



Action D1 Development of CE indicators at national scale and for key economic sectors and value chains

DELIVERABLE D1.D2

Indicators, methodologies and data collection protocols / sources for monitoring Circular Economy in Greece

(National Monitoring Framework for Circular Economy)

Beneficiary Responsible: NECCA, Beneficiaries involved: GRFU, HRA, MEEN, TN, ERS

Summary

The integrated project LIFE-IP CEI Greece "Implementation of the Circular Economy in Greece" (LIFE18 IPE / GR / 000013), one of the most significant projects for the shift towards a circular economy in the country, aspires to support the implementation of the National Waste Management Plan, the National Waste Prevention Program and the National Circular Economy Strategy, by encouraging practices and behavior change to maintain products in the economy as long as possible, to turn waste into resources and to effectively implement the new EU legislative package on waste.

As depicted in the new EU Circular Economy Action Plan 2020, one of the central parts of the European Green Deal, the transition to a circular economy aims to boost sustainable growth and resource efficiency and paves the way for a cleaner and more competitive economy within EU. Monitoring the progress on the transition to a more circular economy in a country is considered a vital procedure to follow the trends of the key elements of the circular economy and to assess the sufficiency of the associated policies and objectives, whilst it is the basis for examining the potential and setting new priorities and actions to transform the national economy from the linear to the circular model of production and consumption. In this context, the action D1 of the project fulfills the call of the National Circular Economy Strategy to develop indicators for monitoring the implementation towards the circular economy, which is reflected in its action plan and has been incorporated as one of the horizontal actions of its new Action Plan for the period 2021-2025.

To this end, the national framework for monitoring the circular economy in Greece has been developed with a concise set of indicators, completing thus the design stage to track progress towards circular economy on a systematic basis,



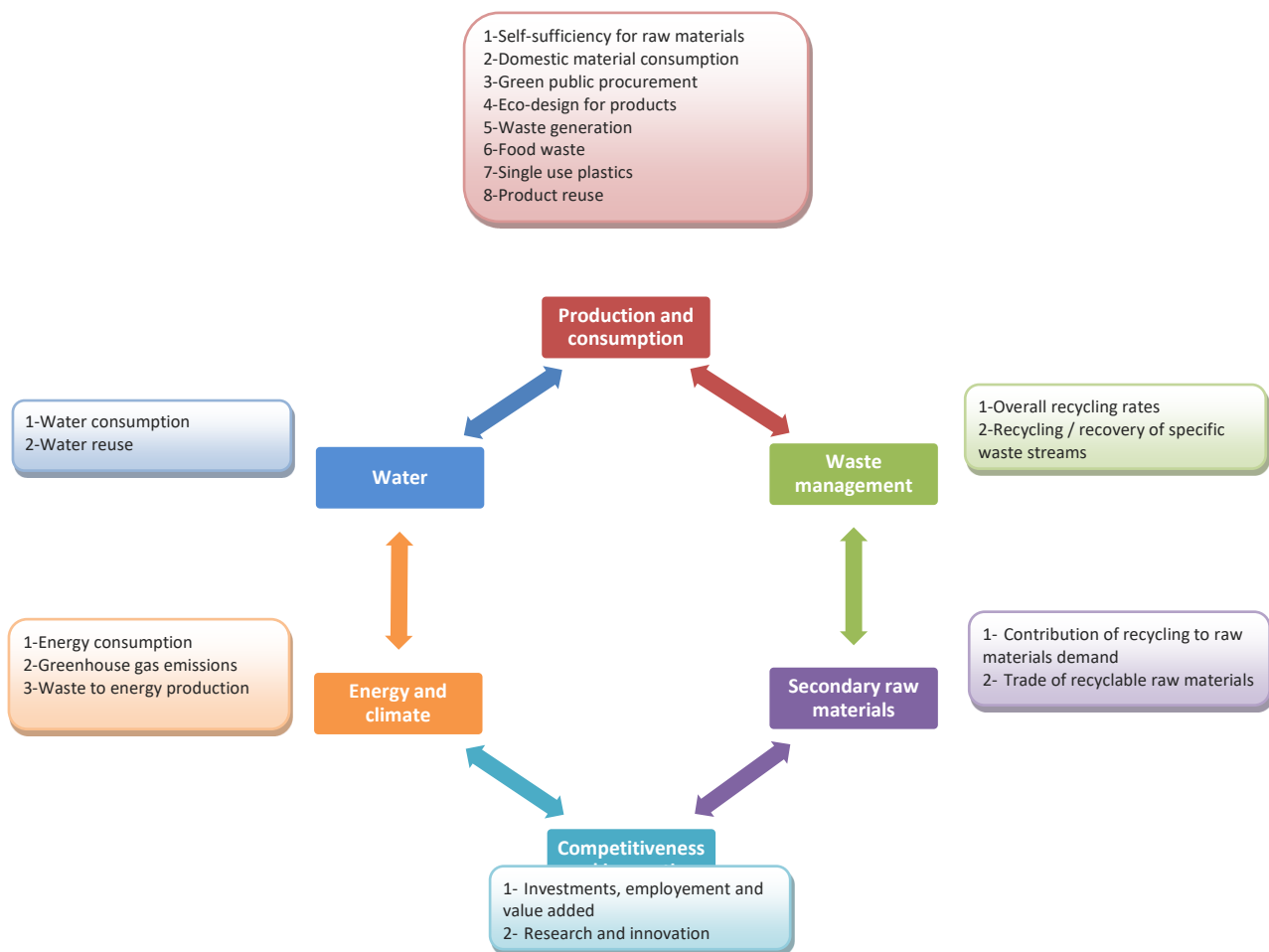
which will serve for the establishment and operation of the National Observatory for Circular Economy. The proposed national framework is largely based on the structure of the EU monitoring framework and has been enriched with focus areas and indicators aiming at capturing to the maximum extent the main elements of the circular economy, which are mainly derived from the targets set in the national legislation and the objectives of the national policy documents associated with the circular economy context that are deemed necessary to be systematically monitored. In particular, the national monitoring framework for the circular economy has been drawn upon:

- The existing EU monitoring framework for the circular economy, which is structured in four (4) thematic areas and a total of ten (10) groups of indicators, as addressed in the EU Communication (COM (2018) 29) and presented on a dedicated Eurostat website.
- The draft update of the EU monitoring framework to monitor the implementation progress of the new EU 2020 action plan on circular economy, which is set to be finalised by the end of 2021; it addresses an additional dimension to show the interlinkages between circularity, climate neutrality and zero pollution, and additional indicators to better cover the existing thematic areas, including key sectors where there is great potential for circularity.
- The new National Action Plan on Circular Economy 2021-2025, which is aligned with the new EU Circular Economy Action Plan 2020 and its key product value chains (e.g. plastics, packaging, electronics, textiles, batteries, vehicles, construction).
- The national legislation that drives the circular economy context, such as the new framework law on waste, (Law 4816/2021), legislation in specific waste streams and the law on single use plastics (Law 4736/2020).
- The national policy documents that will enable to boost the transition to a circular economy, the major of which are the National Waste Management Plan and the National Waste Prevention Program beyond 2020, that are complemented by other policy documents of relevance, such as the National Action Plan for Green Public Procurement and the National Energy and Climate Plan.

The key elements for monitoring circular economy in the country are fully interrelated to the EU monitoring framework, as also reflected in the new national action plan post 2020, whilst considering that the national energy and



climate policy is closely linked to the circular economy context, and that water is a sectoral priority policy that drives sustainable water resource management, six (6) thematic areas are defined to compose the national monitoring framework for circular economy. Relying on national statistics and available official data to the extent possible, 19 groups of indicators are selected to cover the thematic areas of the monitoring framework, taking into account the priority product value chains of the new national circular economy action plan. The proposed national monitoring framework is schematically presented below.





No	Group of indicators	Monitoring scope / relevance
I. Production and consumption		
1	Self-sufficiency for raw materials	Reduction of import and domestic extraction of primary raw materials through the replacement with secondary or non-critical materials and sustainable / circular production of products (contributing to efficient resource use), that would contribute to the security of supply for raw materials and reduction of material dependency of special national interest.
2	Domestic material consumption	Efficient use of resources that boosts sustainable consumption to move to an economy with lower resource intensity.
3	Green public procurement	Adoption of green criteria in public procurement for the efficient use of resources and energy, stimulating the demand for secondary raw materials and promoting circular product design.
4	Eco-design for products	Meeting sustainable production by encouraging eco-design products.
5	Waste generation	Reduction of waste generation from households and economic activities, decoupling economic growth from waste production, in line with the waste hierarchy and the ultimate goal to increase the life cycle of products, materials and resources.
6	Food waste	Reduction of food waste generation from primary production to final consumption, contributing to the Sustainable Development Goal 12.3 and meeting the target of the new national framework law on waste.
7	Single use plastics	Reduction of the consumption of single use plastic products by shifting to reusable products as well as single use products with lower environmental footprint, especially in the marine environment, and are designed for cost-effective recycling.
8	Products reuse	Boosting of the reuse of products that are at least addressed in legislation for waste prevention (e.g textiles, electronics, construction materials, packaging).
II. Waste management		
1	Overall recycling rates	Overall recycling performance, that is the key waste management option for the conversion of waste into material resources and the circular use of materials.
2	Recycling / recovery of specific waste streams	Performance of recycling / recovery of specific waste streams for which mandatory quantitative targets are established
II. Secondary raw materials		
1	Contribution of recycled materials to raw materials demand	Increase of the use of secondary raw materials to promote resource efficiency, to reduce dependency on primary raw materials and to contribute to the sustainable supply and domestic extraction of raw materials.



2	Trade of secondary raw materials	Development of market for secondary raw material in countries inside and outside the EU to maximize the use of the produced secondary raw materials.
IV. Competitiveness and innovation		
1	Investments, employment and value added	Contribution of circular economy to economic growth and job creation, focusing on reuse, repair and recycling.
2	Research and innovation	Stimulation of research and innovation in areas related to the circular economy and especially in the field of recycling and production of secondary raw materials.
V. Energy and climate		
1	Energy consumption	Sustainable energy consumption for the transition towards a lower energy intensity, not reliant on fossil fuels, whilst the use of renewable energy sources is increased, which includes circular products such as biofuels and secondary fuels.
2	Greenhouse gas emissions	Reduction of greenhouse gas emissions for a climate-neutral economy with a climate-friendly energy, resource efficient and waste use as a resource.
3	Waste to energy production	Processing of waste into a fuel source or energy that helps increase the production and use of renewable energy resources and the shift to climate neutrality.
IV. Water		
1	Water consumption	Increase of water use productivity, reduction of fresh water demand and circular water use that contributes to rational management of water resources.
2	Water reuse	Use of wastewater as a water resource.