

## First Release

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# ECONOMY-WIDE MATERIAL FLOW ACCOUNTS, 2017 – 2021

Economic material flow accounts that include domestic extraction, intra-EU and extra-EU import and export as well as domestic processed output for the Republic of Croatia are presented for the period from 2017 to 2021.

In 2021, the value of the direct material input was 65 880 thousand tonnes (64.4% from domestic sources and 35.6% from import), which was 5.2% more than in 2020.

Domestic material consumption in 2021 was 44 967 thousand tonnes, which was 4.2% more than in 2020.

The import of materials in 2021 amounted to 23 428 thousand tonnes, which means it increased by 16.4% compared to 2020. The export of materials was amounted to 20 913 thousand tonnes, which is an increase of 7.3% compared to the previous year. The physical trade balance amounted to 2 515 thousand tonnes.

## 1 DOMESTIC EXTRACTION<sup>1)</sup>

'000 tonnes

	2017	2018	2019	2020	2021
Total <sup>2)</sup>	40 521	41 208	41 460	42 495	42 452
Biomass	14 754	15 233	15 473	16 111	15 327
Non-metallic minerals	23 744	24 166	24 362	25 003	25 885
Fossil energy materials/carriers	2 023	1 808	1 625	1 382	1 240

1) New calculations according to the recommended Eurostat methodology are used each year to calculate material flow. Therefore, some data are not comparable to the data from the First Release OEN-2021-1-7.

2) The sum total of some values does not equal the sum of items due to the expression of numbers in thousands.

## 2 IMPORT OF CROATIA – INTRA-EU + EXTRA-EU TRADE

'000 tonnes

	2017	2018	2019	2020	2021
Total <sup>1)</sup>	18 890	18 890	20 139	20 130	23 428
Biomass and biomass products	4 232	4 388	4 689	4 510	5 016
Metal ores and concentrates, raw and processed	1 991	2 122	2 352	2 437	2 779
Non-metallic minerals, raw and processed	4 141	4 140	4 854	5 264	5 592
Fossil energy materials/carriers, raw and processed	7 370	7 003	6 944	6 649	8 591
Other products	1 155	1 235	1 294	1 246	1 415
Waste imported for final treatment and disposal	0	0	5	23	35

1) The sum total of some values does not equal the sum of items due to the expression of numbers in thousands.

### 3 EXPORT OF CROATIA – INTRA-EU + EXTRA-EU TRADE

'000 tonnes

	2017	2018	2019	2020	2021
Total <sup>1)</sup>	17 841	17 469	17 601	19 488	20 913
Biomass and biomass products	7 416	6 937	7 433	7 617	8 254
Metal ores and concentrates, raw and processed	1 359	1 398	1 477	1 533	1 892
Non-metallic minerals, raw and processed	5 641	5 674	5 380	5 522	5 974
Fossil energy materials/carriers, raw and processed	2 859	2 907	2 723	4 246	4 028
Other products	558	542	578	558	750
Waste imported for final treatment and disposal	9	11	9	12	16

1) The sum total of some values does not equal the sum of items due to the expression of numbers in thousands.

### 4 DOMESTIC PROCESSED OUTPUT<sup>1)</sup>

'000 tonnes

	2017	2018	2019	2020	2021
Emissions to air	26 568	25 803	31 637	25 513	25 101
Waste disposal to controlled landfills	1 815	1 639	1 616	1 452	1 593
Emissions to water	49	47	40	40	45
Dissipative use of products <sup>2)</sup>	1 587	1 619	1 597	1 590	1 620
Dissipative losses	1	1	1	1	1

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2) Dissipative use of products includes the use of mineral and organic fertilizers, sewage sludge, compost and pesticides.

### 5 MATERIAL FLOW INDICATORS, 2021

'000 tonnes

	Domestic extraction	Import	Export	Direct material input	Domestic material consumption	Physical trade balance
	1	2	3	4 = 1 + 2	5 = 4 - 3	6 = 2 - 3
Materials, total <sup>1)</sup>	42 452	23 428	20 913	65 880	44 967	2 515
Biomass and biomass products	15 327	5 016	8 254	20 343	12 089	-3 238
Metal ores and concentrates, raw and processed	0	2 779	1 892	2 779	887	887
Non-metallic minerals, raw and processed	25 885	5 592	5 974	31 477	25 503	-382
Fossil energy materials/carriers, raw and processed	1 240	8 591	4 028	9 831	5 803	4 563
Other products	0	1 415	750	1 415	665	665
Waste	0	35	16	35	19	19

1) The sum total of some values does not equal the sum of items due to the expression of numbers in thousands.

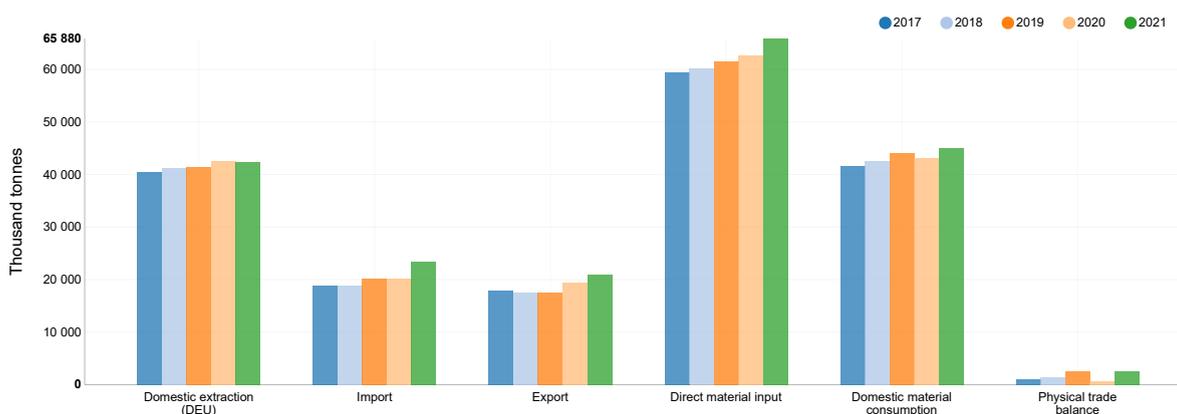
## 6 MATERIAL FLOW INDICATORS, 2017 – 2021<sup>1)</sup>

'000 tonnes

	2017	2018	2019	2020	2021
Domestic extraction (DEU)	40 521	41 208	41 460	42 495	42 452
Import	18 890	18 890	20 139	20 130	23 428
Export	17 841	17 469	17 601	19 488	20 913
Direct material input	59 411	60 097	61 600	62 625	65 880
Domestic material consumption	41 570	42 628	43 999	43 137	44 967
Physical trade balance	1 049	1 420	2 538	642	2 515

1) New calculations according to the recommended Eurostat methodology are used each year to calculate material flow. Therefore, some data are not comparable to the data from the First Release OEN-2021-1-7.

### G-1 MATERIAL FLOW INDICATORS, 2017 – 2021



## NOTES ON METHODOLOGY

### Sources and methods of data collection

The source of data on the economic material flow accounts is the Croatian Bureau of Statistics.

The economic material flow accounts are one of the several physical modules of the Eurostat's programme of European environmental economic accounts. They are covered by the Regulation (EU) No. 691/2011 of the European Parliament and the Council of 6 July 2011 on European environmental economic accounts.

Economy-wide material flow accounts (EW-MFA) record flows of natural inputs (domestic extraction of materials) and products (import, export) in a detailed breakdown by approximately 50 material categories. Material flow data presented in this First Release employ the following main material categories:

1. Biomass and biomass products: crops and products thereof, crop residues and fodder crops
2. Metal ores and concentrates and products thereof
3. Non-metallic minerals and products thereof
4. Fossil energy material/carriers and products thereof (coal, petroleum, gas etc.)
5. Other products and waste.

### Definitions

**Biomass** refers to the biodegradable components of products, waste and residue of agriculture (including plant and animal matter), forestry and wood industries, as well as biodegradable parts of municipal and industrial waste, the energy usage of which is allowed.

**Minerals** are natural homogeneous bodies of permanent chemical composition and determined physical characteristics that occur in specific geometric forms (crystals) or undetermined physical characteristics.

**Ore** is a mineral aggregate from which it is technically viable and economically justifiable to produce metals and/or other minerals usable in industry.

**Concentrates** are products of ore enrichment that have a significantly increased metal content compared to ore contents and are appropriate for further metallurgical processing and production of metal.

**Non-metallic mineral raw material** are raw materials which do not produce new raw materials as a result of melting, and are usually integrated in sedimentary rocks (quartz raw materials, clay, salt, dolomite, phosphorite, graphite, bauxite and cement raw materials).

**Fossil energy materials/carriers** are produced naturally beneath Earth's surface during a long period of time from biological remains. Fossil fuels are not renewable energy sources. There are three main forms of fossil fuels: coal, petroleum and natural gas.

**Waste** is every substance or object that was, is going to be or has to be discarded by its owner. Every discarded object and substance the gathering, transport and processing of which are necessary for the protection of the public interest is considered waste.

**Domestic extraction used (DEU)** is the annual amount of raw materials (except for water and air) extracted from the natural environment to be used in the economy.

**Domestic material consumption (DMC)** is defined as the total amount of material directly used in the economy.

**Domestic material consumption (DMC)** = domestic extraction used + import – export

**Direct material input (DMI)** = domestic extraction used + import

**Physical trade balance (PTB)** is calculated by subtracting the amount of export in physical units from the amount of import in physical units, as follows:

**Physical trade balance (PTB)** = import – export.

#### Abbreviations

EU	European Union
Eurostat	Statistical Office of the European Union
'000	thousand

#### Symbols

0 value not zero but less than 0.5 of the unit of measure used

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