

Challenges for advanced materials R&D

EUIndTech 2025 conference

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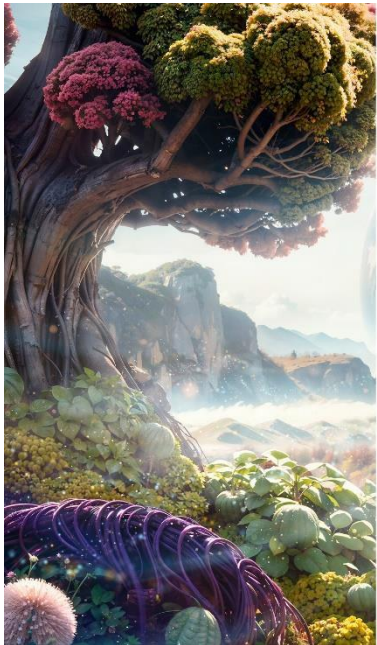
Research, Development & Innovation at Evonik

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Evonik defined three Innovation Growth Areas to focus its R&D

WE GO BEYOND TO ENABLE THE GREEN TRANSFORMATION



**Advance
Precision
Biosolutions**



**Enable
Circular
Economy**



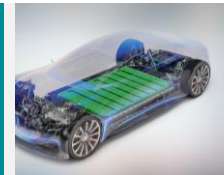
**Accelerate
Energy
Transition**



Accelerate Energy Transition



**Membranes, Hydrogen
Generation and Transport**



**Future Mobility and
Battery Solutions**



Carbon Capture and Storage



**Renewable Energy
and Energy Efficiency**

Evonik's broad variety of advanced materials are crucial key components to enable a green transformation – but we are facing increasing obstacles

Advanced materials for:

Hydrogen production



Hydrogen transport



Lightweight



Batteries



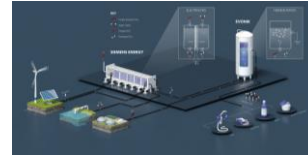
Energy effic. construction



Carbon capture



CO₂ use/art. photosynth.



Chemical recycling



...and more

Evonik as enabler

Being at the beginning of the value chain, we develop and produce tailor-made materials which are key components to design solutions for decarbonisation

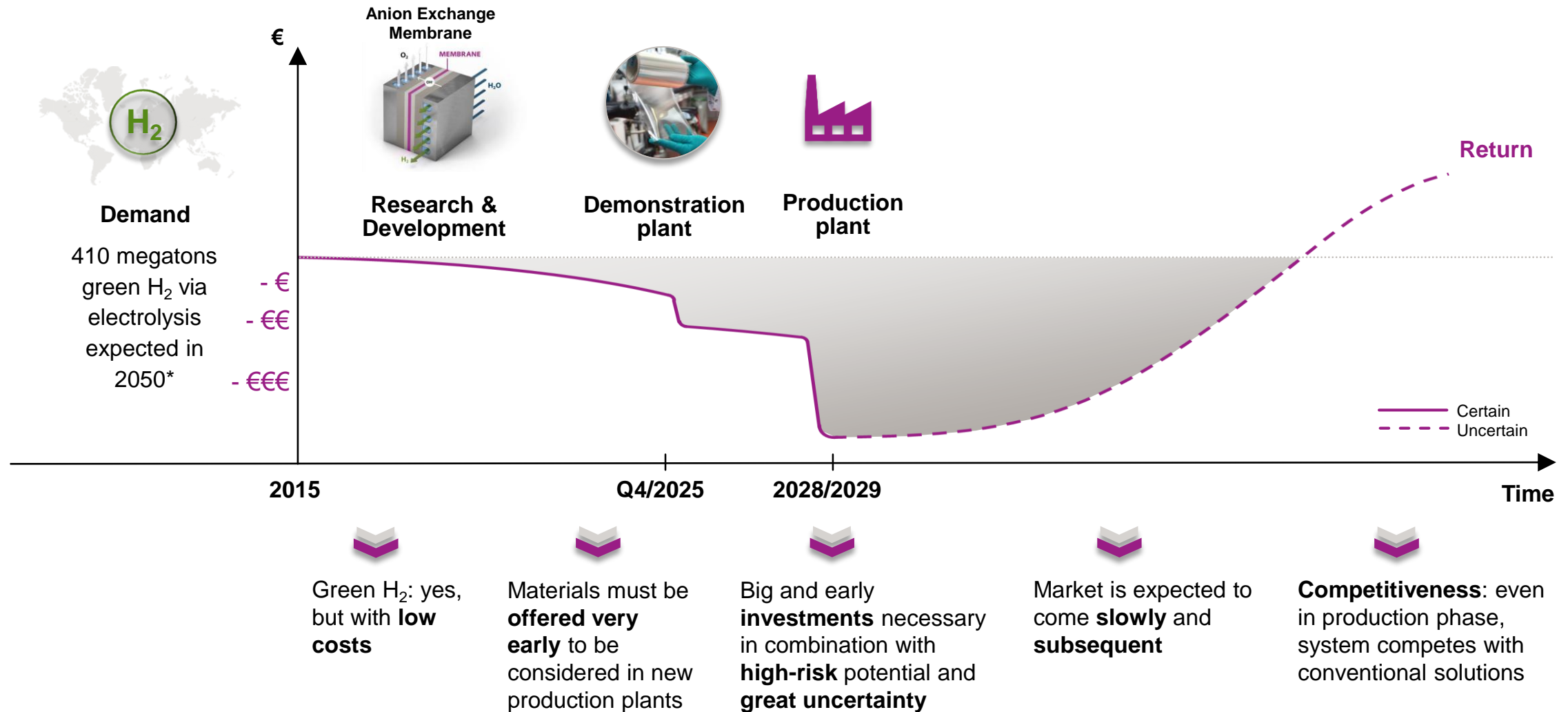
Each of these topics faces similar challenges:



- Development of new materials is associated with high risks
- Being early in the value chain, we are the first to invest significantly
- Markets develop with high uncertainty – both in size and time

Example Membrane for H₂ production

Our real challenge starts with high TRL in highly uncertain markets

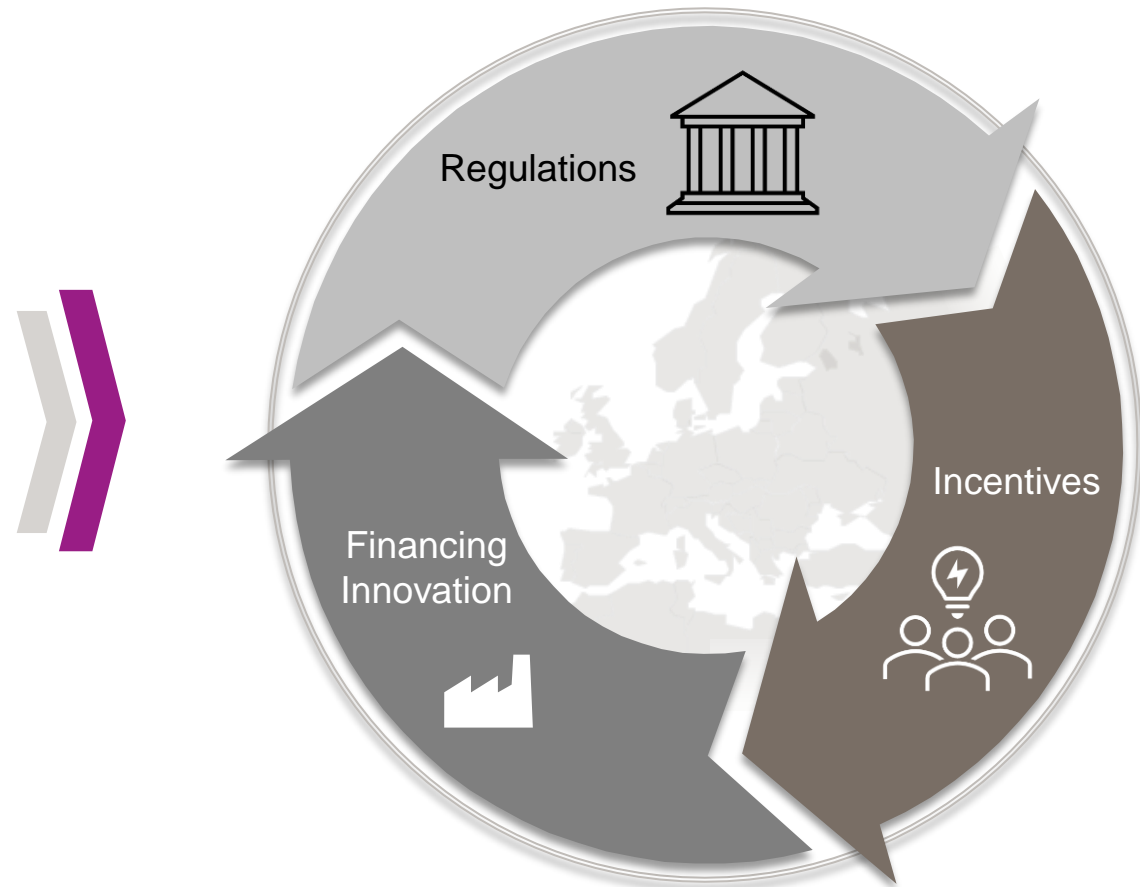


Main challenges of the advanced materials industry can be addressed by the Clean Industrial Deal

Summary

- **The clean transformation** is one of the greatest challenges of our time
- Evonik's advanced materials are **enabler** for a sustainable future
- But the path is affected by **many obstacles, high risks** and long preliminary **lead time**
- Even in production phase, green solutions are always competing with conventional systems with lower costs

Being at the beginning of the value chain, we need the right conditions to contribute





EVONIK

Leading Beyond Chemistry