



# The energy future and our challenges ahead



## Key messages:

- Europe is on its path to meet a net zero economy by 2050
- Energy networks play a key role and we need to:
  1. Enable the transition
  2. Invest in the grid
  3. Get ready for extreme weather and cyber attacks



# EU progress towards a net zero economy

*“Only the most significant  
decarbonisation scenario will  
allow us to keep global warming to  
below 1.5 °C”  
IPCC report, Aug 21*

EC report on the  
European  
Decarbonisation  
Pathways initiative

Adoption of the  
European Climate  
Pact

RePowerEU Plan

2015

2019

2021

2018

2020

2022

Paris Agreement

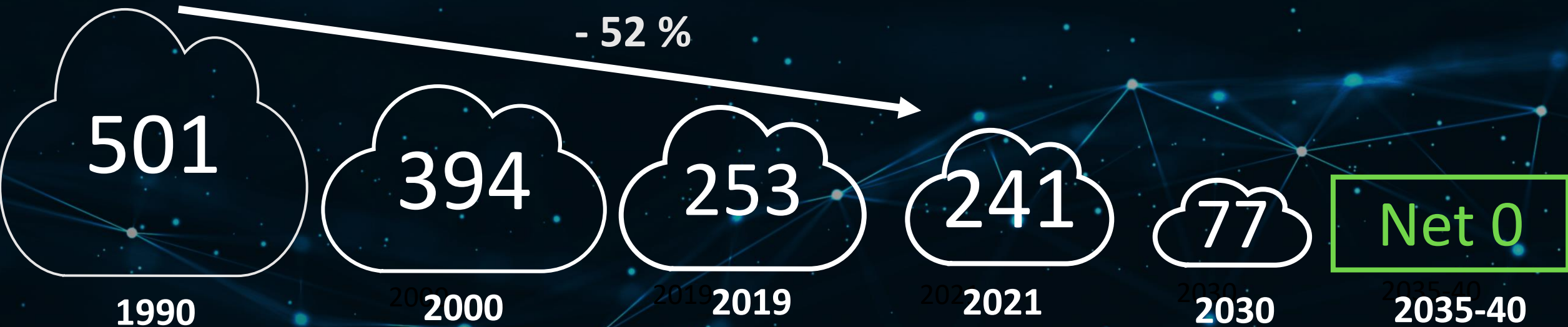
Presentation of the  
European Green Deal

“Fit for 55” Package  
Climate Law

Soaring energy prices

War in  
Ukraine

# The power sector is on a path to net zero



The emissions intensity of the power sector has dropped dramatically since 1990. Although there was a slight increase in emissions intensity in 2021, the emissions intensity in 2021 is still below 1990 level.

gCO<sub>2</sub>/kWh



# REPOWER EU

**Renewable Energy**  
Binding **45%** target for 2030



## **Solar Strategy**

Close to **600** GW of  
solar by 2030



**Energy efficiency**  
Binding **13%** target for 2030



## **Energy Markets**

short-term  
intervention  
Structural reform



## **Renewable Hydrogen**

- 10 million tons domestic
- 10 million tons of imports





# Challenges for the energy system



## 1. Enable the transition

- Fit-for-purpose tariffs
- Modernise / digitize
- Sustainability



## 2. Invest in the grid

- €500 bn challenge
- Access to EU funds
- Long term visibility



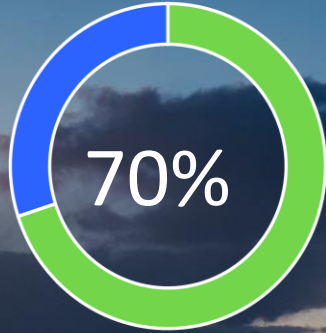
## 3. Get ready

- Hard resilience
- Cyber security





# Challenge #1 – Enable the transition



New capacity will be connected at distribution level



50m heat pumps by 2030



50-70m EVs by 2030

- DSOs facilitate the integration of grid users
- **Modernise and digitise the grid** to ensure its key role in an increasingly decarbonised, decentralised, and digitalised power system
- **Set network tariffs which are cost reflective** to promote a sustainable and efficient electricity system..

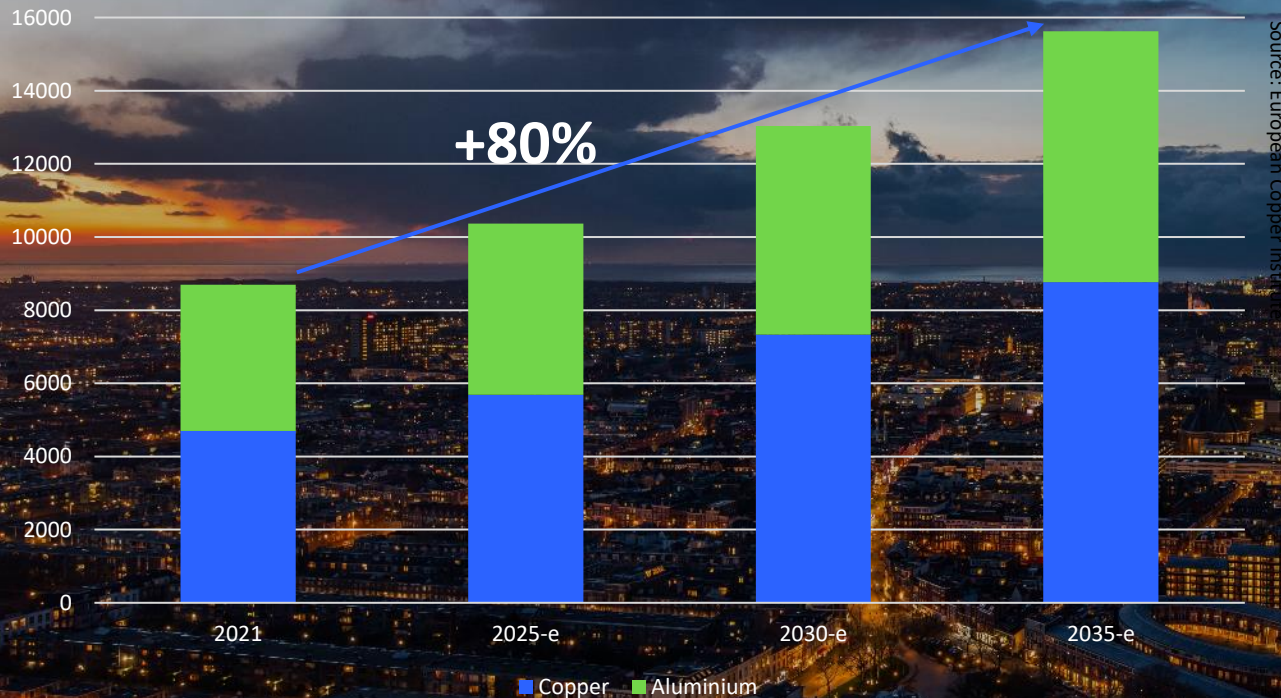




# Challenge #1 – Enable the transition

Make the grid an asset for sustainability

Copper and aluminium demand for cables



## Key principles:

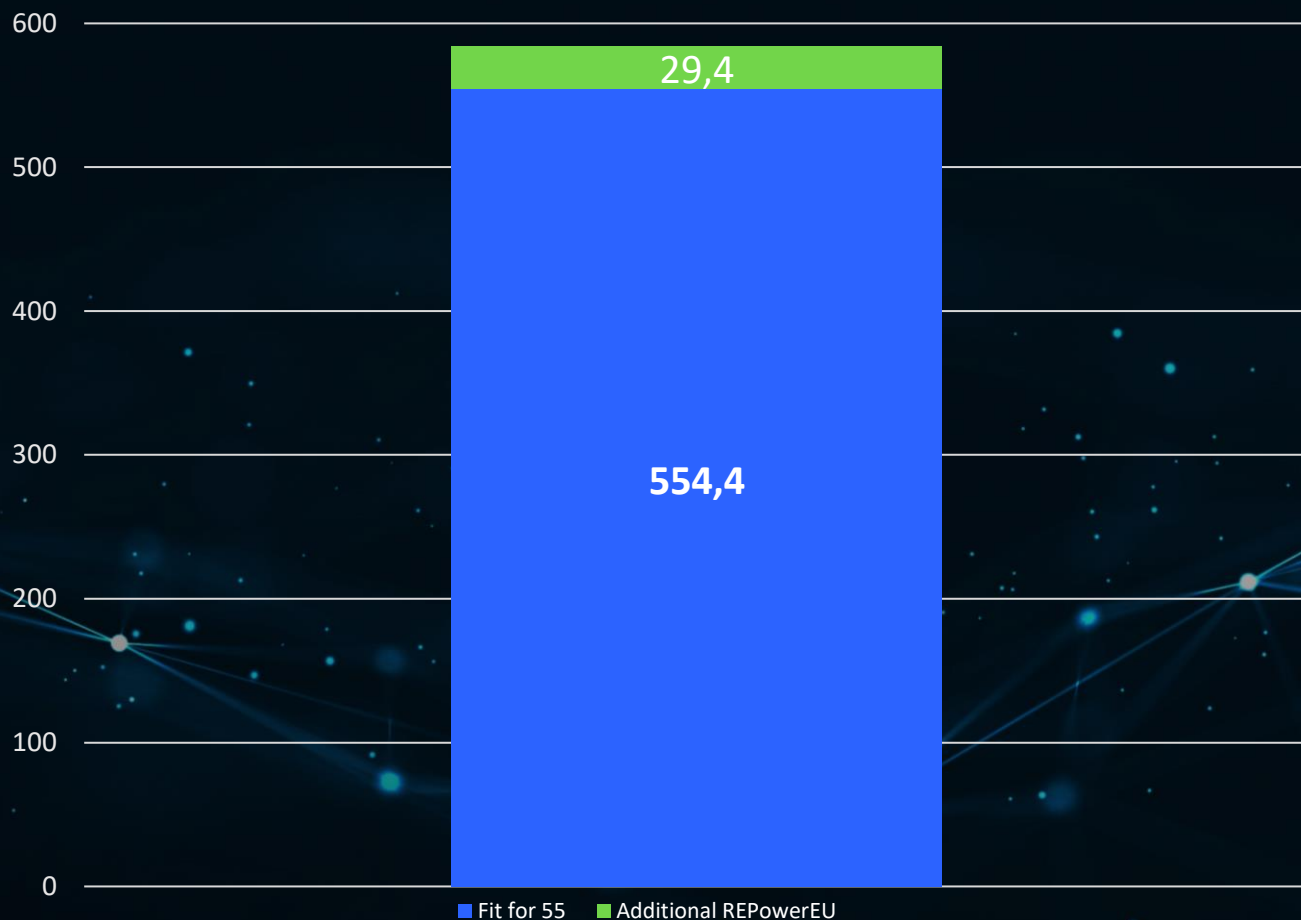
- Life cycle approach
- Avoid reducing lifetime and supply issues
- Avoid increased pressure on raw materials





# Challenge #2 – Invest in the grid

Electricity grid investments over the decade (bn€ 2022)

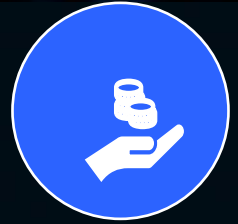


Key trends that call for investments in the grid:

1. Increase in power demand
2. Electrified society
3. Changed generation mix
4. Ageing infrastructure

**Overall, this is a € 600 billion investment challenge over the decade**





## Challenge #2 – invest in the grid



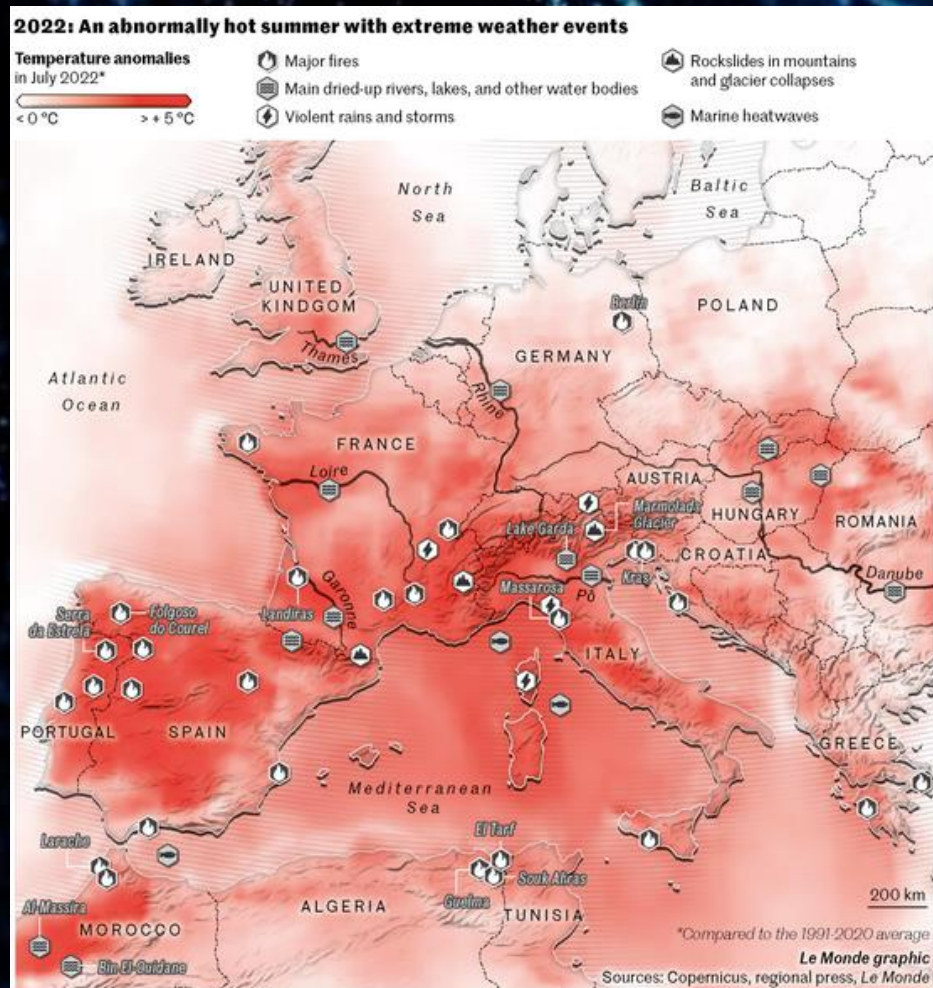
We must reverse today's receding investment trend in distribution grids, by facilitating access to EU funds with tailor made eligibility criterion.

This should start by raising awareness on the EU funding opportunities for DSOs.





# Challenge #3 – Get ready



Resilience is key for climate change adaptation, but also for building stronger and safer energy infrastructure at the European level





Thank you !

