



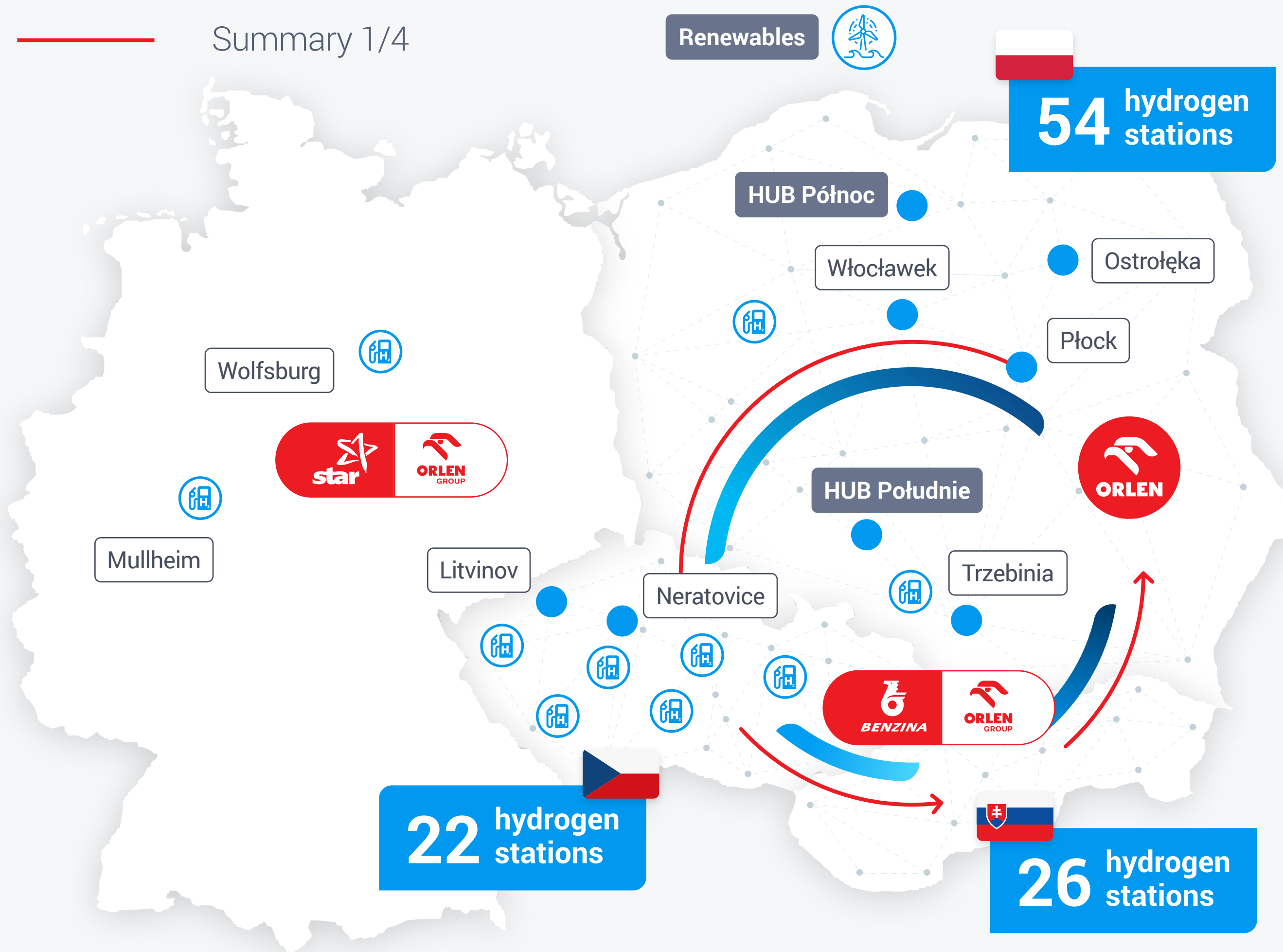
HYDROGEN EAGLE

ORLEN CG PROJECT



Hydrogen Eagle is a comprehensive infrastructure project implemented by ORLEN Group in the territories of Poland, Czech Republic nad Slovakia

Summary 1/4



Poland

- 54 HRS,
- 110 MW electrolysis capacity,
- 15 kt H₂ from municipal waste,

Czech Republic

- 22 HRS,
- 80 MW electrolysis capacity,

Slovakia

- 26 HRS,
- 60 MW electrolysis capacity,

The most important project parameters:

102 HRS

250 MW electrolysis capacity

15 kt H₂ / year from municipal waste

over 1 mln tonnes CO₂ emission reduction annually

„HYDROGEN EAGLE” project parametres in Poland

Summary 2/4

Diversified hydrogen sources:



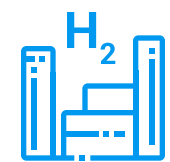
Hydrogen generation from
offshore RES - **100 MW**



Hydrogen generation from
municipal wastes
– **15 kt /year**



Hydrogen generation from
onshore RES in
a distributed system
– local Hubs **10MW**



Hydrogen generation from
the existing hydrogen
sources: Włocławek,
Trzebinia, Płock

New end-uses directions:



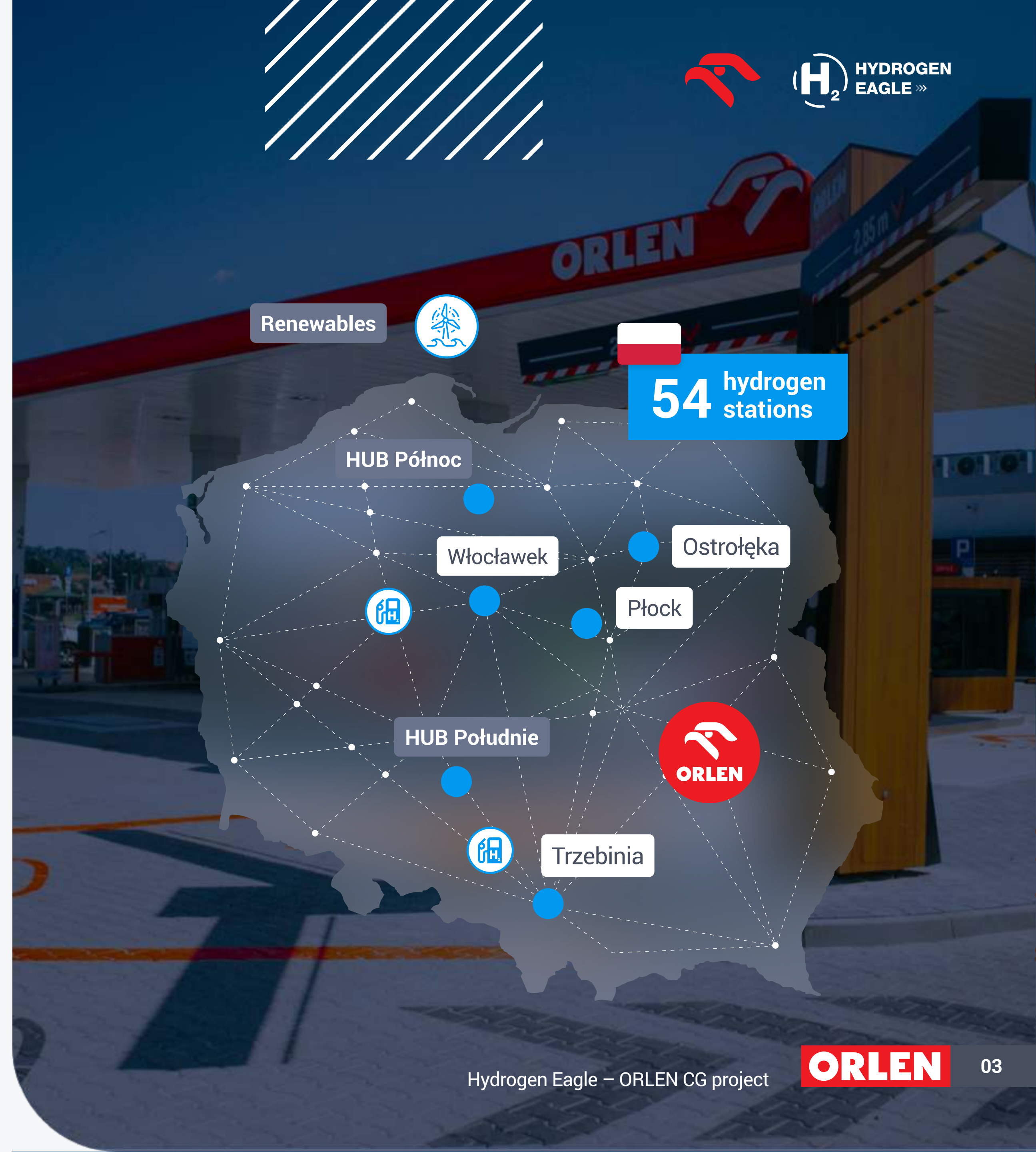
Public transport (road
and railway) – **54 HRS**



Industry
and power applications
(decarbonization)



European Hydrogen
Backbone (EHB)



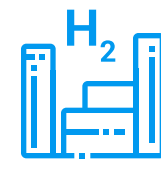
„HYDROGEN EAGLE” project parametres in Czech Republic

Summary 3/4

Diversified hydrogen sources:



Hydrogen generation from onshore RES – **26 MW**
(PV in Litvínov) + **18 WM**
(PV in Spolana)



Hydrogen generation from the existing hydrogen sources: Litvínov POx, CCR, Steam Cracker



Hydrogen generation from municipal wastes – **36 MW**
(Waste in Spolana)

New end-uses directions:



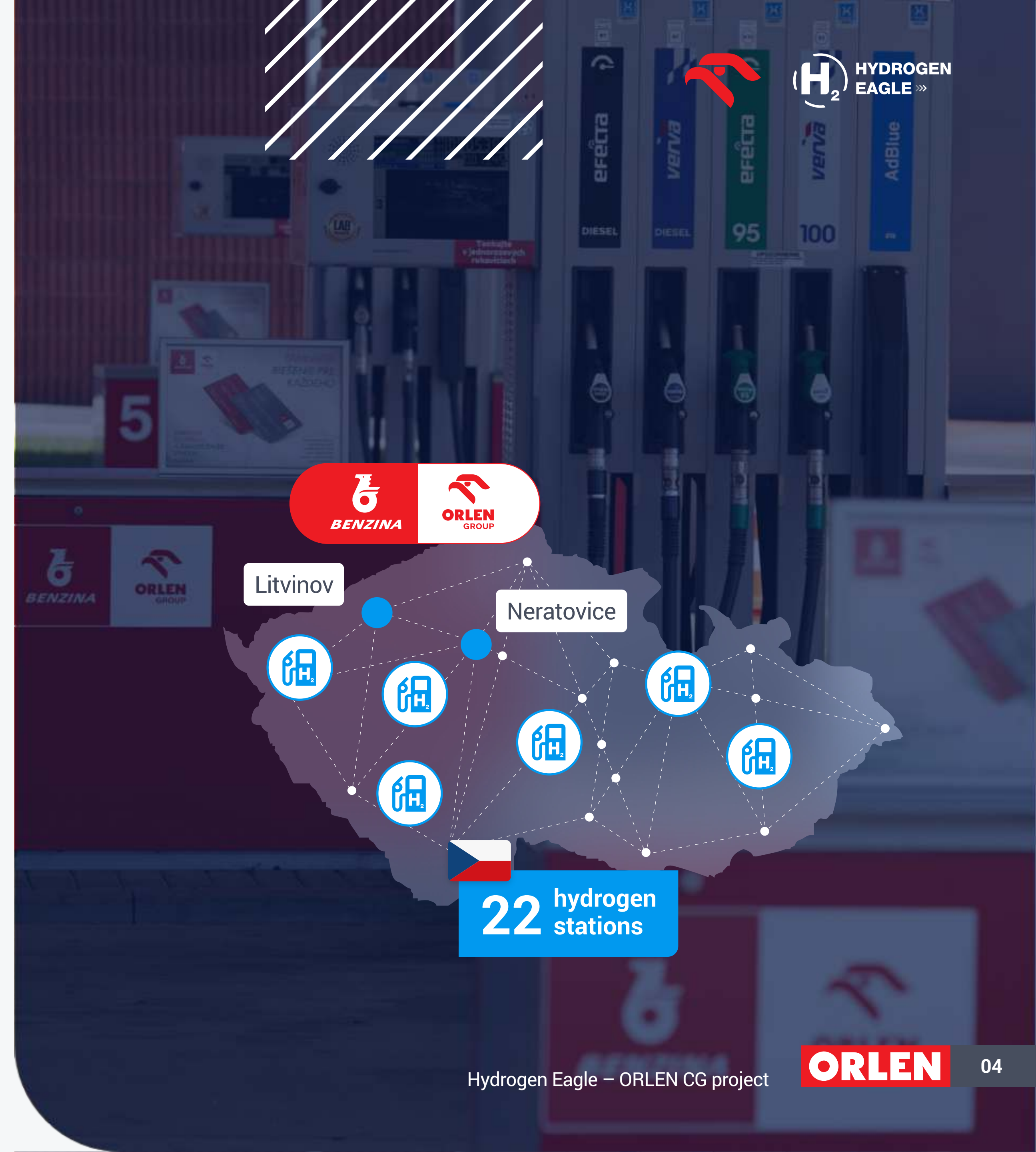
Public transport (road and railway) – **22 HRS**



Industry and power applications (decarbonization)



European Hydrogen Backbone (EHB)



„HYDROGEN EAGLE” project parametres in Slovakia

Summary 4/4

Diversified hydrogen sources:



Hydrogen generation from
onshore RES - **60 MW (PV)**

New end-uses directions:



Public transport (road and
railway) – **26 HRS**

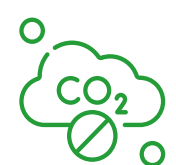


European Hydrogen
Backbone (EHB)



Purpose

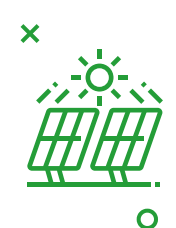
Hydrogen Eagle is a staged, comprehensive infrastructure project which aims to establish production, transport and distribution capacities for zero/low-emission hydrogen and to utilise it in the mobility sector and, potentially, for energy and industry applications, contributing to the development of a solid supply chain at the European market level.



CO₂ emission reduction from urban, heavy duty and railway transport



Shift from conventional fuels to low and zeroemission hydrogen



Low- and zero-emission hydrogen production on a large scale in CEE region using offshore RES, onshore RES and municipal waste



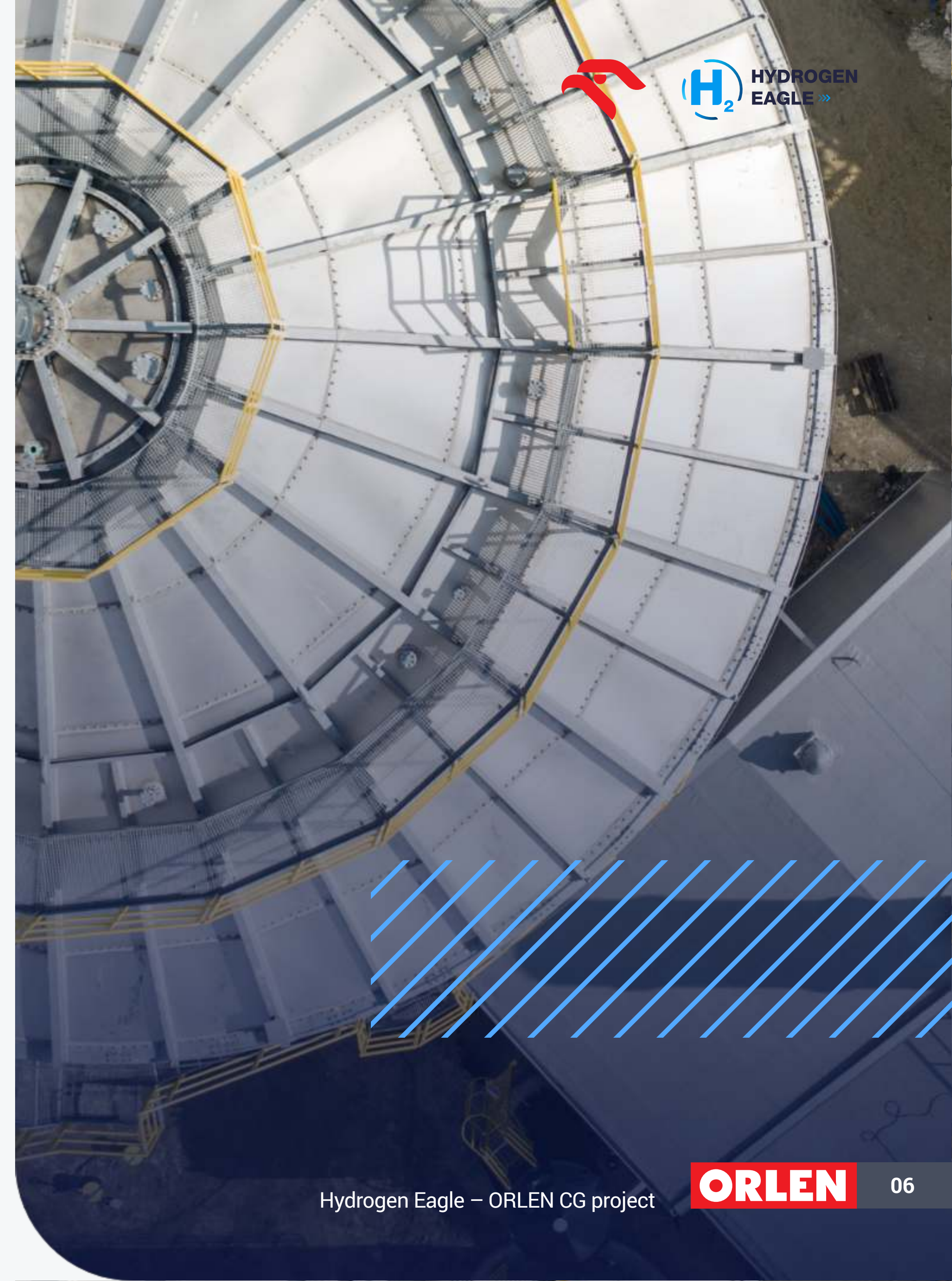
Set up a necessary infrastructure in CEE region



Enhancing Europe's competitiveness and advancing its climate neutrality goals based on environmentally sustainable solutions



Potential to become an important part of the European Hydrogen Backbone



Benefits

Strengthen of Union's Economy in CEE region:



Diversified hydrogen generation – Energy security of supply improvement in CEE region



Hydrogen Eagle will create over **5 000 new jobs**



Solving the municipal waste management problem – Circular Economy solution



After 2030 logarithmic scalability of hydrogen generation in EU



H₂ HYDROGEN EAGLE »





ORLEN



**HYDROGEN
EAGLE »»**

**FUELLING THE FUTURE.
SUSTAINABLY.**

