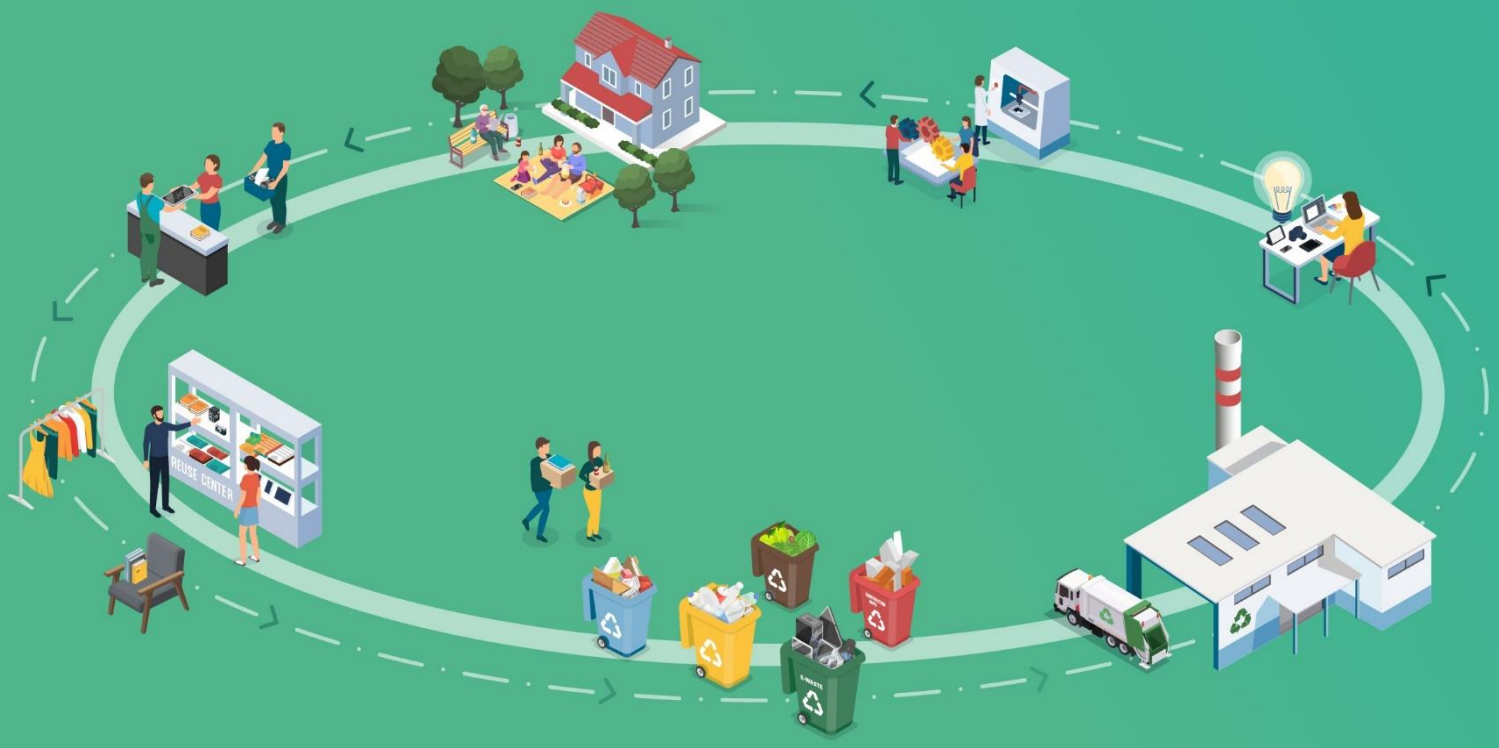
Croatia Circular Economy Approaches in Solid Waste Management (P173141)

ACTIVITY 1.1: Diagnostic analysis for a Circular Economy in Croatia

Task 3: Identification of the focus sector/value chain

(Annex 3)



CIRCULAR ECONOMY APPROACHES IN SOLID WASTE MANAGEMENT

THE WORLD BANK IBRD • IDA | WORLD BANK GROUP
REPUBLIKA HRVATSKA Ministarstvo gospodarstva i održivog razvoja
REPUBLIKA HRVATSKA Ministarstvo regionalnoga razvoja i fondova Europske unije
EUROPSKI STRUKTURNI I INVESTICIJSKI FONDOVI
Operativni program KONKURENTNOST I KOHEZIJA
Europska unija Zajedno do fondova EU

Project co-financed by the European Union from the Cohesion Fund

Disclaimer

This report was developed by the World Bank. The findings, interpretations and conclusions expressed in this report do not necessarily reflect the views of the Executive Directors of the World Bank or the governments they represent. The report was produced to provide advisory support to the Croatian Ministry of Economy and Sustainable Development (MINGOR/MoESD) and does not necessarily represent the views of the Government of Croatia or of MINGOR.

Acknowledgements

The report was developed by the World Bank and in cooperation with a team of experts from the Environment Agency Austria (Umweltbundesamt – EAA) incl Fritz KROISS, Mihail ASENOV, Darko BIZJAK, Francesca MONTEVECCHI and Wolfgang DOLEZAL.

This Report was prepared by the core team from the World Bank led by Wolfhart POHL (Lead Specialist, Environment and Geosciences, Task Team Leader) and Sameer AKBAR (Senior Environmental Specialist, co-Task Team Leader), Vladimir KALINSKI (Project Coordinator), Rieko KUBOTA (Senior Environmental Engineer), Jiyoun Christina CHANG (Circular Economy Expert), Natalija GOLUBOVAC (Waste Management Experts), Irena RELIĆ, and Marko BALENOVIC (Program Assistant).

The team is grateful to Jehan ARULPRAGASAM (Country Manager, Croatia), Kseniya LVOVSKY (Practice Manager, Europe and Central Asia) and Andrea LIVERANI (Program Leader) for their valuable support and overall guidance. The team extends its appreciation to the officials of the Croatian Ministry of Economy and Sustainable Development (MoESD) for their support during the preparation of this report.

Table of Contents

List of tables and pictures

Abbreviations

%	per cent
C&D	Construction and Demolition Waste
CE	Circular Economy
DMC	Domestic Material Consumption
EC	European Commission
ELV	End-of-Life Vehicles
EPR	Extended Producer Responsibility
EU	European Union
GDP	Gross Domestic Product
HAOP	Croatian Environment and Nature Agency
ICT	Information and Communication Technology
MFA	Material Flow Accounting
MINGOR/MoESD	Ministry of Economy and Sustainable Development
Mln	Millions (1 000 000)
MSW	Municipal Solid Waste
NACE	Statistical Classification of Economic Activities in the European Community
PAYT	pay-as-you-throw
RMC	Raw Material Consumption
SUP	Single Use Plastic
WB	World Bank
WEEE	Waste of Electrical and Electronic Equipment
WM	Waste Management

Executive summary

The aim of this study is to identify and examine the most important sectors of the Croatian economy from an environmental and economic point of view and from the perspective of the potential for implementing policies that support the transition to a circular economy. Chapter 1 presents the objectives and scope of the project. The methodology used to identify the most important sectors is described in Chapter 2, which also includes the identification of the prioritization criteria, the collection of the necessary data and the actual evaluation and prioritization of the sectors.

The methodology for identifying priority sectors combines a comparison of both qualitative and quantitative criteria. The qualitative approach included a review of the relevant literature, calling on the experience of Environment Agency Austria in the transition to a circular economy and the expertise of Croatian experts familiar with the current situation in the studied sectors. The quantitative approach involved assessing sectors against relevant quantifiable indicators (e.g. number of employees, amount of materials consumed, waste generated and recycled, etc.) and the use of an scoring system to determine significance of the sectors.

Quantitative assessment of the materials used in individual sectors in the Croatian economy has proved to be a difficult task, as statistics are collected mainly in financial terms and not in tonnes of raw materials purchased. However, the data were also examined from other national sources, such as annual environmental reports and information systems on waste and products placed on the market.

In addition to the assessment of data availability, the project team reviewed the European Commission's research literature and published research in the field of the circular economy, discussed the topic with the beneficiary and World Bank experts, and also used the experience of Circle Economy U.A. and the results achieved in the parallel project “Material Flow Analysis for a Circular Economy in Croatia”.

After analysing all quantitative and qualitative indicators, the project team identified the following three priority sectors as the most significant for Croatia in terms of potential benefits from the transition to a circular economy including material cost savings, reduced price volatility, improved security of supply, potential employment benefits, as well as reduced environmental pressures and impacts:

- Food sector has achieved higher ranking according to socio-economic indicators and it is next best sector according to Circular Material Use Rate indicator but the main reason for choosing the sector as the highest priority is due to its best performance in the assessment of barriers and enabling conditions for transformation to circular economy;
- Packaging sector takes leading positions according to all waste management and circularity potential indicators with exception of Circular Material Use Rate indicator, but the main reason for its worse performance in comparison to food sector is because, it is already the focus of policy programmes and legal framework, a range of policies and measures have been implemented in Croatia that support the transition of the sector to a circular economy and therefore the potential gains from greater circularity have been already exploited.
- Construction and building sector on average has moderate performance according to all prioritization criteria with exception of “Percentage of total waste” indicator, where it achieved the highest score, but it has been evaluated as one of the priority sectors due to the highest material consumption, which means that higher results could be achieved with minimum efforts and because the recent earthquake in Croatia proved that construction and demolition (C&D) waste management infrastructure needs new investments and urgent development.

1. Introduction

The purpose of sector selection was to identify and examine the most important product value chain among the focal sectors of the New Circular Economy Action Plan from environmental and economic perspectives and from the perspective of potential for improvement in circularity.

The World Bank (WB) provided indicative list of selection criteria that consider the role and significance of the sector / value chain in the Croatian national economy (such as Gross Domestic Product (GDP) contribution, growth potential, contribution to employment, global competitiveness), contribution to waste streams (as percentage of total volumes), as well as circularity potential (e.g. recycling rates versus recyclable portion of waste, avoidable volumes, potential for replacement with alternative materials with better recyclability etc.). Therefore, material consumption was of particular interest, with energy, water and waste, as well as economic indicators, also considered.

It proved difficult to allocate the material inputs to individual sectors in the Croatian economy because data are primarily collected in financial terms rather than in tonnes of materials purchased. However, data were also examined from other sources, such as The Environmental Protection and Energy Efficiency Fund (www.fzoeu.hr), Institute for Environmental Protection and Nature (www.haop.hr), Waste flow monitoring system (https://eonto.azo.hr), Environmental Pollution Register (http://roo.azo.hr). International indicators were also used in some cases to scale up Croatian data.

Following a review of the available data, it was determined that the most consistent nomenclature to characterize the relevant sectors was the four-digit division code from Statistical Classification of Economic Activities in the European Community (NACE) Rev. 2. The study also researched circularity metrics and benchmarks for the priority sectors. Through this process, it is expected that improvement options, potential best practices, preferred technologies, opportunities for resource use reduction (resource efficiency) and pointers for new markets and technologies will be identified. It is also hoped that the results will help identify potential policies and strategies to promote the circularity measures identified.

2. Priority Sector Selection Methodology

2.1 Overview of Methodology

The identification of priority sectors is based on combined both qualitative and quantitative methodologies. The qualitative approach involved reviewing relevant literature and calling on Consultant's team experts judgement with several sectors. The quantitative approach involved assessing sectors according to relevant quantifiable indicators (e.g. number of persons employed, quantity of materials consumed) and using a scoring system to determine significance. The methodology can be summarised in the following three steps:

- Step 1: decide on potential indicators as criteria for comparison, following review of Circular Economy indicators published by EUROSTAT[1], literature review and discussion with expert group composed of experts from the World Bank, Environment Agency, Austria and Circle Economy project steering group;
- Step 2: derive a matrix in which data are gathered and identify information gaps;
- Step 3: populate the matrix; rank sectors using a scoring system.

2.2 Identification of potential indicators as criteria for prioritization

Based on the indicative list of indicators provided by the WB team, we have identified the following indicators as an initial set of indicators for priority value chain selection:

1. the role and significance of the sector / value chain in the Croatian national economy:
   1.1. GDP contribution;
   1.2. growth potential;
   1.3. contribution to employment;
   1.4. global competitiveness.
2. contribution to waste streams;
   2.1. percentage of total volumes.
3. circularity potential;
   3.1. recycling rates versus recyclable portion of waste;
   3.2. avoidable volumes;
   3.3. potential for replacement with alternative materials with better recyclability.

Some of the criteria are part of indicator sets, for which EUROSTAT provides necessary data to support the monitoring progress in different policy areas. For others, there is no corresponding statistical indicator, but other relevant sources of statistical information could be used to characterize the respective criteria. The following is the list of criteria with respective statistical indicator where such is available and the data used to characterize the criteria where direct statistical indicator is not available.

1.1. GDP contribution – "Value Added at factor cost" per economic activity was used to indirectly measure the GDP contribution of each sector;

1.2. growth potential – as there is no statistical indicator for measuring economic growth historical data for "Gross investment in tangible goods" per economic activity were used to calculate the

[1] https://ec.europa.eu/eurostat/web/circular-economy/indicators/monitoring-framework

average investment growth in the sector which in turn outlines the economic growth trend of the sector;

1.3. contribution to employment – EUROSTAT's "Employment and activity by sex and age - annual data" indicator was used which is part of indicator set describing labour market

1.4. global competitiveness – as there is no statistical indicator for measuring global competitiveness, sector's share of total export was used as a proxy indicator;

2.1. percentage of total volumes – Generation of waste by waste category, hazardousness and NACE Rev. 2 activity indicator was used, which is part of EUROSTAT's Generation of waste dataset;

3.1. recycling rates versus recyclable portion of waste – recycling rates indicators are available both from EUROSTAT and national sources mainly Croatian Environment and Nature Agency (HAOP);

3.2. avoidable volumes – waste prevention is measured by Generation of waste by waste category, hazardousness and NACE Rev. 2 activity indicator, which is part of EUROSTAT's Generation of waste dataset;

3.3. potential for replacement with alternative materials with better recyclability – no statistical indicator for direct measuring nor indirect statistical data characterizing the potential for replacement with alternative materials with better recyclability are available.

In order to be comparable from sector to sector, the above listed criteria have to be expressed in quantitative or qualitative terms.

With a view of identifying the need of additional criteria, a review of the literature was carried out to determine the indicators most relevant to circular economy. With the establishment of the circular economy as one of the main policies of the EU, a number of indicators have been adopted to measure its progress. In this regard, it is first necessary to examine whether generally accepted indicators can be used as criteria for selecting a priority sector. To identify suitable indicators representing the above listed and other necessary criteria, initially, a literature review of similar studies was undertaken. Information on individual sectors, relevant materials, determining factors and indicators listed in these publications was collated. These data were used to inform the preliminary identification of indicators to be considered in the data- gathering process.

2.2.1 Prioritization criteria used in the EU Scoping Study

Of particular interest was a study carried out for the EU in 2014, *Scoping Study to Identify Potential Circular Economy Actions, Priority Sectors, Material Flows and Value Chains*[2]. In this study, priority actions and policy options that can be used to help Europe move towards a circular economy were analyzed. The study identified priority sectors/products (packaging, food, electronic and electrical equipment, transport, furniture, buildings and construction) and five priority materials (agricultural products and waste, wood and paper, plastics, metals and phosphorus) to focus on with regard to a circular economy. Priority areas are defined as those which have:

- potential for greater circularity; and
- higher possibilities for EU policy intervention in exploiting this potential.

[2] https://www.eesc.europa.eu/resources/docs/scoping-study.pdf

The methodology for selection used in the study includes the following three stages:

1. exploring which materials might be considered priorities to reflect the cross-sectoral nature of materials and resources. A number of key existing studies were analyzed to prioritize the materials on the basis of their scarcity and dependence, environmental impact, potential savings (material, environmental and/or economic) and the associated key opportunities and challenges. As a result biomass (agricultural products & waste), wood and paper, plastics, metals phosphorous were identified as priority materials, while textiles, rocks, glass, fossil fuels and other chemicals are not considered as priority either because they were not identified as a key priority amongst literature sources reviewed or due to lack of availability of comparable information.

2. mapping the overlap between materials and key product sectors. The various sectors were correlated against their associated priority material flows in order to establish which sectors shall be considered as priorities. The following products and sectors were identified as priorities in the study: Packaging; Food; Electronic and electrical equipment; Transport; Furniture; Buildings and construction.

3. material-products mapping is then used to identify further priorities amongst product sectors. Further reasoning for justifying the prioritization and assessment of potential activities for circular economy transformation were explored per each sector in terms of the existing measures for addressing the circularity in the respective sector (existing barriers and drivers) and the unexploited potential for further measures for elimination of the barriers and introduction of policies which enable business models and value chains to be more circular.

2.2.2 Indicators used in European Commission's monitoring framework on the circular economy

The monitoring framework on the circular economy as set up by the European Commission consists of ten indicators, some of which are broken down in sub-indicators. The methodology used for selecting the indicators is laid out in the Commission Staff Working Document on measuring progress towards circular economy in the European Union. EUROSTAT regularly updates the monitoring framework on circular economy on its website but the underlying data populating the various indicators is available only on national and EU-wide levels. Currently EUROSTAT does not publish sector specific statistical data and the indicators under CE monitoring framework are not used for measuring circularity in different value chains in a country. However if proper data could be collected on a national level from various possible source (e.g. information from recyclers, from takeback schemes, from manufacturers) these indicators could be used as a basis for establishment of criteria for comparison of the focus sectors of Croatian economy and for selection of the priority value chain.

The table below shows the suitability of the indicators under CE monitoring framework as criteria for selection of the priority value chain in accordance with the indicative list of indicators provided by the WB team. Comparison of the selection criteria with the EU indicators is absolutely necessary because these indicators will be used by the EC for evaluation of the results achieved by Croatia and comparison of the performance with other member states. In this regard, additional selection criteria were identified, which are not listed in the WB's indicative list.

Table 1. Comparison of selection criteria with indicators used in European Commission's monitoring framework on the circular economy and identification of additional criteria

EU's CE Monitoring framework indicators		Relevance to CE	Corresponding selection criteria from the indicative list provided by WB	Comments
Production and consumption				
1	EU self-sufficiency for critical raw materials (Net Import/Consumption)	Recovery of critical raw materials need to be increased	Not available in the indicative list of prioritization criteria provided by the WB	This is indicator will not be quantified but sectors will be prioritized on a qualitative basis taking into account the presence of critical raw materials in each sector.
2	Green Public Procurement	Not yet measured	N/A in the indicative list	
3	Waste generation - per capita, per Gross Domestic Product (GDP), per Domestic Material Consumption (DMC)			
3a	Generation of municipal waste per capita	Waste prevention;	3.2. avoidable volumes – socially acceptable waste prevention rate multiplied by waste generated in the sector	Avoidable volumes is more sector specific criterion as it is calculated from data associated with the sector itself in contrast to EU indicators that use data on national level (GDP, total waste generated in the country).
3b	Generation of waste excluding major mineral waste per GDP unit	Decoupling GDP and waste generation		
3c	Generation of waste excluding major mineral waste per DMC	Efficiency of material consumption – how much waste is generated per quantity materials consumed	2.1. contribution to waste streams- percentage of total volumes	The criterion in the WB's indicative list is not related to material consumption therefore it is more waste management than CE indicator. Both will be quantified if data on DMC or raw material consumption (RMC) is available per each sector.
4	Food waste	Not yet measured	N/A in the indicative list	
Waste management				
5	Recycling rates (of all waste)	Indication whether the waste is used as a resource	3.1. recycling rates versus recyclable portion of waste	The criterion in the WB's indicative list is more informative for measuring the recyclability. EU indicator does not take into account that for some materials higher recycling rates could be achieved in comparison to other materials.
6	Recycling / recovery for specific waste streams			

Secondary raw materials				
7	Contribution of recycled materials to raw materials demand	How much secondary materials are used instead of primary raw materials	N/A in the indicative list	Very important indicator showing how much waste is returned back into to satisfy the demand in the sector. It will be quantified if data on DMC per sector is available.
8	Trade in recyclable raw materials (Import; Export)	raw materials lost due to export	N/A in the indicative list	This indicator will not be quantified as there is no information available on how much secondary materials generated in each sector have been exported/ imported.
Competitiveness and innovation				
9	Private investments, jobs and gross value added related to circular economy sectors			
9a	Gross investment in tangible goods	Indicator for economic growth (esp. if investments are in eco-design, recycling and industrial symbiosis)	1.2. Growth potential	Similarly to the EU indicator, the growth potential of the sectors will be measured through the average growth of "Gross investment in tangible goods" for the last 5 years.
9b	Number of persons employed	Jobs created in sectors that are closely related to the circular economy	1.3. Contribution to employment	For comparison of sectors it would be better to calculate the contribution of the sector to the total employment (in %) instead of number of persons employed.
9c	Value added at factor cost	Profits are indicator for economic growth in the sector	1.1. GDP contribution	Similarly to the EU indicator, the GDP contribution of the sectors will be measured through the "Value Added at factor cost" for the sector.
10	Number of patents related to recycling and secondary raw materials	indicator for economic growth (esp. if in eco-design, recycling and industrial symbiosis)	N/A in the indicative list	This indicator is not sector specific.

2.2.3 Compiling a list of relevant prioritization criteria

From the review of existing methodologies for assessing the potential for development of a circular economy, it can be concluded that in order to perform a well grounded prioritization of the sectors, the following comparison criteria should be considered.

- Criteria that characterize the materials in the respective sector (reference - *Scoping Study to Identify Potential Circular Economy Actions, Priority Sectors, Material Flows and Value Chains*)
    - scarcity and dependence;
    - environmental impact;
    - potential savings - savings of resources such as energy, water, raw materials, thus contributing to environmental and/or economic savings.
- Criteria that characterize production and consumption - waste generation and prevention (reference - European Commission's monitoring framework on the circular economy)
    - avoidable volumes defined as socially acceptable waste prevention rate multiplied by waste generated in the sector;
    - generation of waste per Domestic Material Consumption (DMC);
    - contribution to waste streams- percentage of total volumes;
    - potential for replacement with alternative materials with better recyclability.
- Criteria that characterize waste management (reference - European Commission's monitoring framework on the circular economy)
    - recycling rates versus recyclable portion of waste.
- Criteria that characterize secondary raw materials (reference - European Commission's monitoring framework on the circular economy).
    - contribution of recycled materials to raw materials demand.
- Criteria that characterize growth potential, competitiveness and employment (reference - European Commission's monitoring framework on the circular economy)
    - growth potential;
    - contribution to employment;
    - GDP contribution;
    - Competitiveness.
- Criteria that characterize barriers and enabling conditions in the sector (reference - *Scoping Study to Identify Potential Circular Economy Actions, Priority Sectors, Material Flows and Value Chains)*
    - legal framework;
    - pricing of waste management costs;
    - consumer and business acceptance;
    - treatment and collection infrastructure;
    - economic incentives;
    - investment and innovation.

All of the above listed criteria were used for the selection of a priority sector. The availability of useful data at a sectoral level for populating the criteria is described in the next section. In case of a lack of enough information, the respective criterion was not quantified but the performance of the sector towards this criterion was assessed in qualitative terms.

2.3 Data gathering and identifying information gaps

2.3.1 Selection of economic activities that represent each of the focus sectors

Although identified as priorities, the value chains listed in the EU's New Circular Economy Action Plan (2020) are not clearly defined by listing the economic activities included in each sector.

It was determined that the most consistent nomenclature to identify the relevant sectors was the four-digit division code from Statistical Classification of Economic Activities in the European Community (NACE) Rev. 2. Many of the data available are in this NACE four-digit division format.

Some economic activities are present in more than one sector. For example NACE code C2222 (Manufacture of plastic packing goods) is present in both packaging and plastics sectors. The distinction between the individual sectors cannot be made unambiguously. For example, almost all services use telecommunication and computing equipment, but in the electronics and ICT sector only services are included in which the use of telecommunication and computing equipment is essential and has a significant contribution to the final price of the service. A sector includes those economic activities that are expected to be most affected in a case of adoption of new policy measures for enhancing circularity in the sector.

The list of economic activities constituting the individual sectors/value chains is presented in Annex 2.

2.3.2 Base year for review

The year 2018 was chosen as the base year to be examined since the most complete set of statistical data from EUROSTAT was available for the year 2018 at the time of evaluation.

2.3.3 Indicator data availability and suitability

As a next step for comparing and prioritizing sectors, it is necessary to develop a structured method for summarizing the available data and subsequently to determine which prioritization criteria could be quantified and which will be analyzed qualitatively. Based on the information collected during step 1 (literature review and evaluation of national publications), an initial matrix was developed, which included the list of 8 sectors, the prioritization criteria listed in section 2.2.3., and assessment of the availability and suitability of the data for selected criteria. This section provides an overview of the methodology employed, the datasets used and the rationale behind the data availability and suitability for each prioritization criterion.

It became evident after subsequent research that sectoral data, that is measurable and quantifiable could not be found for all of the indicators initially selected from step 1. The initial indicators identified are listed in Table 2, with comments on data availability and suitability. More detailed description of sources information, on data availability and suitability is presented in Annex 1. Green indicators were quantified in the final matrices; red indicators were used for comparisons of the sectors in qualitative terms.

Table 2. Indicator data availability and suitability

Key indicators	Comment on data availability and suitability
Criteria that characterize the materials in the respective sector	
Scarcity and dependence	By using EU's Communication COM(2020) 474 final[3] on Critical Raw Materials Resilience and by knowing the predominant materials in each sector it is possible to determine the degree of dependence of each sector.
Environmental impact	The results from the EU Scoping study were used for prioritization of the sectors in qualitative terms. In that study, 3 degrees were used for assessing the "environmental impact" and "potential savings" of each sector and each material[4] – Low, Medium and High.
Potential savings	
Criteria that characterize production and consumption - waste generation and prevention	
Avoidable volumes = waste prevention rate / waste generated in the sector	Avoidable volumes are defined as socially acceptable waste prevention rate multiplied by waste generated in the sector. Both parameters are quantifiable for all 8 sectors using: Prevention rates defined in various studies, voluntary commitments or prevention targets set out in strategies and legal documents. Data from EUROSTAT and national sources (HAOP reports) on waste generated.
Generation of waste per DMC = waste generated in the sector / DMC in the sector	Both parameters (DMC and generation of waste per sector) are quantifiable for all 8 sectors. data from EUROSTAT and national sources (HAOP reports) on waste generated. DMC is expressed as: The quantity of certain product put on the Croatian market where data are available from the Environmental Protection Fund or Raw Material Consumption calculated through Material Flow Accounting (MFA) analysis.
Contribution to waste streams-percentage of total volumes	Defined as the total waste generated in the sector divided by the total waste generated in the country. Both parameters are quantifiable for all 8 sectors using EUROSTAT data.
Potential for replacement with alternative materials with better recyclability	This criterion characterizes recyclability of products but it is very specific – recyclability through replacement with alternative materials. It is not quantifiable.
Criteria that characterize waste management	
Recycling rates versus	Defined as the total waste recycled in the sector, divided by recyclable portion of waste. Both parameters are quantifiable

[3] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52020DC0474&from=EN

[4] Scoping study to identify potential circular economy actions, priority sectors, material flows & value chains, Table 1 and Table 3

recyclable portion of waste = quantities recycled / recyclable portion of waste	for all 8 sectors. Quantities recycled – data is available from EUROSTAT and national sources recyclable portion is the socially acceptable waste recycling rate and it is defined using results from various studies, as well as voluntary commitments or prevention targets set out in strategies and legal documents.
Criteria that characterize secondary raw materials	
contribution of recycled materials to raw materials demand	Both parameters are quantifiable for all 8 sectors. Quantities recycled – data is available from EUROSTAT and national sources raw materials demand –the same approach was used as in the calculation of DMC for generation of waste per DMC criteria (see above).
Criteria that characterize growth potential, competitiveness and employment	
growth potential	This indicator is defined as the average growth of "Gross investment in tangible goods" for the last 5 years. Data are available from EUROSTAT.
contribution to employment	This indicator is defined as Persons employed (number) in the sector divided by Total employment in the country (number). Data are available from EUROSTAT.
GDP contribution	This indicator is defined as "Value Added at factor cost" for the sector divided by "Value Added at factor cost (Total for all NACE activities)". Data are available from EUROSTAT.
Competitiveness	Competitiveness is defined as percentage of exported products from the sector from the total export. Statistical data on exports from all 8 sectors are available.
Criteria that characterize barriers and enabling conditions in the sectors	
legal framework	These criteria must answer the question of whether there are appropriate socio - economic conditions in the country for further development of the circular economy. Measurable parameters that characterize the socio-economic conditions are difficult to find, so these criteria will not be quantified. However all 8 sectors will be analyzed to identify the existing circularity barriers and enabling conditions and the potential for further development. The prioritization of the sectors will be performed on qualitative terms.
pricing of waste management costs	
consumer and business acceptance	
treatment and collection infrastructure	
economic incentives	
investment and innovation	

2.4 Evaluation and prioritization based on quantitative indicators

2.4.1 Interpretation of the indicators

The indicators need further explanation in order to substantiate whether smaller or higher value means better the performance. Moreover, better performance not always indicates that the respective sector should be priority. In sectors where circularity potential is already exploited it is not wise to put more efforts as the time and resources would be invested more efficiently in other sectors that require more urgent attention. The meaning of the indicators for the circular economy and the interpretation of their value for the prioritization of the sectors is presented below in Table 3.

Table 3. Interpretation of the indicators for prioritization of the sectors

Indicator	Interpretation
1.1. GDP contribution	A higher GDP contribution indicates that the circularity policies will have positive effect on higher percentage of the economy. The higher the GDP contribution the higher the priority of the sector.
1.2. Growth potential	A higher growth potential means that the sector will become more important and future circularity policies are more necessary to keep the trend of growing. The higher the growth potential the higher the priority of the sector.
1.3. Employment	As the circular economy requires redesign of products and increase of recycling it is particularly job intensive and has the potential to contribute to the creation of jobs[5]. Therefore, higher share of the sector in total employment indicates that the circularity measures will have positive effect on bigger percentage of the total employment. The higher the employment the higher the priority of the sector.
1.4. Competitiveness	A higher competitiveness means that the respective sector is very important for the Croatian economy and it will be better if the sector remains competitive in the future. As due to the development of circular economy, the future market demand will be reoriented towards more sustainable products and services introduction of circularity policies in competitive sectors will become more necessary. The higher the competitiveness the higher the priority of the sector.
2.1. Share of total waste	As the circular economy requires that materials and resources are maintained in the economy for as long as possible and the generation of waste is to be reduced a higher percentage of waste generation in the sector indicates that these requirements are not met and more circularity

[5] This conclusion is taken from the explanation of EUROSTAT's "Persons employed" indicator, part of CE monitoring framework where it is stated: "The circular economy has the potential to contribute to the creation of jobs and economic growth. Innovation and investments - on eco-design, on secondary raw materials, on recycling processes and on industrial symbiosis - are a key element of the transition to a circular economy. Specific sectors that are closely related to the circular economy such as the recycling, repair and reuse, are particularly job intensive, and contribute to local employment".

	measures are needed in the sector. The higher the sector's share of total waste generated the higher is the priority of the sector.
3.1. Recycling vs. recyclable portion	A higher recycling rate means that more secondary materials are fed back into the economy. However the purpose of the prioritization is to assess the necessity and potential for improving the circularity in the sector. Sectors that have already achieved maximum performance have no further potential for improvement. Examples of such sectors are ELV, WEEE and waste batteries where recycling targets set out in EU legislation are already achieved. Therefore, the lower the recycling rate achieved the higher the priority of the sector.
3.2. Avoidable volumes	A higher avoidable volume indicates unexploited potential for waste prevention. The higher the avoidable volumes the higher the priority of the sector.
3.3. Circular Material Use Rate	A higher circularity rate value means that more secondary materials substitute for primary raw materials thus reducing the environmental impacts of extracting primary material. However the purpose of the prioritization is to assess the necessity and potential for improving the circularity in the sector. Sectors that have already achieved maximum performance have no further potential for improvement. Examples are the sectors of electronics and batteries where around 40% of quantities consumed are derived from recycled materials. Therefore, the lower the Circular Material Use Rate the higher is the priority of the sector.
3.4. Generation of waste per DMC	This indicator monitors the efficiency of material consumption and indicates whether the products are consumed completely without generating waste or partially. It is product specific e.g. it is possible to consume food products almost entirely or to use a building for prolonged time, but almost all of the packaging and batteries are consumed quickly (within a year) and almost the entire product quantity becomes waste after use. The smaller the value of the ratio, the better the performance. However the purpose of the prioritization is to assess the necessity and potential for improving the circularity in the sector. Sectors that have already achieved maximum performance have no further potential for improvement. Therefore, the higher the Generation of waste per DMC the higher is the priority of the sector.

2.4.2 Populating the criteria/ sector matrix

Taking into account the availability of data identified in the previous step, a matrix was constructed that cross-referenced the 8 sectors against the quantifiable criteria. Each criterion was calculated using any relevant information that was available relating to the different sectors. Indicators were broadly classed as either socio-economic indicators characterizing the role and significance of the sector / value chain in the Croatian national economy, environmental indicators (e.g. contribution to waste streams), or characterizing the circularity potential (rate of secondary materials returned back into the economy). The results are presented in Table 4.

Table 4. Matrix showing data used and calculation results for each indicator per sector

Sectors / Quantifiable indicators	Electronics and ICT	Batteries	Vehicles	Packaging	Plastics	Textiles	Construction and building	Food
1. Role and significance of the sector / value chain in the Croatian national economy								
1.1. GDP contribution	8,61%	0,61%	2,99%	7,94%	6,00%	1,60%	4,34%	10,69%
• "Value Added at factor cost" for the sector (manufacture, service and trade) - million euro	3 681,80	262,40	1 280,70	3 394,00	2 564,40	684,80	1 856,60	4 569,90
○ GDP contribution (manufacture only)	1,26%	0,00%	0,16%	0,27%	0,54%	0,79%	0,00%	3,09%
○ "Value Added at factor cost" for the sector (manufacture only), mln. EUR	537,70	0	69,2	115,4	231,8	336,3		1322
○ GDP contribution (services only)	6,76%	0,00%	1,66%	2,02%	1,79%	0,01%	0,00%	4,44%
○ "Value Added at factor cost" for the sector (services only), mln. EUR	2 891,00		710,9	863,3	764,2	3,5		1899,2
○ GDP contribution (trade only)	0,59%	0,61%	1,17%	5,65%	3,67%	0,81%	0,00%	3,15%
○ "Value Added at factor cost" for the sector (trade only), mln. EUR	253,10	262,4	500,6	2415,3	1568,4	345		1348,7
• "Value Added at factor cost (Total_all NACE activities)", mln. EUR	42 762,30							
1.2. Growth potential (average growth of "Gross investment in tangible goods" for the last 5 years)	5,6%	4,4%	9,2%	6,6%	5,7%	12,4%	-4,6%	13,0%
1.3. Contribution to employment	7,73%	0,671%	2,87%	12,80%	9,64%	3,01%	6,55%	14,39%
• Persons employed (manufacture, service and trade) - number	124 432	10 804	46 245	206 001	155 224	48 530	105 416	231 713
○ Contribution to employment (manufacture only)	1,15%	0,002%	0,18%	0,40%	0,71%	1,79%	0,00%	3,62%
○ Persons employed (manufacture only)	18 530	32	2 910	6 429	11 445	28 777		58 221
○ Contribution to employment (services only)	5,98%	0,00%	1,34%	4,34%	4,07%	0,02%	0,00%	6,14%
○ Persons employed (services only)	96 285		21 544	69 801	65 524	304		98 791
○ Contribution to employment (trade only)	0,60%	0,67%	1,35%	8,06%	4,86%	1,21%	0,00%	4,64%

○ Persons employed (trade only)	9 617	10 772	21 791	129 771	78 255	19 449		74 701
• Total employment (number)	1 610 000							
1.4. Global competitiveness (% of export)	10,81%	0,09%	4,64%	2,02%	2,59%	9,08%	0,67%	8,97%
• Export in mln. EUR for the sector	1 594	13,2	685,0	298,5	381,3	1 339,4	99,2	1 323,0
• Export in mln. EUR (Total all NACE activities)	14 750							
2. Contribution to waste streams								
2.1. percentage of total volumes	0,92%	0,24%	1,25%	5,00%	1,29%	0,19%	11,51%	0,96%
• TOTAL waste in the sector, tonnes, 2018	51 111	13 176	69 279	277 163	71 670	10 357	638 256	53 295
• TOTAL waste in Croatia, tonnes, 2018	5 543 310							
3. Circularity potential								
3.1. Recycling rates versus recyclable portion of waste	122,40%	122,35%	114,60%	73,00%	106,37%	40,86%	82,89%	85,46%
• Quantities recycled, tonnes	37 864	9 489	29 824	161 857	41 929	2 010	370 320	45 548
• Recyclable portion of waste, tonnes	30 935	7 756	26 024	221 730	39 419	4 920	446 779	53 295
3.2. Avoidable volumes , tonnes	9 200	659	10 352	40 878	31 535	362	8 936	26 648
• Waste generated in the sector, tonnes	51 111	13 176	69 279	277 163	71 670	10 357	638 256	53 295
• Avoidance rate	18%	5%	14,94%	14,75%	44%	3,50%	1,40%	50%
3.3. Circular Material Use Rate	38,18%	41,66%	12,45%	36,87%	12,58%	0,13%	1,82%	0,80%
• Quantities recycled, tonnes	37 864	9 489	29 824	161 857	41 929	2 010	212 752	45 548
• Quantity put on the market/ DMC, t	61 302	13 289	209 669	277 163	291 304	1 600 000	11 500 000	5 649 007
3.4. Generation of waste per DMC	83,38%	99,15%	33,04%	100,00%	24,60%	0,65%	5,55%	0,94%
• Quantities generated, tonnes	51 111	13 176	69 279	277 163	71 670	10 357	638 256	53 295
• Quantity put on the market/ DMC, t	61 302	13 289	209 669	277 163	291 304	1 600 000	11 500 000	5 649 007

2.4.3 Ranking the sectors based on the quantifiable criteria

A simple evaluation and ranking system was chosen for the prioritization of the different sectors. First, for each indicator, the results obtained were sorted by relative size. For example, to rate the eight sectors on the "number of employees" indicator for the sector with the largest number of employees, a score of 8 was assigned, the sector that uses the second largest number of employees received a score of 7, and so on. The scores for the individual indicators for each sector were summarized. The final prioritization was based on this total score.

Based on the method outlined in section 2.4.2, the raw data shown in Table 4 were converted into the simple scoring values presented in Figure 1.

In an effort to give priority to circularity and environmental effects, alternative methods, including using weighting factor of 2 were applied. A priority was given to indicators measuring contribution to waste streams (2.1.) and circularity potential (3.1., 3.2., 3.3. and 3.4.). For the sector with the highest environmental protection or circularity potential, a score of 16 was assigned, the sector with the second highest value of a priority indicator a score of 14, and so on. The results of the ranking through this methodology are presented in Figure 2.

With a view of improving the viability of the results a colour codes were used. The best performing sector is coloured in green and the sector with lowest results – in red. The rest of the sectors are coloured in different shades of red and green depending on their performance.

Figure 1. Ranking of sectors on the basis of prioritization method with equal weight of each indicator

1.1. GDP contribution	
8 Food	10,7%
7 Electronics	8,6%
6 Packaging	7,9%
5 Plastics	6,0%
4 Construction	4,3%
3 Vehicles	3,0%
2 Textiles	1,6%
1 Batteries	0,6%

1.2. Growth potential	
8 Food	13,0%
7 Textiles	12,4%
6 Vehicles	9,2%
5 Packaging	6,6%
4 Plastics	5,7%
3 Electronics	5,6%
2 Batteries	4,4%
1 Construction	-4,6%

1.3. Employment	
8 Food	14,4%
7 Packaging	12,8%
6 Plastics	9,6%
5 Electronics	7,7%
4 Construction	6,5%
3 Textiles	3,0%
2 Vehicles	2,9%
1 Batteries	0,7%

1.4. Competitiveness	
8 Electronics	10,8%
7 Textiles	9,1%
6 Food	9,0%
5 Vehicles	4,6%
4 Plastics	2,6%
3 Packaging	2,0%
2 Construction	0,7%
1 Batteries	0,1%

2.1. % of total waste	
8 Construction	11,5%
7 Packaging	5,0%
6 Plastics	1,3%
5 Vehicles	1,2%
4 Food	1,0%
3 Electronics	0,9%
2 Batteries	0,2%
1 Textiles	0,2%

3.1. Recycling vs recyclable portion	
8 Textiles	40,86%
7 Packaging	73,00%
6 Construction	82,89%
5 Food	85,46%
4 Plastics	106,37%[6]
3 Vehicles	114,60%[7]
2 Batteries	122,35%[8]
1 Electronics	122,40%[9]

3.2. Avoidable volumes	
8 Packaging	40 878
7 Plastics	31 535
6 Food	26 648
5 Vehicles	10 352
4 Electronics	9 200
3 Construction	8 936
2 Batteries	659
1 Textiles	362

3.3. Circular Material Use Rate	
8 Textiles	0,13%
7 Food	0,80%
6 Construction	1,82%
5 Vehicles	12,45%
4 Plastics	12,58%
3 Packaging	36,87%
2 Electronics	38,18%
1 Batteries	41,66%

3.4. Generation of waste per DMC	
8 Packaging	100,0%
7 Batteries	99,2%
6 Electronics	83,4%
5 Vehicles	33,0%
4 Plastics	24,6%
3 Construction	5,6%
2 Food	0,9%
1 Textiles	0,6%

TOTAL SCORE	
Packaging	**54**
Food	**54**
Plastics	**44**
Electronics	**39**
Vehicles	**39**
Textiles	**38**
Construction	**37**
Batteries	**19**

[6] EUROSTAT data on plastic waste generation and plastic waste recycling show that recycling rate already achieved exceeds both recycling target for plastic packaging in 2030 (55%) and the percentage of plastics considered as recyclable in accordance with UK's Resources and Waste Strategy. Because quantities recycled exceed the portion of plastic waste deemed recyclable (by EU and UK) the result for this indicator is above 100%

[7] EUROSTAT data on ELV generation and ELV recycling show that recycling rate already achieved in Croatia exceeds recycling target set in ELV Directive (85%). Because quantities recycled exceed the portion of plastic waste deemed recyclable (by EU) the result for this indicator is above 100%

[8] EUROSTAT data on waste batteries generation and waste batteries recycling show that recycling rate (total for Lead-acid , Ni-Cd and other batteries) already achieved in Croatia exceeds recycling target set in Waste Battery Directive (65% for Lead-acid batteries, 75% for Ni-Cd batteries and 50% for other batteries). Because quantities recycled exceed the portion of plastic waste deemed recyclable (by EU) the result for this indicator is above 100%

[9] Data in Table 4 from WEEE report of Croatian Environment and Nature Agency (HAOP) for 2018show that recycling rate already achieved in Croatia exceeds recycling target set in WEEE Directive (total for all WEEE categories). Because quantities recycled exceed the portion of plastic waste deemed recyclable (by EU) the result for this indicator is above 100%

Figure 2. Ranking of sectors on the basis of prioritization method that gives priority to indicators measuring environmental protection and circularity potential

1.1. GDP contribution		
8	Food	10,7%
7	Electronics	8,6%
6	Packaging	7,9%
5	Plastics	6,0%
4	Construction	4,3%
3	Vehicles	3,0%
2	Textiles	1,6%
1	Batteries	0,6%

1.2. Growth potential		
8	Food	13,0%
7	Textiles	12,4%
6	Vehicles	9,2%
5	Packaging	6,6%
4	Plastics	5,7%
3	Electronics	5,6%
2	Batteries	4,4%
1	Construction	-4,6%

1.3. Employment		
8	Food	14,4%
7	Packaging	12,8%
6	Plastics	9,6%
5	Electronics	7,7%
4	Construction	6,5%
3	Textiles	3,0%
2	Vehicles	2,9%
1	Batteries	0,7%

1.4. Competitiveness		
8	Electronics	10,8%
7	Textiles	9,1%
6	Food	9,0%
5	Vehicles	4,6%
4	Plastics	2,6%
3	Packaging	2,0%
2	Construction	0,7%
1	Batteries	0,1%

2.1. % of total waste		
16	Construction	11,5%
14	Packaging	5,0%
12	Plastics	1,3%
10	Vehicles	1,2%
8	Food	1,0%
6	Electronics	0,9%
4	Batteries	0,2%
2	Textiles	0,2%

3.1. Recycling vs recyclable portion		
16	Textiles	40,86%
14	Packaging	73,00%
12	Construction	82,89%
10	Food	85,46%
8	Plastics	106,37%
6	Vehicles	114,60%
4	Batteries	122,35%
2	Electronics	122,40%

3.2. Avoidable volumes		
16	Packaging	40 878
14	Plastics	31 535
12	Food	26 648
10	Vehicles	10 352
8	Electronics	9 200
6	Construction	8 936
4	Batteries	659
2	Textiles	362

3.3. Circular Material Use Rate		
16	Textiles	0,13%
14	Food	0,80%
12	Construction	1,82%
10	Vehicles	12,45%
8	Plastics	12,58%
6	Packaging	36,87%
4	Electronics	38,18%
2	Batteries	41,66%

3.4. Generation of waste per DMC		
16	Packaging	100,0%
14	Batteries	99,2%
12	Electronics	83,4%
10	Vehicles	33,0%
8	Plastics	24,6%
6	Construction	5,6%
4	Food	0,9%
2	Textiles	0,6%

TOTAL SCORE	
Packaging	**87**
Food	**78**
Plastics	**69**
Construction	**63**
Vehicles	**62**
Textiles	**57**
Electronics	**55**
Batteries	**33**

2.4.4 Analysis result on selection of significant sectors on the basis of quantifiable indicators

On the basis of the two methods outlined in the previous section, the data gathered for prioritizing the sectors were converted into the simple scoring values shown in Figure 1 and 2. Once the final data had been collated, and the scoring system applied, the final ranking of the sectors was reviewed. Based on this review the sectors that achieve highest scores in accordance with the prioritization method with equal weight of each indicator are Food sector and Packaging sector with equal scores.

If priority is given to waste management and circularity potential indicators, packaging and food sectors are again on the top of the ranking but packaging sector takes the first place with a clear difference of 9 points. The following sectors are on the top half of the ranking table:

- Food sector - mainly due to its higher ranking according to socio-economic indicators but also because it is next best sector according to Circular Material Use Rate indicator;
- Packaging sector - it takes leading positions according to all waste management and circularity potential indicators with exception of Circular Material Use Rate indicator.
- Plastics sector - scores medium results according to all indicators except in avoidable volumes where it is the next best.
- Construction and building sector - achieved the highest score according to “Percentage of total waste” indicator and on average has moderate performance according to the other indicators.

In conclusion, when the sectors are prioritized according to the measurable criteria, the packaging sector shows significant advantages in terms of indicators that measure the circularity potential and the management of waste and secondary row materials. According to these indicators, the packaging sector can be unambiguously defined as the sector with the highest priority. However, quantifiable criteria are not decisive for selection of the most suitable sector and therefore further prioritization based on non-quantifiable criteria is needed.

2.4.5 Summary of justification for selecting the priority sectors through the quantifiable indicators

The following summarizes the key factors that contribute to the highest ranking of the packaging and food sectors.

Table 5. Summary of the key factors that contribute to the highest ranking of the packaging and food sectors

Packaging sector	Food sector
Advantages for circularity potential • 1.1. GDP contribution – packaging sector takes a leading place (in top 3) among the sectors analyzed therefore implementation of circularity measures will have positive effect on large part of the economy; • 1.3. employment – sector has sizable share of employment compared to the sectors analyzed and it is expected that introduction of circularity policies will further contribute to the creation of jobs; • 2.1. Share of total waste – packaging sector is in top 2 among the 8 sectors analyzed, which means that there is a great unexploited potential for further reduction of the waste through increasing reuse and decreasing the volume of the packaging; • 3.1. recycling vs. recyclable portion – packaging sector is next best sector which means that there are many opportunities for improvement packaging waste recycling • 3.2. avoidable volumes – the largest waste quantities that can be avoided are generated in the packaging sector indicating that this is the sector with the highest unexploited potential for waste prevention • 3.4. Generation of waste per DMC – the sector achieved the highest score because packaging consumption has one of the fastest rate and the whole quantity is transformed into waste within a year, which means that there is a potential for improvement of reusability of packaging where possible.	**Advantages for circularity potential** • 1.1. GDP contribution – food sector takes the first place therefore implementation of circularity measures will have positive effect on largest part of the economy in comparison to the sectors analyzed; • 1.2. growth potential – the data show that the growth in food related economic activities for the last 5 years is the fastest, however more research and assessment in qualitative terms is needed to identify how circularity measures will affect the future growth in the sector; • 1.3. employment – currently, the sector provides the largest share of employment among the sectors analyzed and it is expected that introduction of circularity policies will further contribute to the creation of jobs; • 1.4. competitiveness –food sector takes leading position (in top 3 of the 8 sectors examined) in terms of export; • 3.2. avoidable volumes – food sector generates one of the largest waste quantities that can be avoided (top 3) indicating that this is one of the sector with the highest unexploited potential for waste prevention • 3.3. Circular Material Use Rate – data show that food sector has not achieved the desired levels of substituting primary raw materials with secondary materials, which means that there are opportunities for improvement.
Disadvantages for circularity potential • 1.2. growth potential – the data show that the growth in packaging intensive economic activities for the last 5 years is moderate, however more research and assessment in	**Disadvantages for circularity potential** • 2.1. Share of total waste – food sector has not a large contribution to waste generation, which means that the

qualitative terms is needed to identify how circularity measures will affect the future growth in the sector as the transition to circular economy will require redesign of packaging and products; • 1.4. competitiveness – currently packaging sector is among the worst performing sectors (among 8 sectors examined) in terms of export, but the indicator does not reveal how circular economy policies like reduction of packaging volume or increasing recyclability would influence the competitiveness of Croatia's packaging manufacturers and producers of packaging intensive products; • 3.3. Circular Material Use Rate – packaging sector has already achieved one of the highest rates of substituting primary raw materials with secondary materials which is beneficial for the environment and circular economy but it means that a lot of opportunities for improvement have been already taken.	potential for further reduction of the food waste generation are almost exploited; • 3.1. recycling vs. recyclable portion – data show that food waste recycling has already achieved high rates but around 15% of recyclable portion of food waste has not been utilized yet; • 3.4. Generation of waste per DMC – the sector achieved next worst score because food is a product that can be consumed entirely and only small quantity is transformed into waste within a year (leftovers and expired food), which means that the potential for improvement has been already exploited.

2.5 Qualitative assessment in accordance with non-quantifiable prioritization criteria

When assessing the potential for the introduction of circularity policies in a given sector, it is also necessary to consider factors that cannot be quantified. General framework conditions necessary to move towards a circular economy, stemming from policy, regulation or the legal framework, or linked to social, cultural, economic, technological or infrastructural contexts in most cases could not be expressed by measurable indicators. Although measurable data were often not available for evaluation of these factors and therefore could not be included in the matrix calculations, they were nevertheless considered and factored into decisions for prioritization of the sectors.

For this purpose, qualitative data was acquired and analyzed, such as sectoral documents, as well as pan-sectoral studies and official reports.

The following describes the key non-quantifiable factors considered in the selection of the priority sector.

Table 6. Description and assessment of the level of circularity potential of non-quantifiable prioritization criteria

Criteria	Sector	Circularity potential – description and level (High, Medium, Low)	
scarcity and dependence	electronics	Materials with high input in the sector and assessment of their scarcity and dependence according to EU Scoping study[10]: Metals (High), Plastics (Medium), Chemicals (High), Fossil fuels (High). Overall score – High	High
	batteries	High - due to developments relating to growth in demand for battery raw materials – see EC Communication on Critical Raw Materials COM (2020) 474 final	High
	vehicles	Materials with high input in the sector and assessment of their scarcity and dependence according to EU Scoping study: Metals (High), Plastics (Medium), Glass (Low), Chemicals (High), Fossil fuels (High). Overall score – High	High
	packaging	Materials with high input in the sector and assessment of their scarcity and dependence according to EU Scoping study: Metals (High), Plastics (Medium), Paper (Medium), Glass (Low), Chemicals (High). Overall score – Medium	Medium
	plastics	Assessment of scarcity and dependence according to EU Scoping study: Plastics (Medium)	Medium
	textiles	Materials with high input in the sector and assessment of their scarcity and dependence according to EU Scoping study: Textiles (Low); Polyester (Plastics - Medium); Chemicals (High). Overall score – Low	Low
	construction	Materials with high input in the sector and assessment of their scarcity and dependence according to EU Scoping study: Wood (Medium), Metals (High), Plastics (Medium), Rocks (Low), Glass (Low), Chemicals (High). Overall score – Medium	Medium
	food	Materials with high input in the sector and assessment of their scarcity and dependence according to EU Scoping	High

[10] https://www.eesc.europa.eu/resources/docs/scoping-study.pdf

		study: Food (High), Chemicals (High), Fossil fuels (High). Overall score – High	
environmental impact	electronics	High - according to Table 3 of EU Scoping study and the main materials in the sector (metals and plastics) are with high environmental impact according to Table 1 of EU Scoping study.	High
	batteries	High - according to Table 3 of EU Scoping study and the main materials in the sector (metals, chemicals and plastics) are with high environmental impact according to Table 1 of EU Scoping study.	High
	vehicles	High - according to Table 3 of EU Scoping study and the main materials in the sector (metals and plastics) are with high environmental impact according to Table 1 of EU Scoping study.	High
	packaging	High - according to Table 3 of EU Scoping study and the main materials in the sector (metals, wood & paper and plastics) are with high environmental impact according to Table 1 of EU Scoping study.	High
	plastics	The main material in the sector (plastics) is with high environmental impact according to Table 1 of EU Scoping study.	High
	textiles	High - according to Table 3 of EU Scoping study but the main material in the sector (textile) is with medium environmental impact according to Table 1 of EU Scoping study. Therefore, strict environmental protection measures are needed to small percentage of the total material quantity.	Medium
	construction	High - according to Table 3 of EU Scoping study, but the main material in the sector (rocks) is with medium environmental impact according to Table 1 of EU Scoping study. Therefore, strict environmental protection measures are needed to small percentage of the total material quantity.	Medium
potential savings	food	High - according to EU Scoping study.	High
	electronics	Medium - according to EU Scoping study however most of potential savings have been already utilized.	Low
	batteries	Medium – same as electronics and vehicles however most of potential savings have been already utilized.	Low
	vehicles	Medium - according to EU Scoping study however most of potential savings have been already utilized.	Low
	packaging	High - according to EU Scoping study however most of potential savings have been already utilized.	Medium
	plastics	High – plastics have highest potential for prevention; sorting and recycling technologies continue to improve.	High
	textiles	Medium - according to EU Scoping study.	Medium
	construction	Medium - according to EU Scoping study.	Medium
	food	High - according to EU Scoping study.	High
legal framework	electronics	Legal framework with downstream measures (waste collection and recycling) is implemented; upstream measures in form of eco-design and energy efficiency regulations for 27 electronic product groups are in force.	Low

	batteries	Legal framework with downstream measures (waste collection and recycling) is implemented and some (but insufficient) upstream measures (eco-design regulations) are in the process of development[11].	Medium
	vehicles	Legal framework with downstream measures (waste collection and recycling). Adoption of upstream measures is needed (essential requirements).	Medium
	packaging	Legal framework with downstream measures (waste collection and recycling) is implemented and some (but insufficient) upstream measures (essential requirements and standards) are in force.	Medium
	plastics	Single use plastics Directive has not been implemented yet. There are some (but insufficient) upstream measures (eco-design regulations) in force.	High
	textiles	Legal framework with downstream and upstream measures is not adopted. There are some (but insufficient) upstream measures (eco-label scheme).	High
	construction	General legal framework with downstream measures (waste collection and recycling but without selective deconstruction measures) is adopted and implemented. More upstream measures are necessary to ensure sustainable building practices.	Medium
	food	General legal framework with downstream measures (waste collection and recycling) is implemented as well as food donation legislation. More downstream measures to increase separate collection and recycling and upstream measures to reduce waste throughout supply chain are needed.	High
pricing of waste management costs	electronics	Extended producer's responsibility principle is implemented but without eco-modulated tariffs.	Low
	batteries	Extended producer's responsibility principle is implemented but without eco-modulated tariffs.	Low
	vehicles	Extended producer's responsibility principle is implemented but without eco-modulated tariffs.	Low
	packaging	Extended producer's responsibility principle (without eco-modulated tariffs) and Deposit Refund Scheme are implemented.	Low
	plastics	Extended producer's responsibility principle is implemented for plastic containing products like EEE, batteries, vehicles and packaging. EPR schemes required by SUP Directive have not been implemented yet (especially for fishing gear).	High
	textiles	Currently the costs are covered by taxpayers (through municipal waste fee) instead of producers/ consumers.	High
	construction	Waste management costs are covered by investors therefore they are included in the final price of the buildings.	Medium
	food	Currently the costs are covered by taxpayers (through municipal waste fee) instead of producers/ consumers	High

[11] https://ecodesignbatteries.eu

consumer and business acceptance	electronics	New production models to enhance eco-design, modulation of components, leasing models, bring back, take back schemes.	Medium
	batteries	New production models to enhance ecodesign, leasing contracts & extended take-back-requirements linked to replacement; refurbishment of used batteries to prolong useful life.	Medium
	vehicles	New production models to enhance ecodesign, shift towards leasing & vehicle sharing, increased fuel efficiency of vehicles.	Medium
	packaging	New business models through alternative delivery schemes with leasing arrangements. Necessity of awareness raising for behaviour change.	Medium
	plastics	New production models to enhance ecodesign, new business models to increase multi-use and single use items made from sustainable materials, development of markets and consumer acceptance for sustainable alternatives, phasing out of SUP.	High
	textiles	encouraging clothing donations, 'clothing libraries, clothing repair services, leasing of clothes, use in other sectors, e.g. as insulation.	Medium
	construction	New sustainable building practices.	Medium
	Food	New business models to reduce supply-side losses, encourage surplus-sharing among farmers. Necessity of awareness raising for behaviour change to substitute high impact products and increase separate collection. Awareness raising campaigns needed e.g. on food storage, low meat diets etc.	High
treatment and collection infrastructure	electronics	Well functioning collection and treatment infrastructure.	Low
	batteries	Well functioning collection and treatment infrastructure.	Low
	vehicles	Well functioning collection and treatment infrastructure.	Low
	packaging	Collection infrastructure needs improvement.	Medium
	plastics	Collection infrastructure needs improvement esp. for fishing gear and SUP.	High
	textiles	Collection infrastructure needs improvement.	Medium
	construction	The necessary collection and treatment infrastructure is not established at satisfactory level. Selective deconstruction needs improvement and further replacement of backfilling with recycling.	High
	Food	Collection and recycling infrastructure needs improvement.	High
economic incentives	electronics	No need of incentives – collection and recycling targets are achieved. In order to ensure prolonged use, fiscal incentives are possible for leased goods/goods with extended manufacturer guarantees.	Low
	batteries	No need of incentives – collection and recycling targets are achieved.	Low
	vehicles	No need of incentives – collection and recycling targets are achieved; Further improvement could be e.g. revise vehicle registration and annual circulation taxes (e.g. link to CO_2, pollution standards; recyclability); increase fuel taxes, bonus-malus schemes.	Low

	packaging	Improvement in collection could be achieved through extending coverage of pay-as-you-throw (PAYT) schemes, extend the scope of DRS and introduction of landfill tax. Fiscal instruments are needed for SUP packaging e.g. expand use of charges/bans.	Medium
	plastics	EPR schemes for fishing gear and other SUP. Fiscal instruments are needed for SUP packaging e.g. expand use of charges/bans.	High
	textiles	EPR schemes, extending coverage of PAYT schemes and introduction of landfill tax.	High
	construction	polluter pays principle with full cost recovery and lower tipping fees for inert waste are already in place but other economic incentives such as landfill tax, taxes/charges on aggregates could be introduced.	Medium
	food	extending coverage of PAYT schemes and differentiated charges on biowaste disposal, tax breaks to encourage donations of edible unsold food.	High
investment and innovation	electronics	collection/recycling infrastructure already established; innovation and investment in production of more recyclable, durable, repairable, upgradable and reusable products needed.	Low
	batteries	collection/recycling infrastructure already established; innovation and investment in production of more durable, repairable, upgradable and rechargeable products needed.	Low
	vehicles	collection/recycling infrastructure already established; innovation and investment in production of more recyclable, durable, repairable, upgradable and reusable vehicles needed.	Low
	packaging	collection/recycling infrastructure needs enlargement and improvement; innovation in separation technologies; innovation and investment in production of more recyclable and reusable packaging as well as reduction of packaging volume needed.	Medium
	plastics	Innovation in prevention (reuse), improving the purity of recycled materials, development/ production of sustainable materials (e.g. biobased, biodegradable and/or compostable-plastics), investments to address low collection rates of some SUP, innovation in separation and treatment technologies.	High
	textiles	Investments and innovation are needed both in development of collection/ recycling infrastructure and production of sustainable textile products (more durable, easier to repair, remanufacture and recycle).	High
	construction	Further investments in C&D collection and material recovery infrastructure are necessary. Investments are needed to reduce primary aggregate consumption by replacing backfilling with recycling and reuse of secondary (recycled) aggregates; Innovations in sustainable construction and energy efficiency are needed.	High
	food	collection/recycling infrastructure needs enlargement and improvement; innovation in emerging technologies that	High

		could provide additional value and displace virgin materials intake; investment in logistics and storage to limit waste, at retailers and end-user and through handling and transport	
replacement with alternative materials	electronics	Development of biobased materials for use in electronics is at early stage of research and development and the potential for replacement of conventional materials is unknown.	Low
	batteries	Development of biobased materials for use in electronics is at early stage of research and development and the potential for replacement of conventional materials is unknown	Low
	vehicles	Development of biobased materials for use in electronics is at early stage of research and development and the potential for replacement of conventional materials is unknown.	Low
	packaging	The potential for replacement of plastic packaging with biobased materials is high.	High
	plastics	The potential for replacement of SUP with biobased materials is high.	High
	textiles	The potential for replacement of polyester with biosynthetic fibres is high.	High
	construction	There are positive examples of construction techniques that use straw, sheep wool, timber, nabasco, metisse and grass	Medium
	food	Biorefining technologies that provide additional value and displace virgin materials intake (e.g. biomass is used to produce food) are evolving at an accelerated pace.	High

Summary of the level of circularity in the sectors according to the non-quantifiable prioritization criteria is presented in Table 7.

Table 7. Summary of the level of circularity in the sectors according to the non-quantifiable prioritization criteria

	electronics and ICT	batteries	vehicles	packaging	plastics	textiles	construction and building	food
Priority materials								
potential for raw materials saving	*	*	*	**	***	**	**	***
scarcity and dependence	***	***	***	**	**	*	**	***
environmental impact	***	***	***	***	***	**	**	***
Barriers and enabling conditions								
legal framework	*	**	**	**	***	***	**	***
pricing of WM costs	*	*	*	*	**	***	**	***
consumer and business acceptance	**	**	**	**	***	**	**	***
treatment and collection infrastructure	*	*	*	**	***	**	***	***
economic incentives	*	*	*	**	***	***	**	***
investment and innovation	*	*	*	**	***	***	***	***
replacement with alternative materials	*	*	*	***	***	***	**	***

* Low potential for circularity

** Medium potential for circularity

*** High potential for circularity

2.6 Final prioritization of the sectors

The following summarizes the reasons for the final selection of a priority sector/value chain in Croatia to develop a Circular Economy Action Plan. The final ranking was performed by comparing the two sectors (packaging and food sectors) that achieved highest ranking according to quantifiable indicators and construction and building sector because it is considered important due to the large amount of waste generated and the need of urgent measures to tackle the consequences of the recent earthquake. For the final comparison both quantifiable and non-quantifiable criteria were employed.

Packaging sector

Advantages for circularity potential

- 1.1. GDP contribution – packaging sector takes a leading place (in top 3) among the sectors analyzed therefore implementation of circularity measures will have positive effect on large part of the economy;
- 1.3. Employment – sector has sizable share of employment compared to the sectors analyzed and it is expected that introduction of circularity policies will further contribute to the creation of jobs;
- 2.1. Share of total waste – packaging sector is in top 2 among the 8 sectors analyzed, which means that there is a great unexploited potential for further reduction of the waste through increasing reuse and decreasing the volume of the packaging;
- 3.1. Recycling vs. recyclable portion – packaging sector is next best sector which means that there are many opportunities for improvement packaging waste recycling;
- 3.2. Avoidable volumes – the largest waste quantities that can be avoided are generated in the packaging sector indicating that this is the sector with the highest unexploited potential for waste prevention;
- 3.4. Generation of waste per DMC – the sector achieved the highest score because packaging consumption has one of the fastest rate and the whole quantity is transformed into waste within a year, which means that there is a potential for improvement of reusability of packaging where possible;
- Environmental impact – High environmental impact;
- Replacement with alternative materials – high potential for replacement of plastic packaging with biobased materials.

Disadvantages for circularity potential

- 1.2. Growth potential – the data show that the growth in packaging intensive economic activities for the last 5 years is moderate, however more research and assessment in qualitative terms is needed to identify how circularity measures will affect the future growth in the sector as the transition to circular economy will require redesign of packaging and products;
- 1.4. Competitiveness – currently packaging sector is among the worst performing sectors (among 8 sectors examined) in terms of export, but the indicator does not reveal how circular economy policies like reduction of packaging volume or increasing recyclability would influence the competitiveness of Croatia's packaging manufacturers and producers of packaging intensive products;
- 3.3. Circular Material Use Rate – packaging sector has already achieved one of the highest rates of substituting primary raw materials with secondary materials which is beneficial

for the environment and circular economy but it means that a lot of opportunities for improvement have been already taken;

- Potential for raw materials saving – despite the fact that the recycling targets have not been achieved large amounts of packaging waste have been already collected and recycled;
- Scarcity and dependence – Medium dependence on critical raw materials, which means that the sector is not among the sectors requiring urgent measures for decreasing the dependence;
- Pricing of WM costs – EPR is implemented though there is opportunity for improvement as the prevention costs are partially incorporated in the price (eco-modulated tariff is not applied);
- Consumer and business acceptance – success depends on behavior change and need of new business models however awareness raising campaigns have been already implemented;
- Treatment and collection infrastructure – collection infrastructure is already in place although enlargement and improvement is needed;
- Investment and innovation – Necessity of innovation in sorting, as well as investment in sorting facilities and containers but most of the investments needed have already been made;
- Legal framework – Legal concept finalized;
- Economic incentives – already employed through EPR and DRS.

Food sector

<u>Advantages for circularity potential</u>

- 1.1. GDP contribution – food sector takes the first place therefore implementation of circularity measures will have positive effect on largest part of the economy in comparison to the sectors analyzed;
- 1.2. Growth potential – the data show that the growth in food related economic activities for the last 5 years is the fastest, however more research and assessment in qualitative terms is needed to identify how circularity measures will affect the future growth in the sector;
- 1.3. Employment – currently, the sector provides the largest share of employment among the sectors analyzed and it is expected that introduction of circularity policies will further contribute to the creation of jobs;
- 1.4. Competitiveness –food sector takes leading position (in top 3 of the 8 sectors examined) in terms of export;
- 3.2. avoidable volumes – food sector generates one of the largest waste quantities that can be avoided (top 3) indicating that this is one of the sectors with the highest unexploited potential for waste prevention;
- 3.3. Circular Material Use Rate – data show that food sector has not achieved the desired levels of substituting primary raw materials with secondary materials which means that there are opportunities for improvement;
- Potential for raw materials saving – separate collection and treatment of biowaste is in the phase of initial development and there is unexploited potential for raw materials saving;

- Scarcity and dependence – High dependence on critical raw materials;
- Environmental impact – High environmental impact;
- Legal framework – Legal framework is under development;
- Pricing of WM costs – Prevention and waste management costs have not incorporated in the product prices yet;
- Consumer and business acceptance – the success is highly dependent on behavior change and new business models;
- Investment and innovation – Innovation and investment in bio-refineries and bio-waste treatment are needed;
- Treatment and collection infrastructure – further development of collection infrastructure and construction of new treatment facilities are needed;
- Economic incentives – Further improvement of economic incentives needed – PAYT, variable rates of MSW fees;
- Replacement with alternative materials – high potential for development of biorefining technologies where biomass is used to produce food.

Disadvantages for circularity potential

- 2.1. Share of total waste – food sector has not a large contribution to waste generation, which means that the potential for further reduction of the food waste generation are almost exploited;
- 3.1. Recycling vs. recyclable portion – data show that food waste recycling has already achieved high rates but around 15% of recyclable portion of food waste has not been utilized yet;
- 3.4. Generation of waste per DMC – the sector achieved next worst score because food is a product that can be consumed entirely and only small quantity is transformed into waste within a year (leftovers and expired food), which means that the potential for improvement has been already exploited.

Construction sector

Advantages for circularity potential

- 2.1. Share of total waste – construction sector is on the top among the 8 sectors analyzed, which means that there is a great unexploited potential for further reduction of the waste through repurpose, upgrade, maintenance and increasing durability of the buildings and reuse of construction materials. However, the biggest contribution of the sector to total waste quantities could be because it is the sector with the largest consumption of raw material quantities, not because of lack of enough measures for waste prevention;
- 3.1. Recycling vs. recyclable portion – construction sector is in top 3 among the 8 sectors analyzed which means that there are many opportunities for improvement construction and demolition waste recycling;
- 3.3. Circular Material Use Rate – data show that construction sector has not achieved the desired levels of substituting primary raw materials with secondary materials which means that there are opportunities for improvement;
- 3.4. Generation of waste per DMC – the sector achieved one of the lowest scores because buildings and constructions have extended period of use (over 30 years) and C&D waste that is generated currently is mainly due to demolition of buildings constructed in the past. The indicator compares newly generated C&D waste quantities against material

quantities newly put on the market. The calculated lower value for this indicator means that to the material quantities put on the market in Croatia (in construction sector) corresponds small amount of C&D waste, which means that there is little potential for improvement through measures for C&D prevention;

- Treatment and collection infrastructure – the necessary collection and treatment infrastructure is not established at satisfactory level and needs further improvement. Additionally, source separation and selective deconstruction needs improvement to contribute to further replacement of backfilling with recycling;
- Investment and innovation – Further investments in C&D collection and material recovery infrastructure are necessary. Investments needed to reduce primary aggregate consumption by replacing backfilling with recycling and reuse of secondary (recycled) aggregates; Innovations in sustainable construction and energy efficiency are needed.

<u>Disadvantages for circularity potential</u>

- 1.1. GDP contribution – EUOROSTAT data show that construction sector is far behind packaging and food sectors in accordance to "Value Added at factor cost" indicator therefore implementation of circularity measures in the sector will have medium effect on the Croatian economy;
- 1.2. Growth potential – Historical data show that the construction sector is the only sector where the average growth rate of Gross investment in tangible goods for the last 5 years is negative. It is currently unknown how the upcoming legal requirements for sustainable and energy efficient building will contribute to the investment climate and economic growth;
- 1.3. Employment – Construction sector has moderate contribution to employment compared to the contribution of sectors analyzed;
- 1.4. Competitiveness – in comparison with the other sectors analyzed, the revenue from export of construction services in previous years is one of the lowest; How the sector will evolve when new legal requirements supporting Circular Economy are adopted cannot be predicted but the starting position in comparison with the other sectors is unfavourable;
- 3.2. Avoidable volumes – construction sector generates one of the smallest waste quantities that can be avoided indicating that this is one of the sectors with the lowest unexploited potential for waste prevention;
- Scarcity and dependence – Medium dependence on critical raw materials, which means that the sector is not among the sectors requiring urgent measures for decreasing the dependence;
- Environmental impact – the main material in the sector (rocks) is with medium environmental impact and therefore it is not among the sectors that require immediate attention and measures for addressing the whole waste quantity;
- Potential for raw materials saving –large amounts of C&D waste have been already collected and recycled but there is potential for substitution of backfilling operation with recycling;
- Legal framework – downstream measures are adopted and implemented , material recovery targets have been achieved but further development of upstream measures are needed to encourage sustainable building practices and increase selective deconstruction and reuse;

- Pricing of waste management costs – investors are obliged to cover the waste management costs but new measures are needed to ensure that source separation, selective deconstruction and preparing for reuse are also included in the price;
- Consumer and business acceptance – in general there is overall acceptance among construction companies and buyers of new buildings that using of C&D waste in new construction projects does not create safety risks or lowers the quality of buildings but new legal obligations and economic incentives are needed to encourage sustainable building practices in particular to further boost the market of recycled C&D waste and increase the reuse;
- Economic incentives – full recovery of waste management costs to implement the polluter pays principle is implemented and less strict requirements for construction of landfills for inert waste are in force but implementation of other economic instruments such as introduction of landfill tax, taxes/charges on aggregates, product fees discourage the use of environmentally damaging products could be recommended;
- Replacement with alternative materials – there are positive examples of construction techniques that use straw, sheep wool, timber, nabasco, metisse and grass but their potential to replace conventional construction materials is low to medium.

It is evident from the comparison of the 3 selected sectors that packaging sector has more advantages according to quantifiable criteria however when comparing through non-quantifiable criteria food sector outperforms all other sectors on every criteria achieving the maximum possible score.

Construction sector has potential for improvement according to all criteria (received medium score in all non-quantifiable criteria and high score according to "Investment and innovation" and "Treatment and collection infrastructure" criteria) and at the same time it is the sector with highest material consumption which means that higher results could be achieved with minimum efforts. However, compared to other 2 sectors, the construction sector lags behind in most indicators and the overall score.

The main reason for the worse performance of the **packaging sector** in comparison to food sector is because, it is already the focus of policy programmes and legal framework, and it was therefore not selected as a priority sector.

The potential for development of **food sector** is highest due to economical, technological and legal factors. It is at the core of biobased economy driven mainly by the bio-technological developments as well as it is the focus of EU legal framework with the expected adoption of collection and recycling targets for food waste. Therefore, the multi-criteria comparison shows that the food sector should be the first priority when developing a Circular Economy Action Plan of Croatia.

3Conclusions

Croatia has achieved significant progress in implementation of EU legislation which is a driving force for progressing in Circular Economy transformation. This positive trend of increased circularity needs to be maintained as the economy continues to grow.

Although there is clearly a requirement for all manufacturing and services sectors to adopt necessary measures to accelerate the transformation to Circular Economy, food sector has been identified as the most significant following evaluation of socio-economic and environmental factors.

It was chosen based on available data used for calculation of prioritization metrics, however other non-quantifiable factors were the prime reason for the highest ranking of the food sector. It is the sector where most efforts should be focused in order to improve the legal framework, to implement more economic incentives and a fairer charging system, to introduce new business models and innovative technologies and to further develop the existing collection and treatment infrastructure. These are barriers and enabling conditions, that need to be further analyzed to serve as a basis for future policy options that will enhance the transition to Circular Economy.

Annex 1. Analysis of data availability and suitability of proposed prioritization indicators

Key indicators	Sector/ value chain	Comment on data availability and suitability
Criteria that characterize the materials in the respective sector		
scarcity and dependence	all 8 sectors	The European Commission reviews the list of critical raw materials for the EU every three years and the last revision is published in Communication COM(2020) 474 final[12]. Annex 2 of the Communication lists critical raw materials per sector. Critical raw materials are not ranked in order of importance, which makes the quantification of the criteria "scarcity and dependence" not applicable. Instead the results of the EU Scoping study[13] were used for prioritization of the sectors in qualitative terms. In that study, 3 degrees were used for assessing the scarcity and dependence of each material – Low, Medium and High. By using these results and by knowing the predominant materials in each sector it is possible to determine the degree of dependence of each sector, which will be used for the prioritization.
environmental impact	all 8 sectors	Quantifying "environmental impact" and "potential savings" criteria would require breaking down into sub-indicators (e.g. GHG emissions, water use, energy use per sector) which will make the comparison too complicated. Data on GHG and other pollutants emissions per NACE codes are available in EUROSTAT database (env_ac_ainah_r2) but not at the required granularity (only 2 digit NACE codes are available). Water use data are available only for 1 digit NACE codes. Therefore, it became evident that sectoral data could not be found for all of the "environmental impact" and "potential savings" indicators for all economic activities as defined in Annex 2. Alternatively, the results from the EU Scoping study were used for prioritization of the sectors in qualitative terms. In that study, 3 degrees were used for assessing the "environmental impact" and "potential savings" of each sector[14] and each material[15] – Low, Medium and High.
potential savings		

[12] https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52020DC0474&from=EN
[13] Scoping study to identify potential circular economy actions, priority sectors, material flows & value chains, Table 1
[14] Scoping study to identify potential circular economy actions, priority sectors, material flows & value chains, Table 3
[15] Scoping study to identify potential circular economy actions, priority sectors, material flows & value chains, Table 1

Criteria that characterize production and consumption - waste generation and prevention		
avoidable volumes	all 8 sectors	Avoidable volumes are defined as socially acceptable waste prevention rate multiplied by waste generated in the sector. Both parameters are quantifiable for all 8 sectors.
waste prevention rate	electronics and ICT	Prevention rate depends on number of measures to increase reusability, repairability, durability and upgradability of electronics and ICT products. Eco-design regulations as well as GPP and eco-label criteria were adopted and implemented recently but tangible results from these instruments could not be expected now but in the future when the products designed following these requirements will become waste. Therefore, the current degree of avoidability is determined mainly due to the reusability of WEEE. Assessment of the potential for reuse of WEEE could be found in *Study on WEEE recovery targets, preparation for re-use targets and on the method for calculation of the recovery targets*[16] According to the information in this study, 18% of WEEE collected are reusable in Austria.
waste generated in the sector	electronics and ICT	Data are available – EUROSTAT, Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN]. Data extracted from EUROSTAT database is shown in Annex 3, Table 1
waste prevention rate	batteries	Waste batteries are not reusable, the possibilities to extend their durability (through current production technologies) are already exploited by the manufacturers and therefore the only way to enhance battery waste prevention is to refurbish the waste batteries. In the study "A Review on Battery Market Trends, Second-Life Reuse, and Recycling"[17] the currently achievable rate of refurbishment is assessed to 5%.
waste generated in the sector	batteries	Data are available – EUROSTAT, Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN]. Data extracted from EUROSTAT database is shown in Annex 3, Table 2
waste prevention rate	vehicles	The current degree of avoidability is determined mainly due to the reusability of ELV components. Assessment of the potential for reuse of ELV components could be found in Annual Report of the End-

[16] https://ec.europa.eu/environment/pdf/waste/weee/16.%20Final%20report_approved.pdf

[17] https://www.researchgate.net/profile/Yanyan-Zhao-8/publication/349938027_A_Review_on_Battery_Market_Trends_Second-Life_Reuse_and_Recycling/links/60482aa34585154e8c8acb67/A-Review-on-Battery-Market-Trends-Second-Life-Reuse-and-Recycling.pdf

		of-life vehicle sector observatory (2015) prepared by Ecological Transition Agency (Agence de la transition écologique – ADEME), France. France is the only member state that requires full traceability of reuse spare parts from ELV. According to the information in this study, the dismantled spare parts for reuse represent almost 15% per ELV.
waste generated in the sector	vehicles	Data are available – ELV report of Croatian Environment and Nature Agency for 2018[18] - Table 3
waste prevention rate	packaging	Prevention rate could be calculated from the packaging prevention target specified in Waste prevention and management plan of Brussels[19] - target for reduction of household packaging waste by 10 kg/inhab/yr.
waste generated in the sector	packaging	Data are available – packaging waste report of Croatian Environment and Nature Agency (HAOP) for 2018[20] - Table 1. It is assumed that the quantity of packaging waste generated is equal to the quantity put on the market the same year.
waste prevention rate	plastics	In accordance with Goal No 8 of "A Green Future - Our 25 Year Plan to Improve the Environment" the UK is committed to eliminate avoidable plastic waste by end of 2042. In accordance with "Monitoring Progress" document, which is a framework of indicators for tracking progress towards objectives set out in the Resources and Waste Strategy[21] (Chart 16), 44% of the plastic waste generated by household sources in England in 2017 could be categorized as potentially substitutable.
waste generated in the sector	plastics	Data are available – EUROSTAT, Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN]. Data extracted from EUROSTAT database is shown in Annex 3, Table 3

[18] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/OTP_Izvje%C5%A1%C4%87e%20o%20otpadnim%20vozilima%20i%20otpadnim%20gumama%20u%202018_FINAL%20-%20WEB.pdf

[19] http://www.bruxellesenvironnement.be/uploadedFiles/Contenu_du_site/Professionnels/Formations_et_s%C3%A9minaires/Conf%C3%A9rence_Pre-waste_2011_(actes)/w-brusselsenvironment-wasteplanEN.pdf

[20] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/OTP_ambal.pdf

[21] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/907029/resources-and-waste-strategy-monitoring-progress.pdf

waste prevention rate	textiles	In accordance with "Sustainable Clothing Action Plan 2020"[22] between 2012 and 2020 the UK's textile industry targeted to achieve 3.5% reduction in waste arising over the whole product life cycle.
waste generated in the sector	textiles	Data are available – EUROSTAT, Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN]. Data extracted from EUROSTAT database is shown in Annex 3, Table 4
waste prevention rate	construction and building	Wales implements Waste Prevention Programme with quantitative target for construction and demolition waste reduction of 1.4% every year to 2050 for waste treated offsite, based on a 2006/2007 baseline[23].
waste generated in the sector	construction and building	Data are available – C&D waste report of HAOP for 2018[24] - Chapter 6.
waste prevention rate	food	In accordance with UN's Sustainable Development Goal 12.3 - by 2030, halve per capita global food waste
waste generated in the sector	food	Data are available – EUROSTAT, Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN]. Data extracted from EUROSTAT database is shown in Annex 3, Table 5
generation of waste per DMC	all 8 sectors	Both parameters (DMC and generation of waste per sector) are quantifiable for all 8 sectors. There is a lack of tonnage data for DMC grouped by sectoral Statistical Classification of Economic Activities in the European Community (NACE) code. However the results of Material Flow Accounting (MFA) analysis conducted by Circle Economy within the framework of the project "*Analysis of circularity of Croatian industry*" will be used.
waste generated in the sector	electronics and ICT	Data are available – see above

[22] https://wrap.org.uk/taking-action/textiles/initiatives/scap-2020

[23] In accordance with the Resource efficient use of mixed wastes improving management of construction and demolition waste (page 60) https://ec.europa.eu/environment/system/files/2021-01/resource_efficient_uses_mixed_waste_Final_Report.pdf

[24] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/OTP_Pregled_gradjevni_2018.pdf

DMC	electronics and ICT	Data are available –WEEE report of Croatian Environment and Nature Agency (HAOP) for 2018[25] - Table 3
waste generated in the sector	batteries	Data are available – see above
DMC	batteries	Data are available – Waste Battery report of HAOP for 2018[26] - Table 1
waste generated in the sector	vehicles	Data are available – see above
DMC	vehicles	Data are available – ELV report of Croatian Environment and Nature Agency for 2018[27] - Table 2
waste generated in the sector	packaging	Data are available – see above
DMC	packaging	Data are available – Packaging waste report of HAOP for 2018[28] - Table 1
waste generated in the sector	plastics	Data are available - see above
RMC	plastics	Data are available – from Material Flow Accounting (MFA) analysis conducted by Circle Economy
waste generated in the sector	textiles	Data are available – see above
RMC	textiles	Data are available – from Material Flow Accounting (MFA) analysis conducted by Circle Economy
waste generated in the sector	construction and building	Data are available – see above
RMC	construction and building	Data are available – from Material Flow Accounting (MFA) analysis conducted by Circle Economy
waste generated in the sector	food	Data are available – see above

[25] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/Izvje%C5%A1%C4%87e%20EE%20otpad_2018_final_za%20WEB.PDF

[26] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/OTP_Pregled%20podataka%20o%20otpadnim%20baterijama%20i%20akumulatorima%20u%202018_FINAL%20-%20WEB.pdf

[27] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/OTP_Izvje%C5%A1%C4%87e%20o%20otpadnim%20vozilima%20i%20otpadnim%20gumama%20u%202018_FINAL%20-%20WEB.pdf

[28] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/OTP_ambal.pdf

RMC	food	Data are available – from Material Flow Accounting (MFA) analysis conducted by Circle Economy
contribution to waste streams-percentage of total volumes	all 8 sectors	Defined as the total waste generated in the sector, tonnes, in 2018 divided by the total waste generated in the country, tonnes in 2018. Both parameters are quantifiable for all 8 sectors.
total waste generated in the country	whole economy	Data are available – EUROSTAT, Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN]. Data extracted from EUROSTAT database is shown in Annex 4
waste generated in the sector	all 8 sectors	Data are available – see above
potential for replacement with alternative materials with better recyclability	all 8 sectors	This criterion characterizes recyclability of products but it is very specific – recyclability through replacement with alternative materials. It is not quantifiable because there are no voluntary commitments or mandatory targets for achieving such specific recyclability. Similar quantitative target for minimum recycling content is in force for PET bottles but it is for specific product and does not cover all products in the sector (plastics or packaging sectors) and it is not for replacement with alternative materials. Due to these reasons, the comparison of the sectors on the basis of this criterion will be performed qualitatively.
Criteria that characterize waste management		
recycling rates versus recyclable portion of waste	all 8 sectors	Defined as the total waste recycled in the sector, tonnes, in 2018 divided by recyclable portion of waste defined as socially acceptable waste recycling rate. Both parameters are quantifiable for all 8 sectors.
quantities recycled	electronics and ICT	Data are available in WEEE report of Croatian Environment and Nature Agency (HAOP) for 2018[29] - Table 4
recyclable portion of waste	electronics and ICT	Quantifiable using recycling targets specified in WEEE Directive and WEEE collected in the country available in WEEE report of Croatian Environment and Nature Agency (HAOP) for 2018 - Table 4
quantities recycled	batteries	Data are available – EUROSTAT, Recycling of batteries and accumulators [ENV_WASBAT. Data extracted from EUROSTAT database is shown in Annex 5, Table 1

[29] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/Izvje%C5%A1%C4%87e%20EE%20otpad_2018_final_za%20WEB.PDF

recyclable portion of waste	batteries	Data are available – calculated using: 1) Recycling input fractions (EUROSTAT, Recycling of batteries and accumulators [ENV_WASBAT. Data extracted from EUROSTAT database is shown in Annex 5, Table 2) 2) Recycling efficiency required by Waste Batteries Directive (65% for lead-acid batteries; 75% for Ni-Cd batteries and 50% for other batteries)
quantities recycled	vehicles	Data are available – EUROSTAT, End-of-life vehicles - reuse, recycling and recovery, totals [ENV_WASELVT] Data extracted from EUROSTAT database is shown in Annex 5, Table 3
recyclable portion of waste	vehicles	Data are available – calculated using: 1) EUROSTAT, End-of-life vehicles - reuse, recycling and recovery, totals [ENV_WASELVT] Data extracted from EUROSTAT database is shown in Annex 5, Table 3 2) Recycling targets required by ELV Directive (85% recycling of all vehicles collected in authorized treatment facilities)
quantities recycled	packaging	Data are available in Packaging waste report of HAOP for 2018 - Table 1[30]
recyclable portion of waste	packaging	Data are available – calculated using: 1) packaging waste generated (equal to quantity put on the market) – from Packaging waste report of Croatian Environment and Nature Agency (HAOP) for 2018 - Table 1 2) upper recycling limit (80%) in accordance with Packaging Waste Directive
quantities recycled	plastics	Data are available – EUROSTAT, Treatment of waste by waste category, hazardousness and waste management operations [ENV_WASTRT]. Data extracted from EUROSTAT database is shown in Annex 5, Table 4
recyclable portion of waste	plastics	Data are available – calculated using:

[30] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/OTP_ambal.pdf

		1) Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN]. Data extracted from EUROSTAT database is shown in Annex 5, Table 5 2) Assumption for 55% recyclable portion of the plastic waste is made. It is equal to recycling target for plastic packaging in 2030 and in addition according to UK's "Monitoring Progress" document, which is a framework of indicators for tracking progress towards objectives set out in the Resources and Waste Strategy[31] (Chart 16), 56% of plastic waste from household sources is recyclable
quantities recycled	textiles	Data are available – EUROSTAT, Treatment of waste by waste category, hazardousness and waste management operations [ENV_WASTRT]. Data extracted from EUROSTAT database is shown in Annex 5, Table 6
recyclable portion of waste	textiles	Data are available – calculated using: 1) Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN]. Data extracted from EUROSTAT database is shown in Annex 5, Table 7 2) Assumption for 50% recyclable portion of the plastic waste is made. It is equal to recovery target for textile waste in accordance with the National Waste Management Plan of France (Plan national des dechets, 2019)[32]
quantities recycled	construction and building	Data are available – C&D waste report of Croatian Environment and Nature Agency (HAOP) for 2018[33] - Chapter 6
recyclable portion of waste	construction and building	Assumption for 70% recyclable portion of the plastic waste is made. It is equal to material recovery target for C&D waste in Waste Framework Directive
quantities recycled	food	Data are available – EUROSTAT, Treatment of waste by waste category, hazardousness and waste management operations [ENV_WASTRT]. Data extracted from EUROSTAT database is shown in Annex 5, Table 8

[31] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/907029/resources-and-waste-strategy-monitoring-progress.pdf
[32] https://www.ecologie.gouv.fr/sites/default/files/Plan%20national%20des%20dechets_octobre%202019.pdf
[33] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/OTP_Pregled_gradjevni_2018.pdf

recyclable portion of waste	food	Data are available – calculated using: 1) Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN]. Data extracted from EUROSTAT database is shown in Annex 5, Table 9 2) Assumption for 100% recyclable portion of the food waste is made (composting and anaerobic digestion).
Criteria that characterize secondary raw materials		
contribution of recycled materials to raw materials demand	all 8 sectors	Both parameters (DMC and recycled quantities per sector) are quantifiable for all 8 sectors. There is a lack of tonnage data for DMC grouped by sectoral Statistical Classification of Economic Activities in the European Community (NACE) code. However, the results of Material Flow Accounting (MFA) analysis conducted by Circle Economy within the framework of the project *"Analysis of circularity of Croatian industry"* will be used.
quantities recycled	electronics and ICT	Data are available – see above
DMC	electronics and ICT	Data are available –WEEE report of HAOP for 2018[34] - Table 3
quantities recycled	batteries	Data available – see above
DMC	batteries	Data are available –Waste Battery report of HAOP for 2018[35] - Table 1
quantities recycled	vehicles	Data available – see above
DMC	vehicles	Data are available – ELV report of HAOP for 2018[36] - Table 2
quantities recycled	packaging	Data are available – see above

[34] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/Izvje%C5%A1%C4%87e%20EE%20otpad_2018_final_za%20WEB.PDF

[35] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/OTP_Pregled%20podataka%20o%20otpadnim%20baterijama%20i%20akumulatorima%20u%202018_FINAL%20-%20WEB.pdf

[36] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/OTP_Izvje%C5%A1%C4%87e%20o%20otpadnim%20vozilima%20i%20otpadnim%20gumama%20u%202018_FINAL%20-%20WEB.pdf

DMC	packaging	Data are available – Packaging waste report of HAOP for 2018[37] - Table 1
quantities recycled	plastics	Data are available – see above
DMC	plastics	Data will be available – from Material Flow Accounting (MFA) analysis conducted by Circle Economy
quantities recycled	textiles	Data are available – see above
DMC	textiles	Data will be available – from Material Flow Accounting (MFA) analysis conducted by Circle Economy
quantities recycled	construction and building	Data are available – see above
DMC	construction and building	Data will be available – from Material Flow Accounting (MFA) analysis conducted by Circle Economy
quantities recycled	food	Data are available – see above
DMC	food	Data will be available – from Material Flow Accounting (MFA) analysis conducted by Circle Economy
Criteria that characterize growth potential, competitiveness and employment		
growth potential	All 8 sectors	This indicator is defined as the average growth of "Gross investment in tangible goods" for the last 5 years
"Gross investment in tangible goods"	electronics and ICT	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 6, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
"Gross investment in tangible goods"	batteries	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 7, Table 1 (manufacturing), Table 2 (trade)

[37] http://www.haop.hr/sites/default/files/uploads/dokumenti/021_otpad/Izvjesca/ostalo/OTP_ambal.pdf

"Gross investment in tangible goods"	vehicles	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 8, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
"Gross investment in tangible goods"	packaging	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 9, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
"Gross investment in tangible goods"	plastics	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 10, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
"Gross investment in tangible goods"	textiles	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 11, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
"Gross investment in tangible goods"	construction and building	Data are available – EUROSTAT, Annual detailed enterprise statistics for construction (NACE Rev. 2, F) [SBS_NA_CON_R2]. Data extracted from EUROSTAT database is shown in Annex 12
"Gross investment in tangible goods"	food	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 13, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
contribution to employment	all 8 sectors	This indicator is defined as Persons employed (number) in the sector divided by Total employment in the country (number)
Total employment in the country (number)	all 8 sectors	Data are available – EUROSTAT, Employment and activity by sex and age - annual data [LFSI_EMP_A]. Data extracted from EUROSTAT database is shown in Annex 14.
Persons employed	electronics and ICT	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 15, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)

Persons employed	batteries	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 16, Table 1 (manufacturing) and Table 2 (trade)
Persons employed	vehicles	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 17, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
Persons employed	packaging	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 18, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
Persons employed	plastics	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 19, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
Persons employed	textiles	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 20, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
Persons employed	construction and building	Data are available – EUROSTAT, Annual detailed enterprise statistics for construction (NACE Rev. 2, F) [SBS_NA_CON_R2]. Data extracted from EUROSTAT database is shown in Annex 21
Persons employed	food	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2]. Data extracted from EUROSTAT database is shown in Annex 22, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
GDP contribution	all 8 sectors	This indicator is defined as "Value Added at factor cost" for the sector divided by "Value Added at factor cost (Total for all NACE activities)". GDP contribution is calculated following the EUROSTAT methodology used for determination the percentage of the ICT sector in GDP[38].

[38] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_se_esms.htm

"Value Added at factor cost (Total for all NACE activities)"	whole economy	"Value Added at factor cost (Total_all NACE activities)" comes from the NA domain (source: nama_10_a64), defined as: Value Added at factor cost (Total) = Gross Value Added – Other taxes subsidies on production Data for "Gross Value Added" and "Other taxes subsidies on production"extracted from EUROSTAT database is shown in Annex 23.
"Value Added at factor cost" for the sector	electronics and ICT	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2, B-E) [SBS_NA_IND_R2]. Data extracted from EUROSTAT database is shown in Annex 24, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
"Value Added at factor cost" for the sector	batteries	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry and trade (NACE Rev. 2, B-E) [SBS_NA_IND_R2]. Data extracted from EUROSTAT database is shown in Annex 25, Table 1 (manufacturing) and Table 2 (trade)
"Value Added at factor cost" for the sector	vehicles	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2, B-E) [SBS_NA_IND_R2]. Data extracted from EUROSTAT database is shown in Annex 26, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
"Value Added at factor cost" for the sector	packaging	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2, B-E) [SBS_NA_IND_R2]. Data extracted from EUROSTAT database is shown in Annex 27, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
"Value Added at factor cost" for the sector	plastics	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2, B-E) [SBS_NA_IND_R2]. Data extracted from EUROSTAT database is shown in Annex 28, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
"Value Added at factor cost" for the sector	textiles	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2, B-E) [SBS_NA_IND_R2]. Data extracted from EUROSTAT database is shown in Annex 29, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)

"Value Added at factor cost" for the sector	construction and building	Data are available – EUROSTAT, Annual detailed enterprise statistics for construction (NACE Rev. 2, F) [SBS_NA_CON_R2]. Data extracted from EUROSTAT database is shown in Annex 30
"Value Added at factor cost" for the sector	food	Data are available – EUROSTAT, Annual detailed enterprise statistics for industry, services and trade (NACE Rev. 2, B-E) [SBS_NA_IND_R2]. Data extracted from EUROSTAT database is shown in Annex 31, Table 1 (manufacturing), Table 2 (services) and Table 3 (trade)
competitiveness	all 8 sectors	Competitiveness is defined as percentage of exported products from the sector from the total export.
Export in mln. EUR (Total all Nace activities)	whole economy	Data are available – EUROSTAT's Comext database for detailed statistics on international trade in goods, International trade in goods - detailed data (ext_go_detail)
Export in mln. EUR for the sector	electronics and ICT	Data are available – EUROSTAT's Comext database for detailed statistics on international trade in goods, International trade in goods - detailed data (ext_go_detail). Data extracted from Comext database is shown in Annex 32.
Export in mln. EUR for the sector	batteries	Data are available – EUROSTAT's Comext database for detailed statistics on international trade in goods, International trade in goods - detailed data (ext_go_detail). Data extracted from Comext database is shown in Annex 33.
Export in mln. EUR for the sector	vehicles	Data are available – EUROSTAT's Comext database for detailed statistics on international trade in goods, International trade in goods - detailed data (ext_go_detail). Data extracted from Comext database is shown in Annex 34.
Export in mln. EUR for the sector	packaging	Data are available – EUROSTAT's Comext database for detailed statistics on international trade in goods, International trade in goods - detailed data (ext_go_detail). Data extracted from Comext database is shown in Annex 35.
Export in mln. EUR for the sector	plastics	Data are available – EUROSTAT's Comext database for detailed statistics on international trade in goods, International trade in goods - detailed data (ext_go_detail). Data extracted from Comext database is shown in Annex 36.

Export in mln. EUR for the sector	textiles	Data are available – EUROSTAT's Comext database for detailed statistics on international trade in goods, International trade in goods - detailed data (ext_go_detail). Data extracted from Comext database is shown in Annex 37.
Export in mln. EUR for the sector	construction and building	Construction is considered as a service. No material flows from construction sector are exported. In 2017, Croatia exported $112M worth of construction services[39].
Export in mln. EUR for the sector	food	Data are available – EUROSTAT's Comext database for detailed statistics on international trade in goods, International trade in goods - detailed data (ext_go_detail). Data extracted from Comext database is shown in Annex 38
Criteria that characterize barriers and enabling conditions in the sectors		
legal framework	all 8 sectors	These criteria must answer the question of whether there are appropriate socio - economic conditions in the country for further development of the circular economy. Measurable parameters that characterize the socio-economic conditions are difficult to find, so these criteria will not be quantified. However all 8 sectors will be analyzed to identify the existing circularity barriers and enabling conditions and the potential for further development. The prioritization of the sectors will be performed on qualitative terms.
pricing of waste management costs		
consumer and business acceptance		
treatment and collection infrastructure		
economic incentives		
investment and innovation		

[39] https://oec.world/en/profile/country/hrv

Annex 2. List of economic activities constituting the individual sectors / value chains

Table 1. List of economic activities constituting electronics and ICT sector/ value chain

NACE code	NACE_R2 (Labels)
Manufacturing	
C26	Manufacture of computer, electronic and optical products
C27	Manufacture of electrical equipment
C2812	Manufacture of fluid power equipment
C2813	Manufacture of other pumps and compressors
C2822	Manufacture of lifting and handling equipment
C2823	Manufacture of office machinery and equipment (except computers and peripheral equipment)
Services	
J582	Software publishing
J591	Motion picture, video and television programme activities
J592	Sound recording and music publishing activities
J601	Radio broadcasting
J602	Television programming and broadcasting activities
J611	Wired telecommunications activities
J612	Wireless telecommunications activities
J613	Satellite telecommunications activities
J619	Other telecommunications activities
J6201	Computer programming activities
J6202	Computer consultancy activities
J6203	Computer facilities management activities
J6209	Other information technology and computer service activities
J6311	Data processing, hosting and related activities
J6312	Web portals
J639	Other information service activities
M7112	Engineering activities and related technical consultancy
M7120	Technical testing and analysis
M7219	Other research and experimental development on natural sciences and engineering
M7312	Media representation
M7410	Specialised design activities
M7420	Photographic activities
M7490	Other professional, scientific and technical activities n.e.c.
N772	Renting and leasing of personal and household goods
N7733	Renting and leasing of office machinery and equipment (including computers)
N8010	Private security activities
N8020	Security systems service activities
N8121	General cleaning of buildings
N8022	Other building and industrial cleaning activities
N8211	Combined office administrative service activities
N8219	Photocopying, document preparation and other specialised office support activities
N8220	Activities of call centres
N951	Repair of computers and communication equipment
N9521	Repair of consumer electronics
N9522	Repair of household appliances and home and garden equipment
Trade	
G4643	Wholesale of electrical household appliances

G4651	Wholesale of computers, computer peripheral equipment and software
G4652	Wholesale of electronic and telecommunications equipment and parts
G4741	Retail sale of computers, peripheral units and software in specialised stores
G4742	Retail sale of telecommunications equipment in specialised stores
G4743	Retail sale of audio and video equipment in specialised stores
G4754	Retail sale of electrical household appliances in specialised stores
G4764	Retail sale of sporting equipment in specialised stores
G4765	Retail sale of games and toys in specialised stores

Table 2. List of economic activities constituting batteries sector/ value chain

NACE code	NACE_R2 (Labels)
Manufacturing	
C2720	Manufacture of batteries and accumulators
Trade	
G4531	Wholesale trade of motor vehicle parts and accessories
G4532	Retail trade of motor vehicle parts and accessories
G4540	Sale, maintenance and repair of motorcycles and related parts and accessories
G4651	Wholesale of computers, computer peripheral equipment and software
G4652	Wholesale of electronic and telecommunications equipment and parts
G4754	Retail sale of electrical household appliances in specialised stores

Table 3. List of economic activities constituting vehicles sector/ value chain

NACE code	NACE_R2 (Labels)
Manufacturing	
C29	Manufacture of motor vehicles, trailers and semi-trailers
E3831	Dismantling of wrecks
Services	
H4931	Urban and suburban passenger land transport
H4932	Taxi operation
H5221	Service activities incidental to land transportation
H5320	Other postal and courier activities
N7711	Renting and leasing of cars and light motor vehicles
Trade	
G45	Wholesale and retail trade; repair of motor vehicles and motorcycles

Table 4. List of economic activities constituting packaging sector/ value chain

NACE code	NACE_R2 (Labels)
Manufacturing	
C1624	Manufacture of wooden containers
C1721	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard
C2222	Manufacture of plastic packing goods
C2313	Manufacture of hollow glass
C2592	Manufacture of light metal packaging
Services	
H5210	Warehousing and storage
H5229	Other transportation support activities
I5610	Restaurants and mobile food service activities

I5630	Beverage serving activities
N8292	Packaging activities
Trade	
G453	Sale of motor vehicle parts and accessories
G4540	Sale, maintenance and repair of motorcycles and related parts and accessories
G471	Retail sale in non-specialised stores
G472	Retail sale of food, beverages and tobacco in specialised stores
G474	Retail sale of information and communication equipment in specialised stores
G475	Retail sale of other household equipment in specialised stores
G477	Retail sale of other goods in specialised stores
G478	Retail sale via stalls and markets

Table 5. List of economic activities constituting plastics sector/ value chain

NACE codes	NACE_R2 (Labels)
Manufacturing	
C2060	Manufacture of man-made fibres
C2221	Manufacture of plastic plates, sheets, tubes and profiles
C2222	Manufacture of plastic packing goods
C2223	Manufacture of builders' ware of plastic
C2229	Manufacture of other plastic products
Services	
H5210	Warehousing and storage
I5610	Restaurants and mobile food service activities
I5630	Beverage serving activities
S9529	Repair of other personal and household goods
Trade	
G4634	Wholesale of beverages
G4643	Wholesale of electrical household appliances
G4644	Wholesale of china and glassware and cleaning materials
G4647	Wholesale of furniture, carpets and lighting equipment
G4652	Wholesale of electronic and telecommunications equipment and parts
G4665	Wholesale of office furniture
G4673	Wholesale of wood, construction materials and sanitary equipment
G4675	Wholesale of chemical products
G4711	Retail sale in non-specialised stores with food, beverages or tobacco predominating
G4721	Retail sale of fruit and vegetables in specialised stores
G4722	Retail sale of meat and meat products in specialised stores
G4723	Retail sale of fish, crustaceans and molluscs in specialised stores
G4724	Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores
G4725	Retail sale of beverages in specialised stores
G4729	Other retail sale of food in specialised stores
G4753	Retail sale of carpets, rugs, wall and floor coverings in specialised stores
G4759	Retail sale of furniture, lighting equipment and other household articles in specialised stores
G4781	Retail sale via stalls and markets of food, beverages and tobacco products
G4789	Retail sale via stalls and markets of other goods

Table 6. List of economic activities constituting textile sector/ value chain

NACE code	NACE_R2 (Labels)
Manufacturing	
C13	Manufacture of textiles
C14	Manufacture of wearing apparel
C15	Manufacture of leather and related products
C206	Manufacture of man-made fibres
Services	
S9523	Repair of footwear and leather goods
S9524	Repair of furniture and home furnishings
Trade	
G4616	Agents involved in the sale of textiles, clothing, fur, footwear and leather goods
G4624	Wholesale of hides, skins and leather
G4641	Wholesale of textiles
G4642	Wholesale of clothing and footwear
G4751	Retail sale of textiles in specialised stores
G4771	Retail sale of clothing in specialised stores
G4772	Retail sale of footwear and leather goods in specialised stores
G4782	Retail sale via stalls and markets of textiles, clothing and footwear

Table 7. List of economic activities constituting construction and building sector/ value chain

NACE code	NACE_R2 (Labels)
Construction	
F41	Construction of buildings
F42	Civil engineering
F43	Specialised construction activities

Table 8. List of economic activities constituting food sector/ value chain

NACE code	NACE_R2 (Labels)
Manufacturing	
C10	Manufacture of food products
C11	Manufacture of beverages
Services	
I551	Hotels and similar accommodation
I56	Food and beverage service activities
Trade	
G4617	Agents involved in the sale of food, beverages and tobacco
G463	Wholesale of food, beverages and tobacco
G4711	Retail sale in non-specialised stores with food, beverages or tobacco predominating
G472	Retail sale of food, beverages and tobacco in specialised stores
G4781	Retail sale via stalls and markets of food, beverages and tobacco products

Annex 3. Data sources for quantification of "avoidable volumes" indicator

Table 1. Data source for quantification of "avoidable volumes" indicator for electronics and ICT sector

Data extracted on 21/05/2021 14:07:13 from [ESTAT]

Dataset:	**Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN$DEFAULTVIEW]**
Last updated:	30/04/2021 23:00
Time frequency	Annual
Unit of measure	Tonne
Hazard class	Hazardous and non-hazardous - Total
Classification of economic activities - NACE Rev.2	All NACE activities plus households
Geopolitical entity (reporting)	Croatia

TIME	2004	2006	2008	2010	2012	2014	2016	2018
WASTE (Labels)								
Discarded equipment (except discarded vehicles and batteries and accumulators waste) (W08 except W081, W0841)	14 879	4 845	2 227	4 646	19 860	20 348	42 564	51 111

Special value

: not available

Table 2. Data source for quantification of "avoidable volumes" indicator for batteries sector

Data extracted on 21/05/2021 12:37:23 from [ESTAT]

Dataset:	**Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN$DEFAULTVIEW]**
Last updated:	30/04/2021 23:00

Time frequency	Annual
Unit of measure	Tonne
Hazard class	Hazardous and non-hazardous - Total
Classification of economic activities - NACE Rev.2	All NACE activities plus households
Geopolitical entity (reporting)	Croatia

TIME	2004	2006	2008	2010	2012	2014	2016	2018
WASTE (Labels)								
Batteries and accumulators wastes	4 626	3 360	1 643	2 301	9 935	8 209	7 465	13 176

Special value

: not available

Table 3. Data source for quantification of "avoidable volumes" indicator for plastics sector

Data extracted on 21/05/2021 13:15:46 from [ESTAT]

Dataset:	**Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN$DEFAULTVIEW]**
Last updated:	30/04/2021 23:00

Time frequency	Annual
Unit of measure	Tonne
Hazard class	Hazardous and non-hazardous - Total
Classification of economic activities - NACE Rev.2	All NACE activities plus households
Geopolitical entity (reporting)	Croatia

TIME	2004	2006	2008	2010	2012	2014	2016	2018
WASTE (Labels)								
Plastic wastes	63 232	186 368	29 505	24 807	39 186	49 116	65 131	71 670

Special value

Table 4. Data source for quantification of "avoidable volumes" indicator for textiles sector

Data extracted on 21/05/2021 13:36:44 from [ESTAT]

Dataset: **Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN$DEFAULTVIEW]**

Last updated: 30/04/2021 23:00

Time frequency	Annual
Unit of measure	Tonne
Hazard class	Hazardous and non-hazardous - Total
Classification of economic activities - NACE Rev.2	All NACE activities plus households
Geopolitical entity (reporting)	Croatia

TIME	2004	2006	2008	2010	2012	2014	2016	2018
WASTE (Labels)								
Textile wastes	22 154	20 652	8 837	17 430	3 281	8 504	9 921	10 357

Table 5. Data source for quantification of "avoidable volumes" indicator for food sector

Data extracted on 21/05/2021 14:04:05 from [ESTAT]

Dataset: **Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN$DEFAULTVIEW]**

Last updated: 30/04/2021 23:00

Time frequency	Annual
Unit of measure	Tonne
Hazard class	Hazardous and non-hazardous - Total
Classification of economic activities - NACE Rev.2	All NACE activities plus households
Geopolitical entity (reporting)	Croatia

TIME	2004	2006	2008	2010	2012	2014	2016	2018
WASTE (Labels)								
Animal and mixed food waste	:	:	:	62 562	13 121	33 084	54 306	53 295

Special value

: not available

Annex 4. Data sources for the total waste generated in Croatia (tonnes) in 2018

Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [env_wasgen]

Last update	30.04.21
Extracted on	21.05.21
Source of data	Eurostat
UNIT	Tonne
HAZARD	Hazardous and non-hazardous - Total
WASTE	Total waste
NACE_R2	All NACE activities plus households

GEO/TIME	2004	2006	2008	2010	2012	2014	2016	2018
Croatia	7 208 688	5 425 973	4 172 152	3 157 672	3 368 714	3 724 563	5 366 953	5 543 310

Special value:

: not available

Annex 5. Data sources for the "recycling rates versus recyclable portion of waste" indicator

Table 1. Data source for quantification of recycled quantities needed for calculation of "recycling rates versus recyclable portion of waste" indicator for batteries sector

Data extracted on 21/05/2021 17:12:02 from [ESTAT]

Dataset: **Recycling of batteries and accumulators [ENV_WASBAT$DEFAULTVIEW]**

Last updated: 16/06/2020 11:00

Time frequency Annual
Waste management operations Recycling
Unit of measure Tonne
Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
WASTE (Labels)										
Lead batteries	:	:	:	:	:	5 068	5 007	7 574	8 445	9 461
Lead content of batteries	:	:	:	:	:	4 485	4 621	7 243	7 637	8 561
Ni-Cd batteries	:	:	:	:	:	12	21	14	19	7
Cadmium content of batteries	:	:	:	:	:	0	0	0	0	0
Other batteries and accumulators	:	:	:	:	:	31	57	27	56	21
										9 489

Special value
: not available

Table 2. Data source for quantification of recyclable portion of waste needed for calculation of "recycling rates versus recyclable portion of waste" indicator for batteries sector

Data extracted on 21/05/2021 17:17:11 from [ESTAT]

Dataset: **Recycling of batteries and accumulators [ENV_WASBAT$DEFAULTVIEW]**

Last updated: 16/06/2020 11:00

Time frequency Annual
Waste management operations Recycling - input fractions
Unit of measure Tonne
Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
WASTE (Labels)										
Lead batteries	:	:	:	:	7 208	6 658	6 538	9 251	10 338	11 899
Lead content of batteries	:	:	:	:	:	4 574	4 698	7 308	7 718	8 639
Ni-Cd batteries	:	:	:	:	12	18	29	19	34	14
Cadmium content of batteries	:	:	:	:	:	0	0	0	8	0
Other batteries and accumulators	:	:	:	:	0	47	85	34	61	22
										11 935

Special value
: not available

Table 3. Data source for quantification of recycled quantities needed for calculation of "recycling rates versus recyclable portion of waste" indicator for vehicles sector

Data extracted on 21/05/2021 17:32:57 from [ESTAT]

Dataset: **End-of-life vehicles - reuse, recycling and recovery, totals [ENV_WASELVT$DEFAULTVIEW]**

Last updated: 12/10/2020 11:00

Time frequency Annual

Unit of measure Tonne

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
WST_OPER (Labels)										
Waste generated	:	:	:	33 221	29 017	22 584	19 617	18 912	24 662	30 616
Recycling	:	:	:	32 293	29 012	20 112	18 123	17 668	24 475	29 824

Special value

: not available

Table 4. Data source for quantification of recycled quantities needed for calculation of "recycling rates versus recyclable portion of waste" indicator for plastics sector

Data extracted on 21/05/2021 18:02:06 from [ESTAT]

Dataset: **Treatment of waste by waste category, hazardousness and waste management operations [ENV_WASTRT__custom_981902]**

Last updated: 30/04/2021 23:00

Time frequency	Annual
Unit of measure	Tonne
Hazard class	Hazardous and non-hazardous - Total
Waste categories	Plastic wastes
Geopolitical entity (reporting)	Croatia

TIME	2004	2006	2008	2010	2012	2014	2016	2018
WST_OPER (Labels)								
Waste treatment	3 158	7 546	8 264	12 393	21 795	46 171	30 394	52 871
Disposal - landfill and other (D1-D7, D12)	:	:	:	1 598	1 532	1 219	3 959	5 838
Disposal - landfill (D1, D5, D12)	:	:	:	1 598	1 532	1 219	3 959	5 838
Disposal - incineration (D10)	:	:	:	132	0	0	0	0
Disposal - other (D2-D4, D6-D7)	:	:	:	0	0	0	0	0
Recovery - energy recovery (R1)	:	:	:	652	0	0	0	5 103
Recovery - recycling and backfilling (R2-R11)	3 158	7 546	8 264	10 011	20 263	44 952	26 435	41 929
Recovery - recycling	:	:	:	10 011	20 263	44 952	26 435	41 929
Recovery - backfilling	:	:	:	0	0	0	0	0

Special value

: not available

Table 5. Data source for quantification of recyclable portion of waste needed for calculation of "recycling rates versus recyclable portion of waste" indicator for plastics sector

Data extracted on 21/05/2021 13:15:46 from [ESTAT]

Dataset:	**Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN$DEFAULTVIEW]**
Last updated:	30/04/2021 23:00

Time frequency	Annual
Unit of measure	Tonne
Hazard class	Hazardous and non-hazardous - Total
Classification of economic activities - NACE Rev.2	All NACE activities plus households
Geopolitical entity (reporting)	Croatia

TIME	2004	2006	2008	2010	2012	2014	2016	2018
WASTE (Labels)								
Plastic wastes	63 232	186 368	29 505	24 807	39 186	49 116	65 131	71 670

Special value

: not available

Table 6. Data source for quantification of recycled quantities needed for calculation of "recycling rates versus recyclable portion of waste" indicator for textiles sector

Data extracted on 21/05/2021 18:55:35 from [ESTAT]

Dataset: **Treatment of waste by waste category, hazardousness and waste management operations [ENV_WASTRT__custom_982092]**

Last updated: 30/04/2021 23:00

Time frequency	Annual
Unit of measure	Tonne
Hazard class	Hazardous and non-hazardous - Total
Waste categories	Textile wastes
Geopolitical entity (reporting)	Croatia

TIME	2004	2006	2008	2010	2012	2014	2016	2018
WST_OPER (Labels)								
Waste treatment	63	28	2	18 775	1 505	2 725	4 229	3 220
Disposal - landfill and other (D1-D7, D12)	:	:	:	5 660	1 096	1 041	682	855
Disposal - landfill (D1, D5, D12)	:	:	:	5 660	1 096	1 041	682	855
Disposal - incineration (D10)	:	:	:	0	0	0	0	0
Disposal - other (D2-D4, D6-D7)	:	:	:	0	0	0	0	0
Recovery - energy recovery (R1)	:	:	:	149	0	0	0	354
Recovery - recycling and backfilling (R2-R11)	63	28	2	12 966	409	1 684	3 547	2 010
Recovery - recycling	:	:	:	12 966	409	1 684	3 547	2 010
Recovery - backfilling	:	:	:	0	0	0	0	0

Special value

: not available

Table 7. Data source for quantification of recyclable portion of waste needed for calculation of "recycling rates versus recyclable portion of waste" indicator for textiles sector

Data extracted on 21/05/2021 13:36:44 from [ESTAT]

Dataset: **Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN$DEFAULTVIEW]**

Last updated: 30/04/2021 23:00

Time frequency	Annual
Unit of measure	Tonne
Hazard class	Hazardous and non-hazardous - Total
Classification of economic activities - NACE Rev.2	All NACE activities plus households
Geopolitical entity (reporting)	Croatia

TIME	2004	2006	2008	2010	2012	2014	2016	2018
WASTE (Labels)								
Textile wastes	22 154	20 652	8 837	17 430	3 281	8 504	9 921	10 357

Special value

: not available

Table 8. Data source for quantification of recycled quantities needed for calculation of "recycling rates versus recyclable portion of waste" indicator for food sector

Data extracted on 21/05/2021 19:31:01 from [ESTAT]

Dataset: **Treatment of waste by waste category, hazardousness and waste management operations [ENV_WASTRT__custom_982186]**

Last updated: 30/04/2021 23:00

Time frequency Annual
Unit of measure Tonne
Hazard class Hazardous and non-hazardous - Total
Waste categories Animal and mixed food waste
Geopolitical entity (reporting) Croatia

TIME	2004	2006	2008	2010	2012	2014	2016	2018
WST_OPER (Labels)								
Waste treatment	:	:	:	71 030	6 650	28 260	43 189	46 856
Disposal - landfill and other (D1-D7, D12)	:	:	:	24 846	115	926	1 126	319
Disposal - landfill (D1, D5, D12)	:	:	:	24 842	115	926	1 126	319
Disposal - incineration (D10)	:	:	:	8 319	0	0	0	0
Disposal - other (D2-D4, D6-D7)	:	:	:	4	0	0	0	0
Recovery - energy recovery (R1)	:	:	:	1 486	433	260	2 940	989
Recovery - recycling and backfilling (R2-R11)	:	:	:	36 379	6 102	27 074	39 123	45 548
Recovery - recycling	:	:	:	36 379	6 102	27 074	39 123	45 548
Recovery - backfilling	:	:	:	0	0	0	0	0

Special value

: not available

Table 9. Data source for quantification of recyclable portion of waste needed for calculation of "recycling rates versus recyclable portion of waste" indicator for food sector

Data extracted on 21/05/2021 14:04:05 from [ESTAT]

Dataset: **Generation of waste by waste category, hazardousness and NACE Rev. 2 activity [ENV_WASGEN$DEFAULTVIEW]**

Last updated: 30/04/2021 23:00

Time frequency	Annual
Unit of measure	Tonne
Hazard class	Hazardous and non-hazardous - Total
Classification of economic activities - NACE Rev.2	All NACE activities plus households
Geopolitical entity (reporting)	Croatia

TIME	2004	2006	2008	2010	2012	2014	2016	2018
WASTE (Labels)								
Animal and mixed food waste	:	:	:	62 562	13 121	33 084	54 306	53 295

Special value

: not available

Annex 6. Data sources for "Gross investment in tangible goods" in electronics and ICT sector

Table 1. "Gross investment in tangible goods" in electronics and ICT sector (manufacturing)

Data extracted on 24/05/2021 11:48:33 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_988325]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Gross investment in tangible goods - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of computer, electronic and optical products	: c	: c	7,9	5,1	13,2	12,5	10,2	13,9	12,5	18,3
Manufacture of electrical equipment	32,4	52,0	29,9	26,5	15,6	22,2	24,5	28,7	35,4	24,7
Manufacture of fluid power equipment	: c	0,1	3,6	0,2	0,0	0,0	0,0	0,0	0,0	0,0
Manufacture of other pumps and compressors	1,2	0,4	0,5	0,1	0,0	2,4	0,1	0,9	0,5	0,6
Manufacture of lifting and handling equipment	1,0	1,6	1,6	2,2	2,5	2,0	3,0	1,6	0,8	0,3
Manufacture of office machinery and equipment (except computers and peripheral equipment)	0,2	0,6	0,0	0,0	0,6	: c	: c	: c	0,0	0,0
					31,9	39,1	0,	37,8	0,	45,1	0,	49,2	0,	43,9

Special value

: not available

Available flags:

c confidential

Table 2. "Gross investment in tangible goods" in electronics and ICT sector (services)

Data extracted on 24/05/2021 12:05:55 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_988393]**
Last updated:	08/03/2021 23:00
Time frequency	Annual
Economical indicator for structural business statistics	Gross investment in tangible goods - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Software publishing	0,8	0,5	0,9	0,1	0,0	0,1	0,0	0,0	0,0	0,0
Motion picture, video and television programme activities	14,0	5,6	16,4	3,7	1,4	1,1	0,5	3,2	7,4	1,4
Sound recording and music publishing activities	: c	: c	0,0	0,0	0,0	0,1	0,0	0,2	0,0	0,0
Radio broadcasting	: c	: c	0,3	0,1	0,1	0,0	0,1	0,0	0,1	0,0
Television programming and broadcasting activities	: c	: c	6,6	3,9	6,8	14,5	6,3	16,9	6,3	10,0
Wired telecommunications activities	: c	: c	119,1	127,6	122,8	97,0	124,9	148,4	134,3	124,1
Wireless telecommunications activities	111,4	: c	54,5	51,7	53,1	65,9	64,1	85,5	82,7	84,1
Satellite telecommunications activities	: c	: c	0,0	0,0	1,0	0,0	0,0	1,0	0,7	0,5
Other telecommunications activities	0,0	2,2	0,5	0,9	4,2	0,1	0,0	0,0	0,3	0,1
Computer programming activities	14,6	10,1	11,1	10,5	10,4	14,4	4,6	9,6	7,9	11,7
Computer consultancy activities	2,9	4,0	4,1	3,3	3,3	0,4	0,3	0,3	0,1	0,4
Computer facilities management activities	0,0	0,1	0,6	0,8	1,8	1,5	0,4	0,1	3,2	5,4

Other information technology and computer service activities	2,3		0,7		2,7		0,7		0,3		0,0		0,0		0,2		0,4		0,8	
Data processing, hosting and related activities	10,4		4,9		6,4		3,8		1,5		2,5		4,5		4,3		16,7		6,5	
Web portals	0,0		0,0		0,1		0,2		0,0		0,0		0,0		0,0		0,0		0,0	
Other information service activities	:	c	:	c	0,0		0,0		0,0		0,0		0,0		0,0		0,0		0,0	
Engineering activities and related technical consultancy	221,3		42,1		23,5		18,6		9,3		17,2		15,5		4,9		8,8		12,3	
Technical testing and analysis	25,9		18,3		20,9		13,1		9,8		8,2		13,7		9,5		42,9		13,7	
Other research and experimental development on natural sciences and engineering	:	c	:	c	:	c	:	c	:	c	1,9		2,8		5,2		2,5		3,2	
Media representation	:	c	0,2		1,0		0,2		0,1		0,1		0,0		0,0		0,0		0,1	
Specialised design activities	0,8		0,6		0,3		0,0		0,0		0,0		0,0		0,3		0,5		0,7	
Photographic activities	0,5		0,4		0,1		0,6		0,1		0,0		0,0		0,0		0,0		0,0	
Other professional, scientific and technical activities n.e.c.	1,0		0,7		0,2		0,0		0,0		0,1		0,1		0,4		0,1		0,1	
Renting and leasing of personal and household goods	:	c	:	c	:	c	:	c	:	c	:	c	:	c	:	c	:	c	:	c
Renting and leasing of office machinery and equipment (including computers)	0,0		:	c	0,0		:	c	:	c	:	c	:	c	8,2		14,7		2,6	
Private security activities	3,7		2,8		2,9		3,2		4,1		3,5		2,6		6,1		1,0		3,1	
Security systems service activities	0,1		2,1		0,2		0,1		0,9		0,0		0,0		0,0		0,0		0,0	
General cleaning of buildings	1,1		0,7		1,3		0,6		0,0		0,4		0,1		0,3		0,2		0,3	
Other building and industrial cleaning activities	0,6		0,1		0,0		0,0		0,0		0,0		0,0		0,0		0,0		0,0	
Combined office administrative service activities	:	c	:	c	0,1		0,1		0,0		0,0		0,0		0,0		0,0		0,0	
Photocopying, document preparation and other specialised office support activities	0,1		0,2		1,0		0,1		0,0		0,0		0,0		0,0		0,0		0,0	
Activities of call centres	:	c	:	c	0,1		0,5		0,1		0,1		0,0		0,1		0,1		0,3	
Repair of computers and communication equipment	0,8		1,2		0,5		0,3		0,2		0,1		0,0		0,3		0,9		3,9	
Repair of consumer electronics	:	c	0,0		0,0		0,0		0,0		0,0		0,0		0,0		0,0		0,0	
Repair of household appliances and home and garden equipment	0,1		1,5		0,1		0,0		0,0		0,0		0,1		0,3		0,0		0,0	

231,3		229,2	0,0	240,6	0,0	305,3	0,0	331,8	0,0	285,3

Special value

:	not available

Available flags:

c	confidential

Table 3. "Gross investment in tangible goods" in electronics and ICT sector (trade)

Data extracted on 24/05/2021 11:34:56 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988261]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Gross investment in tangible goods - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale of electrical household appliances	14,0	4,8	6,7	2,8	1,5	0,5	1,4	2,0	4,9	2,2
Wholesale of computers, computer peripheral equipment and software	4,9	2,9	2,0	3,0	1,5	3,4	1,3	2,3	2,4	3,9
Wholesale of electronic and telecommunications equipment and parts	0,5	1,1	1,4	3,5	1,1	0,6	1,1	2,0	0,2	0,3
Retail sale of computers, peripheral units and software in specialised stores	0,1	0,0	0,3	0,2	0,2	0,0	0,0	0,1	0,0	0,1
Retail sale of telecommunications equipment in specialised stores	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Retail sale of audio and video equipment in specialised stores	0,0	0,0	0,0	0,3	0,0	0,1	0,0	0,0	0,0	0,0
Retail sale of electrical household appliances in specialised stores	2,4	3,4	5,6	5,2	1,0	0,4	2,0	0,3	0,6	2,1
Retail sale of sporting equipment in specialised stores	1,9	2,3	1,6	1,5	0,4	0,7	0,1	3,0	2,2	2,2
Retail sale of games and toys in specialised stores	1,3	0,3	0,0	0,0	0,0	: c	: c	: c	0,2	0,1
					5,7	5,7	5,9	9,7	10,5	10,9

Special value

:

not available

Available flags:

c

confidential

Annex 7. Data sources for "Gross investment in tangible goods" in batteries sector

Table 1. "Gross investment in tangible goods" in batteries sector (manufacturing)

Data extracted on 24/05/2021 12:09:48 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_988407]**
Last updated:	08/03/2021 23:00

Time frequency		Annual
Economical indicator for structural statistics	**business**	Gross investment in tangible goods - million euro
Geopolitical entity (reporting)		Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of batteries and accumulators	: c	1,3	0,1	0,0	0,1	0,0	0,0	0,0	0,0	0,0
					0,1	0,0	0,0	0,0	0,0	0,0

Special value : not available

Available flags:

c	confidential

Table 2. Gross investment in tangible goods" in batteries sector (trade)

Data extracted on 24/05/2021 12:33:30 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988521]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Gross investment in tangible goods - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale trade of motor vehicle parts and accessories	7,5	11,9	3,8	3,1	7,2	8,4	6,6	12,9	18,6	12,7
Retail trade of motor vehicle parts and accessories	3,3	4,5	5,7	6,4	7,0	5,4	9,9	1,1	0,7	2,5
Sale, maintenance and repair of motorcycles and related parts and accessories	0,3	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Wholesale of computers, computer peripheral equipment and software	4,9	2,9	2,0	3,0	1,5	3,4	1,3	2,3	2,4	3,9
Wholesale of electronic and telecommunications equipment and parts	0,5	1,1	1,4	3,5	1,1	0,6	1,1	2,0	0,2	0,3
Retail sale of electrical household appliances in specialised stores	2,4	3,4	5,6	5,2	1,0	0,4	2,0	0,3	0,6	2,1
					17,8	18,2	20,9	18,6	22,5	21,5

Special value

: not available

Annex 8. Data sources for "Gross investment in tangible goods" in vehicles sector

Table 1. "Gross investment in tangible goods" in vehicles sector (manufacturing)

Data extracted on 24/05/2021 12:54:58 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_988639]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Gross investment in tangible goods - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of motor vehicles, trailers and semi-trailers	4,8	2,5	: c	8,9	16,2	9,7	8,0	16,2	11,5	15,1
Dismantling of wrecks	0,0	0,0	: c	0,0	0,0	0,0	0,0	: c	: c	0,0
					16,2	9,7	8,	16,2	11,5	15,1

Special value

:	not available

Available flags:

c	confidential

Table 2. "Gross investment in tangible goods" in vehicles sector (services)

Data extracted on 24/05/2021 12:52:29 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_988617]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Gross investment in tangible goods - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Urban and suburban passenger land transport	23,2	1,2	0,5	3,8	8,0	29,9	18,6	: c	57,2	2,2
Taxi operation	0,0	0,8	7,5	0,0	0,0	0,0	0,0	: c	0,0	0,0
Service activities incidental to land transportation	99,9	74,0	86,1	107,4	196,6	144,0	170,9	51,6	71,7	167,7
Other postal and courier activities	1,5	2,1	: c	1,6	0,7	0,4	0,1	: c	0,1	0,2
Renting and leasing of cars and light motor vehicles	19,1	: c	72,2	4,4	: c	103,5	118,0	160,2	179,8	164,4
					205,3	277,8	307,6	211,8	308,8	334,5

Special value

:	not available

Available flags:

c	confidential

Table 3. "Gross investment in tangible goods" in vehicles sector (trade)

Data extracted on 24/05/2021 12:45:56 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988577]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Gross investment in tangible goods - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale and retail trade; repair of motor vehicles and motorcycles	120,5	71,6	61,9	58,8	68,6	44,2	42,6	48,3	70,8	60,1
						44	42	48	70	60
					68,6	,2	,6	,3	,8	,1

Special value

: not available

Annex 9. Data sources for "Gross investment in tangible goods" in packaging sector

Table 1. "Gross investment in tangible goods" in packaging sector (manufacturing)

Data extracted on 24/05/2021 13:13:13 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_988721]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Gross investment in tangible goods - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of wooden containers	1,7	1,7	0,4	0,4	0,7	1,3	0,6	0,7	0,8	1,8
Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	4,9	6,2	5,5	7,0	5,4	13,4	10,7	12,3	6,0	16,7
Manufacture of plastic packing goods	5,3	2,9	13,9	8,8	7,6	9,7	5,9	4,6	6,1	9,2
Manufacture of hollow glass	: c	: c	: c	: c	: c	: c	: c	: c	: c	: c
Manufacture of light metal packaging	0,5	: c	0,6	2,2	1,8	0,1	0,1	0,1	0,0	0,0
					15,5	0,24,5	0,17,3	0,17,7	0,12,9	0,27,7

Special value

: not available

Available flags:

Table 2. "Gross investment in tangible goods" in packaging sector (services)

Data extracted on 24/05/2021 13:09:39 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_988712]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Gross investment in tangible goods - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Warehousing and storage	7,4	0,8	1,6	6,4	29,8	12,5	57,7	28,7	26,3	18,1
Other transportation support activities	14,9	4,4	3,7	2,0	3,8	8,3	14,6	7,8	2,7	6,0
Restaurants and mobile food service activities	45,3	19,6	22,3	17,9	12,1	8,0	20,4	21,2	14,2	21,8
Beverage serving activities	365,3	7,9	13,5	5,1	0,5	3,5	5,4	2,1	20,5	9,0
Packaging activities	: c	0,0	3,2	2,1	0,6	0,0	0,0	0,0	0,0	0,0
					46,8	0,0	32,3	98,1	59,8	63,7	54,9

Special value

:	not available

Available flags:

c	confidential

Table 3. "Gross investment in tangible goods" in packaging sector (trade)

Data extracted on 24/05/2021 13:03:46 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988677]**
Last updated:	08/03/2021 23:00
Time frequency	Annual
Economical indicator for structural business statistics	Gross investment in tangible goods - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Sale of motor vehicle parts and accessories	10,8	16,3	9,5	9,5	14,2	13,7	16,5	14,0	19,4	15,2
Sale, maintenance and repair of motorcycles and related parts and accessories	0,3	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Retail sale in non-specialised stores	365,6	359,3	303,1	220,0	180,6	246,4	181,0	200,2	284,7	231,0
Retail sale of food, beverages and tobacco in specialised stores	3,5	3,9	6,2	3,6	3,3	5,5	5,6	10,5	7,1	2,5
Retail sale of information and communication equipment in specialised stores	0,1	0,0	0,3	0,5	0,2	0,1	0,0	0,1	0,0	0,2
Retail sale of other household equipment in specialised stores	25,7	27,8	20,1	56,9	24,4	59,5	16,7	11,6	18,4	28,1
Retail sale of other goods in specialised stores	74,2	59,2	62,8	40,4	43,7	27,1	41,3	37,9	54,1	66,0
Retail sale via stalls and markets	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
					266,40	0,00	352,30	0,00	261,10	0,00	274,30	0,00	383,70	0,00	343,00

Special value

:	not available

Annex 10. Data sources for "Gross investment in tangible goods" in plastics sector

Table 1. "Gross investment in tangible goods" in plastics sector (manufacturing)

Data extracted on 25/05/2021 09:25:42 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_991854]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Gross investment in tangible goods - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of man-made fibres	: c	0,0	: c	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Manufacture of plastic plates, sheets, tubes and profiles	15,8	4,6	5,0	8,6	9,0	6,6	12,0	12,2	15,3	21,6
Manufacture of plastic packing goods	5,3	2,9	13,9	8,8	7,6	9,7	5,9	4,6	6,1	9,2
Manufacture of builders' ware of plastic	9,1	5,9	4,5	3,2	2,6	5,4	5,6	11,9	8,6	13,6
Manufacture of other plastic products	4,4	8,9	1,8	3,3	17,8	9,1	7,3	4,4	10,5	11,3
					37,0	0,0 30,8	0,0 30,8	0,0 33,1	0,0 40,5	0,0 55,7

Special value

: not available

Available flags:

c confidential

Table 2. "Gross investment in tangible goods" in plastics sector (services)

Data extracted on 25/05/2021 09:32:49 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_991879]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Gross investment in tangible goods - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Warehousing and storage	7,4	0,8	1,6	6,4	29,8	12,5	57,7	28,7	26,3	18,1
Restaurants and mobile food service activities	45,3	19,6	22,3	17,9	12,1	8,0	20,4	21,2	14,2	21,8
Beverage serving activities	365,3	7,9	13,5	5,1	0,5	3,5	5,4	2,1	20,5	9,0
Repair of other personal and household goods	0,1	0,1	0,1	0,2	0,0	0,0	0,0	0,0	0,0	0,0
					42,4	0,24,0	83,5	0,52,0	0,61,0	48,9

Special value

: not available

Table 3. "Gross investment in tangible goods" in plastics sector (trade)

Data extracted on 24/05/2021 13:31:27 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988800]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Gross investment in tangible goods - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale of beverages	6,0	18,1	3,5	5,2	2,0	1,8	1,9	3,6	3,6	4,5
Wholesale of electrical household appliances	14,0	4,8	6,7	2,8	1,5	0,5	1,4	2,0	4,9	2,2
Wholesale of china and glassware and cleaning materials	2,1	: c	1,0	0,2	0,1	0,1	0,1	0,1	0,1	0,1
Wholesale of furniture, carpets and lighting equipment	: c	0,4	0,6	1,1	1,2	0,9	2,1	4,3	4,3	3,5
Wholesale of electronic and telecommunications equipment and parts	0,5	1,1	1,4	3,5	1,1	0,6	1,1	2,0	0,2	0,3
Wholesale of office furniture	0,2	: c	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Wholesale of wood, construction materials and sanitary equipment	19,8	12,9	9,7	9,8	11,9	9,8	11,3	13,5	14,2	14,4
Wholesale of chemical products	2,1	1,5	1,7	1,6	0,7	1,2	2,1	4,9	1,9	2,3
Retail sale in non-specialised stores with food, beverages or tobacco predominating	240,3	313,1	267,7	203,0	161,2	210,9	172,3	178,8	254,8	195,2
Retail sale of fruit and vegetables in specialised stores	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Retail sale of meat and meat products in specialised stores	0,1	0,8	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0
Retail sale of fish, crustaceans and molluscs in specialised stores	0,1	: c	0,2	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores	0,1	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Retail sale of beverages in specialised stores	0,9	0,2	2,9	0,3	0,2	0,2	0,5	3,4	0,0	0,0
Other retail sale of food in specialised stores	0,2	1,0	1,1	0,5	0,0	0,3	0,0	0,4	0,0	0,3
Retail sale of carpets, rugs, wall and floor coverings in specialised stores	0,7	0,3	0,1	0,1	0,1	0,2	0,6	0,2	1,2	0,9
Retail sale of furniture, lighting equipment and other household articles in specialised stores	7,4	1,9	6,2	40,4	21,4	57,1	9,2	6,2	11,5	20,7
Retail sale via stalls and markets of food, beverages and tobacco products	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Retail sale via stalls and markets of other goods	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
						28 0	20 0	21 0	29 0	24
					201,4	0, 3,6	, 2,6	, 9,4	, 6,7	, 4,4

Special value

:

not
availab
le

Available flags:

c

confide
ntial

Annex 11. Data sources for "Gross investment in tangible goods" in textiles sector

Table 1. "Gross investment in tangible goods" in textiles sector (manufacturing)

Data extracted on 24/05/2021 13:50:23 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_988855]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Gross investment in tangible goods - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of textiles	: c	12,0	24,2	7,5	9,1	11,1	8,5	9,0	8,7	9,5
Manufacture of wearing apparel	24,1	19,6	22,4	10,4	15,2	15,0	13,9	8,4	8,1	10,5
Manufacture of leather and related products	12,0	12,9	6,6	7,0	7,0	13,1	22,1	9,0	8,7	8,1
Manufacture of man-made fibres	: c	0,0	: c	0,0	0,0	0,0	0,0	0,0	0,0	0,0
					31,3	39,2	0,0 44,5	0,0 26,4	0,0 25,5	0,0 28,1

Special value

: not available

Available flags:

c confidential

Table 2. "Gross investment in tangible goods" in textiles sector (services)

Data extracted on 24/05/2021 14:03:52 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_988985]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Gross investment in tangible goods - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Repair of footwear and leather goods	: c	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Repair of furniture and home furnishings	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
					0,0 0,0	0,0 0,0	0,0 0,0	0,0 0,0	0,0 0,0	0,0 0,0

Special value

: not available

Available flags:

c confidential

Table 3. "Gross investment in tangible goods" in textiles sector (trade)

Data extracted on 24/05/2021 14:11:47 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_989030]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Gross investment in tangible goods - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Agents involved in the sale of textiles, clothing, fur, footwear and leather goods	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Wholesale of hides, skins and leather	0,0	0,0	0,3	0,1	0,1	0,0	0,1	0,1	0,0	0,0
Wholesale of textiles	3,5	2,2	0,2	: c	0,0	0,0	0,1	0,0	0,0	0,0
Wholesale of clothing and footwear	8,9	1,7	6,2	2,7	0,8	0,4	1,2	0,9	0,9	2,4
Retail sale of textiles in specialised stores	6,0	0,6	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Retail sale of clothing in specialised stores	29,2	25,2	34,7	17,8	9,1	10,3	20,6	12,2	27,8	32,3
Retail sale of footwear and leather goods in specialised stores	7,2	5,8	4,9	3,9	3,4	2,0	5,7	3,8	3,2	2,8
Retail sale via stalls and markets of textiles, clothing and footwear	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
					13,4	0,0	12,7	0,0	27,7	0,0	17,0	0,0	31,9	0,0	37,5

Special value

: not available

Available flags:

c confidential

Annex 12. Data sources for "Gross investment in tangible goods" in construction and building sector

Data extracted on 24/05/2021 14:23:54 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for construction (NACE Rev. 2, F) [SBS_NA_CON_R2__custom_989065]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Classification of economic activities - NACE Rev.2 Construction

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
INDIC_SB (Labels)										
Value added at factor cost - million euro	2 839,8	2 204,8	1 707,0	1 414,9	1 547,3	1 592,9	1 711,0	1 705,8	1 870,7	1 856,6
Gross investment in tangible goods - million euro	1 740,1	960,8	840,4	725,0	610,0	398,4	650,5	340,7	300,9	324,4
Persons employed - number	160 144	136 560	120 587	111 447	106 214	102 296	99 790	98 850	102 462	105 416

Special value : not available

Annex 13. Data sources for "Gross investment in tangible goods" in food sector

Table 1. "Gross investment in tangible goods" in food sector (manufacturing)

Data extracted on 24/05/2021 15:45:50 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_989510]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Gross investment in tangible goods - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of food products	185,1	181,0	183,3	163,3	149,2	124,7	151,5	193,5	162,5	141,1
Manufacture of beverages	61,3	51,4	41,9	35,1	39,0	33,6	33,2	34,8	44,3	62,4
					188,20,	158,30,	184,70,	228,30,	206,80,	203,5

Special value

: not available

Table 2. "Gross investment in tangible goods" in food sector (services)

Data extracted on 24/05/2021 15:39:06 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_989461]**
Last updated:	08/03/2021 23:00

Time frequency		Annual
Economical indicator for business statistics	**structural**	Gross investment in tangible goods - million euro
Geopolitical entity (reporting)		Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Hotels and similar accommodation	379,9	158,7	184,1	237,4	232,9	345,2	527,7	337,3	609,5	571,4
Food and beverage service activities	413,6	28,3	36,5	23,1	12,7	11,6	25,9	23,6	34,8	31,1
					245,6 0,	356,8 0,	553 0 ,6 ,	360 0 ,9 ,	644 0 ,3 ,	602 ,5

Special value

: not available

Table 3. "Gross investment in tangible goods" in food sector (trade)

Data extracted on 24/05/2021 15:53:10 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_989553]**
Last updated:	08/03/2021 23:00
Time frequency	Annual
Economical indicator for structural business statistics	Gross investment in tangible goods - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Agents involved in the sale of food, beverages and tobacco	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Wholesale of food, beverages and tobacco	25,8	29,8	19,3	24,4	19,7	9,9	15,7	15,9	22,3	29,4
Retail sale in non-specialised stores with food, beverages or tobacco predominating	240,3	313,1	267,7	203,0	161,2	210,9	172,3	178,8	254,8	195,2
Retail sale of food, beverages and tobacco in specialised stores	3,5	3,9	6,2	3,6	3,3	5,5	5,6	10,5	7,1	2,5
Retail sale via stalls and markets of food, beverages and tobacco products	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
					184,2	0,0	226,3	0,0	193,6	0,0	205,2	0,0	284,2	0,0	227,1

Special value

:	not available

Annex 14. Data sources for "Contribution to employment " indicator – total employment in the country

Data extracted on 23/05/2021 14:59:20 from [ESTAT]

Dataset: **Employment and activity by sex and age - annual data [LFSI_EMP_A__custom_986015]**

Last updated: 13/04/2021 23:00

Time frequency	Annual
Age class	From 20 to 64 years
Unit of measure	Thousand persons
Sex	Total
Employment indicator	Total employment (resident population concept - LFS)

TIME	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
GEO (Labels)																
Croatia	1 489 e	1 505 e	1 674	1 704	1 688	1 633	1 571	1 517	1 486	1 528	1 545	1 549	1 585	1 610	1 631	1 618

Special value: not available

Available flags:

e estimated

Annex 15. Data sources for "Persons employed - number" in electronics and ICT sector

Table 1. "Persons employed - number" in electronics and ICT sector (manufacturing)

Data extracted on 23/05/2021 15:31:32 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_986091]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of computer, electronic and optical products	: c	: c	5 406	3 840	5 402	5 187	5 651	5 611	5 568	5 630
Manufacture of electrical equipment	9 710	9 134	8 435	8 991	9 059	10 520	10 746	10 818	11 218	11 367
Manufacture of fluid power equipment	: c	143	141	105	99	108	117	164	184	187
Manufacture of other pumps and compressors	265	530	461	465	445	457	490	492	493	487
Manufacture of lifting and handling equipment	1 032	780	693	765	816	768	761	723	742	808
Manufacture of office machinery and equipment (except computers and peripheral equipment)	135	79	90	86	96	: c	92	99	60	51
										18 530

Special value

: not available

Available flags:

c confidential

Table 2. "Persons employed - number" in electronics and ICT sector (services)

Data extracted on 23/05/2021 15:22:19 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_986010]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

TIME		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)	**GEO (Labels)**										
Software publishing	**Croatia**	746	753	762	595	634	599	518	509	494	493
Motion picture, video and television programme activities	**Croatia**	1 546	1 360	1 328	1 236	1 181	1 312	1 314	1 385	1 493	1 559
Sound recording and music publishing activities	**Croatia**	: c	: c	293	293	281	330	292	290	285	303
Radio broadcasting	**Croatia**	: c	: c	1 082	1 140	1 026	970	930	922	911	904
Television programming and broadcasting activities	**Croatia**	: c	: c	4 660	4 553	4 443	4 241	4 006	3 961	3 937	3 968
Wired telecommunications activities	**Croatia**	: c	: c	7 669	7 381	6 971	6 589	5 777	5 480	5 512	5 598
Wireless telecommunications activities	**Croatia**	3 337	: c	1 899	1 898	1 994	2 106	3 079	3 080	3 244	2 924
Satellite telecommunications activities	**Croatia**	: c	: c	61	63	74	36	30	37	33	31
Other telecommunications activities	**Croatia**	135	175	251	270	315	329	412	431	473	515
Computer programming activities	**Croatia**	6 987	8 033	8 578	8 830	9 539	10 600	11 342	12 185	13 807	15 680
Computer consultancy activities	**Croatia**	1 701	1 474	1 464	1 780	1 857	1 596	1 579	1 536	1 529	1 465
Computer facilities management activities	**Croatia**	56	264	471	599	751	765	938	1 015	1 605	1 668
Other information technology and computer service activities	**Croatia**	1 565	1 662	1 665	1 459	1 617	1 484	1 559	1 686	1 740	2 185

Data processing, hosting and related activities	**Croatia**	1 412		1 357		1 485		1 279		1 494	1 727	1 673	1 803	1 858	2 028
Web portals	**Croatia**	64		176		221		306		345	395	509	510	543	550
Other information service activities	**Croatia**	:	c	:	c	321		417		448	420	425	357	357	344
Engineering activities and related technical consultancy	**Croatia**	21 240		19 698		18 541		16 461		16 473	16 602	16 293	15 881	15 924	16 768
Technical testing and analysis	**Croatia**	3 614		3 697		4 199		3 972		4 076	4 245	4 369	4 556	4 867	5 128
Other research and experimental development on natural sciences and engineering	**Croatia**	:	c	:	c	:	c	:	c	: c	2 448	2 268	2 523	2 394	2 339
Media representation	**Croatia**	:	c	348		394		438		484	514	484	539	596	615
Specialised design activities	**Croatia**	1 186		1 244		1 208		1 254		1 289	1 684	1 604	1 687	1 820	1 911
Photographic activities	**Croatia**	1 290		1 166		1 097		1 111		1 064	1 145	1 060	995	967	838
Other professional, scientific and technical activities n.e.c.	**Croatia**	1 009		873		940		967		906	1 133	1 203	1 217	1 311	1 499
Renting and leasing of personal and household goods	**Croatia**	:	c	:	c	:	c	:	c	: c	: c	925	946	944	1 411
Renting and leasing of office machinery and equipment (including computers)	**Croatia**	70		:	c	53		:	c	: c	: c	78	84	90	135
Private security activities	**Croatia**	13 358		13 906		13 911		14 736		14 354	14 162	13 640	13 070	13 208	12 240
Security systems service activities	**Croatia**	936		810		866		893		828	163	198	191	189	173
General cleaning of buildings	**Croatia**	6 895		7 179		7 105		7 906		7 140	7 040	6 941	6 526	7 058	7 467
Other building and industrial cleaning activities	**Croatia**	337		787		990		797		889	1 008	1 157	1 247	1 269	1 279
Combined office administrative service activities	**Croatia**	:	c	:	c	37		40		52	78	75	75	84	95
Photocopying, document preparation and other specialised office support activities	**Croatia**	372		230		205		209		224	294	266	211	209	207
Activities of call centres	**Croatia**	:	c	:	c	355		432		719	837	1 065	1 305	1 341	1 469
Repair of computers and communication equipment	**Croatia**	1 339		1 323		1 204		1 398		1 468	1 554	1 563	1 479	1 639	1 394
Repair of consumer electronics	**Croatia**	:	c	380		363		371		355	375	313	268	259	223

Repair of household appliances and home and garden equipment	**Croatia**	2 126	1 236	1 123	1 077	1 060	1 139	1 039	964	935	879
											96
											285

Special value

:	not available

Available flags:

c	confidential

Table 3. "Persons employed - number" in electronics and ICT sector (trade)

Data extracted on 24/05/2021 10:41:09 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_987989]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Persons employed - number
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale of electrical household appliances	2 258	1 997	1 622	1 655	1 601	1 482	1 387	1 356	1 527	1 543
Wholesale of computers, computer peripheral equipment and software	2 339	2 100	1 926	1 660	1 691	2 419	2 660	2 735	2 446	2 531
Wholesale of electronic and telecommunications equipment and parts	355	373	468	525	717	717	831	888	970	977
Retail sale of computers, peripheral units and software in specialised stores	774	707	612	617	632	660	657	643	718	690
Retail sale of telecommunications equipment in specialised stores	96	163	241	332	371	497	517	516	513	567
Retail sale of audio and video equipment in specialised stores	29	96	163	300	291	282	297	300	173	134
Retail sale of electrical household appliances in specialised stores	3 055	2 634	2 126	1 632	1 479	1 456	1 335	1 362	1 376	1 382
Retail sale of sporting equipment in specialised stores	1 239	1 195	1 022	1 024	1 112	1 249	1 343	1 478	1 510	1 648
Retail sale of games and toys in specialised stores	254	179	114	245	296	: c	232	190	173	145

Special value	
:	not available
Available flags:	
c	confidential

Annex 16. Data sources for "Persons employed - number" in batteries sector

Table 1. "Persons employed - number" in batteries sector (manufacturing)

Data extracted on 23/05/2021 15:40:05 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_986113]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Persons employed - number
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of batteries and accumulators	: c	63	63	23	57	54	50	45	41	32

Special value : not available

Available flags:

c	confidential

Table 2. "Persons employed - number" in batteries sector (trade)

Data extracted on 24/05/2021 12:35:20 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988521]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale trade of motor vehicle parts and accessories	3 087	3 122	2 903	2 867	2 762	2 948	2 942	3 561	3 789	3 805
Retail trade of motor vehicle parts and accessories	2 082	1 903	2 075	2 231	2 248	2 329	2 563	1 893	1 786	1 805
Sale, maintenance and repair of motorcycles and related parts and accessories	383	413	337	335	314	317	286	269	276	272
Wholesale of computers, computer peripheral equipment and software	2 339	2 100	1 926	1 660	1 691	2 419	2 660	2 735	2 446	2 531
Wholesale of electronic and telecommunications equipment and parts	355	373	468	525	717	717	831	888	970	977
Retail sale of electrical household appliances in specialised stores	3 055	2 634	2 126	1 632	1 479	1 456	1 335	1 362	1 376	1 382
										10 772

Special value : not available

Annex 17. Data sources for "Persons employed - number" in vehicles sector

Table 1. "Persons employed - number" in vehicles sector (manufacturing)

Data extracted on 23/05/2021 15:57:21 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_986144]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Persons employed - number
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of motor vehicles, trailers and semi-trailers	2 023	1 920	: c	1 991	2 133	2 608	2 825	2 489	2 861	2 910
Dismantling of wrecks	49	19	: c	0	0	6	5	2	1	0
										2 910

Special value

:	not available

Available flags:

c	confidential

Table 2. "Persons employed - number" in vehicles sector (services)

Data extracted on 23/05/2021 16:06:56 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_986182]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Persons employed - number

TIME	GEO (Labels)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)											
Urban and suburban passenger land transport	**Croatia**	2 919	2 772	2 780	2 757	2 741	11 423	10 903	10 619	11 218	6 194
Taxi operation	**Croatia**	1 340	1 257	1 807	1 808	1 645	1 707	2 023	1 687	1 848	2 197
Service activities incidental to land transportation	**Croatia**	10 808	10 606	11 315	10 904	10 034	9 773	9 693	9 676	9 977	10 314
Other postal and courier activities	**Croatia**	1 450	1 546	:	c 1 914	2 110	1 652	1 567	574	662	769
Renting and leasing of cars and light motor vehicles	**Croatia**	952	:	c 856	830	:	c 1 026	1 046	1 349	1 916	2 070
											21 544

Special value

:	not available

Available flags:

c	confidential

Table 3. "Persons employed - number" in vehicles sector (trade)

Data extracted on 24/05/2021 12:44:24 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988577]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Persons employed - number
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale and retail trade; repair of motor vehicles and motorcycles	25 547	23 092	21 272	20 992	20 502	21 370	21 438	21 129	21 838	21 791

Special value

:	not available

Annex 18. Data sources for "Persons employed - number" in packaging sector

Table 1. "Persons employed - number" in packaging sector (manufacturing)

Data extracted on 23/05/2021 16:47:21 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_986268]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of wooden containers	839	763	823	850	955	953	996	1125	1261	1283
Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	1 583	1 701	1 759	1 839	2 007	2138	1963	1996	2044	2166
Manufacture of plastic packing goods	1 957	1 971	1 853	1 813	1 904	1973	2101	2140	2192	2154
Manufacture of hollow glass	: c	: c	: c	: c	: c	: c	666	658	659	644
Manufacture of light metal packaging	283	: c	288	284	278	292	264	225	200	182
										6
										42
										9

Special value

:

not
availab
le

Available flags:

c

confide
ntial

Table 2. "Persons employed - number" in packaging sector (services)

Data extracted on 23/05/2021 16:24:43 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_986221]**
Last updated:	08/03/2021 23:00
Time frequency	Annual
Economical indicator for structural business statistics	Persons employed - number

TIME		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)	**GEO (Labels)**										
Warehousing and storage	**Croatia**	509	338	1 283	1 353	1 480	1 678	1 945	1 992	1 120	1 172
Other transportation support activities	**Croatia**	5 738	5 497	5 176	5 204	4 577	3 993	4 005	4 065	4 148	4 385
Restaurants and mobile food service activities	**Croatia**	25 484	27 140	26 708	27 636	28 638	30 582	30 400	31 684	33 788	34 048
Beverage serving activities	**Croatia**	35 401	32 461	30 810	29 999	31 076	34 651	32 937	34 158	33 859	29 941
Packaging activities	**Croatia**	:	c 231	200	253	262	268	259	252	291	255
											69
											801

Special value

:	not available

Available flags:

c	confidential

Table 3. "Persons employed - number" in packaging sector (trade)

Data extracted on 24/05/2021 13:06:42 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988677]**
Last updated:	08/03/2021 23:00
Time frequency	Annual
Economical indicator for structural business statistics	Persons employed - number
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Sale of motor vehicle parts and accessories	5 169	5 025	4 978	5 098	5 010	5 277	5 505	5 454	5 575	5 610
Sale, maintenance and repair of motorcycles and related parts and accessories	383	413	337	335	314	317	286	269	276	272
Retail sale in non-specialised stores	76 021	73 635	71 215	68 089	66 784	69 726	67 934	64 779	64 771	68 403
Retail sale of food, beverages and tobacco in specialised stores	6 191	5 094	5 306	8 553	9 274	9 613	9 631	9 258	8 831	8 079
Retail sale of information and communication equipment in specialised stores	899	966	1 016	1 249	1 294	1 439	1 471	1 459	1 404	1 391
Retail sale of other household equipment in specialised stores	14 997	12 642	11 433	12 149	11 076	11 201	10 553	10 807	11 161	11 300
Retail sale of other goods in specialised stores	32 336	31 113	31 581	32 813	32 651	33 033	31 285	32 256	32 558	32 648
Retail sale via stalls and markets	5 509	3 803	3 110	2 528	2 500	5 334	3 315	3 279	2 759	2 068
										129 771

Special value

:	not available

Annex 19. Data sources for "Persons employed - number" in plastics sector

Table 1. "Persons employed - number" in plastics sector (manufacturing)

Data extracted on 24/05/2021 09:45:04 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_987786]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of man-made fibres	: c	0	: c	0	0	0	0	0	0	0
Manufacture of plastic plates, sheets, tubes and profiles	1 293	1 575	1 526	1 328	1 282	1 278	1 339	1 357	1 397	1 415
Manufacture of plastic packing goods	1 957	1 971	1 853	1 813	1 904	1 973	2 101	2 140	2 192	2 154
Manufacture of builders' ware of plastic	3 476	3 617	3 566	3 505	3 451	3 453	3 704	4 035	4 350	4 617
Manufacture of other plastic products	3 230	2 649	2 520	2 387	2 446	2 679	2 942	2 860	3 030	3 259
										11 445

Special value

: not available

Available flags:

c confidential

Table 2. "Persons employed - number" in plastics sector (services)

Data extracted on 24/05/2021 09:26:24 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_987748]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Warehousing and storage	509	338	1 283	1 353	1 480	1 678	1 945	1 992	1 120	1 172
Restaurants and mobile food service activities	25 484	27 140	26 708	27 636	28 638	30 582	30 400	31 684	33 788	34 048
Beverage serving activities	35 401	32 461	30 810	29 999	31 076	34 651	32 937	34 158	33 859	29 941
Repair of other personal and household goods	1 153	683	679	617	501	504	471	404	413	363
										65
										524

Special value

: not available

Table 3. "Persons employed - number" in plastics sector (trade)

Data extracted on 24/05/2021 13:28:44 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988800]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale of beverages	1 854	2 122	1 912	2 225	1 980	2 197	2 163	2 255	2 404	2 477
Wholesale of electrical household appliances	2 258	1 997	1 622	1 655	1 601	1 482	1 387	1 356	1 527	1 543
Wholesale of china and glassware and cleaning materials	421	: c	289	304	305	379	392	406	330	308
Wholesale of furniture, carpets and lighting equipment	: c	835	797	897	869	830	896	859	884	948
Wholesale of electronic and telecommunications equipment and parts	355	373	468	525	717	717	831	888	970	977
Wholesale of office furniture	85	: c	23	34	36	38	59	61	69	81
Wholesale of wood, construction materials and sanitary equipment	5 871	5 548	5 275	5 326	5 094	4 928	5 086	4 908	5 170	5 449
Wholesale of chemical products	1 190	1 261	1 275	1 361	1 337	1 254	1 283	1 389	902	872
Retail sale in non-specialised stores with food, beverages or tobacco predominating	54 342	56 407	54 905	56 626	56 327	58 606	57 286	54 321	53 732	56 103
Retail sale of fruit and vegetables in specialised stores	608	386	323	290	315	340	345	324	346	278
Retail sale of meat and meat products in specialised stores	1 334	1 146	1 269	1 021	986	1 041	1 096	1 089	1 060	983
Retail sale of fish, crustaceans and molluscs in specialised stores	230	: c	250	246	378	305	325	341	320	207
Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores	544	1 013	1 241	896	1 173	1 200	1 240	1 322	1 187	1 219

Retail sale of beverages in specialised stores	440	364	409	393	384	451	446	496	435	247
Other retail sale of food in specialised stores	1 049	703	616	550	614	657	661	672	664	689
Retail sale of carpets, rugs, wall and floor coverings in specialised stores	263	315	340	347	351	359	360	381	394	404
Retail sale of furniture, lighting equipment and other household articles in specialised stores	4 537	3 360	3 163	3 234	2 929	3 240	3 273	3 614	3 860	4 017
Retail sale via stalls and markets of food, beverages and tobacco products	50	922	925	759	798	1 695	1 029	965	798	587
Retail sale via stalls and markets of other goods	5 371	1 946	1 247	1 004	992	2 049	1 284	1 297	1 092	866
										78
										255

Special value

:	not available

Available flags:

c	confidential

Annex 20. Data sources for "Persons employed - number" in textiles sector

Table 1. "Persons employed - number" in textiles sector (manufacturing)

Data extracted on 24/05/2021 13:56:59 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_988945]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of textiles	: c	5 727	5 385	4 941	4 755	4 511	4 698	4 114	3 671	3 663
Manufacture of wearing apparel	24 755	22 381	22 067	19 117	18 239	16 668	15 738	15 236	14 947	14 290
Manufacture of leather and related products	8 728	9 643	9 804	9 181	10 643	11 337	10 992	11 177	11 307	10 824
Manufacture of man-made fibres	: c	0	: c	0	0	0	0	0	0	0
										28 777

Special value

: not available

Available flags:

c confidential

Table 2. "Persons employed - number" in textiles sector (services)

Data extracted on 24/05/2021 14:05:50 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_988985]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Repair of footwear and leather goods	: c	288	264	225	196	161	129	100	84	58
Repair of furniture and home furnishings	225	192	146	133	197	234	243	246	253	246
										304

Special value

: not available

Available flags:

c confidential

Table 3. "Persons employed - number" in textiles sector (trade)

Data extracted on 24/05/2021 14:13:51 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_989030]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Agents involved in the sale of textiles, clothing, fur, footwear and leather goods	171	166	161	139	130	106	118	128	120	82
Wholesale of hides, skins and leather	49	47	41	66	79	83	84	79	80	77
Wholesale of textiles	1 218	1 030	870	: c	558	626	681	688	507	486
Wholesale of clothing and footwear	3 058	2 496	2 394	2 557	2 470	2 362	2 309	2 208	2 180	2 219
Retail sale of textiles in specialised stores	2 455	1 834	1 443	1 412	1 327	1 337	1 264	1 165	1 091	1 067
Retail sale of clothing in specialised stores	11 264	10 946	11 294	11 402	10 980	10 842	10 422	11 406	11 593	11 698
Retail sale of footwear and leather goods in specialised stores	4 232	4 236	3 966	4 158	4 023	3 547	3 270	3 291	3 231	3 205
Retail sale via stalls and markets of textiles, clothing and footwear	88	935	938	765	710	1 590	1 002	1 017	869	615
										19 449

Special value

: not available

Available flags:

c confidential

Annex 21. Data sources for "Persons employed - number" in construction and building sector

Data extracted on 24/05/2021 14:23:54 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for construction (NACE Rev. 2, F) [SBS_NA_CON_R2__custom_989065]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Classification of economic activities - NACE Rev.2 Construction

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
INDIC_SB (Labels)										
Value added at factor cost - million euro	2 839,8	2 204,8	1 707,0	1 414,9	1 547,3	1 592,9	1 711,0	1 705,8	1 870,7	1 856,6
Gross investment in tangible goods - million euro	1 740,1	960,8	840,4	725,0	610,0	398,4	650,5	340,7	300,9	324,4
Persons employed - number	160 144	136 560	120 587	111 447	106 214	102 296	99 790	98 850	102 462	105 416

Special value : not available

Annex 22. Data sources for "Persons employed - number" in Food sector

Table 1. "Persons employed - number" in Food sector (manufacturing)

Data extracted on 24/05/2021 15:43:56 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_989510]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of food products	58 232	57 328	56 347	56 400	55 706	53 955	54 000	54 566	54 010	51 631
Manufacture of beverages	8 649	8 789	8 303	7 868	7 203	7 316	6 966	6 516	6 583	6 590
										58 221

Special value : not available

Table 2. "Persons employed - number" in Food sector (services)

Data extracted on 24/05/2021 15:37:03 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_989461]**
Last updated:	08/03/2021 23:00

Time frequency	Annual			
Economical indicator for business statistics	**structural**	Persons employed - number		
Geopolitical entity (reporting)	Croatia			

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Hotels and similar accommodation	26 656	26 216	26 629	26 342	27 079	26 492	27 329	28 374	31 544	33 474
Food and beverage service activities	63 323	61 105	58 516	58 648	60 709	66 332	64 478	67 037	68 946	65 317
										98 791

Special value

:	not available

Table 3. "Persons employed - number" in Food sector (trade)

Data extracted on 24/05/2021 15:51:15 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_989553]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Persons employed - number

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Agents involved in the sale of food, beverages and tobacco	206	166	163	138	140	152	157	175	177	152
Wholesale of food, beverages and tobacco	8 996	8 182	7 867	8 894	8 468	8 814	8 592	8 618	9 377	9 780
Retail sale in non-specialised stores with food, beverages or tobacco predominating	54 342	56 407	54 905	56 626	56 327	58 606	57 286	54 321	53 732	56 103
Retail sale of food, beverages and tobacco in specialised stores	6 191	5 094	5 306	8 553	9 274	9 613	9 631	9 258	8 831	8 079
Retail sale via stalls and markets of food, beverages and tobacco products	50	922	925	759	798	1 695	1 029	965	798	587
										74
										701

Special value

: not available

Annex 23. Data sources for "Gross Value Added" and "Other taxes subsidies on production" needed for calculation of Value Added at factor cost (Total) for GDP contribution indicator

National accounts aggregates by industry (up to NACE A*64) [nama_10_a64]

Last update 06.05.21
Extracted on 23.05.21
Source of data Eurostat

UNIT Current prices, million euro
NACE_R2 Total - all NACE activities
NA_ITEM Value added, gross

GEO/TIME	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Croatia	38 332,9	37 033,6	36 502,9	36 131,4	36 952,8	38 625,5	40 690,3	42 689,7	44 442,5	:

Special value:
: not available

UNIT Current prices, million euro
NACE_R2 Total - all NACE activities
NA_ITEM Other taxes less other subsidies on production

GEO/TIME	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Croatia	97,6	72,7	126,1	106,1	63,9	134,8	0,3	-72,6	-15,9	:

Special value:
: not available

https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do

42 762,3

Annex 24. Data sources for "Value Added at factor cost" for electronics and ICT sector

Table 1. "Value Added at factor cost" for electronics and ICT sector (manufacturing)

Data extracted on 23/05/2021 14:02:37 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_985813]**
Last updated:	08/03/2021 23:00
Time frequency	Annual
Economical indicator for structural business statistics	Value added at factor cost - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of computer, electronic and optical products	: c	: c	108,0	78,7	170,1	172,5	193,8	201,8	204,6	195,5
Manufacture of electrical equipment	273,0	233,4	218,8	222,9	232,9	250,5	278,2	288,1	300,1	312,1
Manufacture of fluid power equipment	: c	2,4	2,7	1,8	1,5	2,0	1,9	3,0	2,8	3,5
Manufacture of other pumps and compressors	5,5	10,6	7,5	7,3	5,4	6,5	9,2	9,3	10,5	9,2
Manufacture of lifting and handling equipment	23,5	15,6	16,3	14,9	17,9	18,9	18,3	14,1	15,5	16,6
Manufacture of office machinery and equipment (except computers and peripheral equipment)	2,9	0,9	1,4	1,3	1,4	: c	: c	: c	2,1	0,8
										53 7,7

Special value

:	not available

Available flags:

c	confidential

Table 2. "Value Added at factor cost" for electronics and ICT sector (services)

Data extracted on 23/05/2021 15:04:01 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_986010]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Value added at factor cost - million euro

TIME		2009		2010		2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)	**GEO (Labels)**												
Software publishing	**Croatia**	18,7		16,3		16,3	15,0	15,5	13,6	13,5	11,0	15,5	16,1
Motion picture, video and television programme activities	**Croatia**	37,5		34,1		34,7	32,4	35,2	32,6	42,0	49,5	56,4	63,8
Sound recording and music publishing activities	**Croatia**	:	c	:	c	4,6	3,6	4,4	4,7	4,8	6,2	6,4	6,5
Radio broadcasting	**Croatia**	:	c	:	c	13,0	13,2	9,2	11,7	10,9	9,9	10,8	13,6
Television programming and broadcasting activities	**Croatia**	:	c	:	c	120,9	110,0	130,4	125,8	126,9	122,5	138,6	138,7
Wired telecommunications activities	**Croatia**	:	c	:	c	754,1	699,7	621,4	563,0	545,7	533,1	546,0	555,5
Wireless telecommunications activities	**Croatia**	540,0		:	c	224,9	211,7	201,8	200,6	209,4	219,1	237,8	265,3
Satellite telecommunications activities	**Croatia**	:	c	:	c	-1,5	0,7	1,1	1,5	3,6	0,8	0,0	2,4
Other telecommunications activities	**Croatia**	2,4		2,5		3,7	4,4	2,2	3,6	5,7	7,0	10,3	7,6
Computer programming activities	**Croatia**	201,1		220,5		241,5	246,4	266,9	283,7	319,2	356,1	422,8	505,0
Computer consultancy activities	**Croatia**	42,7		32,4		37,4	48,4	48,3	41,7	40,7	37,4	47,3	46,8
Computer facilities management activities	**Croatia**	0,8		4,1		20,9	22,7	23,0	24,8	29,6	32,0	56,8	60,2

Other information technology and computer service activities	**Croatia**	44,8	38,3	40,1	30,7	36,8	23,4	32,1	38,7	44,2	67,9
Data processing, hosting and related activities	**Croatia**	30,9	33,9	44,8	24,5	36,0	44,1	46,5	56,6	63,5	73,3
Web portals	**Croatia**	0,4	0,9	1,7	3,5	4,1	3,6	3,1	5,5	5,2	6,4
Other information service activities	**Croatia**	: c	: c	5,9	6,9	7,8	8,0	8,7	9,3	10,5	9,8
Engineering activities and related technical consultancy	**Croatia**	622,1	462,9	378,0	286,5	346,1	373,1	354,8	378,5	392,0	411,1
Technical testing and analysis	**Croatia**	97,7	114,8	122,2	120,8	123,7	132,2	141,5	143,9	157,5	168,4
Other research and experimental development on natural sciences and engineering	**Croatia**	: c	: c	: c	: c	: c	73,1	69,3	77,8	73,0	71,4
Media representation	**Croatia**	: c	11,3	11,1	9,3	11,3	13,8	16,2	23,7	18,5	21,7
Specialised design activities	**Croatia**	17,4	12,6	12,5	11,0	12,6	15,5	18,3	19,1	24,4	25,4
Photographic activities	**Croatia**	9,7	9,7	8,4	8,9	8,0	7,3	7,6	8,6	8,0	8,2
Other professional, scientific and technical activities n.e.c.	**Croatia**	20,7	17,1	17,1	16,9	15,4	18,9	20,5	22,4	26,5	52,7
Renting and leasing of personal and household goods	**Croatia**	: c	: c	: c	: c	: c	: c	: c	: c	: c	: c
Renting and leasing of office machinery and equipment (including computers)	**Croatia**	0,3	: c	0,8	: c	: c	: c	: c	3,1	6,7	14,8
Private security activities	**Croatia**	141,0	139,5	142,5	132,5	122,6	112,5	129,0	125,1	126,1	125,4
Security systems service activities	**Croatia**	10,6	11,5	12,0	11,2	6,3	2,2	3,1	3,8	3,8	3,5
General cleaning of buildings	**Croatia**	59,6	60,0	59,1	57,4	48,8	47,5	47,4	50,8	53,8	62,6
Other building and industrial cleaning activities	**Croatia**	3,2	7,1	9,0	7,0	8,5	9,5	11,2	12,0	12,5	14,7
Combined office administrative service activities	**Croatia**	: c	: c	0,7	0,8	0,8	1,2	1,3	1,2	1,6	2,0
Photocopying, document preparation and other specialised office support activities	**Croatia**	2,5	1,9	1,9	1,4	1,4	1,8	2,2	1,6	1,6	2,3
Activities of call centres	**Croatia**	: c	: c	4,5	5,3	9,7	11,3	12,0	15,3	14,0	19,0
Repair of computers and communication equipment	**Croatia**	19,1	18,8	17,7	36,5	37,4	34,9	34,6	49,3	47,9	31,5

Repair of consumer electronics	**Croatia**	:	c	2,4	2,1	2,6	2,4	2,4	2,3	2,0	2,7	3,5
Repair of household appliances and home and garden equipment	**Croatia**	19,6		12,3	12,5	11,0	12,2	12,5	12,0	11,8	12,8	13,92891,

Special value

:	not available

Available flags:

c	confidential

Table 3. "Value Added at factor cost" for electronics and ICT sector (trade)

Data extracted on 24/05/2021 10:35:45 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_987989]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Value added at factor cost - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale of electrical household appliances	59,6	53,0	37,5	39,5	33,0	45,8	50,9	57,2	61,7	68,5
Wholesale of computers, computer peripheral equipment and software	86,9	77,5	68,5	40,3	46,6	76,9	88,2	93,2	87,0	66,5

Wholesale of electronic and telecommunications equipment and parts	7,2	6,6	9,1	16,8	24,3	21,0	26,0	27,6	32,4	37,6
Retail sale of computers, peripheral units and software in specialised stores	3,0	9,3	1,0	5,7	7,0	5,6	8,3	8,2	9,2	10,7
Retail sale of telecommunications equipment in specialised stores	0,9	1,3	1,7	3,0	2,3	5,4	6,5	8,1	9,0	10,0
Retail sale of audio and video equipment in specialised stores	-0,4	0,2	1,1	6,0	2,2	2,9	2,7	1,5	1,9	1,7
Retail sale of electrical household appliances in specialised stores	47,4	35,8	25,7	17,0	18,1	22,2	17,9	25,4	24,3	28,6
Retail sale of sporting equipment in specialised stores	16,1	15,0	12,1	10,5	9,1	12,8	15,6	17,7	23,0	28,0
Retail sale of games and toys in specialised stores	1,3	2,0	0,9	1,3	1,4	: c	: c	: c	1,8	1,5
										253,1

Special value

:	not available

Available flags:

c	confidential

Annex 25. Data sources for "Value Added at factor cost" for batteries sector

Table 1. "Value Added at factor cost" for batteries sector (manufacturing)

Data extracted on 23/05/2021 15:41:48 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_986113]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Value added at factor cost - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of batteries and accumulators	: c	0,1	1,2	0,1	0,2	0,7	0,0	0,0	0,0	0,0

Special value :	not available
Available flags:	
c	confidential

Table 2. "Value Added at factor cost" for batteries sector (trade)

Data extracted on 24/05/2021 12:34:30 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988521]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Value added at factor cost - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale trade of motor vehicle parts and accessories	72,0	69,5	61,4	54,5	54,8	58,3	64,5	86,8	86,8	99,5
Retail trade of motor vehicle parts and accessories	35,6	32,8	38,7	38,5	38,5	39,5	43,2	27,0	27,0	24,5
Sale, maintenance and repair of motorcycles and related parts and accessories	5,1	4,3	5,0	5,1	4,7	4,8	4,2	5,3	6,4	5,7
Wholesale of computers, computer peripheral equipment and software	86,9	77,5	68,5	40,3	46,6	76,9	88,2	93,2	87,0	66,5
Wholesale of electronic and telecommunications equipment and parts	7,2	6,6	9,1	16,8	24,3	21,0	26,0	27,6	32,4	37,6
Retail sale of electrical household appliances in specialised stores	47,4	35,8	25,7	17,0	18,1	22,2	17,9	25,4	24,3	28,6
										262,4

Special value : not available

Annex 26. Data sources for "Value Added at factor cost" for vehicles sector

Table 1. "Value Added at factor cost" for vehicles sector (manufacturing)

Data extracted on 23/05/2021 15:54:55 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_986144]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Value added at factor cost - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of motor vehicles, trailers and semi-trailers	34,5	34,3	: c	37,1	26,1	42,9	50,7	54,2	51,6	69,2
Dismantling of wrecks	0,2	0,1	: c	0,0	0,0	0,0	0,0	: c	: c	0,0
										69,2

Special value

:	not available

Available flags:

c	confidential

Table 2. "Value Added at factor cost" for vehicles sector (services)

Data extracted on 23/05/2021 16:08:00 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_986182]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Value added at factor cost - million euro

TIME	GEO (Labels)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)											
Urban and suburban passenger land transport	**Croatia**	55,0	52,3	50,7	54,6	49,5	319,1	341,4	: c	249,1	133,0
Taxi operation	**Croatia**	5,5	6,5	12,4	9,2	10,8	9,8	11,5	: c	11,3	15,3
Service activities incidental to land transportation	**Croatia**	226,5	248,0	296,3	297,9	293,8	291,7	299,0	216,2	157,5	439,9
Other postal and courier activities	**Croatia**	20,9	23,4	: c	24,4	20,6	17,3	8,5	: c	15,2	23,6
Renting and leasing of cars and light motor vehicles	**Croatia**	56,9	: c	63,0	21,9	: c	63,7	70,2	95,9	86,7	99,1
											710,9

Special value

:	not available

Available flags:

c	confidential

Table 3. "Value Added at factor cost" for vehicles sector (trade)

Data extracted on 24/05/2021 12:46:53 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988577]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Value added at factor cost - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale and retail trade; repair of motor vehicles and motorcycles	396,3	359,8	349,5	319,4	317,3	340,9	357,8	396,5	429,9	500,6

Special value

: not available

Annex 27. Data sources for "Value Added at factor cost" for packaging sector

Table 1. "Value Added at factor cost" for packaging sector (manufacturing)

Data extracted on 23/05/2021 16:49:14 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_986268]**
Last updated:	08/03/2021 23:00
Time frequency	Annual
Economical indicator for structural business statistics	Value added at factor cost - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of wooden containers	8,4	9,5	10,6	9,5	9,7	12,5	14,4	16,3	18,7	22,2
Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	34,5	15,3	33,7	37,9	35,4	38,3	40,2	46,0	45,7	48,1
Manufacture of plastic packing goods	31,3	30,7	31,3	30,7	31,3	34,8	35,9	40,6	43,2	41,2
Manufacture of hollow glass	: c	: c	: c	: c	: c	: c	: c	: c	: c	: c
Manufacture of light metal packaging	6,2	: c	7,4	6,4	4,2	4,5	2,1	2,5	2,3	3,9
										11
										5,4

Special value	
:	not available
Available flags:	
c	confidential

Table 2. "Value Added at factor cost" for packaging sector (services)

Data extracted on 23/05/2021 16:23:11 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_986221]**
Last updated:	08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Value added at factor cost - million euro

TIME		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)	**GEO (Labels)**										
Warehousing and storage	**Croatia**	29,9	26,8	28,2	35,5	39,4	47,1	53,3	57,4	34,5	35,0
Other transportation support activities	**Croatia**	114,7	114,1	102,2	108,5	92,5	81,3	75,8	93,2	94,6	100,3
Restaurants and mobile food service activities	**Croatia**	194,1	192,9	181,5	180,4	297,9	296,8	304,9	375,7	367,0	421,2
Beverage serving activities	**Croatia**	195,4	157,5	151,6	135,6	245,6	257,9	275,4	309,8	278,4	303,3
Packaging activities	**Croatia**	: c	1,7	3,5	4,3	4,9	4,6	4,3	5,1	5,2	3,5
											863,3

Special value

:	not available

Available flags:

c	confidential

Table 3. "Value Added at factor cost" for packaging sector (trade)

Data extracted on 24/05/2021 13:05:45 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988677]**
Last updated:	08/03/2021 23:00
Time frequency	Annual
Economical indicator for structural business statistics	Value added at factor cost - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Sale of motor vehicle parts and accessories	107,6	102,3	100,0	92,9	93,3	97,7	107,7	113,9	113,8	124,0
Sale, maintenance and repair of motorcycles and related parts and accessories	5,1	4,3	5,0	5,1	4,7	4,8	4,2	5,3	6,4	5,7
Retail sale in non-specialised stores	1 051,4	1 015,6	976,0	889,6	914,9	1 006,9	1 049,7	997,4	1 088,9	1 237,2
Retail sale of food, beverages and tobacco in specialised stores	42,8	37,1	43,6	86,8	92,2	91,7	98,7	83,5	84,7	86,2
Retail sale of information and communication equipment in specialised stores	3,5	10,9	3,8	14,8	11,5	13,9	17,4	17,9	20,1	22,4
Retail sale of other household equipment in specialised stores	210,7	175,7	144,7	141,3	134,3	156,3	158,3	225,2	246,9	273,1
Retail sale of other goods in specialised stores	464,1	447,5	441,4	407,6	439,2	459,1	511,7	555,4	619,5	653,5
Retail sale via stalls and markets	11,9	6,9	4,4	10,7	9,1	10,7	10,6	11,8	13,8	13,2
										2
										415,3

Special value

: not available

Annex 28. Data sources for "Value Added at factor cost" for plastics sector

Table 1. "Value Added at factor cost" for plastics sector (manufacturing)

Data extracted on 24/05/2021 09:46:53 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_987786]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Value added at factor cost - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of man-made fibres	: c	0,0	: c	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Manufacture of plastic plates, sheets, tubes and profiles	29,5	30,2	31,2	29,8	15,1	28,0	34,2	37,2	38,3	44,7
Manufacture of plastic packing goods	31,3	30,7	31,3	30,7	31,3	34,8	35,9	40,6	43,2	41,2
Manufacture of builders' ware of plastic	45,5	45,9	43,6	43,2	44,9	44,9	51,7	60,5	65,2	78,6
Manufacture of other plastic products	53,8	47,1	47,5	40,8	41,6	40,7	56,3	57,2	62,6	67,3
										231,8

Special value

: not available

Available flags:

c confidential

Table 2. "Value Added at factor cost" for plastics sector (services)

Data extracted on 24/05/2021 09:19:56 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_987748]**

Last updated: 08/03/2021 23:00

Time frequency	Annual
Economical indicator for structural business statistics	Value added at factor cost - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Warehousing and storage	29,9	26,8	28,2	35,5	39,4	47,1	53,3	57,4	34,5	35,0
Restaurants and mobile food service activities	194,1	192,9	181,5	180,4	297,9	296,8	304,9	375,7	367,0	421,2
Beverage serving activities	195,4	157,5	151,6	135,6	245,6	257,9	275,4	309,8	278,4	303,3
Repair of other personal and household goods	13,0	5,7	6,6	5,8	3,7	3,6	4,0	6,3	4,3	4,7
										764,2

Special value

: not available

Table 3. "Value Added at factor cost" for plastics sector (trade)

Data extracted on 24/05/2021 13:30:21 from [ESTAT]

Dataset:	**Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_988800]**
Last updated:	08/03/2021 23:00
Time frequency	Annual
Economical indicator for structural business statistics	Value added at factor cost - million euro
Geopolitical entity (reporting)	Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Wholesale of beverages	37,6	19,3	41,4	37,9	38,1	50,4	52,8	59,4	63,9	68,9
Wholesale of electrical household appliances	59,6	53,0	37,5	39,5	33,0	45,8	50,9	57,2	61,7	68,5
Wholesale of china and glassware and cleaning materials	15,7	: c	11,7	8,9	9,4	11,5	12,6	14,1	7,4	12,2
Wholesale of furniture, carpets and lighting equipment	: c	13,7	13,2	17,2	14,1	20,2	19,6	24,8	25,5	28,7
Wholesale of electronic and telecommunications equipment and parts	7,2	6,6	9,1	16,8	24,3	21,0	26,0	27,6	32,4	37,6
Wholesale of office furniture	1,1	: c	0,3	0,4	0,7	0,6	1,0	1,2	1,5	1,9
Wholesale of wood, construction materials and sanitary equipment	125,7	112,8	107,4	108,2	107,7	105,0	119,3	119,7	148,6	168,4
Wholesale of chemical products	37,5	39,7	42,7	42,4	38,2	47,5	53,1	55,1	36,6	37,1
Retail sale in non-specialised stores with food, beverages or tobacco predominating	796,8	829,8	808,3	758,1	790,7	851,0	899,1	812,9	881,2	972,6
Retail sale of fruit and vegetables in specialised stores	2,3	1,1	1,2	1,1	1,3	1,6	1,7	0,5	1,8	2,4
Retail sale of meat and meat products in specialised stores	8,7	8,3	11,3	6,7	8,8	7,5	9,5	9,5	12,0	12,2
Retail sale of fish, crustaceans and molluscs in specialised stores	1,1	: c	1,4	1,4	1,9	1,5	2,6	3,0	2,8	1,8

Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores	4,9	6,8	8,6	6,8	9,3	9,0	10,4	11,6	11,1	12,6
Retail sale of beverages in specialised stores	4,9	2,4	4,4	2,9	3,1	3,9	3,7	4,1	5,5	3,1
Other retail sale of food in specialised stores	8,2	6,6	6,0	4,7	5,1	4,9	5,4	5,6	6,8	7,0
Retail sale of carpets, rugs, wall and floor coverings in specialised stores	3,8	4,1	4,4	4,1	4,1	4,9	5,1	5,8	9,8	7,6
Retail sale of furniture, lighting equipment and other household articles in specialised stores	68,3	50,7	47,7	42,5	43,5	45,8	61,8	98,5	104,7	115,4
Retail sale via stalls and markets of food, beverages and tobacco products	0,1	2,1	1,1	4,0	3,9	4,2	4,1	4,1	5,7	4,1
Retail sale via stalls and markets of other goods	11,7	3,6	2,5	2,8	3,1	3,9	3,7	4,8	5,3	6,3
										1
										568,4

Special value

:	not available

Available flags:

c	confidential

Annex 29. Data sources for "Value Added at factor cost" for textiles sector

Table 1. "Value Added at factor cost" for textiles sector (manufacturing)

Data extracted on 24/05/2021 13:56:08 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_988945]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Value added at factor cost - million euro

Geopolitical entity (reporting) Croatia

TIME	2009		2010	2011		2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)												
Manufacture of textiles	:	c	67,9	73,5		70,7	61,5	66,1	75,2	60,4	56,8	46,4
Manufacture of wearing apparel	214,1		190,2	180,3		152,5	142,9	153,4	149,9	154,9	161,2	171,3
Manufacture of leather and related products	62,0		94,9	100,2		97,8	92,4	113,0	66,8	92,3	93,2	118,6
Manufacture of man-made fibres	:	c	0,0	:	c	0,0	0,0	0,0	0,0	0,0	0,0	0,0
												336,3

Special value

: not available

Available flags:

c confidential

Table 2. "Value Added at factor cost" for textiles sector (services)

Data extracted on 24/05/2021 14:04:57 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_988985]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Value added at factor cost - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Repair of footwear and leather goods	: c	0,6	1,1	0,5	1,2	0,4	0,4	0,4	0,4	0,3
Repair of furniture and home furnishings	0,8	0,6	0,9	0,9	1,6	1,1	1,1	1,8	2,9	3,2
										3,5

Special value

: not available

Available flags:

c confidential

Table 3. "Value Added at factor cost" for textiles sector (trade)

Data extracted on 24/05/2021 14:12:55 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_989030]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Value added at factor cost - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Agents involved in the sale of textiles, clothing, fur, footwear and leather goods	2,1	1,3	1,1	0,8	1,3	1,5	1,0	1,2	0,7	0,8
Wholesale of hides, skins and leather	0,7	0,7	0,8	1,3	2,0	1,4	1,9	1,9	2,0	4,9
Wholesale of textiles	15,4	12,6	10,3	: c	7,4	11,3	11,1	14,0	10,0	9,9
Wholesale of clothing and footwear	43,5	36,1	39,0	37,4	41,7	40,2	35,6	37,1	36,1	38,5
Retail sale of textiles in specialised stores	15,2	14,5	10,3	8,9	9,5	10,6	11,0	11,4	12,4	12,9
Retail sale of clothing in specialised stores	100,7	119,5	121,4	100,5	128,6	137,0	154,0	184,4	212,0	219,5
Retail sale of footwear and leather goods in specialised stores	47,4	47,8	48,5	40,4	31,4	42,9	47,3	49,0	55,0	55,6
Retail sale via stalls and markets of textiles, clothing and footwear	0,1	1,2	0,8	3,9	2,0	2,6	2,8	2,9	2,8	2,9
										345,

Special value

: not avail..

Available flags:

c confidential

Annex 30. Data sources for "Value Added at factor cost" for construction and building sector

Data extracted on 24/05/2021 14:23:54 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for construction (NACE Rev. 2, F) [SBS_NA_CON_R2__custom_989065]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Classification of economic activities - NACE Rev.2 Construction

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
INDIC_SB (Labels)										
Value added at factor cost - million euro	2 839,8	2 204,8	1 707,0	1 414,9	1 547,3	1 592,9	1 711,0	1 705,8	1 870,7	1 856,6
Gross investment in tangible goods - million euro	1 740,1	960,8	840,4	725,0	610,0	398,4	650,5	340,7	300,9	324,4
Persons employed - number	160 144	136 560	120 587	111 447	106 214	102 296	99 790	98 850	102 462	105 416

Special value : not available

Annex 31. Data sources for "Value Added at factor cost" for Food sector

Table 1. "Value Added at factor cost" for Food sector (manufacturing)

Data extracted on 24/05/2021 15:44:58 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E) [SBS_NA_IND_R2__custom_989510]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Value added at factor cost - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Manufacture of food products	1 021,3	984,1	981,8	918,0	905,4	876,0	913,1	955,9	955,8	1 024,2
Manufacture of beverages	273,5	279,7	280,6	257,3	283,9	252,6	257,3	264,6	310,7	297,8
										1 322,

Special value : not available

Table 2. "Value Added at factor cost" for Food sector (services)

Data extracted on 24/05/2021 15:38:18 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) [SBS_NA_1A_SE_R2__custom_989461]**

Last updated: 08/03/2021 23:00

Time frequency		Annual
Economical indicator for business statistics	**structural**	Value added at factor cost - million euro
Geopolitical entity (reporting)		Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Hotels and similar accommodation	568,1	603,6	648,9	704,5	813,3	771,2	821,4	984,3	1 080,0	1 161,1
Food and beverage service activities	410,8	364,8	340,9	323,9	553,5	564,2	591,0	698,5	658,8	738,1
										1 899,2

Special value

: not available

Table 3. "Value Added at factor cost" for Food sector (trade)

Data extracted on 24/05/2021 15:52:25 from [ESTAT]

Dataset: **Annual detailed enterprise statistics for trade (NACE Rev. 2 G) [SBS_NA_DT_R2__custom_989553]**

Last updated: 08/03/2021 23:00

Time frequency Annual

Economical indicator for structural business statistics Value added at factor cost - million euro

Geopolitical entity (reporting) Croatia

TIME	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NACE_R2 (Labels)										
Agents involved in the sale of food, beverages and tobacco	1,9	1,8	2,0	2,2	2,3	2,0	2,3	2,5	2,2	2,2
Wholesale of food, beverages and tobacco	213,2	139,6	163,7	165,0	158,4	183,7	192,1	189,0	242,0	283,6
Retail sale in non-specialised stores with food, beverages or tobacco predominating	796,8	829,8	808,3	758,1	790,7	851,0	899,1	812,9	881,2	972,6
Retail sale of food, beverages and tobacco in specialised stores	42,8	37,1	43,6	86,8	92,2	91,7	98,7	83,5	84,7	86,2
Retail sale via stalls and markets of food, beverages and tobacco products	0,1	2,1	1,1	4,0	3,9	4,2	4,1	4,1	5,7	4,1
										1348,7

Special value

: not available

Annex 32. Data sources for Export in mln. EUR for electronics and ICT sector

		VALUE_IN_EUROS	QUANTITY_IN_100KG
EXPORT	Computer, electronic and optical products	477 753 671	169 463
EXPORT	Electrical equipment	958 049 727	1 486 757
EXPORT	Fluid power equipment	14 317 912	6 086
EXPORT	Other pumps and compressors	52 683 509	56 065
EXPORT	Lifting and handling equipment	44 324 301	102 390
EXPORT	Office machinery and equipment (except computers and peripheral equipment)	30 850 025	5 837
EXPORT	Software publishing services	34 445	1
EXPORT	Motion picture, video and television programme services	16 040 865	681
EXPORT	Photographic services	976	1
		1 594 055 431	1 827 281

IMPORT	Computer, electronic and optical products	1 401 262 182	239 966
IMPORT	Electrical equipment	1 249 830 712	1 496 978
IMPORT	Fluid power equipment	50 205 596	24 118
IMPORT	Other pumps and compressors	89 852 723	60 533
IMPORT	Lifting and handling equipment	134 043 772	250 217
IMPORT	Office machinery and equipment (except computers and peripheral equipment)	74 620 902	18 463
IMPORT	Software publishing services	447 114	49
IMPORT	Motion picture, video and television programme services	27 505 474	1 522
IMPORT	Photographic services	33 453	10
		3 027 801 928	2 091 856

Annex 33. Data sources for Export in mln. EUR for batteries sector

	Jan.-Dec. 2018	VALUE_IN_EUROS	QUANTITY_IN_100KG
IMPORT	Batteries and accumulators	57 734 625	155 540
EXPORT	Batteries and accumulators	13 197 068	41 439

Annex 34. Data sources for Export in mln. EUR for vehicles sector

	Jan.-Dec. 2018	VALUE_IN_EUROS	QUANTITY_IN_100KG
IMPORT	Motor vehicles, trailers and semi-trailers	1 843 557 858	2 082 750
EXPORT	Motor vehicles, trailers and semi-trailers	684 955 648	1 002 369

Annex 35. Data sources for Export in mln. EUR for packaging sector

	Jan.-Dec. 2018	VALUE_IN_EUROS	QUANTITY_IN_100KG
EXPORT	Wooden containers	13 060 153	378 492
EXPORT	Corrugated paper and paperboard and containers of paper and paperboard	93 029 997	832 128
EXPORT	Plastic packing goods	71 683 998	371 322
EXPORT	Hollow glass	85 359 454	2 067 922
EXPORT	Light metal packaging	35 357 916	75 353
		298 491 518	3 725 217

IMPORT	Wooden containers	15 160 504	384 119
IMPORT	Corrugated paper and paperboard and containers of paper and paperboard	49 195 291	286 152
IMPORT	Plastic packing goods	109 112 624	426 513
IMPORT	Hollow glass	39 200 059	447 082
IMPORT	Light metal packaging	35 790 917	101 407
		248 459 395	1 645 273

Annex 36. Data sources for Export in mln. EUR for plastics sector

	Jan.-Dec. 2018	*VALUE_IN_EUROS*	*QUANTITY_IN_100KG*
EXPORT	Man-made fibres	29 059 049	68 646
EXPORT	Plastic plates, sheets, tubes and profiles	170 366 424	895 342
EXPORT	Plastic packing goods	71 683 998	371 322
EXPORT	Builders' ware of plastic	48 468 858	103 870
EXPORT	Other plastic products	61 731 589	147 461
		381 309 918	1 586 641

IMPORT	Man-made fibres	71 768 927	291 774
IMPORT	Plastic plates, sheets, tubes and profiles	320 072 032	1 199 587
IMPORT	Plastic packing goods	109 112 624	426 513
IMPORT	Builders' ware of plastic	82 453 742	229 256
IMPORT	Other plastic products	188 525 121	363 867
		771 932 446	2 510 997

Annex 37. Data sources for Export in mln. EUR for textiles sector

	Jan.-Dec. 2018	VALUE_IN_EUROS	QUANTITY_IN_100KG
EXPORT	Textiles	179 172 427	354 688
EXPORT	Wearing apparel	694 323 735	200 865
EXPORT	Leather and related products	436 847 024	132 177
EXPORT	Man-made fibres	29 059 049	68 646
		1 339 402 235	756 376

IMPORT	Textiles	451 736 187	667 146
IMPORT	Wearing apparel	1 069 604 565	439 810
IMPORT	Leather and related products	619 012 997	282 211
IMPORT	Man-made fibres	71 768 927	291 774
		2 212 122 676	1 680 941

Annex 38. Data sources for Export in mln. EUR for Food sector

	Jan.-Dec. 2018	VALUE_IN_EUROS	QUANTITY_IN_100KG
EXPORT	Food products	1 158 203 980	10 054 902
EXPORT	Beverages	164 795 008	8 777 464
		1 322 998 988	18 832 366

IMPORT	Food products	2 117 414 128	16 752 286
IMPORT	Beverages	227 868 853	3 994 013
		2 345 282 981	20 746 299