

Resource efficiency and circular economy in Europe – even more from less

An overview of policies, approaches and targets of Serbia in 2018

July 2019



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European Environment Agency
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This country profile was prepared as part of the 2019 EEA review of material resource efficiency, circular economy and raw material supply policies, which aimed to collect, analyse, and disseminate information about experience with the development and implementation of these policies in EEA member and cooperating countries.

At the time of writing, a summary report is being finalised. The report reflects on trends, similarities and differences in policy responses, showcases selected policy initiatives from member countries and identifies possible considerations for the development of future policies.

These country profiles were compiled and finalised by members from the European Topic Centre on Waste and Materials in a Green Economy, namely Bart Ullstein, Bettina Bahn-Walkowiak, Jeroen Gillabel, Margareta Wahlström, Jutta-Laine Ylijoki, Dirk Nelen, Theo Geerken, Veronique Van Hoof and Evelien Dils. The responsible EEA project managers for the work were Pawel Kazmierczyk and Daniel Montalvo.

Serbia, facts and figures

Note: data in this section was sourced from Eurostat databases (April 2019), except where noted otherwise

	GDP: EUR 39.2 billion
	Per capita GDP: EUR 5,600 (purchasing power standard)
	Use of materials (domestic material consumption (DMC)) 112.6 million tonnes DMC 16.0 tonnes DMC/capita
	Structure of the economy: agriculture: 7.2 % industry: 31.5 % services: 61.3 %
	Surface area: 77.5 thousand square kilometres (km ²)
	Population: 7.0 million

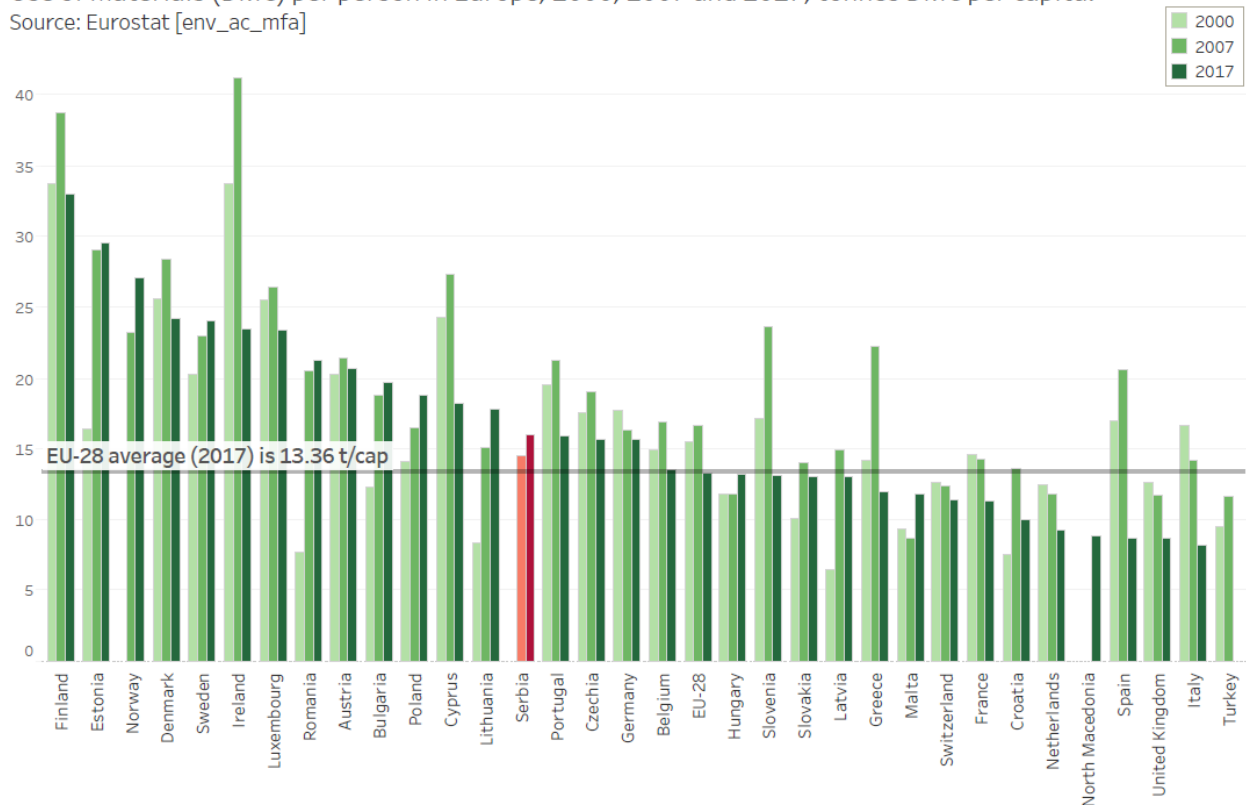
Note:

The figures regarding the Republic of Serbia do not contain data on Kosovo*

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

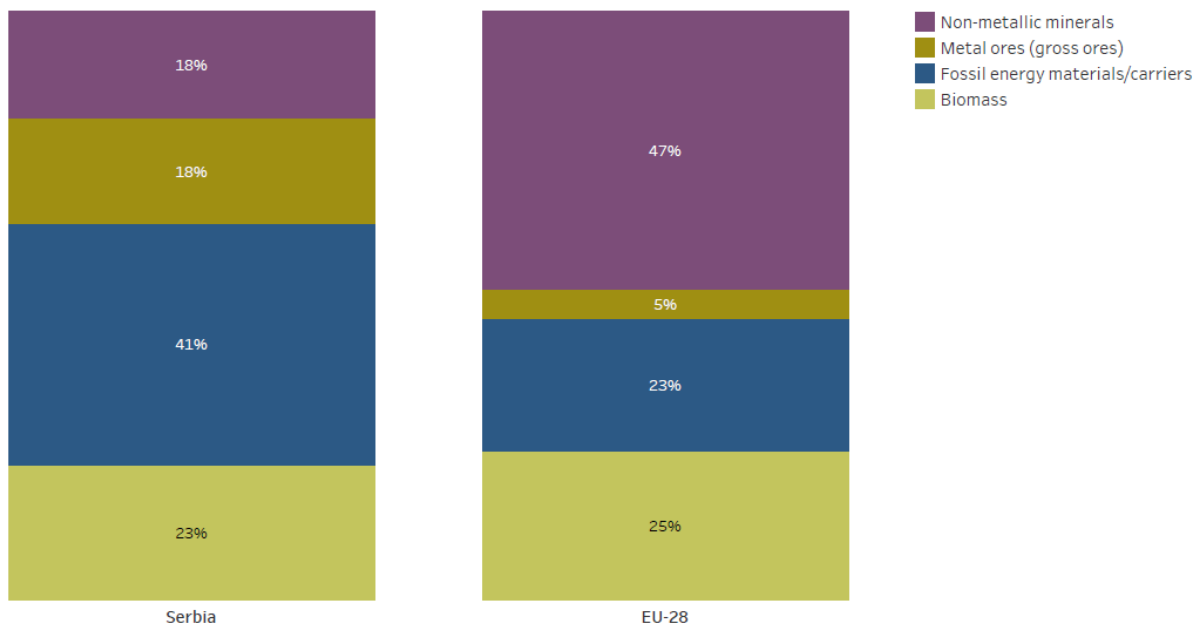
Use of materials (DMC) per person in Europe, 2000, 2007 and 2017, tonnes DMC per capita.

Source: Eurostat [env_ac_mfa]



Serbia & EU-28. Domestic Material Consumption by material category, 2017.

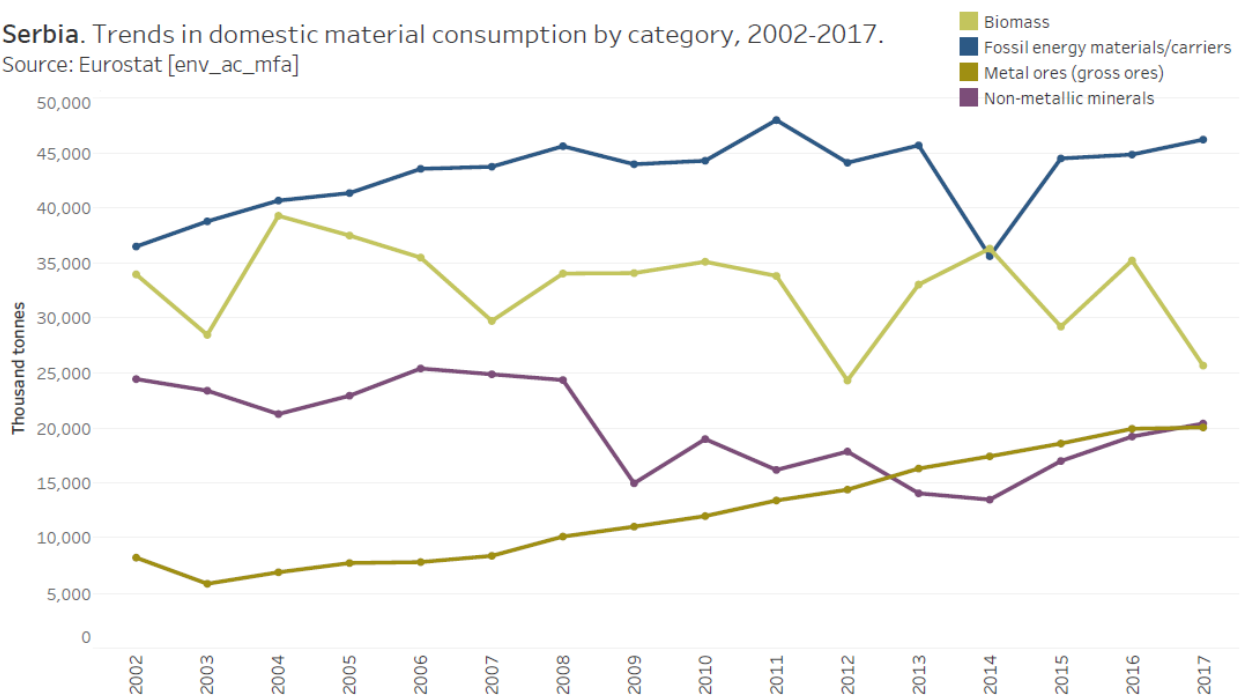
Source: Eurostat [env_ac_mfa]



Note: The domestic material consumption categories 'other products' and 'waste for final treatment and disposal' are excluded from the figure.

Serbia. Trends in domestic material consumption by category, 2002-2017.

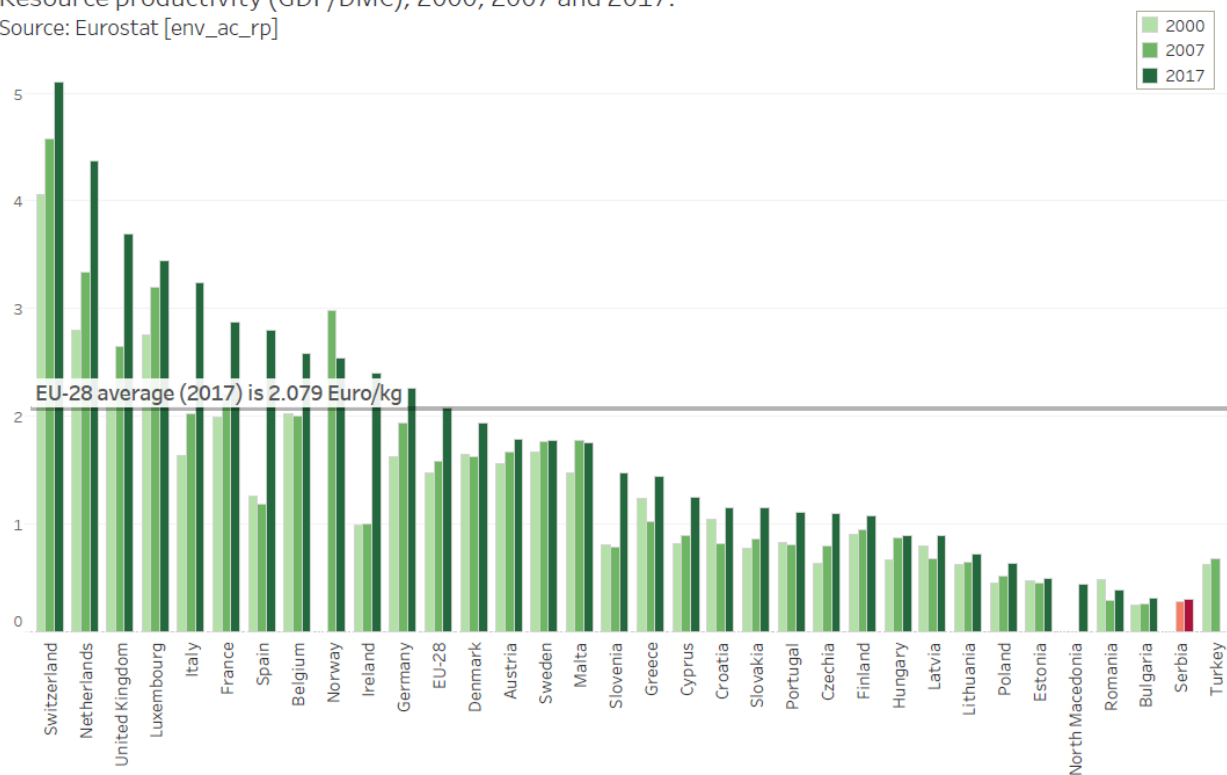
Source: Eurostat [env_ac_mfa]



Note: The domestic material consumption categories 'other products' and 'waste for final treatment and disposal' are excluded from the figure.

Resource productivity (GDP/DMC), 2000, 2007 and 2017.

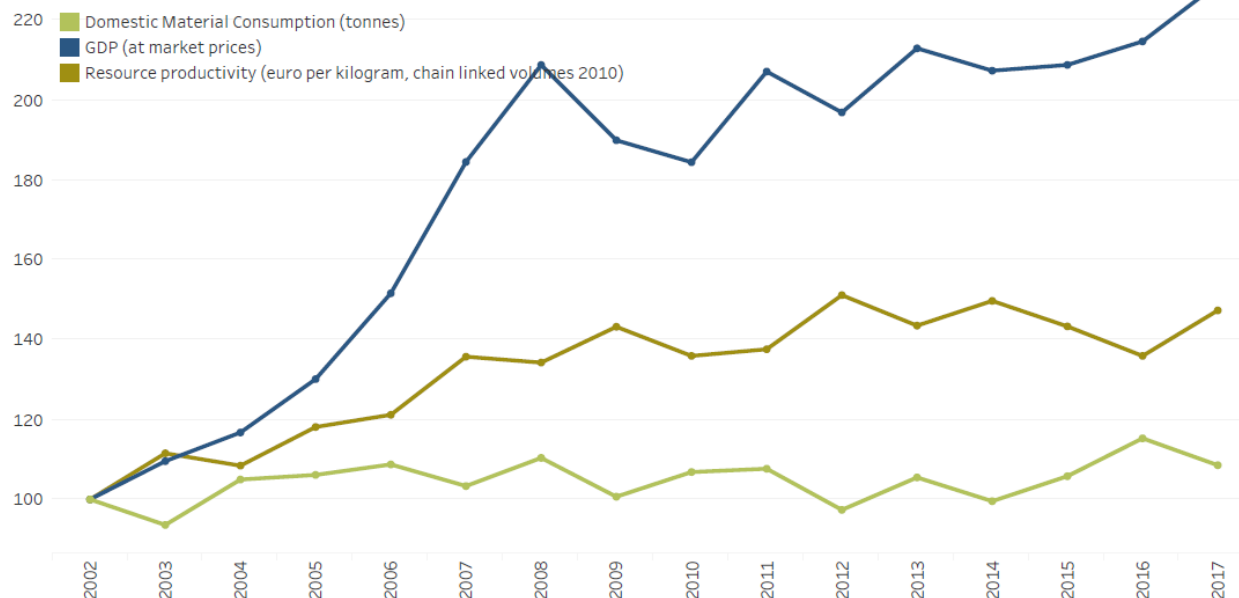
Source: Eurostat [env_ac_rp]



Note: GDP expressed in chain linked volumes 2010.

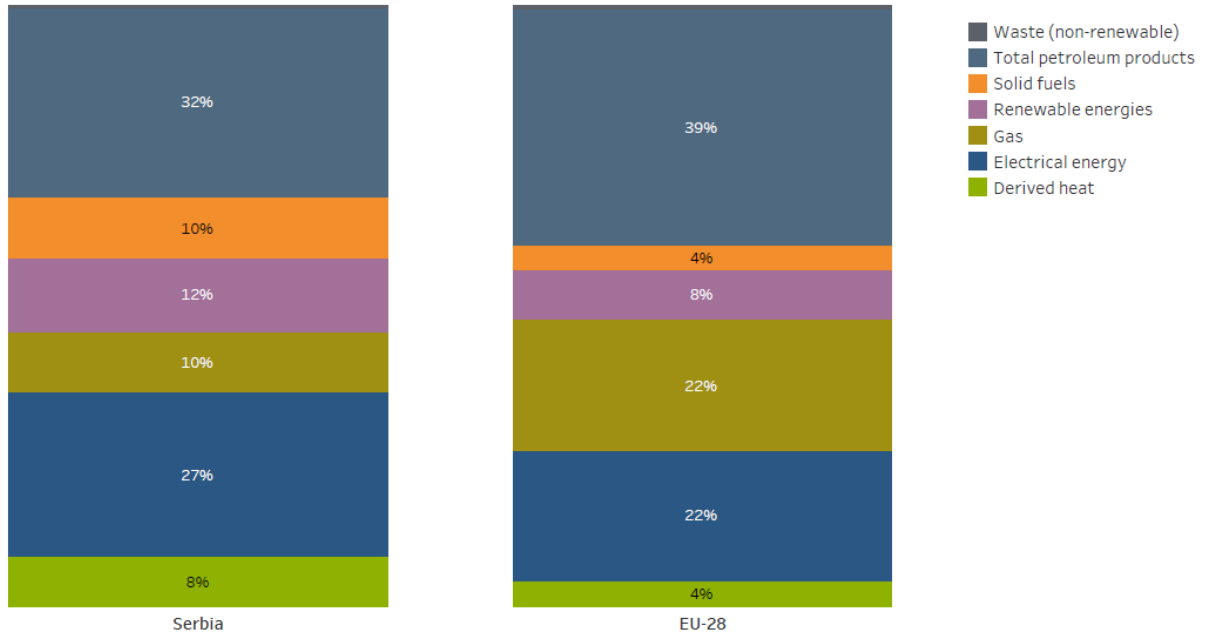
Serbia. GDP, DMC and resource productivity trends, 2002-2017, index 2002=100.

Source: Eurostat [env_ac_mfa], [env_ac_rp] & [nama_10_gdp]



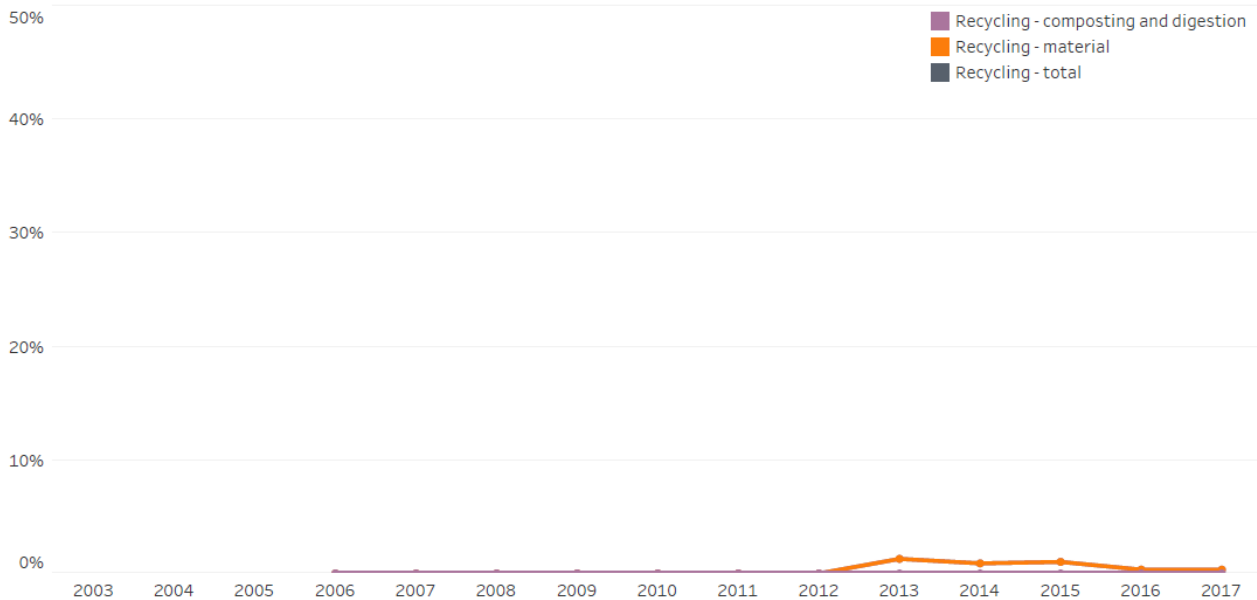
Serbia & EU-28. Primary energy consumption by energy product, 2016.

Source: Eurostat [nrg_100a]



Serbia. Recycling of municipal waste, 2003-2017, as share of total waste treatment.

Source: Eurostat [env_wasmun]



Note: The amount of municipal waste treatment is reported for the treatment operations incineration (with and without energy recovery), recycling, composting and landfilling.

Policy framework

Driving forces for material resource efficiency and circular economy

Environmental, economic and regulatory requirements are the main reasons and motives which drive the development and implementation of policies related to material resource efficiency, the circular economy and raw material supply in Serbia.

Concerning environmental drivers, the most important are the reduction of environmental impacts, especially in the domain of waste management and the low recycling rates, reduction of greenhouse gas emissions, as well as the sustainable use and management of natural resources.

Economic drivers are related to increasing the competitiveness of the economy and raising employment rates, and economic growth. It is estimated that the introduction of a circular economy in Serbia could provide 30,000 new jobs and increase the competitiveness of the domestic economy, especially in the recycling sector. Also, very important motivation is reducing the dependence on imported resources in order to provide secure long-term supply of energy and raw materials – dependency on fuel imports is significant, about 28–30 per cent¹.

One of Serbia's top priorities for the upcoming years is accession to the European Union (EU), making it one of the most important driving forces for implementation of EU legislation in Serbia and therefore also the main driver for the development and implementation of policies related to the circular economy, material resource efficiency and raw material supply.

Potential for reducing environmental impacts and the consumption of resources includes increasing the use of renewable energy and energy efficiency, as well as recycling and reuse of waste, including mining waste. There are also opportunities in changing the country's economic structure; in the more intensive development of hi-tech manufacturing; in the services sector and food industry; and in increasing innovation capacity.

Dedicated national strategies or roadmaps for material resource efficiency and a circular economy

Serbia currently does not have a comprehensive national resource efficiency strategy, action plan or roadmap with quantified targets.

Some aspects of resource efficiency are covered by various policies and initiatives (see sections on Policies which include elements of material resource efficiency, Examples of good practice and innovative approaches, Resource efficiency and circular economy policy initiatives from subnational to local level and Examples of policies which go beyond "material resources").

There is no specific strategic document on circular economy adopted in Serbia.

Taking into account the recommendations of the European Commission on the Circular Economy, amendments to the Waste Management Act were adopted in January 2016, enabling support of the circular economy concept and the creation of green jobs. The changes made to the Law on Waste Management introduce the terms by-product and end-of-waste status. The Law regulates the procedures and conditions under which a substance gains the status of a by-product, as well as the conditions and procedures by which the waste can be given end-of-waste status and can be used as a raw material. The first step towards a circular economy in the new legislative framework is application of the waste management hierarchy, especially the prevention of waste creation².

¹ <https://www.osce.org/sr/serbia/292311> (Serbian)

² https://www.paragraf.rs/propisi/download/zakon_o_upravljanju_otpadom.pdf (Serbian)

Furthermore, through the *Climate Sensitive Waste Management project* (2018–2020), the German Society for International Cooperation (GIZ) is supporting the cooperation between the Ministry of Environmental Protection, the Ministry of Economy, the Public Policy Secretariat, the Serbian Chamber of Commerce and other relevant institutions in setting up **policy framework for circular economy in the field of waste management**.

Within this process, three main sectors were identified as focal areas for implementation of a circular economy in the field of waste management in Serbia (see section on Institutional setup and stakeholder engagement):

- agriculture/food production and food waste, focused on the food processing industry but also including food waste;
- electronic and electrical equipment, focused on the electrical equipment production, but also on recycling waste electrical and electronic equipment (WEEE);
- packaging/plastics, dealing with the production of consumer goods, wholesalers, traders and consumers.

A draft of this document, including the analysis of the economic impacts of circular economy in the three main sectors, is expected by the end of 2019³.

Some aspects of the circular economy are covered by various policies and initiatives (see section on Policies which include elements of material resource efficiency).

Overview of dedicated national or sectoral strategies for raw materials

Serbia currently does not have a comprehensive national raw material strategy, action plan or roadmap. In addition, there is no national list of raw materials considered critical for the Serbian economy.

For additional information on other policies and strategies that cover raw materials, see sections on Policies which include elements of material resource efficiency, Examples of good practice and innovative approaches, Resource efficiency and circular economy policy initiatives from subnational to local level and Examples of policies which go beyond “material resources”.

Policies which include elements of material resource efficiency

Although Serbia does not have a dedicated material resource efficiency strategy or a circular economy action plan, several strategies and policies are in place which address these topics. Below are a number of these.

In October 2011 the government of the Republic of Serbia adopted the **National Environmental Approximation Strategy**⁴, with the goal of ensuring the country’s readiness to lead negotiations with the EU in the most efficient way, as well as to fulfil the obligations that come from being a Member State. At the end of the accession negotiations, a transition period will be set up to implement the directives that require substantial financial resources. Candidates for development during the transition period will be plants for the treatment of communal wastewater, plants for storing waste needed according to Nitrate Directives, municipal waste disposal plants and selected industrial plants.

The **Strategy for Sustainable Use of Natural Resources and Goods**⁵ (2012) defines a framework for the sustainable use and protection of natural resources in Serbia, with the goal of their coordinated cross-

³ <https://www.giz.de/en/worldwide/21215.html> (English)

⁴ http://www.pregovarackagrupa27.gov.rs/?wpfb_dl=101 (English)

⁵ http://www.apps.org.rs/wp-content/uploads/strategije/Strategija_odrzivog%20koriscenja%20prirodnih%20resursa.pdf (Serbian)

sectoral management. The main goals are in accordance with the goals of the strategic document Europe 2020 (COM (2010) 2020) on providing the conditions for reducing the loss of natural resources due to unsustainable use:

- providing the conditions for sustainable use of natural resources and goods;
- reducing the negative impact of resource use on the economy and the environment;
- contributing to directing development towards sustainable production (through more efficient use of natural resources) and consumption, as well as the greening of public procurement.

The Strategy is to be implemented through plans and programmes for each of the natural resources, to be adopted by the government, and therefore has no quantified targets.

The objectives of the **National Programme for Environmental Protection**⁶ (2010) relate to the protection and improvement of the environment and the sustainable use of natural resources. Priority objectives related to resource efficiency include waste management, increasing energy efficiency and the use of renewables, and the introduction of cleaner production. An action plan for its implementation has not been adopted.

The **Waste Management Strategy 2010–2019**⁷ (2010) is the basic document for rational and sustainable waste management. Among priority goals is the establishment of a system of management for construction waste, and the reuse and recycling of packaging waste.

The **New Waste Management Strategy 2019–2025**, along with the National Plan for Waste Management and the Programme for Waste Prevention, will be developed with support from the twinning project *Support to National Waste Management Policy*. Development began in 2017 and is expected to be completed by October 2019. In the new regulations, strategic measures will include:

- measures for reducing waste disposal;
- measures to encourage separate collection;
- design, transport, use and disassembly.

A part of the new Strategy will specifically focus on raw materials and the circular economy.

Goals of the **Strategy and Policy of Industrial Development 2011–2020** (2011) that are relevant to material resource efficiency, the circular economy and raw material supply relate to the safer and higher-quality exploitation of mineral raw materials for the sake of security of supply to industry; incentives for cleaner production; development of infrastructural systems; improving energy efficiency; and encouraging innovation, research and development (R&D). Measures and activities are given in the Action Plan for Implementing the Strategy and Policy of Industrial Development.

The Strategy for Support of Small and Medium-Sized Enterprises' (SMEs), Entrepreneurship and Competitiveness 2015–2020⁸ (adopted in 2015), promotes support for highly innovative SMEs, eco-innovation, improvement of energy efficiency and the efficient use of resources.

The draft **Programme for the introduction of cleaner production in the Republic of Serbia** with the Action Plan (2019-2021) is being developed, which is a continuation of the Strategy for the Introduction of Cleaner Production in Serbia⁹. The programme aims to double the number of companies that will be introduced

⁶ http://www.zps.rs/novo/kontent/stranicy/propisi_strategije/Nacionalni_program_zastite_%20zs.pdf (Serbian)

⁷ <http://www.pks.rs/SADRZAJ/Files/Strategija%20upravljanja%20otpadom%20za%20period%202010%20-%202019%20godine.pdf> (Serbian)

⁸ http://www.privreda.gov.rs/wp-content/uploads/2017/01/Strategija-I-Plan_eng_poslednje.pdf (English)

⁹ http://www.ekologija.gov.rs/wp-content/uploads/procena_uticaja/Program_uvodjenja_cistije_proizvodnje.pdf (Serbian)

to cleaner production, that is, increase the already achieved reduction of pollution and savings in raw materials and energy. This programme identifies three priority areas, of which the first priority area is the development of resource-efficient and low-carbon economy. Special attention is given to utilising waste as a resource, with a greater emphasis on prevention, reuse and recycling, and the gradual abandonment of the concept of waste disposal to landfills. The precondition for a sustainable circular economy is to make more efficient use of resources and to establish indicators and targets that can be monitored, measured and improved.

The general goal of the **Spatial Plan of the Republic of Serbia 2010–2020**¹⁰ (adopted in 2010) is to harmonise overall development with natural, ecological and cultural possibilities and limitations. One of the basic goals is the sustainable use of natural resources and a protected and improved environment, based on the rational use of natural resources and greater energy efficiency, the use of renewable energy sources and the introduction of cleaner technological solutions. The topic of circular economy is present also in other spatial plans at regional and local levels and urban development strategies at local level which were made for five cities: Užice, Čačak, Kraljevo, Niš and Belgrade.

The draft **Sustainable Urban Development Strategy for the Republic of Serbia to 2030** (expected to be adopted in the mid-2019, followed by the elaboration of the Action Plan) has identified six priority areas for implementation of measures along with the cross-cutting topic of improving urban governance. The material resource efficiency and circular economy can be recognised in the priority areas: brownfields development, informal settlements, urban regeneration, resilient cities and urban culture. The topic of circular economy and resource efficiency is covered through a set of measures to Improve efficiency of the utilisation, financing and management of construction land, utility economy and utility services, such as:

- prevention of uncontrolled expansion of construction land at the expense of natural resources;
- implementation of a closed cycle of use and management of construction land;
- development of a compact city as opposed to urban sprawl.

Institutional setup and stakeholder engagement

The institutional set-up

Considering that material resource efficiency, economy and circular raw material supply are multidisciplinary fields, responsibilities are divided between the ministries of Environmental Protection; of Mining and Energy; of Economy; and of Agriculture, Forestry and Water Management. The relevant ministry prepares a draft strategy or policy and makes a proposal to the government, which then directs them to parliament for adoption. At the same time, the Public Policy Secretariat (PPS), as well as the public and non-governmental institutions and organisations, universities and institutes involved in public debates, play a big role in the adoption process.

Key institutions involved in the policy framework for circular economy in the field of waste management are the Ministry of Environmental Protection (MoEP), the Ministry of Economy (MoE), the Circular Economy Department (CED) of the Serbian Chamber of Commerce and Industry (CCIS) and the Serbian Environmental Protection Agency (SEPA).

The MoEP coordinates and implements policies in the field of environmental and nature protection, which includes waste and forest management and cleaner production, and participates in improvement of the use of renewable energy and green industry. Since October 2018 the MoEP has a unit for Circular Economy

¹⁰http://195.222.96.93//rapp_mape/PPRS/lzvestaj%20o%20ostvarivanju%20prostornog%20planiranja%202013.pdf (Serbian) and [http://195.222.96.93//media/zakoni/Spatial%20Plan%20of%20the%20Republic%20of%20Serbia_2010-2020_abridged%20\(1\).pdf](http://195.222.96.93//media/zakoni/Spatial%20Plan%20of%20the%20Republic%20of%20Serbia_2010-2020_abridged%20(1).pdf) (English)

which works on the transition process and acts as the main coordinator of the stakeholders in field circular and green economy¹¹.

The MoE is responsible for strategic economic issues and the creation of a business environment¹².

The SEPA¹³ performs public administration tasks relating to the development and management of the national information system for environmental protection, collection and compilation of environmental data and preparation of reports on the state of the environment. It also ensures the right of access to relevant environmental data and information at national and international levels, and improves communication and dissemination of information to decision makers and the public.

The Circular Economy Department of the CCIS was formed in the spring of 2017¹⁴. It supports ministries and other governmental stakeholders, Serbian businesses and industry as a circular economy advisory body, and is working on awareness raising in the civil sector, industry and companies through training, conferences, workshops, round tables, etc. The Circular Economy Department also cooperates with non-governmental organisations in the informal sector and private recycling companies and, among others, members of parliament through the activities of the informal Green Parliamentary Group. The Department is involved in the implementation of international and national projects, and also launched the Academy of Circular Economy for SMEs (see section on Examples of good practice and innovative approaches).

Stakeholder engagement

As stated in section on Dedicated national strategies or roadmaps for material resource efficiency and a circular economy, through the Climate Sensitive Waste Management project (2018–2020), in setting up the policy framework for circular economy in the field of waste management, the GIZ is supporting cooperation between the MoEP and the Public Policy Secretariat, the Circular Economy Department and other relevant institutions – the Standing Conference of Towns and Municipalities, pilot municipalities, Serbian Solid Waste Association etc. Through a first set of stakeholder meetings, conferences and workshops, held during 2018, including a case study and other information on the three proposed sectors, these sectors were confirmed for the implementation of a circular economy in Serbia.

Approaches to resource efficiency and circular economy policy evaluation

In order to establish an efficient, effective, transparent and realistic policy planning and coordination system at national and local levels, the Public Policy Secretariat developed a **new regulation package**. It covers all key aspects of sustainable growth, socio-economic development policy, regional and spatial development and the EU accession process, thereby ensuring budget optimisation. The package comprises the Planning System Law and accompanying by-laws, creating the full legal framework for the effectiveness of planning, monitoring, coordination and implementation of policies¹⁵. This Law and accompanying by-laws, stipulate *ex-ante* and *ex-post* policy impact assessment (RIA and PIA) according to the prescribed methodology.

For regulations with effects on the environment there is a separate set of questions. Further details are given in the Manual on Regulatory Impact Analysis¹⁶.

¹¹ <http://www.ekologija.gov.rs/> (Serbian)

¹² <http://privreda.gov.rs/> (Serbian)

¹³ <http://www.sepa.gov.rs/index.php> (Serbian)

¹⁴ <http://www.pks.rs/ONama.aspx?id=2199&p=0&> (Serbian)

¹⁵ <https://rsjp.gov.rs/EN/wp-content/uploads/2018/07/Law-On-Planning-System.pdf> (English)

¹⁶ <http://www.gs.gov.rs/doc/Analiza%20efekata%20propisa-prirucnik.pdf> (Serbian)

The State of the Environment Report¹⁷ is one of the fundamental environmental documents in the Republic of Serbia, providing a comprehensive assessment of the state of the environment and trends, and in this way indirectly estimates the effectiveness of environmental protection measures. Pursuant to the Environmental Protection Act, the Report is produced by the Serbian Environmental Protection Agency every year. The Ministry of Environmental Protection submits the Report to the government, which in turn submits it to the Serbian parliament. In this way, it complies with Article 74 of the Constitution of the Republic of Serbia, which defines citizens' rights to a healthy environment and timely and complete notification of its status. It is an indicator-based report by which progress towards, *inter alia*, a resource efficient and circular economy is evaluated. Apart from data, trends and the current state of environmental protection, the Report also contains measures taken in other sectors, energy, industry, agriculture, tourism, etc., thus providing an evaluation of the environmental impact of the strategic and planning documents of these sectors.

The SEPA prepares the annual **Report on Economic Activities of Importance to the Environment in the Republic of Serbia**¹⁸, which includes the following economic activities: industry, energetics, agriculture, forestry, tourism and urban settlements. It provides a basic picture of both the pressures of economic activities and the measures taken to reduce environmental impacts, offering an indirect insight into the realisation of the policy goals and measures defined in the different sectors' strategic and planning documents.

The impacts and effectiveness of the Waste Management Strategy for a resource-efficient circular economy can be followed through SEPA **reports on Waste management in Serbia**; Management of packaging and packaging waste; Products that after use become special waste; etc¹⁹.

Concerning the impacts and effectiveness of the **energy sector** on a resource-efficient circular economy, the most relevant reports are those prepared by the Ministry of Mining and Energy: Report on strategic environmental assessment for the energy sector development strategy of the Republic of Serbia by 2015 with projections until 2030, for the period 2017–2023; Progress Report on the Implementation of the National Renewable Energy Action Plan of the Republic of Serbia; Report on the implementation of the Second Action Plan for Energy Efficiency of the Republic of Serbia in 2013 with revision of the data on the implementation of the First Action Plan for Energy Efficiency²⁰.

Monitoring and targets

Targets for resource efficiency and circular economy

In Serbia, strategic documents usually have descriptive rather than quantified targets.

For the field of **nature and biodiversity protection**, the Draft Strategy Nature Protection for the period 2019–2025 was prepared²¹. The general and specific objectives are clearly defined, measurable, acceptable, realistic and time-bound in the Action Plan for the implementation of the Strategy, which forms an integral part of it.

¹⁷ http://www.sepa.gov.rs/download/Izvestaj_2017.pdf (Serbian)

¹⁸ http://www.sepa.gov.rs/download/posebni/Privredne_aktivnosti_2017.pdf (Serbian)

¹⁹ <http://www.sepa.gov.rs/download/otpad2011-2017.pdf> (Serbian) and <http://www.sepa.gov.rs/index.php?menu=5000&id=13&akcija=showExternal> (Serbian)

²⁰ <http://www.mre.gov.rs/dokumenta-efikasnost-izvori.php> (Serbian)

²¹ http://www.ekologija.gov.rs/wp-content/uploads/razno/Predlog_strategije_zastite_prirode_19.09.2018.-1.pdf (Serbian)

Within the general goal of sustainable use of natural resources, the relevant targets for a resource-efficient circular economy for the period 2018-2025 are:

- increase the functionality of the Ecological Network of Serbia from 5 per cent to 50 per cent;
- increase the size of protected areas in relation to the total area of Serbia from 7.4 to 12 per cent;
- increase the area of Ecological Networks of Serbia in relation to the total area of Serbia from 20 to 25 per cent.

In the field of **renewable energy sources (RES)**, the strategic target of Serbia exceeds the EU target. The Serbian National Renewable Energy Action Plan (NREAP)²² sets out the goals for using renewable energy sources by 2020 and the way they are to be implemented, in line with the decision of the Council of Ministers of the Energy Community of October 2012. The NREAP sets national targets for RES use and gross final energy consumption, especially in transport, electricity and heating and cooling.

To contribute to achieving the target of 27 per cent of RES in gross final energy consumption by 2020, the sectoral objectives are:

- 10 per cent of biofuels in transport;
- 36.6 per cent of RES in electricity;
- 30 per cent of RES in heating and cooling.

Indicators to monitor progress towards a resource-efficient circular economy

The Serbian Environmental Protection Agency (SEPA) and the Statistical Office of the Republic of Serbia (SORS) calculate and publish indicators related to resource efficiency.

In line with EU Regulation on Environmental Accounts (No 691/2011), SORS compiles data on economy-wide material flow accounts (EW-MFAs). As of 2014, SORS annually publishes, in the form of a statistical release, nationally aggregated EW-MFAs calculated by using Eurostat methodology²³. The Serbian headline indicators on material resources use are:

- DMC, its breakdown by resource type – biomass, fossil fuels, non-metallic minerals and ore metals – in absolute terms and per person;
- resource productivity (GDP/DMC);
- domestic extraction used (DEU);
- direct material input (DMI);
- physical trade balance (PTB).

Waste statistics databases and relevant indicators are expected to be available on the SORS website in 2019. According to the Waste Statistics Regulation, data on waste is available in the annual publications SORS²⁴.

SORS, in cooperation with the United Nations Development Programme (UNDP) and other competent institutions, began mapping UN Sustainable Development Goals' (SDGs) indicators in 2018. On the SORS website, there is an SDG database within which all available indicators for tracking targets are visible²⁵.

²² http://www.mre.gov.rs/doc/efikasnost-izvori/NREAP%20OF%20REPUBLIC%20OF%20SERBIA%2028_June_2013.pdf?uri=CELEX:32009L0028 (English)

²³ Data base: <http://data.stat.gov.rs/Home/Result/09020302?languageCode=en-US> (English) and Statistical release: <http://publikacije.stat.gov.rs/G2018/PdfE/G20181313.pdf> (English)

²⁴ <http://publikacije.stat.gov.rs/G2018/PdfE/G20181191.pdf> (English) and <http://publikacije.stat.gov.rs/G2018/PdfE/G20185640.pdf> (Serbian)

²⁵ <http://sdg.indikatori.rs/en-US/> (English)

SEPA is responsible for reporting on the state of environment in the Republic of Serbia. Reporting is based on the National List of Indicators (NLI), adopted in 2011. The NLI is annually updated and published on the Agency's website²⁶:

The National List of Indicators is a good basis for monitoring the use of materials and resource efficiency.

Indicators related to resource use:

- final energy consumption by sector;
- energy efficiency;
- share of renewable energy in gross final energy consumption;
- forest management and wood use (cubic metres (m³));
- changes in land use (unit under cultivation);
- areas under organic farming (hectares (ha))
- share of areas under organic production in relation of utilized agricultural areas (per cent)
- the Water Exploitation Index (WEI);
- water losses (in transport).

Indicators related to waste:

- the total amount of waste produced;
- waste production (municipal, industrial and hazardous);
- the amount of packaging and waste packaging;
- quantities of specific waste streams;
- the amount of waste from health service facilities, including pharmaceutical waste;
- companies that are authorised for waste management;
- amount of waste collected, reused/recycled/recovered and sent to landfill.

Indicators for the environmental management system:

- number of companies with ISO 14001 certificates;
- number of companies that have introduced cleaner production;
- number of companies that have been granted licences for the Serbian Ecolabel.

Indicators related to waste management are located within the National Pollutant Source Register and are available online²⁷.

The SEPA is mandated to publish a State of the Environment Report (SOER) every year to assess the Serbian environment's state and trends, as well as annual thematic reports on the quality of air and water, waste management, state of soil, biodiversity, economic instruments, economic activities of importance for the environment, etc. that are available to the public on the SEPA website²⁸:

Resource efficiency, circular economy and the 2030 Sustainable Development Goals

Inter-Ministerial Working Group for the Implementation of the 2030 Agenda for Sustainable Development was established in December 2015, composed of high-ranking representatives of the 27 line ministries and government offices. Within the work of the Working Group, the Public Policy Secretariat, supported by GIZ, prepared a report, *Agenda 2030 and Serbia*, as an immediate response to the need to map Serbia's

²⁶ <http://indicator.sepa.gov.rs/nacionalna-lista-indikatora> (Serbian)

²⁷ <http://www.sepa.gov.rs/download/otpad2011-2017.pdf> (Serbian)

²⁸ www.sepa.gov.rs (Serbian)

strategic framework against the SDGs and their targets and as evidence-based input for the prioritisation dialogue²⁹.

Statistical Office of the Republic of Serbia, in cooperation with UNDP and other competent institutions, began mapping SDG indicators in 2018. On the SORS website, there is a SDG database within which are all available indicators for tracking targets can be seen³⁰.

Links in the national strategic framework to relevant Sustainable Development Goal targets

SDG 8.4: Resource efficiency in consumption and production

This goal is currently not directly covered by the existing strategic framework, but there are a number of strategies that are being prepared (see section on Policies which include elements of material resource efficiency):

A new *Waste Management Strategy* for 2019–2025 along with the National Plan for Waste Management and the Programme for Waste Prevention is being prepared. A part of the new Strategy will specifically focus on raw materials and the circular economy. A new *Industrial Development Strategy* for Serbia which will include environmental protection as a cross-cutting principle, thus achieving better link to SDG 8.4: Improve progressively global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation. A new *Programme for the introduction of cleaner production* which identifies three priority areas of which the first priority area is the development of resource-efficient and low-carbon economy.

SDG11.3: By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

The *Spatial Plan of the Republic of Serbia* and the draft *Sustainable Urban Development Strategy for Serbia until 2030* contribute to the implementation of SDG11. Targets referring to land use (11.3) and solid waste collections (11.6) have indicators for their monitoring defined in the SDG11 Monitoring Framework. Those indicators were already calculated at the district level for the annual monitoring reports of Spatial Plan of the Republic of Serbia (see section on Policies which include elements of material resource efficiency)³¹.

The project *Climate Smart Urban Development Challenge* invites proposals for new and innovative ideas on how to reduce the greenhouse gases (GHG) emissions while contributing to economic, social and environment benefits of local self-governments. The project also contributes to implementation of SDG 11, SDG13, as well SDG7 and SDG12. (see section ‘Examples of good practice and innovative approaches’).

SDG 12.2: Sustainable management and efficient use of natural resources

SDG 12, especially the targets referring to sustainable management and efficient use of natural resources (12.2) and substantially reduced waste generation and its recycling (12.5), is addressed through a number of measures and activities currently being implemented. Every local self-government unit is obliged to develop local waste management plan, while each region needs to develop a regional waste management plan. At the local level, almost 84 per cent of municipalities have adopted such plans. Out of 28 envisaged regional plans, 13 have neither been prepared nor adopted.

²⁹ https://rsjp.gov.rs/EN/wp-content/uploads/2018/07/Agenda_2030_i_Srbija_-_Report_ENGLISH_2802.pdf (English)

³⁰ <http://sdg.indikatori.rs/en-US/> (English)

³¹ http://195.222.96.93//rapp_mape/PPRS/lzvestaj%20o%20ostvarivanju%20prostornog%20planiranja%202013.pdf (Serbian) and [http://195.222.96.93//media/zakoni/Spatial%20Plan%20of%20the%20Republic%20of%20Serbia_2010-2020_abridged%20\(1\).pdf](http://195.222.96.93//media/zakoni/Spatial%20Plan%20of%20the%20Republic%20of%20Serbia_2010-2020_abridged%20(1).pdf) (English)

The key policy documents in this field include the *Waste Management Strategy for 2010–2019*, which also deals with hazardous waste (see section on Policies which include elements of material resource efficiency); the NREAP 2013–2020; and the third NEEAP 2016–2018 (see sections on Resource efficiency and circular economy policy initiatives from subnational to local level and Targets for resource efficiency and circular economy).

UNDP will test impact investment to enable financing for the transition towards circular economy. The *SDG Impact Acceleration Programme* was launched to support up to 10 micro, small and medium-sized enterprises (MSMEs) that can contribute to SDGs 7, 8, 9, 10, 11, 12, 13 and 15.

Examples of innovative approaches and good practice

Examples of good practice and innovative approaches

Serbia is implementing some initiatives that support the circular economy. Examples of good practice include the following.

Institutional and regulatory arrangements to support the transition towards a resource-efficient circular economy

In the context *Climate Sensitive Waste Management project (2018-2020)*³², the establishment of an intersectoral body and thematic working groups on the circular economy is supported. Guidelines for implementation of circular economy value chains for selected waste/secondary raw material streams in the private sector will be developed (see sections on Dedicated national strategies or roadmaps for material resource efficiency and a circular economy and Resource efficiency and circular economy policy initiatives from subnational to local level)

Public procurement

The Public Procurement Act (2015) provides for procurement that includes environmental and energy specifications and designations, determining criteria for the environmental benefits and energy efficiency of the procurement. Green public procurement (GPP) is also included in laws on environmental protection, energy and its efficient use. One of the strategic goals of the Public Procurement Development Strategy 2014–2018 is to promote and encourage GPP. In order to achieve this goal, the action plans for implementation of the Strategy aim to promote energy saving; develop guidelines for GPP; develop models of standard ecological technical specifications for certain products; and prepare analyses and recommendations for improvement of the application of GPP³³.

Innovative business models

The Chamber of Commerce and Industry of Serbia (CCIS) is implementing a project financed by the European Institute of Innovation and Technology (EIT) – Climate KIC³⁴ – that focuses on support for innovation, more specifically on entrepreneurs and start-ups in the area of climate change. The focus of the Climate KIC initiative is the circular economy, and one of its four main pillars is sustainable production systems, which also address the topic. The CCIS encourages start-ups and entrepreneurs from this field to participate in its programmes.

The Cleaner Production Centre of Serbia (CPCS), founded in 2007, is part of the United Nations Organization for Industrial Development/United Nations Environment Programme (UNIDO/UNEP) Global Network for Resource Efficient and Cleaner Production (RECPnet). So far, it has helped apply resource efficiency and cleaner production methodology in more than 100 companies in Serbia and has trained 64

³² <https://www.giz.de/en/worldwide/21215.html> (English)

³³ <http://www.ujn.gov.rs/ci/strategija/strategija-i-akcioni-plan.html> (Serbian)

³⁴ <http://www.climate-kic.org/countries/serbia/> (English)

experts in cleaner production. This has resulted in average savings per company of EUR 100,000 per year, with average reductions of:

- 50,000 cubic metres (m³) per year of water consumption;
- 500 megawatt hours (MWh) per year of energy consumption;
- 500 tonnes per year of carbon dioxide (CO₂) emissions.

In the project Chemical Leasing³⁵, which introduces a new business model in the management of chemicals, CPCS has been participating under the auspices of UNIDO since 2007. Chemical Leasing is a practical approach, which exemplifies the fundamental principles of minimising or eliminating harm while providing business incentives for reducing chemical footprints. It is a service-oriented business model that shifts the focus from increasing sales volumes to a value-added approach. Monitoring of the projects shows that resource efficiency options with an investment value of less EUR 5,000 are almost fully implemented, the percentage of implemented projects with an investment value of EUR 50,000 is 60 per cent, and those with an investment value of more than EUR 50,000 is around 30 per cent. The maximum repayment period for investment in cleaner production measures that is acceptable for our companies is about three years.

Research and innovation

The Ministry of Environmental Protection and the UNDP, with the support of the Global Environment Facility (GEF), are implementing the project Climate Smart Urban Development Challenge³⁶. This project invites the public and the private sectors, civil society organisations, research and science institutions, and individuals to submit proposals for new and innovative ideas on how to reduce the greenhouse gases emissions while contributing to economic, social and environment benefits of local self-governments. There were 111 submitted applications, and 25 applicants have received the innovation award, and nine more innovative ideas and proposed solutions were selected due to their potential. In order to upscale the potential of the project ideas, a climate incubator/accelerator was established to enable teams to test the proposed solutions and find additional sources of funding. Several project ideas touch aspects of the circular economy besides contributing to greenhouse gas emissions reduction and smart urban development. For example, one of the applicants proposed using waste from cooling devices, namely polyurethane foam converted into a new, green product, as an absorber for oil and oil spills.

UNDP will test innovative finance mechanisms, such as impact investment, to enable financing for the transition towards a circular economy. *SDG Impact Acceleration Programme* was launched to support up to 10 MSMEs to introduce innovation and grow their business operations while generating positive environmental and social impacts and contributing to Serbia's transition to a circular economy³⁷.

UNDP initiated the project Circular Economy Platform for Sustainable Development in Serbia³⁸ in 2018 with a focus on the sectors of single-use plastics, textiles and furniture, and food. In 2018, UNDP through partnerships with the government of Serbia, the private sector, academia, creative industries, and civil society organisations. A consultative process has included identifying regulatory barriers that companies face in improving the circularity of their operations, existing good practices and innovative solutions, business cases for investment and actions for the priority sectors along the value chain. In the area of food waste, a series of workshops have been organized showcasing innovative solutions for reduction of food waste and options for its use as a resource.

³⁵ <http://www.cpc-serbia.org/chemical-leasing.html> (English)

³⁶ <http://www.klimatskepromene.rs/english/climate-smart-urban-development-challenge> (English) and <http://www.rs.undp.org/content/serbia/en/home/projects/climate-smart-urban-development-project.html> (English)

³⁷ <http://www.rs.undp.org/content/serbia/en/home/presscenter/articles/2019/poziv-za-kompanije-za-uee-u-programu--zajedno-za-odrivi-biznis-.html> (English)

³⁸ <http://www.rs.undp.org/content/serbia/en/home/presscenter/articles/2019/circular-economy-for-sustainable-development-in-serbia.html> (English)

Change in consumption patterns and consumer behaviour

The Serbian Ecolabel³⁹, which covers the same product groups and uses the same criteria as the European Ecolabel (EU Ecolabel), was created on the initiative of the Ministry of Environment in 2010, promotes the circular economy by encouraging producers to generate less waste and carbon dioxide emissions during the manufacturing process; encourages companies to develop products that are durable, easy to repair and recycle; and provides general information to the public about the environmental impacts of consumer goods.

Financial support programmes

The European Bank for Reconstruction and Development (EBRD), with the support of the Austrian government and the Central European Initiative, has launched a Programme for Green Innovation Vouchers to encourage synergy between science and research organisations and the economy⁴⁰. The Vouchers are worth EUR 150,000 and were presented to representatives of 10 Serbian companies in 2017. The second call for Green Innovation Vouchers was announced in March 2018. The scheme aims to improve the process of introducing innovation in SMEs in the field of green technologies and resource efficiency, and thus supports the long-term competitiveness of the Serbian economy and reduce its impact on climate change. The EBRD seeks to promote the development of innovation and this pilot project could also spread to other countries of the region.

Economic instruments and incentive measures

The Law on Environmental Protection and the Law on Waste Management define which producers and consumers can obtain tax benefits, customs and other facilities, as well as incentives and subsidies, including incentives for the reuse and utilisation of waste as a secondary raw material or for obtaining energy. Fees are also defined, including fees for landfill waste and the use of plastic bags as packaging, as well as the use of natural resources. The funds can be used through the Green Fund of the Republic of Serbia, and environmental funds of the autonomous province and municipalities, for the protection and improvement of the environment, sustainable use of resources, waste management, introduction of cleaner production, etc⁴¹.

Serbian Environmental Protection Agency announces the annual *Report on economic instruments for environmental protection* in Serbia, thus indirectly providing a view into achieved goals and measures of environmental policy defined in strategic and planning documents. In the report, among others, were presented: revenues from fees and charges, funds for subsidies and other incentives⁴².

Networking and conferences

Project *ENV.net factoring the environmental portfolio for WB and Turkey in the EU Policy Agenda* is a multi-phase regional project since 2012. Nine partners from southeastern Europe, Belgium, Italy and Turkey continue their work using bridges built among key stakeholders in accession countries to pay more media and decision maker's attention on key environmental issues toward EU integration, especially to introduce circular economy concept in SEE region. The first regional conference on circular economy was organized by EASD in Belgrade in November 2018⁴³.

Non-formal education and awareness raising

³⁹ http://www.sepa.gov.rs/download/posebni/Ekonomskilnstrumenti_2017.pdf (English and Serbian)

⁴⁰ <http://inovacionivauceri.ebrd.rs/> (English)

⁴¹ https://www.paragraf.rs/propisi_download/zakon_o_upravljanju_otpadom.pdf and https://www.paragraf.rs/propisi_download/zakon_o_zastiti_zivotne_sredine.pdf (Serbian)

⁴² http://www.sepa.gov.rs/download/posebni/Ekonomskilnstrumenti_2017.pdf (English)

⁴³ <http://ambassadors-env.com/en/2018/12/07/to-report-the-first-regional-conference-on-circular-economy-was-success/> (English)

The Chamber of Commerce and Industry of Serbia (CCIS), in cooperation with the CIREKON centre and with the support of EIT Climate-KIC⁴⁴ and UNDP, launched the Academy of Circular Economy for SMEs. This training course provided its participants with practical tools on system innovation. They learned how to analyse their system and how to start developing solutions towards a more circular business model. It is planned to continue with this Academy in 2019 and the upcoming years. The lecturers were national and international experts in the field of the circular economy. The Academy was organised in September and October of 2018⁴⁵.

Environmental Ambassadors for Sustainable Development (EASD), organisation responsible for Foundation for Environmental Education programmes in Serbia, with the support of the Ministry of Education, Science and Technological Development, have introduced, since 2012, the international programme *Eco-Schools*, to apply it outside the learning curriculum⁴⁶. The impact of Eco-Schools on raising awareness is huge, with 115 educational institutions (from pre-school to university education), almost 40,000 students and children and about 3,500 teachers and professors included in the project. Since 2018 the concept of circular economy has been introduced in the Serbian Eco-schools network, through Eco-package projects which, for example, use packaging from Tetra Pak for the production of creative art and through the Inspirational World project which encourages the reuse of old textile material to produce bags, etc.

In the period from May 2018 to February 2019, fifteen high schools participated in the Waste as energy project (Otpad Kao Energent – OKE(j)⁴⁷). The project is a continuation of last year's SKAR project (Sakupljača, Kalkulaža, Ambalaža, Reciklaža – Collection, Calculation, Packaging, Recycling) and is carried out by the Faculty of Technical Sciences, Novi Sad, with the support of the United States Embassy. Schools were involved in activities designed to inform, educate, and actively involve secondary school students in solving problems related to the utilization of waste for energy purposes. Students are also trained to calculate the amount of waste produced in their municipality and school, and to financially valorise two forms of waste utilisation for the purpose of obtaining energy-incineration and anaerobic digestion.

In order to promote eco-design tools and use them for education of new generations of designers, a Young Balkan Designers Open Call for Circular Design⁴⁸ was launched, inviting and challenging designers to propose circular design solutions in the furniture industry that promote the sustainability and circulation of products and materials. The Call was launched by a partnership of UNDP with Mikser Organization, a civil society organisation working in the area of creative industries. The authors of best circular design solutions will have an opportunity to cooperate with local furniture producers and to present their prototypes at the International Furniture Fair in 2020.

Seeking synergies with other policy areas

In Serbia, for now, there are no policy initiatives that deliberately seek to create synergies and co-benefits between resource efficiency/circular economy and other policy areas. Neither are there policy initiatives which seek to make imports of materials and products more sustainable for now.

Resource efficiency and circular economy policy initiatives from subnational to local level

Several initiatives are being implemented at the sectoral level to contribute to resource efficiency and/or the circular economy.

⁴⁴ <http://www.climate-kic.org/countries/serbia/> (English)

⁴⁵ <http://www.pks.rs/Vesti.aspx?IDVestiDogadjaji=24723> (Serbian)

⁴⁶ <http://ambassadors-env.com/en/project/eco-schools-call-for-schools-to-participate/> (English)

⁴⁷ <http://www.izzs.uns.ac.rs/vesti/zavrna-konferencija-projekta-otpad-kao-energent-okej-> (Serbian)

⁴⁸ http://www.designed.rs/konkurs/young_balkan_designers_2019_circular_design and <https://mikser.rs/ybd-2/> (English)

The Regulation on annual energy consumption thresholds, energy management systems and energy savings targets (2016) defines the limit values of annual energy consumption for different categories of economic organisations and state institutions⁴⁹. Organisations and institutions that exceed the limits are required to introduce a system of energy management. This means that they have an obligation to prepare three-year programmes and annual energy-efficiency plans that will achieve annual energy savings targets. The target for the current calendar year is a 1 per cent reduction in consumption of primary energy relative to the previous calendar year. In this way, energy efficiency directly supports resource efficiency.

There are some examples of good environmental practice and innovative approaches in Serbia that could serve as local-level examples.

The Provincial Secretariat for Energy, Construction and Transport has, for many years, allocated grants for co-funding the implementation of projects concerning the use of biomass in the production of heating energy in public institutions in the territory of the Autonomous Province of Vojvodina. The aim is to use local resources such as crop residues, as well as waste from the wood processing industry and forestry. Straw bales may be used directly as potential fuel, as well as pellets from crop residues or wood waste⁵⁰.

A project to strengthen the Aarhus Centres for the transition to a circular economy and the more efficient use of natural resources is being implemented by the Organization for Security and Co-operation in Europe (OSCE) supported by the Ministry of Environmental Protection, and financed by the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management. The project brings together 14 Aarhus Centres in eight countries, and the first workshop was held on 6 March 2018 in Belgrade. The project aims to increase capacity and exchange experience, and also redistribute smaller donations for activities at the local level. The main fields to which Aarhus Centres can contribute are raising awareness; development of strategies, plans and laws; and the use of tools developed within the Aarhus and Espoo Conventions⁵¹.

In the period 2018 – 2020, 17 towns and municipalities are supported through the GIZ project Climate Sensitive Waste Management in:

- revision of local waste management plans in line with circular economy principles;
- development / revision of regional waste management plans in the context of the circular economy;
- development and promotion of regional value chains in the waste sector;
- introduction of waste separation at source, home composting, and construction of two central composting plants.

The efficient use of resources is promoted in pilot municipalities through such measures as the primary separation of waste, recycling and composting/home composting. Public utility companies and municipal administrations are followed closely in order to showcase that customised environmental policy can become a valuable economic factor. Circular economy concepts are fostered in combination with environmental communication and citizens' participation activities in order to create awareness of environmental protection and to establish corresponding communal services⁵².

Through the Inclusive and low carbon production (ILCP) and Chemical Leasing in **meat and dairy value chains** in the Republic of Serbia project the Cleaner Production Centre is trying to enhance productivity and reduce the environmental impact of meat and dairy value chains in Serbia through the development

⁴⁹ <http://www.mre.gov.rs/dokumenta-efikasnost-izvori.php> (Serbian)

⁵⁰ <http://www.psemr.vojvodina.gov.rs/index.php/dokumenti/saobracaj/item/558-javni-konkurs-za-dodelu-bespovratnih-podsticajnih-sredstava-za-sufinansiranje-realizacije-projekata-primene-toplotnih-pumpi-za-zagrevanje-hladenje-objekata-javne-namene> (Serbian)

⁵¹ <https://balkangreenenergynews.com/rs/arhus-centri-pokrecu-dijalog-gradana-privrede-i-drzave-o-cirkularnoj-ekonomiji/> (Serbian)

⁵² <https://www.giz.de/en/worldwide/21215.html> (English)

and implementation of inclusive low carbon and resource efficient production and chemical leasing. Since 2016, 101 ILCP options were identified within the 12 selected enterprises. By the end of 2017, 20 ILCP options were implemented, and several are in progress⁵³.

Other resources

Examples of policies which go beyond “material resources”

The **Draft Nature Protection Strategy for the period 2019-2025**⁵⁴ points out that improving the mechanisms for sustainable use of biodiversity will enable the contribution of ecosystem services to be incorporated in the price of most products. Areas of importance for these services, including many protected areas, forest reserves, low-intensity agricultural areas, wetlands and other biodiversity areas, will be able to valorise and to be managed in a way that does not undermine or degrade the provision of these services.

The **Energy Sector Development Strategy of the Republic of Serbia to 2025 with projections to 2030** (2016)⁵⁵ identifies three priorities for the development of the energy sector: provision of energy security, energy market development, and overall transition towards a sustainable energy sector. The third includes improvements in energy efficiency, increased use of renewable energy sources and promotion of environmental protection in all fields of energy activities, which is in direct correlation with resource efficiency (see also sections on Resource efficiency and circular economy policy initiatives from subnational to local level and Targets for resource efficiency and circular economy). The Strategy is being implemented through the Implementation Programme of the Energy Sector Development Strategy of the Republic of Serbia to 2025 with projections to 2030⁵⁶.

The **Strategy for Water Management in the Republic of Serbia up to 2034**⁵⁷ (2016) is a comprehensive planning document determining national long-term water management policy, that is, action for sustainability in the areas of water use, water protection, the regulation of water flow and protection against the harmful effects of water. In the planning period, a significant improvement in the water sector, which is relevant for resource efficiency, will focus on reducing water leakage, reducing inefficiency in water use and recovering substances and energy from used water.

Improved management of contaminated sites in Serbia⁵⁸

- Investigation of industrial sites suspected to be contaminated is a part of the GEF-funded project Enhanced Cross-sectoral Land Management through Land Use Pressure Reduction and Planning which is implemented by UN Environment in close cooperation with the Ministry of Environmental Protection (MoEP) and SEPA in the period 2015–2019. The Project aims to provide methodologies, knowledge and coordination mechanisms for sustainable and integrated management of soil as a natural resource that are currently lacking. The Project further on supports the development of a cadastre of contaminated sites managed by SEPA and a policy

⁵³ <https://open.unido.org/projects/RS/projects/140221> and <https://www.cpc-serbia.org/ilcpproject.html>, (English)

⁵⁴ http://www.ekologija.gov.rs/wp-content/uploads/razno/Predlog_strategije_zastite_prirode_19.09.2018.-1.pdf?lang=lat (Serbian)

⁵⁵ <http://www.mre.gov.rs/doc/efikasnost-izvori/23.06.02016%20ENERGY%20SECTOR%20DEVELOPMENT%20STRATEGY%20OF%20THE%20REPUBLIC%20OF%20SERBIA.pdf> (English)

⁵⁶ <http://www.mre.gov.rs/doc/efikasnost-izvori/PROGRAM%20FOR%20THE%20IMPLEMENTATION%20ENERGY%20STRATEGY%20for%20the%20period%20from%202017%20until%202023.pdf> (English)

⁵⁷ http://www.rdvode.gov.rs/doc/Strategija_FINAL.pdf (Serbian)

⁵⁸ <http://www.sepa.gov.rs/download/zemljiste/TowardsSoilDecontamination.pdf> (English) and <http://www.sepa.gov.rs/download/zemljiste/VodicZaOdrzivoUpravljanjeZemljistem.pdf> (Serbian)

framework for integrated land use management and its implementation at local level. The conducted research on selected 32 potentially contaminated sites was the basis for creating a list of prioritized sites for remediation and a preliminary assessment of the risks that the selected sites pose to human health and the environment.

- Additionally, investigation of sites contaminated with polychlorinated biphenyl (PCB) is a part of another GEF-funded project implemented by UNIDO in close cooperation with the MoEP and SEPA. In 2018, this project envisages further investigation of three sites where PCB contamination was previously confirmed.
- Furthermore, a World Health Organization (WHO) project funded by UN Environment's SAICM Quick Start Programme Trust Fund envisages the development of the methodology for the analysis of major health outcomes of residents living close to contaminated sites was conducted during 2018.

The results of cooperation between different UN Agencies and ministries in the projects related to contaminated sites on the territory of the Republic of Serbia include:

- improved reporting system for the national cadastre of contaminated sites;
- developed capacity for the investigation; and
- improved overall management of contaminated sites.

Among the development goals of the **Strategy on Agriculture and Rural Development of the Republic of Serbia** (2014–2024)⁵⁹ is the sustainable management of resources. On the theme of preservation of natural resources, the operational objectives relate to the establishment and promotion of an integrated production system, awareness raising on the importance of using renewable energy sources and the production of energy crops.

The way forward

Reflections on future directions of policies on resource efficiency and circular economy

The concept of a circular economy is new in Serbia, and there are many challenges that will prevent its uninterrupted implementation. It is necessary to significantly increase awareness and knowledge of the concepts of a circular economy, both for civil servants and for policy makers, so that government institutions can improve work in this field. At the same time, it is necessary to notably increase investments to stimulate the transformation of the economy from linear to circular, or to invest in research and development. Given that resource efficiency, circular economy and raw material supply are multidisciplinary areas, responsibilities are shared between ministries; there is a need for better cooperation between them, as well as instilling a systemic approach.

However, it is precisely these aspects that can be considered driving forces. The implementation of activities can be based on the use of EU Structural Funds, bilateral funding sources such as Swedish International Development Cooperation Agency (SIDA), financing by international organisations including UNDP and GIZ, and existing funds and dedicated funds in the Republic of Serbia, the Development Fund, Energy Efficiency Fund, Green Budget Fund, etc., as well as attracting private capital. It is also necessary to audit economic instruments in order to increase taxes on natural resources and waste disposal.

Given that the private sector plays a vital role in the transition to a circular economy, it needs to be more involved in all activities, from setting regulations to implementing projects, and strengthening public-private partnerships.

Awareness raising and dissemination of knowledge on the concept of a circular economy need to accelerate and, even though conferences and workshops are already being held, work in this field must be

⁵⁹ <http://uap.gov.rs/wp-content/uploads/2016/05/STRATEGIJA-2014-2020-.pdf> (Serbian)

intensified. The new doctrine of the Green Growth of Serbia is a chance for dual education, connecting domestic industry with universities and institutes.

In addition, it is extremely useful to connect with international actors who are developing policies for resource efficiency and the circular economy, either through networking or implementation of international projects.

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