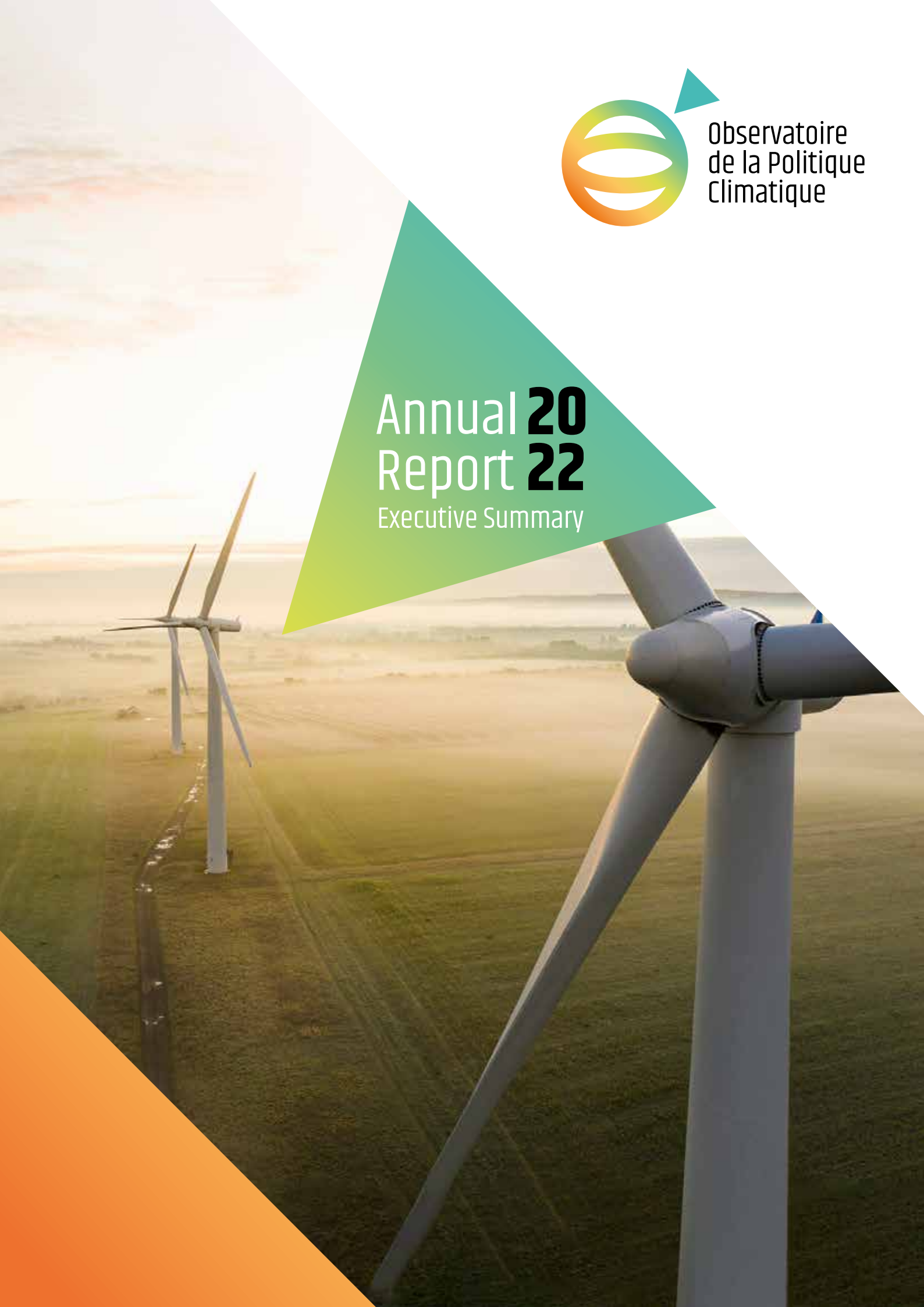




Observatoire
de la Politique
Climatique

Annual **20**
Report **22**
Executive Summary



Executive Summary:
Transforming Luxembourg into
a sustainable and decarbonised society





Luxembourg's climate law fixes a clear target to set the country on a path to become climate neutral by 2050 at the latest. The 'Climate Policy Observatory' (OPC; Observatoire de la politique climatique) is tasked with monitoring annual progress. This is the first climate report for Luxembourg.

A set of policy measures have helped reduce emissions in Luxembourg over the past years. However, in order to reach its ambitious climate targets, Luxembourg needs to implement further far-reaching measures and systemic changes throughout the whole of society in the upcoming years. The overarching goal is a rapid and just transformation towards a sustainable and decarbonised society.

Against the backdrop of this primary objective, the reports identifies three core principles through which it assesses Luxembourg's efforts in the fight against climate change.

Luxembourg's economy needs to strongly **reduce its current dependence on fossil fuels**. The complete decarbonisation of the economy requires deep structural changes. Traditionally, climate policies incentivise **technological changes** such as energy efficiency improvements and renewable energy production. While these changes are necessary and need to be strengthened in the future, they are not sufficient. In addition, **behavioural changes** and societal changes are needed to allow the adoption of low-energy and sufficient lifestyles.

The transformation of Luxembourg's economy and society towards climate resilient development needs to be rapid, but also based on the principles of "**just transition**" to be accepted by all. Important guiding questions, when designing and implementing these policies are: What are the costs, benefits and risks associated with a policy? How are costs, benefits and risks shared amongst people and other stakeholders?

The implementation of these deep structural changes requires **new and transformative governance**: this means transforming not only the mix of policy instruments, but also the governance processes and structures. We highlight three key elements for the development of legitimate transformative governance efforts across all stages of the policy cycle: integrated, participative, and fair governance.

Luxembourg is a small but very open economy. The current accounting system for greenhouse gases (GHG) misses part of emissions of goods consumed in Luxembourg. This is why the OPC recommends **accounting for consumption-based emissions**, following the Swedish example. **Consumption-based emissions** allow the counting of emissions embedded in imported goods and thus incentivises global decarbonisation.

The rapid and just transformation to a sustainable and decarbonised society requires action **across all sectors of society**. The report provides an initial, non-exhaustive list of recommendations on how to proceed in selected sectors. These sectors are among the key greenhouse gas emitters in Luxembourg. The report suggests a decarbonisation approach that can be broken down into three main levers:

- **Sufficiency**: popularise low-energy sufficient lifestyles
- **Energy efficiency**: increase the energy efficiency of the Luxembourg economy
- **Renewable energy production**: decarbonise energy production and imports

Sector-specific recommendations include:



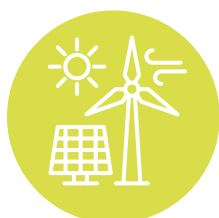
Buildings

- Reduce ambient temperature in homes and offices
- Reduce floor area per person
- Promote resilient buildings
- Require landlords to invest in renovations of leased homes or apartments
- Ban fossil heating systems



Transport

- Land use and urban planning to reduce space for cars
- Develop plans for a 15-minute city
- Promote working from home
- Incentivise the modal shift from a car-centric to a shared, soft mobility system
- Increase share of electric vehicles (EV) and ban fossil fuel vehicles



Energy Systems

- Increase the capacity of renewable energy production and thereby decrease the dependency on imports from foreign markets
- Continue and strengthen the measures in place aiming for a reduction of final energy demand
- Stop direct/indirect subsidies to fossil energy
- Increase the share of renewable power production



Food, Agriculture and Forestry

- Shift to balanced, sustainable healthy diets
- Reduce food loss and food waste
- Reduce methane and nitrous oxide emissions in agriculture
- Minimise dependency on production-related inputs
- Increase efficiency in extracting valuable resources
- Promote carbon sequestration in healthy and resilient forests
- Promote carbon sequestration on agricultural land in woody structures and soil
- Promote ecosystem restoration, and planting trees in urbanised areas
- Reduce net land take from about 0.5 ha per day to 0 ha per year



Finance

- Maintain public spending on projects that lead to and/or support sustainability transformation
- Attract sustainable financing for sustainable projects/investments with a particular focus on Luxembourg and the Greater Region
- Identify financial support for sustainable initiatives at the community level

Further information on the respective recommendations can be found in the report, in particular in Chapter 1.

In this first annual climate report for Luxembourg, the OPC has set the scene regarding Luxembourg's climate change situation and conditions. While first incremental steps have been taken to address the reduction of greenhouse gas emissions, the report highlights that existing policies need to be strengthened but also a more fundamental change in society will be necessary to transform Luxembourg to a sustainable and decarbonised society.





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