

A GUIDE TO CLIMATE CHANGE ADAPTATION FOR BUSINESS IN THE FRAMEWORK OF CORPORATE SOCIAL RESPONSIBILITY



LIFECITYADAP3

RSC
càtedra
UNIVERSIDAD DE MURCIA







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O1

What is climate change?

“A change of climate attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods”

UN Framework Convention on Climate Change



O2

Source: Climate Change 2014. Impacts, adaptation, and vulnerability.
Summary for policymakers. IPCC

*https://ec.europa.eu/jrc/sites/default/files/pesetaiv_summary_final_report.pdf

How climate change is acting/working

A

Climate change is already happening and is set to continue

B

Average temperatures in Spain and Italy are increasing by around 0.3°C per decade*

C

Precipitation distribution is changing

D

Natural water resources are decreasing in most basins

E

Sea levels are rising

F

Even if we manage to reduce the emissions causing climate change, and thus avoid its worst consequences, these trends will continue in the coming decades due to the inertia of the climate system

03

Responses to climate change: mitigation and adaptation

Mitigation strategies aim to reduce net emissions of greenhouse gases into the atmosphere

Adaptation strategies aim to limit the risks arising from climate change

Climate change adaptation measures aim to reduce risks, limit impacts, reduce vulnerabilities and increase resilience to climate change of human and natural systems, including biodiversity, forests, coasts, cities, agriculture and industry



O4

Source: Ihobe, Sociedad Pública de Gestión Ambiental, 2019. "Guide for the development of climate change adaptation plans for organisations". Published by: Ihobe, Sociedad Pública de Gestión Ambiental. Department of Environment, Territorial Planning and Housing Basque Government.

Why should businesses take action to adapt to climate change?

01

Most organisations are already exposed to climate change either directly or indirectly: to natural resource constraints, to logistical or manufacturing disruptions, and to economic or financial crises as a result of climate change.

04

Organisations that develop and maintain competitive advantages tend to be characterised by their foresight.

02

In most cases, adaptation to climate change is not yet integrated into the organisation's activities.

05

To avoid risks to workers from the effects of climate change. In southern European regions, the main impacts on people's health are high temperatures, extreme weather events, air and aeroallergen pollution, and diseases transmitted by infectious vectors, food and water.

03

The long-term viability of an organisation is underpinned by its social, economic and environmental environment.

In particular, climate change will aggravate existing occupational risks and bring new ones to the surface. Environmental temperature extremes already have an impact on the health, safety and well-being of the working population.

05



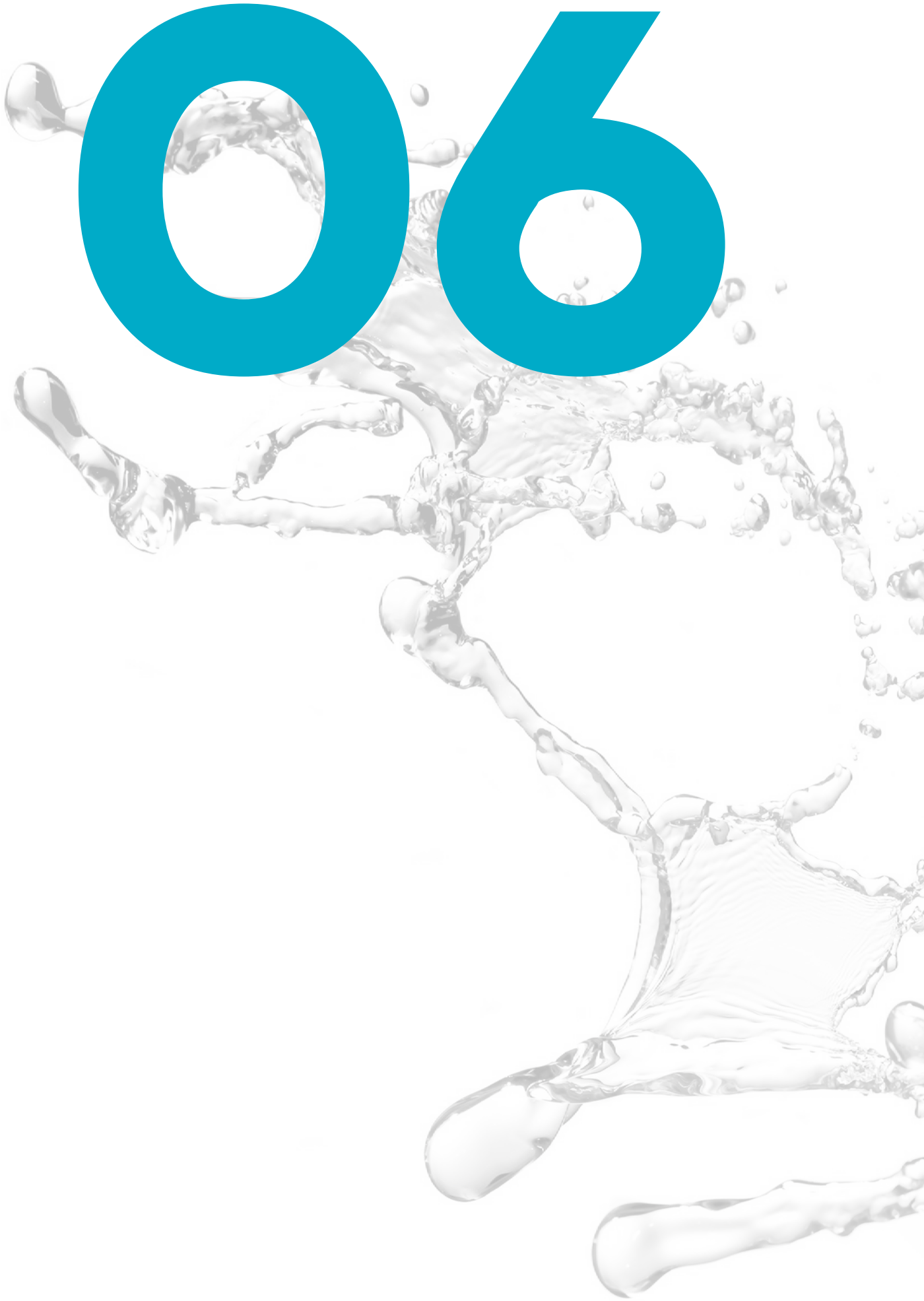
PRO

What can businesses do to adapt to climate change?

Making voluntary environmental commitments as part of its Corporate Social Responsibility (CSR)* and specifically adopting climate change adaptation measures in the development of its business.

What is Corporate Social Responsibility?

The responsibility of an organisation for the impacts of its decisions and activities on society and the environment EU Commission. Communication 25 October 2011.



How businesses can adapt to climate change

01

Adopting simple and general climate change adaptation measures.

02

Carrying out climate change risk analyses in order to adopt adaptation measures in a progressive manner appropriate to the specific case of each company.

02.1

Applying measures to prevent occupational risks derived from climate change.



01

18

General measures

Occupational health and safety

Include measures to prevent the effects of climate change in occupational health and safety plans to avoid the occurrence of occupational accidents and diseases.

Flood prevention and vulnerability of buildings

Adopt measures to protect buildings in flood-prone areas by carrying out feasibility studies taking into account this risk and using appropriate materials for this purpose.

Promote the Circular Economy

Reduce the consumption of resources and make the most of the circular economy by reusing waste and adding value to it.

Supporting suppliers

Helping suppliers to protect themselves against climate change by analysing how they will be affected in sourcing their materials

Supporting the local community

Helping the local community prepare for the future to ensure people's mobility, health and safety.

Public-private partnerships

Enhance public-private partnerships to take action on climate change as local governments and the private sector are key actors in community climate change adaptation.

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General measures Water use and treatment

Reuse water for a second use.

Reduce soil sealing and capture and use of rainwater. borm

Reduce runoff in heavy rainfall by applying sustainable drainage techniques and nature-based solutions as elements of adaptation to the increased frequency and aggressiveness of rainfall.

Implementing water-saving systems

Use of adapted plants

Choose plants for gardens and agricultural uses that can adapt to the changes in each geographical area and, increase seasonal shading.

Preventing the effects of rising temperatures

Use insulating structures in building by installing passive heat/cold protection systems such as awnings, blinds or overhangs and by using nature-based solutions.

Preventing the effects of sea level rise

Take into account the foreseeable effects of sea level rise, both permanent and occasional, and take appropriate measures to prevent and defend against occasional flooding.

01

General measures

20

Reasons for general climate change adaptation measures

Because it does not require large investments or efforts and can bring significant improvements to business activity and help to identify opportunities for organisations.

Because they are changes in business practice or implementation of simple techniques that produce improvements and benefits regardless of the occurrence or non-occurrence of variations in the weather, which can be carried out at times when it is necessary to renew facilities and machinery, or redefine new strategies.

02 Risk analysis



01
Know the impacts of climate change on the business sector in which the company is included.

02
Identify which of the organisation's activities are most likely to be exposed to these impacts.

03
Understand the capacity of the company to manage and respond to these impacts.

04
Assess the vulnerability of the company based on the risks identified in terms of the capacity to manage them.

05
To come up with solutions and measures to manage the risks.

02

Risk analysis

22

Viabilidad y priorización de las medidas

Climate risk reduction potential

Technical feasibility

Co-benefits contribution
(environmental, social, etc.)

Economic viability

6.2.B

Prevention of occupational risks arising from climate change

One of the clearest consequences of climate change in Spain and Italy is the increase in the frequency, intensity and duration of periods of extreme heat.

High ambient temperatures are causing a significant increase in occupational exposures to heat stress, which is the main risk to be addressed in the field of occupational health.

There is a need for a specific action plan to deal with extreme temperatures, risks from chemicals and environmental pollution, etc., as part of the occupational risk prevention plan.

These situations should be considered, and measures should be taken to reinforce the protection of workers' health.

STEPS

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01

Preliminary assessment: identify all jobs and tasks in which the exposure to heat stress is possible, taking into account whether the risk is also increased by other factors contributing to heat stress (physical exertion and work clothes or personal protective equipment that prevent perspiration).

02

When the level of risk is highly changeable (affected by weather conditions), the prevention plan should specify the method to be used to assess the hazard of each work situation.

03

Have a set of appropriate preventive measures planned for each task and establish the necessary resources for them.

04

Organise monitoring, first aid, health surveillance and follow-up of the plan.

05

Establish responsibilities by giving precise instructions on how to work in each situation.

06

Train and inform all staff about prevention measures.

02.1

Rationale for climate change risk analysis

01

It provides valuable knowledge of the current, short-, medium- and long-term climate-related risks and opportunities.

02

It is the basis for undertaking risk management which, if not known by the organisations, will result in losses and damages of different kinds.

03

It makes possible to demonstrate to investors that you know the risks and are in a position to manage them.



07



Source: Sauma Uribe, O.; Rojas Wang, P; Vega Méndez, J. and Pessoa Albertazzi, R, 2018. "Guide to experiences in adaptation to climate change". Ed.: Business Alliance for Development.

Benefits for business in adopting climate change adaptation measures*

01

Adaptation to climate change, in addition to avoiding and mitigating risks arising from climate impacts, can generate options for improvement, and give rise to new opportunities as well as competitive advantages for each company.

02

Climate change risk management allows anticipating the response to changes in markets and products, enabling better investment and loan decisions.

03

Supporting suppliers to protect themselves against climate change can help secure the supply of raw materials and thus production. It allows the adoption of diversification strategies that help reduce the risks of supply disruption.

04

Incorporating climate risks into site selection can help maintain operational efficiency and the optimal location of the company.

05

Transparency about climate change adaptation measures, and the management of the risks involved, give confidence to investors, customers and other stakeholders, improves insurability and reduces claims.

06

Measures to protect the health and safety of workers from the effects of climate change ensure work continuity and efficiency.

07

Helping communities adapt and being seen as a solution provider helps the company gain reputation.





Mitigation and adaptation are complementary

Many of the above-mentioned climate change adaptation measures imply mitigation and vice versa.

A company that adopts adaptation measures and does not take care to reduce greenhouse gas emissions intensifies the change whose effects it wishes to avoid.

A company that adopts mitigation measures and does not integrate adaptation criteria may be at risk from the impacts of climate change.





08



LIFECITYADAP³

CSR communication obligations for companies: from the CSR report to the sustainability report.

Non-financial information is directly related to Corporate Social Responsibility and contributes to measuring, monitoring and managing the performance of companies and their impact on society.

Companies have been voluntarily making this information public through CSR Reports and other types of Sustainability Reports. These documents have been quite heterogeneous in both format and content. In general, they have included information on economic, social and environmental impacts, depending on the commitments assumed voluntarily and the information required from the organisation by a series of interest groups, known as the company's stakeholders.

This voluntary approach changed with the enactment of Directive 2014/95/EU, which introduced an obligation for certain companies to report on, at a minimum, environmental and social issues, as well as employee-related issues, respect for human rights and the fight against corruption and bribery. Member states have been given a period of time to transpose the Directive into their respective legal systems and to establish the details of its regulation.

Currently, with the aim of filling the gaps that have been appearing in the application of this regulation, the new Corporate Sustainability Reporting Directive (CSRD)¹ has been approved at the end of 2022, within the European Community framework. This Directive aims to improve and expand the information on sustainability reported by companies and, at the same time, to establish common mandatory standards so that the presentation of this information is treated in a comparable way to that of financial information.

¹ Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU as regards sustainability reporting by companies.
https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=uriserv%3AOJ.L_.2022.322.01.0015.01.SPA&toc=OJ%3AL%3A2022%3A322%3ATOC

Thus, companies will have to submit a detailed report on ESG issues²:

01

Environmental aspects

(policies, management systems and performance on climate change; pollution; water and marine resources; biodiversity and ecosystems; resource consumption and circular economy).

02

Social aspects

(policies, management systems and performance on people in the company; workers in the value chain (outsourcing); affected communities; customers and end-users).

03

Governance aspects

(corporate policies and culture; prevention and detection of corruption or bribery; political influence; lobbying practices; payment practices).

The main new features for companies are:

- The new regulation increases the scope of its application to a larger number of companies.
- The information must be independently audited to verify that it is reliable.
- The name of the report is changed from “Statement of non-financial information” to “Sustainability information”.
- The company must indicate how it has identified the information it communicates in the report.
- The European Commission will provide a digital platform for access to public financial and sustainability information of companies across the EU. This will be presented in electronic format for companies to share information.
- The information will be disclosed in accordance with common European sustainability reporting standards (ESRS), yet to be developed by the Commission. These standards will be aligned with the taxonomy and disclosure regulations.

² ESG criteria (environmental, social and governance).

To which companies does the new Directive apply?

- All large companies, whether or not they are listed on stock exchanges.
- Non-EU companies, but with a turnover of more than EUR 150 million in the EU.
- Listed SMEs.
- Unlisted SMEs and micro-enterprises that will be affected when large companies report on their practices and impacts across the value chain.
- Subsidiaries with SME status, which are required to publish the management report of the parent company with reference to the fact that it is exempt from sustainability reporting (exemption also applies to third country companies).

Timeframe for the application of the rules:

The rules will start to apply between 2024 and 2028, depending on the typology and size of the company.

- 1 January 2024 for large public interest companies (more than 500 employees) already subject to the Non-Financial Reporting Directive. They will have to report in 2025.
- 1 January 2025 for large companies not subject to the Non-Financial Reporting Directive (more than 250 employees and/or a turnover of EUR 40 million and/or EUR 20 million in total assets). Reporting due in 2026.
- 1 January 2026 for listed SMEs and other companies, which will have to report in 2027.
- SMEs may delay until 2028.

The Directive empowers the European Commission to adopt, by 30 June 2023 at the latest, sustainability reporting standards specifying how companies should report and the structure they should follow.

New sustainability reporting standards

The European Financial Reporting Advisory Group (EFRAG), appointed as a technical advisor to the European Commission, has been responsible for developing and issuing the new framework of standards: the European Sustainability Reporting Standards (ESRS).

In 2022, EFRAG published exposure drafts (EDs) of the first set of ESRS and initiated a public consultation process involving various stakeholder groups, which ended in August 2022. EFRAG's Sustainability Council and the Sustainability Reporting Expert Group considered all comments received during the public consultation and on 15 November 2022,

agreed to send the first set of ESRS to the European Commission, which is expected to adopt them by June 2023.

This first group of ESRS includes both cross-cutting and thematic standards and comprises 12 standards, following the CSRD, on environmental, social and governance issues. The publication of sector-specific and SME-specific standards is also foreseen in the future.

Cross-cutting standards: ESRS 1 & ESRS 2

ESRS 1. General Principles:

this standard sets out the general principles to be applied when companies prepare their sustainability statements under the CSRD. In addition, sustainability information can influence the decisions of stakeholders, whether it has predictive or confirmatory value, or both, so a company should identify its two main stakeholder groups:

1. affected stakeholders who are the individuals or groups with interests that are or could be affected - positively or negatively - by the company's decisions and activities and through its value chain.
2. Sustainability reporting users who are stakeholders of the company, which include:
 - (i) current and potential investors, lenders and other creditors (including asset managers asset managers, credit institutions, insurance companies).
 - (ii) business partners of companies, trade unions and social partners, civil society organisations and non-governmental organisations.

It should be noted that some stakeholders may belong to both groups.

ESRS 2. General Information:

This sets out disclosure requirements for reporting on general characteristics of the organisation such as business overview and specific compliance issues as well as approaches in relation to the value chain. In addition, companies must disclose information on their strategy, governance and assessment of materiality of sustainability impacts, risks and opportunities.

Thematic standards

Thematic standards include disclosure requirements covering environmental, social and governance issues. These requirements are sector-independent. They are intended to facilitate disclosure users' understanding of the company's impact on these dimensions as well as the material risks and opportunities related to these areas and their impact on the company's ability to create value.

The thematic standards prescribe disclosure requirements covering (i) policies, objectives, action plans and resources, as well as (ii) performance measurement in relation to specific topics.

The thematic standards are:

Environmental - ESRS E1-E5

These standards contain disclosure requirements for companies to report on issues related to (i) climate change, (ii) pollution, (iii) water and marine resources, (iv) biodiversity and ecosystems, and (v) resource use and circular economy.

Social - ESRS S1-S4

Social standards provide a framework for entities to report on (i) issues related to their own workforce, (ii) workers in their value chains, (iii) communities affected by their operations and (iv) consumers and end users of their products or services.

Governance - ESRS G1 and G2

Sets out disclosure requirements that seek to improve users' understanding of a company's strategy and approach, and processes, procedures and performance in relation to its business conduct: (i) corporate culture (ii) supplier relationship management (iii) avoidance of corruption and bribery, (iv) the company's commitment to exercising political influence, (v) whistleblower protection, (vi) animal welfare and (vii) payment policies.

Disclosure of public-private partnership actions for climate change adaptation in Sustainability Reports.

EFRAG has published in the Exposure Draft on climate change (ESRS E1), which refers to policies implemented to manage climate change mitigation and adaptation and states in section E1-2 that climate change adaptation refers to the process of adjusting the company to actual and expected climate change. This [draft] Standard covers disclosure requirements relating to climate-related hazards that may give rise to physical climate risks to the business and adaptation solutions that can reduce these risks. It also covers transition risks arising from adaptation needs to climate-related hazards.

Thus, the collaboration of companies with city councils (or any other administration), based on the CSR of companies, with the aim of carrying out joint actions for the adaptation of cities to climate change, can be the subject of Sustainability Reports. To this end, companies can disclose information on the type of public-private partnership

agreement for climate change adaptation in the local community and describe the adaptation action implemented, including information on the indicators used to monitor and verify the impact of the measures adopted.

Likewise, the Sustainability Report covers both the general measures for adaptation to climate change and/or the climate risk analyses carried out by the companies referred to in this guide.

In any case, companies must comply with the recommendations approved by the European Commission on the precise manner in which this information should be included. So far, as stated in the ED³ prepared by EFRAG, in Disclosure Requirement E1-2, which refers to the policies implemented to manage climate change mitigation and adaptation:

16. The company will disclose its policies related to climate change mitigation and its policies related to climate change adaptation.
17. The principle to be followed under this Disclosure Requirement is to provide an understanding of how the company monitors and manages its GHG emissions, climate-related physical and transitional risks and opportunities along the value chain.
18. The description of climate change mitigation and adaptation policies should follow the principles defined in ESRS Disclosure Principle 1 on policies adopted to manage material sustainability issues.
19. The company shall also disclose a description of key legal requirements with which it must comply and other stakeholder needs and expectations that it has decided to comply with, including third-party standards or initiatives.

In terms of how to apply climate change disclosure requirements, ESRS E1-AG 25⁴: Policies related to climate change adaptation address the management of the company's physical climate risks and transitional risks related to climate change adaptation. The requirement in paragraph 16 refers to stand-alone climate change adaptation policies, as well as relevant policies on other issues that indirectly support climate change adaptation, such as training, emergency or health and safety policies, among others.

Companies can also align their sustainability reporting with other reporting standards such as the European Taxonomy or the Global Reporting Initiative (GRI) and align their environmental achievements with the targets set by the Sustainable Development Goals (SDGs). We take a brief look at these standards and initiatives:

The European taxonomy

The environmental taxonomy is a classification system that aims to clarify and classify which investments and economic activities are sustainable in the context of the European Green Pact. It sets out six environmental objectives:

- a. Climate change mitigation.
- b. Adaptation to climate change.
- c. Sustainable use and protection of water and marine resources.
- d. Circular economy.
- e. Pollution prevention and control.
- f. The protection and recovery of biodiversity and ecosystems.

In order to make it easier for public and private financiers to determine whether the activities in which they invest their capital are sustainable or not, the EU has been working to classify all economic activities according to their contribution to each of the six objectives. The ultimate aim of this is to encourage investment in activities that contribute to economic development without compromising environmental protection. This is one of the pillars of sustainable finance, to which the social and good governance pillars must be added.

The implementation of the European Taxonomy in the disclosure of non-financial information will be progressive. The year 2023 is the first year in which taxonomy information on the activity carried out in 2022 will have to be included. The Delegated Act on climate objectives is already available and includes in its Annex I the development of eligible activities for Objective 1 and in Annex II for Objective II. The remaining Delegated Acts for the other four environmental objectives are expected to be published in 2023.

⁴ Appendix B: Implementation guidance. The provisions of this appendix shall be applied together with the [draft] disclosure requirements defined in paragraphs 1 to 75. This appendix describes how to apply the disclosure requirements, has the same authority as the disclosure requirements and forms an integral part of the proposed [draft] ESRS E1 Climate Change. Overview, strategy, governance and materiality assessment.

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The Sustainable Development Goals

The Sustainable Development Goals are a set of global targets set by the United Nations to address the social, economic and environmental challenges facing the world.

They were adopted in September 2015 by all UN member countries as part of the 2030 Agenda for Sustainable Development.

They consist of 17 interrelated goals covering a wide range of issues, such as poverty eradication, quality education, gender equality, access to health and well-being, clean water and sanitation, climate action, peace and justice, among others. They are seen as a roadmap to guide policy and action

at global and national levels to achieve a more just, inclusive and sustainable world for all people and the planet.

The following table shows the alignment of the Environmental Taxonomy Goals with the Sustainable Development Goals.

ALINEACIÓN DE LOS OBJETIVOS DE LA TAXONOMÍA MEDIOAMBIENTAL DE LA UE CON LOS ODS



 MITIGACIÓN DEL CAMBIO CLIMÁTICO		 TRANSICIÓN A UNA ECONOMÍA CIRCULAR	
 ADAPTACIÓN AL CAMBIO CLIMÁTICO		 PREVENCIÓN Y CONTROL DE LA CONTAMINACIÓN	
 PROTECCIÓN Y USO SOSTENIBLE DEL AGUA Y DE LOS RECURSOS MARINOS		 PROTECCIÓN Y RECUPERACIÓN DE LA BIODIVERSIDAD Y LOS ECOSISTEMAS	

Reporting Tool: Global Reporting Initiative (GRI) Standards

Companies can rely on the GRI Standards to produce a more comprehensive, traceable and comparable sustainability report. The new GRI Standards were published in 2021 and will be applicable to reporting from January 2023:

GRI 1

Explains the key concepts for sustainability reporting.

GRI 2

General Content. Includes 30 “contents” for organisations to report on their reporting practices; activities and employees; governance; strategies, policies and practices; and stakeholder engagement.

GRI 3

Material Issues. Provides guidance on how to identify material issues.

In addition, sectoral standards for oil and gas (GRI 11), coal (GRI 12) as well as agriculture, aquaculture and fisheries (GRI 13) have been published during 2021 and 2022 and are available for public use. GRI 11 and GRI 12 will come into effect for reporting published from 1 January 2023. GRI 13 will come into effect for reports published from 1 January 2024.

Conclusion

Companies should be aware of all the changes that will take place in the coming years regarding the obligations to report sustainability issues and, even if they are not bound by the new Directive, they can take advantage of the guidelines it contains as well as those of other norms and standards to become more responsible companies that contribute to global sustainability.

09



LIFECITYADAP³

What is Project life cityadap3

**The aim is
to improve
adaptation to
climate change
in the urban
environment:**

**Promoting green
infrastructures and
nature-based solutions**

**Raising public
awareness on the
importance of climate
change mitigation and
adaptation**

**Developing concrete
adaptation actions in 4
European municipalities
(Lorquí, Molina de Segura
and Alcantarilla in the
Región de Murcia and
the Italian municipality
Reggio-Emilia)**

**Involving the private sector
in the implementation
of action plans
through Public-Private
Partnerships based
on Corporate Social
Responsibility**

**Implementing local
adaptation plans (PACES),
in the framework of the
Covenant of Mayors for
Climate and Energy**



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life cityadap3 project why participate

01

Help the local community to protect itself from climate change by collaborating in adaptation projects in the municipality, demonstrating the company's involvement and commitment to society.

02

Promote alliances with the City Council and other local companies, associations, non-profit organisations and the University of Murcia to solve problems that affect local residents.

03

To form part of transnational networks with other European companies that help to obtain European funds.

04

To turn the territory into a pole of reference that attracts companies and sustainable investments from which local companies and the residents of the municipality can benefit.

05

Apply CSR in two areas: Environment and Society. Help present progress through companies' CSR reports and/or non-financial reporting statements.

In particular to be accountable and transparent on:

A Climate change issues (measures to adapt to the consequences of climate change, pollution, waste management, sustainable use of resources, greenhouse gas emissions and biodiversity protection).

B Social issues related to public-private partnerships (impact on local development, impact on local populations and on the territory, patronage actions).

C Issues related to health and safety at work.



06

Contribute to the achievement of the SDGs, in particular SDG11, SDG 13 and SDG17.



07

Obtain a “Responsible Business” label that explicitly recognises the contribution of companies to the project.

08

To achieve greater brand recognition and an improvement in corporate reputation in the municipality and among citizens.

09

Improve employee satisfaction by belonging to a company that is valued and socially recognised and that favours the attraction and retention of talent.

10

Improve the health and well-being of citizens.

11

Improve the competitiveness of committed companies.

10



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How to participate?

Information can be obtained from the following addresses:

CITY COUNCIL ALCANTARILLA
jose.fernandez@ayto-alcantarilla.es

CITY COUNCIL LORQUÍ
agentedesarrollo@lorqui.es

CITY COUNCIL MOLINA DE SEGURA
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11



Good practice. Reference materials



An

**Good practices in
climate change
adaptation
and mitigation
by partner
companies**



SECTOR:
Mobility: local public transport

TITLE ACTION(S) ADAPTATION TO CC:
“TIL per il clima”

DESCRIPTION ACTION ADAPTATION TO CC

TIL Forest: a major urban afforestation project was financed in 2011, partly on municipal land and partly on state property, for a total area of about 3 hectares, where about 2,600 trees and shrubs were planted; TIL also took care of the maintenance of the forest for the first three years.

Climate-friendly parks (Life CityAdap3 pilot action): with a co-financing of 20,000 euros, TIL has supported the City Council in the design and implementation of four innovative afforestation projects in four parks in the city, where the dominant logic is to create resilient green spaces that bring well-being to those who frequent them, for a better adaptation of the city to climate change.

DESCRIPTION ACTION MITIGATION TO CC

Econoleggio: TIL offers individuals, companies and institutions the rental of electrically powered Porters. To date, there are 658 electric vehicles on the road in Italy, with annual CO2 savings of 442 tonnes and 368,000 litres of fuel.

New, more energy-efficient company headquarters: the result of the refurbishment of an existing building, the new company headquarters has been designed and built with a view to saving energy and using environmentally friendly materials, resulting in a total saving of 870 tonnes of CO2.

OTHER ENVIRONMENTAL COMMITMENTS

Accounting for CO2 emissions: In the management report, which forms an integral part of the company's financial statements, a section is dedicated to the characteristics of the vehicles

it owns, especially with regard to the emission class, the total CO2 emissions generated by its main activity, and a comparison with the previous year.

SECTOR:

Mobility: local public transport

TITLE ACTION(S) ADAPTATION TO CC:
“Sercomosa Innova”

DESCRIPTION ACTION ADAPTATION TO CC

Technical hydraulic performance of 90.68%: year after year Sercomosa maintains a high level of performance in the hydraulic network of Molina de Segura, which means a considerable saving in water consumption. This result is the sum of all the efforts made in network control, constant renovation, search and repair of leaks, fraud control, application of the latest technologies and digitalisation, professional, motivated and environmentally committed staff, self-analysis and continuous improvement.

Digitalisation of MSW and Street Cleaning services: Since 2018, a fleet geolocation platform and a container volumetric sensor system have been implemented. These tools optimise route

performance, which translates into a large reduction in the atmospheric emissions produced.

Adaptation to climate change in Molina de Segura of the Nelson Mandela Park by adopting nature-based solutions, creation of a bioclimatic classroom and study of alternatives for the definition and signposting of a sustainable urban path, as a friendly route connecting green areas (Life CityAdap3 pilot action). Sercomosa supports the City Council of Molina de Segura by co-financing these three projects with a financial contribution.

DESCRIPTION ACTION MITIGATION TO CC

Contracting 100% of electricity from renewable sources: in 2020, a public tender was issued for the supply of all of Sercomosa’s electricity from renewable energies. This energy is applied to all our facilities, including the pumping facilities of the drinking water and sanitation networks. This measure avoids the emission of more than 840 tons of CO2 each year.

Renewal of the vehicle fleet: Since 2019 our vehicle fleet has been renewed with clean

energy alternatives. Until 2021, 4 urban waste collection trucks and 2 CNG-powered vans have been acquired, as well as 3 electric vehicles. The continuous renewal plan foresees the continued acquisition of vehicles that reduce both air pollution and noise generation.

OTHER ENVIRONMENTAL COMMITMENTS

Training activities aimed at the youngest children: “Know your carbon footprint” is an awareness-raising workshop started in 2019 in a school in which pupils were shown the effect of air pollution on Climate Change and Health. They also worked through an interactive application

developed by Sercomosa, which calculates their contribution to the carbon footprint and the alternatives to reduce it and, finally, a tree planting was carried out at the school itself.

SECTOR:
Plastic manufacturing/recycling. Packaging

TITLE ACTION(S) ADAPTATION TO CC:
“Walki Plasbel Recycle, Reduce, Reuse”

DESCRIPTION ACTION ADAPTATION TO CC

Boosting the circular economy. Development of plastic recycling processes, increasing the use of post-consumer recycled material by 46% in 2020 through the expansion of the recycling plant with another state-of-the-art mechanical industrial recycling machine to transform plastic waste/by-products into new material. This will result in 17,936 tonnes of recycled material (up 27% on the previous year).

Multimodal platform adapted to climate change. Walki Plasbel supports the Alcantarilla City Council by co-financing the Life CityAdap3 project, the pilot project consisting of the design of a multimodal pedestrian and cyclist platform, adapted to climate change, and its implementation in the priority axis of the future basic network of sustainable mobility, pedestrian/cyclist, connecting the neuralgic centre of the municipality with the West Industrial Estate.

DESCRIPTION ACTION MITIGATION TO CC

Responsible energy consumption. Replacement of chillers, renewal of motors and office air conditioning equipment. With these actions, the emission of 611.23 tonnes of CO2 per year has been reduced.

- Monitoring of machine consumption and performance, implementing energy meters in cutting section machinery, in the machine room and in the extrusion plant.
- Replacement of extruder main motors from DC (direct current) motors to high efficiency AC (alternating current) motors, achieving average energy savings of 15%.
- Intelligent system centralised in managing the control of all compressors, through optimisation of the compressor pressure

band, reducing it to the minimum necessary, with energy savings of 3.5%. Energy savings of 68,756 KWh/year in the compressors.

- Replacement of mercury vapour lamps with LED technology lamps, achieving an increase in light output of more than 10% and energy savings of around 40%.
- Design, development and implementation of a process water cooling system using energy-efficient water-air chillers through the replacement of water chillers with ESSER=2 performance by high-performance water chillers with ESSER=4.5 performance. Energy savings in cooling production of more than 40%.

OTHER ENVIRONMENTAL COMMITMENTS

Raising awareness among our suppliers to reduce their environmental footprint as much as possible.

Greenplast Project (financed by CDTI)
This project has led to the acquisition of new

machinery that makes the manufacturing process of biodegradable packaging and packaging made from recycled raw materials more efficient and environmentally sustainable, reducing CO2 emissions into the atmosphere.



DESCRIPTION ACTION ADAPTATION TO CC

In the Energy Sustainability Plan of Coop L'Ovile devotes an important section to plantations, which constitute both a mitigation measure and, in fact, as a great tool for the adaptation of the territory.

The areas earmarked for new plantations, which will comprise 450 new trees every 3 years, are, in fact, both cooperative zones and important working and living areas for the local community, such as the urban forest of Parco Dario Fo, where 450 trees were planted in 2022.

DESCRIPTION ACTION MITIGATION TO CC

The company has drawn up a 20-year environmental plan for Energy Sustainability and reduction of CO2 emissions which is aimed above all at the energy efficiency of its buildings and the progressive substitution of fossil fuel vehicles with renewable ones.

L'Ovile is also committed to planting new species of trees in new areas, spreading an environmental culture, promoting energy communities, encouraging zero-emission transport for staff, and improving waste separation in its facilities and in the homes of the people it hosts.

Furthermore, the Plan contains different objectives, each one of them directed to the reduction of emissions. In this way, by adapting the habits and consumption of the cooperative, both of its employees and of the many people it hosts, L'Ovile intends to contribute its bit to the mitigation of climate change. Each of the cooperative's sites, both the facilities and the apartments of the people they host, have a contact person in charge of environmental issues who is trained and sensitized on waste reduction, temperature control and the organization of waste sorting.

OTHER ENVIRONMENTAL COMMITMENTS

L'Ovile's commitment, initiated in 2022 and coordinated by the internal Mobility Manager, continues in 2023 and 2024 as part of the Reggio Emilia Municipality's initiatives to promote sustainable home-work commuting. This Home-Work Commuting Plan is currently underway.

L'Ovile constitutes an environmental benchmark for the Confederation of Italians Cooperatives of Reggio Emilia and aims to promote sustainable practices among the cooperatives in the network.

Throughout 2023, employee training activities and actions to phase out plastic, reduce waste

and fossil fuels, promote alternative forms of mobility, encourage internal procedures for greater energy savings and waste reduction, and incentivize change and reuse will continue.

L'Ovile participates in the CityAdap3 project, which promotes the Municipality of Reggio Emilia to raise awareness of climate change among local stakeholders and to promote concrete climate change adaptation actions in collaboration with local businesses.

SECTOR:
Agri-food industry

DESCRIPTION ACTION ADAPTATION TO CC

In the autumn of 2022, REIRE planted an urban forest with approximately 1000 plants and bushes on an area of almost two 2 hectares in the vicinity of its factory. La società Proambiente srl of the CRN (National Research Council) in Bologna, collaborated in the planning of this forest.

The particularity of this project lies in the fact that it is not a green area intended for leisure and public enjoyment, but a real forest, which represent a renaturalised area for ecological purposes.

The idea born out of the need to compensate in a concrete way for the impact of the business activity on the environment. The area occupied by this activity is just over two hectares, which in practice corresponds to the area that was earmarked for the afforestation of this forest. The aim for this forest is to achieve a Carbon Storage of approximately 30 tonnes, a Carbon Sequestration of 1.5 tonnes per year, a Pollution Removal of 100 kg per year (25 kg of O₃, 21 kg of NO₂, 21 kg of SO₂ and 33 kg of PM₁₀). In addition, it was estimated that Avoided Runoff of about 83 m³ per year would be prevented and around 3.5 tonnes of oxygen per year would be produced.

DESCRIPTION ACTION MITIGATION TO CC

REIRE S.L. is a company with a low environmental impact. However, it has always been aware of the problems related to climate change.

Since 2011, a photovoltaic system has been operating and produces 92,000kW per year.

An internal procedure of energy savings (gas and electricity) has been implanted since August 2022. After one year, this saving was of 13% in gas and 15 % in electricity compared to the same period last year.

OTHER ENVIRONMENTAL COMMITMENTS

In June 2023, a series of feasibility analyses were initiated that will lead to the elaboration of the first Sustainable Balance Sheet in spring 2024. Here are some projects in which REIRE has been involved in:

- In 2020 participated as an Advisory Board in the Scalibur Project, -Scalable Technologies for Bio-Urban waste recovery- , led by ITENE, Partner - Spain.
- In June 2022 began its participation as stakeholder in LIFE CITYADAP3.

- In March 2023 it was among the five partner companies of the project «Non solo carbonio: un approccio multifunzionale per servizi ecosistemici e produzione di alimenti di qualità in sistemi AGROFORestali dell'Emilia Romagna» lead by SITEIA. PARMA, Proambiente S.c.r.l., CRPA LAB and Terra&AcquaTech.





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CHANGE ADAPTATION
FOR BUSINESS
IN THE FRAMEWORK OF
CORPORATE SOCIAL
RESPONSIBILITY**

