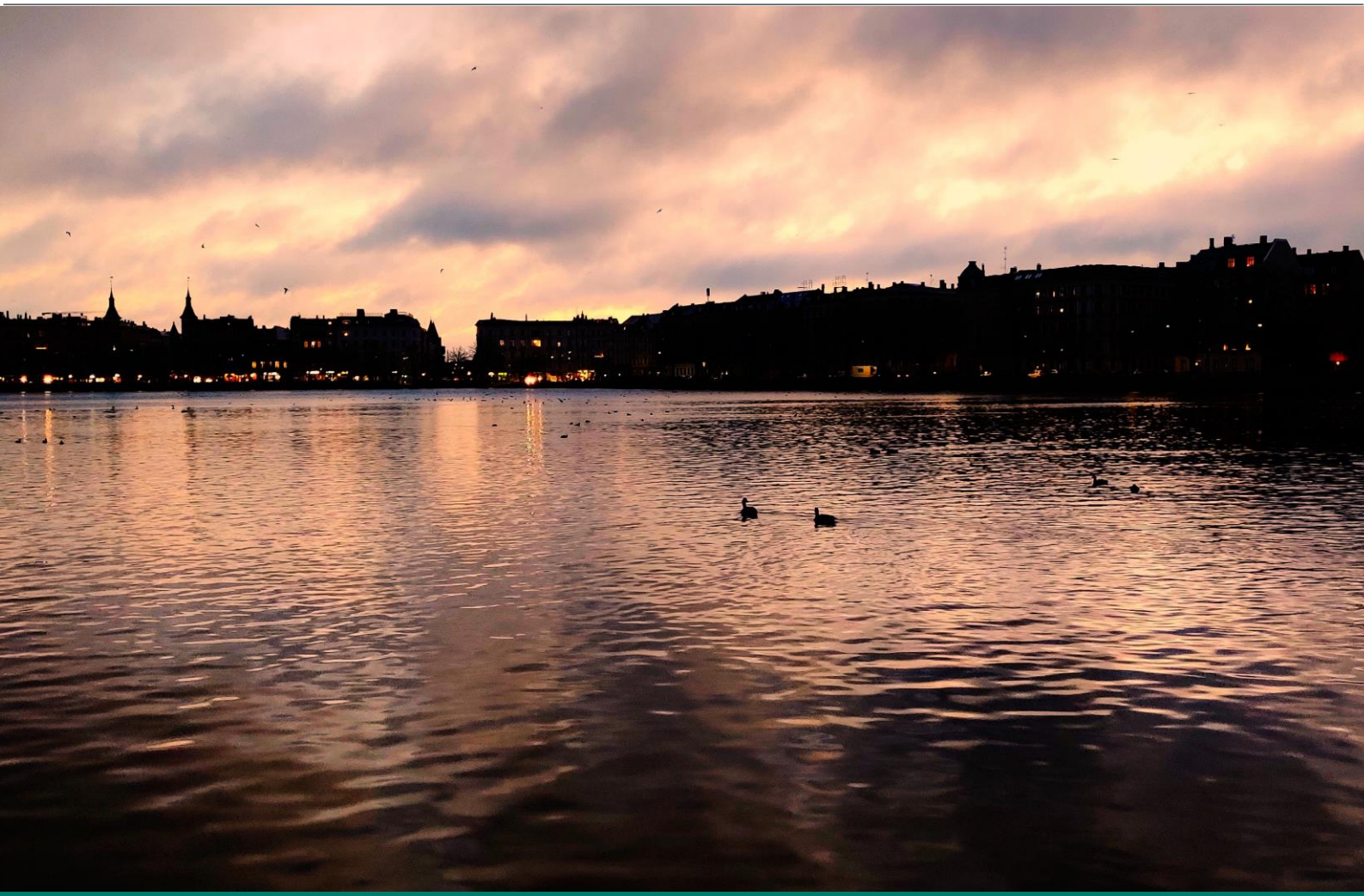
Circular economy country profile – Spain



European Environment Agency
European Topic Centre
Circular economy and resource use

Cover design: EEA
Cover image © Peder Jensen
Layout: ETC CE

Publication Date

EEA activity Circular economy and resource use

ETC CE coordinator: Vlaamse Instelling voor Technologisch Onderzoek (VITO)

ETC CE partners: Banson Editorial and Communications Ltd, česká informační agentura životního prostředí (CENIA), Collaborating Centre on Sustainable Consumption and Production (CSCP), Istituto Di Ricerca Sulla Crescita Economica Sostenibile, Istituto Superiore per la Protezione e la Ricerca Ambientale, IVL Swedish Environmental Research Institute, PlanMiljø, Università Degli Studi Di Ferrara (SEEDS), German Environment Agency (UBA), Teknologian Tutkimuskeskus VTT oy, Wuppertal Institut für Klima, Umwelt, Energie gGmbH, World Resources Forum Association.

European Topic Centre on
Circular economy and resource use
https://www.eionet.europa.eu/etcs/etc-ce

Contents

Introduction

The European Commission requested the EEA to produce EU country profiles that offer an updated view of the following elements:

- circular economy policies being implemented at a national level with a particular focus on elements that go beyond EU mandatory elements; and
- best practice with a focus on policy innovation.

While implementing the EU Circular Economy Action Plan (CEAP 2020), Member States are encouraged to advance circularity at a national level by adopting policies and initiatives that go beyond EU regulations, while preserving the Single Market.

This circular economy country profile is based on information reported by the Eionet network and, in particular, the Eionet Group on Circular Economy and Resource Use in the second quarter of 2022. The information was reviewed and edited by the European Topic Centre on Circular economy and resource use (ETC CE). A selection of Eurostat data was made to further complement this country profile.

The information is current as of 5 October 2022 (final review), when members of Eionet verified the content of this profile.

Spain – facts and figures

GDP: EUR 1 122.0 billion (8.4 % of EU27 total in 2020)

GDP per person: EUR 23 690 (purchasing power standard) (84.3 % of EU27 average per person figure in 2020)

Use of materials (domestic material consumption (DMC))
424.8 million tonnes DMC (7.1 % of EU27 total in 2020)
9.0 tonnes DMC per person (66.6 % of EU27 average per person in 2020)

Structure of the economy:
Agriculture: 3.4 %
Industry: 22.3 %
Services: 74.2 %

Employment in circular sectors:
399 028 people are employed in circular economy (CE) sectors (11.3 % of EU total in 2018)
People employed expressed as a percentage of total employment: 2.0 % (EU average 1.7 %)

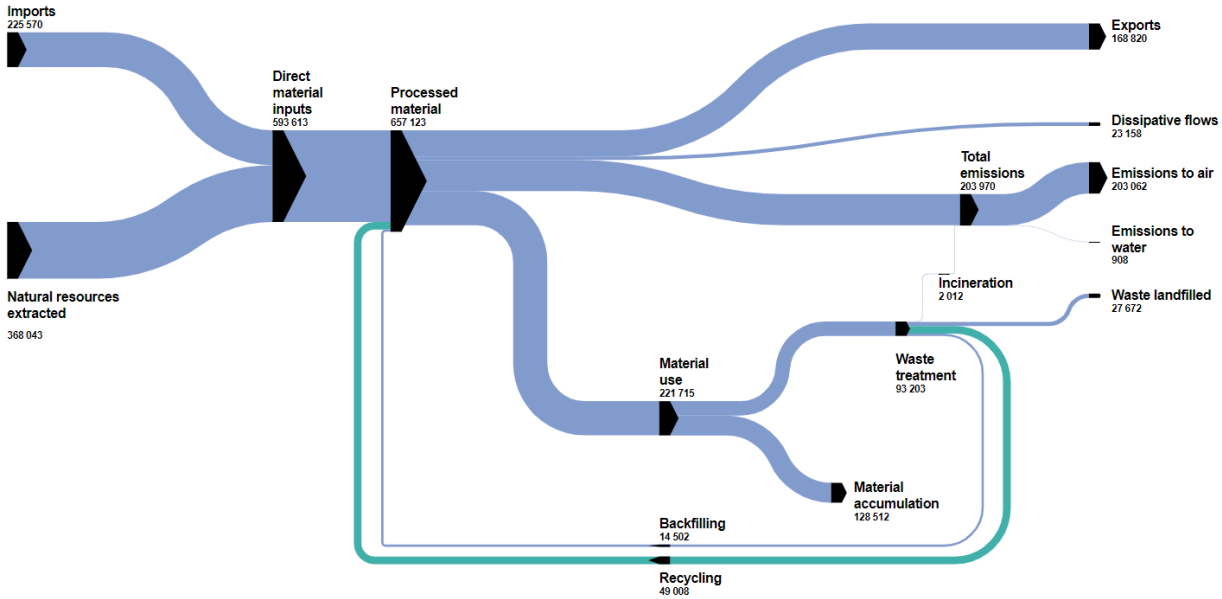
Surface area: 505 944 square kilometres (11.3 % of EU27 total)

Population: 47 332 614 (10.6 % of EU27 total in 2020)

Note: all definitions and metadata used in this profile are taken, as shown, from Eurostat

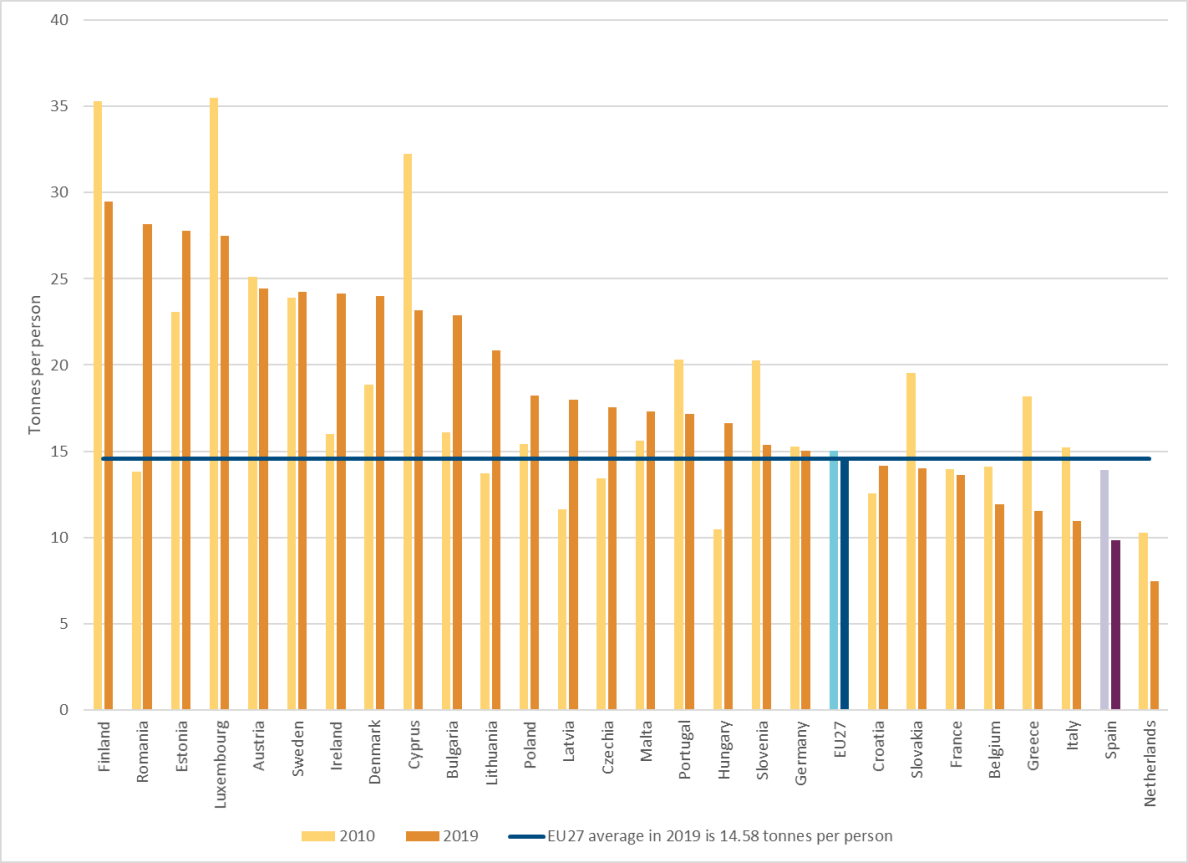
Source: Eurostat datasets, EU27 2020 (accessed 20 June 2022)

Figure 1 Material flow diagram for Spain in 2020, '000 tonnes



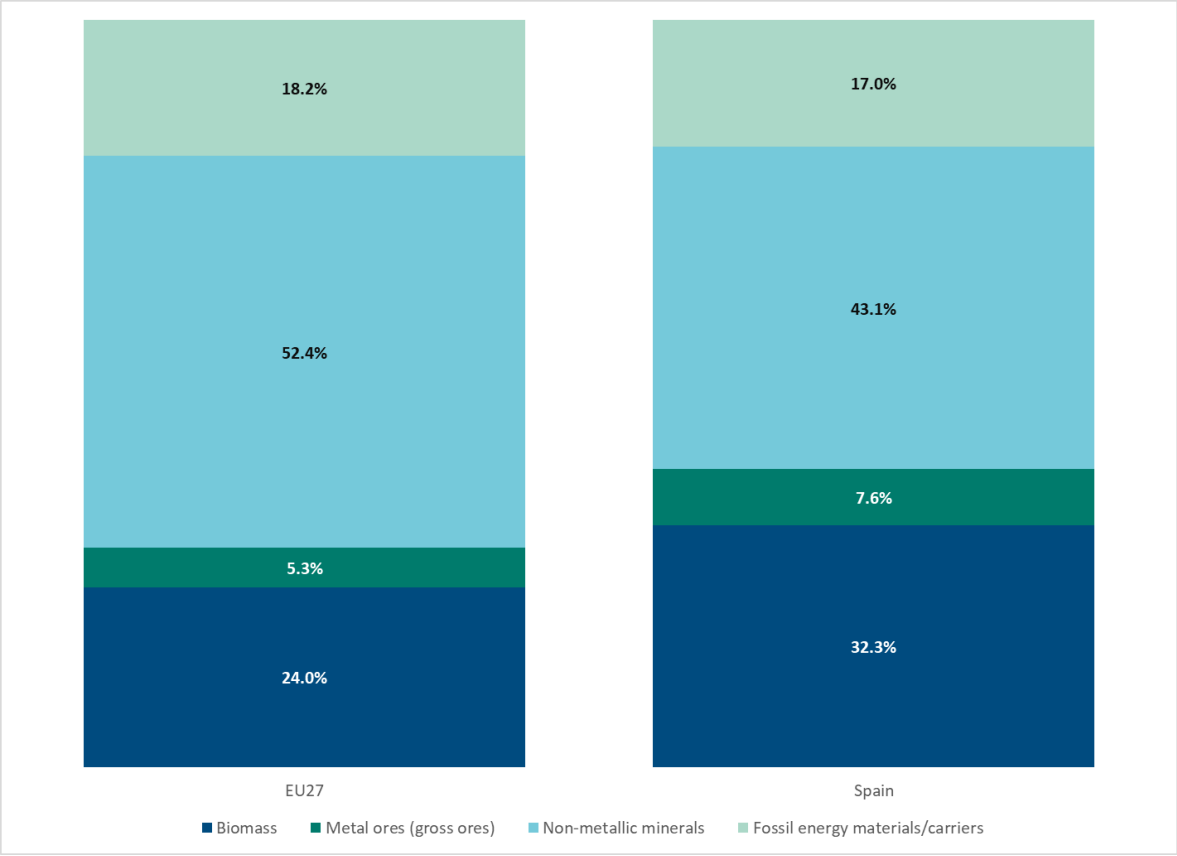
Source: Eurostat (2022) [env_ac_mfa], [en_ac_sd], [env_wassd] (accessed 20 June 2022)

Figure 2 Material footprint (raw material consumption), EU27, 2010 and 2019, tonnes per person



Source: Eurostat (2020) [env_ac_rme] (accessed 4 July 2020)

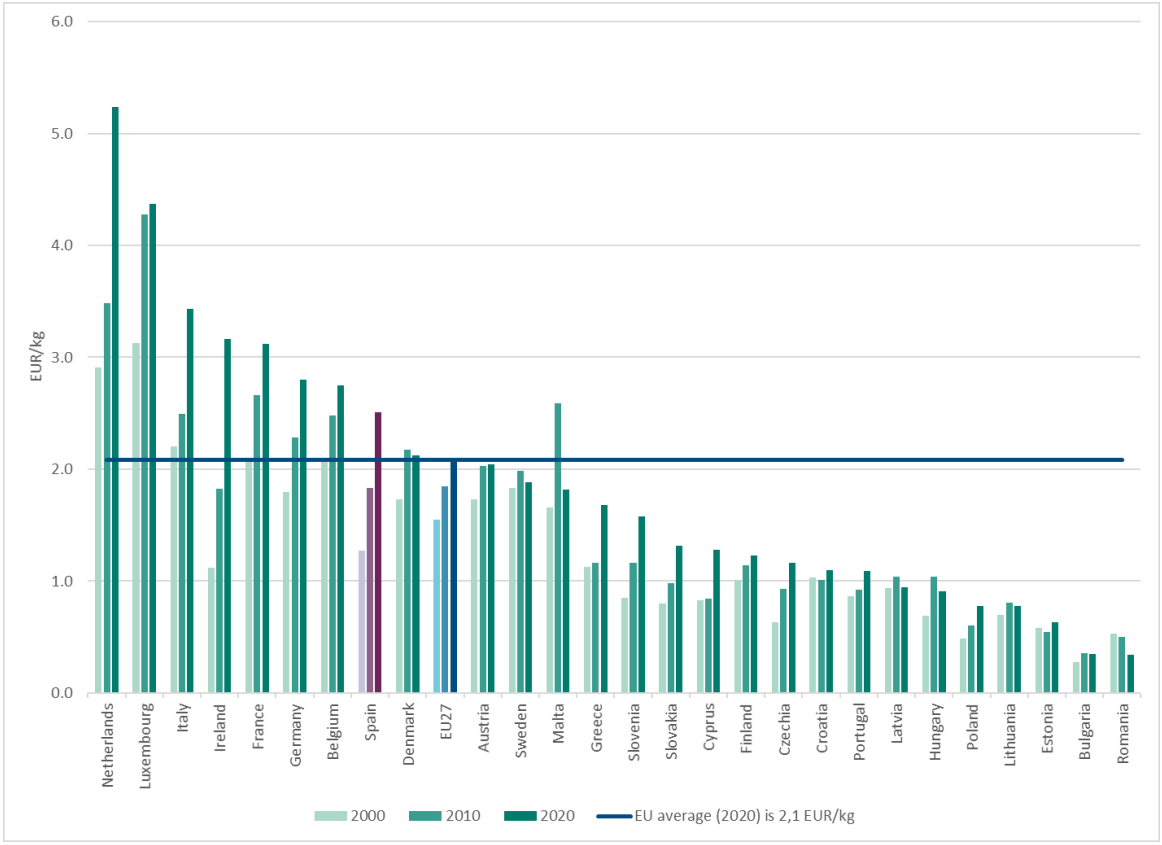
Figure 3 Domestic material consumption by selected material category, EU27 and Spain, 2020, per cent



Note: totals may not sum to 100 % due to rounding

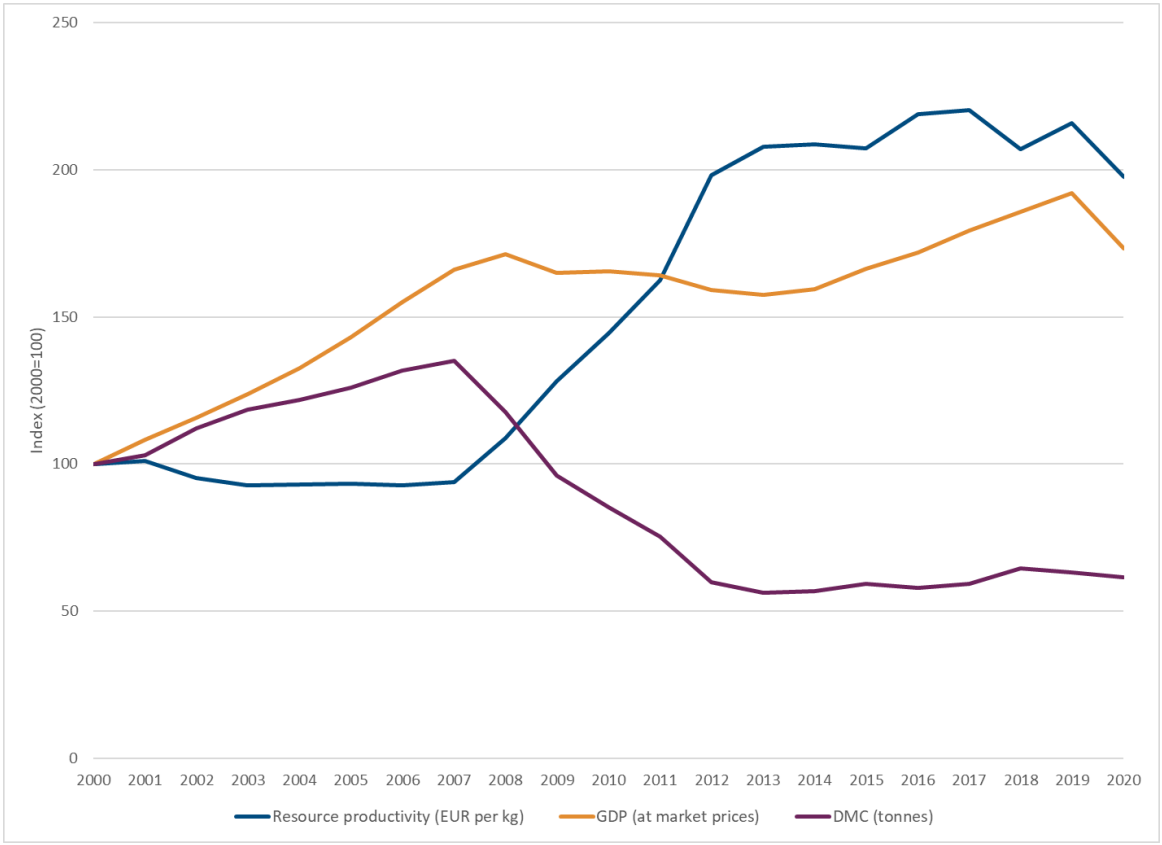
Source: Eurostat (2022) [env_ac_mfa] (accessed 20 June 2022)

Figure 4 Resource productivity (gross domestic product/domestic material consumption), EU27, 2000, 2010 and 2020, EUR per kilogram



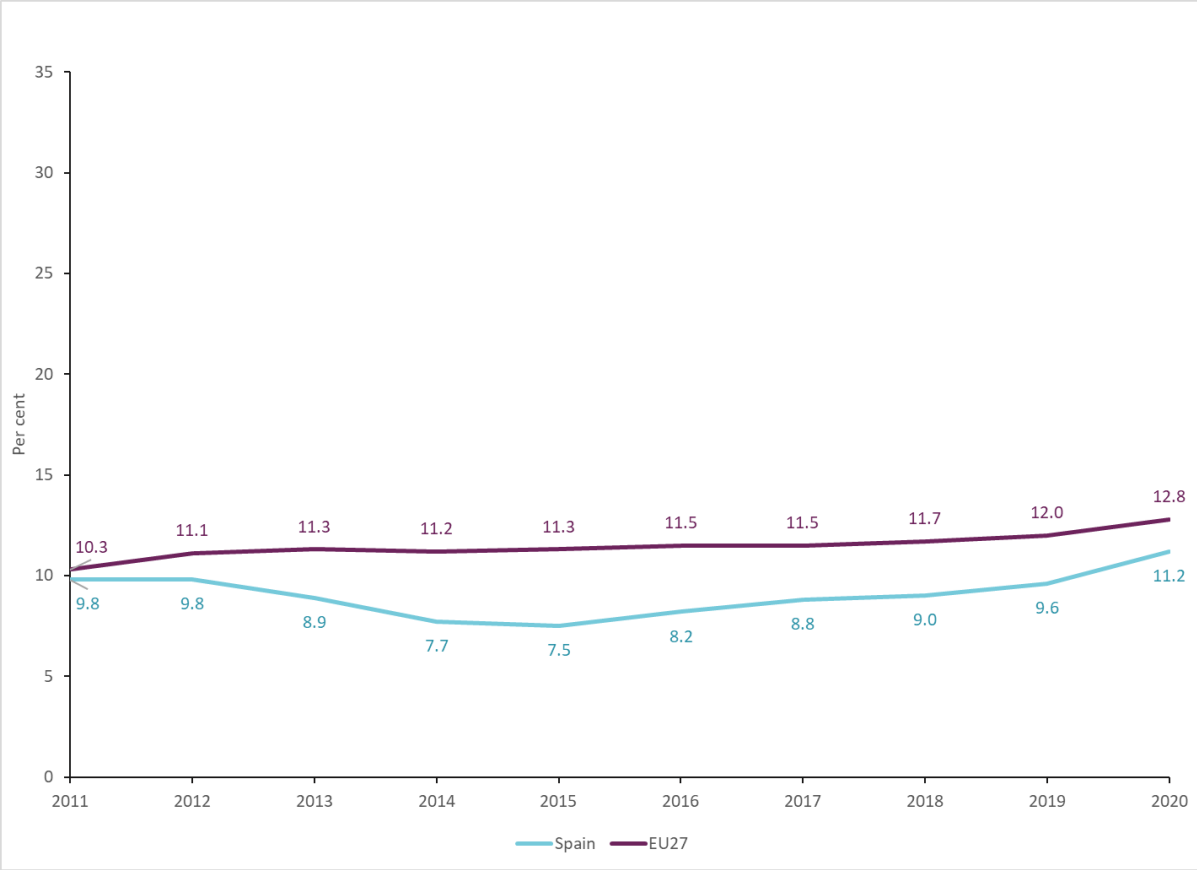
Source: Eurostat (2022) [env_ac_rp] (accessed 20 June 2022)

Figure 5 Gross domestic product, domestic material consumption and resource productivity trends, Spain, 2000–2020, index (2000=100)



Source: Eurostat [env_ac_mfa], [env_ac_rp] & [nama_10_gdp] (accessed 4 July 2022)

Figure 6 Circular material use rate in Spain, 2011–2020, per cent



Source: Eurostat (2022) [env_ac_cur] (accessed 20 June 2022)

Existing policy framework

Dedicated strategy, roadmap or action plan for circular economy

In June 2020, the **Spanish Circular Economy Strategy** (*España Circular 2030*) ([1]) was approved. *España Circular 2030* establishes the basis for the promotion of a new production and consumption model, in which the value of products, materials and resources are maintained within the economy for as long as possible, with minimal waste and reusing as much of the waste as possible. This strategy contributes to Spain's efforts to achieve a sustainable, decarbonised economy, which uses resources efficiently and is competitive. The strategy will be introduced in successive triennial action plans. *España Circular 2030* is aligned with the objectives of the EU's 2015 and 2020 Circular Economy Action Plans (CEAPs), as well as with the European Green Deal and the United Nations 2030 Agenda for Sustainable Development.

The Spanish Strategy includes an analysis of the current context and a long-term vision, incorporating lines of action, objectives for 2030 and the identification of the **six priority sectors** in which progress must be made: construction; farming, fishing, and forestry; industry; consumer goods; tourism; and textiles and the garment sector. Likewise, a series of indicators are included to assess progress, which correspond to those selected by European Commission in the EU CE Monitoring Framework, to which a least one, regarding the contribution of the waste sector to the emission of greenhouse gases, has been added.

Additionally, the development of the Strategy and achieving its objectives should lead to the meeting of a series of quantifiable goals by the end of the decade. The Strategy has, therefore, established the following **goals for year 2030**.

- Reducing DMC relative to national gross domestic product (GDP) by 30 %, relative to 2010.
- Reducing waste by 15 %.
- Reducing food waste throughout the entire food chain: 50 % reduction per person in retail and households and 20 % in production chains and supplies relative to 2020, thus advancing towards the Sustainable Development Goal (SDGs).
- Promoting reuse and reuse-enabling activities until 10 % of municipal waste is reused.
- Reducing greenhouse gas emissions to less than 10 million tonnes of carbon dioxide equivalent.
- Improving water use efficiency by 10 %.

To analyse its evolution, the Spanish Strategy proposes a governance model made up of three bodies that will allow the perspective of the different administrations involved to be incorporated, so that a complete and transversal vision is maintained in the sectoral policies involved, as well as that of the social agents and economic and other sectors.
The Spanish Strategy will be achieved with the approval of three-year action plans that will make it possible to incorporate the necessary adjustments to complete the transition by 2030 having approved the first Circular Economy Action Plan in 2021, which will run until December 2023.

Circular Economy Action Plan I

Spain adopted its **Circular Economy Action Plan I (2021–2023)** ([2]) on 25 May 2021, with a budget of EUR 1 529.47 million to develop its 116 measures. These measures form a coordinated and complementary response from all administrations to achieve the objectives defined for the year 2030 and to maintain coherence with the initiatives and policies undertaken at EU level.

Within the framework of the criteria set out in the Spanish Circular Economy Strategy, which in turn takes as a reference the axes defined in the European Commission's first CEAP, the Plan is **divided into five axes**

---

1 España Circular 2030 (in Spanish), Executive summary (in English)

2 https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/plan_accion_eco_circular_def_nipo_tcm30-529618.pdf (in Spanish)

and three lines of action to be developed through policies and instruments that impact on the CE. In turn, within each of the axes and lines of action, measures are grouped to respond to the most significant concerns of the CE.

The first axis, **production**, seeks to promote the design/redesign of processes and products to optimise the use of non-renewable natural resources in production, encouraging the incorporation of secondary raw materials and minimising the incorporation of harmful substances, with a view to obtaining products that are more easily recyclable and repairable, redirecting the economy towards more sustainable and efficient modes through plans or aid that encourages this.

The second axis is dedicated to **consumption** and, therefore, focusses on improving product labelling, to provide more detailed product information to help reduce ecological footprints. This will also encourage changes in consumption patterns, leading customers to select quality products and change their habits towards more responsible consumption that avoids waste and non-renewable raw materials. The public sector will also incorporate these parameters into its public procurement policy, including circularity criteria in all purchasing procedures.

The third axis concerns **waste management**, which is of great importance to achieving the objectives set by the EU. The main points addressed in this axis focus on the effective implementation of the waste hierarchy principle, substantially favouring waste prevention (reduction), and preparation for reuse and recycling. These activities will be reinforced through a thorough legislative review and through the development of plans and programmes along these lines.

The next axis focusses on **secondary raw materials**, the reintroduction of these materials into the production cycle being one of the pillars of the CE, as it guarantees the protection of the environment and human health by reducing the use of non-renewable natural resources and reincorporating materials contained in waste into the production cycle as secondary raw materials. The Ministry for Ecological Transition and Demographic Challenge (MITERD, previously MITECO) will draw up a study to measure the impact resulting from the application of the ministerial orders on by-products and end-of-waste criteria approved by the State Administration.

The last axis is dedicated to **water purification and reuse**, which aims to promote the efficient use of water resources, making it possible to reconcile the protection of the quality and quantity of bodies of water with their sustainable and innovative use. To this end, a series of activities are proposed to support irrigation using reclaimed water, improve information on water uses for better planning, including water reuse among the available volumes, and review the regulatory framework for water reuse.

From a more intersectoral approach, three additional action lines are included.

- **Research, innovation and competitiveness**, focussed on boosting the development and application of new knowledge and technologies to promote innovation in processes, products, services and business models; promoting public-private collaboration; training researchers and research, development and innovation (RD&I) personnel and encouraging business investment in RD&I.
- **Awareness-raising and participation**, the aim of which is to encourage the involvement of economic and social agents in general, and citizens in particular, to raise awareness of current environmental, economic and technological challenges, and of the need for wide application of the waste hierarchy principle.
- **Employment and training**, based on promoting the creation of new jobs, and the improvement of existing ones, within the framework offered by the CE.

The evaluation and monitoring of the Action Plan is carried out in two different indicator frameworks. Firstly, the evaluation and monitoring of progress on the five axes and three action lines by whole of

society. This will be carried out on the basis of a series of indicators included in Annex I, which provide quantitative information on progress in each axis and action line, based on the database of the National Statistics Institute (INE) and official registers (see Annex). Secondly, in the case of the 116 measures included in the Action Plan, monitoring will be carried out by means of indicators that measure the execution of action taken by the National Administration. The information is available in Annex II of the Action Plan. An unfinished mid-term assessment of these 116 measures is currently under way –they will be classified as fully or partially implemented, or as measures for which there is no up-to-date information'. This assessment will be finalized by 2023.

Regional circular economy strategies and action plans

In accordance with Article 12.4. a) of Law 7/2022, of 8 April 2022 on waste and contaminated soils for a CE, the autonomous communities (regional governments) are empowered to develop CE strategies, although it is not mandatory. Within this framework, several autonomous communities have developed their own CE or bioeconomy strategies in which a CE perspective is incorporated. As a result, 13 regional CE strategies and action plan have been approved – some regions have more than one strategy – and four regional laws are in place or are being processed. Some relevant examples are provided below.

- The **Andalusian** Circular Bioeconomy Strategy ([3]) was approved in September 2018 and has a budget of more than EUR 1 427 million to launch and develop bioeconomy activities with a time horizon of 2030. It focuses on the following sectors: agriculture, forestry, fishing and their related industries, in addition to the chemical, biotechnological and energy industries.
- The strategic objectives of the 2020 **Aragon** Circular Economy Strategy 2030 ([4]) include the following: encourage economic activities and the generation of employment in the CE; promote the CE as a strategic economic sector and a driver of economic and social development; promote entrepreneurship in new activity niches derived from the CE, as well as intra-entrepreneurship in existing innovative companies; and recognise and enhance leading companies in the transition to the new economic model.
- In 2020, the **Basque Country Region** has adopted the Euskadi Circular Economy Strategy 2030 ([5]). This establishes three strategic objectives to be achieved by 2030: an increase in material productivity by 30 %; an increase the rate of circular material use (CMU) by 30 % and a reduction in the rate of waste generation per unit of GDP by 30 %. Two complementary objectives arise from this last objective: halving the generation of food waste and making 100 % of plastic packaging recyclable. These objectives give rise to 10 action lines, grouped around four areas of action – production; consumption; management of waste and secondary raw materials; and competitiveness and innovation.
- The **Canary Islands** Circular Economy Strategy 2021–2030 ([6]) was adopted in 2021. It will be implemented through subsequent action plans and may be complemented and developed by insular or municipal strategies. In addition to the most common sectors addressed by circular economy strategies, it includes tourism, transport, and trade.

---

3 https://www.bioeconomiaandalucia.es/documents/1056091/1056698/Estrategia+Andaluza+Bioeconomia+Circular+%5BEABC%5D+%5B18.09.2018%5D/e0b87df0-73a8-43f2-ba9d-da0ad9b312e9 (in Spanish)

4 https://aragoncircular.es/aragon-circular-2030/ (in Spanish)

5 https://www.euskadi.eus/contenidos/documentacion/economia_circular/es_def/adjuntos/EstrategiaEconomiaCircular2030.pdf (in Spanish)

6 https://www.gobiernodecanarias.org/cmsweb/export/sites/economia/galeria/Galeria_politica_economica_2/2021-07-ECEC_resumen-ejecutivo-GobCan.pdf (in Spanish)

- In 2019 the Circular Economy Law (Law 7/2019) ([7]) of **Castille-La Mancha** was published, the first legal regulation of its type that was approved in Spain. It was issued with the aim of promoting a more innovative, competitive and sustainable development model in the region. It was followed by the adoption of the Castile-La Mancha Circular Economy Strategy 2021–2030 ([8]), which covers, amongst other things, the areas related to the efficient management of resources, production, consumption, waste and innovation.
- The **Castile and Leon** Circular Economy Strategy 2021–2030 ([9]), approved in 2021, is the reference document to promote the green transition and the CE in this region. It aims at increasing water efficiency, productivity and material recycling; reducing GHG and waste generation; and incorporating CE criteria in public procurement. Among key sectors, it includes agri-food, automotive and components, tourism and heritage.
- **Catalonia**'s Strategy to promote a green and circular economy was adopted in 2015. It aims to align the Catalonian government's competitiveness strategy with European policies and to make visible efforts made in the field of a green and circular economy. Catalonia also adopted an Eco-design Strategy for a circular and innovative economy ([10]) in 2014 and a Bioeconomy Strategy 2030 ([11]) in 2021 that aims to achieve a circular bioeconomy.
- **Extremadura Region**: the Green and Circular Economy Action Plan ([12]), which is part of the Green and Circular Economy Strategy Extremadura 2030, includes functional objectives related to seven thematic lines – green and circular economy, climate change and sustainability; energy, water and waste; productive resources and economic sectors; science, technology and innovation; sustainable municipalities and territories; employment, entrepreneurship and investment; and citizenship – as well as three transversal lines –participation, training and research.
- **Galicia**: the Circular Economy Strategy 2019–2030 ([13]), issued in 2019, sets eight action lines – eco-design; activities and service models; education and awareness raising; industry; food production; urban planning, building and public works; water cycle management; and waste management – and includes the 2020–2030 Action Plan.
- **Navarra**: the Circular Economy Agenda 2019–2030 ([14]) establishes six general objectives: sustainable and efficient management of natural resources; replacing fossil-based energy with energy generated from renewable sources; reducing waste generation and increasing its recovery; increasing

---

7 https://www.castillalamancha.es/sites/default/files/documentos/legislacion/20200331/ley_7-2019_economia_circular.pdf (in Spanish)

8 https://www.castillalamancha.es/sites/default/files/documentos/pdf/20210301/estrategia_economia_circular_clm_2030.pdf (in Spanish)

9 https://medioambiente.jcyl.es/web/es/planificacion-indicadores-cartografia/estrategia-economia-circular-2021.html (in Spanish)

10 https://mediambient.gencat.cat/web/.content/home/ambits_dactuacio/empresa_i_produccio_sostenible/estrategia_ecodisseny/contingut/Estrategia-catalana-ecodisseny_Acord-Govern.pdf (in Spanish)

11 https://govern.cat/govern/docs/2021/09/14/13/55/aaec0897-7a0a-42cf-ae89-454b16ca1d70.pdf (in Spanish)
https://mediambient.gencat.cat/es/05_ambits_dactuacio/empresa_i_produccio_sostenible/estrategia_ecodisseny/ (in Spanish)

12 https://extremadura2030.com/wp-content/uploads/2018/05/estrategia2030.pdf?msclkid=140533dfba5b11ecad5fb0f62a5c6349 (in Spanish)

13 https://ficheiros-web.xunta.gal/transparencia/informacion-publica/EGEC_cas.pdf?msclkid=db1df336ba6a11ec917393bdda6df9a8 (in Spanish)

14 https://gobiernoabierto.navarra.es/sites/default/files/3291_anexo_agenda_para_el_desarrollo_de_la_economia_circular.pdf (in Spanish)

responsible consumption in the public and private sectors; extending the culture of sustainability and increasing training; and contributing to sustainability and territorial cohesion.

Following the footsteps of Castile La Mancha, Madrid and Andalusia are working on their own circular economy legal texts.

In addition, CE strategies and action plans have also been approved at the local level, including, for instance, the Valladolid Circular Economy Action Plan 2021–2023 ([15]), the Circular Economy Strategy of the Municipality of Murcia ([16]), and the Spanish Federation of Municipalities and Regions Local Circular Economy Strategy ([17]).

Circular economy policy elements included in other policies

Circular economy policy element	Included in policy
Proposal of several measures aimed at: - saving energy in cities and promoting more energy-efficient cities; - optimising and reducing water consumption; - promoting the materials cycle; - reducing waste and promoting material recovery.	Spanish Urban Agenda
Incorporation of legal criteria related to sustainable production, including waste management.	Green Public Procurement Plan (in Spanish)
Inclusion of some CE measures to support the decarbonisation, such as: - responsible use of energy resources; - promotion of local consumption; - adaptation of infrastructure to efficient and circular consumption systems; - reduction of greenhouse gases.	Long-term decarbonisation strategy (in Spanish)
The Strategic Framework for Energy and Climate includes the draft Bill on Climate Change, the draft of the National Integrated Energy and Climate Plan (PNIEC), and the Just Transition Strategy (ETJ). The ETJ is a support strategy to ensure that people and territories make the most of the opportunities of this ecological transition and therefore focus on promoting job creation in key sectors. For example to: - include CE thinking in building refurbishment plans; - include CE thinking in industrial plans for renewable energy; - include CE thinking in Just Transition Agreements as a priority.	Just Transition Strategy
Increase competitiveness in all areas that contribute to the configuration of a circular socio-economic system that guarantees its innovative capacity, promoting: - multidisciplinary open science;	Spanish Science, Technology and Innovation Strategy 2021–2027 (EECTI) (in Spanish)

15 http://www.valladolidadelante.es/sites/default/files/PLAN%20DE%20ACCI%C3%93N%20DE%20ECONOM%C3%8DA%20CIRCULAR%2021-23.pdf (in Spanish)

16 https://www.estrategiamurcia.es/upload/2021/11/Estrategia-de-Economia-Circular-del-Municipio-de-Murcia_version-web.pdf (in Spanish)

17 http://www.femp.es/sites/default/files/multimedia/estrategia_local_ec_170x240_definitiva_compressed.pdf (in Spanish)

Circular economy policy element	Included in policy
- retaining talent; - symbiosis between the scientific and business fields; - citizen science; - increased investment; - international coordination and collaboration.	
The transition of small and medium-sized enterprises (SMEs) to a sustainable economy is facilitated within the framework of the plans and strategies of Spain and the EU, through the application of action included in the following lines: - environmental information, communication and dissemination; - simplification and application of environmental regulations; - moving towards a CE.	Strategic framework in SMEs policy 2030 (in Spanish)

Furthermore, the **CE Action Plan I includes among its measures the incorporation of the CE in other policies and areas at a national level**, which will allow certain consumption or production behaviour to be modified, opting for more circular models. In particular, 11 ministries are responsible of 116 measures, which boost changes in different policies such as those concerned with economic; research and innovation; industrial; agriculture, fish, food and rural development; water; environment; and training and employment issues. All these measures should be finalised in 2023. Some examples are the More Food, Less Waste Strategy ([18]) and the Biogas Roadmap ([19]).

18 https://menosdesperdicio.es/ (in Spanish)

19 https://energia.gob.es/es-es/Novedades/Documents/00HR_Biogas_V6.pdf (in Spanish)

Monitoring and targets

Assessment of circular economy performance

If results obtained in Spain over the last seven years is analysed, **a positive evolution in practically all the indicators of the EU CE Monitoring Framework** ([20]) can be observed. A more in-depth review of these data shows that, in the case of the production and consumption axis, most of the data have evolved favourably, following a similar trend to that observed in the EU as a whole. In the case of the indicator of the generation of municipal waste per person, the data had an upward trend until 2018, after which it decreased according to estimated 2020-year data. The only data that have not developed so favourably are those related to the generation of packaging and plastic packaging waste, due to the general increase in consumption, mainly in wood packaging, followed by plastic packaging.

The waste management axis is the one that has experienced the best performance, as all indicators show an improvement. It seems especially relevant to highlight the excellent results of the recycling of biowaste indicator, since it has evolved from 53 kilograms per person (kg/person) in 2015 to 80 kg/person estimated in 2020.

Another axis that has shown great results concerns secondary raw materials. A favourable evolution has been observed in all its indicators, with particular emphasis on the data on the CMU rate, as its value has risen by almost four percentage points between 2015 and 2020, the last year on record.

Finally, the indicators of the competitiveness and innovation axis have also experienced a favourable evolution, showing an increasing number of private investments, jobs and gross value added related to CE sectors (i.e. the recycling sector and repair and reuse sector). In the case of the number of patents related to recycling and secondary raw materials, there have been oscillations in the data, as they peaked in 2016 at 30.29, while in the following years the data have fluctuated around 17.

Although the Spanish data are still sometimes below the European average on some occasions, a positive trend has been observed in the last seven years. This may be due to the **application of specific legislation on waste**, such as Law 22/2011 of 28 July 2011 on waste and contaminated soil (recently repealed by Law 7/2022 of 8 April on waste and contaminated soils for a CE), and to the implementation of **specific programmes**, such as the National Integrated Waste Plan for 2008–2015 and the State Framework Plan for Waste Management (2016–2022). It is also expected that more progress will be made as a result of further legal changes and present and future medium- and long-term economic incentives which are planned in the CE Action Plan.

In the case of the recycling rate of e-waste indicator, the improvement is linked to the approval of Royal Decree 110/2015, of 20 February 2015, on waste electrical and electronic equipment (WEEE), since from 2015 the data has been progressively improving. On the other hand, the indicator on the generation of packaging waste per person remains lower than the European average and has evolved favourably due to the existence of the Royal Decree 782/1998, of 30 April 1998, approving the Regulation for the Development and Execution of Law 11/1997, of 24 April 1997, on Packaging and Packaging Waste, and the various programmes on waste mentioned above. Work is now being carried out on new legislation in this area, to incorporate the new European regulations, including the 2035 targets.

Additionally, Spain continues to make strong efforts to improve other specific waste streams, such as biowaste, which are significant for reducing greenhouse gas emissions and improving recycling rates. Indeed, Spain has anticipated the separate collection obligation for organic waste and continues to maintain specific aid to improve the management of this waste through different Ministry's programmes

20 https://ec.europa.eu/eurostat/web/circular-economy/indicators/monitoring-framework

such as the PIMA waste (Environmental Promotion Plan) ([21]), the Recovery and Resilience Mechanism funds for implementing the waste policy and the funds allocated to waste management (600 M€) in the National Recovery and Resilience Plan. There are also new provisions for reducing the generation of food waste in the new Waste Law.

Finally, the CMU rate indicator has gradually increased due to specific measures such as the approval of the Spanish Circular Economy Strategy and the Circular Economy Action Plan for 2021–2023. For some indicators, such as that for the generation of municipal waste per person, a gradual increase can be observed to 2018, similar to the EU, but since then Spanish volumes have diminished while they have continued to rise in the EU. This suggests that the effects of implementing the Strategy are starting to be seen in terms of the generation of waste.

Circular economy monitoring frameworks and their indicators beyond the ones from Eurostat

The **Spanish Circular Economy Strategy has established** the European monitoring and evaluation mechanisms and **indicators** as its indicator scheme. It additionally incorporates an indicator related to greenhouse gas emissions as the CE contributes to a reduction in greenhouse gas emissions, particularly methane, through the reduction, proper management and treatment of waste, especially by increasing the biological treatment of bio-waste. As this will contribute to a reduction in landfilled waste, it is included as an indicator of total carbon dioxide equivalent emissions in the waste sector from the National Greenhouse Gas Inventory.

The Spanish Circular Economy Strategy stipulates that its corresponding action plans must be based on five axes and three lines of action, for the monitoring of which several indicators have been established to provide quantitative information on the progress in each axis. These **indicators of progress of the Circular Economy Action Plan I,** included in its Annex I ([22]), have been selected among those provided in the Spanish Circular Economy Strategy itself, those available in the database of the National Statistics Institute (INE) and in other official sectoral statistics or registers, taking into account both their ease of use and robustness, as well as their representativeness in respect of the corresponding axis or line of action. The definition of these indicators may, however, be subject to adaptation as the availability of relevant information expands and they respond to the Bellagio Principles ([23]).

There is also a second type of indicator in the Circular Economy Action Plan I related to the degree of execution of the measures. This system is based on the use of result indicators, which will correspond to compliance targets for each of the measures included in the Action Plan (see Annex II of the Plan). These are, therefore, result indicators that measure the execution of the actions undertaken by the General State Administration.

All these indicators make it possible to evaluate the progress of society and the economy in moving towards a sustainable and circular economic model. Subsequently, through the evaluation process, the real impacts of the Action Plan will be compared to the objectives committed to in the Spanish Circular Economy Strategy, so that the necessary action can be adopted in the next action plans based on the results obtained. In the impact assessment, work will also be done on a methodology to estimate the contribution of the different measures of the Action Plan to the transition to a low-carbon economy.

---

21 https://www.miteco.gob.es/es/cambio-climatico/planes-y-estrategias/ficha_pima_tcm30-70351.pdf (in Spanish); https://www.miteco.gob.es/es/cambio-climatico/planes-y-estrategias/PIMAS.aspx (in Spanish)

22 https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/plan_accion_eco_circular_def_nipo_tcm30-529618.pdf (in Spanish). Please note that some of the data provided by the link have not been updated.

23 https://circulareconomy.europa.eu/platform/en/measuring-circular-economy/monitoring-progress-europes-circular-economy-bellagio-process

Subsequently, and as soon as it is finalised, the climate change mitigation potential of the Action Plan will be published.

A list of the indicators referred to in Annex I of the Action Plan, corresponding to each axis and the most updated value of the indicator (years 2019–2021) is provided by the Annex of this profile.

Circular economy targets

- **Waste prevention targets**
  - By 2025, a reduction target of 13 % by weight compared to waste generated in 2010.
  - By 2030, a reduction of 15 % by weight compared to waste generated in 2010.
- **Waste management targets**
  - Within the objectives set in the Waste Framework Directive (WFD) for the preparation for reuse and recycling of the municipal waste generated (50 % by 2020, 55 % by 2025, 60 % by 2030 and 65 % by 2035), a specific target has been established for reuse (at least 2 % by 2020, 5 % by 2025, 10 % by 2030 and 15 % by 2035).
  - A more ambitious calendar has been set for the compulsory separate collection of biowaste than that established in the WFD: the date has been set for 30 June 2022 for municipalities with more than 5 000 inhabitants. Two new streams are included in the obligation: used cooking oils and bulky waste must be separately collected by 31 December 2024.
- **Single-use plastic product targets**
  - Measures for non-compostable plastic products not included in single-use plastic legislation, single-dose articles used, for example, by the hotel, restaurant and cafe sector, plastic neck rings and plastic sticks, have been established for their reduction and replacement by other materials in order to harmonise regional measures.
  - A ban on the placing of products containing microplastics on the market from July 2021.
  - New separate collection targets for plastic bottles relative to annual placings on the market: 70 % by weight by 2023 and 85 % by 2027. Non-compliance could lead to the establishment of a compulsory deposit-return scheme.

Innovative approaches and good practice

Examples of public policy initiatives (national, regional or local)

➔ *Good practice example: public-private partnerships to share information about CE and create networks*

Instruments are being implemented to promote public-private collaboration. The objective is to address environmental, economic and technological challenges and, at the same time, to take advantage of the opportunities arising from the paradigm shift in economic and social growth in the transition to a CE, in a coordinated and joint way.

Catalogue of Best Practice in Circular Economy

The purpose of the Catalogue of Best Practice in Circular Economy (CBPEC) is, primarily, to create a forum for the productive, public, business, industrial and research sectors, as well as all organisations and associations committed to the environment and sustainable development, to enable the exchange of best practice, and putting the different entities in contact with each other to build a network that strengthens value chains and systems by contacting suppliers and customers who work with the same CE criteria.

The objectives of the catalogue are to:

- serve as a vehicle for the dissemination of good CE practice;
- facilitate collaboration between different agents in the value chain;
- promote the adoption of good CE practice by different agents;
- illustrate Spain's progress in the transition to a CE;
- integrate global value chains and systems, favouring the search for commercial partners.

This catalogue, therefore, is an instrument that identifies examples of good practice, which can be transferable and scalable to others, in Spain. Prior to this, the criteria that cover and define good practice had been developed, the most relevant documentation for which has been taken as a reference framework. Special consideration has been given to the definition contained in Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment, which, for the first time, defines the CE and its limits in a regulatory document.

The first call, which received more than 270 CE activities, was carried out during 2020. From among these, and based on previously established criteria, a total of 42 example CE best practices were selected and published in the first Catalogue of Best Practice in Circular Economy, making them available to companies and the interested public in order to facilitate their replicability. After all revisions were completed, the **first Catalogue** was published by the Ministry of Ecological Transition and Demographic Challenge in March 2021 ([24]).

The second call was held during 2021 and received more than 160 responses. Among them, and in the same way as the previous one, a total of 46 example CE best practices were selected and became part of the second Catalogue, which was published by the Ministry of Ecological Transition and Demographic Challenge in February 2022 ([25]).

These Catalogues are very important for assessing the degree of implementation of the CE in Spain, as the number of best practices has been included as an indicator of Measure 6.1.5 of the CE Action Plan I.

---

24 https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/fichas-bpec-i-en-web_def_tcm30-525011.pdf

25 https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/fichas-bpec-ii_en-web_def2_tcm30-538142.pdf

The **third edition of the Best Practice Catalogue**, which will be made up of action that is currently being implemented and can demonstrate results and viability, is currently in preparation. It will include, as a new, circular economy activities that are in a pilot phase or under development and, therefore, cannot yet provide final results.

Likewise, the General Sub-Directorate for the Circular Economy of the Ministry of Ecological Transition and Demographic Challenge is working on the development of a database of examples of CE activities, in which details all initiatives received that have not been selected in either Catalogue will be made available.

This activity has been widely welcomed by society and private entities. In 2021, the third edition of the Catalogue won the BASF award ([26]) for Best Practice in Circular Economy in Spain in the Best Public Initiative category.

Circular Economy Newsletter

Achieving a truly CE requires the effort and collaboration of all the actors involved in the economic cycle. Thus, public administrations, companies and consumers must cooperate in the search for cross-cutting solutions that facilitate a balanced and fair transition. With the intention of contributing to the dissemination of this process, MITERD has created the Circular Economy Newsletter, which aims to become a communication and promotional tool for the CE in Spain.

The Newsletter includes the action undertaken by MITERD itself as well as those of other public bodies, together with innovative projects and other relevant information for all sectors interested in the CE. The first Circular Economy Newsletter was published in 2020 and continues today ([27]).

Pact for a Circular Economy

The Pact for Circular Economy ([28]) was created as a tool to achieve the transition to a CE through public-private collaboration, participation and involvement of all economic and social agents and public administrations, taking advantage of the opportunities arising from the shift to a sustainable economic and social growth. All signatories commit to promote the transition to a CE through action quite similar to Spanish Circular Economy Strategy strategic guidelines.

Since September 2017, with the celebration of the Spanish Circular Economy Strategy Debate Day, a total of 391 entities have signed the Pact. Among them are national business associations reflecting the interest in CE from productive sector. The signatories commit to sending indicators chosen by the entities themselves that make it possible to determine the degree of implementation of the CE over the years. The number of signatories of the Circular Economy Pact is reflected in the CE Action Plan I as an indicator of Measure 6.

To evaluate the degree of involvement of all the members, a **monitoring report** ([29]) has been developed, which shows the evolution of the indicators provided by members and the degree of their involvement in the CE. This report showed that 45.4 % of the members meet the Statistical Classification of Economic Activities in the European Community (NACE) code 94 on associative activities, which is a representation of the business and social network of Spain. In the first monitoring process, only 137 of the 359 members sent in their indicators, a minimum of four were asked for from each member, resulting in a total of 563

---

26 https://www.basf.com/es/es/media/news-releases/2021/la-tercera-edicion-de-los-premios-basf-reconoce-los-nuevos-lider.html (in Spanish)

27 https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/Boletin-de-Economia-Circular/ (in Spanish)

28 https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/210316pactoecdef_tcm30-425902.pdf (in Spanish)

29 https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/iinformedeindicadores2017-2019_tcm30-510491.pdf (in Spanish)

indicators, an average of 4.11 indicators per member. Members were free to choose what indicators to use. The 516 indicators sent in by the Pact's signatories were classified into eight groups, allowing an analysis of which indicators created the most interest – 139 were raw materials indicators, 129 on waste and byproducts indicators, 75 on collaboration and training, 52 on transparency and information, 47 on improvement and innovation, 44 on dissemination and awareness raising, 17 on lifecycles and eco-design and 13 on sustainable consumption. Good examples include the indicators for calculating the carbon footprint of products – kilograms of carbon dioxide emitted per product; those referring to the prevention of waste and its correct management – the volume of waste recovered relative to the volume generated; the number of more sustainable products placed on the market relative to the total; and turnover linked to the CE as a percentage of total turnover.

➔ *Good practice example: legislation supporting the transition to a circular economy*

At the national level, **Law 7/2022, of April 8, on waste and contaminated soils for a circular economy** ([30]) was recently approved. This makes use of fiscal measures that incentivize the CE in the field of waste. With the new law, a tax on this type of treatment has been created. A **tax on waste destined for landfilling or incineration** is already in force in several Regional Administrations. Article 84, however, extends these instruments to the entire country. Specifically, the law states:

"1. The tax on the deposit of waste in landfills, incineration and co-incineration of waste is an indirect tax levied on the delivery of waste to landfills, incineration or co-incineration facilities for disposal or energy recovery.
2. The purpose of the tax is to promote prevention, preparation for reuse and recycling of waste, with the organic fraction as the preferred fraction and environmental education, in order to discourage the deposit of waste in landfills, incineration and co-incineration".

With the Waste Law, it is also obligatory from now on to **use recycled material in consumer goods**, with the aim of prioritising the waste hierarchy so as to reduce environmental impacts and the impacts on human health throughout these products' lifecycles

Art. 37. 1. Obligations of the producer of the product
"a) To this end, they may be obliged to develop, produce, label, market and distribute products and product components suitable for multiple uses, containing recycled materials, which are technically durable, upgradeable and easily repairable (...)."

In addition, a special **tax on non-reusable plastic packaging** has also been established. Article 67 of the Waste Law states:
"1. The special tax on non-reusable plastic packaging is a tax of an indirect nature which is levied on the use, in the territory of application of the tax, of non-reusable packaging containing plastic, whether it is presented empty, or whether it is presented containing, protecting, handling, distributing and presenting goods.
2. The purpose of the tax is to promote the prevention of the generation of non-reusable plastic packaging waste, as well as to promote the recycling of plastic waste, contributing to the circularity of this material".

Law 7/2022 also includes provisions concerning:
- the review of implementation of the legislation on byproducts and end of waste;
- waste prevention measures for tap water and a ban on the destruction of non-perishable goods;
- food waste;

[30] https://www.boe.es/buscar/pdf/2022/BOE-A-2022-5809-consolidado.pdf (in Spanish; an English version will be available by the end of 2022).

- separate collection obligations for biowaste – from June 2022 this will apply to municipalities with more than 5 000 inhabitants and from 1 January 2024 for municipalities with fewer than 5 000 people; from 1 January 2025 the separate collection obligation will include textiles, hazardous wastes, cooking oil and bulky waste such as furniture;
- recycling targets for municipal waste;
- compulsory specific municipal fees for waste services;
- new taxes on landfilling and incineration and on single-use plastic packaging;
- three years after the adoption of the Law, the extended producer responsibility (EPR) framework regulation will be established and its further development covering new waste streams – textiles, plastics in agriculture and bulky waste.

Other relevant circular economy regulatory initiatives include the following: Royal Decree 208/2022, of 22 March, on financial guarantees for waste ([31]); Royal Decree 760/2021, of 31 August, which approves the quality standard for olive and olive pomace oils ([32]); Royal Decree 553/2020, of 2 June, which regulates the transfer of waste within the territory of the State ([33]); Order TED/426/2020, of 8 May, which establishes the criteria to determine when recovered paper and cardboard intended for the manufacture of paper and cardboard ceases to be waste in accordance with Law 22/2011, of 28 July, on waste and contaminated soil ([34]); Royal Decree 646/2020, of 7 July, which regulates the disposal of waste in landfills ([35]).

➔ *Good practice example: regional and local initiatives*

City of Valladolid

The Innovation and Economic Development Agency of Valladolid's City Council co-financed 61 projects between 2017 and 2018, 22 in 2017 and 39 in 2018 ([36]) within the call for grants for the promotion of the CE. The results of the implementation of these projects include several studies, technical guides, communication action and the development of several prototypes and demonstration projects in areas as diverse as water, energy and waste. Projects that have been beneficiaries of the 2018 call and that will be developed in the coming months have also been presented. All this has led to a meeting between entrepreneurs, companies and non-profit organisations that actively work on the CE in the city, facilitating the exchange of experience and the development of synergies between different projects, generating an ecosystem of innovation, entrepreneurship and dissemination around the CE.

Basque Country region

Within the framework of the Circular Economy Strategy of the Basque Country, the Basque Department of Environment has created the Circular Thinking Initiative ([37]) to promote the CE among the socio-economic agents of region, especially industrial SMEs and large companies. This initiative, in addition to promoting and facilitating the implementation of CE processes by companies, aims to identify actions and practical cases carried out by companies that can serve as an example to other organisations, through the use of the Circular Thinking. Euskadi Towards the Circular Economy brand.

Gavà City

Every year, the City Council of Gavà organises a conference to debate and reflect on the CE with the aim of making this concept a reality in the day-to-day life of cities ([38]). Under the title For a Circular and

---

31 https://www.boe.es/buscar/pdf/2022/BOE-A-2022-5142-consolidado.pdf (in Spanish)
32 https://www.boe.es/buscar/pdf/2021/BOE-A-2021-14318-consolidado.pdf (in Spanish)
33 https://www.boe.es/buscar/pdf/2020/BOE-A-2020-6422-consolidado.pdf (in Spanish)
34 https://www.boe.es/buscar/pdf/2020/BOE-A-2020-5208-consolidado.pdf (in Spanish)
35 https://www.boe.es/buscar/pdf/2020/BOE-A-2020-7438-consolidado.pdf (in Spanish)
36 https://www.valladolid.es/es/actualidad/noticias/39-proyectos-economia-circular-ponen-marcha-valladolid-apoy (in Spanish)
37 https://www.ihobe.eus/economia-circular (in Spanish)
38 https://porunaeconomiacircular.es/ (in Spanish)

Competitive Economy, the conference, of which two editions have already been held, is positioning itself as an annual meeting in which different public entities, private companies and experts in the field can share knowledge and good practice related to the implementation of this new economic model in municipalities.

Gijón City

Promoted by the Asturian Federation of Companies and financed by the City Council of Gijón, through the public platform Gijón Impulsa under the call for Incentives to the Business Development Ecosystem 2019, the Guide to Good CE Business Practice ([39]) was developed in 2022 as a vehicle to give continuity to the Gijón Eco-circular project, that was developed throughout 2020. One of the main conclusions of a diagnostic report, prepared in the framework of the Gijón Eco-circular project, was the lack of knowledge and use of all the opportunities offered by the CE by companies in the municipality of Gijón. Based on this, the Guide to Good CE Business Practice was born as an explanatory guide to the specific experience of companies with work centres or areas of influence in the municipality of Gijón, whose activities could serve as a model or reference for other organisations.

Examples of private policy initiatives (sectoral)

In March 2022, the **Spanish Association for Standardisation** (UNE) carried out a **study** that highlights the existence of **standards techniques that support different aspects of the CE ([40])**. The main objective is to raise awareness on the availability of reliable tools in the form of sector-agreed standards for reducing the use of new resources and the generation of waste. The report is aimed at both companies and regulators, who are looking for either national, European or international references when determining, implementing, or validating CE measures. It does not cover all the sectors under the standardisation system, but a representative sample, including plastics, pipes, containers and packaging, end-of-life tires, metallurgy and mining, cement, concrete, roads and asphalt, electrical and electronic products, medical equipment, and tourism.

---

39 https://www.gijonimpulsa.es/gijon-ecocircular-guia-de-buenas-practicas-empresariales/ (in Spanish)

40 The process was developed in stages: 1) Agreement within the Commission of the criteria that were used to determine if a standard should or should not be included in the report. 2) Launching a call to all UNE's standardisation committees to participate in the study. The standardisation committees were asked to propose standards within their domains as candidates to be included in the study. Committees from all the standardization fields were invited to take part. 3) Replies were analysed by UNE's resources, candidate standards were reviewed one by one with the objective of accurately extracting what content in each standard provides support to CE progress. This was a complex process, candidate standards came from many sectors, with very different structures and approaches. Account must be taken of the fact that, in the many cases, consideration was being given to product, processes and system standards that address specific quality or security requirements/properties of product, processes and systems with the CE related content, if present, dispersed as part of the content. The challenge was to identify and properly explain what is the specific value that each of the standards provides to help the implementation of a circular model. A significant number of candidate standards were discarded. Additional standards identified during the analysis of the replies were added. 4) The result of this analysis was confirmed with the standardisation committees participating in the study. 5) The study was disseminated to relevant private and public actors to promote the use of technical standards as a tool to facilitate the implementation and validation of circular economy measures.
https://www.une.org/normalizacion_documentos/Estudio%20de%20la%20contribuci%C3%B3n%20de%20las%20normas%20t%C3%A9cnicas%20a%20la%20econom%C3%ADa%20circular.pdf (in Spanish)

The way forward

Addressing barriers and challenges

Based on the first and second **Catalogues of Best Practice in Circular Economy** ([41]) that have been produced, it is possible to ascertain the main difficulties encountered by companies participating in the Catalogue when carrying out circular economy activities. The catalogue is, however, limited to the companies that submitted initiatives for the two catalogues.

The following are the **main barriers or challenges** collected from both catalogues, bearing in mind that these are not country-specific, but relate to the whole European Single Market.

- Barriers to access to relevant information and applicable assessments.
- Absence of legal standards and definitions.
- Administrative burdens.
- Insufficient cooperation with authorities.
- Lack of circular regulation.
- Harmonization of legislation.
- Lack of or insufficient behavioural change/lack of awareness or cooperation.
- Difficulties in transforming a specific industrial process into a circular one (complex process to make it circular).
- Insufficient recognition of the value of by-products/secondary raw materials.
- Lack of useful applications for recycled materials.
- Insufficient market or consumer demand for circular products and services.
- Lack of circular infrastructure/technical or logistical barriers.
- Lack of incentives.
- Scarcity of secondary raw materials (quantity problems).
- Poor quality of secondary raw materials.
- Insufficient time available to implement the circular processes/strategies (time consuming processes).
- Resistance to change within the organisation itself (organizational structures).
- Barriers to accessing finance.
- High initial investment.
- Low return on investment.
- Price volatility.
- Barriers to transboundary waste shipments.
- Low return on the investment.
- Other.

In order to address the main obstacles and challenges have been encountered in implementing the CE in legislation and policies, **various policy initiatives have been developed**.

- Administrative barriers: new regime to speed up the approval of by-products and end-of-waste status (included in the new Waste Law).

---

41 Catalogue I: https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/fichas-bpec-i-en-web_def_tcm30-525011.pdf
Catalogue II: https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/fichas-bpec-ii_en-web_def2_tcm30-538142.pdf

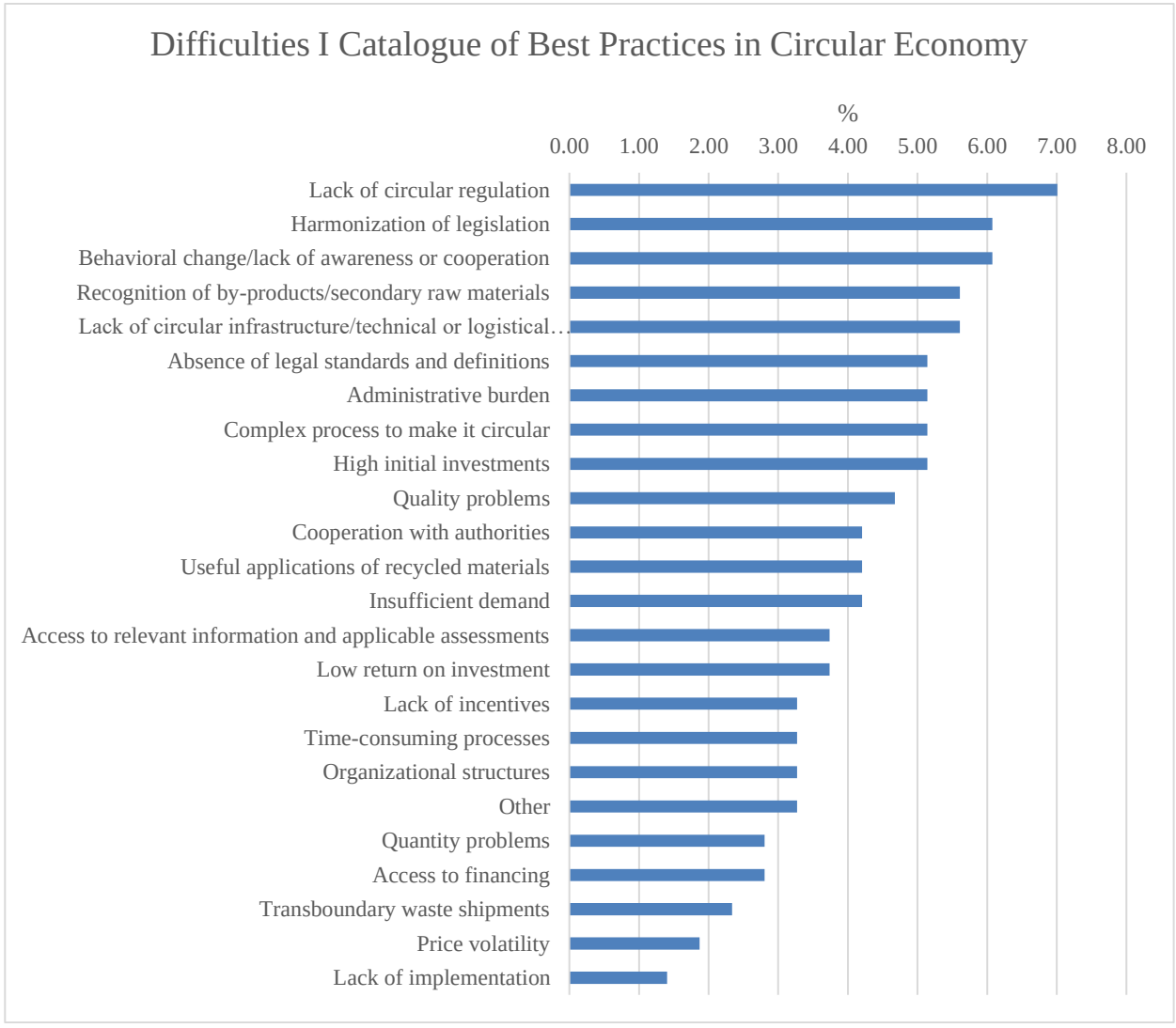
- Recognition of by-products/secondary raw materials, insufficient demand of circular products/services: obligation to incorporate recycled material in certain products; improvement of separate collection to increase the amount of recycled material (WFD).
- Harmonisation of legislation: measures for non-compostable plastic products not included in the Single-Use Plastics Directive (single-dose articles used, for example, by the by the hotel, restaurant and cafes sector, plastic neck rings and plastic sticks) for their reduction and replacement by other materials to harmonize regional measures. Development of a common approach on tax on incineration, co-incineration and landfilling.
- Transboundary waste shipments: the human resources working in this area have been strengthened. A digital register of domestic shipments and a regional procedure have been established ([42]).
- Elaboration of a list of standards that apply to the CE developed by UNE.
- Provision of greater legal clarity on the waste regime through the regulations included in the Circular Economy Action Plan I.
- Investment and infrastructure: C12I3 of the Recovery, Transformation and Resilience Plan (PRTR) and the inclusion of the CE in other components ([43]).
- Quality and quantity of supplied secondary raw materials: regulatory changes that indirectly promote the demand for products with recycled material and separation at source (new Waste Law).

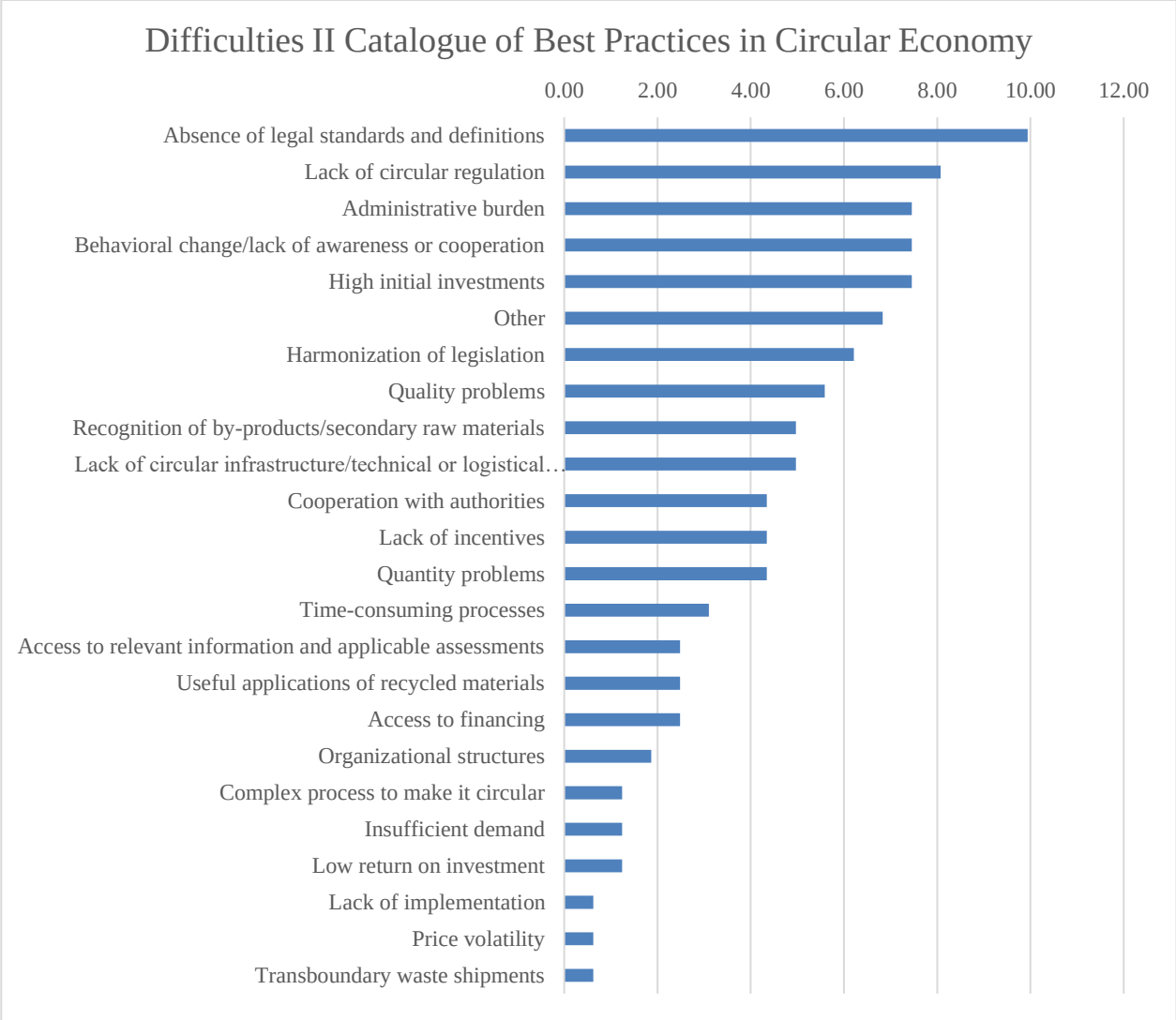
Ranking types of barrier

Based on the first and second Catalogues of Best Practices in Circular Economy, the ranking of all CE barriers, as perceived by companies, is the following.

42 https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/prevencion-y-gestion-residuos/traslados/Procedimiento-Traslado-residuos-interior-territorio-Estado.aspx (in Spanish)

43 https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/participacion-publica/Residuos-2022-Proyecto-OM-concesion-ayudas-impulso-economia-circular.aspx (in Spanish)


Difficulties I Catalogue of Best Practices in Circular Economy
%
0.00
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
Lack of circular regulation
Harmonization of legislation
Behavioral change/lack of awareness or cooperation
Recognition of by-products/secondary raw materials
Lack of circular infrastructure/technical or logistical…
Absence of legal standards and definitions
Administrative burden
Complex process to make it circular
High initial investments
Quality problems
Cooperation with authorities
Useful applications of recycled materials
Insufficient demand
Access to relevant information and applicable assessments
Low return on investment
Lack of incentives
Time-consuming processes
Organizational structures
Other
Quantity problems
Access to financing
Transboundary waste shipments
Price volatility
Lack of implementation



Future policy plans

The **Recovery, Transformation and Resilience Plan** (PRTR) ([44]) is the instrument that articulates the set of reforms and investment aimed at facilitating an economic recovery that should contribute to making the transition to a more sustainable growth model, a digital transformation, social and territorial cohesion and equality. The Plan provides access to European funding committed to the Next Generation EU Instrument, in line with the principles of the European Green Deal.

The Plan contains a total of 30 components, among which is **Component 12 Industrial Policy of Spain 2030**, purpose of which is to lay the foundations for more modern and competitive industry that definitively incorporates the climate and environmental vector. This component includes the Plan to support the implementation of the Spanish Circular Economy Strategy and waste regulations in Investment 3, which is configured as one of MITECO's fundamental planning instruments for the deployment of the CE in Spain. To this end, the Spanish Circular Economy Strategy, Circular Spain 2030, approved in June 2020, will reform the First Circular Economy Strategy Action Plan (2021–2023) and the Waste and Contaminated Soil Law for a CE.

44 https://planderecuperacion.gob.es/ (in Spanish)

The territorial distribution and definitive allocation of EUR 421.12 million PRTR for investment in waste management, as agreed by the Council of Ministers on 23 March 2021, has already been transferred to the Regional Administrations ([45]).

The following documentation has been used for the elaboration of the PRTR and for the implementation of the measures envisaged: Order HFP/1030/2021 ([46]); Guide for the application of anti-fraud measures in the implementation of the PRTR, edited by the National Anti-Fraud Coordination Service ([47]); MITECO's Plan for anti-fraud measures ([48]); Guidelines for the design and development of action in accordance with the principle of "do no significant harm" to the environment ([49]); Draft Ministerial Order establishing the basis and the call for the granting of aid to promote the CE ([50]).

The **PERTE** (Strategic Projects for Economic Recovery and Transformation) **on Circular Economy** ([51]) is a plan to accelerate the transition to a more efficient and sustainable production system in the use of raw materials that aims to meet the objectives of the Spanish Circular Economy Strategy for 2030 and improve the position of Spain in the management, recycling and reuse of waste. The PERTE on Circular Economy also seeks to increase the competitiveness of industrial sectors and companies in general, and to ensure greater strategic autonomy for the country in the context of high international uncertainty.

The PERTE is committed to three fundamental objectives for the advancement of the CE in Spanish industry: the promotion of the eco-design of products to make them more durable and repairable, reducing waste; and the improvement of waste management through treatment plants that increase reuse, recycling and the incorporation of recovered raw materials in the production of new products. It also seeks to promote digitalisation linked to the objectives, which will improve the competitiveness of and innovation in the industrial fabric of any sector.

To achieve these objectives, the PERTE has a budget of EUR 492 million and will mobilise more than EUR 1 200 million in public and private investment between 2022 and 2026. The PERTE is made up of 18 instruments distributed in two lines of action: action in key sectors, focussed on the textile sector, plastics and energy from renewable sources, with a budget of EUR 300 million, and other productive sectors to promote the CE in companies, with a budget of EUR 192 million.

On 27 January 2021, a call for expressions of interest was launched to promote the circular economy at the enterprise level by the PERTE on Circular Economy. The objective was to identify the state of the market around circularity projects among businesses. During the month of public pre-consultation, 1 224 expressions of interest were received for a total of almost EUR 37.9 million. An assessment of the contribution of public information was carried out to improve the state aid mechanism.

This aid is the second line of action of the PERTE for the Circular Economy. Specifically, the call will finance investment in the four main categories: reduction of the consumption of virgin raw materials; eco-design;

---

45 https://www.miteco.gob.es/es/prensa/210414npconferenciasectorialdemedioambiente_tcm30-525021.pdf (in Spanish)

46 https://www.boe.es/boe/dias/2021/09/30/pdfs/BOE-A-2021-15860.pdf (in Spanish)

47 https://www.pap.hacienda.gob.es/sitios/pap/es-ES/Documents/20220224GuiaMedidasAntifraude.pdf (in Spanish)

48 https://www.miteco.gob.es/es/ministerio/recuperacion-transformacion-resiliencia/prevencion-fraude/220222_pma_miteco_def_tcm30-537956.pdf (in Spanish)

49 https://www.miteco.gob.es/es/ministerio/recuperacion-transformacion-resiliencia/transicion-verde/guiadnshmitecov20_tcm30-528436.pdf (in Spanish)

50 https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/participacion-publica/Residuos-2022-Proyecto-OM-concesion-ayudas-impulso-economia-circular.aspx (in Spanish)

51 https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/perteenec_tcm30-537854.pdf (in Spanish)

waste management and digitalisation. This instrument is aligned with the objectives of reviving the general economy and the industrial sector, and boosting the resilience of the national productive sector.

The aim of these programmes is to respond to the objectives of the Spanish Circular Economy Strategy, the Action Plan, the National Integrated Energy and Climate Plan, and the long-term Decarbonisation Strategy. These will contribute to Spain's efforts to achieve a sustainable, decarbonised, resource-efficient and competitive economy, and thus advance the objectives of the Circular Economy Spanish Strategy.

At the same time, as this call it considered to be state, a prenotification process has begun.

Annex: Indicators reported in Annex I of the Spanish Circular Economy Action Plan 2021–2023

ACTION LINE	INDICATOR	UNIT	SOURCE	2016	2017	2018	2019	2020	2021	2022	DESCRIPTION
Production	Materials productivity index (MPI)	EUR per tonne	INE	2 780.75	2 848.23	2 740.41	2 849.46	n/a	n/a	n/a	Amount of GDP generated per unit of national consumption of materials measured in EUR per tonne.
Production	ISO 14001 Certification of environmental management systems.	Number	ISO	13 717	13 053	12 198	12 871	12 584	n/a	n/a	Total number of ISO 14001 environmental management systems certifications implemented in Spain.
Production	Ecolabel products	Number	EC - EU Ecolabel	n/a	n/a	n/a	n/a	n/a	17 139	18 174	Total number of products (goods and services) with the EU Ecolabel in 24 different product groups.
Production	Organisations with EMAS in CE sectors	%	EU EMAS REGISTER	n/a	n/a	n/a	n/a	n/a	16.49	17.03	Percentage of EMAS registered organisations belonging to economic activities involved in CE and aggregated by INE activity class (Class).
Production	National Consumption of Non-energy Materials (CNMNE)	tonnes	INE data	312 603 379	314 973 846	351 723 790	352 064 197	n/a	n/a	n/a	Total amount of non-energy materials used directly by the economy.
Consumption	Ratio between national consumption of non-energy materials of the biological cycle (CNMNE-CB) and the technical cycle (CNMNE-CT)	%	INE data	78.78	61.78	67.68	59.66	n/a	n/a	n/a	Ratio of national consumption of non-energy materials of biological cycle and national consumption of non-energy materials of technical cycle.

Consumption	Average expenditure per household on repair and maintenance of the products	EUR	INE	n/a	n/a	n/a	n/a	790.18	n/a	n/a	Average expenditure of Spanish households on repair and maintenance of the following 4-digit expenditure codes (ECOICOP ([52])): -0314 Repair, cleaning and rental of clothing; - 0322 Repair and rental of footwear; - 0431 Materials for the current maintenance and repair of the dwelling when the repair is done by the household itself; - 0432 Maintenance service and current repairs of the dwelling when the repair is done by the household itself; - 0432 Maintenance service and current repairs of the house; - 0721 Purchase of spare parts and accessories of personal vehicles for repairs made by household members; - 0723 Maintenance and repairs of personal vehicles for repairs made by household members; - 0723 Maintenance and repairs; - 0915 Repair of audio-visual, photographic, and information processing equipment and accessories; - 0923 Maintenance and repair of other major durables for leisure and culture;

ACTION LINE	INDICATOR	UNIT	SOURCE	2016	2017	2018	2019	2020	2021	2022	DESCRIPTION
											- 0924 Maintenance and repair of other major durables for leisure and culture.
Waste management	Recycling rate	%	INE MITERD	n/a	38.90	38.74	42.38	n/a	n/a	n/a	Percentage waste destined for recovery treatment operations (except energy recovery) relative to the total waste managed in Spain.
Waste management	Total business expenditure on waste management	EUR million	INE	894.31	920.55	1 014.47	1 082.60	n/a	n/a	n/a	Indicator resulting from the sum of current expenditure plus investment in waste management by companies.
Waste management	GDP/Waste generation	EUR per tonne	INE EUROSTAT	10 437.50	10 060.65	9 866.21	10 738.50	n/a	n/a	n/a	Wealth measured in GDP per tonne of waste generated. This value should be increasing to verify the decoupling of waste generation from economic growth.

52 ECOICOP: European Classification of Individual Consumption According to Purpose

ACTION LINE	INDICATOR	UNIT	SOURCE	2016	2017	2018	2019	2020	2021	2022	DESCRIPTION
Secondary raw materials	Trade balance of recycled raw materials	tonnes	EUROSTAT	- 4 774 508.00	- 4 964 198.00	- 4 792 065.00	- 5 168 384.00	- 4 380 063.00	- 4 380 063.00	n/a	This indicator is based on the International Trade in Goods Statistics (ITGS) published by Eurostat, but refers exclusively to trade in recycled raw materials. The scope of recyclable raw materials is measured in terms of relevant product codes of the Combined Nomenclature used in the International Trade in Goods Statistics, resulting in the selection of five classes: (1) plastic; (2) paper and paperboard; (3) precious metal; (4) iron and steel; and (5) copper, aluminium and nickel.
Secondary raw materials	Circularity rate	%	EUROSTAT	8.2	8.8	9	9.6	11.20	n/a	n/a	The CMU, also known as circularity rate, is defined as the ratio of circular material use to overall material use. The indicator measures the proportion of material recovered and fed back into the economy, thus saving the extraction of primary raw materials, in overall material use. A higher circularity rate value indicates that more secondary materials have replaced primary raw materials, thus reducing primary material extraction.

ACTION LINE	INDICATOR	UNIT	SOURCE	2016	2017	2018	2019	2020	2021	2022	DESCRIPTION
Secondary raw materials	Percentage of sludge generated that is used and its destination.	%	INE ESSA	Sludge used: 89.7 - Agriculture, forestry and gardening: 80.2 - Incineration or energy use: 9.5	n/a	Sludge used: 92.5 - Agriculture, forestry and gardening: 87 - Incineration or energy use: 5.5	n/a	n/a	n/a	n/a	Percentage of sludge generated in wastewater treatment that is used and its destination.
Water reuse and purification	Wastewater treated for reuse	%	INE	10	n/a	11	n/a	n/a	n/a	n/a	The percentage of wastewater reused compared to the total wastewater treated in wastewater treatment plants under municipal jurisdictions, including wastewater not coming from the distribution network (rainwater, own extraction, or other sources).
Water reuse and purification	Destination of reused water	%	INE ESSA	Agriculture: 61.2 Industry: 5.1 Gardens and recreational sports areas: 19 Sewer cleaning and street sweeping: 1.6 Other uses: 13.1	n/a	Agriculture: 65.8 Industry: 3.8 Gardens and recreational sports areas: 26.1 Sewer cleaning and street sweeping: 2.5 Other uses: 1.8	n/a	n/a	n/a	n/a	The percentage of water reused from municipal wastewater treatment plants by destination (sector or use).

ACTION LINE	INDICATOR	UNIT	SOURCE	2016	2017	2018	2019	2020	2021	2022	DESCRIPTION
Water reuse and purification	Total corporate spending on wastewater management	EUR million	INE	622.80	651.32	652.59	661.54	n/a	n/a	n/a	Indicator derived from the sum of current expenditure plus investment in wastewater management by companies.
Awareness raising and participation	Number of signatories entities	Number	MITERD		215	328	351	378	387	393	Number of signatories to the Pact for Circular Economy.
Awareness raising and participation	No. of actions published in the catalogue of best practices in circular economy	Number	Ministry of Ecological Transition and Demographic Challenge					42	46	under development	Number of actions published in the two MITERD catalogues of best practice in CE (BPEC).
Awareness raising and participation	Number of workers trained in the CE in the companies	Number	SEPE	n/a	n/a	149 532	n/a	n/a	n/a	n/a	Number of workers trained on demand in companies whose economic activities are related to CE. NACE 2009 division: 33, 36, 37, 38, 39, 45, 46, 47, 77 and 95.
Research, innovation and competitiveness	Gross value added related to the CE sectors	EUR million (% of GDP)	Own elaboration with data from INE and SEPE.	n/a	n/a	25 329 104 (2.11 % of GDP)	n/a	n/a	n/a	n/a	Represents the gross value added (GVA) of Spain according to the economic activities involved in circular economy and aggregated by branch of activity of the INE (Class).
Research, innovation and competitiveness	Number of LIFE projects related to the CE	Number	European Commission - LIFE Programme	n/a	38	36	14	n/a	n/a	n/a	Number of LIFE projects related to the CE.
Research, innovation and competitiveness	Total budget of LIFE projects related to the CE	EUR	European Commission - LIFE Programme	n/a	68 999 702	72 276 823	33 345 370	n/a	n/a	n/a	Total budget of LIFE CE related projects with CE associated themes presented by, or with participation of Spanish entities.

ACTION LINE	INDICATOR	UNIT	SOURCE	2016	2017	2018	2019	2020	2021	2022	DESCRIPTION
Employment and training	People employed in the CE	%	Own elaboration with data from INE and SEPE.	n/a	n/a	2.91 (549 815 people employed)	n/a	n/a	n/a	n/a	Jobs are expressed in number of people employed and as a percentage of total employment for economic activities involved in the CE activities, aggregated by INE branch of activity (Class).
Employment and training	Number of companies with CE activities	Number	Own elaboration with data from INE and SEPE.	n/a	n/a	64 036	n/a	n/a	n/a	n/a	Total number of companies with CE activities, aggregated by INE branch of activity (Class).
Employment and training	CE-related training	Number	Ministry of education and vocational training SEPE	n/a	n/a	134	n/a	n/a	n/a	n/a	Number of professional qualifications, vocational training degrees, certificates of professionalism, master's degrees, bachelor's degrees, postgraduate degrees and doctorates related to the CE in Spain.

EC = European Commission; n/a = information not available

European Topic Centre on
Circular economy and resource use
https://www.eionet.europa.eu/etcs/etc-ce

The European Topic Centre on Circular economy and resource use (ETC CE) is a consortium of European institutes under contract of the European Environment Agency.

European Environment Agency
European Topic Centre
Circular economy and resource use