴⁾_A_A_CC_YEAR_0000_V0001 for V-flow) in EDAMIS.

- EDAMIS > TRANSMISSIONS drop-down menu > Send datafiles. The user shall drop or via Select files upload the file in the window "Drop files here or Select files".

There are two possible Dataset IDs predefined for the PRODCOM domain.

⁽¹³⁾ Reporting country code

⁽¹⁴⁾ V letter prefix at the beginning of the domain name for the Pre-Validation dataset ID

Box 5.3: Dataset IDs for Official Transmission and Pre-Validation

Production Dataset ID – PRODCOM_A_A

Used for Official Transmission

Validation-only Dataset ID – VPRODCOM_A_A

Used for Pre-Validation

Edamis automatically sets the Production Dataset ID or Validation-only Dataset ID depending on the filename PRODCOM_A_A or VPRODCOM_A_A. The user further applies exact same settings for both Dataset IDs (From: reporting country, Year, To: All, Encrypted by: User/Edamis).

Year - It is important to choose the same Year for file transmission, as the validation rules can differ per collection period. The option "Open period(s)" shows the current reporting year, the other option "Show all periods" displays years from 1998.

Encrypted – for the file encrypted by user, "User" shall be set. For the decrypted (readable) file, "Edamis" shall be set; Edamis will encrypt the data automatically.

When the (V)PRODCOM_A_A Dataset is uploaded and settings defined, data file transmission is executed by Send.

Figure 5.2 below provides an example for the PRODCOM Pre-Validation settings.

Figure 5.2: Pre-Validation Dataset selection in EDAMIS

European Commission > Eurostat > EDAMIS web portal > Send datafiles

TRANSMISSIONS | REPORTS | INVENTORY

LEGAL NOTICE CONTACT US

Send datafiles

Sender information

Name: Monika PAVELKOVA Country: EU Organisation: G3

Drop files here
or
Select files

Tip: if the file follows the DSNC (DataSet Naming Convention), the fields below will be filled automatically. Example: DATASET_FROM_YEAR_PERIOD_*.EXT

VPRODCOM_A_A_C1_2019_0000_V0001.CSV

Dataset VPRODCOM_A_A - (Validation) Industry Production Annual Survey. **Confidential**

From [C1] Country for Test Purposes To All destinations **1 destination**

Year 2019 Open period(s) All periods

Encrypt by EDAMIS

The dataset is confidential: your datafile must be encrypted.

Warning: This datafile will be sent for revision.

Attach explanatory notes Add comment **Send**

A short time after uploading the Dataset via EDAMIS, the Acknowledgement of data transfer email is sent, indicating that the file was successfully received. In the email body (Figure 5.3), the Dataset ID is decisive, not the uploaded file name in the email subject.

Figure 5.3: Acknowledgement of data transfer

estat-edamis-noreply@nomail.ec.europa.eu

EDAMIS4-152 - Data delivery for PRODCOM_A_A_CC_2020_0000_V0002.csv

EDAMIS4 - NOTIFICATION OF DATA DELIVERY	
DELIVERED DATE	2021-09-27T13:46
DATASET	VPRODCOM_A_A
YEAR	2020
PERIOD	0
VERSION	2.0
COUNTRY FROM	CC
ORGANISATION	...
ORGANISATION NAME	NSI
SENDER NAME	User name
SENDER EMAIL	User email
COUNTRY TO	EU
DELIVERED DATA FILE NAME	VPRODCOM_A_A_CC_2020_0000_V0002.csv
DELIVERY INFORMATION	
ORIGINAL DATA FILE	VPRODCOM_A_A_CC_2020.csv
COMMENT	
NOTE FILE	

The uploaded Dataset triggers the first validation service STRUVAL and generates a Validation Report. Again, the user will receive an email notification from EDAMIS with the validation result preview in the email body.

Figure 5.4. presents STRUVAL and CONVAL feedback delivery notifications when errors are detected.

Figure 5.4: STRUVAL failed and CONVAL ERROR validation result message via email

estat-edamis-noreply@nomail.ec.europa.eu
EDAMIS4-162 - Feedback delivery for PRODCOM_A_A - CC - 2020/0

EDAMIS4 - NOTIFICATION OF FEEDBACK DELIVERY	
FEEDBACK INFORMATION	
FEEDBACK COMMENT	[STRUVAL FAILED] Structural validation failed. Please review the validation report and transmit a corrected dataset.
PROVIDED DATE	2021-09-27T13:57
COUNTRY FROM	EU
COUNTRY TO	CC
DELIVERED FILE NAME	VPRODCOM_A_A_EU_2020_0000_V002A.HTML
DELIVERY INFORMATION	
FEEDBACK FILE NAME	VPRODCOM_A_A_feedback_42652.HTML
FEEDBACK NOTE FILE	
ORIGINAL DATA TRANSMISSION	
DATASET	VPRODCOM_A_A
YEAR	2020
PERIOD	0
COUNTRY FROM	CC
ORGANISATION	NSI
ORIGINAL DATA FILE NAME	VPRODCOM_A_A_CC_2020.csv

EDAMIS4 - NOTIFICATION OF FEEDBACK DELIVERY	
FEEDBACK INFORMATION	
FEEDBACK COMMENT	[CONVAL ERROR] Content validation failed. Please review the validation report and transmit a corrected dataset.
PROVIDED DATE	2021-09-27T14:38
COUNTRY FROM	EU
COUNTRY TO	CC
DELIVERED FILE NAME	VPRODCOM_A_A_EU_2020_0000_V003B.CSV
DELIVERY INFORMATION	
FEEDBACK FILE NAME	VPRODCOM_A_A_feedback_556899.CSV
FEEDBACK NOTE FILE	
ORIGINAL DATA TRANSMISSION	
DATASET	VPRODCOM_A_A
YEAR	2020
PERIOD	0
COUNTRY FROM	CC
ORGANISATION	NSI
ORIGINAL DATA FILE NAME	VPRODCOM_A_A_CC_2020.csv

Eurostat does not send Validation Reports by email per policy. To retrieve the report it is necessary to open the Received Feedbacks section in the EDAMIS application. The user can open the .html file or download csv file like shown in Figure 5.5. For better readability of the .csv file, we recommend using Notepad++¹⁵ if user's default file reader does not provide the proper text formatting.

⁽¹⁵⁾ <https://notepad-plus-plus.org/downloads/> under GPL License version 3.0 – consult your IT department before installation.

Figure 5.5: Validation result message in EDAMIS

Received feedbacks

Filename	Dataset	Year	Period	Medium	Date	Sent by	Sent from	Sent to	Comments
VPRODCOM_A_A_EU_2019_0000_V6A.LOG (235.00B)	VPRODCOM_A_A	2019		EWP	2019-11-07T12:10:39		EU	C1	Structural validation: successful
VPRODCOM_A_A_EU_2019_0000_V5A.LOG (1.36kB)	VPRODCOM_A_A	2019		EWP	2019-11-07T11:50:12		EU	C1	File rejected, errors found. Please see the pre-validation report EDAMIS and transmit a corrected file. (In case of difficulties to locate the report, please contact your local EDAMIS coordinator. The contact list of coordinators is available in the EDAMIS Help Centre).

An example report is shown in Figure 5.6. Every single error is listed in the Validation Report up to the maximum of 10,000. In case the limit is reached, re-upload the corrected Dataset to receive any additional errors. All possible error types reported by the STRUVAL service are listed in the table 5.1.

Figure 5.6: STRUVAL Validation Report example

Validation Report

Official Data Transmission

Data Provider:		Error	Warning	Info
Data Submitted On:	2021-09-27T13:52:09	191	0	0
Process Type:	OFFICIAL TRANSMISSION	Please correct data	Data review required	Information available
Processed On:	2021-09-27T13:52:21			
Validated Dataset:	VPRODCOM_A_A for 2020-0000, Version 0002			
DSD:	ESTAT PRODCOM 1.0			
Dataflow:	ESTAT PRODCOM_A_A 1.12			
Constraint:	ESTAT+CR_PRODCOM_A_A+1.12			
Validation Report:	2021-09-27T13:52:21			
Generated On:				
Actors:	• STRUVAL v8.4.5			

Validation ended with errors found

Validation Results

Message Id: 032 || Concept Name: TIME_PERIOD || Concept Type: Dimension || Concept Value: null ||

Occurrences: 95

Severity: ERROR

Once the user receive a valid STRUVAL Validation Report, the CONVAL validation service is automatically called right after. The user will receive an email notification for the CONVAL Validation Report, which is

also provided by EDAMIS for download. The same procedure applies here; the Validation Report is to be downloaded in case of errors.

General remark: STRUVAL and CONVAL (severity: ERROR) errors shall be fixed. The CONVAL (severity: INFO) errors may be corrected if possible. The user shall update the Dataset and re-upload it via EDAMIS until the CONVAL validation is valid. **The PRODCOM A_A Dataset is successfully processed to Eurostat after receiving the CONVAL OK or CONVAL OK – INFO(S) FOUND notification of feedback delivery. The PRODCOM_A_A Dataset ID is required for Official Transmission.**

Figure 5.7: STRUVAL OK and CONVAL OK validation result message via email

EDAMIS4 - NOTIFICATION OF FEEDBACK DELIVERY	
FEEDBACK INFORMATION	
FEEDBACK COMMENT	[STRUVAL OK] Structural validation successful.
PROVIDED DATE	2021-09-27T16:40
COUNTRY FROM	EU
COUNTRY TO	CC
DELIVERED FILE NAME	PRODCOM_A_A_EU_2020_0000_V002A.HTML
DELIVERY INFORMATION	
FEEDBACK FILE NAME	PRODCOM_A_A_feedback_526845.HTML
FEEDBACK NOTE FILE	
ORIGINAL DATA TRANSMISSION	
DATASET	PRODCOM_A_A
YEAR	2020
PERIOD	0
COUNTRY FROM	CC
ORGANISATION	NSI
ORIGINAL DATA FILE NAME	PRODCOM_A_A_CC_2020.csv

EDAMIS4 - NOTIFICATION OF FEEDBACK DELIVERY	
FEEDBACK INFORMATION	
FEEDBACK COMMENT	[CONVAL OK - INFO(S) FOUND] Content validation successful. Please review the validation report and, if necessary, transmit a corrected dataset or provide additional explanations.
PROVIDED DATE	2021-09-27T16:40
COUNTRY FROM	EU
COUNTRY TO	CC
DELIVERED FILE NAME	PRODCOM_A_A_EU_2020_0000_V002B
DELIVERY INFORMATION	
FEEDBACK FILE NAME	PRODCOM_A_A_feedback_478801.CSV
FEEDBACK NOTE FILE	
ORIGINAL DATA TRANSMISSION	
DATASET	PRODCOM_A_A
YEAR	2020
PERIOD	0
COUNTRY FROM	CC
ORGANISATION	NSI
ORIGINAL DATA FILE NAME	PRODCOM_A_A_CC_2020.csv

Table 5.1: STRUVAL error types

The following list contains all possible error types detected and reported by the STRUVAL service.

Error Code	Message ID	Description of Error	Details of Error
500		Internal server error. Validation service not available.	The STRUVAL service is not able to process the inputs due to an internal server error.
140		<Message from XML Parser>	The SDMX-ML file is not a well-formed XML file. It may contain invalid characters, tags that are not closed or are closed out of order. Well formedness of an XML file can be checked using different tools, such as the advanced text editors or online.
150	003	The dataset contains a series with a missing concept {0}	The data file contains series with dimensions or attributes which are not defined in DSD.
150	004	The DSD {0} used does not define a time dimension, required for the time series data.	When building a time-series dataset, one must use a DSD that includes a time dimension.
150	005	The dataset includes primary measure {0}, not expected by the DSD.	When building a time-series dataset, one must use a DSD that has a primary measure.
150	904-1	Series key {0} is not defined in DSD (unexpected size).	Dataset contains series keys with unexpected size.
150	904-2	Series key {0} is not defined in DSD (incorrect codes).	Dataset contains series keys which unexpected size.
150	007	The dataset contains a concept {0} that is not defined in DSD.	All concepts used in a dataset must be defined in a DSD.
150	008	Attribute {0} defined as mandatory in DSD is missing from the dataset.	The dataset contains a mandatory series level attribute which is not present in the data file.
150	009	Series attribute {0} is not defined in DSD.	The encountered attribute at the series level in data file does not exist in the DSD.
150	010	Attribute {0} defined as mandatory in DSD is missing from the group.	The dataset contains a mandatory group level attribute which is not present in the data file.
150	011	Attribute {0} is assigned to the incorrect group.	The encountered attribute at the dataset level in data file does not exist in DSD.
150	012	Attribute {0} defined as mandatory in DSD is missing from the observation.	The dataset contains a mandatory observation level attribute which is not present in the data file.
150	013	Attribute {0} is not defined in DSD for observation.	The encountered observation attribute is not defined in the DSD.
150	014	Dataset group {0} is not defined in the DSD.	Dataset contains group keys with unexpected size.
150	015	Dataset group {0} is not defined in the DSD.	Data Structure Definition does not define a Group.
150	016	The mandatory concept {0} in DSD is currently missing from the group.	The dataset contains a group missing mandatory concept(s) as defined in the DSD.
150	017	Concept {0} is assigned to the incorrect group.	The encountered group in the dataset contains a concept which is not defined in the DSD.
150	018	XML error - The dataset contains an invalid node.	Appears when an unexpected node exists in the dataset file.
150	021	XML error - Unexpected text "{0}" found at node "{1}"	Unexpected text is found as children of one SDMX node which does not contain text. SDMX node names are kept in an internal structure and has the names such as Header, Series, OBS or Group. This error message appears when the dataset contains children of these elements.
150	022	XML error - Dataset header fails to reference a provision operations, dataflow, or DSD.	Dataset header fails to reference a provision operations, a dataflow, or a DSD.
150	023	XML error - Dataset does not contain a header.	Dataset does not contain a header.

Error Code	Message ID	Description of Error	Details of Error
150	024	XML error - Dataset structure reference incomplete.	The message appears if the referenced structure is incomplete, i.e. the agencyId, ID or maintainable ParentId are missing or empty.
150	025	XML error - Invalid DSD reference.	Dataset structure reference invalid, could not process reference, no RefNode or URN node found.
150	026	Attribute {0} is not defined in DSD.	An attribute at dataset level is present in data file but it is not defined in the DSD.
150	027	Expected component {0} must be an attribute but is {1}.	Another component appears as a dataset attribute in data file.
150	028	Attribute {0} incorrectly attached to {2} instead of to {1}.	The dataset has an attribute with different attachment level.
150	029	{0} "{1}" is reporting value "{2}" which is not a valid representation in referenced code list "{3}".	An attribute at dataset, series or observation level has a value which is not valid in the referenced code list.
150	030	{0} {1} is reporting invalid value {3} which is not of expected type {2}.	Appears when reported value of a concept is unexpected.
150	031	Component {0} in group {1} not defined in DSD {2}.	The dataset contains groups which contains components that are not defined as group components in the DSD.
150	032	Observation missing time dimension for time series data.	Observation missing the time dimension for time series data.
150	033	Observations not allowed for this dataset.	Appears if there is a constraint on the dataset which does not allow observations.
150	034	Observation time "{0}" is before the expected reporting period start date "{1}".	Appears if there is a constraint which specify report start date and the observation time is before this date.
150	035	Observation Time "{0}" is after the expected reporting period end date "{1}".	Appears if there is a constraint which specify report end date and the observation time is after this date.
150	036	Series not allowed in this dataset.	Appears if there is a constraint on the dataset which does not allow series.
150	037	Series key {0} not allowed.	Appears if the dimension is not allowed in the key due to an existing constraint.
150	038	Illegal Series key {0} contains invalid value "{1}" not defined in DSD for {2} {3}.	Appears when the series key contains some value which is disallowed by constraints in DSD.
150	039	Duplicate observation found: {0}	Appears when more than one observation is found in one series.
150	040	Data validation failed: {0}	It appears when a custom validation rule does not pass.
150	041	Cross-sectional component {0} is incorrectly attached to {2} instead of to {1}.	The cross-sectional component is attached to a wrong level.
150	042	Invalid date format "{0}".	Appears if the TIME PERIOD attribute does not match the TIME FORMAT.
150	043	Structure type wrongly references {1} instead of {0}.	If the dataset header contains a URN reference to another artefact than expected.
100	044	The dataset references dataflow "{0}" which could not be resolved.	The structure file supplied to the STRUVAL service call does not contain a dataflow (identified by agency, name, and version) that is referenced from the dataset.
100	045	The dataset references DSD "{0}" which could not be resolved.	The structure file supplied to the STRUVAL service call does not contain a DSD (identified by agency, name, and version) that is referenced from the dataset.
501	046	Component attribute {0} with parent {1} not supported.	The XML attribute is in the wrong element.

Error Code	Message ID	Description of Error	Details of Error
501	047	Cannot read dataset for structure of type: '{0}'	If the dataset has a structure reference which is neither DSD nor Dataflow.
501	048	The DSD {0} is missing a time dimension.	DSDs that STRUVAL can process must contain a time dimension.
501	049	Cannot validate the header of format {0}.	Appears when STRUVAL tries to validate a header but the given dataset file is not detected as one of the following formats: COMPACT 2 0, GENERIC 2 0, CROSS SECTIONAL 2 0, UTILITY 2 0, GENERIC 2 1, GENERIC 2 1 XS, COMPACT 2 1 or COMPACT 2 1 XS.
150	050	Property not found {0}	Appears when the validation fails, because of missing input or structure file
140	051	Configuration Error {0}	Appears when Excel Data Reader was not configured correctly.
140	052	Excel data reader error {0}	Appears when Reading the excel file was not possible.
140	053	Invalid Parameters detected {0}	Appears when misconfiguration exists inside Parameter Sheet or Mapping Sheet.
150	054	Error While Processing XML: {0}	Appears when XML structure validation fails.

6

Metadata reporting

The PRODCOM Metadata reporting is an annual process and follows the ESS quality reporting standards covering the implementation of relevant principles derived from [The European Statistics Code of Practice](#). For the structure and contents of the quality and metadata reports, the most recent European Statistical System (ESS) standards should be used. According to the Commission Implementing Regulation EU 2020/1197 (Art.11) Member States shall provide metadata reports for business statistics transmitted with the periodicity specified in Article 17(4) of Regulation (EU) 2019/2152 to the Commission (Eurostat) **two months after the last data transmission deadline** of the statistics covered by the report at the latest. The ESMS file PRODCOM_ESMS_A_CC_YEAR_0000 shall be transmitted via [ESS Metadata Handler](#) ⁽¹⁶⁾.

In addition to the standard quality and metadata reporting, in duly justified cases Member States shall provide to Eurostat at its request complementary metadata and quality information necessary for evaluating the quality of the business statistics, including revisions of previously provided information where relevant.

⁽¹⁶⁾ To access ESS-MH, an active EU login account and registration are required. How to create an account can be found in the section 5.1.1. For registration, please contact ESTAT-PRODCOM@ec.europa.eu.

6.1 The Euro-SDMX Metadata Structure

Figure 6.1: ESMS structure

The EURO-SDMX Metadata Structure (ESMS) 2.0

	Concept Name		Concept Name		Concept Name
1	Contact	7	Confidentiality	14	Timeliness and punctuality
1.1	Contact organisation	7.1	Confidentiality - policy	14.1	Timeliness
1.2	Contact organisation unit	7.2	Confidentiality - data treatment	14.2	Punctuality
1.3	Contact name	8	Release policy	15	Coherence and comparability
1.4	Contact person function	8.1	Release calendar	15.1	Comparability - geographical
1.5	Contact mail address	8.2	Release calendar access	15.2	Comparability - over time
1.6	Contact email address	8.3	User access	15.3	Coherence - cross domain
1.7	Contact phone number	9	Frequency of dissemination	15.4	Coherence - internal
1.8	Contact fax number	10	Accessibility and clarity	16	Cost and burden
2	Metadata update	10.1	News release	17	Data revision
2.1	Metadata last certified	10.2	Publications	17.1	Data revision - policy
2.2	Metadata last posted	10.3	On-line database	17.2	Data revision - practice
2.3	Metadata last update	10.4	Micro-data access	18	Statistical processing
3	Statistical presentation	10.5	Other	18.1	Source data
3.1	Data description	10.6	Documentation on methodology	18.2	Frequency of data collection
3.2	Classification system	10.7	Quality documentation	18.3	Data collection
3.3	Sector coverage	11	Quality management	18.4	Data validation
3.4	Statistical concepts and definitions	11.1	Quality assurance	18.5	Data compilation
3.5	Statistical unit	11.2	Quality assessment	18.6	Adjustment
3.6	Statistical population	12	Relevance	19	Comment
3.7	Reference area	12.1	User needs		
3.8	Time coverage	12.2	User satisfaction		
3.9	Base period	12.3	Completeness		
4	Unit of measure	13	Accuracy and reliability		
5	Reference period	13.1	Overall accuracy		
6	Institutional mandate	13.2	Sampling error		
6.1	Legal acts and other agreements	13.3	Non-sampling error		
6.2	Data sharing				

6.2 Quality and performance indicators

To ensure a high quality of the national reference metadata files, it is necessary to monitor and ensure its quality and performance indicators.

The performance indicators follow the ESS guidelines and were considered appropriate for the PRODCOM domain. The coverage errors: over/undercoverage and multiple listing (duplication) are considered irrelevant for PRODCOM statistics and more related to the quality of the Business register.

The following quality and performance indicators shall be calculated and added in the reference metadata file in below listed concepts/sub-concepts of the ESMS:

Concept 13. Accuracy and reliability

Sub-concept 13.3 Non-sampling error

- Response rate and/or Unit non-response - rate
- Item non-response - rate
- Imputation - rate

Concept 15. Coherence and comparability

Sub-concept 15.2 Comparability - over time

Sub-concept 15.3 Coherence - cross domain

The [ESS handbook for quality reports](#) introduces the ESS quality definitions for these indicators (Chapter 3. Accuracy and reliability, Chapter 5. Coherence and Comparability) and proposes a method to calculate them (ESS guidelines for the implementation of the ESS quality and performance indicators (QPI)) in its Part III (Annex II of the document).

6.3 Changes compared with regulations repealed by the EBS regulation

The deadline to transmit quality and metadata reports shall be respected within two months after the data transmission deadline (i.e. by the end of August).

6.4 Publication of the ESMS file

The Reference Metadata in Euro SDMX Metadata Structure (ESMS) for PRODCOM is to be disseminated within one month after validation by Eurostat on Eurostat website (where to find the publication is in the next chapter).

7

Dissemination of PRODCOM data

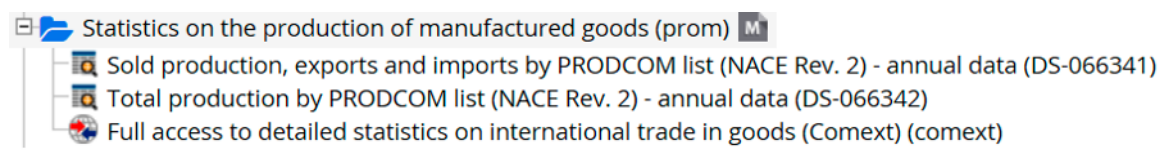
This chapter gives information on how to access PRODCOM data.

7.1 PRODCOM data on Eurostat's website

Statistics on the production of manufactured goods are accessible through three main sources on Eurostat's website.

Available in database at the link:

<http://ec.europa.eu/eurostat/web/prodcom/data/database>

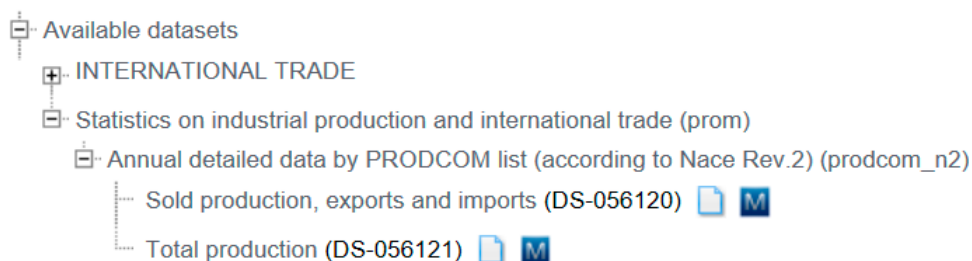


Available in Excel file format (one file per year)

- Excel files - NACE Rev.2

<http://ec.europa.eu/eurostat/web/prodcom/data/excel-files-nace-rev.2>

Available in Comext database at the link: <http://epp.eurostat.ec.europa.eu/newxtweb/>



 This icon leads to New Query, which allows building the query on selected dataset.

 The M icon links to the [Metadata reports \(ESMS\)](#) released by EUROSTAT.

The PRODCOM data in Comext is transferred to Eurostat's website where it is available to all users free of charge.

Annexes

Annex 1 - Size categories for small, medium and large countries

The grouping of Member States is calculated based on their share in the 2019 EU sold production.

The following size categories are identified for Member States:

Small group: Bulgaria, Croatia, Estonia, Greece, Latvia, Lithuania, Romania, Slovenia, Slovakia

Medium group: Austria, Belgium, Czechia, Denmark, Finland, Hungary, Ireland, The Netherlands, Portugal, Sweden

Large group: France, Germany, Italy, Poland, Spain

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EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: <http://eur-lex.europa.eu>

Open data from the EU

The EU Open Data Portal (<http://data.europa.eu/euodp/en>) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

European business statistics compilers' manual for PRODCOM

The EBS compilers' manual for PRODCOM statistics provides methodological guidance and practical information to the data compilers, on how to compile statistics on the production of manufactured goods carried out by enterprises on the national territory of the reporting countries. It contains in addition to the methodology, detailed information on the data requirements, data collection, data compilation, data transmission and Eurostat's validation services, metadata reporting and dissemination of PRODCOM data.

This 2021 edition groups the previous PRODCOM guidelines (User's manual, Technical Handbook, PRODCOM validation services guide) and is updated with information on the Commission Implementing Regulation EU 2020/1197 (EBS Regulation).

The PRODCOM team in consultation with national experts drafted this document.

For more information

<https://ec.europa.eu/eurostat/>



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