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

EuropeAid/140562/IH/SER/TR

The EU Circular Economy Action Plan and Member States practices: Belgium and France

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Strategy Development Workshop
09-11 May 2023, Ankara, Türkiye

This presentation

- The Circular Economy in practice.
- The first EU Circular Economy Action Plan (2015)
- The second EU Circular Economy Action Plan (2020) and examples of measure for the different priority product groups.
- Member State practices:
 - Belgium (the Flemish Region).
 - France.

The Circular Economy in practice

The Circular Economy in practice:

The CE is a model of production and consumption, which in practice, implies using less raw materials and reducing waste to a minimum. It involves:

- 1. Circular design:** products should be designed, from the outset, such that they:
 - Can be manufactured with less natural resources.
 - Are durable, repairable and (eventually) recyclable.
 - Are to a great extent made of recycled and locally sourced materials, free of hazardous substances.
- 2. Consumption reduction** (in particular tackling over-consumption of non-essential goods).
- 3. Product life extension**, through re-use and repair, repurposing, refurbishment and remanufacturing.

The Circular Economy in practice

4. **Sharing models:** increasing of the utilisation rate of products (i.e. making product use more intensive) by facilitating the sharing of already existing, under-utilised products (e.g. access to a car, instead of full ownership)
5. **Product-service systems:** economic operators are marketing services rather than products (i.e. offer the function of a product) and retain the ownership of the products. (e.g. selling an agreed level of illuminance in a building).
6. **Recycling:** transforming products and materials at the end of each service life (waste) into high quality secondary raw materials that can be used to manufacture new products (so that materials are kept within the economy).
 - In a true circular economy, recycling should be the last resort.

The EU Circular Economy Action Plans (CEAP), adopted by the European Commission: 2015 & 2020

The 2015 EU Circular Economy Action Plan (CEAP)

- Established 54 concrete actions (listed in an annex), with measures covering the whole life cycle (from production and consumption to waste management and the market for secondary raw materials).
- Accompanied by a revised legislative proposal for the Waste Framework Directive.
 - with among other minimum requirements for Extended Producer Responsibility schemes.
- Full completion of the CEAP by 2019: All actions delivered (even if the work on some of them continued beyond 2019).
- Important implementation milestones:
 - Single-use plastics Directive (tackling the 10 SUP items most commonly found on Europe's beaches, and promoting sustainable alternatives): date of entry into force: July 2019
 - The revised Waste Framework Directive: date of entry into force: July 2018.
 - The EU Plastic Strategy, building on existing measures to reduce plastic waste (Jan. 2018)

The 2nd circular economy action plan (CEAP)

- Adopted by the European Commission: March 2020.
= one of the main building blocks of the European Green Deal (= the EU roadmap towards climate-neutrality by 2050).
- Half of total greenhouse gas emissions come from resource extraction and processing.
 - It is not possible to achieve the climate-neutrality target, without transitioning to a fully CE (where value and resources are maintained in the economy for as long as possible and waste generation is minimised).
- Announces legislative and non-legislative initiatives (and targets) along the entire life cycle of products (from design and manufacturing to consumption, repair, reuse, recycling, and bringing resources back into the economy).
- Includes an action plan, with 35 actions.

Objectives

- To shift from the current linear pattern of production and consumption (“take-make-use-dispose”) to a fully circular pattern.
 - Many products break down too quickly, cannot be reused, repaired or recycled.
- Measures proposed by the CEAP 2020 aim to:
 - make sustainable products (that last) the norm in the EU, by targeting how products are designed.
 - make consumption sustainable, by empowering consumers and public buyers to fully participate in the CE.
 - ensure less waste.
 - ensure that the resources used are kept in the EU economy for as long as possible. (doubling the EU's circular material use rate by 2030).

Focus

Focus on the sectors that use most resources and where the potential for circularity is high:

1. Electronics and ICT
2. Batteries and vehicles
3. Packaging
4. Plastics
5. Textiles
6. Construction and buildings
7. Food

Examples of measures proposed in the CEAP 2020

Examples of measures: design

- A sustainable product legislative initiative, widening the Ecodesign Directive beyond energy-related products:
Status: Proposal for a new Ecodesign for Sustainable Products Regulation (30/03/2022)
- Introduction of a ban on the destruction of unsold durable goods.
- Launch a European Circular Dataspace to mobilise the potential of digitalisation of product information.
 - introducing for example digital product passports.

Examples of measures: consumers and public buyers

- Measures to strengthen the reparability of products, incorporating the “right to repair” in the EU consumer and product policies.
Status: Proposal on common rules promoting the repair of goods (22/03/2023)
- Actions to give consumers more reliable information about products at the point of sale, including on their lifespan and other environmental performance.
Status: Proposal for empowering consumers in the green transition (20/03/2022)
- Requirement for companies to substantiate their environmental claims (by using Environmental Footprint methodologies).
- Stricter rules to reduce greenwashing and practices such as planned obsolescence.
Status: Proposal for a Directive on green claims (22/03/2023)
- Additional measures to increase the uptake of green public procurement (e.g. introduction of minimum mandatory green criteria or targets for public procurement).

Examples of measures on waste: Why?

Average annual municipal waste generation/EU inhabitant (2019): 502 kg.

- 5 Member States generate + 600 kg/person:
 - Denmark (844 kg).
 - Luxembourg (791 kg).
 - Malta (694 kg).
 - Cyprus (642 kg).
 - Germany (609 kg).
- 4 Member States generate less than 400 kg/person:
 - Romania (280 kg).
 - Poland (336 kg).
 - Estonia (369 kg).
 - Hungary (387 kg).

Examples of measures: waste

- Enhancement of the implementation of the minimum requirements for EPR schemes (in the revised WFD).
- Waste prevention and reduction measures (including targets).
- Increasing recycled content.
- Review of the Waste Shipment Regulation:
 - To facilitate recycling or re-use within the EU
 - To minimise of the export outside EU of waste, which causes negative environmental and health impacts in third countries.
- Launch of an EU-wide model for separate collection, to help citizens to sort their waste.

Examples of measures: Electronics and ICT

- Why ? Waste electrical and electronic equipment (WEEE) = one of the fastest growing waste streams in the EU (among other due to the short-life of digital devices).

Measures:

- Requirements for products be designed to last longer, to be easier to repair and upgrade, to recycle and reuse.
- Incentives for product-as-a-service (with companies keeping the ownership and responsibility for the product throughout its lifecycle).
- Announcement of a Circular Electronics Initiative, that would promote longer product lifetimes and improve the collection and treatment of waste, and include, among others, the following actions:
 - Regulatory measures for electronics and ICT including mobile phones, tablets and laptops under the Ecodesign Directive (are designed to be energy efficient and durable; consumers can easily repair, upgrade and maintain them; it is possible to reuse and recycle the devices).
 - implementation of the ‘right to repair’, including a right to update obsolete software;
 - A proposal for a Directive on a common charger for mobile phones and similar devices (*meanwhile published as Directive (EU) 2022/2380*).
 - Improvement of the collection and treatment of WEEE.
 - Review of EU rules on restrictions of hazardous substances in EEE.

Examples of measures: Textiles

- Why ? Globally:
 - Textiles production: doubled between 2000 and 2015
 - Disposal: a full truck of textiles is incinerated or landfilled every second.
 - Recycling: less than 1% of all textiles are recycled into new textiles.

Measures:

- Development of a comprehensive policy framework that will aim to strengthen industrial competitiveness and innovation, by:
 - boosting the EU market for sustainable and circular textiles (incl. the market for textile reuse),
 - supporting new consumption patterns and business models that:
 - increase sorting, reuse and recycling of textiles
 - allow consumers to choose sustainable textiles.

Status: EU strategy for sustainable and circular textiles (March 2022)

- Ecodesign of textile products, including of clothes that last longer.
- Development of guidance on separate collection of textile waste, which Member States have to ensure by 2025.

Examples of measures: Plastics

- Why?
 - Consumption of plastics is expected to double in the coming 20 years.
 - By 2050, plastics could account for 20% of oil consumption & for 15% of greenhouse gas emissions.
 - Plastic pollution in oceans and other bodies of water continues to grow sharply and could more than double by 2030.

Measures (building on the 2018 Plastics strategy).

- Measures for increasing recycled plastic content, incl. proposals for mandatory requirements on recycled content in areas such as packaging, construction materials and vehicles.
- Single-use products are being phased out wherever possible and replaced by durable products for multiple use.

Examples of measures: Plastics

- Action on microplastics:
 - Restriction of intentional adding of microplastics.
 - Reduction (of the impact) of their unintentional release, by increasing the capture of microplastics in wastewater (and at all relevant stages of the product lifecycle).

Status: Proposal for a Regulation aiming to tackle microplastics unintentionally released into the environment (Commission launched the initiative in Nov. 2021 and is expected to adopt the proposal in the 2nd quarter of 2023)

- Measures on sourcing and use of bio-based and biodegradable plastics.

Status: Communication on a policy framework for biobased, biodegradable and compostable plastics (30/11 2022)

Examples of measures: Packaging

- Why ? Average quantity of packaging waste/per inhabitant in the EU (2020): 177.9 kg (varying from 66 kg in Croatia and 225.8 kg in Germany).

Measures:

- Priority: the reverse the increase in the generation of packaging waste:
 - Legislative initiatives on reuse to substitute single-use packaging, tableware and cutlery by reusable products in food services.
 - Proposals for targets for reducing packaging waste (and for other waste prevention measures).
- Revision of the Packaging and Packaging Waste Directive, to reinforce the mandatory essential requirements for all packaging (e.g. on what is allowed on the EU market).
 - Aiming to make all packaging reusable or recyclable in an economically viable way by 2030.

Status: Proposal for a revision of EU rules on Packaging and Packaging Waste (30/112022)

Examples of measures: Construction and buildings

- Why? the building sector:
 - Consumes about 50% of all extracted material
 - Responsible for more than 35% of the EU's total waste generation.

Measures:

- Development of a new comprehensive Strategy for a Sustainable Built Environment.
 - to promote circularity principles throughout the whole lifecycle of buildings.
- A proposal for a revision of the Construction Product Regulation, which may include recycled content requirements for certain construction products.

Status: Proposal for a revised Construction Products Regulation (30/03 2022)

Examples of measures: Batteries and vehicles

- A proposal for a new regulatory framework for batteries.
 - for enhancing the sustainability and boosting the circular potential of batteries.
- It will include:
 - sustainability requirements for batteries
 - measures to improve:
 - The collection and recycling rates of all batteries and ensure the recovery of valuable materials.
 - The level of recycled content in new batteries.
 - The provision of information to consumers.

Examples of measures: Batteries and vehicles

- A revision of Directive 2000/53/EC on end-of-life vehicles and Directive 2005/64/EC on the type approval of motor vehicles.
 - with regard to their reusability, recyclability and recoverability.
 - The revision will promote more circularity by:
 - linking design issues to end-of-life treatment.
 - considering rules on mandatory recycled content for certain materials of components.
 - improving recycling efficiency.
 - The Commission envisages to merge the 2 Directives into a single instrument, covering the whole life cycle of the automotive sector.
 - The legislative proposal: was expected in the fourth quarter of 2022, but has not been tabled yet.

Examples of measures: Food

- Why ? Food loss and waste in the EU = an estimated 20% of the total food produced.
- A proposal for a target on food waste reduction (as part of the EU Farm-to-Fork Strategy, addressing the entire food value chain).
- Launch of analytical work to determine the scope of a possible legislative initiative on reuse.
 - to replace single-use food packaging, tableware and cutlery by reusable products in food services.

Member States practices

Member State role & key barriers

- The Commission must implement the CEAP 2020, working with the whole of range of public and private stakeholders in the Member States.
- In addition, Member States are encouraged to advance circularity at a national level by adopting policies and initiatives that go beyond EU regulations (while preserving the Single Market).
- Five key barriers to the transition to CE, in order of decreasing importance:
 1. Developing policy for a complex cross-sectoral issue, which the CE is.
 2. Market reluctance to accept and/or use recycled resources
 3. Companies' (in)ability to grasp opportunities.
 4. Consumer behaviour and awareness.
 5. Good indicators and targets.

Source: 30 Country profiles on CE in Europe (European Environment Agency, 2022)

Regulatory policy instruments

- To achieve its CE objectives, countries must take an appropriate mix of regulatory, economic and information-based measures, coupled with investments in infrastructure and systems (in particular for waste management).
 - to capture the opportunities and to address the challenges.

1. Regulatory instruments:

- They mandate change through regulatory action.
- They comprise direct regulation, accompanied by credible enforcement.
- Examples: Mandatory recycled content standards; Landfill bans.

Economic policy instruments

- They motivate for change by creating the financial (market-based) incentives and disincentives to change behaviour towards environmentally responsible production and consumption, for example by:
 - Rewarding desired behaviour (e.g. subsidies for an activity, reduced collection fees for sorted waste or deposit-refund systems)
 - Increasing the price of undesired behaviour (e.g. taxes on the landfilling of waste) or products (e.g. single-use plastic products)
 - Decreasing the price of desired practices (e.g. reduced VAT for repair services).
- By changing the prices, policy makers seek to correct market failures.
 - The primary market failure is that environmental externalities, such as the true environmental cost and benefits of a product, are not internalised in the prices.

Social (or information-based) policy instruments

- Based on communication and interaction with stakeholders.
- They aim to educate for change, by providing information to stakeholders on the environmental impacts (both positive and negative) of their production and consumption and on alternatives.
- The information must allow stakeholders to make informed choices.
- Some examples:
 - Public information, education and communication (IEC) campaigns.
 - Product labeling and marking.
 - Knowledge exchange programmes through which industry peers can learn from each other and collaborate in their joint circular economy transitions.

Examples of circular policy measures from: Belgium, Flemish Region

Belgium-Flemish Region

- Moved from massive waste dumping until the beginning of the 1980ies (with 1 dumpsite in each municipality) to:
 - Closure of dumpsites & no more landfilling of municipal waste since 2006.
 - Prevention : Annual quantity of municipal waste generated is continuously decreasing since 2001.
 - Re-use: Ever increasing re-use rate, through a dense network of reuse shops, where goods are collected, repaired and sold.
 - Effective source separate collection of recyclable waste.
 - A municipal waste recycling rate of 70%; incineration rate of 28%.
 - Since 2000, waste management is broadened to resource management, to achieve a more efficient use of resources.
- As part of the ambition to make the transition to a Circular Economy.

Examples of regulatory measures

- Bans:
 - Landfill and incineration bans.
 - Ban on the use of disposable cups or packaging for beverages at events (since 01/01/2020).
 - Only if the event organizer collects them for more than 95% and has them recycled, they are still allowed.
 - Ban on free disposable plastic bags (with a thickness of between 15 and 50 microns).
 - Ban on stickers on fruit and vegetables (since 2021).
- Catering at Flemish and local authorities: obligation to only use reusable serviceware (cups, plates, glasses etc.).

Examples of regulatory measures: Mandatory source-separated waste collection of 16 different municipal waste streams.

1. Small hazardous waste of household origin
2. Glass bottles and jars
3. Paper and cardboard waste
4. Bulky waste
5. Green waste
6. Textile waste
7. Waste electrical and electronic equipment
8. Waste tires
9. Debris
10. Waste containing asbestos cement

Examples of regulatory measures: Mandatory source-separated waste collection of 16 different municipal waste streams.

11. Household packaging waste, better known as PMD (Plastic packaging, Metal packaging, Drinks cartons)

12. Discarded mattresses

13. Recyclable hard plastics

14. Used animal and vegetable fats and oils

15. Wood waste

16. Metal waste.

- Only the latter two types may also be sorted out post-collection.

Examples of economic instruments

- **Subsidies:** the SME growth subsidy (VLAIO), granted through competitive calls per theme : 1) internationalisation 2) digitalisation 3) circular entrepreneurship 4) innovation.
 - The subsidy must be used for strategic advice from an external service provider or the gross salary cost for the recruitment of a strategic profile
- **Removal of subsidies**, e.g for extraction of primary mineral resources (these subsidies were conflicting with government efforts to recycle construction & demolition waste)
- **Pay-as-you-throw schemes:** under which citizens are charged for the collection and treatment of their waste, based on:
 - The amount they throw away.
 - The level of effort they make to sort their waste. (with lower chargers for sorted waste).

Examples of economic instruments: subsidies for reuse centres

- There are 22 reuse centres, which:
 - operate a network of in total 162 shops (where they sell the goods)
 - employ over 5800 people.
- Initially established by pioneering social and environmental NGOs, but meanwhile their crucial role is recognized and supported by:
 - The Flemish Government
 - The municipalities
 - The Producer Responsibility Organisation for waste electric and electronic equipment (given that they repair and thus extend the life time of this equipment).
- They typically collect (free), repair and sell reusable goods in their network of second-hand shops.
- Benefits:
 - Creation of social jobs (for unemployed, youths seeking their first job, people with disability).
 - Supporting the transition to a CE.

Examples of economic instruments

- **Landfill and incineration taxes:** to increase the relative cost.
- Anyone who operates a landfill or incineration plant must pay environmental taxes to the Flemish government.
- Examples:
 - Tax for landfilling of waste that:
 - can be incinerated: 126,06 EUR/ton
 - cannot be incinerated: 69,33 EUR/ton
 - Tax on incineration of household waste: 15,64 EUR/ton
- provide an incentive to limit the landfill or incineration of waste.
- **Extended Producer Responsibility (EPR) measures**, ensuring that producers of products bear financial responsibility or financial and organisational responsibility for the management of the waste stage of a product's life cycle.

Examples of economic instruments: EPR streams

Mandatory within the context of EU Directives:

1. Packaging (1998)
2. Batteries and accumulators (1998)
3. EEA: Household (1999) & Professional (2005)
4. Vehicles (1999)

Mandatory within the context of national legislation:

1. Tyres (1999)
 6. Oil (2004)
 7. Solar panels (2013)
 8. Mattresses (2021)
 9. Diapers (2017)
 10. Litter
 11. Medicines (1999)
- Under preparation: Textiles.

Examples of social instruments

- **Circular Flanders** (Vlaanderen Circulair): a central hub and partnership of governments, companies, civil society, and the knowledge community.
 - Jointly taking action to advance the CE in Flanders.
 - Managed by a team of approx. 15 officials, embedded in the OVAM.
- **CE Monitor** (published in 2022): an extensive multi-layered CE monitoring framework, to measure the CE in Flanders.
 - It provides indicators as well as figures for specific product groups.
- **Circular Ambassador Programme**: an annual 7-day training program to provide 50 participants with the combination of knowledge and skills needed to make their organisation more circular.

Examples of social instruments

- **Circular event toolkit** for event managers: to reduce the impact of the (+ 77 000) events organised annually in Belgium (e.g. food waste reduction, reusable items etc.).
- **OVAM Ecodesign Award, for students.**
 - 2022: 8 winners, incl. Eco Tire Solutions: Recycling and processing of waste tyres into a filament, a thread-shaped structure, that is suitable for 3D printing of durable, vacuum tyres for various purposes (such as wheelchairs).
- **OVAM Ecodesign PRO Award, for professionals.**
 - 2022 winner: Resortecs (REcycling, SORting, TEChnologieS):
 - Enables industrial-scale recycling in fashion thanks to two innovations:
 - Smart Stitch™, a heat-dissolvable stitching thread.
 - Smart Disassembly™, a thermal system capable of taking tons of clothes apart automatically. Combined, both innovations make it possible to recover up to 90% of clothing's fabric.
 - The company's solutions are already being applied by international textile players, such as H&M, the Spanish company Inditex (Bershka) and the French Decathlon.

Examples of social instruments

- **Circular Flanders case database:**
 - Content: organisations that are taken CE action, with the objective to provide:
 - Inspiration for starters
 - Peer pressure from sector colleagues
 - A podium for leading examples.
 - Can be searched by sector, geographical location, etc.
- **A website with practical information** on how to make products more circular:
 - Content: case examples, circular providers, publications and tools per product group.
 - 10 product groups: Construction; Catering; ICT; Infrastructure; Office furniture and lighting; Paper & Office Supplies; Health Care; Packaging; Textiles; Other.
- **The Green Deal Circular Procurement (2017-2019):** + 150 organisations committed themselves to jointly purchase according to circular models, or to facilitate circular procurement projects.

Examples of social instruments:
“Green Deal Packed Differently” initiative

- The “Green Deal Anders Verpakt” initiative (2022-2025)
- **Established by:** the Flemish Government (OVAM), the trade association of the food industry (FEVIA), the trade association of the retail and wholesale industry (COMEOS).
- **Signatories:**
 - + 100 companies and organizations signed onto the Green Deal.
 - Representing stakeholders at all points of the supply chain as well as companies specializing in the logistics of collecting, washing, and delivering reusables.

Examples of social instruments: “Green Deal Packed Differently” initiative

- **Objective:** To reduce the amount of disposable packaging in the distribution sector.
 - To shift the focus of efforts from collection and recycling to other distribution and consumption models aimed at reducing one-way packaging.
 - It is not about reducing the weight of packaging (quantitative prevention) or reducing harmful substances in packaging (qualitative prevention) but rather finding alternatives that reduce total use of one-way packaging.
- **Activities:**
 - Enabling collaboration between the participants, in identifying solutions to stimulate the prevention and reuse of packaging in the distribution sector.
 - In addition, 6 innovative projects get financial support for the further development of their reusable packaging:
 - Reusable packaging for delivery - and take-away meals
 - Refilling systems in supermarkets for ecologically sound cleaning products.

Examples of circular policy measures from: France

Examples of regulatory measures

- **The law against waste and for the CE (2020)** (Loi no 2020-105 du 10 février 2020 relative à la lutte contre le gaspillage et à l'économie circulaire).
 - To support the implementation of 50 measures of the French CE Roadmap (2018) as well as a few additional ones
- **Extended Producer Responsibility:**
 - Review of existing EPR schemes to improve and strengthen the schemes' operations and objectives.
 - 4 new EPR schemes established, for:
 - Construction products.
 - Do-it-yourself (DIY) products
 - Sports products
 - Toys.

Examples of regulatory measures

- **A ban on the destruction of unsold new products:**
 - Electric and electronic equipment;
 - Clothes, shoes and other textiles;
 - Furniture;
 - Ink cartridges;
 - Hygiene and childcare products;
 - Equipment for the conservation and cooking of food; Leisure and educational products;
 - Books and school supplies.
- **Mandatory objectives for circular public procurement on certain products (adopted in March 2021)**
 - The law against waste and for the CE requires that a percentage of goods acquired annually by central and local authorities must come from reuse or incorporate recycled materials.
 - A list of products, incl. laptops, paper, desk furniture and textiles.
 - Objectives and thresholds, tailored for the different product categories.

Examples of regulatory measures

- **Bans on:**
 - plastic packaging of some fresh fruit and vegetables.
 - labels stuck directly on some fresh fruit and vegetables.
 - the use of single-use plastic products by public authorities.
- **Regarding repair:**
 - An obligation on the home-appliances sector to offer second-hand spare parts to maintenance and repair services.
 - Minimum availability periods for spare parts for certain products.

Examples of social instruments

- **A mandatory repairability index** for different categories of electronic and electric products:
 - 01/01/2021: 1) Front-loading washing machines 2) Smartphones 3) Laptops 4) TV monitors 5) Electric lawn mowers.
 - 04/11/2022: 6) vacuum cleaners 7) top-loading washing machines 8) dishwashers 9) pressure washers.
 - Objective: the index displays a score of 1 to 10, to inform customers about the repairability of the products they purchase.
- **Mandatory provision of information** to consumers on the carbon footprint of their data consumption, by the cable and mobile internet providers.
- **Mandatory environmental labelling** for clothing and footwear products (introduced by the 2021 Climate and Resilience Law).



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

Thanks for your attention.



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