

Seoul | October 25th, 2019

The Status of Hydrogen Economy in Germany

Adam Mutwil | Federal Ministry of Transport and Digital Infrastructure (BMVI)



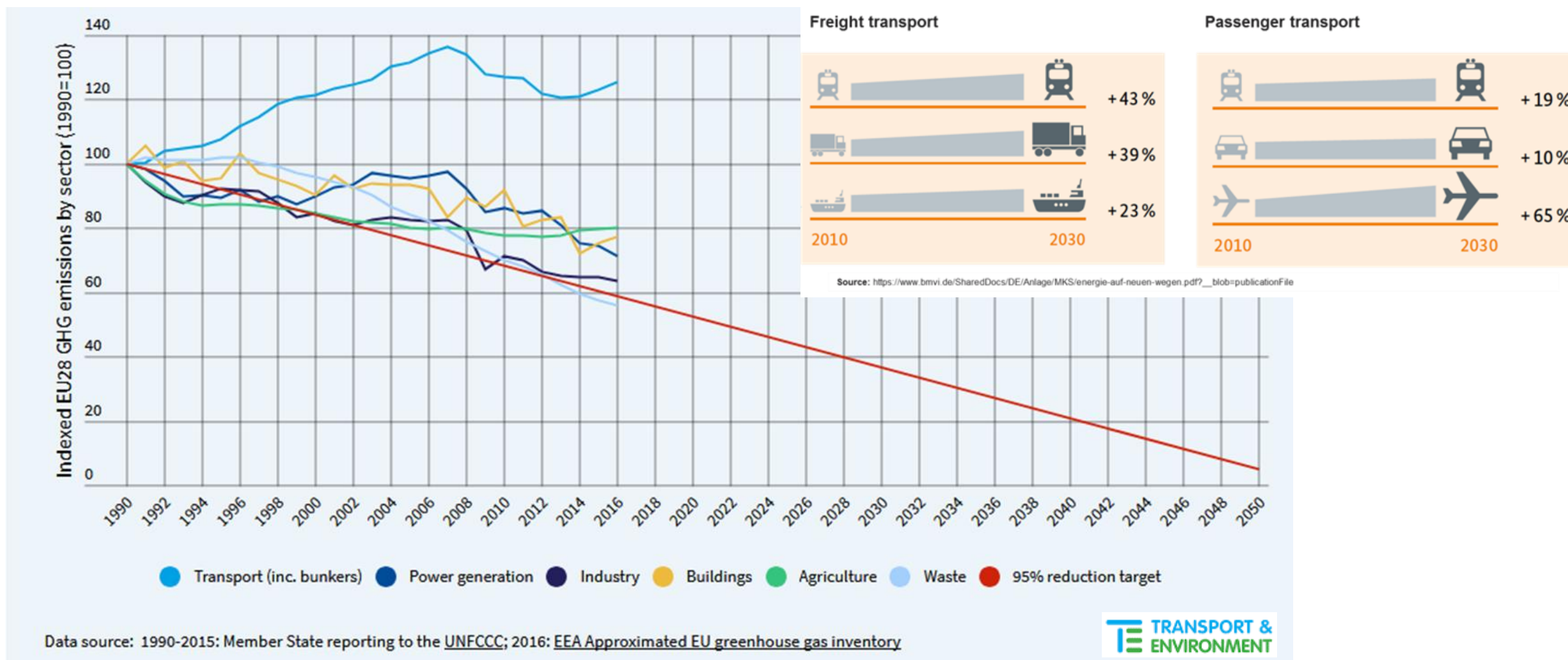
MOTIVATION FOR HYDROGEN TECHNOLOGY



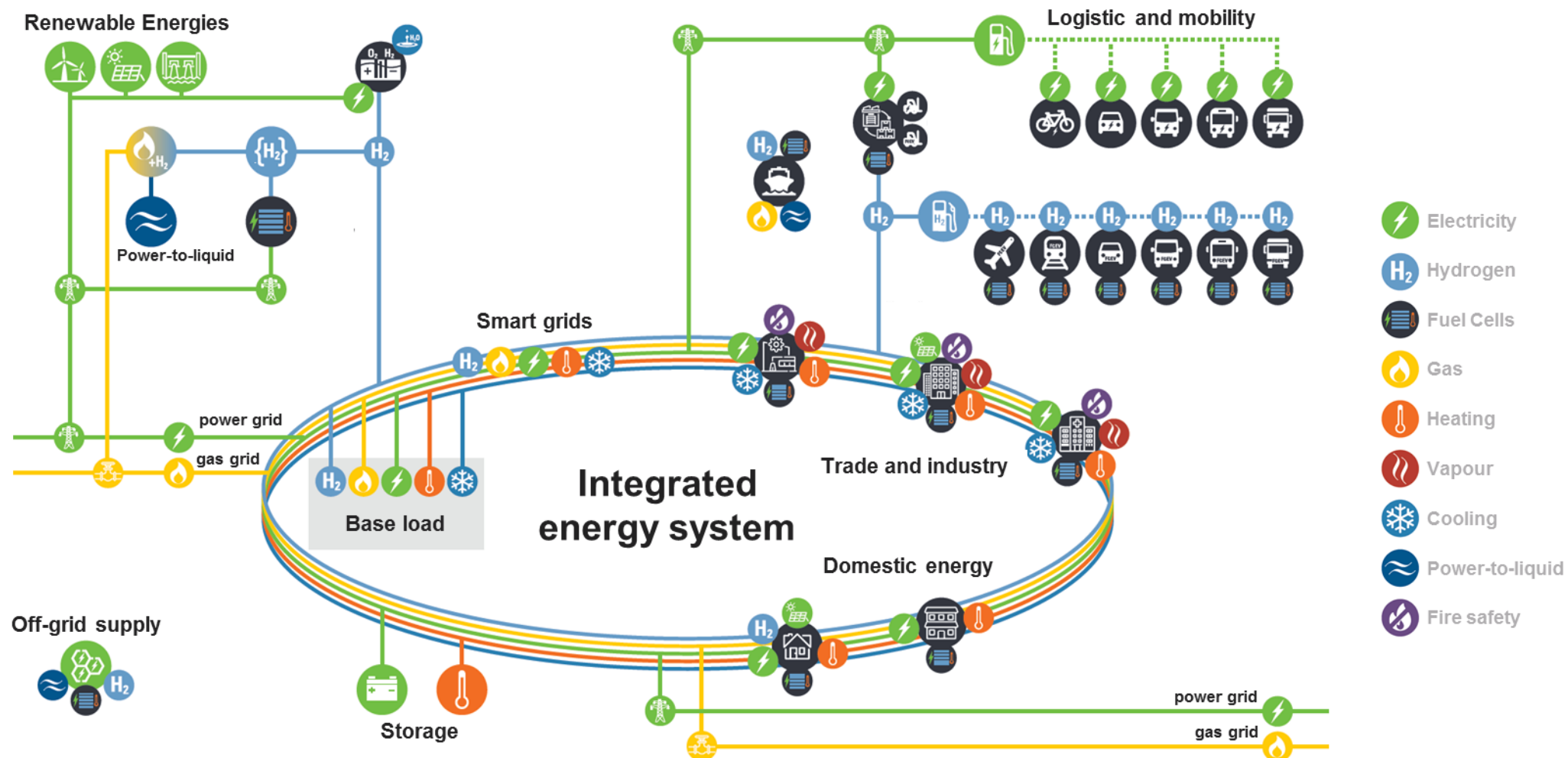
1



GHG REDUCTION CHALLENGE FOR TRANSPORTATION



HOW TO BRING RENEWABLES INTO THE TRANSPORT SECTOR





HYDROGEN IN THE TRANSPORT SECTOR

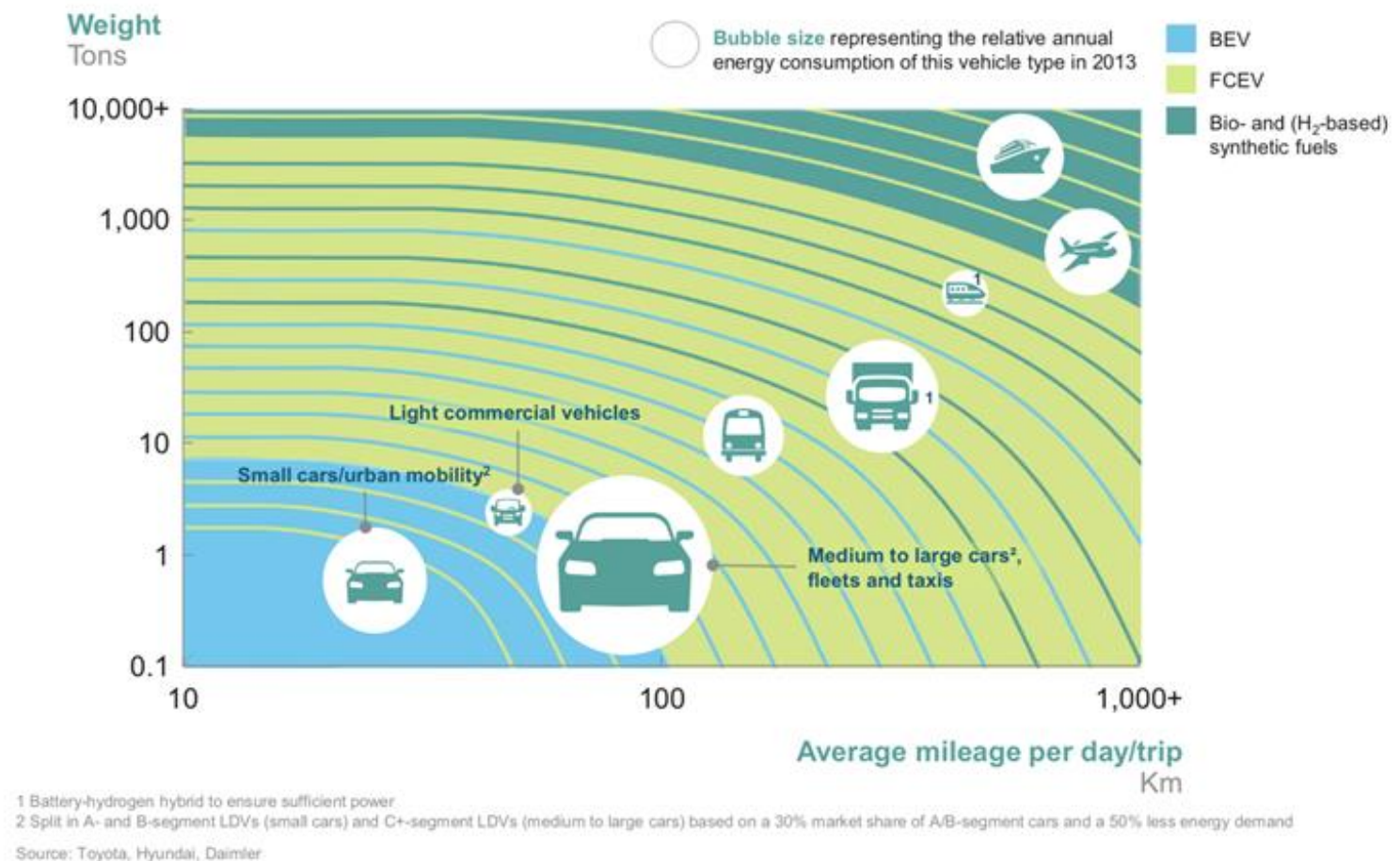


2



BATTERIES (BEV), FUEL CELLS (FCV) AND BIO- AND SYNTHETIC FUELS ARE COMPLEMENTING ZERO EMISSION TECHNOLOGIES FOR THE TRANSPORT SECTOR

- sustainable mobility has to be based on renewable energies in the fuel market
- efficiency, customer acceptance and market requirements have to be balanced for each segment
- batteries, fuel cells and electrolysis are key technologies for zero emission mobility solutions



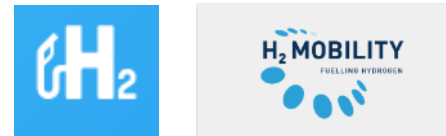
HYDROGEN REFUELLING STATIONS IN GERMANY AND EUROPE

The German Government is implementing its strategic framework as part of the European Alternative Fuels Infrastructure Directive (AFID): 400 HRS by 2025

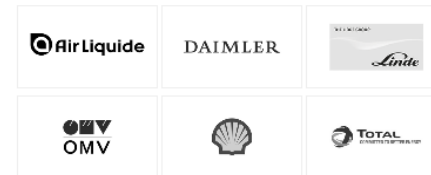


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109 In Betrieb 51 In Realisierung



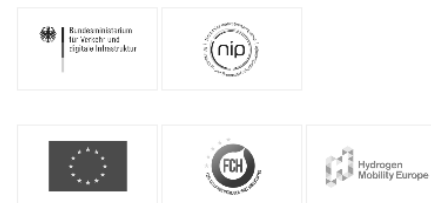
The partners



Associated partners and advisors

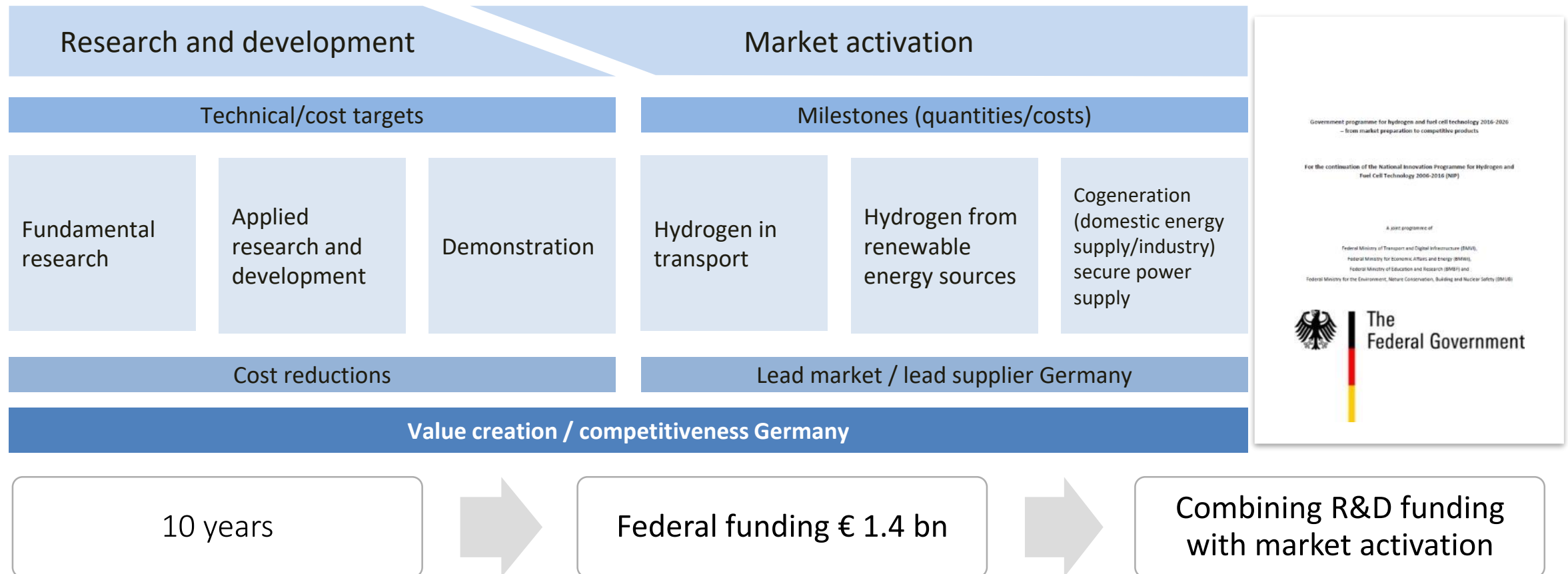


Sponsors



<https://h2.live/>

NATIONAL INNOVATION PROGRAM HYDROGEN AND FUEL CELL TECHNOLOGY (NIP)





NEXT STEPS FOR HYDROGEN IN THE ECONOMY



3



NEXT STEPS FOR A HYDROGEN ECONOMY IN GERMANY

A **National Hydrogen Strategy** is under development by four ministries: BMWi, BMVI, BMBF and BMZ. The National Hydrogen Strategy will be introduced in December and will contain the framework for further activities of the German Government towards hydrogen technologies until 2030.

11 large-scale R&D projects (**Reallabore**) and 9 hydrogen regions (**HyLand**) have been announced by the BMWi and the BMVI. The projects are addressing first markets of FCH technologies in transportation, energy and industry.



NATIONAL ACTIVITIES IN LINE WITH INTERNATIONAL APPROACH

International level

Mission Innovation IC#8

European level

H2 Valley

National level (Germany)

Reallabore / HYLAND projects

Potential of the initiatives

- Story line for hydrogen technologies
- Stakeholder network
- Including existing initiatives
- Including national stakeholders in international activities
- Link between national and international activities

INTERNATIONAL COOPERATION TO ENABLE FCH ECONOMY



- Fuel Cell Technology Office (FCTO) of the DoE
- California Fuel Cell Partnership (CaFCP), California Air Resources Board (CARB)



- Government Support Group GSG, Sustainable Transport Forum STF
- Fuel Cell and H2 Joint Undertaking FCH JU
- French-German Workgroup E-Mobility



- New Technology Development Organisation NEDO & Ministry of Energy, Trade and Industry
- Bilateral Power-to-Gas-Project



Partners both within networks and strong bilateral relations

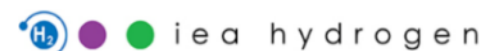
Partners within networks



GOVERNMENT
SUPPORTGROUP



MISSION INNOVATION



giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH



Thank you for your attention!



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