

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

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

July 2019



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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.

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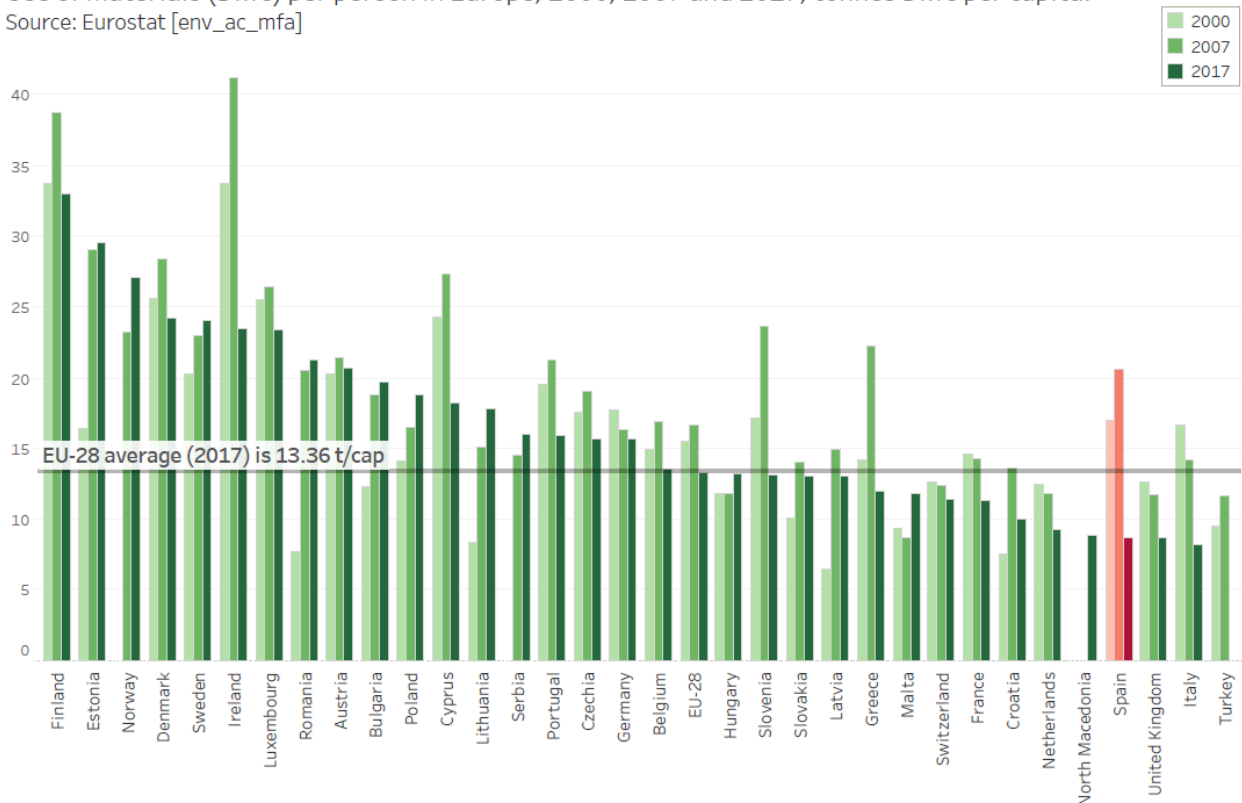
Spain, facts and figures

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

	GDP: EUR 1,166.3 billion (7.3 % of total EU28 in 2017)
	Per capita GDP: EUR 25,100 Euro (purchasing power standard) (83.5 % of EU28 average per person figure in 2017)
	Use of materials (domestic material consumption (DMC)) 406.4 million tonnes DMC (5.9 % of EU28 total in 2017) 8.7 tonnes DMC/capita (65.3 % of EU28 average per person in 2017)
	Structure of the economy: agriculture: 3.0 % industry: 24.0 % services: 73.0 %
	Surface area: 498.5 thousand square kilometres (km ²) (11.4 % of total EU28)
	Population: 46.5 million (9.1 % of EU28 total in 2017)

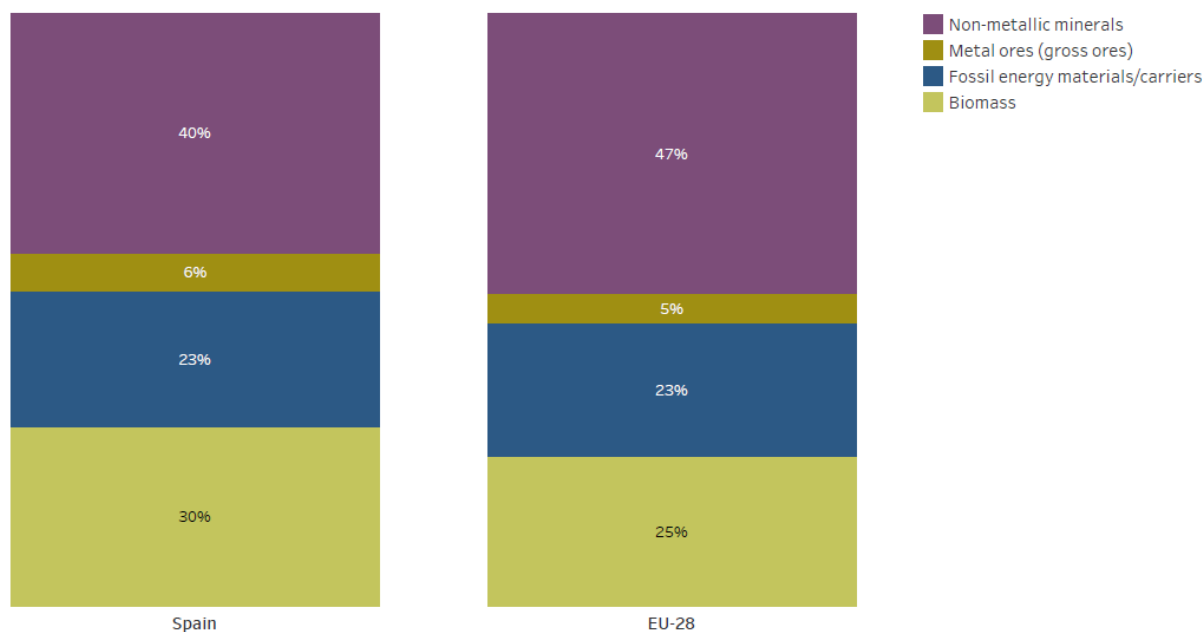
Use of materials (DMC) per person in Europe, 2000, 2007 and 2017, tonnes DMC per capita.

Source: Eurostat [env_ac_mfa]



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

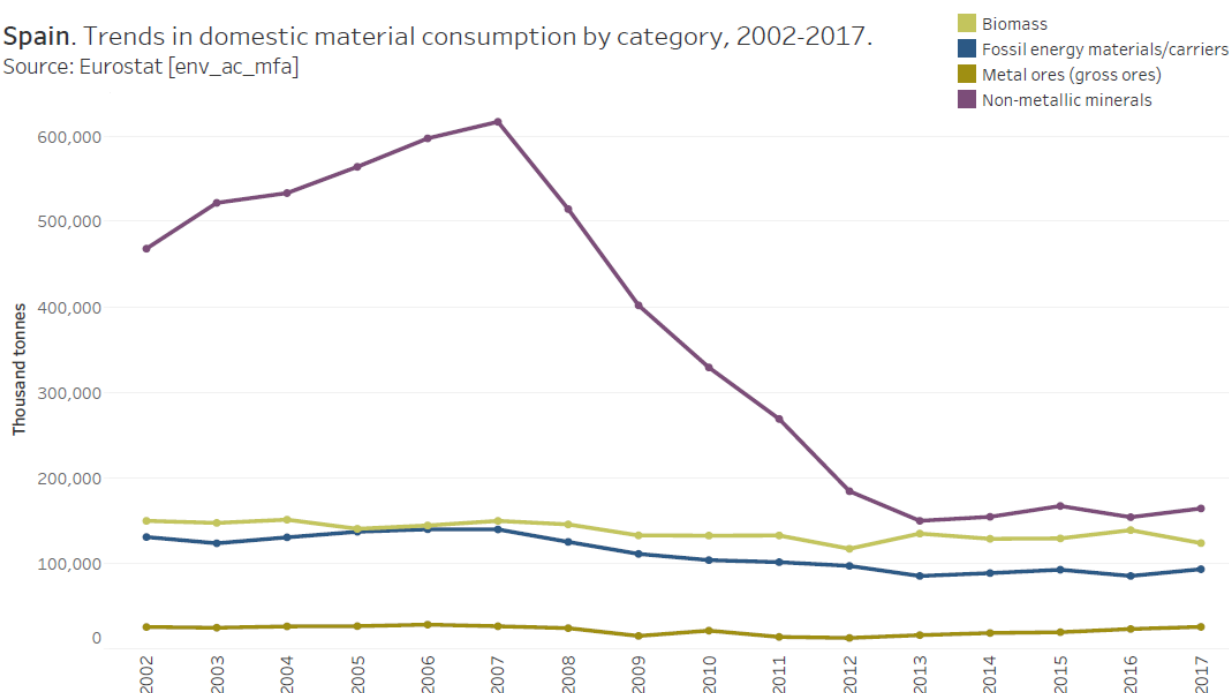
Source: Eurostat [env_ac_mfa]



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

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

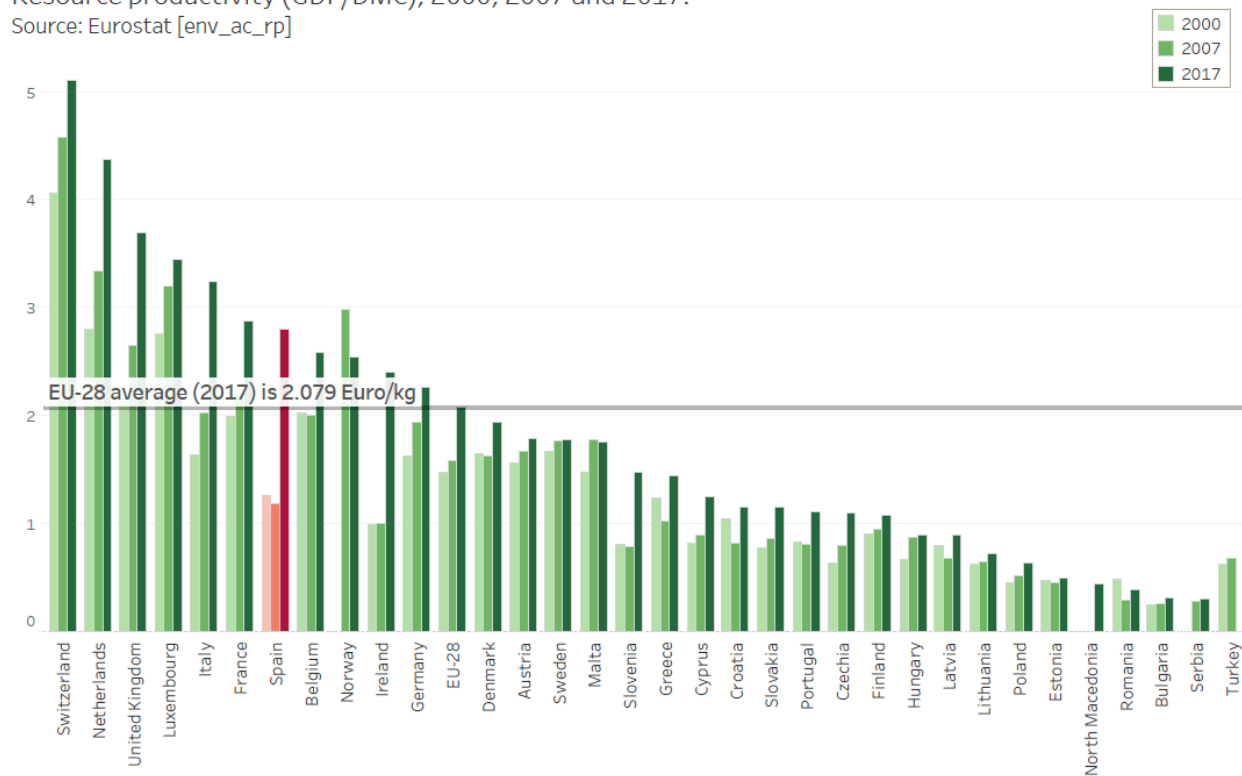
Source: Eurostat [env_ac_mfa]



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.

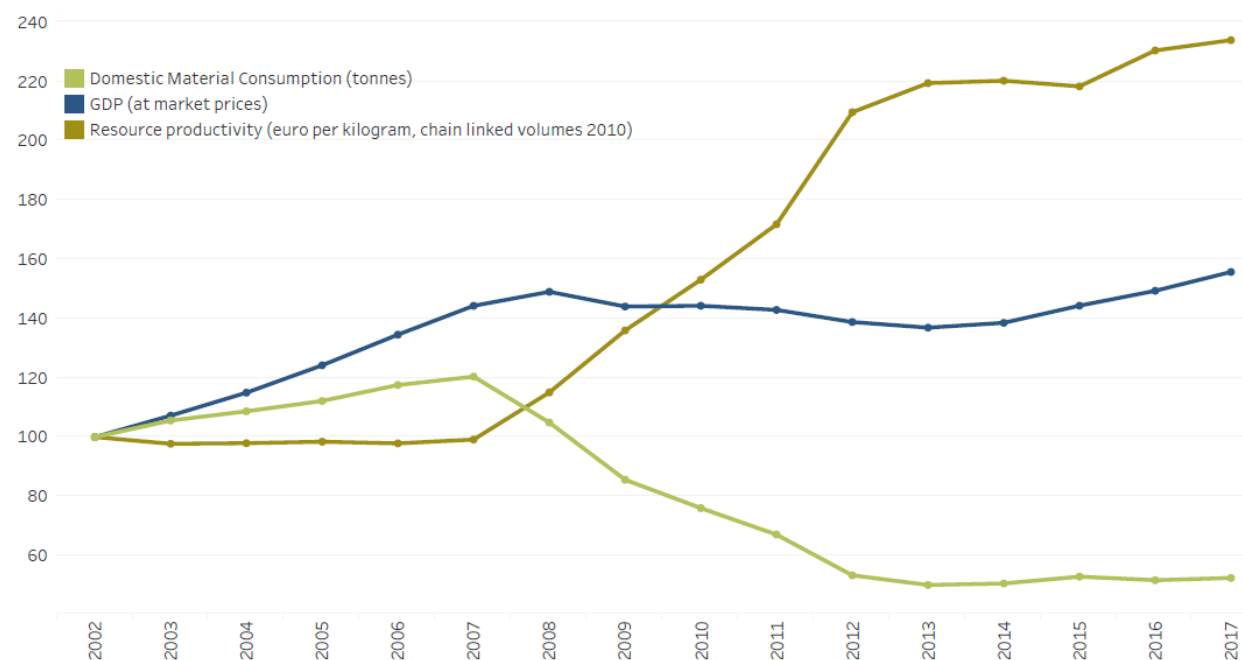
Source: Eurostat [env_ac_rp]



Note: GDP expressed in chain linked volumes 2010.

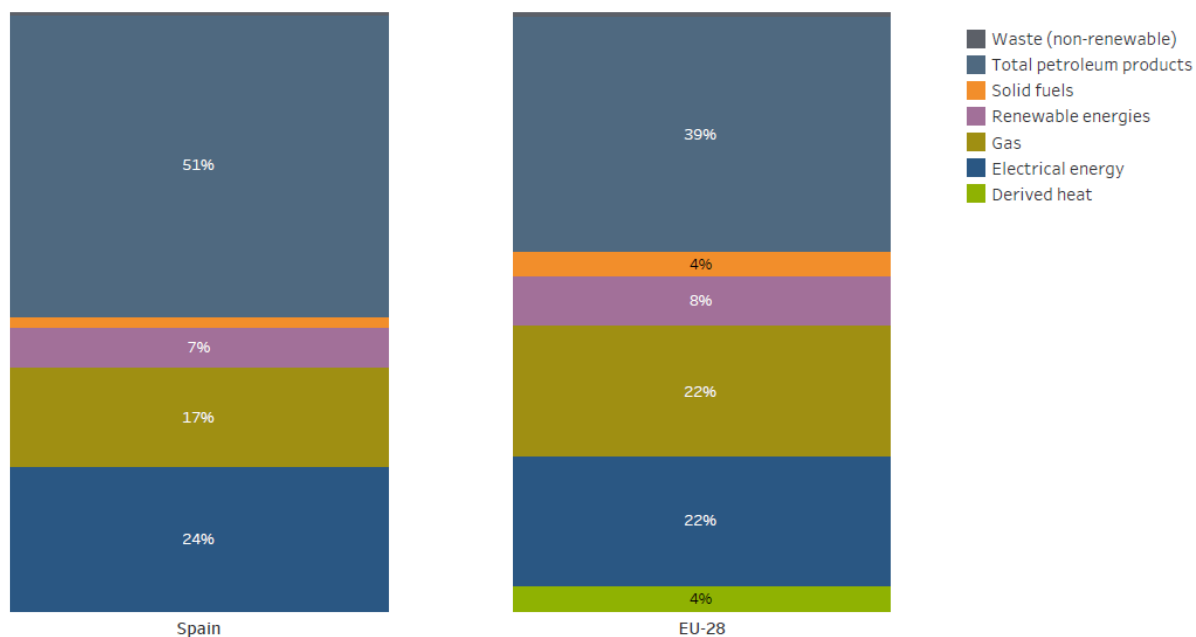
Spain. GDP, DMC and resource productivity trends, 2002-2017, index 2002=100.

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



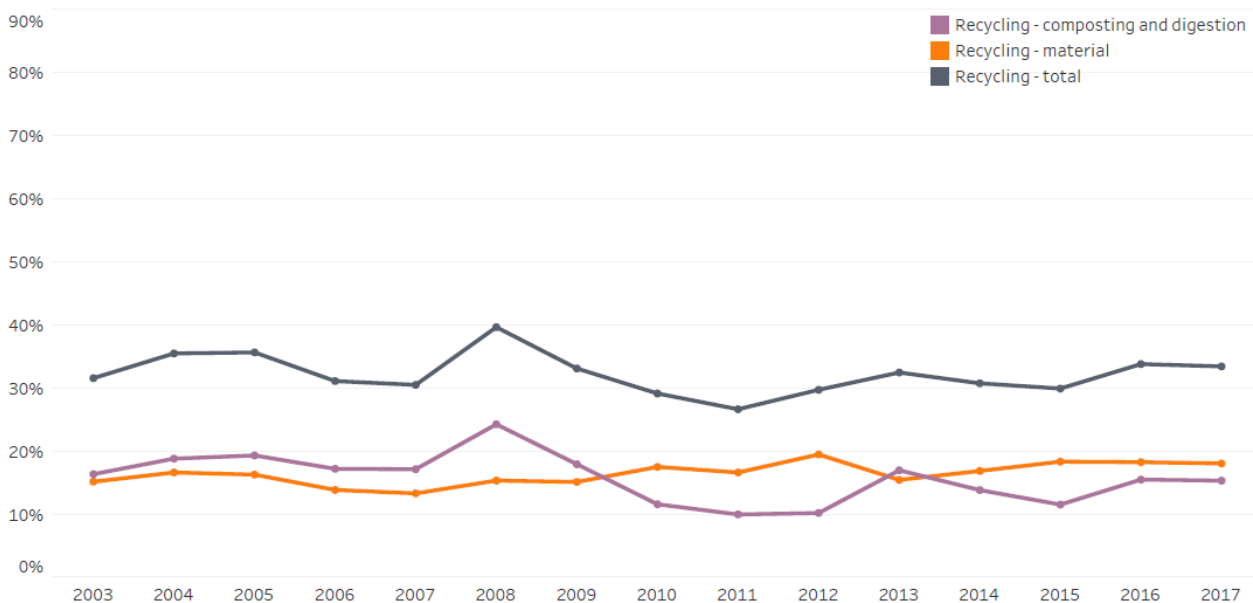
Spain & EU-28. Primary energy consumption by energy product, 2016.

Source: Eurostat [nrg_100a]



Spain. 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

Spain began to recover the growth path of its gross domestic product (GDP) in 2014, supported by domestic demand and investment in equipment, and helped by a fall in the price of raw materials, in particular oil.

The government wants to take advantage of this opportunity for growth and ensure that it is sustainable growth. Therefore, it is working on different kinds of measures that will move Spain towards a circular economy that will maintain the high environmental values of Europe, and in particular, Spain, as well as continuing the growth of the economy.

Until now, the government has concentrated on the end of the production cycle. Spain has been the first European Union (EU) country to set out specific reuse targets, both in waste electrical and electronic equipment (WEEE) regulations and in end-of-life vehicles (ELVs) legislation. However, to continue improving and progressing, it will be necessary to concentrate efforts in other phases of the production cycle.

To sum up, Spain considers the circular economy to be a new economic model that will promote economic interests, such as access to raw materials, but in a sustainable way that coexists with the prevention of environmental degradation and a reduction in greenhouse gas emissions. Finally, it allows Spain to comply with EU *acquis*.

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

The Spanish Circular Economy Strategy and the First Circular Economy Action Plan (2018/2020) was revised after the beginning of the new Government in June 2018. Documents are currently finalized at technical level, and it is expected to be approved within this first quarter.

Spanish Circular Economy Strategy:

The Spanish Circular Economy Strategy promotes the internalisation of sustainability principles and the adoption of a circular economy in productive activity and consumption, both in the public and private sectors.

Main aim is to promote an improvement by 30 per cent the productivity of the materials with respect to the year 2015 in 2030. And therefore, under this main premise, is consider another 12 goals as follows:

1. **Protect terrestrial and marine environment** and its biodiversity and guarantee the protection of people's health by reducing the use of non-renewable natural resources and reincorporating in the production cycle the materials contained in the waste as secondary raw materials, facilitating the transition from the linear model of production and consumption to a circular model in 2030, which contributes to the achievement of sustainable objectives.
2. To lay the foundations for the value of products, materials and resources to be maintained in the economy as long as possible and in which the generation of waste is minimised and the life cycle of the products analysed and **eco-design criteria incorporated**, reducing the introduction of harmful substances in their manufacture, facilitating the reparability of the goods and their reuse, prolonging their useful life and enabling their recovery at the end of it.
3. Encourage the effective application of the **principle of hierarchy of waste**, promoting the prevention of generation by promoting preparation for reuse, strengthening recycling and taking advantage of extracting energy from waste that cannot be recycled and promoting its traceability. All this will contribute to a reduction of the abandonment of waste in the environment and consequently to a reduction in the amount of waste entering the sea.

4. Promote guidelines that **increase innovation** and the overall efficiency of production processes, through the adoption of measures such as the implementation of environmental management systems, thus promoting competitiveness and business growth.
5. **Promote innovative forms of consumption**, which includes sustainable products and services, and infrastructures and digital services.
6. **Promote a responsible consumption model**, based on the transparency of information on the characteristics of goods and services, how long they will last and their energy efficiency through ecolabelling.
7. Facilitate and promote the creation of adequate channels to facilitate the **exchange of information** and coordination with public administrations, the scientific and technological community, economic and social agents so as to create synergies that favour the transition.
8. Spread the importance of moving from the linear economy to a circular economy, promoting **transparency of processes**, raising awareness including of citizens.
9. Promote the use of common, transparent and accessible **indicators** that allow monitoring the implementation of the circular economy.
10. To promote the incorporation of social and environmental **impact indicators** derived from the operation of companies, in order to evaluate more the economic benefits they generate as a consequence of their commitment to the circular economy.
11. **Consolidate employment policies** that favour a just and supportive transition towards a circular economy, identifying new sources of employment and facilitating the creation of skills for them.
12. To **promote research and innovation** both in the public sphere and in the business sector, and especially in terms of public-private collaboration, as drivers of change and transition towards a sustainable productive and social model to move towards a circular economy, facilitating the generation and the adoption of technologies that break the dominant linear model.

Priority sectors:

Tourism: Tourism is another strategic sector for Spain, it represents more than 11 per cent of GDP. During the whole of 2016 visited Spain 75.6 million tourists, which is a 10.3 per cent more than in the previous year, making Spain the second most visited State in the European Union (EU), only behind France. Although it is a great economic incentive, if not managed correctly, tourism can over-saturate the natural and environmental resources of certain areas, especially coastal ones, causing short- and long-term problems that can make a dent in the tourism sector itself.

Agri-food, fishery and forestry sector: Accounting for 3 per cent of GDP, the food industry is the leading industrial sector in terms of turnover and an important generator of employment, accounting for 20.5 per cent of total net sales and contributing 16.8 per cent of the gross added value of the industry, making it the fourth largest in Europe. In addition, the food sector directly supports other areas, such as agriculture, 70 per cent of whose production is of food. This sector maintains 354,000 jobs in Spain, of which 20 per cent are of an industrial nature. Spain is the seventh State of the European Union in terms of food loss, 7.7 million tonnes a year, after, in order, the United Kingdom, Germany, Netherlands, France, Poland and Italy.

Construction and Dismantling: the construction sector represents 5 per cent of GDP in Spain, despite the fact that it consumes 40 per cent of the resources, generates 40 per cent of the waste – several points above of the EU average – and emits 35 per cent of greenhouse gases, making it essential to make efforts to ensure its sustainability and the progressive introduction of circular practices. Recycling rates vary widely in the different States of the Union, ranging from 10 per cent to 90 per cent, their main problem being that valuable materials are not always identified, nor are they collected separately, nor are they adequately valued.

Industry: it requires special attention as a whole, considering that it employs approximately 12 per cent of workers and accounts for 23 per cent of GDP. In addition, by its nature, it brings together sectors as diverse as plastics, metals, mechanical systems, automotive industry, aerospace industry, etc.

At the same time, raw materials and components currently account for 40– 60 per cent of total fixed costs of European industry. Europe also imports 60 per cent of the fossil resources and metals it needs.

Services and Goods: Finally, consumer goods are one of the main causes of waste generation, both in the domestic and in the business environment, and also comprise many sectors with different characteristics such as food, electrical and electronic equipment, packaging, etc. If we want to move forward in the transition to a new model, it will be essential to incorporate circular economy practices in each of them. As well, it is quite interesting move to a service economy which would have a low demand on raw materials and, therefore, be sustainable.

Circular Economy Strategy Indicators:

After a deep reflection on this matter, we will change all indicators to those selected by the European Commission (EC) under the same considerations as the EC. In short, the behaviour of society as a whole will be assessed.

Circular Economy I Action Plan:

This Plan is endorsed by an ambitious budget, where more than EUR 632.5 million has been allocated to measures and actions that public administrations have put in place to encourage the circular economy inside and outside their administrations.

To respond to the new challenges, the Plan pivots around eight thematic axes. Of them, five concerned with issues of production, consumption, waste management, secondary raw materials and water reuse. Three others are included in the Plan: sensitisation and participation; research, innovation and competitiveness; and employment and training.

The first axis of action, the production axis, is essential for the achievement of circular economy principles, since without the appropriate product design policies, the rest of the axes that make up the Plan cannot be adequately addressed. The 14 lines of action included add up to a total of EUR 46.24 million. From the point of view of innovation, there are measures such as the inclusion of circular economy criteria in the Strategic Framework for the Spanish Industry and its agendas, Empower Industry 4.0 as an effective way to boost the circular economy, or the Development measure of European standards on eco-design and circular economy.

The second axis of action is consumption with two main actors: administrations and consumers. Without their involvement the principles of the waste hierarchy cannot be fully applied; it is necessary to guide purchase decisions towards environmentally responsible products and encourage waste separation in homes to promote recycling. The consumption axis includes measures such as the promotion of the Ecological Public Procurement Plan; the introduction of circular economy valuation criteria in the documents and programmes of public aid, loans and lines of credit; incorporation of time-based requirements related to the circular economy in the lines of measures promoting industrial competitiveness, innovative public procurement and innovation from demand (FID).

Waste policies are particularly relevant in the transition to a circular economy. Without the promotion of these policies, the objectives of the 2030 Agenda for Sustainable Development and the circular economy cannot be achieved. To a large extent, the core of this Strategy lies in the modifications that result from the revision of the four basic waste directives, and requires an important investment in action to improve traceability, harmonisation and ensure proper management of waste.

The overexploitation of natural resources, the volatility of prices and the low natural disposition of critical raw materials cause in Europe, and Spain in particular, a structural weakness, which can be partially offset by an adequate policy on secondary raw materials. That is reason why the Action Plan devotes seven lines of action to such a policy with investments of close to EUR 1 million, and the work to be carried out is

prioritised to advance the declaration of by-products, the establishment of end-of-condition criteria for waste and the promotion of the use of secondary raw materials in public works.

The axis dedicated to the reuse of water is crucial for a country like Spain, characterised by a low availability of water resources, and a manifest irregularity in the way this resource is available in space and time. That forces us to maximise its management through the hydrological plans as technical support and consensus instruments. In the continuous improvement exercise carried out by the ministry, work is being started and progress is being made on the next planning cycles, enhancing the action on water quality identified in the programs of measures. In addition, within the framework of the integral water cycle, the aim is to maximise the availability of the resource transparently, assuring quality and safety the users, in coordination with the lines of work established by the Commission to improve the efficiency of the resource and the healthiness of reused water.

For an optimal, balanced and efficient transition to a circular economy, policies, actions and measures designed to favour research, development, innovation and investment are key in order to promote the development and application of new knowledge, technologies and promote innovation in processes, services and business models. At the base of this transition and with the aim of increasing the economic impact of research and innovation, it is necessary to promote public-private collaboration and encourage business investment in research and development (R&D) and innovation.

Finally, the transition to a circular economy will require a skilled workforce with specific skills, capable of adapting to changes in the labour market and taking advantage of new employment opportunities. For this reason, an axis of actions linked to education, employment and training has been transversally incorporated, which anticipate needs and encourage the development of skills and other support measures for the creation of employment linked to the circular economy.

Great Deal:

The circular economy will become effective if all actors involved become aware of and apply its principles. With this in mind, the government has signed an agreement, the Big Deal, with more than 334 stakeholders, among them a large number of commercial associations and social agents, so it reflects a large portion of society (see section on Institutional setup and stakeholder engagement for more information).

Regional policies on circular economy:

The government's concern is shared by Spain's autonomous communities. Many of their regional governments are working towards a circular economy.

- Andalusia Region¹
- Castile La Mancha Region

The region of Castile La Mancha has a draft for a circular economy law²

- Castile Leon Region

The Region of Castile León initiated a process for drafting a Circular Economy Strategy in 2016³.

The main activities has been:

- creating an experts group (members are representatives of several ministries of the regional government, technological centres, universities and researchers, local entities representatives;

¹ <https://eco-circular.com/2018/06/21/estrategia-andaluza-de-desarrollo-sostenible-2030/> (Spanish) and <https://eco-circular.com/tag/andalucia/> (Spanish)

² <http://www.castillalamancha.es/gobierno/agrimedambydesrur/estructura/vicmedamb/actuaciones/anteproyecto-de-la-ley-de-econom%C3%ADa-circular-de-castilla-la-mancha> (Spanish)

³ <https://medioambiente.jcyl.es/web/jcyl/MedioAmbiente/es/Plantilla100/1284749756314/> (Spanish)

- organizing four horizontal conferences 2017/2018 – eco-innovation and production; zero waste; new business models; and the organic cycle – and two sectoral conferences 2018/2019 on the automotive industry and agri-industry. Information and presentations are available online⁴.
- Promoting the participation of stakeholder at a circular economy survey.

A draft version of the Strategy is ready, and next step will be an open consultation.

Additionally, the city of Valladolid has drafted a circular economy road map. The main activities implemented are:

- launching a funding call supporting private entities, both commercial or non-commercial, to developed circular economy projects in the city⁵;
- publishing a circular economy report on the city⁶
- Extremadura Region:
 - Green and Circular Economy Strategy⁷;
 - programmes and projects⁸
 - Examples on specific action:
 - Order of February 25, 2019 establishing the call for aid for the promotion of a green and circular economy on farms in the Autonomous Community of Extremadura, for the year 2019⁹.

- País Vasco Region

Diagnosis of industrial circular economy in País Vasco¹⁰:

- Catalonia Region

Catalonia has approved two documents on the move towards a circular economy, *Impulse strategy for the green economy and the circular economy* and *The Catalan eco-design strategy for a circular economy and eco-innovation*.

Furthermore, Galicia, Madrid and Murcia are respectively working on the Galician Strategy on a Circular Economy, Madrid 7R: Circular Economy, and the Circular Economy Strategy for the Murcia Region.

On relation to municipalities, local government association has elaborated a draft named the Model of Local Circular Economy Strategy¹¹.

Other sectors:

In the food sector, the National Strategy More Food, Less Waste aims to improve efficiency and reduce losses along the food chain¹².

Furthermore, the government has updated the second Green Public Procurement (GPP) Strategy in which environmental criteria, including EU ones, are considered in tenders¹³.

⁴https://medioambiente.jcyl.es/web/jcyl/MedioAmbiente/es/Plantilla100Detalle/1284749756314/_/1284752296638/Comunicacion (Spanish)

⁵<http://www.valladolidadelante.es/node/12578> (Spanish)

⁶<http://www.escircular.com/> (Spanish)

⁷<http://extremadura2030.com/wp-content/uploads/2018/05/estrategia2030.pdf> (Spanish)

⁸<https://extremadura2030.com/programas-y-proyectos/> (Spanish)

⁹<http://doe.juntaex.es/ultimosdoe/mostrardoe.php?fecha=20190306> (Spanish)

¹⁰http://www.euskadi.eus/contenidos/informacion/economia_circular/es_def/adjuntos/diagnostico.pdf (Spanish)

¹¹http://femp.femp.es/Microsites/Front/PaginasLayout3/Layout3_Personalizables/MS_Maestra_3/MzynyrrPoTrXKv5bey-7NcwsrmWRvwm_gXrG-zj7FCwcJ-E2J4ldajuQ (Spanish)

¹²<http://www.mapama.gob.es/es/alimentacion/temas/estrategia-mas-alimento-menos-desperdicio/> (Spanish)

¹³https://www.boe.es/diario_boe/txt.php?id=BOE-A-2019-1394 (Spanish)

In addition, as a result of jointed work at inter-ministerial level, circular economy matters are considered on other sectorial documents such as:

- Spanish Urban Agenda¹⁴ ;
- Strategic framework in the Small and medium-sized enterprises (SME) Policy 2030;
- General Guidelines for the new industrial policy¹⁵.

Examples at regional level from Catalonia and Extremadura are given in the section on Resource efficiency and circular economy policy initiatives from subnational to local level.

Overview of dedicated national or sectoral strategies for raw materials

Spain does not have a dedicated national or sectoral strategy for raw materials. The Spanish Strategy for Science, Technology and Innovation 2013–2020 (see section on Policies which include elements of material resource efficiency) has thematic priorities that has the objective of orienting research and innovation towards the prioritised societal challenge of action on climate change and efficiency in the use of resources and raw materials.

Policies which include elements of material resource efficiency

In the framework of waste policy:

- National Waste Prevention Programme (2014–2020)¹⁶;
- National Waste Management Plan (PEMAR) 2016–2022¹⁷.

These two instruments establish Spanish policy on the prevention and management of waste. The National Waste Prevention Programme includes measures for certain areas of activity classified according to four strategic lines of prevention.

In many of the waste streams included in PEMAR, provision is made to encourage the introduction of secondary raw materials from waste into production cycles, for example through the development of voluntary agreements or end-of-waste criteria.

Spain has also developed a procedure for the application of the concept of by-products regulated in the Waste Framework Directive¹⁸.

Mention should also be made of:

- - the Spanish Strategy on Bioeconomy;
- - the More Food, Less Waste strategy.

In terms of employment, the circular and bio-economies are considered in the Green Jobs Programme as a European Social Fund (ESF) Programme under the Operational Programme for Employment, Training and Education 2014–2020. Through the Employer Programme, the Biodiversity Foundation (Ministry of Agriculture and Fisheries, Food and Industry) acts as a bridge between employment policy and

¹⁴ <https://www.fomento.gob.es/arquitectura-vivienda-y-suelo/urbanismo-y-politica-de-suelo/urbanismo-y-sostenibilidad-urbana/agenda-urbana-espanola>) (Spanish)

¹⁵ <https://industria.gob.es/es/Documents/Directrices%20Generales%20de%20la%20Pol%C3%ADtica%20industrial%20espa%C3%B1ola%2025.02.19%20FINAL.pdf> (Spanish)

¹⁶ http://www.mapama.gob.es/imagenes/es/Programa%20de%20prevencion%20aprobado%20actualizado%20ANFABRA%2011%2002%202014_tcm7-310254.pdf (Spanish)

¹⁷ http://www.mapama.gob.es/imagenes/es/pemaprobad6noviembrecondae_tcm7-401704.pdf (Spanish)

¹⁸ <http://www.mapama.gob.es/es/calidad-y-evaluacion-ambiental/temas/prevencion-y-gestion-residuos/comision-coordinacion/Procedimiento-Evaluacion-Subproducto.aspx> (Spanish)

environmental policy with the double objective that the environment and sustainability are the foundation for better jobs and more competitive companies, and that workers and companies are key players in improving the environment.

The Green Jobs Programme aims to create jobs, improve employability and support the creation of green and blue economy businesses, with a focus on a low-carbon economy, circular economy and the Natura 2000 network.

The Biodiversity Foundation carries out its role as the managing body of the ESF through the publication of calls for grants as well as through its own projects such as the Empreverde Network. The projects address two thematic blocks, the green and blue economies. The green economy projects contribute to the emergence of new models of sustainable production and consumption, generating social and environmental benefits and helping create new jobs. Blue economy projects, concerned with the sustainable development of the oceans, contribute to international competitiveness, efficiency in the use of resources, job creation and the birth of new sources of growth while safeguarding biodiversity.

Furthermore, the Empreverde Network is a platform that supports entrepreneurs specialising in green business. Its objective is to encourage the creation and consolidation of companies or new lines of business in activities related to the environment, and channel investment to sustainable economic activities. As mentioned, the Network is distinguished by being a specialised, integrating and multiplying network, which means it seeks to integrate initiatives to support existing entrepreneurship, create synergies with them and introduce them to green entrepreneurs.

Another element is the second Green Public Procurement strategy, in which environmental criteria, including EU ones, are part of the tenders.

The Spanish Strategy for Science, Technology and Innovation 2013–2020, Spain’s strategic framework for research and innovation for intelligent specialisation (State RIS3).

The thematic priorities of the Strategy are included in the objective of boosting business leadership in research, development and innovation and in the objective of orienting research and innovation towards the prioritised societal challenge of action on climate change and efficiency in the use of resources and raw materials.

Institutional setup and stakeholder engagement

The Spanish government considers the Circular Economy Strategy to be one of its priorities. Given its relevance within the environmental economy, it is led by ministries related to environmental and economic matters.

Governance model:

Circular Economy policy needs the coordination and collaboration between all administrations, not only Central Government, but also regional and local administration. So it was implemented at 3 different levels.

Directive Committee: this committee involves principal ministries connected economy and environment policies.

Inter-ministerial Committee for Circular Economy: was established in June 2017 and consists of those ministries whose policies are necessary to guarantee the transition to a circular economy.

This Committee will be maintained once the Strategy has been elaborated in order to analyse and follow up the implementation of the circular economy, besides allowing cooperation and helping the exchange of information on good practices, success models and new knowledge.

A Working Group dedicated to the Circular Economy was created within the Waste Coordination Commission in March 2017, where representatives of the regions were able to contribute their ideas, visions and planned measures, as well as join forces and collaborate together in the transition towards a circular economy.

Additionally, central government will push a technical group for studying circular economy criteria in structural funds within Environmental Authorities Network in Spain.

Circular Economy Council Advisory: Many allegations ask for the participation of private sector, social and environmental agents in circular economy policy, so that it will be created once CE Strategy will be approved.

The government's goal is to establish a long-term tool, so the Strategy will be an active instrument until 2030. As a general framework, it will be complemented by an Action Plan and a Pact for a Circular Economy (Big Deal) in the short and medium term (see section on Dedicated national strategies or roadmaps for material resource efficiency and for circular economy).

As regards stakeholders, a high-level meeting took place on 18 September 2017, chaired by Karmenu Vella, EU Commissioner for the Environment, Maritime Affairs and Fisheries. Its purpose was to give in-depth consideration to the key aspects necessary for establishing the basis of the Spanish Circular Economy Strategy and to promote channels of communication and discussion. Fifty-six entities signed the Big Deal pact on that day, and to date 334 entities are involved, including trade unions.

Great Deal:

The circular economy will become effective if all actors involved become aware of and apply its principles. With this in mind, the government has signed an agreement (the Big Deal) with more than 334 stakeholders, among them a large number of commercial associations and social agents, so it reflects a large portion of society.

Stakeholders involved in the Big Deal for a circular economy are committed to:

1. reduce the use of non-renewable natural resources, reusing materials from production cycle residues as secondary raw materials, provided that people's health and the protection of the environment are guaranteed;
2. promote life-cycle analysis of products and the incorporation of eco-design criteria that reduce the introduction of harmful substances in manufacture, and facilitate the reparability of goods, extending their useful life and enabling their recovery at the end of their life;
3. promote the effective application of the waste hierarchy principle, promoting the prevention of its generation, encouraging reuse, strengthening recycling and favouring traceability;
4. promote guidelines that increase innovation and the overall efficiency of production processes through the adoption of measures such as the implementation of environmental management systems;
5. promote innovative forms of sustainable consumption, including sustainable products and services, as well as the use of digital infrastructures and services;
6. promote a responsible consumption model based on the transparency of information on the characteristics of goods and services, their lifetimes and energy efficiency, through the use of measures such as the use of ecolabels;
7. facilitate and promote the creation of appropriate channels to facilitate the exchange of information and coordination with administrations, the scientific and technological community and economic and social actors, so as to create synergies conducive to transition;

8. disseminate the importance of moving from a linear to a circular economy, promoting transparency of processes and the awareness of citizens;
9. encourage the use of common, transparent and accessible indicators that show the degree of implementation of the circular economy;
10. promote the incorporation of social and environmental impact indicators derived from the operation of companies, so that they can be evaluated beyond the economic benefits they generate, as a consequence of their commitment to the circular economy.

Regarding awareness, training and participation, the main focus is the Big Deal pact. However, other measures are being considered, including marine litter awareness-raising campaigns, as the marine ecosystem is essential to a sustainable economy, especially in a country in which tourism and fisheries are so significant.

Approaches to resource efficiency and circular economy policy evaluation

The evaluation of impacts and effectiveness of policies for a resource-efficient circular economy are under development in Spain.

Monitoring and targets

Targets for resource efficiency and circular economy

The PEMAR includes waste management targets for many of the waste flows included in it – some are derived from community obligations while others concern waste oils, sludge, end-of-life tyres, municipal waste, etc.

- mandatory obligations contained in laws and royal decrees, such as the Law on Waste, the Royal Decree on WEEE and the Royal Decree on Construction and Demolition Waste: 10 per cent reduction in waste generated by 2020 relative to 2010;
- Article 22 Law 22/2011¹⁹ on Waste – preparing for reuse, recycling and recovery;
- by 2020, at least 50 per cent by weight recycling of domestic and commercial waste paper, glass, plastic, biowaste and other recyclables;
- by 2020, at least 70 per cent by weight reuse, recycling and other recovery of non-hazardous construction and demolition waste – excluding category 17 05 04 of the Waste List.

Related to the Circular Economy Strategy, see section on Dedicated national strategies or roadmaps for material resource efficiency and a circular economy.

Indicators to monitor progress towards a resource-efficient circular economy

Indicators on waste prevention are set out in the National Waste Prevention Programme. Indicators on waste management depend on the targets established by the PEMAR. Much of this information is published in the annual report on waste²⁰.

Other links:

<http://www.mapama.gob.es/es/calidad-y-evaluacion-ambiental/planes-y-estrategias/Planes-y-Programas.aspx#para0> (Spanish)

http://www.mapama.gob.es/imagenes/es/pemaraprobado6noviembrecondae_tcm7-401704.pdf (Spanish)

¹⁹ <http://www.boe.es/buscar/doc.php?id=BOE-A-2011-13046> (Spanish)

²⁰ <http://www.mapama.gob.es/es/calidad-y-evaluacion-ambiental/publicaciones/Memoria-anual-generacion-gestion-residuos.aspx> (Spanish)

The Circular Economy I Action Plan indicator set is based on the available indicators among those provided in the Spanish Circular Economy Strategy and those available by the National Institute of Statistics (INE), considering the ease of use and its solidity, as well as the representativeness of them with respect to the axis of action. It must be remembered that the results obtained value the transition to a circular economy, which requires collaboration and coordination between economic, social, environmental agents, consumers and public administrations in order to face, in a common way, the environmental, economic and technological challenges that we face.

Resource efficiency, circular economy and the 2030 Sustainable Development Goals

The Spanish Network for Sustainable Development²¹'s mission is to raise awareness of the SDGs in society, public institutions and the corporate sector, to mobilise commitment to them, and promote their incorporation in future policies, the business environment and the behaviour of the general public.

Examples of innovative approaches and good practice

Examples of good practice and innovative approaches

Events of good practices are being organised across Spain, in collaboration with the different administrations, including the European one. In these events the companies have spaces to show examples of good practices.

- 190307: Cooperatives and Circular Economy. Extremadura 2030 Event²²: agricultural cooperatives discuss and give life examples of the green and circular economies. They are working decreasing on food waste through by-products and cooperatives' symbiosis, or they are obtaining bio-fuel from biomass other olive stones – for example Cooperativas Valle del Jerte uses cherry stones to obtain fuel.
- 190214: Compete in a more resource efficient and circular economy by product policy and eco-design was organised by lhobe, in an EREK event. They give some examples of circular economy practices which can be seen online²³. One famous example of a mature product is wind power screw which can be transformed into an intelligent one by preventing oversizing and give real information about the load. This screw avoids unnecessary checks something that is interesting for marine wind power stations²⁴.
- 190115: The Circular Economy Event in Mallorca. Hotels explain how to transform high-quality food waste into high-quality compost for local crops which can then supply local hotel kitchens²⁵.
- Awards on Circular Economy on the Balearic Islands²⁶.
- 181128: Circular Economy at Cantabria: at this event the creation of Circular Economy Department in collaboration with Cantabria University²⁷ was announced.
- A stakeholder platform on green growth, the Empreverde Network, developed by the Biodiversity Foundation.

²¹ <http://reds-sdsn.es> (Spanish)

²² <http://www.cooperativasextremadura.es/noticias/comunicacion/986-cooperativas-extremadura-destaca-la-economia-circular-como-oportunidad-de-negocio-del-cooperativismo.html> (Spanish)

²³ <https://economiecirculaireeficiente.nirestream.com/videoteca/casos-practicos-de-empresas-resultados-y-recomendaciones> (Spanish)

²⁴ <https://www.spri.eus/es/basque-industry-comunicacion/torloju-adimendunak-4-0-industriaren-zerbitzura/> (Spanish)

²⁵ <https://www.gardenhotels.com/es/values/eco-garden/me-ecologic-compost/> (Spanish)

²⁶ <https://seu.conselldemallorca.net/es/fitxa?key=34048> (Spanish)

²⁷ <https://www.eldiariomontanes.es/economia/directo-economia-circular-20181128185206-nt.html> (Spanish)

Seeking synergies with other policy areas

To elaborate the Spanish Circular Economy Strategy, two different working groups have been created: one with the multi-sectorial participation of other central policies – on agricultural, infrastructure, industry, budgetary, consumption, etc., and another with the regions in the framework of the Spanish Coordination Commission on Waste.

In addition, the Plan to Promote the Environment (PIMA) has supported the start-up of measures to promote action in favour of improving the environment and integrating environmental quality policies with those of combating climate change.

In the waste sector, PIMA seeks to promote the reduction of greenhouse gas emissions and advance the objectives of Law 22/2011 of 28 July concerning contaminated waste and soils, of the State Plan Management Framework of Waste, as well as in the fulfilment of targets related to renewable energy. PIMA has started to help improve waste management, including promoting the separation at source of the organic waste fraction and its subsequent biological treatment, and improving the environmental performance of landfill sites through projects that reduce biogas emissions or manage biogas to help reduce emissions. The 2018 PIMA called for measures to promote composting and encourage the collection of used cooking oil generated in homes for use in the production of biofuel for transport.

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

There are many initiatives to improve resource efficiency in each sector. Some public organisations, such as the Institute for Diversification and Energy Saving (IDEA), aim to improve energy efficiency, renewable energy and other low-carbon technologies, through, for example, calls for energy efficiency action in SMEs and large industrial companies²⁸.

Basque Country Region Administration, Ihobe, published a report which gives an overview of the framework and results of the first eight completed circular economy projects, in the framework of the 2011 call for demonstration projects to reintroduce materials and products that value waste.

Public administration is not alone in working on the circular economy and resource efficiency. Between Member States, Spain stands out as one in which steelmaking relies mainly on recycling – up to 76 per cent of steel made in Spain closes the cycle of a circular economy, while in the rest of the EU less than 45 per cent is recycled. An example of the interest of the sector in this matter is the third Journalism Prize of the Spanish Union of Steel Companies (UNESID), which deals with topics related to the Spanish steel industry, from various economic, commercial and social approaches, through its role in the real economy to, especially, the steel cycle, from production to recycling.

Furthermore, some regions have already published regional strategies on the circular economy, for example Extremadura²⁹, and other similar strategies are in development.

Catalonia Autonomous Community, Impulse Strategy for the Green Economy and the Circular Economy: objectives include alignment with the Spanish government's strategy on competitiveness through smart, sustainable and inclusive growth as advocated by the EU; to give coherence and visibility to government efforts to develop a green and circular economy; to establish priorities among future government measures; and to increase business leadership and improve the capacity of companies and society as a whole in developing a green and circular economy.

²⁸ <http://www.boe.es/boe/dias/2017/09/19/pdfs/BOE-A-2017-10687.pdf> (Spanish)

²⁹ <http://extremadura2030.com/> (Spanish).

Catalan Eco-Design Strategy for a Circular Economy and Eco-Innovation: objectives include the creation of a label to promote the design of products and services that integrate environmental criteria, and to establish synergies with all actors involved in the production system, involving them in its implementation.

Other resources

Examples of policies which go beyond “material resources”

The Spanish government would like to promote the use of recovered water, which means establishing measures to review internal and EU legislation; promoting scientific research to establish the minimum quality criteria required to ensure human and environmental health; increasing awareness; and promoting innovative solutions at water facilities.

The way forward

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

It is considered that initiatives in the future should be jointly coordinated between environmental and other policies.

Supporting the circular economy along each step of the value chain – from production to consumption, repair and remanufacturing, waste management and secondary raw materials that are fed back into the economy – will deliver important energy savings and environmental benefits. A circular economy could create local jobs and opportunities for social integration. It is closely linked with key EU priorities on jobs and growth, investment, the social agenda and industrial innovation.

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