## Barcelona Sustainability Economy Roadmap 2030

Driving and promoting the sustainability of economic sectors within the framework of the Barcelona Green Deal



Barcelona Activa



BARCELONA SUSTAINABILITY ECONOMY ROADMAP 2030

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Driving and promoting the sustainability of economic sectors within the framework of the Barcelona Green Deal Transforming our production model together to make it sustainable and competitive



Jaume Collboni First Deputy Mayor for Economy, Work, Competitiveness and the Tax Office

Cities have progressively increased their role in global development and, although the recent pandemic led to a certain diaspora towards less dense and seemingly calm environments, the world continues to transform rapidly and cities are once again beacons of change and transformations.

When in January 2020 we presented the axes of the new Barcelona Green Deal economic agenda, we already highlighted the fact that our city could not separate itself from the goals of the 2030 Agenda, the commitment of the states towards a more socially just and environmentally sustainable development.

The three axes established at the time – competitiveness, sustainability and equity – have been the guide for Barcelona City Council's actions aimed at promoting the economy and quality employment. We have responded to the acceleration of technological transformations by expanding and improving the offer of training in digital and sector skills, and placing talent at the centre of our policies. Faced with the need to maintain cohesion in neighbourhoods and districts, and not to leave people and groups in situations of greater vulnerability behind, we have expanded employment and proximity resources and services. And we have done all this through dialogue, discussion and agreement, contrasting measures and actions, with our stakeholders: social agents, associations and foundations linked to the areas of the economy and employment, professional guilds and colleges, with companies and with the other public administrations.

In the area of sustainability, we have launched programmes for entrepreneurship and support for industry or tourism, company relocation plans or lines of action for professional and vocational training in skills that are, and will be, key to the challenges we face. We also have a strategy for promoting and boosting the blue economy, taking advantage of the urban transformations on the city's coastline. And of course, a set of actions from various municipal areas aimed at meeting the goals of environmental decarbonisation.

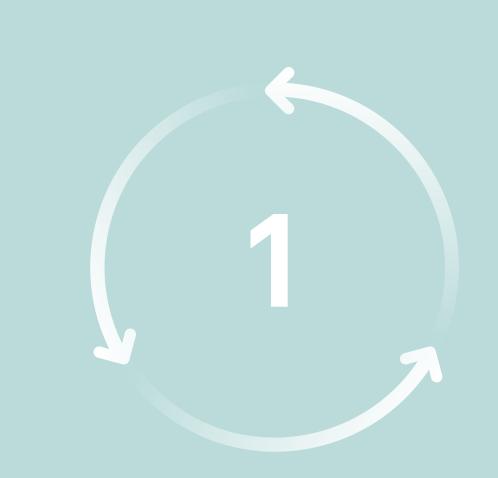
But we still needed to delve deeper into the axis of sustainability, by creating a road map in black and white with the aim of accompanying companies in the transformations necessary to achieve, between all of us, a sustainable city and metropolitan region, while at the same time being competitive.

This is a possible and necessary roadmap, which based around a set of essential economic activities, we can develop together to contribute to the ecological transition, accompanying the transformation of the productive model of the city towards a more sustainable one.

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# 1. Introduction and context



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# 1.1. The ecological transition as a driver of the economy

### The importance of the ecological transition

In addition to being global issues with a clear impact on people's health, the climate emergency and the environmental crisis challenge the economic sector, changing production and service models to reduce emission levels and deliver products that meet the needs of an increasingly demanding society to help the fight against climate change.

This is thus a time of paradigm shift in which we need to move towards a different model that addresses the dysfunctions of the current model from the point of view of sustainable and resilient development.

In this new change of era, the volatile contexts surrounding today's societies can accelerate existing long-term trends and trigger an **ecological transition resulting from two separate factors**.

On the one hand, new geopolitical and energy market situations mean that we need to be self-sufficient for energy, becoming increasingly less dependent on fossil fuels and raw materials and instead focusing on **developing clean ener-gies and generally reducing the amount of energy we consume**.

And, on the other, Covid-19 has confirmed the need for this ecological transition as a roadmap for the future and shown that we must work on the **digital transition as another aspect of change in our societies**. Thanks to technology, we can put in place a new production, distribution and digital consumption model with an impact on the efficiency of the economy. We have recently witnessed the digitalisation of commerce, with people being encouraged to use cards rather than cash, teleworking, services such as education and healthcare being provided online, the transformation of mobility, and the pedestrianisation of streets, among others.

The development of this digital ecological component is one of the most significant challenges being focused on by both Europe and national and local governments, as it could **drive a new growth model** that meets environmental, economic and social needs. In this context, local governments and institutions play a key role in regions' economic development by providing any stimulus they can to ensure the ecological transition's success. Local bodies are key partners that have funding and access to new technologies and skill-development programmes to **accelerate and guarantee a fair energy transition**. 7 (2) Sustainability Economy

# 1.1. The ecological transition as a driver of the economy

### The role of cities in the ecological transition

Cities have gradually taken on a more central role in global development. In spite of accounting for only 3% of the planet's surface area, large cities contain over half the world's population and account for 75% of natural resource consumption and 80% of CO2 emissions. According to forecasts, by 2050 75% of the world's population will live in cities and their metropolitan areas, which already contain most of the planet's human and financial capital.

The world is changing quickly, and cities are at the centre of this change. This transformation in turn brings its own new global challenges, such as the provision of new models in the fields of mobility, consumption, construction, urban planning and economic development. **Cities are the drivers of social, cultural, economic, technological, political, healthcare and environmental change** as they try to address the great challenges facing humankind and the planet.

They are like living organisms, evolving and adapting, and it is because of this constant transformation that we must rethink the very concept of "city" towards a new model that is more innovative, sustainable and digital. This results in a new paradigm with sustainability at its epicentre, providing a roadmap to ensure that we do not compromise the future of the coming generations.

In addition to bringing major changes, cities are also drivers of innovation, with the necessary resources and ability to deploy complex networks and include the sustainability perspective in plans, projects, procedures and decision-making in every field of activity of local government.

Cities therefore play a key role in the ecological transition: they have the willingness and skills to **use sustainability as a lever for change** and move towards achieving a fair and prosperous society and a new economic development model that promotes the protection of the environment and the transformation of the productive system while contributing to the progress of the economy, social welfare and our environment. Furthermore, they also play a significant role in developing synergies between the city's economic players and in the transfer of knowledge and experiences, involving the public, fostering the creation of new occupations and influencing consumption policies.

Finally, energy efficiency and the use of renewable energies have an impact on gas emissions, accounting for an estimated 55% of the total. The remaining 45% is the direct result of using products, services and food. Due to their importance, cities are levers for change in the road to sustainability.

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# 1.2. Sustainability Economy timeline within the institutional framework

Below is some detailed information about each of the events that have led the way in the Sustainability Economy both in Europe and at national and regional levels, with **Barcelona 2030 Agenda: Sustainable Future** and the **Barcelona Green Deal** providing the framework for the Barcelona Sustainability Economy Roadmap.

### Sustainable Economy Act – 2011

The Sustainable Economy Act, which provides for legal reforms to **boost** balanced and sustainable economic growth, was published in the Spanish Official Gazette (BOE) on 5 April 2011. According to the Sustainable Economy Act of 2011, sustainable economy is "a growth pattern that combines economic, social and environmental development in a productive and competitive economy; that helps create quality jobs, equal opportunities and social cohesion, and ensures respect for the environment and the rational use of natural resources".

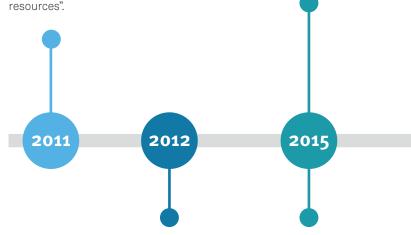
## Agenda and the Sustainable Development Goals (SDGs) – 2015

In 2015, the United Nations' 193 member states agreed on **17 goals** and 169 targets relating to the need for them to work together globally to chart the way to sustainable growth, adding new spheres of action such as climate change, economic inequality and sustainable consumption. These goals are part of the 2030 Agenda, an ambitious world agenda with human rights as its main focus and a commitment from every country regardless of its level of development.

## Action Plan for the Implementation of the 2030 Agenda in Spain – 2017

On 12 December 2017, the Spanish Congress of Deputies passed a non-legislative proposal to provide the government with political guidance in the task of defining the National Strategy for the Achievement of the 2030 Sustainable Development Agenda (PNL 161/001253), which required the government to draw up and carry out a sustainable development strategy in line with the 2030 Agenda. Priority was therefore given to drawing up an Action Plan for the Implementation of the 2030 Agenda, a document setting out the strategic line to be followed in order to ensure that the established goals are achieved.

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### Citizen Commitment to Sustainability – 2012

The Citizen Commitment to Sustainability was established in 2012 to **make Barcelona a more equitable, prosperous and self-sufficient city. Barcelona+Sostenible** [More Sustainable Barcelona] was established within the framework of this commitment. This is a network that promotes participation and the exchange of information and resources, helps boost its member organisations' initiatives, and creates opportunities for collaboration.

#### Barcelona Climate Commitment – 2015

On the occasion of the 21st Conference of Parties to the United Nations Framework Convention on Climate Change (COP21), **Barcelona City Council and the 800 citizen organisations forming part of the Barcelona+ Sostenible network**, which were signatories to the Citizen Commitment to Sustainability for 2012-2022, signed the Barcelona Climate Commitment, a **roadmap** setting out a number of projects for the public to give express effect to **the city's commitment to fight climate change**.

### National Pact for the Energy Transition (PNTE) – 2017

2017

The National Pact for the Energy Transition (PNTE) was approved on 31 January 2017 by a resolution of the Government of Catalonia with the technical assistance of the Catalan Energy Institute (ICAEN). The document lays down seven strategic pillars required in order to **bring about the change of energy model in Catalonia**, committing to local renewable energies, doing away with fossil fuels, turning current buildings into efficient buildings, and developing and implementing new technology for efficient energy management.

### **1.2. Sustainability Economy timeline** within the institutional framework

#### Barcelona Climate Plan - 2018

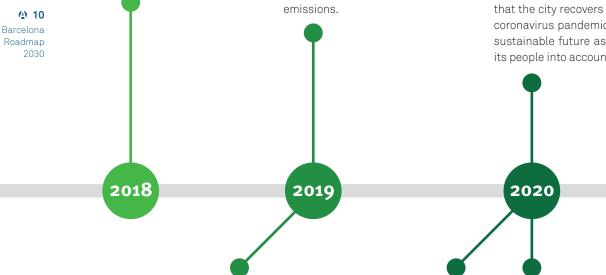
On 26 October 2018 Barcelona City Council approved the **Climate Plan 2018-2030**, which sets out **existing actions and strategies and plans new short-term (2020) and mid-tolong-term (2030) ones** to achieve the aims of the Barcelona Climate Commitment while fulfilling the city's commitment resulting from signing the Covenant of Mayors for Climate and Energy (2017).

#### European Green Deal - 2019

In December 2019, the European Commission presented a **package of measures to make the EU climate neutral by 2050** as well as further measures to foster biodiversity and the circular economy, among others. This roadmap **contains 50 items to promote the efficient use of resources** in every sector of the economy but with particular emphasis on transport, energy and industry, which are still the largest producers of emissions.

## The Barcelona 2030 Agenda: targets and key indicators - 2020

In accordance with the United Nations SDGs, in 2020 Barcelona City Council presented the report **"The Barcelona 2030 Agenda: targets and key indicators"**, setting out **17 social, economic and environmental goals** for the city, as well as **139 specific targets** to be achieved over the next 10 years. The report sets out **over 200 indicators** to track the implementation of this local roadmap and ensure that the city recovers from the global coronavirus pandemic taking its own sustainable future as well as that of its people into account.



### National Plan for the Implementation of the 2030 Agenda in Catalonia - 2019

On 25 September 2019, the Catalan government approved the National Plan for the Implementation of the 2030 Agenda in Catalonia, which sets out **920 undertakings** by the government to achieve the United Nations' 17 SDGs. These undertakings are split into **two types: 810 undertakings to be achieved in Catalonia and 110 to be achieved by Catalonia for the world.** The plan is dynamic in content, subject to updates for ensuring the consistency of public policies, and will remain in operation until 2030.

#### Barcelona Climate Emergency Declaration - 2020

The **Climate Emergency Commit**tee was tasked with drawing up the Barcelona Climate Emergency Declaration, which came into force on 15 January 2020, and monitoring it. The declaration includes the hundred or so concrete measures to change the city's model in the following areas: mobility and infrastructure, the urban model, energy, the economic model, consumption and waste, food, the cultural model, water, and health and well-being.

### Spanish Circular Economy Strategy for 2030 - 2020

The Spanish Circular Economy Strategy, also known as **"Circular Spain 2030"**, was approved by the Council of Ministers on 2 June 2020. This strategy sets out a **list of strategic guidelines and a number of quantitative goals to be achieved by 2030**, such as reducing waste and greenhouse gases, reusing more and decreasing the country's consumption of materials, and making a more efficient use of water.

#### Barcelona Green Deal - 2021

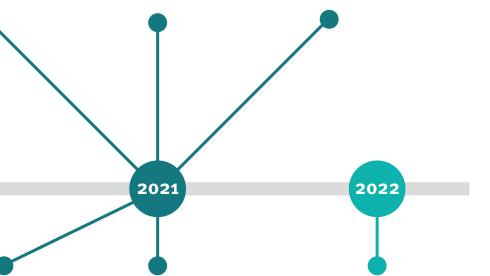
In April 2021, Barcelona City Council presented a **new economic agenda for Barcelona** containing the city's goals, challenges and strategic priorities for the next 10 years. It is based on **three strategic pillars** with **10 goals** and **66 specific actions** to **turn Barcelona into an international benchmark** in all the city's main focuses.

#### Blue Economy Strategy - 2021

In October 2021, Barcelona City Council published a government measure consisting of **43 initiatives and 15 projects** to **preserve the maritime ecosystem and create a new economic hub** in the city, resulting in greater economic competitiveness and environmental sustainability for the maritime sector and striving to ensure **a transition towards a more sustainable model in accordance with the goals of the 2030 Agenda**.

### Recovery, Transformation and Resilience Plan - 2021

The Recovery, Transformation and Resilience Plan, which was published on 21 June 2021, is **the core instrument for the development of the NextGenerationEU European recovery funds**. The document provides a roadmap for modernising the Spanish economy, recovering economic growth and creating jobs following the Covid-19 crisis, and preparing the country for future challenges.



### The Climate Change and Energy Transition Act - 2021

The Climate Change and Energy Transition Act, which came into force on 22 May 2021, aims to **enforce compliance with the goals agreed to by countries in the Paris Agreement (2015).** The new Spanish act sets out, among other things, the minimum targets for **renewable energies, energy efficiency and reduced greenhouse gas emissions for the Spanish economy** for the years 2030 to 2050.

### National Integrated Energy and Climate Plan for 2021-2030 (PNIEC) - 2021

The Council of Ministers' resolution adopting the final version of the National Integrated Energy and Climate Plan for 2021-2030 was approved in March 2021. The PNIEC is **the planning instrument proposed by the Spanish government to achieve the EU's goals and targets** within the framework of its energy and climate policy. The document establishes the goals of reducing greenhouse gas emissions and ensuring the widespread implementation of renewable energies and energy efficiency.

### EU Mission for 100 Climate-Neutral and Smart Cities by 2030 - 2022

Barcelona is one of 100 cities chosen by the European Commission to carry out the green and digital transition in Europe. Barcelona will thus be part of a European mission to achieve 100 smart and climate-neutral cities by 2030, acting as an experimentation and innovation hub to help the other cities achieve the same climate-neutrality goals by 2050.

### 1.3. The Sustainability Economy, a focal point of the Barcelona Green Deal

The Sustainability Economy Roadmap, which has a horizon of 2030, is part of the sustainability pillar of the **Barcelona Green Deal**, the new economic agenda to address the city's **current and future challenges**.

The new economic agenda is based on **three strategic pillars** with a total of **10 goals** and **66 concrete actions**. The aim is to make Barcelona an international benchmark in all its social and economic **focuses** and establish a socio-economic pact between the city's institutions, companies and entities and with the general public.

### Strategic pillars

The strategic pillars of the Green Deal correspond to the key elements of the economic agenda to make Barcelona a **competitive, sustainable and fair city.** 

### 01/ COMPETITIVENESS

The first strategic pillar is to ensure that the city has an active entrepreneurial ecosystem with a digital focus that attracts talent and is open to the international arena.

### 02/SUSTAINABILITY

The second strategic pillar is for Barcelona to expand its circular economy, attract new hubs of economic activity and generate a tourist economy. Tourism and industry are two of Barcelona's economic pillars, and business models must be transformed to ensure that the city, its residents and the environment are not detrimentally affected by growth.

### 03/FAIRNESS

The third strategic pillar is to ensure that Barcelona's economy is more social and more united, promoting the local economy and ensuring employment amongst residents.

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### Aims of the Green Deal

The strategic pillars contain specific goals to address the city's challenges and obstacles.



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### Actions

These goals break down into 66 concrete actions aimed at ensuring that the public, companies and civil society organisations have the necessary tools to take full advantage of the opportunities arising in Barcelona.

# 2. The Sustainability Economy in Barcelona



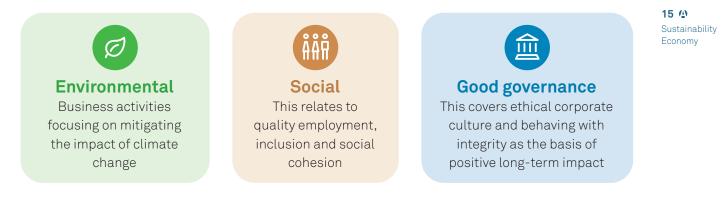
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## 2.1. Definition of the Sustainability Economy in Barcelona

### The Sustainability Economy as a concept

These days, you cannot discuss economic growth and promotion without thinking about including sustainability-oriented values and practices, because it is no longer possible to believe in infinite growth in a finite world.

Sustainable development requires a comprehensive approach affecting the various sectors of the economy. In the business sector, the business model is being transformed by Environmental, Social and Governance (ESG) criteria. These criteria relate to the factors that make a company sustainable by means of **social, environmental** and **good governance** commitments and have become a roadmap in the transition towards achieving a sustainable financial and economic system in accordance with the Sustainable Development Goals.



Due to the breadth of this concept, the Sustainability Economy has no clear or fixed definition. Instead, it fits under various umbrellas that make it possible to extract its meaning.

In 1987, the United Nations Brundtland Commission presented a report with the name "Our Common Future" in which sustainability was defined as **"meeting the needs of the present without compromising the ability of future generations to meet their own needs**".



### Sustainable Development Goals (SDGs)

## 2.1. Definition of the Sustainability Economy in Barcelona

In 2015 the UN General Assembly approved the 2030 Agenda, which sets out the **17 Sustainable Development Goals (SDGs)** and **169 targets** to protect and improve the environment, combat inequalities, foster economic development and ensure a commitment to institutional integrity and effectiveness.

On 12 December 2017 the Spanish Congress of Deputies passed a non-legislative proposal with the support of almost all political parties to provide the government with political guidance to **define the national strategy for fulfilling the terms of the 2030 Sustainable Development Agenda** (PNL 161/001253), which urges the government to "draw up, approve and carry out a sustainable development strategy for the implementation of the 2030 Development Agenda in Spain". It was therefore agreed as a priority to draw up an action plan for the implementation of the 2030 Agenda that was well argued and credible and had broad consensus from the various social players.

The result for our city was the **Barcelona 2030 Agenda**, conceived as a roadmap for the city's public policies during this decade.

In Barcelona, the **new Barcelona Green Deal 2030 Agenda** is the roadmap for all economic and social stakeholders. It is based on the three key aspects of **competitiveness, sustainability** and **fairness**.



Within the framework of sustainability, the new economic agenda focuses on Barcelona expanding its circular economy, attracting new hubs of economic activity and generating a visitor economy.

Tourism and industry are two of Barcelona's economic pillars, and business models must be transformed to ensure that the city, its residents and the environment are not detrimentally affected by growth.

From the point of view of **economic promotion**, the **Sustainability Economy** means:

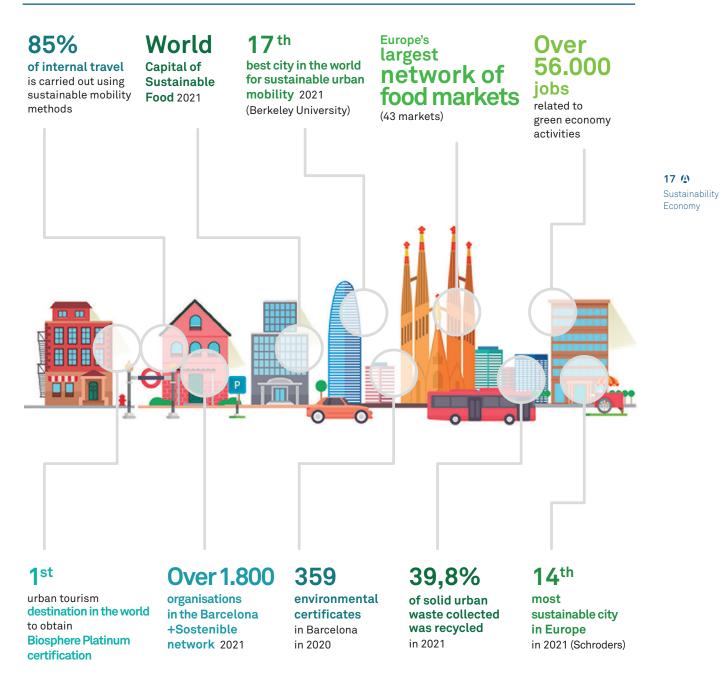
"The set of economic activities that contribute to the ecological transition and go together with the transformation of the city's productive model to achieve a more sustainable model."

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# 2.2. Starting situation: sustainability and Barcelona in figures

The **figures shown below illustrate Barcelona's current Sustainability Economy situation** and provide a guide to help identify the main aspects to be focused on in order to drive this strategy forward.

### The Sustainability Economy in Barcelona in figures



# 2.3. Challenges and opportunities of the Sustainability Economy

The growing threat of climate change and the environmental impact of cities have motivated local governments to set out new challenges and opportunities to protect the ecosystem and redefine needs to help create a more sustainable city and metropolitan region. As a result, Barcelona City Council wishes to promote a Sustainability Economy roadmap to facilitate the transition to a more sustainable economic model that is also more proactive in carrying out the necessary transformation by **taking advantage of the opportunities** created by the players in our ecosystem and **facing new challenges** as they arise during the process.

### Challenges facing the Sustainability Economy in Barcelona

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Working with economic players by fostering sustainability-oriented dynamics. According to 2021 data published by Barcelona City Council, cities consume 70% of energy and are responsible for 75% of carbon dioxide emissions. Barcelona City Council must therefore work closely with the public and the economic community to stimulate sustainability-oriented dynamics by providing incentives that help transform the economic model into a more sustainable one.



**Defining a common and unified strategy.** Public administrations have a key role when it comes to achieving these challenges, as they are both drivers and facilitators of this process. It is therefore vital for Barcelona City Council to **establish a common and unified long-term strategy in its various areas and public entities** in order to accelerate the launch of new economic and productive activities linked to sustainable business models while minimising bureaucratic, administrative and cultural obstacles.



**Reinforcing the international position of a transformative and sustainable economy.** In addition to its established reputation and to being one of the world's leading cities in digital matters, start-ups and R&D&I, Barcelona faces the challenge of increasing its international presence in areas such as sustainability, driving new and innovative economic and productive models linked to the ecological transition and boosting the development of innovative high-capacity technologies.



**Designing an effective governance tool and leveraging the available synergies.** Furthermore, it is also crucial for institutions to **drive public-private collaborations in order to harness the synergies in their environment** and help transform the business network and create new innovative business models to address the existing environmental challenges.

### Opportunities arising from the Sustainability Economy in Barcelona

### 01/ Barcelona and its potential in accordance with sustainability criteria

This year, Barcelona has been awarded international recognition by the *Financial Times* group magazine *fDi Magazine* as the city with **the best investment attraction and promotion strategy in Europe**, having already been named **the second most attractive city in the world for the technology sector** in 2020, in view of the many events hosted by it in recent years, such as the Smart City Expo and the Mobile World Congress, as well as for its 22@ district, Pier01, science parks and universities. In addition, in relation to start-ups, Barcelona was named the **third best city in Europe to establish a start-up** in the 2022 Startup Heatmap Europe Report.

Fostering a prosperous, responsible and sustainable economy thus requires **tapping into Barcelona's huge potential** and boosting the sustainability of both existing and emerging sectors.

### 02/ An emerging and willing ecosystem

As a result of the irreversible nature of the ecological transition, **the city's devel**opment is increasingly linked to sustainability. We must therefore make good use of its emerging and willing ecosystem to get involved in the change and seize the opportunities in the environment, as well as promoting **the strong will**ingness of the economic community and the players involved in transforming the economic and productive model to negotiate, work together and take action.

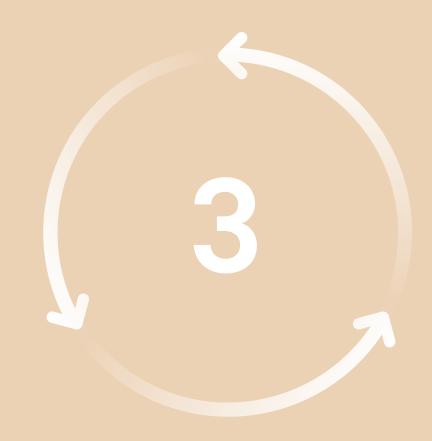
In order to further the transformation of the economic and productive model to achieve a more sustainable one, **the following current strategic sectors should be promoted**:

- > Industry
- > Mobility and transport
- > Energy
- > Trade, consumption and food
- > Construction and infrastructure
- > Tourism

### 03/ Social awareness and citizen participation

There is also a **remarkable degree of awareness and social conscience among the public in relation to sustainability**. Consumer behaviour is being influenced by the ecological transition and **increasingly sustainable practices**. Both public institutions and the private sector must promote responsible behaviour by the public as a whole and encourage even greater citizen participation for sustainability. 19 (1) Sustainability Economy

# 3. Sustainability Economy Roadmap



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## 3.1. Goals of the Sustainability Economy Roadmap 2030

The challenges and opportunities defined above help to highlight the city's assets and identify the areas for improvement that will enable us to make progress in the **deployment of the Barcelona Sustainability Economy Roadmap**.

The **Green Deal**, Barcelona's economic agenda for 2030, is the **framework for the roadmap** and acts as an umbrella for the promotion of the sustainability pillar. This strategic pillar focuses on ensuring Barcelona's success in **expanding the circular economy and attracting new economic activity hubs**.

This document provides the details of Barcelona City Council's **strategy** to drive a diversified and innovative economic model and ensure Barcelona's sustainability.

It sets out a **roadmap** to achieve a set of **strategic goals** linked to improving the city's economy and focusing on the **economic sectors** that drive the green, blue and circular economies, taking into account the different **fields of action** for each target group.

The implementation of the defined roadmap takes the form of a **list of actions** that brings together a set of measures to address the strategic goals established. These actions are classified based on the various strategic economic sectors to which they relate, and the fields of action affected by them are then ascertained. These actions thus act as a **lever** to ease the transition towards the transformation of the current economic and productive model.

Since the publication of the Barcelona 2030 economic agenda in 2021, Barcelona City Council has been developing the Green Deal's sustainability pillar by **carrying out the actions** contained in the list and **defining new initiatives**. **This roadmap is therefore a living document**, a list in constant evolution that lays down the city's goals for its Sustainability Economy.

Finally, the municipal support for the strategy also aims to **harness the syner**gies between the city's public entities and private companies to come up with valuable proposals for the public. The roadmap is therefore open to all the city's economic and social stakeholders. To this end, a governance framework promoting opportunities for reflection and gathering within the ecosystem, which are key to sustainability in Barcelona, will be established. 21 (2) Sustainability Economy

# 3.2. Goals for the promotion of the Sustainability Economy

Barcelona City Council and Barcelona Activa are driving the **Sustainability Economy Roadmap** by carrying out a set of actions to facilitate the transition to a more sustainable economy in Barcelona. This transformation of the economic model in accordance with sustainability criteria will mainly involve supporting the business network in its transformation and new business model creation processes.

### Goals pursued within the roadmap



Aid companies along their transformation to achieve a more sustainable production model by supporting them and giving them incentives to change.



Foster and accelerate the generation of new entrepreneurial initiatives and innovative business models, helping the city's economic community to seize the opportunities arising in the sustainability-related economy, attracting investors and creating new quality jobs.



Help the city's small businesses take advantage of new business opportunities arising from the transformation of the world of economic activity and society as a whole in accordance with sustainability criteria.

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Identify new job and professional development opportunities for workers within these emerging areas for the purpose of promoting talent.



Break down and remove bureaucratic, administrative and cultural barriers that hinder the promotion of a more sustainable and transformative economy and make it more difficult to bring about a paradigm shift.

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**Turn Barcelona into an international benchmark** in relation to the transformation of its economic and productive community, promoting the creation of new jobs and facilitating the ecological transition.

## 3.3. Scope of the Barcelona Sustainability Economy Roadmap 2030: economic sectors and fields of action

Six strategic economic sectors that are drivers of the green, blue and circular economies and are key to the decarbonisation of the economy have been identified to promote Barcelona's transition to a more sustainable, diversified and innovative economic model together with agents outside the ecosystem:

### The Sustainability Economy's strategic economic sectors



### Industry

Modernising and decarbonising industries by **adapting the business structure to a more sustainable model**, ensuring more environmentally friendly production cycles in order to optimise resources either by extending products' life cycle or by converting waste into raw materials for future use.



### **Tourism**

Fostering a type of tourism that is respectful of the ecosystem, **minimises its impact on the environment** and is committed to the city's social, cultural, economic and ecological situation. The aim is thus to make the destination sustainable and obtain a social return from tourism, helping generate **jobs and income** for local residents.



## Construction and infrastructure

Promoting the **renovation of more sustainable buildings and infrastructure** to reduce their environmental impact, as well as **maximising the benefits of energy efficiency** (particularly by means of **zero-emissions** buildings) to help carry out the **energy transition** and adapt to the city's new climate scenarios.



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### Mobility and transport

Travelling in a way that **reduces the negative impact** on the environment. The aim is thus to help achieve **sustainable mobility** in the entire metropolitan area by carrying out actions leading to **greater integration, promotion and economic development**, as well as putting in place monitoring actions to **reduce emissions and encourage alternative forms of transport** for both people and goods through ride-sharing initiatives, business travel plans and urban goods distribution.

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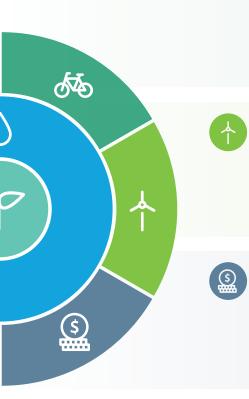


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Large-scale deployment of **renewable energies** and use of **clean electricity** to decarbonise the supply of energy (including for both industrial and private use), and facilitating access to **renewable energy resources** to guarantee a **commitment to the environment** and an **efficient management** of the consumption of such resources.

### Trade, consumption and food

Encouraging and prioritising innovative business models that respect **healthy and sustainable local value chains** in order to encourage **local and responsible consumption** by end consumers. As regards food, the aim is to **encourage sustainable food production** by means of organic agriculture and sustainable food habits.



## 3.3. Scope of the Barcelona Sustainability Economy Roadmap 2030: economic sectors and fields of action

The Blue Economy is a specific, pivotal area of the Sustainability Economy Roadmap. In addition to its role in bringing about the ecological transition and transforming the city's productive model towards a more sustainable one, it focuses on the need to guarantee that the city's economic activity results in good environmental status for its marine ecosystems and supports sustainable social and economic development. The Blue Economy affects the 12 sectors linked to the various strategic economic sectors mentioned above and encompassed within the framework of the Sustainability Economy.



The Blue Economy is defined as all water-related economic activities carried out in a way that is compatible with the environmental ecosystem conservation and that favour sustainable social and economic development. Barcelona City Council thus focuses on boosting blue economies linked to the sea: sustainable maritime economies.



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## Government Measure for the Promotion of the Blue Economy in Barcelona

The measure's main challenge is to preserve the maritime ecosystem and thus ensure it remains an economic driver for the city, both by maintaining its established sectors (port activities, maritime transport and logistics, ship building and maintenance, fishing and the bioeconomy, water treatment, sailing, sports and tourism) and by promoting new sea-related sectors (biotechnology and marine renewable energies) to transition to a more sustainable model in line with the goals of the 2030 Agenda.



https://www.barcelonactiva.cat/economiablava

### **Mission**

To develop the **potential of the Blue Economy in Barcelona**, in particular by fostering activities focused on **innovation**, **sustainability and technology** so that they lead to the **creation of jobs and the city's economic and social development and become a focal point of its coastline**.

### Vision

Establishing Barcelona as a **leading city in Europe and the Mediterranean for** economic activity and talent in the Blue Economy within ten years, promoting social and environmentally friendly development that brings the city's economy closer to achieving the Green Deal and the Sustainable Development Goals established in the 2030 Agenda.

### Goals

- **01/** Generate and reinforce the city's economic activities linked to the Blue Economy in the fields of talent, training, employment, entrepreneurship and business development, innovation and knowledge transfer, promoting innovation and ensuring environmental sustainability, as well as environmental renewal where possible.
- **02**/ Support the integration of Blue Economy activities into every aspect of the city's social fabric (culture, leisure, sports, cuisine), as well as in its maritime culture.
- **03**/ Promote the city's Blue Economy, giving it visibility both locally and internationally, by means of a structured narrative that showcases the city's assets and the opportunities it offers in the Blue Economy.

27 (2) Sustainability Economy

## 3.3. Scope of the Barcelona Sustainability Economy Roadmap 2030: economic sectors and fields of action

The actions falling under each of the strategic economic sectors defined above may affect one or more **fields of action** depending on their goal:

### Fields of action of the Sustainability Economy



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Helping **improve the competitiveness** and **sustainability** of companies, self-employed individuals and organisations in the cooperative, Social and Solidarity Economy to boost **business models** that foster constant **innovation**.

Assisting **entrepreneurs** from the birth of their business idea to the launch of the company, and supporting specific sectors and groups with their **innovative and sustainable initiatives**.

Fostering **local economic development** to meet the needs of people, companies and other economic stakeholders, all while ensuring **fair and inclusive development for the city and the local area.** 

Turning **Barcelona into a leading example** of the sustainable economy to increase the business and employment opportunities available to society by helping **attract international talent and companies** in relation to this area.

Stimulating **quality employment and equal opportunities**, supporting people in their **search for work** in order to increase job opportunities, as well as providing skill-development guidance through **technical and vocational training** and various cross-disciplinary **employment programmes** tailored to various groups of people with specific needs. 29 (1) Sustainability Economy

### 3.4. Sustainability Economy monitoring and governance framework

Fostering the transition towards a more sustainable economic model in Barcelona requires collaborations and partnerships with all the key players involved in the promotion and deployment of the Sustainability Economy Roadmap to be established from the outset. This strategy is thus the **beginning of a coordinated action** to be magnified or accelerated based on the needs arising at any given time or the extent to which the deployment of certain actions has been identified as urgent. The main functions of the monitoring and governance framework are to **coordinate the players involved** to ensure that the goals are met on time and as intended; **map out the targets** to be reached; **support the prioritisation of actions** based on the plans and goals established; **ensure that actions are aimed at achieving results and targets**, and **improve the model on an ongoing basis**.

### **Coordination spaces**

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# Municipal coordination space

**Public agents** involved in carrying out the Barcelona Sustainability Economy Roadmap.

The **main challenges**, **opportunities and roadmap** to be followed, in the form of concrete actions, will be shared.



# Public-private collaboration space

Private representatives of the strategic economic sectors and other external agents with ties to the Sustainability Economy.

**Knowledge and actions** to make progress on the deployment of the Sustainability Economy Roadmap will be showcased, and synergies will be created in the city and the entire metropolitan region.

A governance framework will thus be created with the relevant coordination spaces, so as to include the main **municipal agents** and the **external agents from outside the ecosystem**. The municipal agents involved in the municipal coordination space would therefore be agents belonging to management departments such as those responsible for the Economy, Resources and Economic Promotion (GERPE); Urban Ecology; the Environment and Urban Services; Mobility and Infrastructure; and Housing. The GERPE's sectoral directorates, the Strategic Projects Department of the Municipal Manager's Office, the local development organisation Barcelona Activa, the Municipal Institute of Markets (IMMB), Mercabarna, Barcelona Municipal Services (BSM), the Barcelona Energy Agency, the Municipal Tax Office (IMH) and the Barcelona 2030 Agenda Department should also be involved.

This monitoring and governance framework will enable us to **identify new opportunities** for municipal initiatives or for initiatives carried out in collaboration with other external agents, as well as **monitor the progress** of existing ones. Various sustainability indicators addressing the various goals, sectors and fields of action covered by the Sustainability Economy Roadmap and making it possible to assess the impact and efficiency of the actions included in it will be defined for this purpose. Below is an **initial set of indicators** for monitoring the deployment of the Barcelona Sustainability Economy Roadmap, its progress and its impact on the city's social and economic communities, in order to track the success of the implemented strategy:

### Barcelona's international positioning

- Sustainable Cities Index
- Sustainable Urban Mobility Index
- Clean Cities Index

### Economic activity and sustainability



- Sustainable economy employment: number of jobs and percentage of the total
- Companies with employees in the sustainable economy: number and percentage of the total
- Companies newly registered in the sustainable economy and percentage of the total
- Mapping of the sustainable economy in Barcelona (number of economic agents out of the total)
- Companies with an environmental quality seal/certification
- Agents whose articles of association include an express commitment to sustainability

### **Efficient use of resources**



- Energy intensity
- Energy consumption per capita (MWh/person/year)
- Percentage of consumption of final energy from renewable sources
- Energy consumption by sector (commerce and services, transport, industry, domestic, other) in GWh/year

### **Climate change and reduced emissions**



- Comparison of emissions per capita in different cities in the world
- Registered electric or hybrid vehicles
- EV charging points

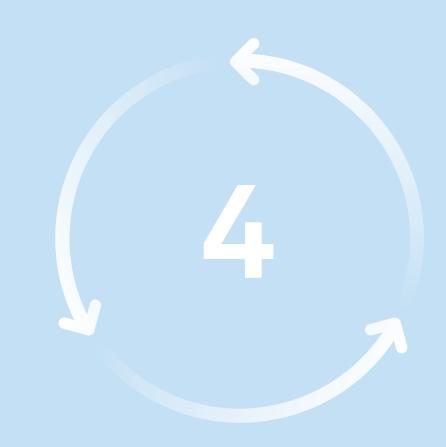
### **Greening by the City Council**



- Current expenditure allocated by Barcelona City Council to Urban and Environmental Services linked to the green economy
- Municipal investment in environmental sectors
- Tax impact in the framework of the Sustainability Economy
- Issuance of sustainability-related financial products

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# 4. List of actions



A 32 Barcelona Roadmap 2030 The previously defined goals, sectors and fields of action give rise to concrete actions aimed at facilitating the transition to a more sustainable economy in Barcelona. Details of the actions and measures involved are provided below. Some of them were promoted in 2021 after the publication of the Barcelona Green Deal, while others are still being defined and their deployment will establish the aims of the roadmap.

Each action is classified based on the strategic economic sector in which it is included and the field of action affected by it.



33 (2) Sustainability Economy

## 4.1. Industry

Modernising and decarbonising industries by adapting the business structure to a more sustainable model, ensuring more environmentally friendly production cycles in order to optimise resources either by extending products' life cycle or by converting waste to raw materials for future use.



### ACTIONS

- 01/ Purchase of industrial premises in the Bon Pastor neighbourhood, and promotion of lead projects
- 02/ Circular Economy programme for industrial companies
- 03/ Responsible Companies programme
- 04/ Innofood programme
- 05/ Foodback surplus food recovery centre
- 06/ Renovation and digitalisation of the Green Point
- 07/ Barcelona Zero Plastic commitment
- 08/ Waste management in the municipal markets
- 09/ Launch of packaging collection points in wholesale markets
- 10/ White and IT waste collection and recycling
- 11/ Agreement for the reuse of IT equipment with the eReuse network
- 12/ RevESStim programme
- 13/ Barcelona Fashion Forward
- 14/ Fashion Sustainable Challenge

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#### 01/ Purchase of industrial premises in the Bon Pastor neighbourhood, and promotion of lead projects



This involves purchasing an industrial building in the Bon Pastor neighbourhood to make it available and attract and carry out lead projects relating to the promotion of the circular and sustainable economy and Industry 4.0, leading to more competitive small and medium-sized enterprises in the city's economic and business ecosystem.



#### 02/ Circular Economy programme for industrial companies

This is a support action helping industrial companies in the Besòs hub to make the transition to a circular economy. Solutions relating to both the production process and the business model are identified to ensure a more efficient use of resources and to address any sustainability challenges that may arise. The support is provided by a team of experts who help analyse the company's situation and define solutions/projects to be carried out.

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#### 03/ Responsible Companies programme

This programme aims to promote and facilitate the integration of social responsibility into participating companies' business strategies by means of an action plan that takes this aspect into account in every area of the company in an effort to strike a balance between economic, environmental and social demands.



#### 04/ Innofood programme

This programme provides support for the creation of innovative companies that improve any part of the food sector's value chain in order to mitigate the effects of the climate crisis, reduce food waste and preserve biodiversity. It involves business plan and management training in the fields of food sustainability or food distribution. The programme also includes sector-specific sessions, networking with entrepreneurial projects and the provision of tailored support to participating projects.





**35** (1) Sustainability Economy

## 4.1. Industry

## 05/ Foodback surplus food recovery centre

Mercabarna has launched the Foodback surplus food recovery centre, a new management system for organic plant-based matter outside the commercial circuit that aims to give a second life to surplus fruit and vegetables. The facility, which is located in Mercabarna, is a key part of the new organic matter management system, which distributes 100% of recovered products and fosters technological innovation projects to minimise food waste.



#### 06/ Renovation and digitalisation of the Green Point



This is a renovation and digitalisation project for Mercabarna's Green Point specialist waste and recycling centre to consolidate waste access control and further establish the plant by-product management system. The aim is to make the new Green Point the main facility where retailers can quickly and effortlessly take their organic and packaging waste.



#### 07/ Barcelona Zero Plastic commitment



This is a commitment to reduce single-use plastics presented by the Zero Plastic Committee. The document sets out the actions and projects that will make it possible to move towards a more sustainable society model with a greater commitment to the future.







This action involves selective waste collection by sorting waste into separate paper, cardboard, glass, packaging, organic waste and refuse containers. The aim is thus to use mechanisms to select and reduce the volume of waste, reuse products and recycle the waste from Barcelona's municipal markets in an efficient manner.

Companies

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#### 09/ Launch of packaging collection points in wholesale markets



This action involves putting in place packaging collection points in the city's wholesale markets to control the circulation of reusable packaging used in commercial transactions and facilitate their reuse. As to plans for 2022, a new packaging recovery system for the fruit and vegetable sector will be put in place, followed by an equivalent one for the fish sector in 2023.



#### 10/ White and IT waste collection and recycling



This is a collaboration agreement between Barcelona Activa and Andròmines, a non-profit social integration organisation in the field of transport, establishing a white and IT waste collection and recycling service in Barcelona. Waste from electrical and electronic appliances and devices and ICT waste is collected under this initiative.



# 11/ Agreement for the reuse of IT equipment with the eReuse network

This is a collaboration agreement between the Municipal Institute of Information Technology and the Pangea association to put in place a circuit for the exchange, refurbishment and reuse of IT equipment between 2018 and 2022. Among other things, the eReuse network ensures the reuse of IT devices, which it donates to vulnerable families and social spaces.

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#### 12/ RevESStim programme

This action, which is part of the Sustainable Textiles Plan and the Circular Fashion Pact, aims to promote the city's sustainable textile sector by strengthening its companies and organisations, as well as the entrepreneurial projects in this area, from a social enterprise point of view. It provides specialist training and advice, revitalising different groups of players, identifying common goals and needs, and energising the network with initiatives and the exchange of experiences in this sector.





**37** (2) Sustainability Economy

## 4.1. Industry

#### 13/ Barcelona Fashion Forward



This action, which is part of the Circular Fashion Pact, aims to support new fashion brands and designers to optimise their methods and processes. It includes methods that take sustainability into account to enhance their professional activities and make improvements relating to commercialisation, communication and digitalisation by providing training sessions, tailored support and funding for services.



#### 14/ Fashion Sustainable Challenge



This is an annual competition for ideas around a particular topic open to fashion students and students of other creative disciplines from all over the world. It is based on the development of projects adapted to the specific theme of the competition, which changes each year, although it is always based on circular and sustainable fashion. This action is part of the Circular Fashion Pact, which strives to transform the Catalan textile sector towards the circular economy.



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🕢 Entrepreneurship

😑 Training and employment

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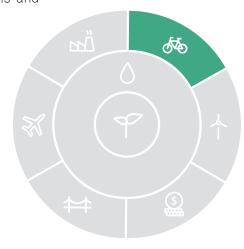
읻 Promotion

## 4.2. Mobility and transport

Travelling in a way that reduces the negative impact on the environment. The aim is thus to contribute to sustainable mobility in the entire metropolitan area by carrying out actions leading to greater integration, promotion and economic development. A further aim is to carry out monitoring actions to reduce emissions and encourage alternative forms of transport for both people and goods through ride-sharing initiatives, business travel plans and urban goods distribution.

#### ACTIONS

- 15/ EIT Urban Mobility fast-track programme
- 16/ Urban Mobility Lab
- 17/ Barcelona's New Bus Network (NXB)
- 18/ Public bicycle sharing scheme (Bicing)
- 19/ Reduced motor vehicle tax (IVTM) for zero-emissions or electric vehicles
- 20/ Reduced motor vehicle tax (IVTM) for hybrid petrol cars with ECO certification
- 21/ Urban goods distribution in Mercabarna and transformation of the fleet of traders
- 22/ Sustainable mobility programme for industrial companies



**39** (1) Sustainability Economy



### 4.2. Mobility and transport

#### 15/ EIT Urban Mobility fast-track programme



The mobility fast-track programme aims to provide support to start-ups at the initial stage of consolidating their business ideas for less congestion and a more efficient transport system based on innovative approaches. Ideas to speed up the transition to low- or zero-emissions means of transport and other ideas to address mobility-related challenges are also taken into account.



#### 16/ Urban Mobility Lab



This action involves providing selected companies and start-ups with a public space in the city as a test bench to trial smart and sustainable urban mobility projects and carry out pilot tests in real-world environments, a new innovation space at Fira de Barcelona, and advice services and access to the City Council's sensor network and databases. The project is promoted by Barcelona City Council in partnership with the Spanish Directorate-General for Traffic (DGT), Fira Barcelona and EIT Urban Mobility.



#### 17/ Barcelona's New Bus Network (NXB)

This is a project for the expansion of the bus network in Barcelona based on criteria relating to ease of use, effectiveness and efficient resource management. The main aim is to minimise waiting and travel times and improve connections between different means of transport to provide a more efficient and sustainable public transport system in both financial and environmental terms.



#### 18/ Public bicycle sharing scheme (Bicing)



The Bicing service, the city's shared public bike system, is being expanded to meet the goals of the Urban Mobility Plan (PMU) for 2024 and increase cycling while reducing travel in private motor vehicles. Under this service, 6,000 traditional and 300 electric bikes are made available to the public to travel in the city.



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#### 19/ Reduced motor vehicle tax (IVTM) for zero-emissions or electric vehicles



Reduced motor vehicle tax (IVTM) for all types of vehicle (except trailers) classified as zero-emissions vehicles in the Directorate-General for Traffic's (DGT) register of vehicles. It will consist of a 75% discount on this tax.



#### 20/ Reduced motor vehicle tax (IVTM) for hybrid petrol cars with ECO certification

Reduced motor vehicle tax (IVTM) for all types of hybrid petrol vehicles (except trailers) with ECO certification and  $CO_2$  emissions of up to 120 g/km, according to the Directorate-General for Traffic's (DGT) register of vehicles. It will consist of a 50% discount on this tax.



#### 21/ Urban goods distribution in Mercabarna and transformation of the fleet of traders

This is a project to improve and optimise the distribution of goods to facilities in Mercabarna within the framework of the urban goods distribution strategy. On the one hand, the project focuses on the addition of distribution companies specialising in group logistics, as this reduces the number of distribution vehicles needed and minimises the resulting emissions. And, on the other, it has developed an EV charging point network to ease the mobility transition for users.



#### 22/ Sustainable mobility programme for industrial companies



This is a personalised support programme for companies in the Besòs hub that analyses their mobility and suggests sustainability improvement actions. This support is provided by a team of experts who help analyse the company's situation and provide solutions and projects to be carried out.



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## 4.3. Energy

Large-scale deployment of renewable energies and use of clean electricity to decarbonise the supply of energy (including for both industrial and private use), and facilitating access to renewable energy resources to guarantee a commitment to the environment and an efficient management of the consumption of such resources. Property tax (IBI) deductions for installing voluntary systems to harness solar power for heat or electricity.



#### ACTIONS

- 23/ Property tax (IBI) deductions for installing voluntary systems to harness solar power for heat or electricity
- 24/ Reduced tax on economic activities (IAE) for using renewable energies
- 25/ Endolla network
- 26/ MES Barcelona
- 27/ Cleantech Camp programme
- 28/ Energy-saving improvements in municipal markets
- 29 / Industrial refrigeration distribution network
- 30/ Proactive City grants

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- 😑 Training and employment
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#### 23/ Property tax (IBI) deductions for installing voluntary systems to harness solar power for heat or electricity

Tax deduction for (new and existing) properties used for housing and the tertiary sector in which voluntary systems for the use of solar power for heat or electricity have been installed: 50% off the full tax payable in the three tax periods immediately following the installation.



#### 24/ Reduced tax on economic activities (IAE) for using renewable energies

Reduction in the amount of tax payable on taxable activities for taxpayers who install systems for the use of heat or electricity from solar power, for two years. They will receive 50% off the tax payable in the two tax periods immediately following the installation.

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#### 25/ Endolla network

Expansion and improvement of the city's EV charging point network to encourage electric mobility and increase energy efficiency. This reduces dependence on fossil fuels and increases the use of renewable energies, as well as reducing noise pollution and helping develop smart energy networks.



#### 26/ MES Barcelona

This tool was launched in 2021 to support and accelerate the city's energy transition by means of private investment. Specifically,  $\in$ 50 million of the municipal budget will be invested in the promotion of renewable energy and the attraction of private funds to boost the generation of photovoltaic energy by carrying out energy renovation projects and installing solar panels.





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## 4.3. Energy

#### 27/ Cleantech Camp programme



This is an entrepreneurship support programme covering both clean technologies and technological innovation for the development of potentially high-impact solutions by providing the market with technology transfer support. It is aimed at start-ups, business projects and unincorporated businesses to help them develop clean technologies for the energy sector in the fields of biogas and hydrogen, the circular economy, efficient energy, the Internet of Things and artificial intelligence.



#### 28/ Energy-saving improvements in municipal markets



This is an action to make improvements to the city's municipal markets within the framework of the 2015-2015 Strategic Markets Plan to provide them with more energy-sustainable facilities. Heating and air conditioning systems that use ground water or geothermal energy, as well as roof solar panels to produce energy for self-consumption and thus accelerate the energy transition, have therefore been installed as part of the remodelling works currently being carried out.



29/ Industrial refrigeration distribution network

Construction of a central power network for freezing and cooling at Mercabarna, using the cold recovered in the natural gas gasification process carried out at the Enagas plant in the Port of Barcelona. This reduces  $CO_2$  emissions and saves on both energy and costs.



#### 30/ Proactive City grants

This is a call for grants in collaboration with BIT Hàbitat to provide both technical and financial support to projects aimed at addressing two top-priority urban challenges in Barcelona's local agenda: the energy transition and climate emergency on the one hand, and urban transformation, housing and social and territorial cohesion on the other.



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## 4.4. Trade, consumption and food

Encouraging and prioritising innovative business models that respect healthy and sustainable local value chains in order to foster local and responsible consumption by end consumers. As regards food, the aim is to encourage sustainable food production by means of organic agriculture and sustainable food habits.

#### ACTIONS

- 31/ Biomarket
- 32 / Responsible consumption space at Palau Foronda
- 33/ Network of refrigerated cabinets and monitoring at municipal markets
- 34/ Terra Pagesa local food distribution centre
- 35/ Green Commerce programme
- 36/ World Capital of Sustainable Food
- 37/ Social and Solidarity Economy training programmes and advice service for sustainable agri-food companies
- 38/ Sustainable Restaurant Pioneers programme
- 39/ International Congress on the Circular Economy and Restaurants
- 40/ Minimum Requirements for Sustainable Restaurants
- 41/ Guide: "How to successfully and sustainably set up a delivery and takeaway service for your business"



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### 4.4. Trade, consumption and food

#### 31/ Biomarket



Launch of the Biomarket organic food wholesale market in Mercabarna. The market aims to meet the public's growing demand for organic food and address the current growing commitment to this type of food by the wholesale sector and local producers. It also aims to support the city's commitment to a fairer, healthier and more sustainable food model.



# 32/ Responsible consumption space at Palau Foronda



A newly opened facility in the city whose aim is to spread a more conscious consumer culture with a greater commitment to having a positive impact on people and the environment. The facility, which is in Palau Foronda, holds talks, workshops and exhibitions and contains a Responsible Consumption Information Point.



#### 33/ Network of refrigerated cabinets and monitoring at municipal markets



Refrigerated cabinets have been installed in the markets as part of the Market Digitalisation Plan (2015-2025) for the delivery of orders by traders for fast, safe and convenient collection by customers, making it easier to buy local organic products. The monitoring of energy consumption, the operation of the facilities and the online sales management strategies have all been further digitalised for data collection and improvement purposes.



# 34/ Terra Pagesa local food distribution centre



This is an innovative shopping area and logistics centre in Mercabarna run in partnership with the Farmers' Union that aims to make the distribution of local products between farmers and small shops and the municipal markets easier. It facilitates commercial connections by providing an online platform that does not require producers to be physically present. It also provides the producers that use it with logistical and transport help, with sustainability as its hallmark.



Entrepreneurship

🕕 Companies

- 🖻 Training and employment
- 🛒 Local sphere
- Promotion

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#### 35/ Green Commerce programme

This programme aims to encourage municipal markets' stallholders to sell local organic food obtained directly from producers. Its aim is to enable local organic food obtained directly from producers to be sold throughout Barcelona, while also bringing added value to municipal markets.

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Barcelona was the World Capital of Sustainable Food in 2021. This led to 90 projects and over 200 activities open to the general public to promote healthy and sustainable eating, facilitate the distribution and sale of local, organic and short-distance foods, and push an agroecological transition in Barcelona.



37/ Social and Solidarity Economy training programmes and advice service for sustainable agri-food companies

This is a social enterprise development programme to boost and strengthen sustainable agri-food initiatives with Social and Solidarity Economy values and an advice service for sustainable development initiatives, whether they involve entrepreneurial ideas at the design stage or initiatives that are already in operation.



38/ Sustainable Restaurant Pioneers programme



This programme, which is carried out in collaboration with Barcelona Restaurants Sostenibles, provides free training courses on sustainable restaurants for professionals wishing to learn how to contribute to sustainability from various sections of the food industry. It is carried out under the Barcelona Sustainable Restaurants Action Plan.





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### 4.4. Trade, consumption and food

#### 39/ International Congress on the Circular Economy and Restaurants

This congress was held in 2021 within the framework of the World Capital of Sustainable Food with support from Barcelona City Council and the Barcelona Metropolitan Area (AMB). Proposals were shared at the congress to make progress in the transition towards more sustainable agri-food systems, with a focus on regenerative agriculture, waste as resources and the restaurant industry as an innovation influencer in the circular economy.



#### 40/ Minimum Requirements for Sustainable Restaurants

This is a list published in 2022 setting out, among other initiatives of interest, the basic principles to be complied with by a restaurant in order to be considered sustainable. One of these is the "Weeds in the Kitchen" initiative, which explores the culinary and nutritional value of the plants and herbs most commonly used in cooking in order to make full use of the available resources. It also highlights "the efficient use of food for animal feed", which is about reusing food waste.

41/ Guide: "How to successfully and sustainably set up a delivery and takeaway service for your business"

Publication of a guide on how to successfully and sustainably set up a delivery and takeaway service for your business. This guide provides information about current trends and innovation, sustainability, branding and marketing, and communication.



🕕 Companies

🥑 Entrepreneurship

🖻 Training and employment

🛒 Local sphere

읻 Promotion

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## 4.5. Construction and infrastructure

Promoting the renovation of more sustainable buildings and infrastructure to reduce their environmental impact, as well as maximising the benefits of energy efficiency (particularly by means of zero-emissions buildings) to help carry out the energy transition and adapt to the city's new climate scenarios.

#### ACTIONS

- 42/ Urban transformation of the 22@ district
- 43/ Housing renovation grants
- 44/ FoodLab
- 45/ Adapting the Disseny Hub's premises
- 46/ Refurbishment of the Can Batlló building



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### 42/ Urban transformation of the 22@ district

The 22@ district is a leading example of urban renewal and transformation. It is built on close to 200 hectares of old industrial land, with an approximate gross floor area of 4 million m<sup>2</sup> for housing and economic activities. It is considered one of the most successful neighbourhoods in terms of the Sustainability Economy, because many of its buildings have the highest possible energy rating. Following twenty years of development, the aim is to give the 22@ district a definitive boost with an urban renewal project that maintains the area's dynamism and economic potential and generates a significant return in terms of taxes.



#### 43/ Housing renovation grants

This is a programme of housing renovation grants provided by Barcelona City Council and the Barcelona Housing Consortium to promote habitability, accessibility and energy efficiency both inside each home and for buildings as a whole. The grants aim to foster energy efficiency by reducing energy consumption by providing external insulation for buildings and encouraging the use of solar energy.





### 4.5. Construction and infrastructure

#### 44/ FoodLab



This project involves the creation of an influential leading space for experimenting and starting new business projects in the field of sustainable food. It is being carried out as part of the renovation of a building on Carrer Pere IV dating back to 1852 located inside a set of buildings that together make up the old "La Escocesa" factory. In view of this, the renovation will preserve certain aspects of the old building and add installations that take energy efficiency into account.

#### 45/ Adapting the Disseny Hub's premises

Adaptation of the Disseny Hub facilities, a space for use by the creative industries based on sustainability criteria, by reforming the water, electricity and lighting system to make the building sustainable and environmentally friendly.

#### Link

#### 46/ Refurbishment of the Can Batlló building



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This project involves fully refurbishing the Can Batlló building in order to preserve and highlight the characteristic traits of the old factory site's industrial architectural style and boost activities in its old industrial streets. Furthermore, it includes relevant actions to reduce energy expenditure and limit the use of natural resources, for example by reusing existing components of the building and installing horizontal and roof solar panels for sustainable energy production.



🕕 Companies

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🖻 Training and employment

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😟 Promotion

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### 4.6. Tourism

Fostering a type of tourism that is respectful of the ecosystem, minimises its impact on the environment and is committed to the city's social, cultural, economic and ecological situation. The aim is thus to make the destination sustainable and obtain a social return from tourism, helping generate jobs and income for local residents.

#### ACTIONS

- 47/ Sustainable tourism plans in destinations for local entities (PSTD)
- 48/ Barcelona Biosphere Commitment to Sustainable Tourism
- 49/ Tourism and Culture Fund
- 50/ FuTurisme programme
- 51/ Barcelona Tourism Observatory
- 52/ + Sustainable Tourism
- 53/ Tourism and Culture Congress



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# 47/ Sustainable tourism plans in destinations for local entities (PSTD)

This programme forms part of the Strategy for Sustainable Tourism in Destinations of the Spanish Ministry of Industry, Commerce and Tourism. It lays the foundations for a new tourism model to transform destinations based on sustainable criteria in accordance with the Sustainable Development Goals (SDGs).



#### 48/ Barcelona Biosphere Commitment to Sustainable Tourism



This initiative gives recognition to tour operators with a commitment to responsible management in accordance with certain requirements based on the United Nations' Sustainable Development Goals (SDGs). Operators that make this commitment receive training and advice to draw up an improvement plan that enables them to obtain the certification. They are also awarded a Safe Travels seal by the World Travel & Tourism Council (WTTC).





### 4.6. Tourism

#### 49/ Tourism and Culture Fund



Creation of an economic fund to stimulate the production or importing of new cultural contents, provided that this entails and involves an exemplary culturising value in accordance with sustainability criteria. The fund will be used in collaboration with the public, in accordance with a tradition of complicity and patronage that has enabled such important cultural institutions as the Barcelona Museum of Contemporary Art (MACBA), the Miró Foundation and the Tàpies Foundation, to name but a few, to be established in Barcelona.

#### 50/ FuTurisme programme



This programme supports the creation of innovative and sustainable companies that meet the emerging needs of the tourism sector in Barcelona city and province. It is backed by Barcelona Activa, the Barcelona Hotel Guild, Barcelona Provincial Council and the Catalan Association of Specialist Travel Agencies.

#### 🚺 Link 🗌

#### 51/ Barcelona Tourism Observatory

This action involves the creation of a platform with a set of indicators to measure the sustainability of tourism in Barcelona. The Observatory is part of the World Tourism Organization's (UNWTO) International Network of Sustainable Tourism

1 Link

Observatories (INSTO).

#### 52/ + Sustainable Tourism



This was a conference held in 2022 by Barcelona Provincial Council, Barcelona City Council and Turisme de Barcelona comprising around a dozen events for both professionals and the general public in the field of sustainable and responsible tourism in Barcelona city and province.



53/ Tourism and Culture Congress



This action involves creating a space to establish a pact between these two sectors to create new value propositions in order to stimulate aspirational tourism and promote the local production of culture.

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 Promotion

🕢 Entrepreneurship

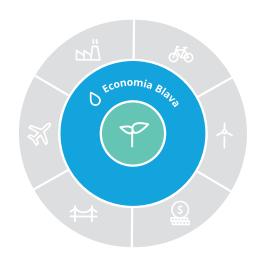
🖻 Training and employment

## 4.7. Blue Economy

Generating and reinforcing the city's economic activities linked to the blue economy in the fields of talent, training, employment, entrepreneurship and business development, innovation and knowledge transfer, promoting innovation and ensuring environmental sustainability, as well as environmental renewal where possible.

#### ACTIONS

- 54/ New Olympic Port
- 55/ Blue Economy Entrepreneurship Programme
- 56/ Study of new jobs related to the Blue Economy
- 57/ Reskilling in the Blue Economy
- 58/ Nautical training and technology hub
- 59/ InnovaBlue (collaborative innovation programme)
- 60/ Support to Blue Economy and sustainability investment funds
- 61/ Blue Economy Observatory
- 62/ Attracting and holding Blue Economy events and international networks



53 (1) Sustainability Economy

#### 54/ New Olympic Port

This is a new space in the Olympic Port. It includes a Blue Economy hub that will serve as a leading example for promoting innovation, generating new economic activity and ensuring quality employment related to the sea and its environmental sustainability. It will also promote sailing and sea sports by means of new spaces, for example by building a centre for new sea sports or remodelling the current municipal sailing centre. Finally, it will offer a public space where people can be in contact with the sea to work, pursue sports or simply enjoy and experience the sea.



#### 55/ Blue Economy Entrepreneurship Programme



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This is an entrepreneurship programme to develop a benchmark programme of excellence for the creation of businesses in the Blue Economy, thus becoming a source of attraction for Barcelona's economy. The activities carried out in the course of the programme will range from business start-up support to personal tutoring sessions and specialised workshops with experts, helping participants improve their soft skills and introducing new businesses to the business reality of the sector. An annual programme is planned which will assist between twelve and fifteen companies a year.



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### 4.7. Blue Economy

# 56/ Study of new jobs related to the Blue Economy

Analysis of the new jobs resulting from the Blue Economy in the city, identifying opportunities in terms of quality job creation and workers' upskilling and reskilling needs.

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#### 57/ Reskilling in the Blue Economy



Specialist sector-specific reskilling in the Blue Economy. This short specialised training programme helps attendees find work in a specific sector, helping them both develop their professional potential and acquire the most sought-after skills and knowledge in the Blue Economy. The reskilling training is provided by agents of the city's training and employment ecosystem, such as the Sailing Institute.

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#### 58/ Nautical training and technology hub



This involves the construction of a technology campus, which started in 2021, for the promotion of advanced training, professional skills acquisition, research, technology development, innovation, technology transfer and the promotion of entrepreneurship and employment in the sustainable Blue Economy as well as in specific areas to carry out collaborative projects. This includes multiple physical spaces, such as a new municipal facility that will house some of the activities carried out by the UPC's Faculty of Nautical Studies and spaces for the incubation and promotion of entrepreneurship, innovation and Blue Economy employment.



#### 59/ InnovaBlue (collaborative innovation programme)



This involves the creation of an environment for innovation and collaborative transfer in relation to the Blue Economy. Its aim is to become a benchmark for technological knowledge in this field and to have an impact on various areas (such as industry, commercial and sports sailing, port and fishing activities, aquafarming and other fishing and fish-related technologies, marine biotechnology, and marine and coastal engineering). The initiative thus aims to become an example of excellence in research, with a view to covering the "blue" business needs arising in relation to innovation, as well as promoting the Blue Economy's emerging sectors.



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Barcelona Roadmap 2030

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#### 60/ Support to Blue Economy and sustainability investment funds

Supporting private funding initiatives or the creation or attraction of investment funds (venture capital) whose main focus for investment is the Blue Economy and sustainability.

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#### 61/ Blue Economy Observatory

This programme aims to create an observatory that makes it possible to lay down a set of indicators to explain and define the local status of the Blue Economy's economic sectors and how they help achieve environmental sustainability and social development. It will also make it possible to assess and monitor the Blue Economy's economic, social and environmental impact on Barcelona city. The data and indicators from the Blue Economy Observatory will form the basis for the proposal of new public policies based on sound and comparable periodic data.



# 62/ Attracting and holding Blue Economy events and international







55 (2) Sustainability Economy 5. Annex. Actions of the ecosystem



A 56 Barcelona Roadmap 2030 Promoting and taking part in Barcelona's new paradigm shift requires an **active ecosystem engaged in the deployment of the Sustainability Economy Roadmap.** In view of this, an initial group of external agents including both public companies and other private operators in the city has been identified to help design and carry out new actions to promote sustainability across the region. **New forms of public-private collaboration** have accordingly been introduced to encourage the business world to innovate and promote new, more sustainable business models.



### Port of Barcelona

#### Development of renewable energy

This action involves considering and carrying out measures to develop renewable energy and use it to generate green hydrogen, which is produced by electrolysis. This method uses an electric current to separate hydrogen from oxygen in water. Electricity is therefore obtained from renewable sources, and energy can be produced without any carbon dioxide emissions into the atmosphere. This would help decarbonise the planet and promote the use of clean and more sustainable energies.

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#### Organic waste conversion

The Port of Barcelona is looking at ways to use the more than 1,000 tonnes of organic waste taken from ships to generate biogas, which can be used as a direct substitute for fossil gas.

#### **Dock electrification plan**

This project aims to gradually install electricity points on the docks in the port. The goal is to enable vessels to connect to the onshore power grid and turn off their auxiliary engines, thus avoiding emissions when they are docked.

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Smart grid at Moll de Pescadors

This project consists of developing a closed electricity grid at Moll de Pescadors by installing solar panels in the dock's buildings and spaces. The aim is to make Moll de Pescadors self-sufficient for energy by creating a micro-grid that uses only renewable energy and can be operated from inside the port.





#### **Forum Ambiental Foundation**

#### Green and Circular Economy Plan



This is a support programme to help local bodies make the circular economy a reality. The programme includes training and networking sessions to carry out circular economy initiatives. There are currently 25 municipalities taking part.

#### Mataró-Maresme Circular Park



This is an agreement with Circle Economy and Inèdit to work on the circular economy strategy with the TecnoCampus science park in Mataró. Part of the facilities will be used to promote entrepreneurship in the circular economy.

Sustainable Mobility Hub



The aim of this project is to scale up the scope of the Sustainable Mobility Hub in the El Vallès Oriental region to a project that covers the entire Mediterranean Corridor. Its purpose is to bolster the foundation of a new model based on the pillars of sustainability and innovation by supplying fuel to all the vehicles travelling in the area.



"Dialogues and synergies for the circular transition by 2030"



This is a series of dialogues and synergies aimed at promoting communication and collaboration between the region's various socio-economic players to boost the transition towards a circular economy by 2030.

Paper 4. What is the circular economy and why is it important for the region?



The aim of this paper is to put the circular economy concept into context and show how it can affect public policies in our region, with a reflection on the role played by local government.



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#### Sustainable Mobility Industry Forum



This forum provides meeting spaces between institutions and public and private players to push forward the narrative and necessary actions and transform the various sectors involved into a sustainable mobility-related ecosystem capable of standing up to both present and future challenges.

# Paper 7. E-mobility in the Barcelona metropolitan region

This is a report on the transformation of e-mobility. It aims to establish the impact and opportunities of e-mobility around the Barcelona metropolitan region with a view to deciding on future lines of action.

# Paper 5. Present and future of industrial estates: beyond transformation

This is a report on the current and future situation of industrial estates. Its aim is to foster debate on the transformation of industrial estates to address the complex issues arising from a new dynamic and constantly changing industry, prevent it from becoming obsolete, and help it become more relevant in the competitiveness of companies and territories, using sustainability as a pillar of change.

# Paper 12. The impact of artificial intelligence on companies

This paper explains what artificial intelligence (AI) is and how it is the backbone of a whole new technological era. It provides an analysis of the impact that AI will have on various aspects of business management and a guide on how to use it in business.

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# Paper 14. Guide to local initiatives for the energy transition in industrial estates

This is a paper on the electrical transition. It aims to provide municipal leaders and local agents with guidance and case studies to help them lead and drive forward this transition process in industrial estates.

#### IND+I Club Awards

This is a research competition that awards prizes to PhD students in Catalan universities to stimulate the creation of scientific knowledge in the fields of innovation, industry and the sustainable cities agenda.



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#### Barcelona Metropolitan Area (AMB)

#### GestPAE business management and circular economy tool



The AMB's Economic Development Agency presents GestPAE, a tool for metropolitan municipalities wishing to carry out circular economy strategies in their economic communities. Its purpose is to provide indicators and interlinked information to create new projects and policies, as well as making it easier for companies to work together in the development of projects at metropolitan level.



#### **Digital Aviation Innovation Talent Hub**



This is a new digital innovation centre for aviation promoted in partnership with the airline Vueling to move towards the achievement of energy efficiency and sustainability in the tourism and aerospace industries. The aim of this hub is to help players in the tourism and aerospace industries to make decisions throughout the value chain, in turn improving users' travel experience and fostering sustainability.



#### Iberdrola (TMB)

#### Zona Franca Hydrogen Plant

Installation of a public hydrogen plant in the Zona Franca industrial estate to supply renewable hydrogen to the TMB bus fleet for the next ten years, as well as any companies in the estate in need of this green fuel. This would make it the first plant in the whole of Spain to produce renewable gas for commercial purposes.

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#### Association of Small and Medium-Sized Enterprises in Catalonia (PIMEC)

#### Office of Energy Transition for SMEs and self-employed individuals



This action involves creating a technical office to carry out tailored projects to improve the energy efficiency of micro-, small and medium-sized enterprises and self-employed individuals in Barcelona. This is achieved by providing technical, administrative and financial advice and support for projects relating to solar energy for self-consumption, insulation and building envelopes, heating and air conditioning, renewable energies, home automation systems, and security and accessibility.



### **B Lab Spain Foundation**

#### Barcelona + B

This is an initiative promoted by B Lab Spain in partnership with Ferrer, EADA Business School and Barcelona City Council to improve the environmental and social impact of companies and the public as a whole in order to turn them into the main agents of transformation, as well as addressing the climate emergency. Under this initiative, Barcelona joins the global Cities Can B movement, under which companies, universities, foundations, public institutions, entrepreneurs and members of the public work together to make Barcelona a sustainability and SDG development leader.

#### B Corp Certification



This certification is awarded to companies that work to create social, environmental and economic value for all stakeholders, including workers, suppliers, customers, communities, shareholders and the environment. The B Corp community harnesses companies' potential to have a positive impact on people and the planet in order to reduce inequality and poverty, protect the environment, strengthen communities and create quality jobs.



61 (2) Sustainability Economy