



This project is co-funded by the European Union and the Republic of Türkiye.

Technical Assistance for Assessment of Türkiye's Potential on Transition to Circular Economy

EuropeAid/140562/IH/SER/TR

Activity 2.1.1 – Strategy Development Workshops

Second Workshop
Ankara, 16 - 18 May 2023

Preliminary Results of Sectoral Impact Assessment Study
Dr. Özge Yılmaz, Senior Non-Key Expert

Scanning

Sectors and circular economy activities

- Analysis of value chains for 7 sectors: understanding key processes and stakeholders
- Sectoral overview (employment, costs, production volume)
- Review of legislation and policies

Prioritization

- Screening of 2015 and 2020 EU Circular Economy Action Plans
- Pre-screening by identifying developments in the EU

Scoping

Action-sector matching

- Matching 7 selected sectors with shortlisted actions from the 2015 and 2020 EU Circular Economy Action Plans
- Identifying policy areas under the actions that have the potential to impact the private sector

Key performance indicators

- Economic impacts: added value, operating and investment costs
- *Socio-economic impacts: Employment*
- *Environmental impacts: CO2 emissions, water consumption, etc.*

Stakeholder participation and consultation

Company visits

- Interviews with 25 company representatives about potential impacts
- Report on company visits

Consultation meeting

- A consultation meeting to discuss sectoral impacts

Scenario setting

Identification of scenarios

- Examination of Regulatory Impact Assessments and other scenario studies conducted in the EU under the EU Circular Economy Package
- Establishing the scenarios to be studied for the included policy areas and selected indicators

Impact assessment

Scenario Analysis and Assessment

- Conducting qualitative and quantitative analyses considering the following dimensions
 - Data sources
 - Time frame
 - Future trends and projection
 - Assumptions and limitations
 - Sectoral issues
- Preparation of Sectoral Impact Assessment Report

SEA Methodology

Stakeholder Engagement and Consultation

Sectoral Questionnaires and Consultation Meeting

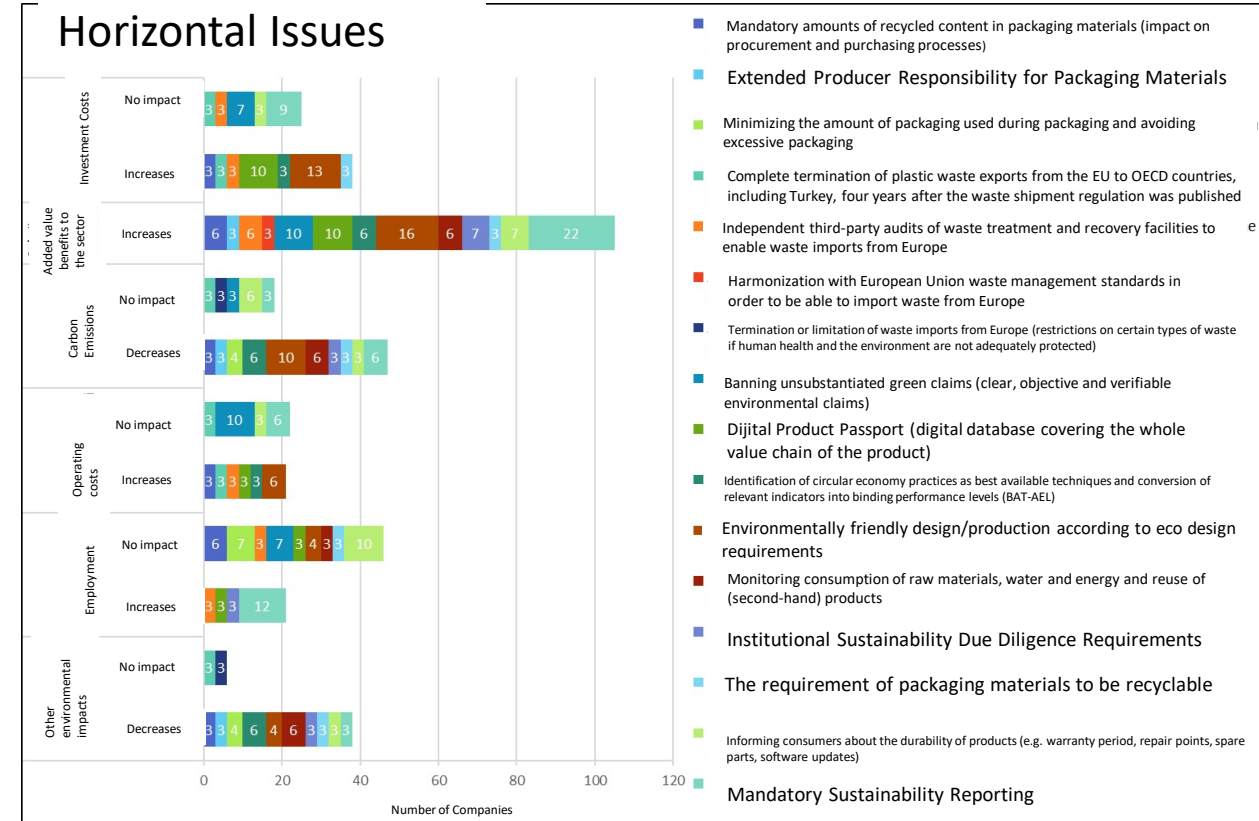
- **Sectoral questionnaires** were prepared for **7 sectors** to be used in company interviews.
- Within the scope of the questionnaires , **general and specific questions** were prepared for all circular economy actions relevant to the sectors, and it was aimed for **companies to make evaluations both for themselves and for their sectors.**
 - **Company awareness** of circular economy actions
 - The positive and negative impacts of changes in **national legislation, product range and product design, new certification requirements, extended producer responsibility and waste management** on the company and the industry, as well as the **impact of these issues on domestic market potential and exports/imports**
 - Questions on **actions that could have a high impact on the sector**
 - Questions on **horizontal initiatives** that have the potential to impact more than one sector
- In addition to physical and online interviews with 25 leading companies in the sector, questionnaires were also applied to **35 participants representing 7 sectors at the Consultation Meeting held on May 2, 2023.**
- The results will be evaluated together and will contribute to the Sectoral Analysis of Circular Economy Actions.

Consultation Process

Company Visit Findings

As a result of sectoral assessments, the impacts of vertical policy areas on carbon emissions, environmental impacts, investment and operating costs, and employment were assessed.

In addition, which of the horizontal policy areas with multi-sectoral impacts had positive and negative impacts on costs, environmental aspects and employment were analyzed.



Preliminary Sectoral Results

Packaging Sector

-Key developments in the EU: **2018 EU Plastics Strategy** and **proposal for 2022 Packaging and Packaging Waste Legislation**

-Some policy areas have a **complementary role**. For example, achieving national targets for packaging waste reduction requires the successful implementation of single-use packaging restrictions or recycling targets.

-Circular economy initiatives related to the packaging sector are a very **horizontal issue**, involving and affecting in different ways many private sector representatives such as packaging manufacturers, brand owners operating in sectors such as food, textiles, electrical and electronics, e-commerce companies, recyclers, etc.

-The proposed EU legislation on packaging and packaging waste has the potential to impact in the following economic areas:

- Loss of revenue** for packaging producers due to the **restriction of the placing of various packaging materials on the market**

- Changes in raw material prices** due to recycled content utilization targets, **increase in secondary raw material prices** and **decrease in primary raw material costs**

- Investment needs** to increase recycling capacity and efficiency

- Additional costs in case of certification and declaration of conformity requirements

- Reduction of EPR costs** due to prevention of over-packaging for sectors using packaging materials

- Reduced external costs** due to improved environmental performance in the sector

-Although it is possible that manufacturers operating in the packaging sector may experience employment losses due to the removal of some products from the market, **employment is expected to increase, especially in the recycling sector.**

Sectoral Questionnaires

Plastic Sector

- Key developments in the EU: **EU Plastics Strategy, Proposal for Legislation on Packaging and Packaging Waste, Single Use Plastics Directive, Bioplastics Strategy** (not finalized).
- Circular economy actions related to the packaging sector** are also closely related to the plastics sector.
- The basis of the Single Use Plastics Directive is to prevent the placing on the market of single-use plastics for which **there is an alternative and to reduce the use of plastics for which there is no alternative**. In addition, the Directive also aims to minimize the environmental damage of **single-use plastics through separate collection, EPR and awareness raising**. Compliance costs for single-use plastic producers are expected to be high. There will be a loss of **revenue and employment**. **Manufacturers' orientation towards the production of reusable alternative plastics** will contribute to reducing these losses.
- The level of impact will depend on the flexibility of producers in terms of production and the **price difference between single-use plastics and alternatives**.
- One of the important provisions of the Directive **is the separate collection of single-use plastics**. In this case, it is expected that the costs of the EPR for the sector will increase. In addition, the ban on the export of plastic waste outside the EU, which may be added to the waste shipment proposal, is of great importance for the sector.
- Although Communication on EU policy framework on biobased, biodegradable and compostable plastics is not a binding document, a possible increase in costs is expected** due to the use of bioplastics to replace fossil-based alternatives.

Sectoral Questionnaires

Electric Electronic Sector

- Key developments in the EU: **Directive on the Common Use of Chargers, Proposal for Regulation on Batteries, update of the Ecodesign Directive (proposal)**
- By the end of 2024, all mobile phones, tablets and cameras launched in the EU will have common charging ports and will be required to use **USB-C type**.
- The sustainable product initiative** aims to reduce the negative environmental impact and increase the circularity of products and plans to improve visibility, traceability and accessibility through **digital product passports**. Proposing regulatory measures for electronic products and ICT, including mobile phones, tablets and laptops under the **Eco-design Directive**
- Other policy areas of interest to the sector include **the establishment of a mandatory certification scheme for electronic waste recyclers**, stricter criteria for the restriction of hazardous substances in electronic devices, the proposal for right to repair.
- It is important for the sector to be prepared for **new legislation on batteries integrated into devices**.
- Across the circular economy policy areas examined, stakeholders suggest that these practices will increase the **investment cost** but will **increase the sustainability of the sector without having a negative impact on operating costs and employment**.
- The increase in investment costs** can be attributed to the following factors:
 - Stricter criteria for the use of hazardous substances** in electronic devices
 - Performance and durability criteria** for batteries integrated in products
 - Removability and replaceability requirements** for portable batteries integrated in products
 - Establishment of **digital product passports** infrastructure

Sectoral Questionnaires

Battery and Vehicles Sector

- Key developments in the EU: **Regulation proposal on batteries, update of the Ecodesign Directive (proposal)**
- In the EU legislative proposal on batteries, regulations on **electric vehicle batteries** are particularly noteworthy.
- The new proposal is expected to have an impact on the battery and vehicle sector, especially considering the intensification of **investments in electric vehicles and vehicle batteries** in Turkey.
- The issues that stand out in terms of potential impact on the sector are as follows:
 - **Maximum carbon footprint limits** for electric vehicle batteries and industrial rechargeable batteries
 - **Minimum recycled content requirements** for electric vehicle batteries and industrial batteries
 - Material-based **recovery targets** for waste batteries
 - **Recycling targets** for portable batteries
 - **Digital product passports**
 - Extended producer responsibility
- Mandatory use of recycled content and material-based recovery targets for batteries will increase **both investment and operating costs**. In particular, **the collection and recovery infrastructure** will need to be increased in anticipation of the electric vehicles that will be on the market in Turkey in the near future.
- It is important that the technological infrastructure of **digital product passports** allows for harmonized data collection and is implemented with reasonable investments across the battery value chain.
- Ensuring **standardization and safety issues** with legal legislation for the second life of batteries other than portable batteries and for the recovery of materials from vehicle batteries will facilitate implementation.
- Circular economy practices concerning the battery sector are expected to have a **positive impact on employment**.

Sectoral Questionnaires

Textile Sector

- Key developments in the EU: **EU strategy for sustainable and circular textiles**, Textile Ecosystem Transition Pathway (in preparation)
- The annex of the strategy document lists concrete actions related to the **Eco-design Regulation for Sustainable Products**, sustainable production and consumption, waste reduction and transition, but no concrete progress has been made towards these actions.
- The following issues may bring additional costs to the sector:
 - **Digital product passports**
 - Reducing unintentional release of **microplastics**
 - Possible **recovery targets** for textile waste
 - **Prohibition of disposal of non-marketed textiles** and reporting and recovery of discarded products
 - Using **biobased** alternatives in textiles

Sectoral Questionnaires

Food Sector

- Reducing the amount of food waste per capita along the food production, consumption and supply chain **by 50% by 2030, as set by the United Nations as part of its Sustainable Development Goals**
- Key developments in the EU: **Expected new update of the EU Waste Framework Directive** - focus on food waste
- This target covers **the entire value chain**, including pre-production, processing and manufacturing, **retail distribution and restaurants, other food services and households.**
- In addition to the EU Waste Framework Directive, it is a policy area closely related to the Farm to Fork Strategy and the Bioeconomy Strategy under the EU Green Deal.
- In addition to reducing food waste, practices related to packaging waste and single-use plastics are critical for the sector.
- While sectoral feedback suggests that these policy areas will **reduce environmental impacts** and **add value to the sector**, measures to reduce packaging, single-use plastics and food waste will **increase investment and operating costs.**

Sectoral Questionnaires

Building and Construction Sector

- Key developments in the EU: Proposal for a Construction Products Regulation (aiming to replace the current regulation in 2045), Sustainable Product Initiative
- According to the proposal:
 - **In product design**, it is aimed that building materials (including packaging) comply with the **state-of-the-art level** to be determined by the EC in terms of sustainability, are made in a way to prevent **premature/planned obsolescence**, are suitable for repair and updating, and are suitable for easy separation in demolition and recovery stages.
 - Encouraging **recycling** and the use of recycled materials and requiring **recycled content** in production processes
 - Member countries to promote **green procurement** of building materials, setting standards
- The main environmental impacts of the Regulation will be resource efficiency and reduced use of raw materials, reduction of greenhouse gas emissions, reduction in the amount of waste landfilled.
- Our national legislation on construction and demolition waste is broadly in line with existing EU waste legislation. Selective demolition is essential, but improvements are needed in implementation. The size of the sector is of critical importance for our country due to urban transformation practices and earthquake cases and the amount of waste generated.
- Cost factor policy areas
 - Eco-design of building materials suitable for **repair, renovation and improvement**
 - **Recycled content criteria** in building materials
 - **Digital product passport** applications

Key Horizontal Policy Areas

- Under the sustainable product initiative, **Digital Product Passports** will become an important cost factor for many sectors.
- The **eco-design criteria** progressing in the electronics sector will spread to other sectors. The general sectoral approach is that it will increase added value but will increase investment and operating costs.
- On 17 March 2021, the European Commission presented the proposal to **revise the rules on waste shipments**. The overall objective of the proposal is **to promote the reuse and recycling of waste** in the EU and **to prevent illegal trade** in waste through a comprehensive review of the EU rules on waste shipments. The EU Parliament position paper additionally requested the EU **to completely ban the export of plastic waste** to OECD countries four years after the regulation was published.
- **Developments related to the Industrial Emissions Directive ("IED") and PRTR regulations** will go hand in hand with Turkey's harmonization process with these regulations. Implementation dates are expected to be spread over a long term.
- **A legislative proposal to empower consumers in the green transition** has been published. Industry feedback on the proposal, which addresses environmental claims, durability and reparability, indicates that there is potential for compliance at minimal cost.
- Similarly, sectoral representatives state that compliance with the **Corporate Sustainability Reporting Directive and the Corporate Sustainability Due Diligence Directive Proposal** is possible with minimal costs.



This project is co-funded by the European Union and the Republic of Türkiye.

Thank you



Türkiye Döngüsel Ekonomi

IPACevre



@turkiyedonguseleekonomi

@ipa.cevre



@trdonguseleko

@ipacevre



Türkiye Döngüsel Ekonomi

IPA Çevre/Environment TÜRKİYE



Türkiye Döngüsel Ekonomi

IPA Çevre

dongusel.csb.gov.tr