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**MINISTRY FOR ECOLOGICAL TRANSITION AND THE DEMOGRAPHIC CHALLENGE**

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CONTENTS

1 Bases of circular economy 5
2 Strategic principles and approaches 6
3 Key sectors 10
   Construction 11
   Farming, fishing and forestry 12
   Industry 12
   Consumer goods 13
   Tourism 13
   Textile and garment 14
4 Organizational models 15
   Interministerial commission for circular economy 15
   Work group on the circular economy of the Commission of Waste Coordination 15
   Council of circular economy 15
5 Monitoring and assessment mechanisms 17
1. Bases of circular economy

The current economic system is based on an economic growth supported by the production and provision of goods and services under the principles of a throwaway culture. This linear model involves an intensive use of natural resources and puts a high level of pressure on the environment, which is one of the causes behind the most severe symptoms of the climate crisis we are immersed in, including climate change or biodiversity loss.

This linear model entails a significant impact on resources and ecosystems, high levels of waste and of emissions greenhouse gases that aggravate climate change, pollution of soils and water masses.... These issues involve an additional dimension when referring to non-renewable or scarce resources, or key inputs to produce certain goods and equipment. Additionally, the impacts of the linear model are aggravated by consumer habits increasingly associated to fast fashion, with fast rotation rates in which products do not reach the end of their useful lives; such is the case, for example, of garments or electronic devices.

Spain is no exception to these dynamics. Our country is estimated to require more than two times and a half its surface to fulfil the needs of its economy. Besides the environmental impact that this entails, data show that this model is inefficient and aggravates Spain’s dependence on other countries, making our economy more vulnerable and less competitive.

The decline of the ecological footprint at a global level and in Spain in particular requires a search for integral solutions in which all stakeholders must take part: consumers, companies and public administrations. The commitment of all parties involved is the only way to efficiently tackle a problem that is not strictly technical, but also involves social and equity matters.

In order to address this situation, the Spanish Strategy for the Circular Economy, called España Circular 2030, has been launched. España Circular 2030 establishes the bases to promote 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 as possible the waste that cannot be avoided. This strategy contributes to Spain’s efforts to achieve a sustainable, decarbonized economy, which uses resources efficiently and is competitive. This strategy will be materialized in successive triennial action plans.
2. Strategic principles and approaches

The general principles which are the cornerstone of this Strategy, inspired by the European and Spanish legal frameworks, are the following:

- Protection and improvement of the environment.
- Preventive action.
- Decarbonisation of economy.
- “Polluter pays” principle.
- Health protection.
- Rationalization and efficiency.
- Cooperation and coordination between public entities.
- Public participation.
- Sustainable development.
- Solidarity between people and territories.
- Integration of environmental conscience in decision making.
- Increasingly competitive economy.
- Generation of quality employment.
The following strategic guidelines are provided as a decalogue:

1. **Protection of the environment**: Protecting terrestrial and marine environments and their biodiversity, contributing to the fight against climate change and preserving the health of people, making an efficient and sustainable use of any available resources.

2. **Product life cycle**: Implementing a product life cycle approach including eco-design criteria, restricting use of harmful substances in manufacturing, favouring products that can be repaired or re-used, extending products’ useful lives and enabling them to be valorised at their end; that is, maintaining the value of product, materials and resources within the economy for as long as possible.

3. **Waste hierarchy**: Effective application of the principle of waste hierarchy, promoting waste prevention, recycling, and valorisation of the waste that cannot be recycled for energy generation or other purposes, and enabling traceability in order to prevent littering and waste dumping in the environment and the oceans.

4. **Reduction of food waste**: Reducing food waste in order to reduce the economic and environmental impact of resource use and to favour a more equitable distribution of such food resources.

5. **Production efficiency**: Introducing guidelines that increase global efficiency and innovation of productive processes; this may be achieved by using digital services and infrastructures, as well as by implementing environmental management systems, with the ultimate goal of promoting competitiveness and sustainable growth for companies.

6. **Sustainable consumption**: Promoting innovative models for conscious and sustainable consumption, including products and services, as well as the use of digital infrastructures and services, based on transparent information on the characteristics of products and services, including its duration, its capacity to be repaired and energy efficiency, using measures such as the ecolabel.

7. **Communication and awareness**: Communicating the importance of transitioning to a circular economy, promoting and enabling the appropriate channels for coordination between administrations and for exchange of information between public entities, economic and social stakeholders, as
well as the technological and scientific communities, in order to create synergies that can fuel this transition.

8. **Employment for the circular economy**: Designing employment policies that favour a fair transition to circular economy based on solidarity, identifying new employment niches and enabling capacity-building for such employment.

9. **Research and innovation**: Promoting both public and corporate research and innovation initiatives, especially under public-private partnerships, as drivers of change and transition towards a sustainable social and productive model, which is based on creation and transfer of knowledge and adoption of new technologies.

10. **Indicators**: Promoting the adoption of common, transparent and accessible indicators that enable to know the degree of implementation of circular economy initiatives, especially their social and environmental impact.

Additionally, developing the Circular Economy Strategy and achieving the described strategy objectives should lead to attain a series of quantifiable goals by the end of the decade. Therefore, the Strategy establishes the following **goals** for year **2030**:

- **Reducing** by **30% domestic material** consumption in relation to national GDP, taking 2010 as a reference.
- **Reducing waste by 15%** with regard to 2010 waste levels.
- **Reducing food waste** throughout the entire food chain: **50%** reduction per person in retail and households and **20%** in production chains and supplies from 2020, thus advancing towards the Sustainable Development Goal (SDG).
- **Promoting reuse** and reuse enabling activities until reaching **10%** of municipal waste.
- **Reducing greenhouse gas emissions** to under 10 million tonnes of CO₂eq.
- **Improving water use efficiency** by **10%**.

Meeting the challenge of transitioning towards a circular economy will only be possible with the help, participation and involvement of the entire society, not just the government but also all economic sectors (manufacturing, production, distribution and waste management), who have to incorporate research and innovation as key elements to achieve the intended goals. Besides, social agents, and, even more, consumers and citizens, must play a decisive role; their purchasing choices, as well as their waste separating habits, shall prove fundamental.
Although España Circular 2030 has a long-term vision, it is to be implemented at short and medium term by means of successive action plans, which shall capitalize on previous expertise and adjust to current circumstances and events, so that, when assessing the results obtained, the most appropriate actions may be included in the subsequent plan.

Besides, the strategy provides a series of action lines that take as a reference the Commission’s first Action Plan. The action lines on which the Circular Economy Strategy and its corresponding action plans policies and instruments are to be focused are as follows:

- **Production**: conception, design, and manufacturing of a product that is easier to repair, with a longer useful life, which may be updated and which, at the end of its useful life, creates less waste or even recyclable (and of course free of harmful substances).
- **Consumption**: reverting the current trend towards excessive consumption and gearing towards a more conscious consumption model that includes accessible services; this is a precondition to further prevention and reduction of waste, and, when appropriate, to promote adequate recycling.
- **Waste management**: in a worldwide context in which raw materials are increasingly scarce and expensive, recycling just 37.1% of waste (the current rate in Spain) is, in itself, a waste of available resources; urgent action must be taken with regard to recovering and recycling.
- **Secondary raw materials**: using secondary raw materials allows to make a more sustainable use of natural resources, as well as enabling consumers to trust more conscious consumption models.
- **Water reuse and purification**: this is included as an individual factor due to the importance of water in the Iberian Peninsula. Acknowledging its fundamental nature, it was decided to consider this aspect separately, beyond obtaining secondary raw materials, in recognition of its special significance in the Spanish economy and our leading position in water reuse.

From a more intersectional approach, three additional action lines are included:

- **Awareness raising and participation**: due to the special relevance of citizen’s involvement in the progression towards a circular economy. On one hand, since citizens make decisions with regard to the products and services, they need to have information about them: an informed and conscious consumption is the only way towards waste hierarchy with a focus on prevention. On the other
hand, domestic waste separation at the origin, both in households and in the service sector, is everyone’s responsibility. Therefore, it is fundamental to involve the entire society so waste separation is carried out adequately facilitating better recycling practices which allow to reach European goals.

- **Research, innovation and competitiveness:** research, innovation and competitiveness policies are core to the Strategy, so it made sense to address them in a separate section.
- **Employment and training:** retraining, development of new capacities adapted to new opportunities, training oriented to jobs arising from the transition towards a circular economy, job creation and improvement of already existing jobs require special policies, which are to play a very important role in the future Circular Economy.

3. **Key sectors**

The Spanish Strategy for the Circular Economy has an intersectional approach and has the ambition to become the reference framework for all public entities, companies and individuals. Given its importance both for the Spanish economy and society, certain
economic sectors are subject to monitoring and follow up. This is the case for construction, farming, fishing and forestry, industry in general, consumption goods, tourism, and textile and garment sector.

Construction

Construction is a very significant sector within the Spanish economy. From an economic point of view, the construction sector contributed 6.5% of Spanish GDP in 2018, but eats up to 40% of resources, creates 40% of waste and is responsible for 35% of emissions of greenhouse gases\(^1\). Therefore, it is key to make all possible efforts in order to minimize the impact of the construction sector in sustainability and to ensure gradual implementation of technologies and practices that contribute to the adoption of circular economy.

Directive 2018/851/UE which reviews the Waste Framework Directive, clearly establishes the work lines in order to progress towards waste separation and classification of those waste materials used in construction and demolition activities,

\(^1\) Social and Economic Council. The role of the construction sector in economic growth, competitiveness, cohesions and quality of life, Colección Informes, No. 02/2016.
as promoted by the UE Protocol for Management of Construction and Demolition Waste, which is a part of the 2021 Construction Strategy, as well as the Commission Communication on opportunities for a more efficient use of resources in the construction sector\textsuperscript{2}.

All this will increase possibilities of use and therefore the corresponding demand, and will close the life cycle of products by enhancing reusing and recycling, which involves both environmental and financial benefits.

**Farming, fishing and forestry**

The food sector creates a series of positive externalities by directly sustaining other areas, such as agriculture, 70\% of whose outputs are intended for the food and beverage industry; it also contributes to population settlement and a better integration of the territory. From an economic approach, the Spanish agricultural system contributed 10.62\% of the Gross Value Added in 2016. However, its economic performance is diminished as a consequence of food waste, which has been valued in 88 million tons of food throughout the EU. This issue is not purely economic, since it also involves significant environmental and energy costs.

To summarize, in the farming sector, just as all sectors belonging to the so-called bioeconomy, the challenge is to make it possible to produce better quality foodstuffs at affordable prices, guaranteeing sustainable use of natural resources, ecosystem and biodiversity conservation, waste reduction, valorisation of waste whenever possible and the development of sustainable food models.

**Industry**

Industry is a key sector both in terms of its contribution to the GDP (17.7\%) and to employment (14\%), where the requirements of globalised trade require an ongoing improvement of competitiveness. This can be channelled through sector agendas, used as mid- and long-term roadmaps, including also circular economy criteria to improve sector’s sustainability.

In this framework, it is important to launch a process of digital transformation with the goal of complying with the demands of a highly technological, increasingly demanding society. This necessarily involves a change of business model and in the processes and

\textsuperscript{2}https://eur-lex.europa.eu/legal-content/ES/TXT/PDF/?uri=CELEX:52014DC0445&from=ES
dynamics of industrial companies.

At the same time, reinforcing the initiative Industria Conectada 4.0 is an effective manner of promoting circular economy and better use of resources, since it involves a higher level of control and monitoring over them.

**Consumer goods**

The Commission’s new Action Plan for Circular Economy proposes the development of European standards for a Framework Policy on Sustainable Products. The cornerstone of this policy is to offer a wider range of products included under the Ecodesign Directive and include certain aspects which are characteristic of a circular economy, such as improving durability, increasing the contents of recycled materials, establishing restrictions to marketing certain single use products or countering planned obsolescence.

All these measures, among others, shall reduce waste generation, especially with regard to electronic products and components, which deserve a special consideration due to the sheer volume of waste created by this flow and the challenges posed by its processing.

New business models based on servitization, in combination with technologies such as the Internet of Things, opens a new whole range of possibilities to improve efficiency in the use of materials of management of product maintenance, which can extend the end of its useful life.

**Tourism**

Within our territory, the Strategy included the tourism sector considering that is a robust industry, in light of its figures, with a strong potential for future growth and in which Spain holds a consolidated position of international leadership.

Tourist activities are the main drive behind the Spanish economy, and the number of SMEs in the sector is especially relevant. Tourism and its high surplus significantly contributes to balance of payments, countering our trade deficit in 54.5 millions.

However, extensive use of water resources, which is especially scarce near the beach areas, high waste levels in tourist areas and the challenges of managing this issue with a lesser level of waste separation at origin, as well as the continuous growth of an
inland tourism associated to nature, should suffice to include this sector in the Strategy with the purpose to promote sustainable development of the sector.

**Textile and garment**

Within the manufacturing industries, the textile and garment sector is especially noteworthy due to its dynamism, for contributing 2.9% to the Spanish GDP and for creating 4.1% of Spanish jobs. It must also be considered that this sector includes a large number of SMEs.

However, this sector is associated to a serious environmental impact, a good part of which happens outside Spain, and which is characterized by an intensive use of water and energy resources, as well as high quantities of chemicals in the different phases of the manufacturing process. The environmental impact of fashion is amplified by its intensive consumption, in turn associated to a high level of waste and of which only 1% is recycled.

In order to reduce these impacts, from 2025 it shall be compulsory to implement a plan for separate collection and management of textile waste. However, we are in a vantage position to advance the first stages of waste hierarchy, since we do have a well-developed structure of platforms and companies that, combining environmental and social sensitivities, promote reuse, and, when not possible, valorisation, of used garments.

Besides, it will be necessary to strengthen innovation in order to advance towards sustainability along the lines set forth by a framework policy on sustainable products.
4. Organizational models

Interministerial commission for circular economy

This commission is formed by representatives of those Ministries\(^3\) whose policies have a direct impact in the transition towards a circular economy. This Commission must hold a plenary session at least once a year with the goal of making proposals related to circular economy for their sector policies, and to carry out monitoring and assessment activities with regard to the implementation of this Strategy by the National Administration or with regard to those measures set for by Regional Administrations.

This Interministerial Commission may decide to create work groups comprising two or more ministries in order to address goals, policies and specific actions included in the Strategy or in the action plans of the Strategy.

Work group on the circular economy of the Commission of Waste Coordination

This Work Group is formed by representatives of the Ministry for Ecological Transition and Demographic Challenge, as well as by other representatives of the National Administration, Regional Administrations and the Spanish Federation of Municipalities and Provinces. Its goal is to streamline the necessary cooperation and coordination between administrations and thus ensuring consistent implementations of policies throughout the country.

Council for circular economy

The goal of the Council for circular economy is to promote collaboration between public and private sectors so as to speed up the transition towards a circular economy both in the public and private spheres, by working jointly and in coordination in certain actions, including implementation, monitoring, reviewing and preparation of annual proposals in the framework of the Strategy.

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This Council shall be attended by social agents, economic agents from the primary, secondary and tertiary sectors, waste management agents and extended producer responsibility systems, as well as research centres that promote innovation.

The Commission’s Executive committee of the Interministerial commission may authorise the participation of independent experts, including from the academia, with sufficient expertise and recognition in the area of circular economy.
5. Monitoring and assessment mechanisms

The European Commission has established indicators at the EU level that are to be used to assess progress towards a circular economy. Spain is adopting those same indicators, plus one on greenhouse gas emissions. Such indicators measure the results of the application of public policies, the adoption of sustainability and “circularity” systems by the productive sector, and consumer’s choice of products and services considering sustainability criteria. Finally, the behaviour of society as a whole shall be considered.

Therefore, setting up a framework for follow-up, monitoring and assessment as stated in communication COM (2018) 29 is based on ten indicators grouped in four stages and aspects of circular economy: 1) producers and consumers, 2) waste management, 3) secondary raw materials and 4) competitiveness and innovation. The GHG contribution of the waste sector shall also be included.

Producers and consumers

- Self-sufficiency of the EU with regard to raw materials
- Ecological public procurement
- Waste generation
- Food waste generated

**Waste management**

- Global recycling rates
- Specific recycling rates for waste flows

**Secondary raw materials**

- Contribution of recycled materials to the demand for raw materials
- Trade in recyclable raw materials

**Competitiveness and innovation**

- Private investment, employment and gross value added
- Patents related to recycling and secondary raw materials

**Greenhouse Gases Emissions in the waste sector**

**Assessment**

Every three years, the MITEDS shall, within the Governing Board, promote an assessment of the results, effects and impact of the Circular Economy Strategy and any related action plans, although the first assessment shall be conducted once the First Action Plan is concluded.

In any case, those assessment shall be coordinated with the updating of the corresponding Action Plans, so that there is sufficient information about the results, effects and impacts with regard to circular economy as to appropriately carry out the relevant revision, updating or preparation of a new action plan.