



Ministerstwo
Klimatu i Środowiska

POLISH HYDROGEN STRATEGY UNTIL 2030

WITH AN OUTLOOK TO 2040

Baltic Offshore Wind Energy to Hydrogen
September 29, 2023

CURRENT STATUS - HYDROGEN MARKET IN POLAND


- Poland is **the third** producer of hydrogen in the EU - **1.3 m** tons
- No market for hydrogen
- Hydrogen is produced (almost) exclusively from fossil fuels
- To 90% requirements of hydrogen w industry corresponded to production of ammonia, methanol and refining
- Offshore wind farms and biomass
- Hydrogen refueling stations (AFIR)



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STRATEGY OUTLINE

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Załącznik do uchwały nr 149 Rady Ministrów
z dnia 2 listopada 2021 r. (poz. 1138)

POLSKA STRATEGIA WODOROWA DO ROKU 2030 Z PERSPEKTYWĄ DO ROKU 2040

Warszawa, październik 2021 r.



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HYDROGEN

6. STABLE REGULATORY ENVIRONMENT

- Time scope: 2021 - 2030 (with an outlook to 2040)
- Priority sectors: energy, heating, industry, transportation

6 objectives:

1. USE OF HYDROGEN IN THE ENERGY INDUSTRY AND HEATING
2. HYDROGEN AS AN ALTERNATIVE FUEL IN TRANSPORT
3. DECARBONIZATION OF INDUSTRY
4. HYDROGEN PRODUCTION
5. TRANSMISSION, DISTRIBUTION AND STORAGE

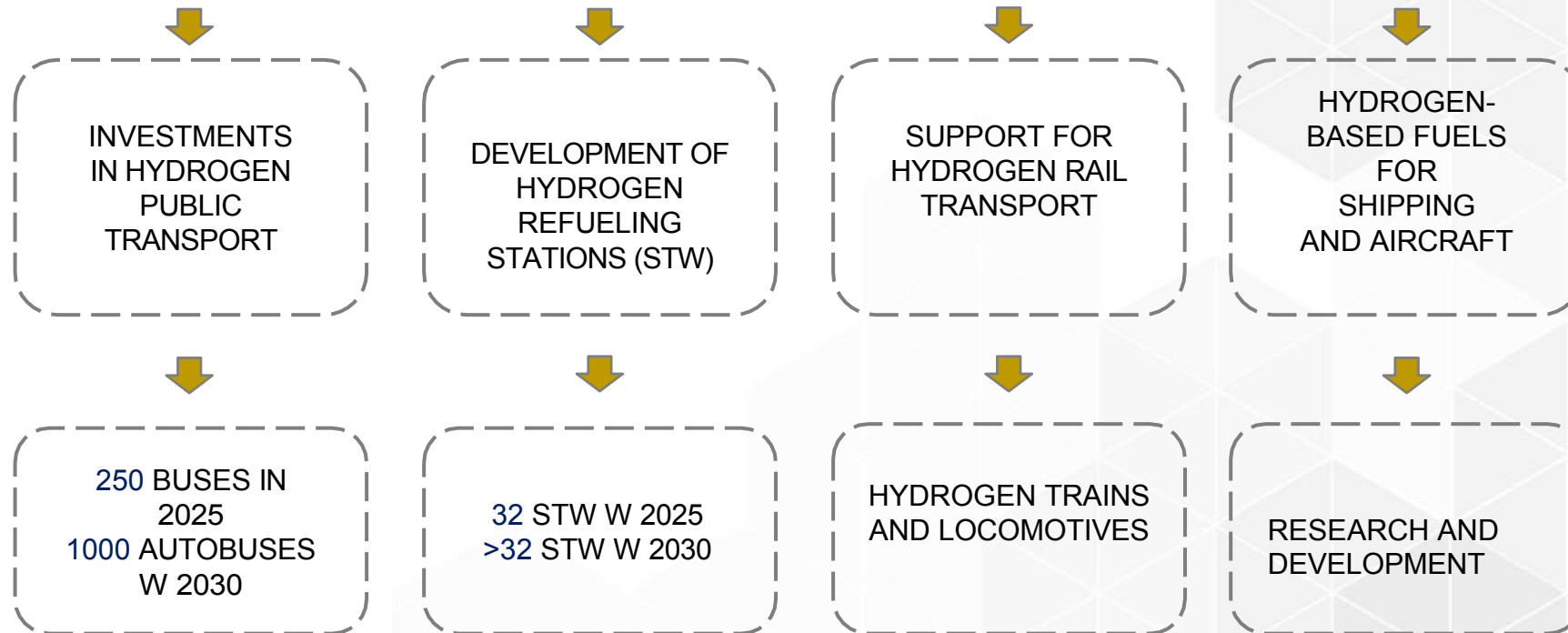
GOAL 1 - USE OF HYDROGEN IN THE POWER AND HEATING INDUSTRIES

- According to Poland's Energy Policy, 32% of electricity will come from RES by 2040
- Hydrogen can be used as an energy carrier as well as for energy storage
- Electrolysis can improve Polish energy security as well as stabilize the energy system based on RES
- Combined heat and power generation based on fuel cell technology
- Use of waste heat from electrolyzer in district heating systems
- Contribution to Poland's energy security



GOAL 2 - HYDROGEN AS AN ALTERNATIVE FUEL FOR TRANSPORTATION

SUPPORT ACTIVITIES AND EXPECTED RESULTS



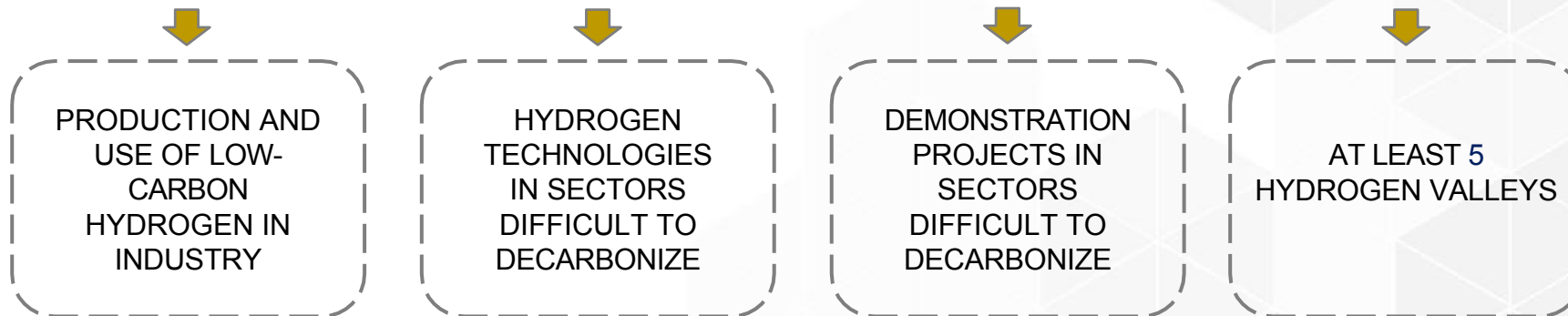


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GOAL 3 - DECARBONIZATION OF INDUSTRY

Provide support for the use of low-carbon and renewable hydrogen to achieve significant reductions greenhouse gas emissions, particularly in the steel, refining and chemical industries.

DEVELOPMENT FACTORS



GOAL 4 - HYDROGEN PRODUCTION

B+R PRODUCTION OF LOW-CARBON
HYDROGEN

50 MW INSTALLATION CAPACITY IN
2025

2 GW INSTALLATION CAPACITY IN
2030

SUPPORTED TECHNOLOGIES INCLUDE,
BUT ARE NOT LIMITED TO:

ELECTROLISE

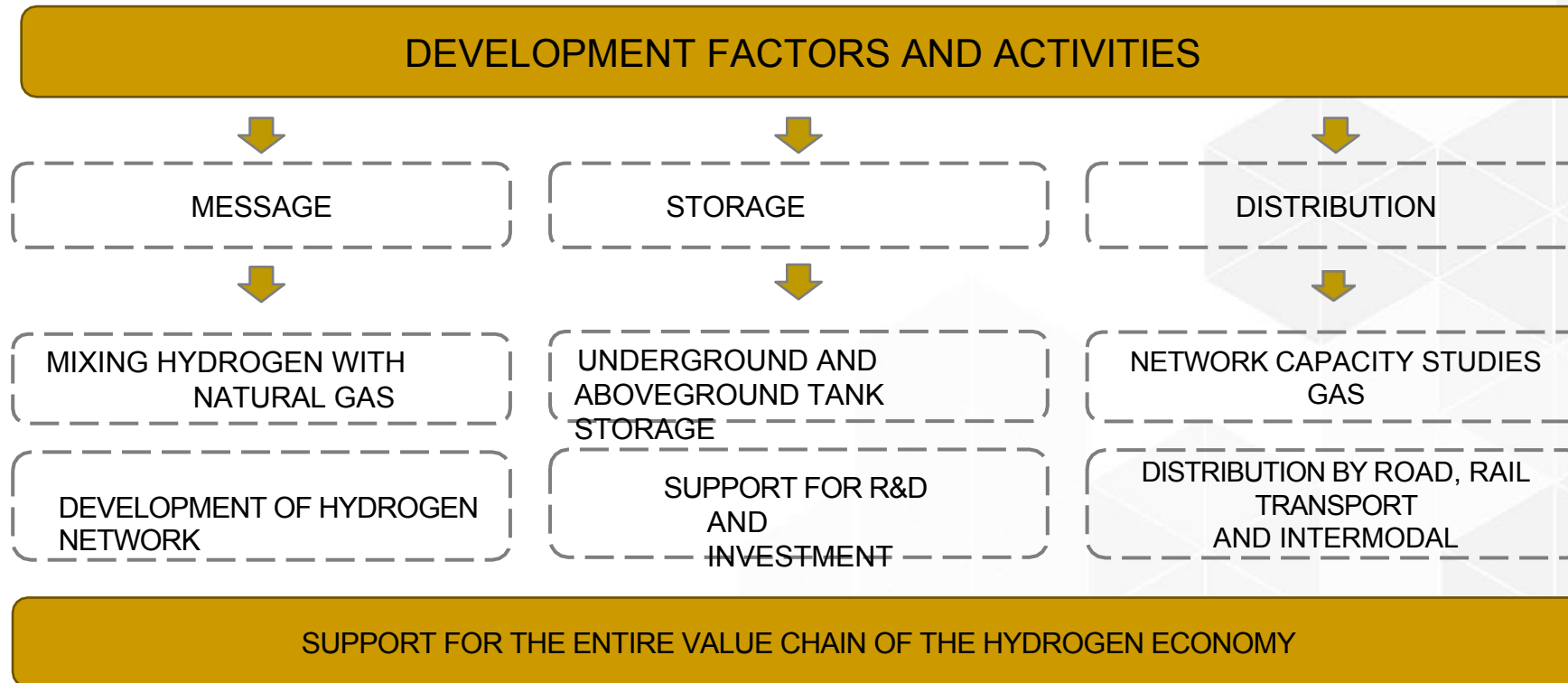
BIOMASS

STEAM REFORMING (+ CCS/CCU)

PIROLIZA



OBJECTIVE 5 - TRANSMISSION, DISTRIBUTION, STORAGE



GOAL 6 - STABLE REGULATORY ENVIRONMENT

The [Constitution for Hydrogen](#) is a legislative package aimed at creating a stable regulatory environment and providing support for the production and use of low-carbon and renewable hydrogen in the economy.

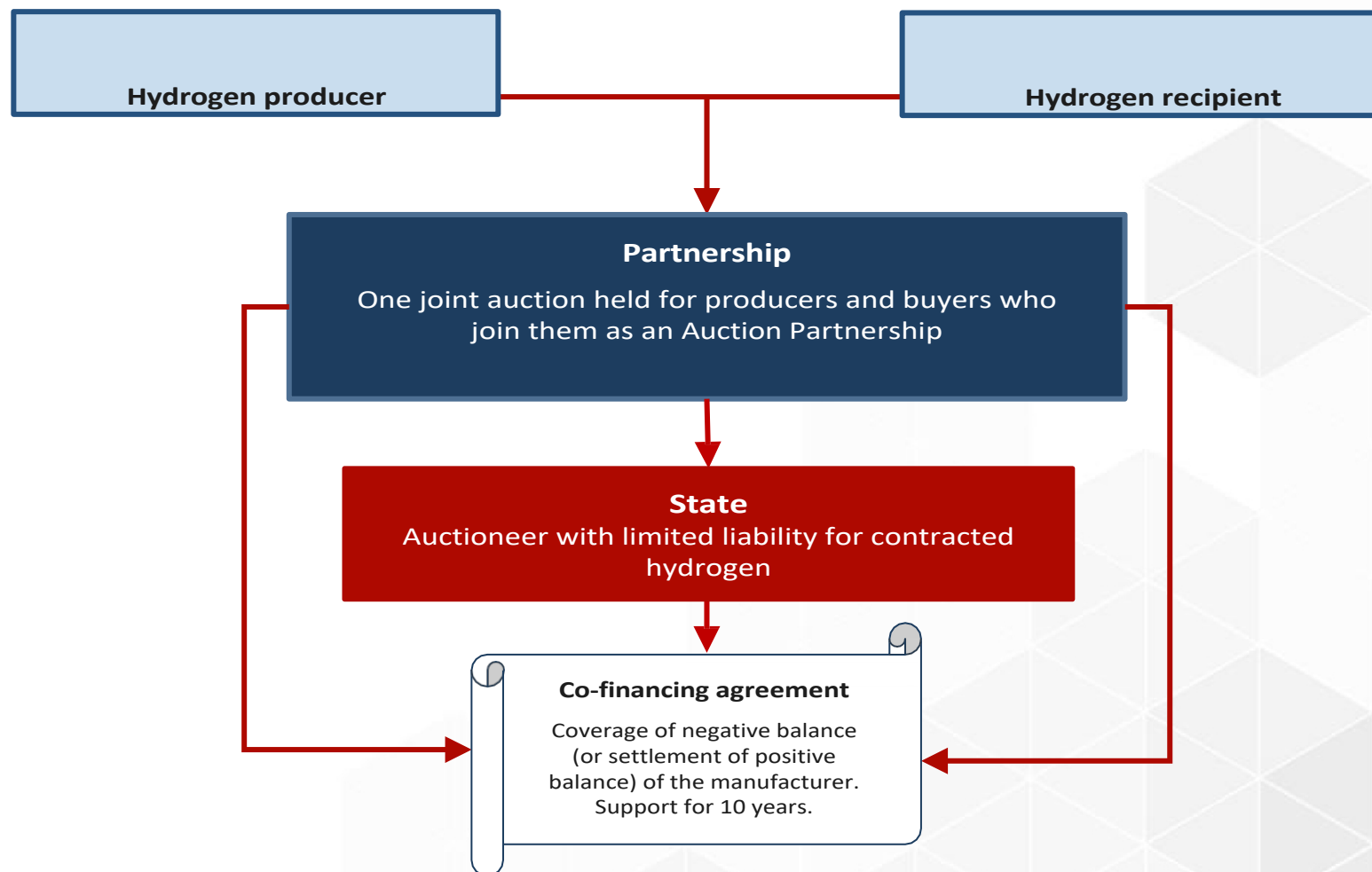
MARKET
REGULATION

PRODUCTION SUPPORT
AND USE OF RENEWABLE HYDROGEN

+ REGULATION ON DETAILED TECHNICAL REQUIREMENTS FOR HYDROGEN STATIONS



STATE AID SCHEME FOR RENEWABLE HYDROGEN PRODUCTION



MAIN INDICATORS OF THE STRATEGY

	2025	2030
PRODUCTION CAPACITY LOW-CARBON HYDROGEN	50 MW	2 GW
HYDROGEN BUSES	100-250	800-1000
HYDROGEN REFUELING STATIONS	<32	>32
HYDROGEN VALLEYS	<5	5
HYDROGEN AGREEMENT SECTORAL	1	1
HYDROGEN VALLEYS INNOVATION ECOSYSTEM	1	1
TECHNOLOGY CENTER HYDROGEN	1	1



POLISH HYDROGEN SECTOR AGREEMENT

- Concluded on October 14, 2021
- A key tool for the implementation of the Polish Hydrogen Strategy until 2030
- More than 200 parties representing the public sector, science, business and the environment business
- 5 objectives - Local content, Research and Development (R&D), Investment, People, Cooperation
- 7 working groups formed to implement the objectives of the Strategy and Agreement
- Coordinating Council for Hydrogen Management



| THANK YOU FOR YOUR ATTENTION

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