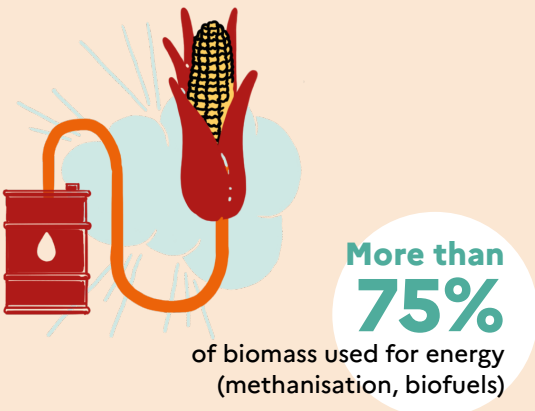


SCENARIO 4 RESTORATION GAMBLE

Lifestyles of the early 21st century are safeguarded. But the abundance of goods consumes a great deal of energy and materials with a potentially high environmental impact.

Society places its trust in its ability to manage and even repair social and ecological systems with more material and financial resources to maintain a liveable world. This exclusive reliance on technology is a gamble, as some of them are not mature.

SOCIETY IN 2050...



Technological levers to support productive and specialised bioeconomic sectors

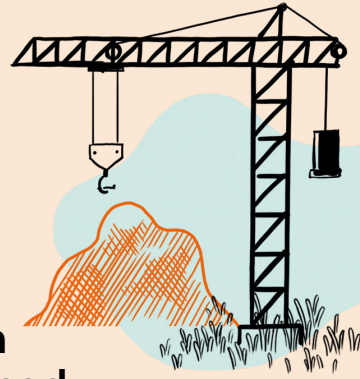
- Agriculture and agri-food industries are highly specialised and competitive.
- The use of lignocellulosic biomass and wood waste for energy recovery is promoted.
- Profound changes in the forestry landscape (felling of deciduous trees and replanting with conifers).

Energy efficiency and technical innovation

- Development of large cities and land degradation in connection with the search for "ever more" comfort and safety.
- Improved efficiency of equipment and emergence of new highly efficient technologies.
- Digital technology is embedded in vehicle drivetrains and management of mobility.

Decarbonisation of industry focused on geological CO₂ capture and storage

- Major role of imports in a globalised world favouring trade in materials.
- Exploitation of natural resources and recycling pushed to the limit due to advanced technologies.

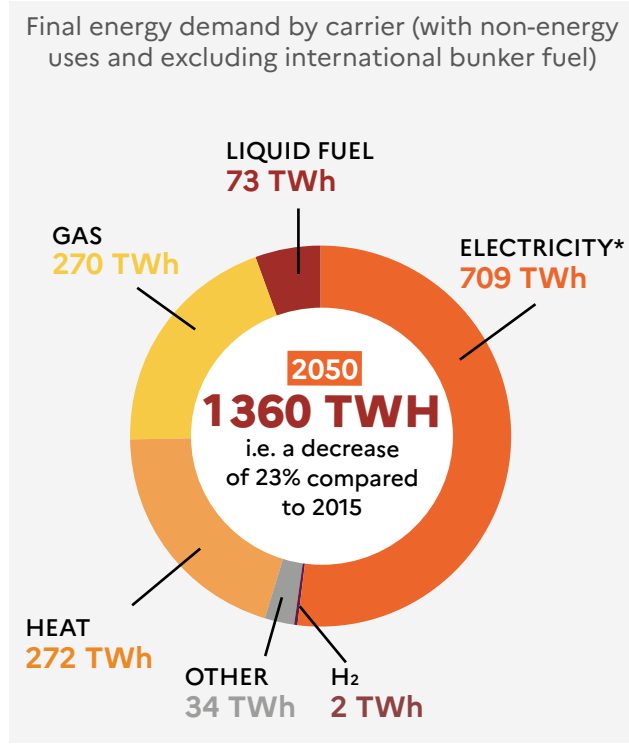


+28%
miles driven due to increased long distance travel

-19%
less energy consumption by industry

NB: the data shown in this infographic is defined in relation to the year 2015

High electrification and massive use of offsets



Energy demand is high



Several **decarbonisation measures** are used: biomass, particularly forestry, renewable energy, biogas and biofuels



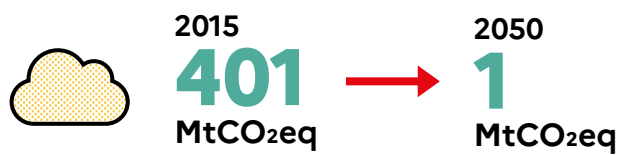
Imports of gas from foreign sources that specialise in producing **decarbonised or renewable gas**



Competition from other technologies compromises the position of **hydrogen**

* Excluding intermediate consumption, mainly for production of H₂

Necessary development of technological carbon sinks



Strong development of CCS in industry (41 Mt CO₂/year) throughout France due to development of the necessary infrastructure.

Widescale use of bioenergy with carbon capture and storage (BECCS) (25 Mt CO₂/year).

Implementation of CO₂ capture and storage from the air (DACCS) (27 Mt CO₂/year), requiring high energy consumption (6% of electricity consumption).

Balance of CO₂ emissions and sinks in 2015 and 2050

