

# **Economy-wide Material Flow Accounts (EW-MFA)**

Data transmission under Regulation (EU) 691/2011

## **2018 Quality report**

Country: Czech Republic

Date: ...20.12.2018

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*Please fill in this template and return it to Eurostat by 31 December 2018 together with the completed 2018 EW-MFA questionnaire. Both files have to be sent via eDAMIS. Please ensure that the following information is entered in eDAMIS*

*Domain name: ENVPFLAC*

*Data set name: ENVPFLAC\_MFA\_A*

*End of the (mandatory) reference period: 2016*

*Please write in English, limit the length of your report and focus on changes compared to last year's quality report.*

Regulation (EU) No 691/2011 in Article 7 requires that “Member States shall provide the Commission with a report on the quality of the data transmitted. The quality criteria as referred to in Article 12(1) of Regulation (EC) No 223/2009 shall be applied.” Those quality criteria are: relevance, accuracy, timeliness, punctuality, accessibility and clarity, comparability, and coherence.

## 1 Relevance

*Relevance* refers to the degree to which statistics meet current and potential needs of users.

Economy-wide material flow accounts (EW-MFA) provide a rich empirical database for numerous purposes. At international level the European Commission uses EW-MFA and derived indicators for developing and monitoring policies in domains such as circular economy, sustainable development, resource efficiency, sustainable consumption and production, and greening of other policy areas. The derived EW-MFA indicator *domestic material consumption* (DMC) is a headline indicator for the Europe 2020 resource efficiency initiative.

**1.a) Please add references to the use and relevance of EW-MFA at national level (e.g. main users, national indicator sets, quantitative policy targets etc.)?**

The indicator Domestic Material Consumption is used in the Progress report to the Strategic Framework for Sustainable Development in the Czech Republic (ČR 2030) and annually in the Report on the Environment of the Czech Republic (Ministry of the Environment) – indicators material demands of the Czech economy and domestic material consumption. Derived indicators are used for monitoring circular economy, used by the Ministry of Industry and Trade.

## 2 Accuracy

*Accuracy*<sup>1</sup> refers to the closeness of estimates to the unknown true values.

EW-MFA constitute accounts and as such they are compiled from a variety of data sources. The majority of EW-MFA characteristics are based on statistical data sources (see below section 6 and Annex 1). Some characteristics even need to be estimated because adequate statistical data sources do not exist (see below section 6 and Annex 2).

Please assess the accuracy of the reported data.

**2.a) Are there general deficiencies in the data?**

No

**2.b) For which characteristic would you assume that data quality is lower?**

**2.c) If applicable, what steps do you plan to remedy the deficiencies?**

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### 3 Timeliness

*Timeliness* refers to the period between the availability of the information and the event or phenomenon it describes.

**3.a) By when was the data actually available, nationally?**

The dataset is available in time T+12 months nationally except some data necessary for item MF423 – adjustment for residence principle
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### 4 Punctuality

*Punctuality* refers to the delay between the date of the release of the data and the target date (the date by which the data should have been delivered).

According to Regulation (EU) No. 691/2011 economy-wide material flow accounts shall be transmitted within 24 months of the end of the reference year and in each subsequent data transmission to the Commission, Member States shall provide annual data for the years n-4, n-3, n-2, n-1 and n, where n is the reference year.

**4.a) [Czech Republic](#) transmitted the data to Eurostat on [20.12.2018](#) .**

**4.b) Data for the following years are reported in the various tables:**

Table A: Domestic extraction	<a href="#">1990-2017</a>
Table B: Imports – Total trade	<a href="#">1993-2017</a>
Table C: Imports – Extra-EU trade	<a href="#">No data</a>
Table D: Exports – Total trade	<a href="#">1993-2017</a>
Table E: Exports – Extra-EU trade	<a href="#">No data</a>

### 5 Accessibility and clarity

*Accessibility and clarity* refer to the conditions and modalities by which users can obtain, use and interpret data.

Data on EW-MFA and derived indicators, including EU totals, will be made available on Eurostat's web site as soon as possible after validation.

**5.a) Do you publish this data nationally?**

Yes, please specify where:

<https://www.czso.cz/csu/czso/material-flow-accounts-selected-indicators>

<https://www.czso.cz/csu/czso/environmental-accounts>

No, please specify why not:

.....

## 6 Comparability

*Comparability* refers to differences in applied statistical concepts, methods, tools and procedures that may impact comparisons between geographical areas or over time.

Here the focus lies on any assessment of the comparability of data across countries and over time. The comparability is mainly affected by the data sources used and by the compilation/estimation methods applied. Switching the data sources and/or estimation methods may cause breaks in time series.

**6.a) Please specify the data sources for Table A 'Domestic extraction' by different material categories?**

See Annex 1 => *please use Annex 1*

**6.b) Please explain briefly the estimation approaches for those characteristics in Table A 'Domestic extraction' which cannot be derived directly from statistical sources (e.g. sand and gravel, grazed biomass)?**

See Annex 2 => *please use Annex 2*

**6.c) Please specify the data sources for trade (Tables B to E)?**

National foreign trade statistics and/or databases (please specify):

Data on imports and exports are taken from the internal Foreign Trade Application of the Czech Statistical Office. Internal Foreign Trade Application is similar to external one (more detailed, in mass units), the web address of the external application for illustration:

<https://apl.czso.cz/pll/stazo/STAZO.STAZO?jazyk=EN&prvni=N>

National accounts and/or balance of payments (please specify):

.....

Sectoral statistics, such as e.g. energy, agriculture etc. (please specify):

.....

Other (please specify):

.....

**6.d) Do you employ Eurostat's correspondence table, provided in Annex 4 of the questionnaire, to assign traded goods to material categories?**

Yes, we employ Annex 4 to assign traded goods to material categories

No, we don't employ Annex 4, please specify why not:

.....

**6.e) Do you use conversion factors to convert traded goods into tonnes (e.g. from pieces, cubic metres etc.)?**

No, it is not necessary to convert into tonnes.

Yes, please specify (e.g. did you use factors from Eurostat's EW-MFA compilation guide?):

Foreign trade is recorded in kg for the whole time period (since 2011 even in grams), no conversion factors were used except CN code 9950000 – small packages (MF5) and CN codes 9880XXXX – industrial units. The invoiced price of small packages is not higher than 200 EUR and due to not increasing the burden on respondents their weight is not reported. An industrial unit is a combination of machines, apparatus, equipment, equipment and materials that together form large permanent units producing goods or providing services (eg complete production lines, construction of entire manufacturing plants or hotels) and falls into the category of specific goods for which there is no weight reporting required. The weight of small packages and investment units was estimated on the base of invoiced price in cooperation with experts from the foreign trade department.

**6.f) Fuel trade, residence adjustment: Please describe how do you make adjustments to the physical trade characteristics MF.4.2.3 for fuel purchases by residents abroad and non-residents on the territory, respectively? This relates e.g.to international air and maritime transport as well as to road transport.**

We used the similar procedure as in years before. Adjustments to the trade characteristics for fuel purchases by residents abroad and fuel purchases by non-residents on national territory were made only for air and road transport. There is no maritime transport in the Czech Republic and river transport is negligible. Resident adjustment is compiled in conformity with energy accounts.

No, we don't undertake residence adjustments for the following reasons (please specify): not:

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**6.g) Are there any discontinuities in time series resulting from changes in methodology, data sources etc.? If data was revised compared to a previous data transmission to Eurostat what was the size of the revisions and what principally caused them?**

No revisions except residence principle data.

**6.h) Did you encounter significant problems in adapting basic statistics to the concepts of the accounts?**

*Basic statistical data is missing (please specify):*

.....

*Basic data sources are insufficient, e.g. PRODCOM for MF.3.8 Sand and gravel (please specify):*

.....

*Mapping the classification of basic data source to the EW-MFA classification (please specify):*

.....

*Other problems (please specify):*

No major problems were encounter adapting basic statistics to the concepts of the account, except the adjustments to residence principle, there are mostly estimates based on the simplified assumptions.

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## 7 Coherence

*Coherence* refers to the adequacy of the data to be reliably combined in different ways and for various uses.

The accounting framework of EW-MFA is consistent with the System of Environmental-Economic Accounting (SEEA-CF) adopted by the United Nations Statistical Commission as a world-level statistical standard in March 2012. EW-MFA are consistent with the European system of accounts (ESA) and hence suited to be combined with ESA aggregates.

**7.a) Are there any consistency issues you would like to mention here?**

*No issues.....*

## 8 Other assessments and quality reports:

**8.a) Do you have national descriptions of the methodology you use? If so please provide them.**

Only a brief description of the national methodology in the publication

<https://www.czso.cz/csu/czso/material-flow-accounts-selected-indicators>

**8.b) Do you have national quality reports already available? If so please provide them.**

No

## 9 Voluntary MFA in RME data collection:

**9.a) In case you have reported data in Table I, have you used Eurostat's country RME tool to compile the MFA in RME?**

Yes. Please specify if you have made country specific alterations:

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No.

*If No, please briefly state why you prefer your methodology:*

.....

*If No, do you have a description of the methodology you have used for compiling the MFA in RME? If so please provide it.*

.....

## Annex 1: Sources of data for Table A 'Domestic extraction' by material categories

Characteristics Table A		Data sources			
Code	label	Please specify the exact data source (add URL or hyperlink if possible)	Is it a national data source? (yes/no)	Is it an international data source? (yes/no)	Please explain which positions in your national data source classification were grouped and assigned to the respective MF category (in particular for biomass and non-metallic minerals)
MF.1.1.1	Cereals	Harvest statistic <a href="https://www.czso.cz/csu/czso/final-harvest-figures-2015">https://www.czso.cz/csu/czso/final-harvest-figures-2015</a>	Yes	No	We respect CROP statistics classification, regulation EP and Council 543/2009 concerning crop statistics and repealing Council Regulations (EEC) No 837/90 and (EEC) No 959/93
MF.1.1.2	Roots, tuber	-"-	Yes	No	
MF.1.1.3	Sugar crops	-"-	Yes	No	
MF.1.1.4	Pulses	-"-	Yes	No	
MF.1.1.5	Nuts	-"-	Yes	No	
MF.1.1.6	Oil-bearing crops	-"-	Yes	No	
MF.1.1.7	Vegetables	-"-	Yes	No	
MF.1.1.8	Fruits	-"-	Yes	No	
MF.1.1.9	Fibres	-"-	Yes	No	
MF.1.1.A	Other crops (excluding fodder crops) n.e.c.	-"-	Yes	No	
MF.1.2.1.1	Straw	-"-	Yes	No	
MF.1.2.1.2	Other crop residues (sugar and fodder beet leaves, etc.)	-"-	Yes	No	
MF.1.2.2.1	Fodder crops (including biomass harvest from grassland)	-"-	Yes	No	
MF.1.2.2.2	Grazed biomass	-"-	Yes	No	
MF.1.3.1	Timber (industrial roundwood)	Forestry statistics <a href="https://www.czso.cz/csu/czso/forestry-2016">https://www.czso.cz/csu/czso/forestry-2016</a>	Yes	No	
MF.1.3.2	Wood fuel and other extraction	Forestry statistics <a href="https://www.czso.cz/csu/czso/forestry-2016">https://www.czso.cz/csu/czso/forestry-2016</a>	Yes	No	
MF.1.4.1	Wild fish catch	No wild fish catch			
MF.1.4.2	All other aquatic animals and plants	No other aquatic			
MF.1.4.3	Hunting and gathering	Hunting –	Yes	No	



Characteristics Table A		Data sources			
Code	label	Please specify the exact data source (add URL or hyperlink if possible)	Is it a national data source? (yes/no)	Is it an international data source? (yes/no)	Please explain which positions in your national data source classification were grouped and assigned to the respective MF category (in particular for biomass and non-metallic minerals)
		<a href="https://www.czso.cz/csu/czso/basic-data-on-hunting-grounds-game-stock-and-hunting-from-1-april-2016-to-31-march-2017">https://www.czso.cz/csu/czso/basic-data-on-hunting-grounds-game-stock-and-hunting-from-1-april-2016-to-31-march-2017</a> Gathering – <a href="http://www.uhul.cz/ke-stazeni/informace-o-lese/zelene-zpravy-mze">http://www.uhul.cz/ke-stazeni/informace-o-lese/zelene-zpravy-mze</a>			
MF.2.1	Iron	Extraction statistics- <a href="http://www.geology.cz/extranet-eng/publications/online/mineral-commodity-summaries">http://www.geology.cz/extranet-eng/publications/online/mineral-commodity-summaries</a>	Yes	No	
MF.2.2.1	Copper	-"-	Yes	No	
MF.2.2.2	Nickel	-"-	Yes	No	
MF.2.2.3	Lead	-"-	Yes	No	
MF.2.2.4	Zinc	-"-	Yes	No	
MF.2.2.5	Tin	-"-	Yes	No	
MF.2.2.6	Gold, silver, platinum, other precious metals	-"-	Yes	No	
MF.2.2.7	Bauxite, aluminium	-"-	Yes	No	
MF.2.2.8	Uranium, thorium	-"-	Yes	No	
MF.2.2.9	Other non-ferrous n.e.c	-"-	Yes	No	
MF.3.1	Marble, granite, sandstone, etc.	-"-	Yes	No	
MF.3.2	Chalk and dolomite	-"-	Yes	No	
MF.3.3	Slate	-"-	Yes	No	
MF.3.4	Chemical and fertiliser minerals	-"-	Yes	No	
MF.3.5	Salt	-"-	Yes	No	
MF.3.6	Limestone and gypsum	-"-	Yes	No	

Characteristics Table A		Data sources			
Code	label	Please specify the exact data source (add URL or hyperlink if possible)	Is it a national data source? (yes/no)	Is it an international data source? (yes/no)	Please explain which positions in your national data source classification were grouped and assigned to the respective MF category (in particular for biomass and non-metallic minerals)
MF.3.7	Clay and kaolin	-"-	Yes	No	
MF.3.8	Sand and gravel	-"-	Yes	No	
MF.3.9	Other non-metallic n.e.c	-"-	Yes	No	
MF.3.A	Excavated earthen materials (including soil), only if used (optional reporting)	No data	No	No	
		Extraction statistics- <a href="http://www.geology.cz/extranet-eng/publications/online/mineral-commodity-summaries">http://www.geology.cz/extranet-eng/publications/online/mineral-commodity-summaries</a>			
MF.4.1.1	Lignite (brown coal)		Yes	No	
MF.4.1.2	Hard coal	-"-	Yes	No	
MF.4.1.3	Oil shale and tar sands	-"-	Yes	No	
MF.4.1.4	Peat	-"-	Yes	No	
MF.4.2.1	Crude oil, condensate and natural gas liquids (NGL)	-"-	Yes	No	
MF.4.2.2	Natural gas	-"-	Yes	No	

## Annex 2: Estimation methods for data of Table A 'Domestic Extraction' for which no statistical data sources exist

Characteristics Table A		Estimation methods			
Code	Label	Do you use the Eurostat estimation approach recommended in the EW-MFA compilation guide? (yes/no)	Have you developed your own estimation approach? (yes/no)	Please explain briefly the estimation approach including possible data sources for auxiliary data?	Please specify coefficients used (if not Eurostat coefficients)?
MF.1.1.1	Cereals				
MF.1.1.2	Roots, tuber				
MF.1.1.3	Sugar crops				
MF.1.1.4	Pulses				
MF.1.1.5	Nuts				
MF.1.1.6	Oil-bearing crops				
MF.1.1.7	Vegetables				
MF.1.1.8	Fruits				
MF.1.1.9	Fibres				
MF.1.1.A	Other crops (excluding fodder crops) n.e.c.				
MF.1.2.1.1	Straw				
MF.1.2.1.2	Other crop residues (sugar and fodder beet leaves, etc.)				
MF.1.2.2.1	Fodder crops (including biomass harvest from grassland)				
MF.1.2.2.2	Grazed biomass				
MF.1.3.1	Timber (industrial roundwood)				
MF.1.3.2	Wood fuel and other extraction				
MF.1.4.1	Wild fish catch				
MF.1.4.2	All other aquatic animals and plants				

Characteristics Table A		Estimation methods			
Code	Label	Do you use the Eurostat estimation approach recommended in the EW-MFA compilation guide? (yes/no)	Have you developed your own estimation approach? (yes/no)	Please explain briefly the estimation approach including possible data sources for auxiliary data?	Please specify coefficients used (if not Eurostat coefficients)?
MF.1.4.3	Hunting and gathering				
MF.2.1	Iron				
MF.2.2.1	Copper				
MF.2.2.2	Nickel				
MF.2.2.3	Lead				
MF.2.2.4	Zinc				
MF.2.2.5	Tin				
MF.2.2.6	Gold, silver, platinum, other precious metals				
MF.2.2.7	Bauxite, aluminium				
MF.2.2.8	Uranium, thorium				
MF.2.2.9	Other non-ferrous n.e.c				
MF.3.1	Marble, granite, sandstone, etc.				
MF.3.2	Chalk and dolomite				
MF.3.3	Slate				
MF.3.4	Chemical and fertiliser minerals				
MF.3.5	Salt				
MF.3.6	Limestone and gypsum				
MF.3.7	Clay and kaolin				
MF.3.8	Sand and gravel				
MF.3.9	Other non-metallic n.e.c				
MF.3.A	Excavated earthen materials (including soil), only if used (optional reporting)				
MF.4.1.1	Lignite (brown coal)				
MF.4.1.2	Hard coal				

Characteristics Table A		Estimation methods			
Code	Label	Do you use the Eurostat estimation approach recommended in the EW-MFA compilation guide? (yes/no)	Have you developed your own estimation approach? (yes/no)	Please explain briefly the estimation approach including possible data sources for auxiliary data?	Please specify coefficients used (if not Eurostat coefficients)?
MF.4.1.3	Oil shale and tar sands				
MF.4.1.4	Peat				
MF.4.2.1	Crude oil, condensate and natural gas liquids (NGL)				
MF.4.2.2	Natural gas				