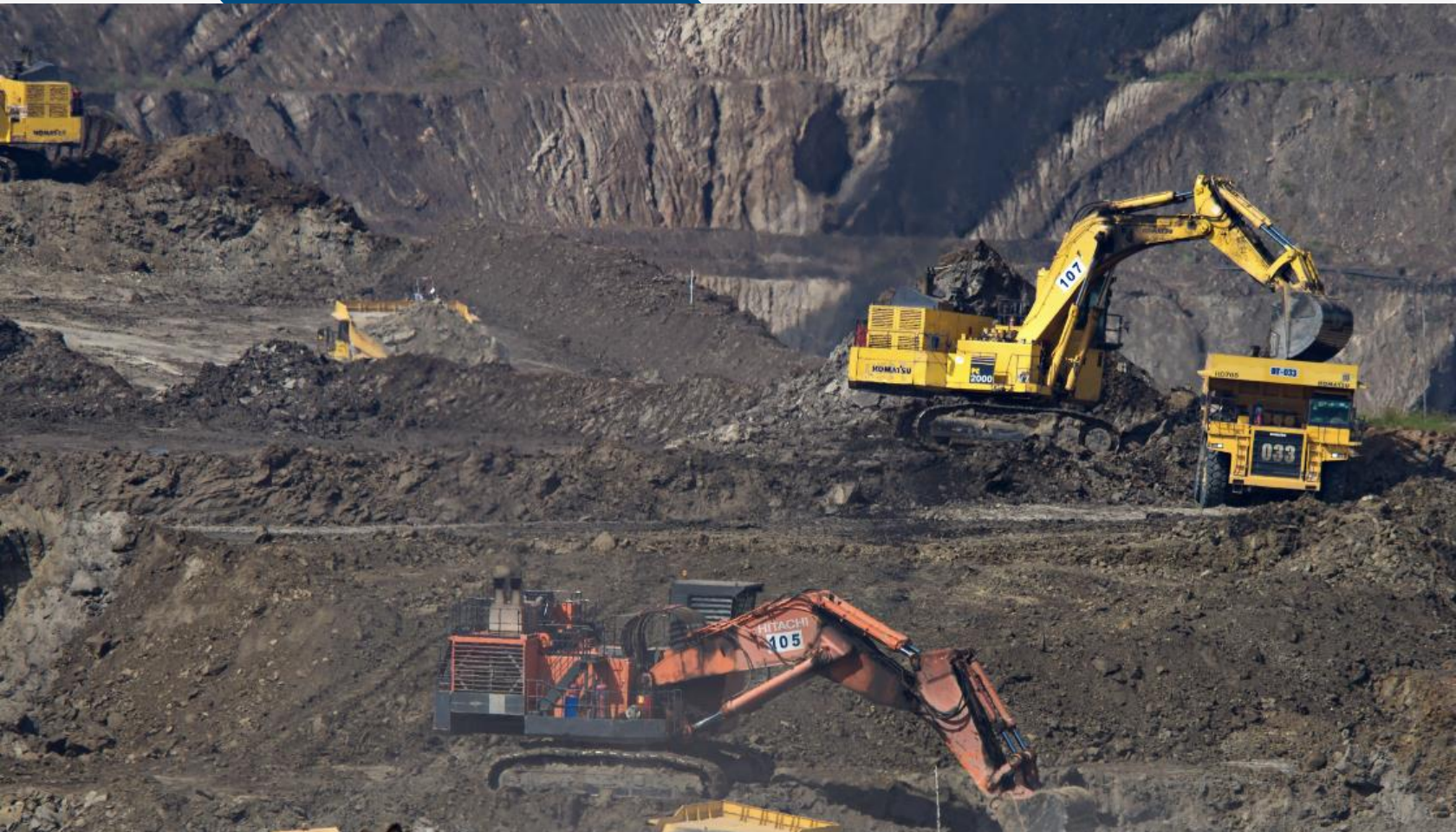
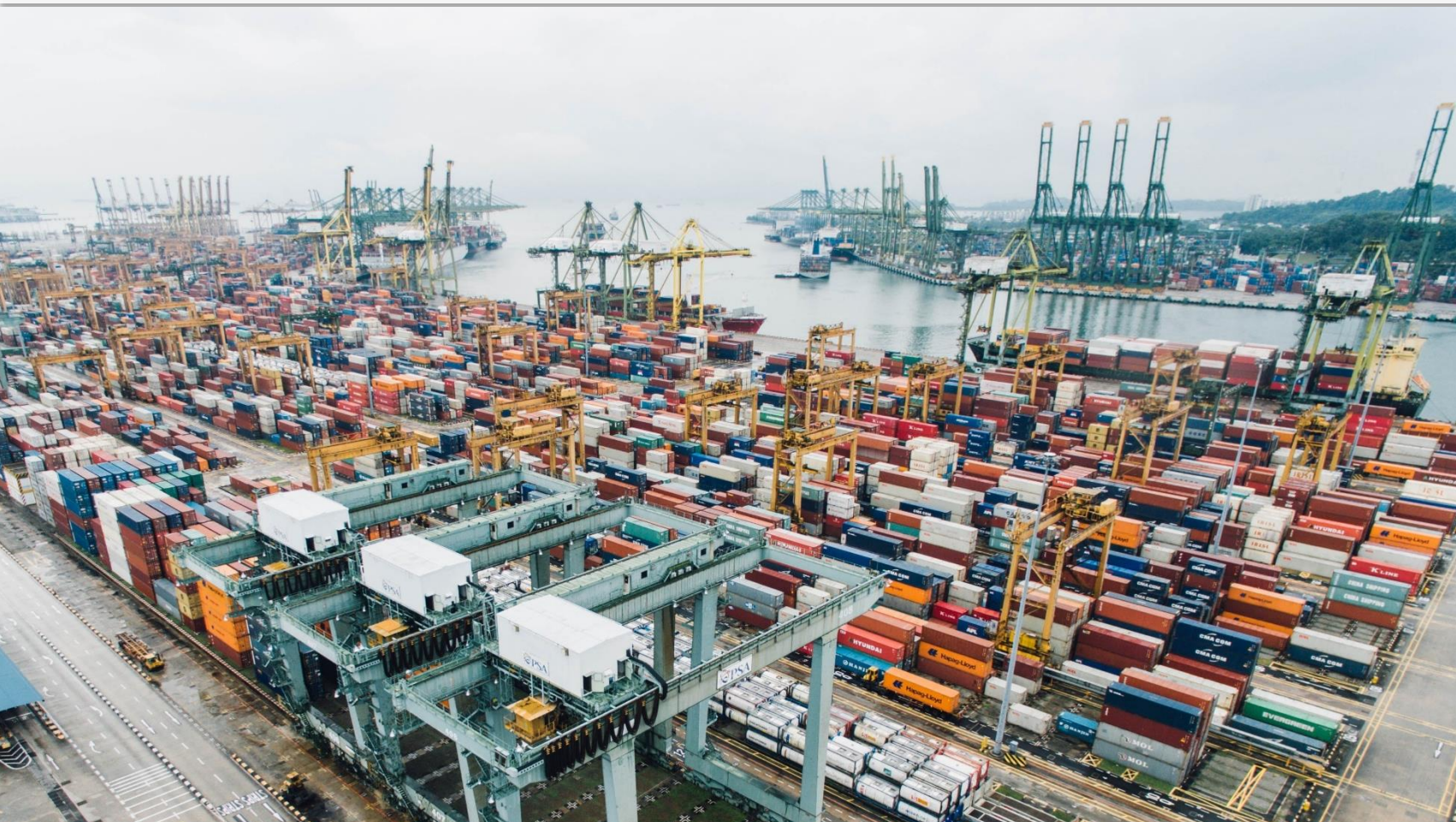




POTENTIAL INVESTMENT OPPORTUNITIES IN CONSIDERED SECTORS OF UKRAINIAN ECONOMY

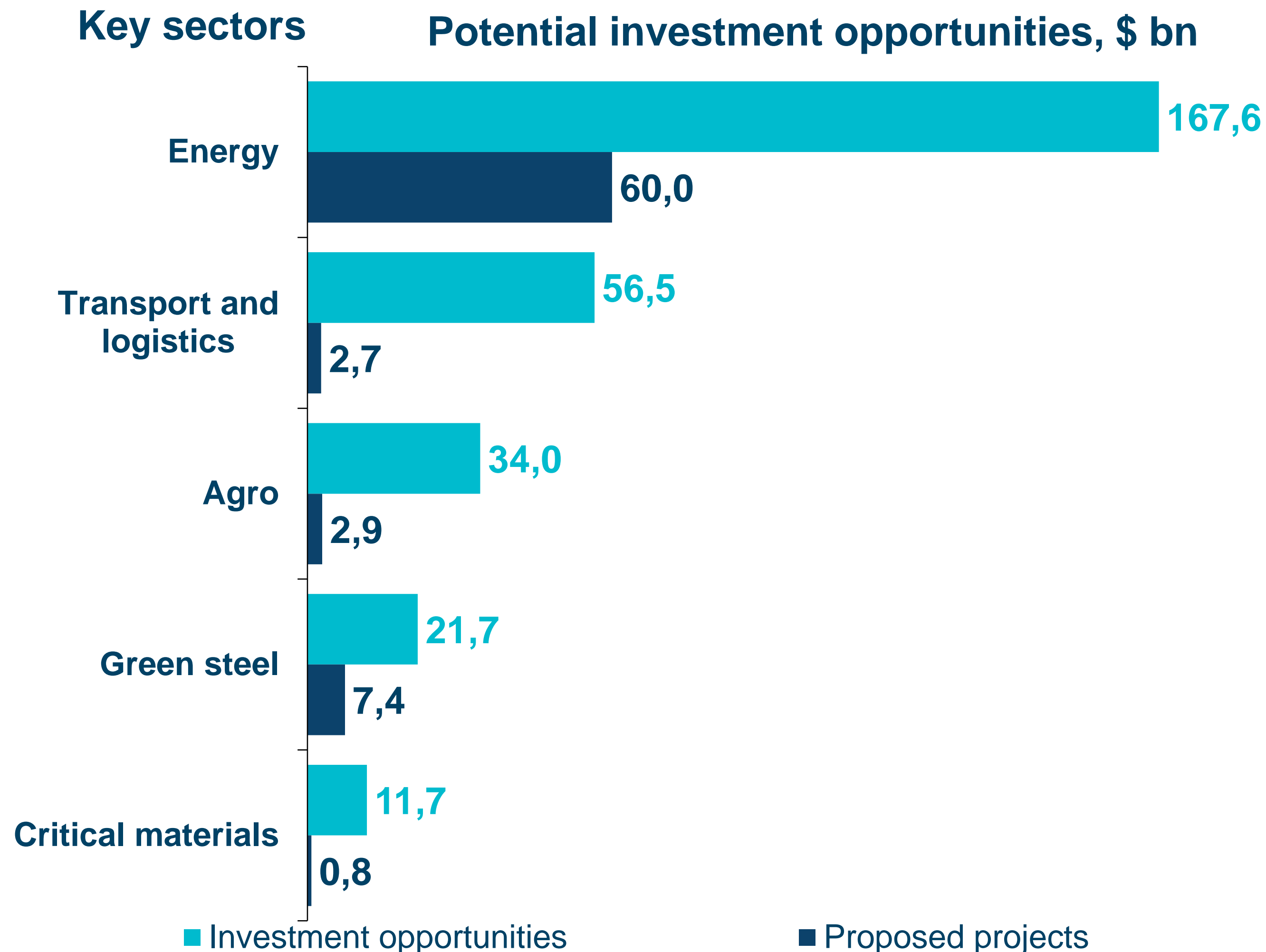


POTENTIAL INVESTMENT OPPORTUNITIES SUMMARY

- **The potential investment opportunities** in the considered sectors of the economy (energy, green steel, transport and logistics, agricultural industry and critical materials) in 2024-2033 is **\$292 bn**
- At the same time, in Ukraine there is a shortage of projects ready for implementation by business (both private and public sectors). According to the KSE analysis, business needs financing for the implementation of projects with a total cost of **\$74 bn**. The current gap between potential and announced projects is **\$218 bn**
- Summary of projects structure:
 - The biggest potential investment opportunities concentrated in 3 sectors: **Energy – \$167.6 bn (57%)**, **Transport and Logistics – \$56.5 bn (19%)** and **Agro-industrial complex – \$34 bn (12%)**
 - Most investment projects were submitted by businesses from 3 sectors: **Energy – \$60.0 bn (81%)**, **Green Steel – \$7.4 bn (10%)** and **Agro-industrial complex – \$2.9 bn (4%)**
 - **In terms of the number of projects by sector** the most projects are in Energy - 201, Transport and logistics - 73, Agro-industrial complex - 82. In Green steel - 46, Critical materials – 9
 - **The average cost of projects by sector** (from business): Energy - \$298m,, Green Steel - \$161m, Critical materials - \$88m, Transport and Logistics - \$37m, Agro-industrial complex - \$36m

These materials were developed under the Good Governance Fund Project “Economic Hub: Sound PFM Policies and Vision for Growth” which is supported by the UK Government (UK International Development). The project delivery partners are Abt Britain and Kyiv School of Economics.

INVESTMENT OPPORTUNITIES – \$292 BN. PROPOSED INVESTMENT PROJECTS – \$74 BN (GAP -\$218 BN)



Highlights

- Business projects align with the government's goals in energy development but have notable gaps in wind, bioenergy, biomethane, nuclear, solar, and peaking power (GAP: -\$107.6 bn)
- The Government is focusing on enhancing transport infrastructure for increased export potential. PPP projects are in progress for railroads, trans connectors, sea and river transport, air transport, highways, etc. (GAP: -\$53.8 bn)
- Boosting value-added product manufacturing, revamping irrigation systems, and advancing fertilizer, plant protection, and seed production for farmers' needs. The biggest gap is in the irrigation and agrochemical subsectors (GAP: -\$31.1 bn)
- The development of DRI/HBI production and the increase of green steel production capacity without the use of coking coal and natural gas - due to the transition to green hydrogen and green electricity (GAP: -\$14.3 bn)
- Investment potential for extraction and processing of critical and strategic raw materials (lithium, titanium, uranium, tantalum etc.) (GAP: -\$10.9 bn)

ENERGY



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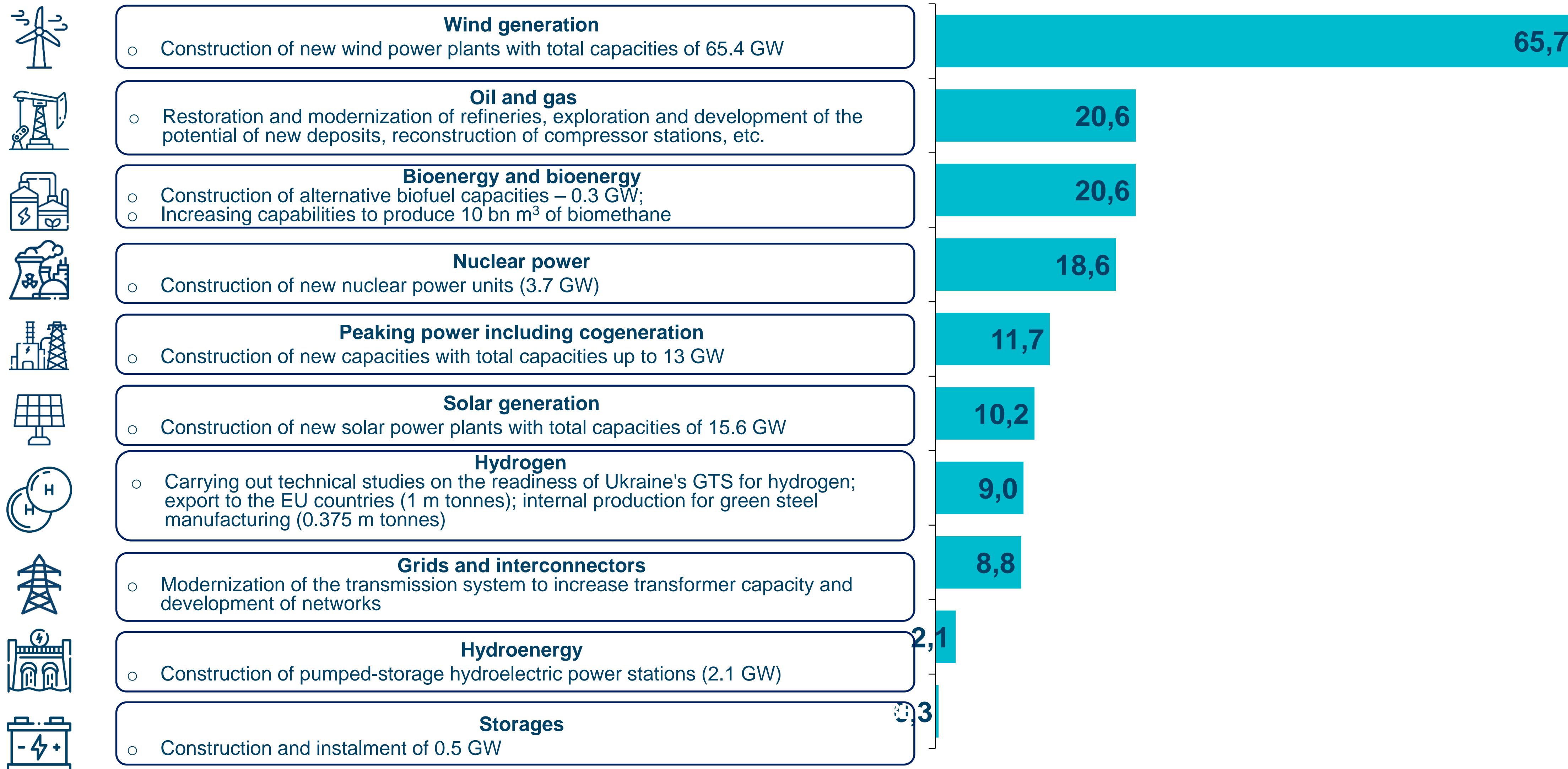


ENERGY (1/3)

INVESTMENT OPPORTUNITIES – \$167.6 BN

Key energy subsectors development by 2033

Potential investment opportunities, \$ bn



Source: Ministry of Energy, Kyiv School of Economics

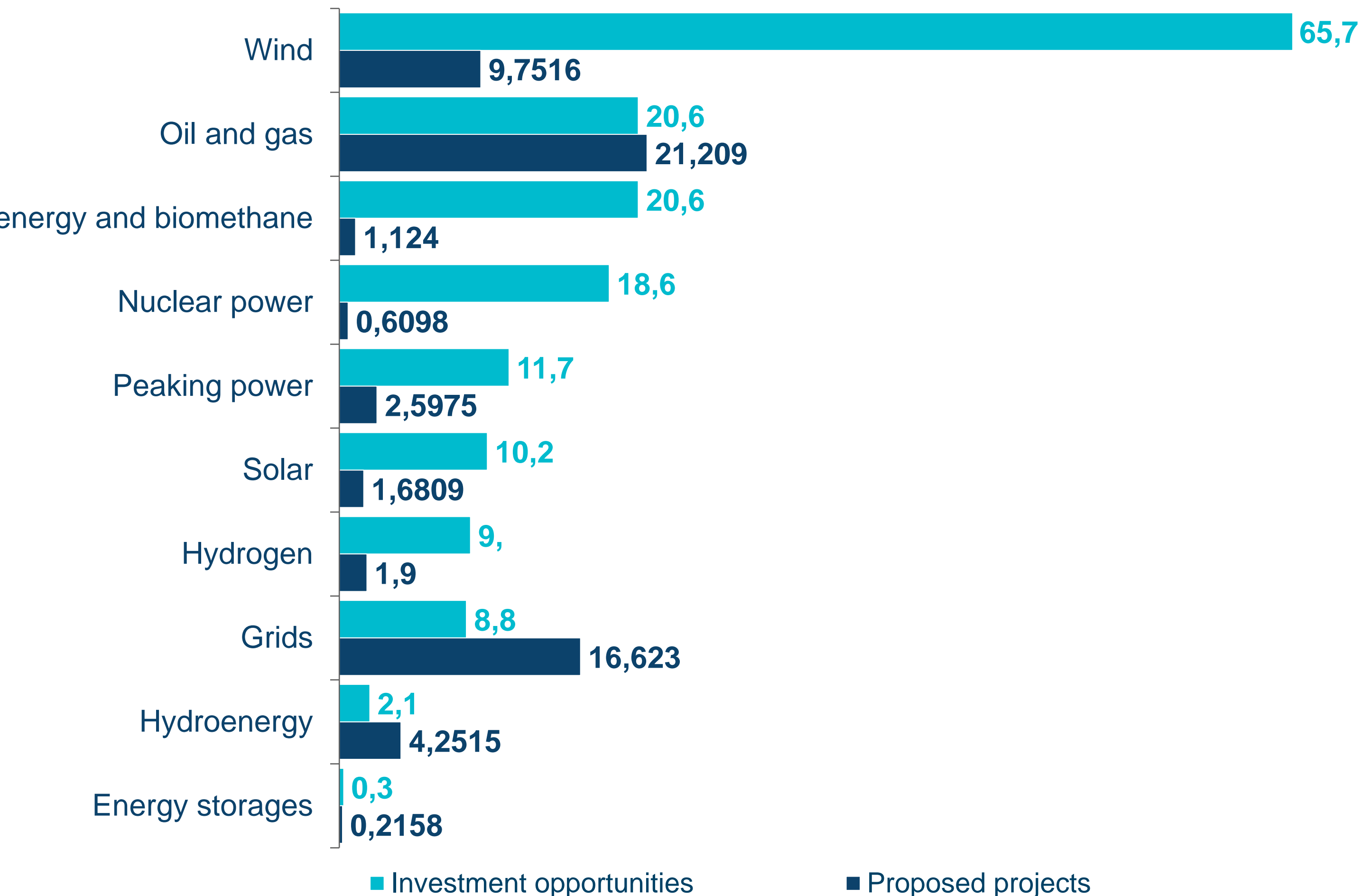
ENERGY (2/3)

PROPOSED INVESTMENT PROJECTS – \$60.0 BN

Key subsectors

Potential investment opportunities, \$ bn

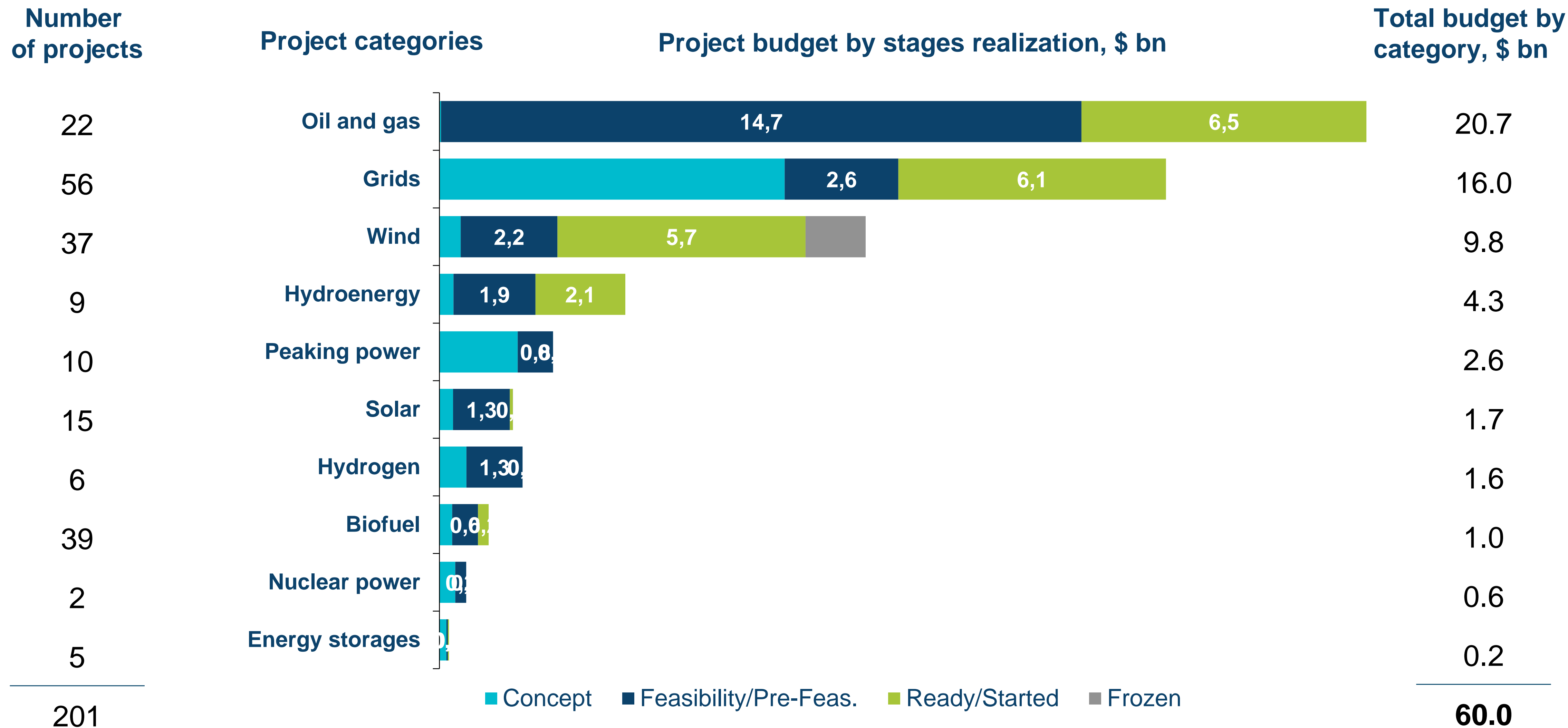
Highlights

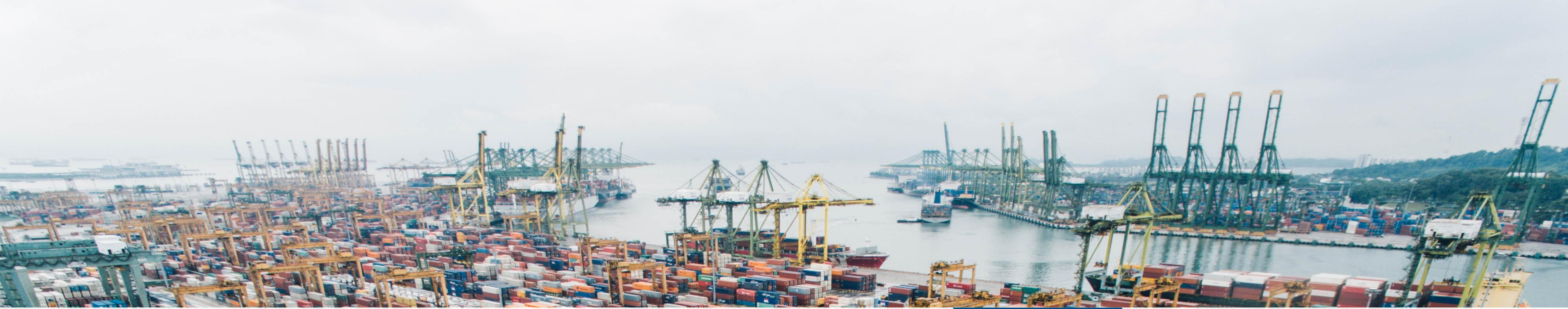


- The government is expected to build 65.4 GW of WPPs in next 10 years, whereas businesses have only submitted proposals for ~8 GW (Gap: -\$55.9 bn)
- Businesses have matched almost all sector future development needs (Gap: +\$0.6 bn)
- Business plan to construct various plants to produce biomethane, biogas, and bioethanol using agricultural waste as a main resource with total (19 biomethane projects >145 m tonnes); 3 projects for bioenergy plants (~ 30 MW) (Gap: -\$19.5 bn)
- Businesses provide projects for development of nuclear fuel thereby ensuring the **full potential of the sector remains untapped** (Gap: -\$18.0 bn)
- The Government is expected to build 13.1 GW of peaking power plants in next 10 years, whereas businesses have only submitted proposals for 1.5 GW (Gap: -\$9.1 bn)
- The Government is expected to build 15.6 GW of SPPs in next 10 years, whereas businesses have only submitted proposals for 2 GW (Gap: -\$8.5 bn)
- Businesses want to create of green hydrogen and ammonia valley in Ukraine with simultaneously hydrogen development for green steel production (Gap: -\$7.1 bn)
- Government of Ukraine mainly urged on interconnectors development and grids modernization while businesses proposals were aimed on grids reconstruction, modernization and digitation in Kyiv, Odesa and Dnipro regions (Gap: +\$7.8 bn)
- Ukrhydroenergo has submitted more than 95% of all hydro projects **covering all sector future needs** (Gap: +\$2.2 bn)
- Ukraine plans to install 0.5 GW of energy storages while business' projects aimed to construct small-scale energy storages with a total capacity of ~85 MW (Gap: -\$0.1 bn)

ENERGY (3/3)

PROJECT BUDGET BY STAGES OF REALIZATION





TRANSPORT AND LOGISTICS

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TRANSPORT AND LOGISTICS (1/3)

INVESTMENT OPPORTUNITIES – \$56.5 BN

Key transport and logistics subsectors development by 2030



Road infrastructure

- 24.0 thousand km of state roads were built and renovated
- 1.6 thousand artificial structures were built and renovated



Railway transport

- 20.0 thousand wagons were put into operation
- reach 400 million tons of freight transportation per year



Air transport

- development of the network of regional airports
- reach 20 million passenger per year



Public transport

- electrification of public transport
- 20 new metro stations were built in Ukrainian cities



Sea and river transport

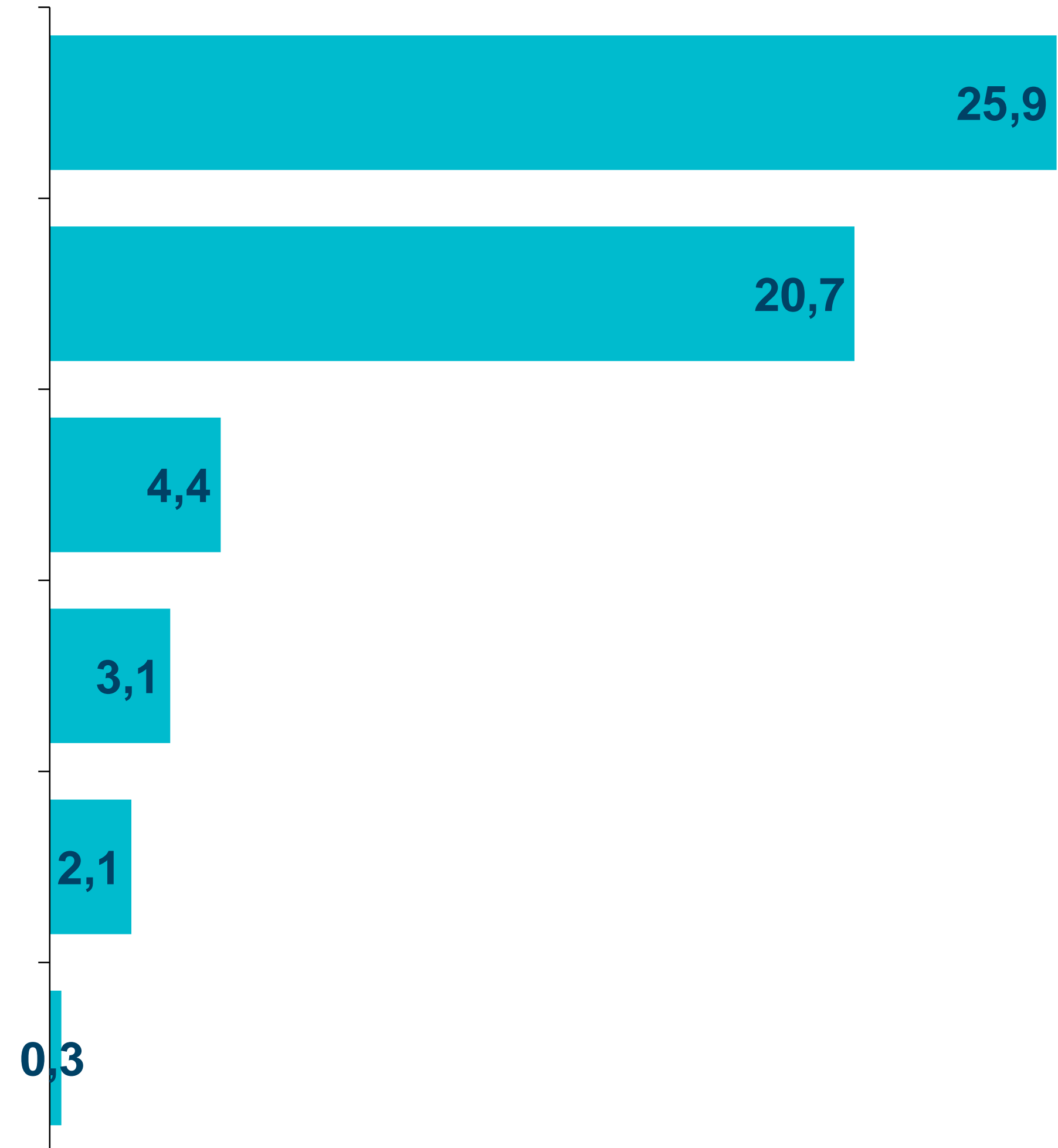
- development of the Danube cluster
- reach 60 million tons of cargo per year on the river Dnipro



Export logistics

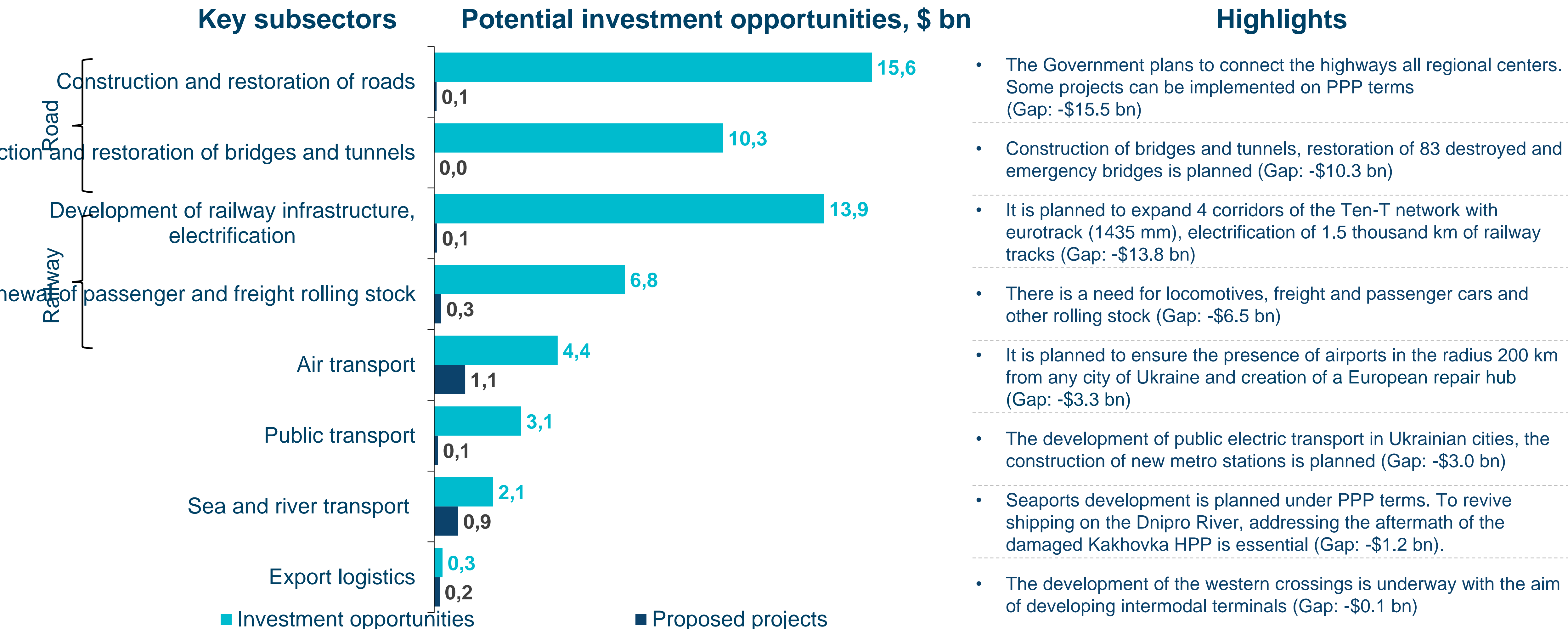
- arrangement of international checkpoints
- development of intermodal terminals

Potential investment opportunities, \$ bn



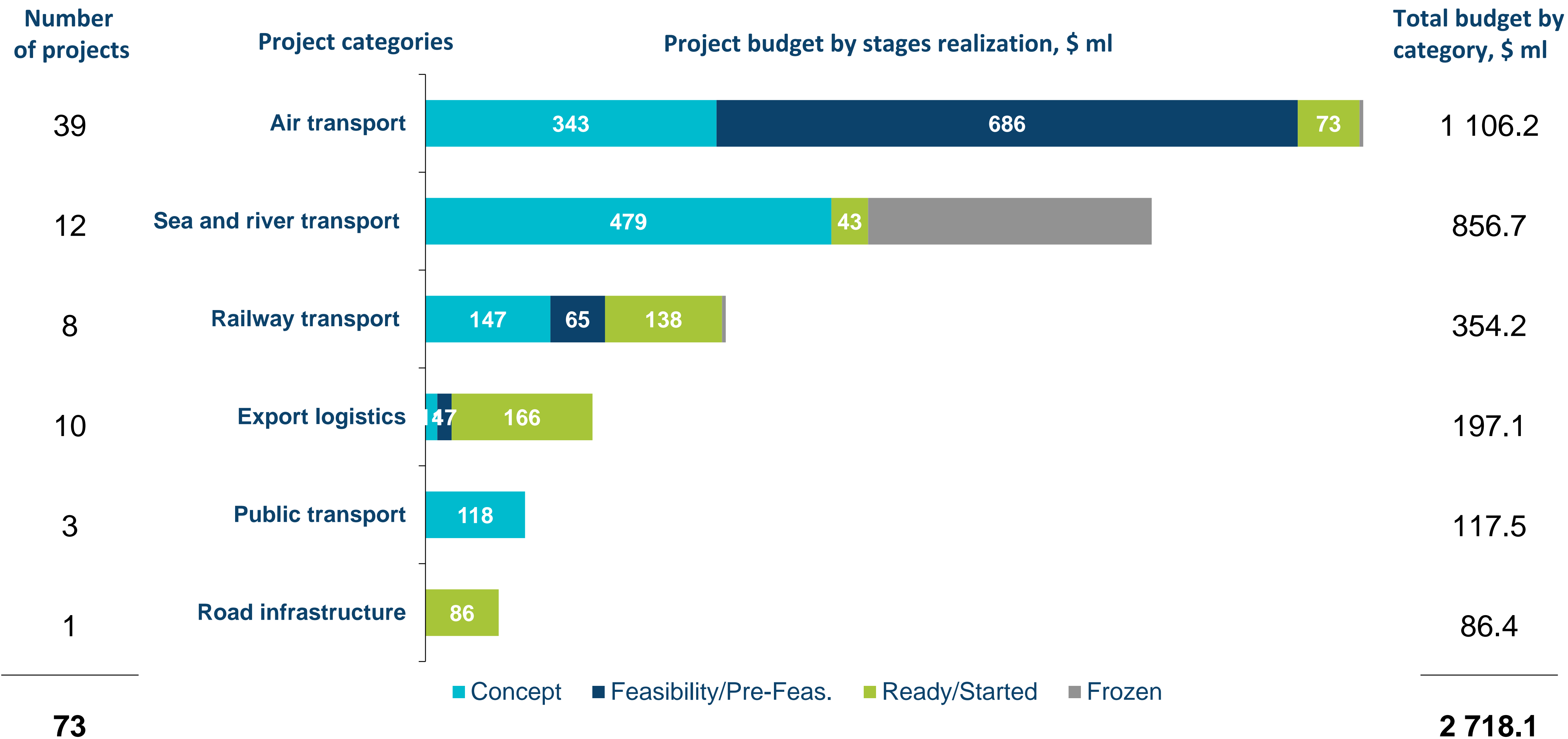
TRANSPORT AND LOGISTICS (2/3)

PROPOSED INVESTMENT PROJECTS – \$2.7 BN



TRANSPORT AND LOGISTICS (3/3)

PROJECT BUDGET BY STAGES OF REALIZATION





AGRO-INDUSTRIAL COMPLEX



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AGRO-INDUSTRIAL COMPLEX (1/4)

INVESTMENT OPPORTUNITIES – \$34 BN

Key agro-industrial subsectors development by 2033



Infrastructure

- Construction of an irrigation systems for 2 million hectares of land
- Construction and restoration of 677 elevators with capacity 27.4m t



Horticulture

- Greenhouse complexes, 60 thousand ha of gardens, 50 processing complexes
- 12 plants for production 9m planting units



Agrochemistry

- 12 modern plants with a total production capacity of 450 thousand tons of PPPs
- Construction and renovation of 7 plants of nitrogen and 8 complex fertilizers



Livestock

- Increase in milk production 8.8 million tons 11 million tons
- renovate 100 thousand m2 cold warehouses



Processing

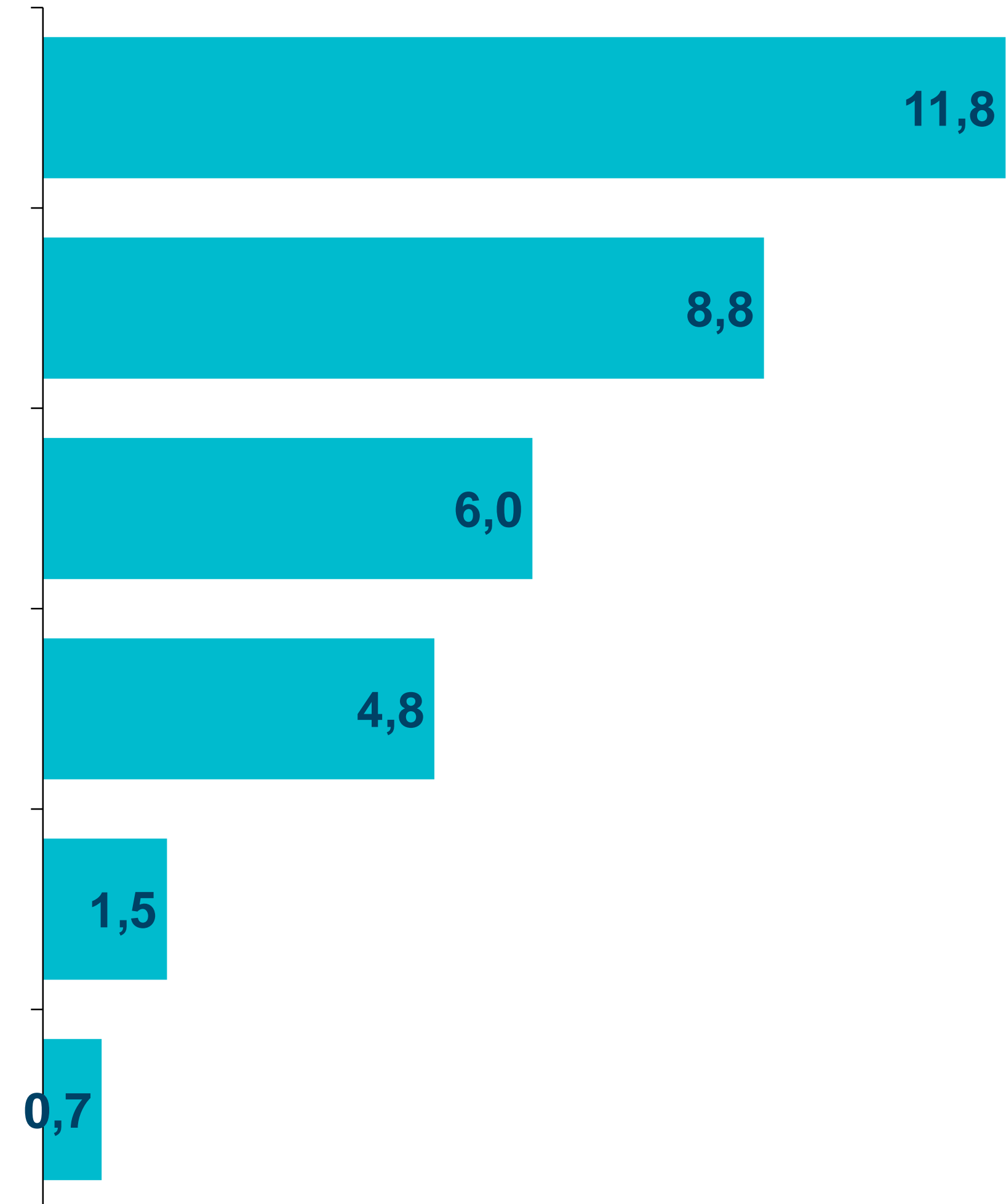
- 3 modern plants and 20 production lines at existing plants
- 2 production plants of corn starch with capacity 180 th t



Machinery & equipment

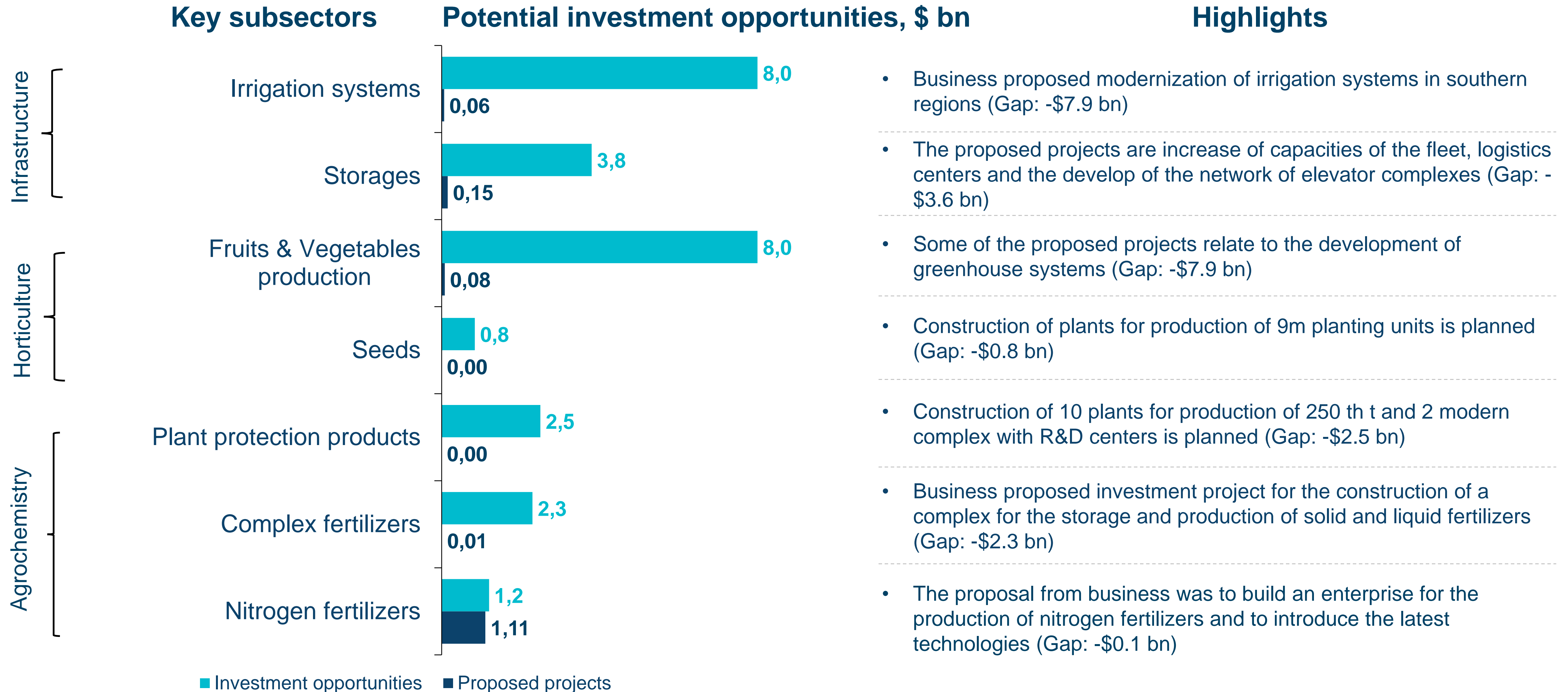
- 2 motor vehicle plants with a capacity of 1.500 units
- 6 factories of trailed equipment with capacity 10.000 units

Potential investment opportunities, \$ bn



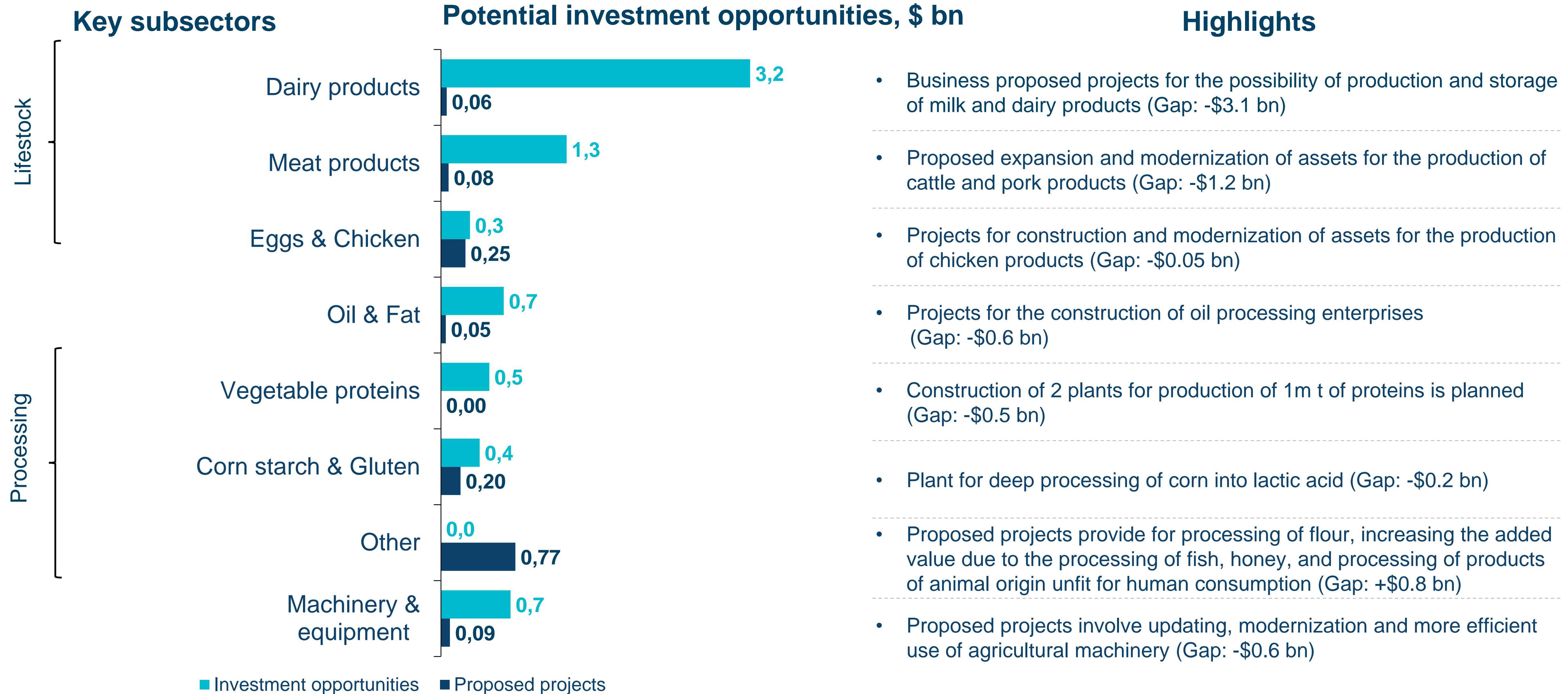
AGRO-INDUSTRIAL COMPLEX (2/4)

PROPOSED INVESTMENT PROJECTS (1/2) – \$2.9 BN



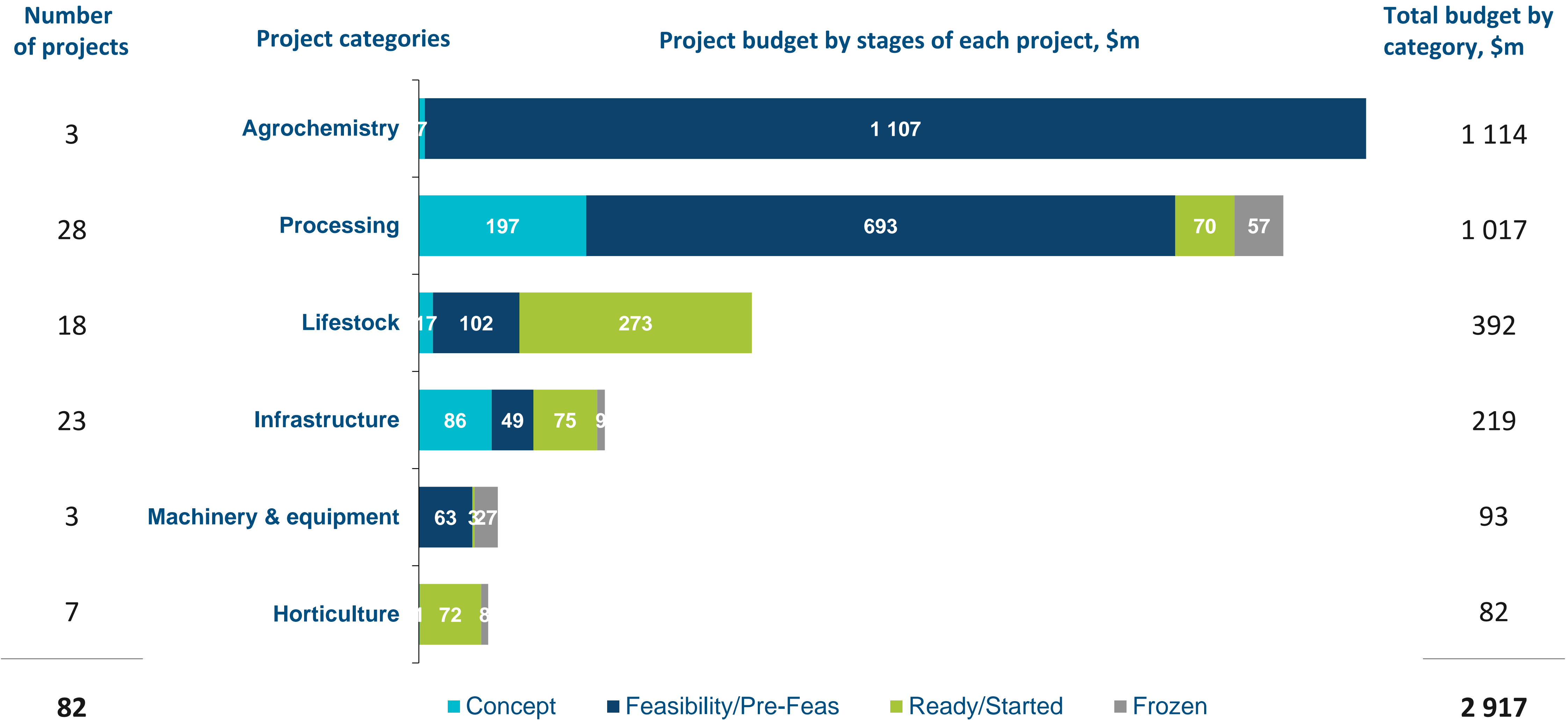
AGRO-INDUSTRIAL COMPLEX (3/4)

PROPOSED INVESTMENT PROJECTS (2/2) – \$2.9 BN



AGRO-INDUSTRIAL COMPLEX (4/4)

PROJECT BUDGET BY STAGES OF REALIZATION





GREEN STEEL



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GREEN STEEL (1/3)

INVESTMENT OPPORTUNITIES – \$21.7 BN

Key green steel subsectors development by 2033



Green Steel

- Up to 12.5 million tons per year of green steel and metallurgical products



Hot briquetted iron (HBI) or Direct reduced iron (DRI)

Up to 15 million tons per year of HBI and DRI



Mining and processing plant

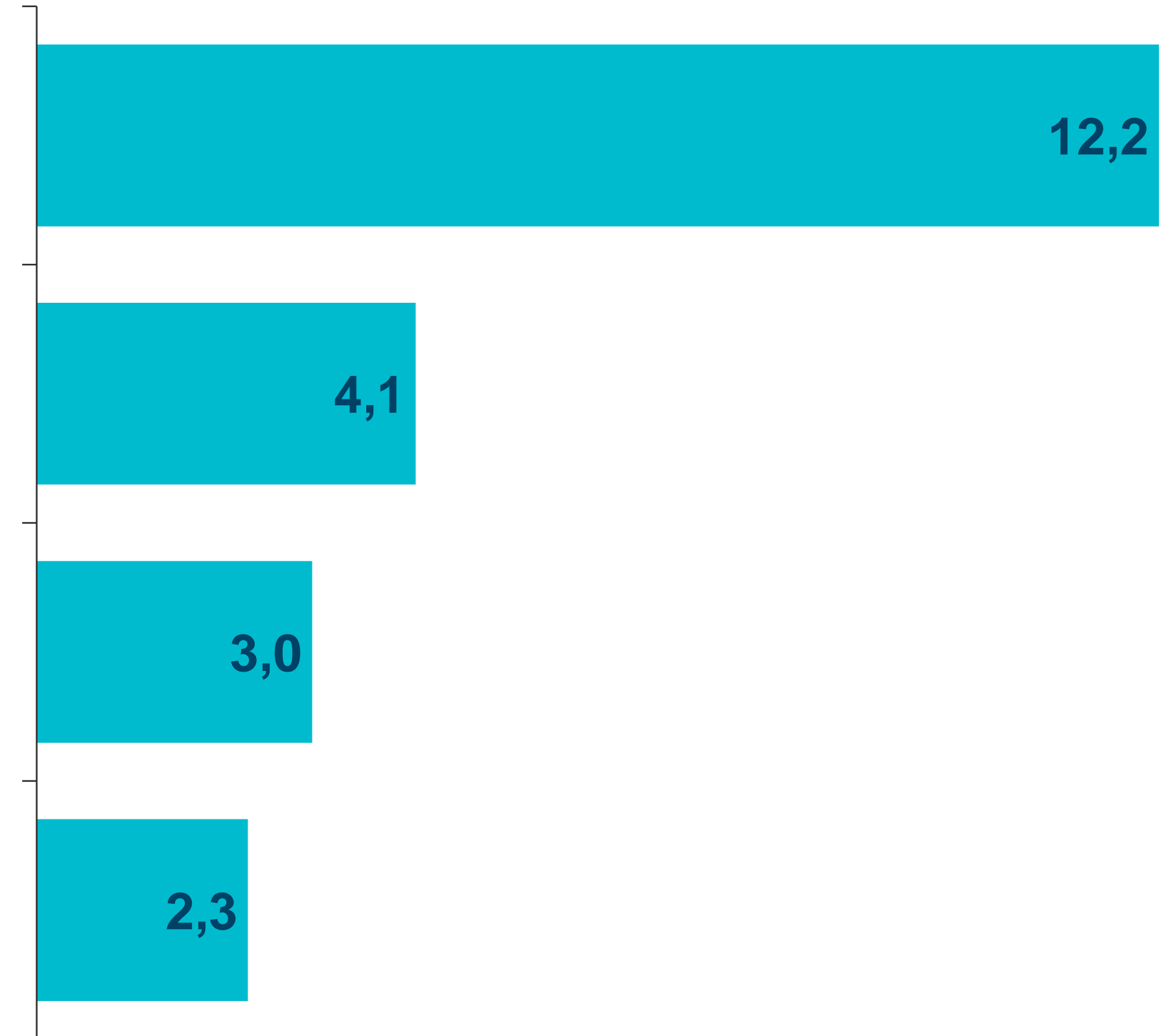
- Restoration of production of iron ore raw materials - up to 80 million tons per year



Ferroalloys and Limestone

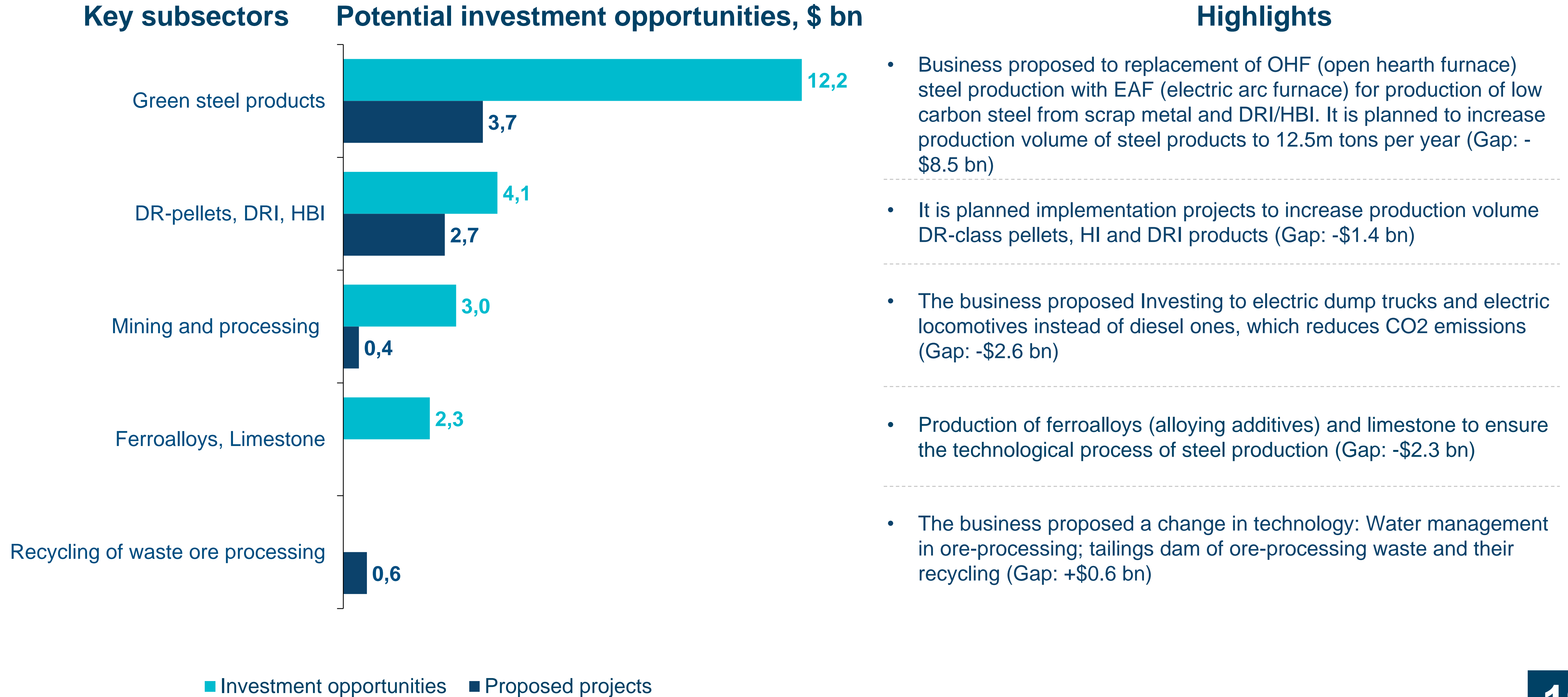
- Production of ferroalloys (alloying additives) and limestone to ensure the technological process of steel production and cleaning of emissions

Potential investment opportunities, \$ bn



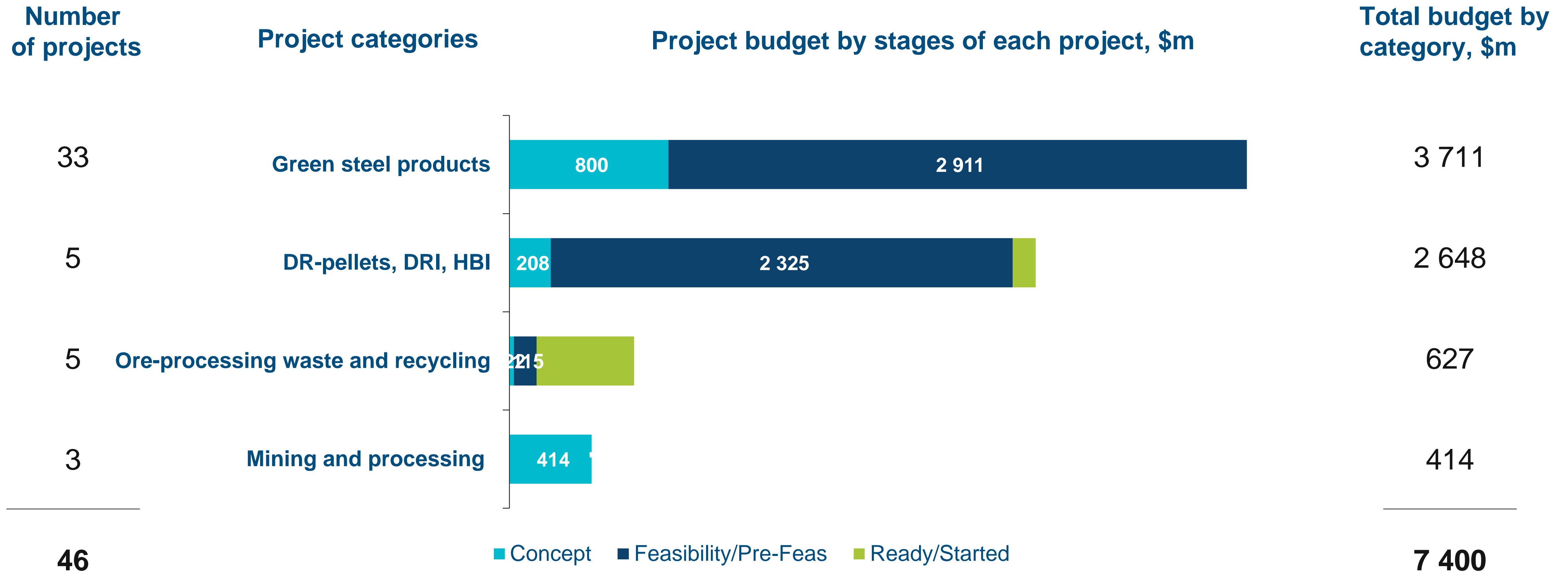
GREEN STEEL (2/3)

PROPOSED INVESTMENT PROJECTS – \$7.4 BN



GREEN STEEL (3/3)

PROJECT BUDGET BY STAGES OF REALIZATION





CRITICAL MATERIALS



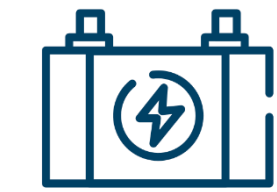
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CRITICAL MATERIALS (1/3)

INVESTMENT OPPORTUNITIES – \$11.7 BN

Key critical materials subsectors development by 2033



Lithium

- Declared mining and processing projects on Polokhivske and Shevchenkivske deposits



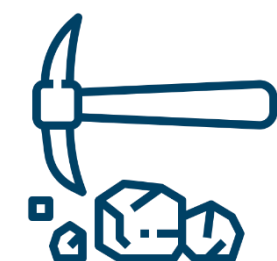
Titanium

- Expansion of the raw material base on Mezhirichne, Likarivske, Yurivska site deposits



Uranium

- Projects of the development of the for the extraction and processing of uranium



Rare earth materials

- Extraction and processing of tantalum, niobium on Malyshevskoe deposit



Graphite

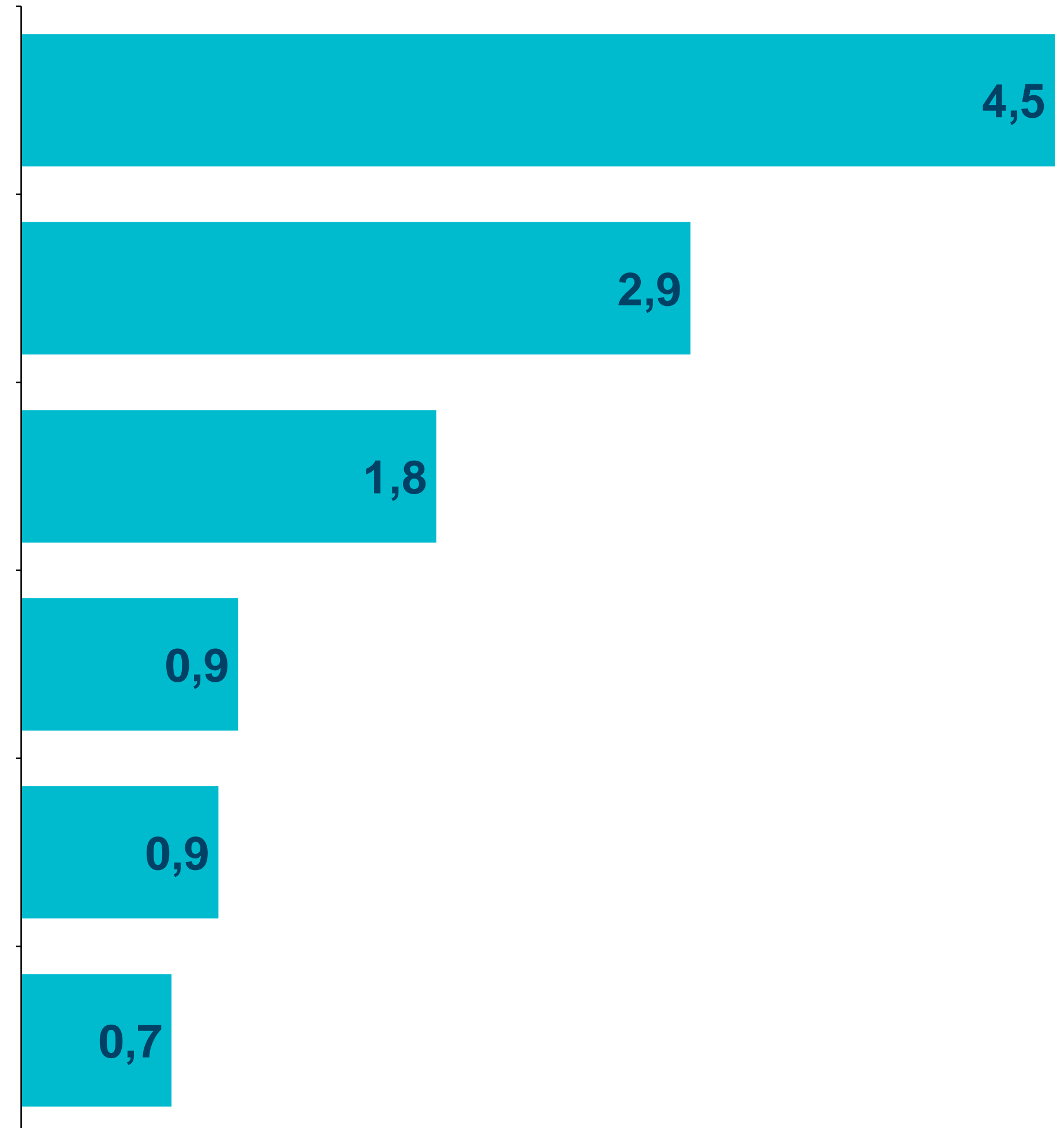
- Extraction and processing Zavalyvskoye deposit



Polymetals

- Mining and processing of polymetals and gold on Muzhiivske deposit

Potential investment opportunities, \$ bn



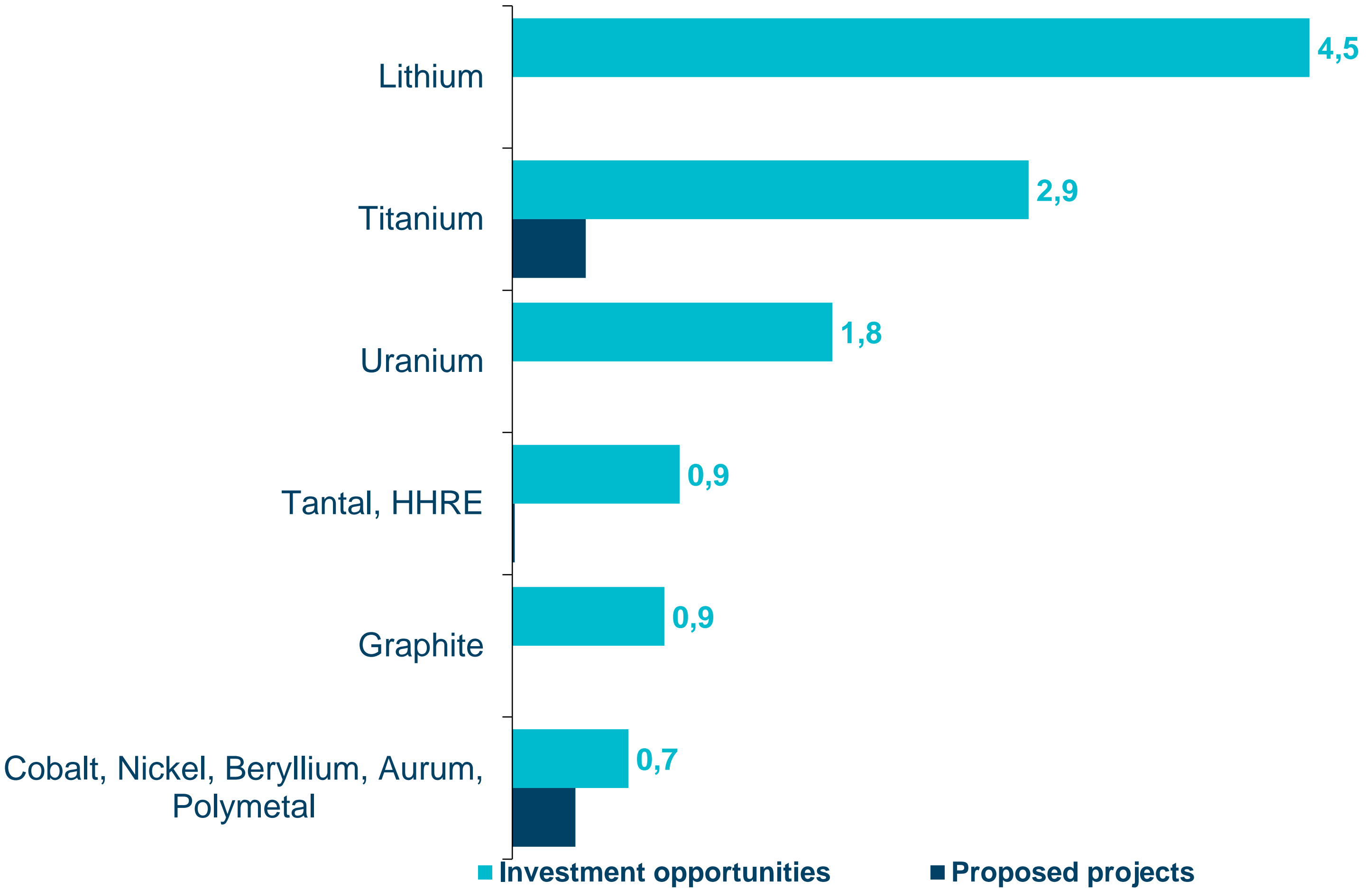
CRITICAL MATERIALS (2/3)

PROPOSED INVESTMENT PROJECTS – \$0.79 BN

Key subsectors

Potential investment opportunities, \$ bn

Highlights



- Significant investment potential for mining and deep processing of lithium (GAP: -\$4.5 bn)
- Increase in production of ilmenite ores, their deep processing and production of spongy titanium (Gap: -\$2.5 bn)
- Expansion of the raw material base of uranium mining and its in-depth processing (Gap: -\$1.8 bn)
- Expansion of the raw material base of HHRE (Gap: -\$0.9 bn)
- Expansion of the raw material base of graphite mining and its in-depth processing (Gap: -\$0.9 bn)
- Development of deposits of polymetallic ores (Gap: -\$0.3 bn)

CRITICAL MATERIALS (3/3)

PROJECT BUDGET BY STAGES OF REALIZATION

