

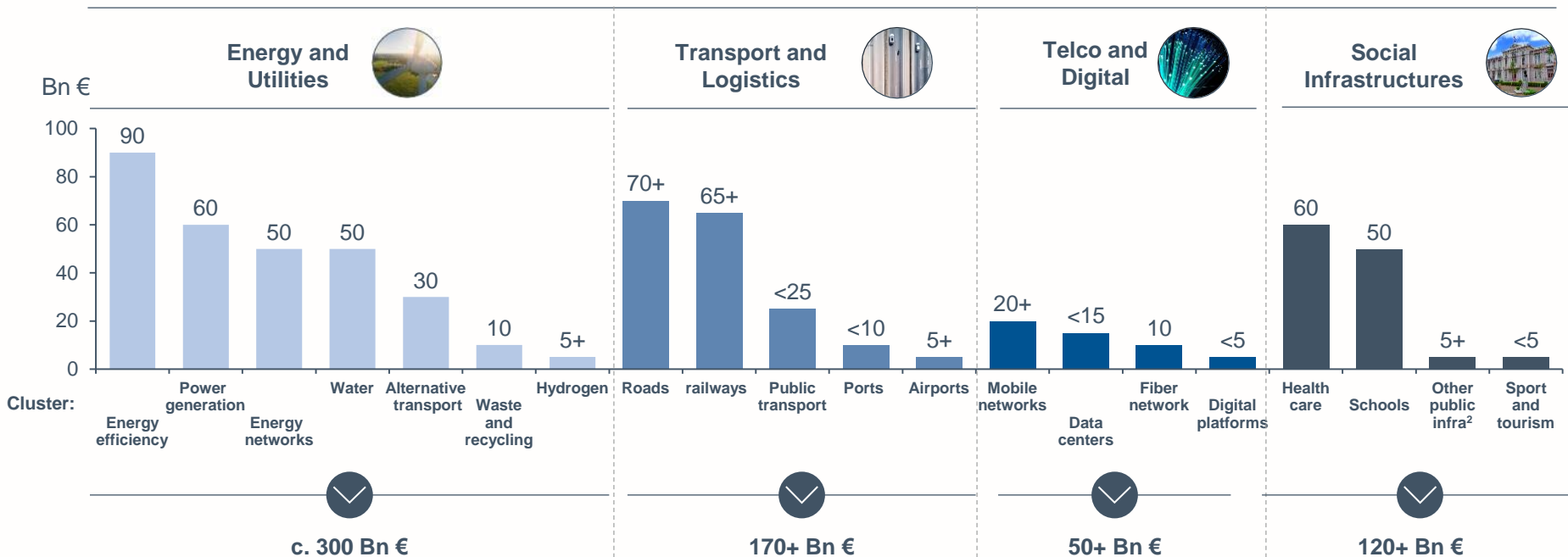


Energy transition as a key investment driver

Challenges and opportunities for Italy

More than half of infrastructure investment needs are energy transition related

Cumulated 2020-30 investment needs in 4 infrastructure macro-sectors



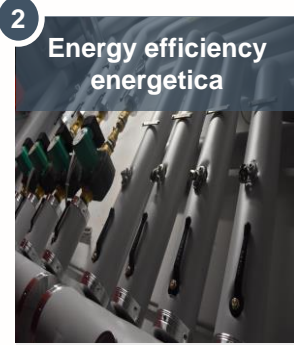
1. Ordinary maintenance not included
 2. eg. prisons, military barracks

6 key challenges for the next 10 years

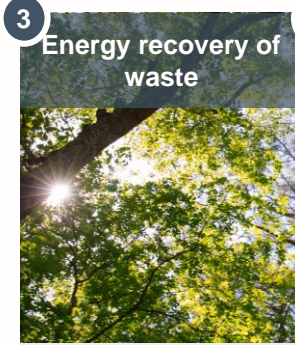
Major CO2 impact by 2030



- Accelerate development of **renewable power plants**
- Expand **networks** and build **storage capacity**



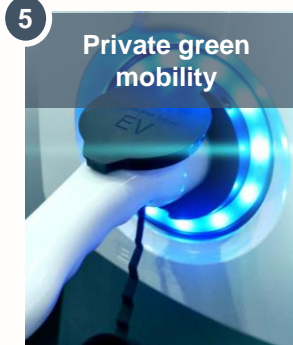
- Sustain energy efficiency in **industry**
- Accelerate investments in **buildings**,
- Boost efficiency in **Public sector**



- Sustainable energy recovery of **organic and plastic waste**
- Aim at **economic sustainability without subsidies**



- Accelerate **modernization of local transport fleet**
- **Replace diesel** with alternative fuels



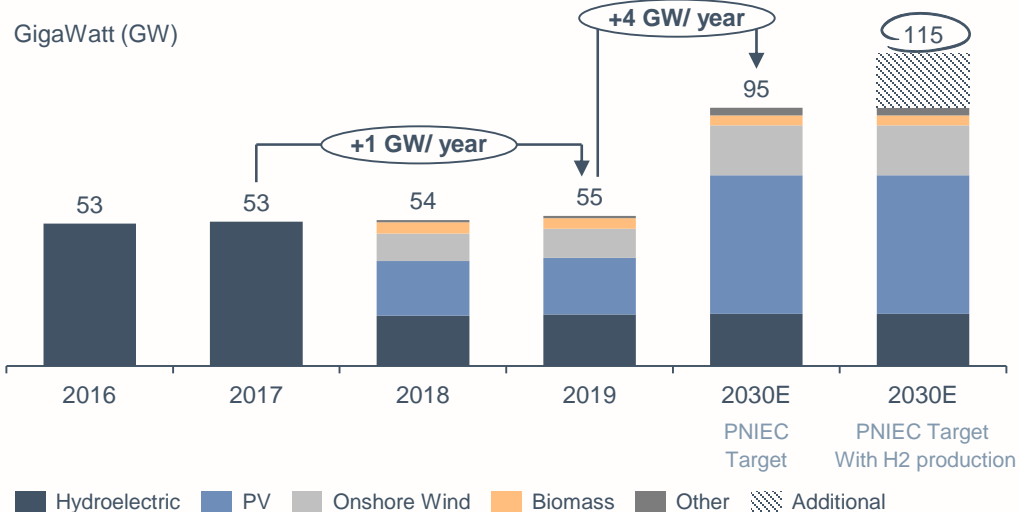
- Sustain deployment of **public charge infrastructure** for electric vehicles



- Promote innovative technology for **H2 production, distribution and use**
- Develop **C02 capture and storage capacity** to combine «green» Hydrogen with CO2 – neutral «blue» Hydrogen

Need to accelerate renewable source development

Renewable sources capacity



40-60 GW to build by 2030

40% Contribution to overall CO2 reduction targets



Levers to accelerate development



Simplify permitting, focus on EIA



Extend auctions for CFDs at least to 2025 including PV on unused agricultural land



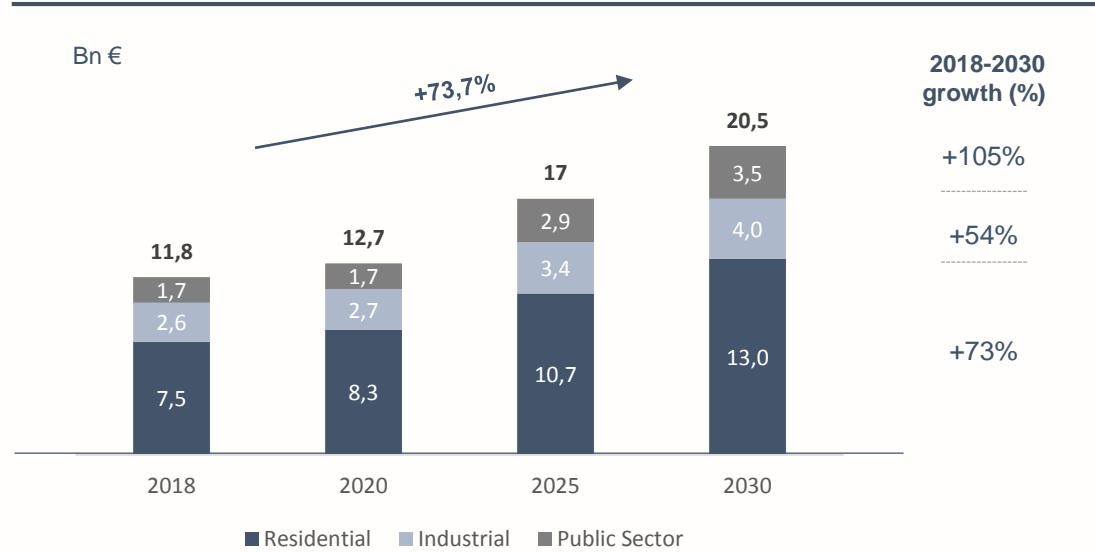
Sustain innovation, develop local supply chain on key technologies



Accelerate *repowering* of existing plants

Expected growth in EE, mainly in public sector

Italian energy efficiency market



-51,4
Mtep

Savings in 2021-2030

30%

% contribution to overall CO₂ target

Levers to accelerate investments



Regulation (incentives and targets)

- Extension of 110% ecobonus to 2023
- Include offices in Ecobonus

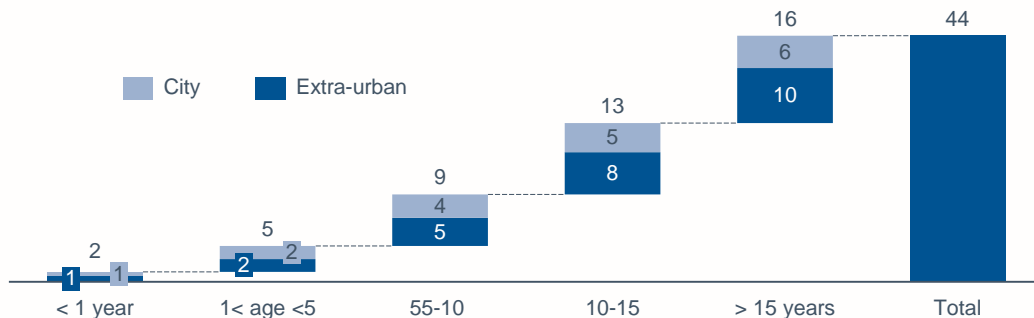


Promote PPA to accelerate planning and preliminary design in Public sector projects

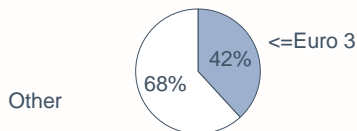


Accelerate fleet replacement in local public transport

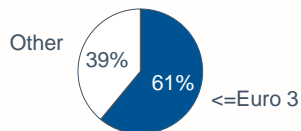
Bus fleet by age group (2018; k)



City buses engine type (%)



Extra-Urban engine type (%)



50%

Need of fleet replacement by 2025

Levers to achieve replacement targets



Sustain Covid – affected operators by refinancing PSNMS¹ to target 50% replacement (from 3,7 bn € to 10 bn € to achieve replacement targets)



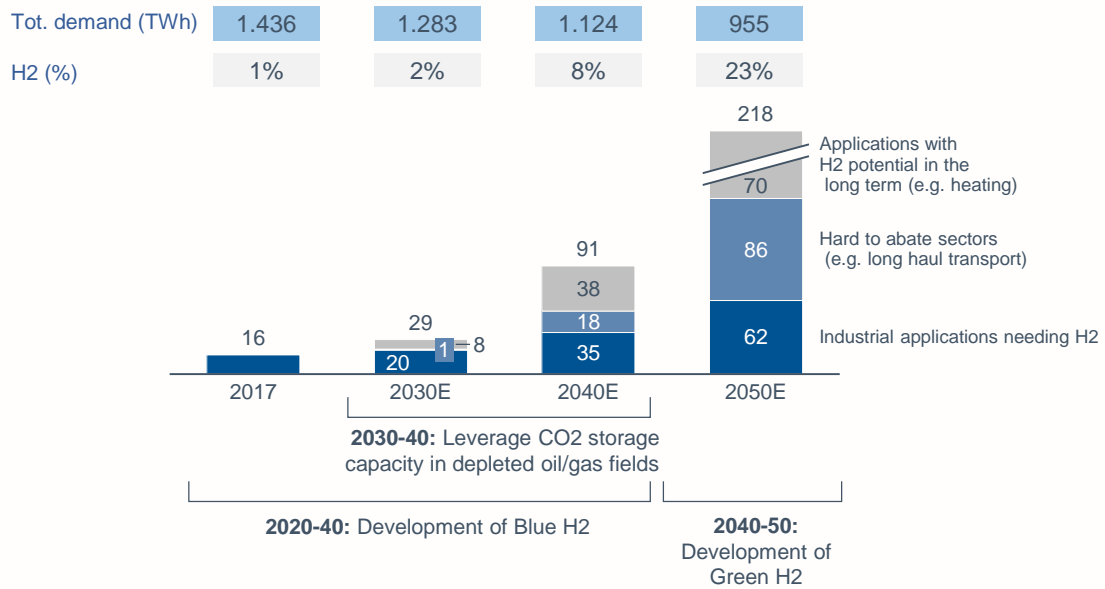
Promote PPP to support infrastructure planning and design to allow deployment of new green vehicles

Prepare large scale development of green H2



Levers to reach targets

Projected hydrogen demand (TWh)



Support to R&D technologies in Green Hydrogen, focus on electrolysis equipment and *fuel cell*



Reduce green Hydrogen cost developing low cost renewable generation (cost target 30€/MWh)



Support development of CO2 storage

6 GW

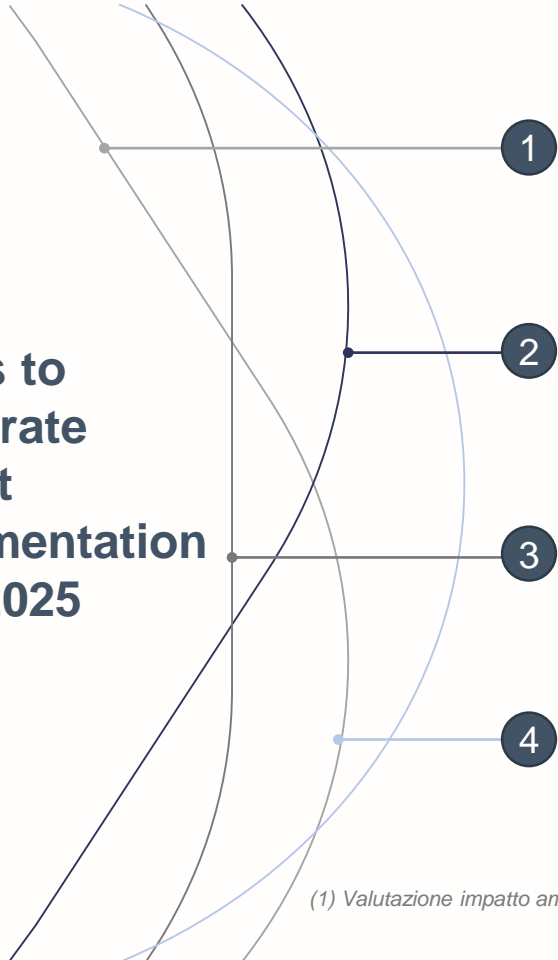
Electrolysis capacity in 2024 (40GW al 2050) requiring 3.0-3.6 € bn

125 Mt

Estimated H2 demand in 2050

Key support initiatives

Levers to accelerate project implementation 2020-2025



1

Simplify permitting

- Homogeneous approach in all regions
- fast tracking EIA
- boost public sector capacity in project assessment

2

Remuneration mechanisms

- Expand use of current price stabilization mechanisms
- Sustain investment in the permitting phase for large, complex facilities (e.g. pumping, CO2 storage)

3

Public private partnerships (PPP)

- Promote PPP as preferred recipient of public contributions
- Leverage PPP to overcome bottlenecks in planning/early design

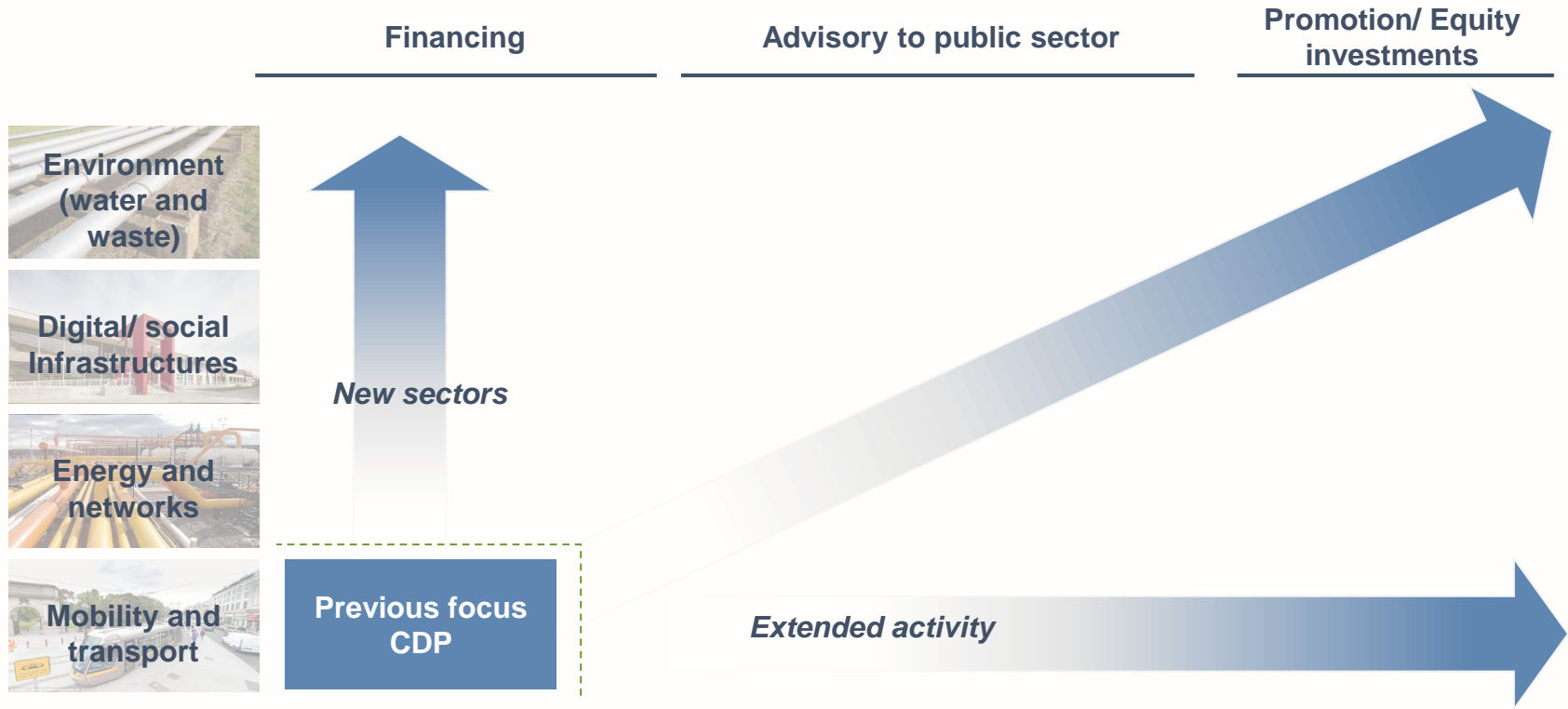
4

Strategic national coordination

- Monitor progress in various regions
- Allocate funds across sectors, leveraging coordination needs of applications to Next Gen EU funds

(1) Valutazione impatto ambientale

CDP envisages activity beyond financing and in new sectors



CDP supports promotion of energy transition through partnerships



| Sector | LNG in ports | Energy Efficiency | Renewables <i>Utility Scale</i> | Waste to Fuel | Wavepower | Renewable energy sources and digital application | Security, renewables, efficiency and sustainability of the electricity grid in Sicily | Circular Economy and Marine Litter | Innovative projects with high environment-tal, social and economic sustainability | Smart City | Private and public sustainable mobility |
|---------|--|---|---|---|---|--|--|--|---|---|---|
| Partner |   |  |  |    |    |   |   |   |  | <i>Utility</i> <i>Group of utilities</i> | <i>Group of utilities</i> |
| Date | Jan 14 19 | Feb 28 19 | <div data-bbox="421 841 745 881">Mar 12 19</div> <div data-bbox="421 893 745 932">May 31 19</div> | Apr 19 19 | May 29 19 | Sep 18 19 | Mar 06 20 | May 06 20 | MoU signed | NDAs signed | NDAs signed |