

# LIFE CITYAdaP3 project

## MEASURES FOR CLIMATE CHANGE ADAPTATION

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# What is the climate change?



**“A change of the climate directly or indirectly caused by human activity, which alters the composition of the global atmosphere, that in addition to the natural climate variability that has been observed during comparable time periods”** United Nations Framework Convention on Climate Change

- **Main present and future challenge** that society must face, as it poses a major global economic, environmental and social **risk**.

# Companies who care for the environment

- Integrate **environmental concerns** in their management, both of daily operations and of decision-making processes
- **State** the Management's firm **commitment**
- **Measure environmental impacts**
- Implement **environmental management systems**
- Develop **processes and products respectful with the environment**
- **Dialogue and raise awareness among stakeholders**
- Participate in **initiatives** promoting **environmental responsibility and supporting the local community.**

# How is climate change acting?

1. Climate change **is already happening** and it is expected to continue.
2. Despite achieving a decrease of the emissions provoking climate change, these trends will keep this way during the nex decades, because of the **climate system's inercy**.
3. The rainfall's **distribution** is changing.
4. **Water resources are diminishing** in most of the basins.
5. **Sea level** is rising.
6. Spain and Italy's **average temperatures** are rising around 0,3°C each decade.

# Responses to climate change



# What are mitigation and adaptation to climate change?

- **Mitigation strategies** seek to reduce net emissions of greenhouse gases into the atmosphere.
- **Adaptation strategies** seek to increase the systems' resilience when facing the effects caused by the climate change.

Source: "Cambio climático Impactos, adaptación y vulnerabilidad. Resumen para responsables de políticas" IPCC

# What are the measures for climate change adaptation?

Climate change adaptation measures are aimed to:

- **Reducing the risks**
- **Limit impacts**
- **Reduce vulnerabilities**
- **Increasing the resilience** to climate change of human and natural systems, including biodiversity, forests, coasts, cities, agricultural sector and industry.

# Why must companies implement adaptation measures?

1. Most of **organizations are already** directly or indirectly **exposed to climate change**: natural resources limitation, interruptions of the logistic or manufacturing processes and economic or financial crises as a consequence of climate change.
2. In most cases, **climate change adaptation** is still not integrated in the organization's activities.



# Why must companies implement adaptation measures?

3. **Long term viability** of an organization is sustained by its **social, economic and environmental ambience**.

4. Organizations developing and holding their **competitive advantages** are often characterised by their **forecasting abilities**.

# Why must companies implement adaptation measures?

**5. In order to avoid risks derived from the climate change for the employees.** Specifically, climate change will aggravate the existing occupational risks and will make new ones emerge. Extreme ambient temperatures already have effects on the health, safety and well-being of the working population.

In the southern regions of Europe, the main impacts on people's health are high temperatures, extreme weather events, air pollution and aeroallergens, as well as diseases transmitted by infectious vectors, food and water.

# How can companies get adapted to climate change

- Companies are **part of the solution.**
- **Act:** Adopt **climate change adaptation measures** integrated in the development of its businesses, by engaging voluntarily with the environment as part of its **Corporate Social Responsibility (CSR).**



# How enterprises can get adapted to climate change

1. Adopting simple and **general** climate change adaptation **measures**.
2. Performing climate change **risks analysis** for progressively adopting adaptation measures suitable for each company's situation.
  - 2.1. Implementing **measures for the prevention of occupational risks** derived from the climate change.

## 1. Health and work safety

Including prevention measures for the climate change effects in the occupational health and safety plans.

## 2. Floods and vulnerability prevention in buildings

Adopting measures to protect buildings set in flood-prone areas by carrying out viability studies, considering this risk and using materials suitable for this purpose.

## 3. Promote circular economy

Reducing the consumption of resources and promoting circular economy by reusing wastage and increasing its value.

Source: porelclima.es

## 4. Suppliers support

Supporting suppliers to get protected from the climate change, by analysing the way in which it will affect them to obtain materials.

## 5. Local community support

Supporting local community to be prepared for the future, ensuring people's mobility, health and safety.

## 6. Public-private collaboration

Boosting public-private alliances for adopting joint measures to face climate change, as local governments and private sector are essential agents in the communities' adaptation to climate change.

Source: [porelclima.es](http://porelclima.es)

## 7. Water usage and treatment

**Reusing** water by giving it a second use

**Reducing** water consumption by implementing saving systems.

**Reducing the sealing and waterproofing of the occupied floor**

Exploitation of **rainwater**

Implementing **sustainable sewage treatments** and **nature-based solutions** as elements for the adaptation to the increase of the frequency and aggressiveness of the rainfalls.

## 8. Use of adapted plants

Choosing native plants for gardening or agricultura that are adaptable to the changes of each geographical area and increasing seasonal shading.

Source: poreclima.es; Instuction of th 28th of June of 2021, by the Office of Water, Agriculture, Farming, Fishing and Environment, for approving the voluntary agreement to achieve climate neutrality in the business sector.

## 9. Prevent the effects of the increasing temperature

Placing insulation systems in buildings using insulating structures and placing passive heat protection systems such as awnings, blinds or cantilevers and seeking the use of nature-based solutions.

## 10. Prevent the effects of rising sea level

Considering the foreseeable effects of the permanent and occasional rising sea level prevention and adopting prevention and defence measures against occasional floods if necessary .

Source: poreclima.es



# General benefits of implementing climate change adaptation measures

1. Because **large investments** and efforts are **not needed**, and they can bring significant improvements to the business activity, as well as helping the organizations to **identify opportunities**.
2. Because they imply changes in the business practice or the **implementation of simple techniques that bring improvements and benefits** even if the climate variations don't happen. They can be implemented when renovating installations and machinery, or when redesigning new strategies

Source: Solaun, K., Gómez y otros, Fundación CMAE - Factor CO2 (2014). Integration of adaptation to climate change in business strategy. Methodological guide for the assessment of impacts and vulnerability in the private sector. Ministry of Agriculture, Food and Environment. Government of Spain

# General benefits of implementing climate change adaptation measures

You can download the “*A GUIDE TO CLIMATE CHANGE ADAPTATION FOR BUSINESS IN THE FRAMEWORK OF CSR*” here:

<https://www.lifecityadap3.eu/descargables>



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