



# The European Commission's science and knowledge service

The Joint Research Centre

## Science and Research for climate/energy policies and a circular economy

Dr. Christian Thiel

# OVERVIEW

- Role of the Joint Research Centre
- European Green Deal
- Clean, affordable and secure energy
- Clean and circular economy
- Conclusions

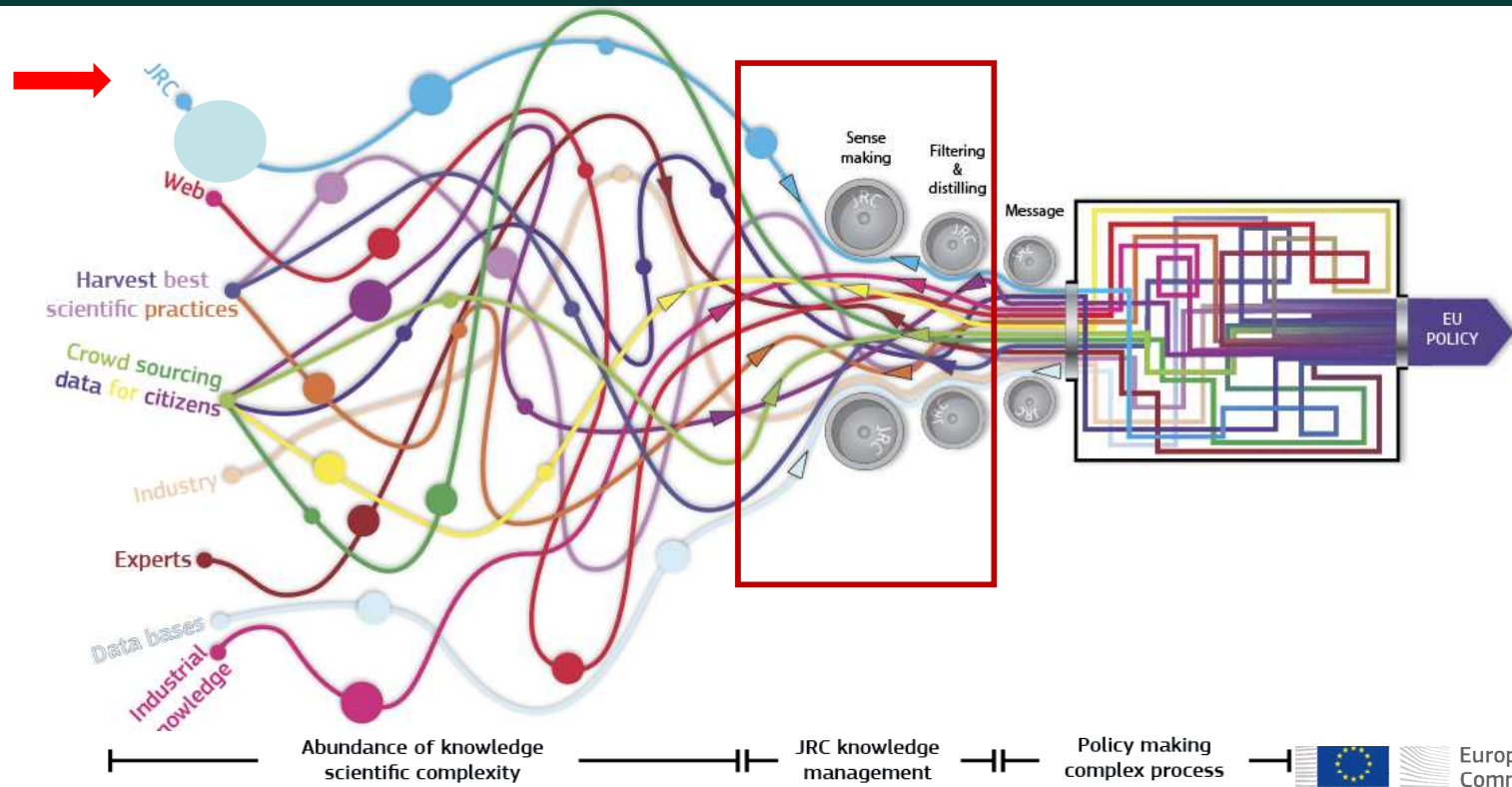


# Mission of the Joint Research Centre

***Support EU policies with independent evidence  
throughout the whole policy cycle***



# JRC – EU Commission Science and Knowledge Service





# JRC activities in Energy, Transport and Climate

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- **Energy efficiency**
  - **Renewables**
  - **Energy storage**
  - **Energy security, distribution, markets**
  - **Sustainable Transport**
  - **Economics of climate change, energy and transport**
  - **Air quality and climate**
  - **Knowledge for the Energy Union**
  - **Desktop research**
  - **World-leading laboratories**
  - **Open access data**
  - **Open access models and tools**
  - **Policy related science**
  - **Support to impact assessments**
  - **Pre-normative research**
  - **Standardisation**

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# European Green Deal

The European Green Deal is about **improving the well-being of people**. Making Europe climate-neutral and protecting our natural habitat will be good for people, planet and economy. No one will be left behind.

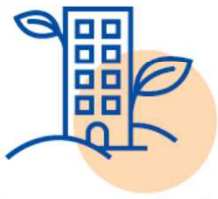
## The EU will:



Become  
climate-neutral  
by 2050



Protect human life,  
animals and plants,  
by cutting pollution



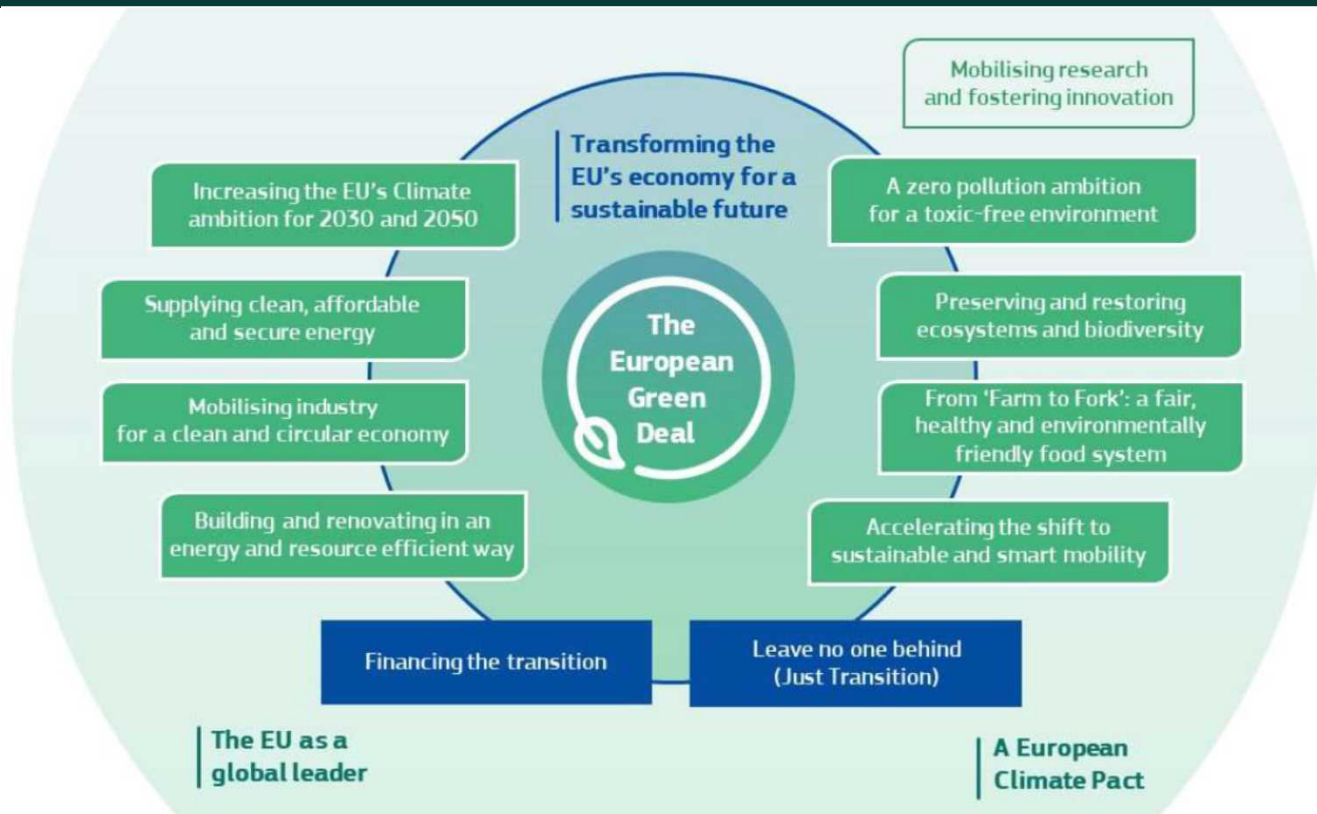
Help companies  
become world leaders  
in clean products and  
technologies



Help ensure a  
just and inclusive  
transition

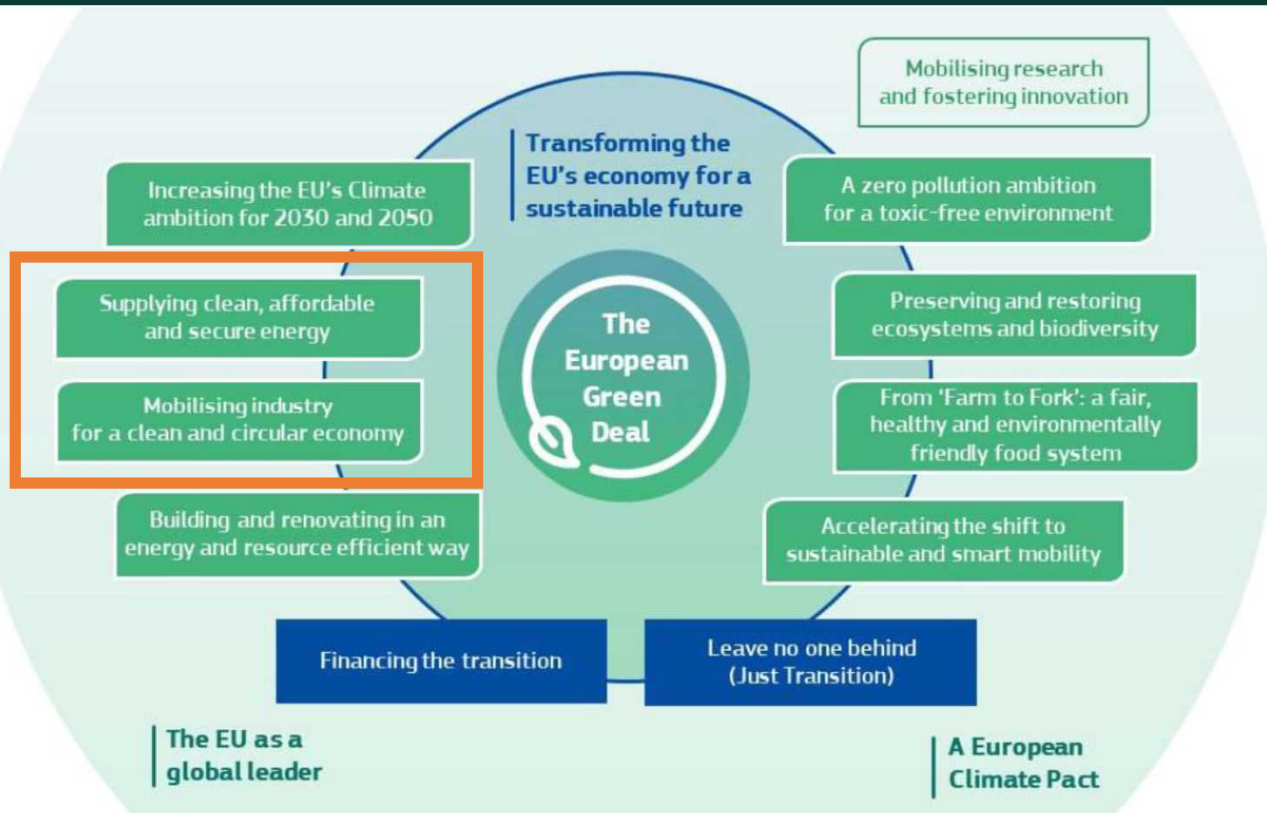


# Elements of the European Green Deal





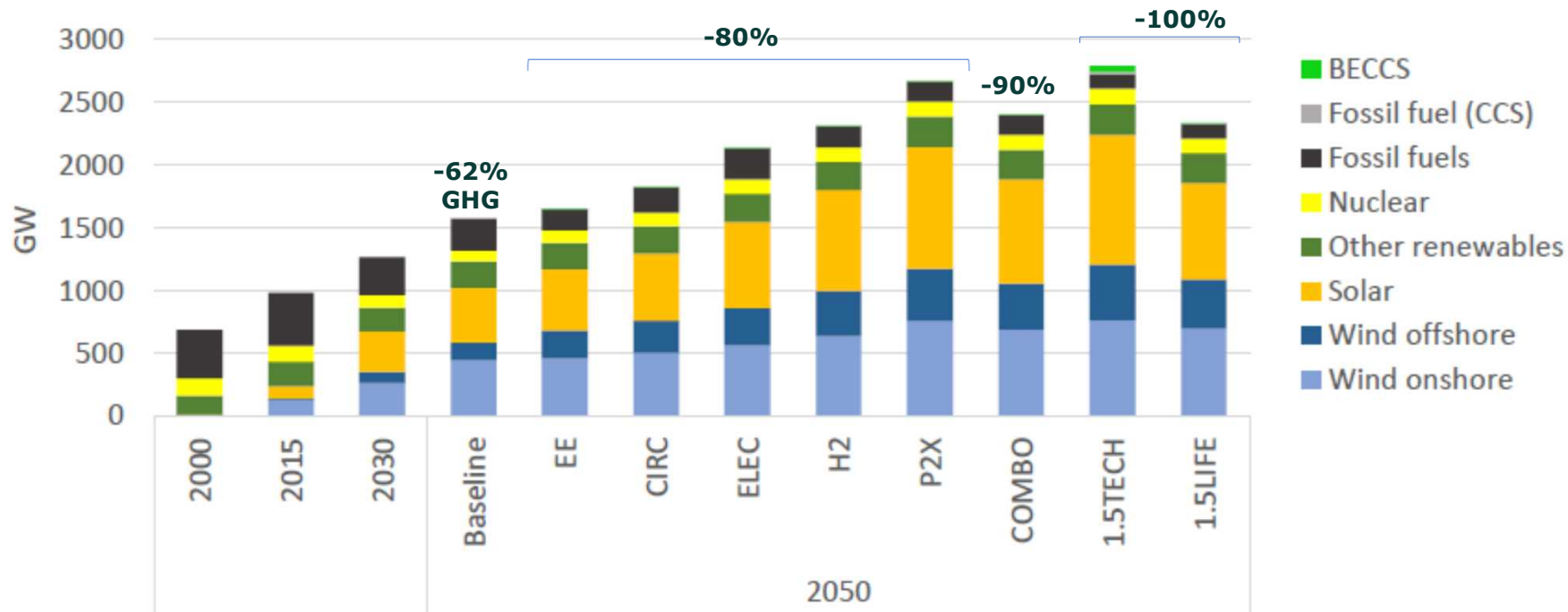
# Elements of the European Green Deal



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# Scenarios for the long term vision



COM(2018)773 "A Clean Planet for all - A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy" & supporting documentation



# Clean energy and mobility solutions ready for deployment



Picture from Solar Impulse Foundation

First solar flight around the world. Airplane flying over a concentrated solar power plant near Seville on its way to Cairo



Still more research and demonstration is needed



# Carbon Capture, Utilisation and Storage



# Sustainable alternative fuels



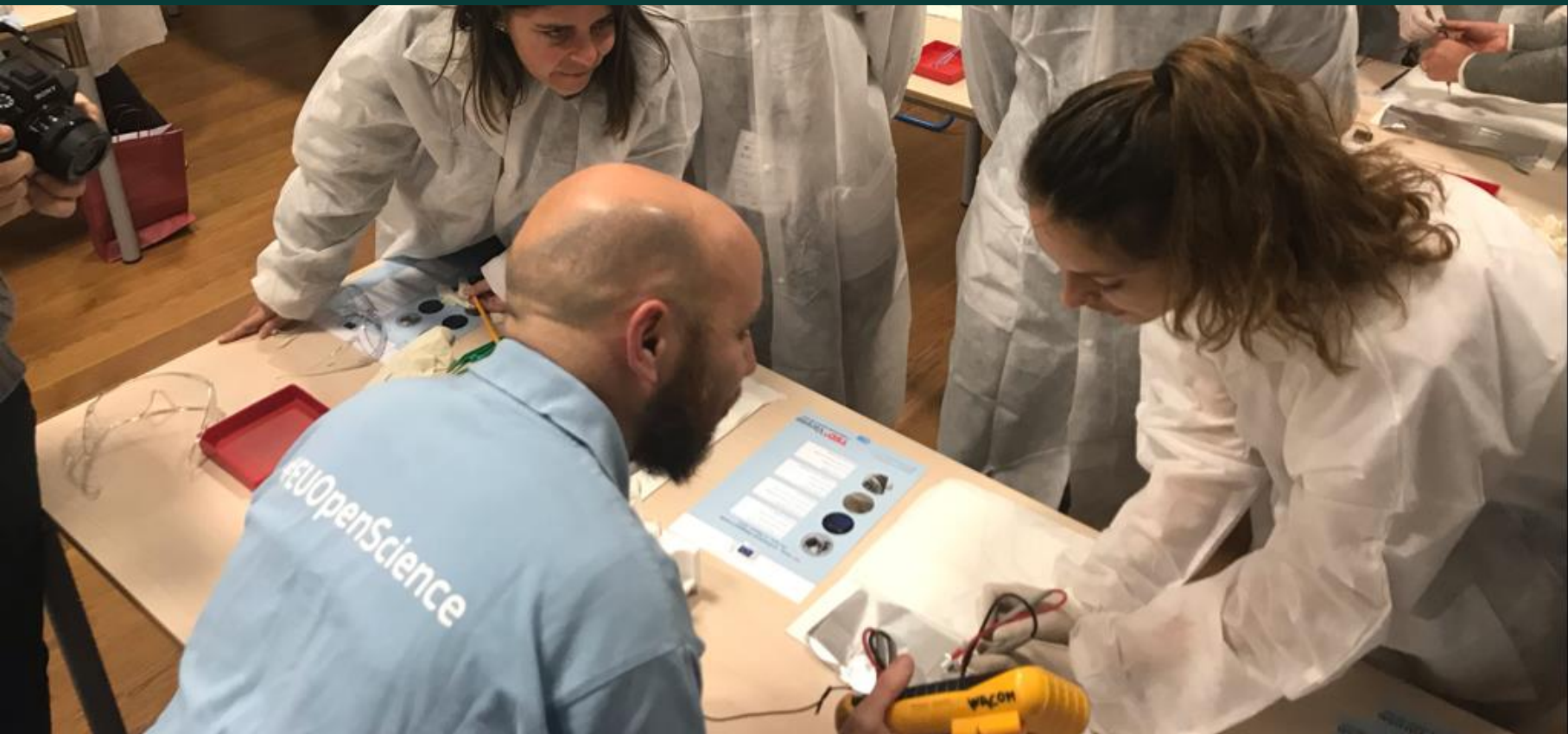




**Digital transformation**



# Citizen engagement



Joint effort is needed







# SETIS

## Strategic Energy Technologies Information System

[European Commission](#) > SETIS



[SETIS in the Energy Union landscape](#)

[Actions towards implementing the Integrated SET Plan](#)

[Low Carbon Energy Technologies](#)

[Publications](#)

[Calendar](#)



**Low Carbon Energy Observatory's 2018 reports on technology development and technology markets available on SETIS**



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Avoid waste, increase circularity



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# Conclusions



- We must reduce our emissions further and faster
- Low carbon solutions are ready for mass market deployment
- Gaps remain that need to be addressed by **bold** R&D initiatives
- We need citizen engagement and empowerment
- Let us work together!



# Stay in touch

**christian.thiel@ec.europa.eu**



**EU Science Hub:** [\*ec.europa.eu/jrc\*](https://ec.europa.eu/jrc)



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European  
Commission