Financing efficient and sustainable transport networks Ports & Shipping September 2018



European Bank for Reconstruction and Development



Established in 1991

Owned by **67 countries** from five continents, as well as the European Union and the European Investment Bank

Largest single investor in the region of operations (38 countries from Central Europe to Central Asia and the SEMED)

Capital base of €30 billion

Triple-A rating from all three main rating agencies (S&P, Moody's and Fitch) At a glance ¹

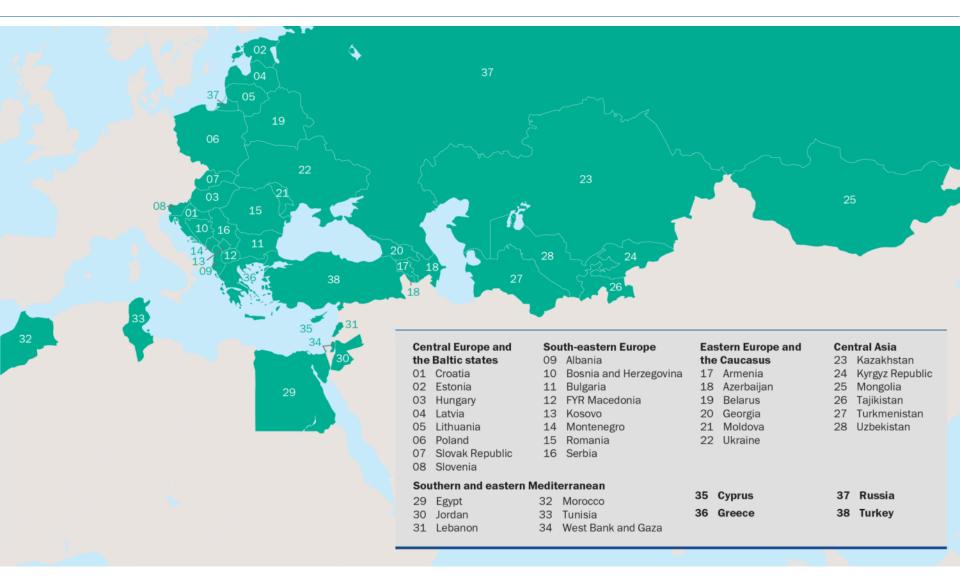
Net cumulative Bank investment €124.8 billion (since 1991)

Number of projects 5,139 (since 1991)

¹ Data at end June 2018

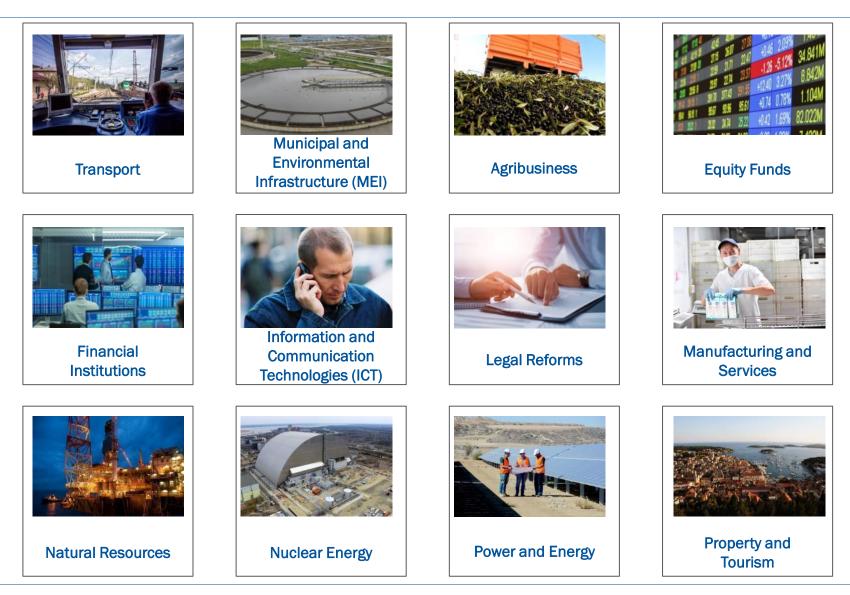
Where the EBRD invests





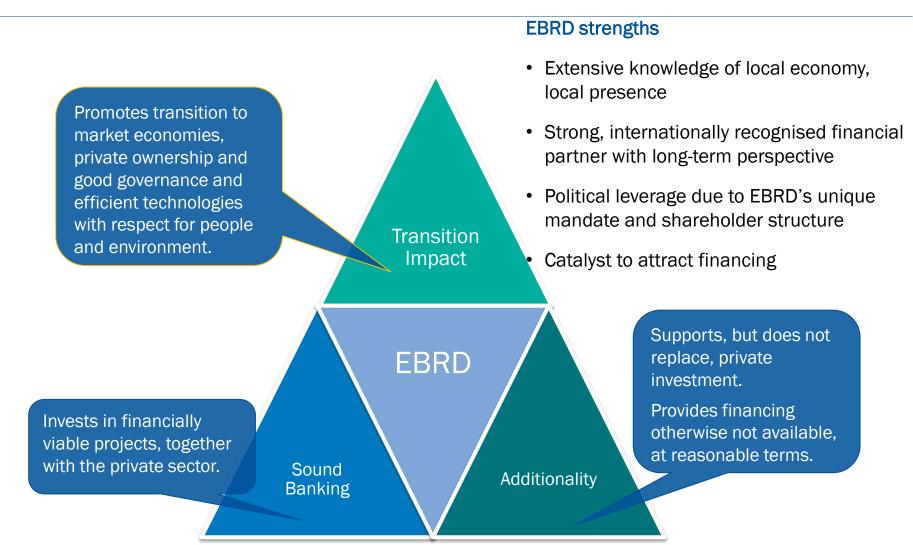
EBRD sectors and topics





Mission and Vision: Three Key Principles

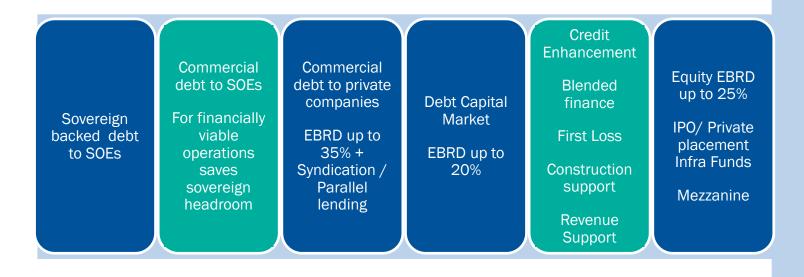




EBRD provides flexible financing solutions



TC project preparation support, including PPPs



TC Reform-related and implementation support, including 'soft measures'

Technical Cooperation support available



Technical Cooperation, funded by EBRD bilateral and multilateral donors, is available to support project preparation and implementation.

Some examples of Technical Assistance Available:

- Detailed energy audit to identify opportunities for EE (terminal modernization, handling equipment, etc.);
- Feasibility Studies and Business cases
- Advisory Sector reform
- Capacity Development, training, etc.
- Environmental Management Systems,
- Road Safety Management,









(etc.)

Donor climate finance mobilized to overcome barriers





Donor climate funds blended with EBRD finance available to unlock climate-related projects:

- Overcoming problems of affordability
- Kick-starting green projects in emerging economies
- Expediting the scale-up of projects
- Supporting projects and policy dialogue

- Over 160 mln EUR mobilized from global donors every year
- Both Project specific applications and thematic facilities are possible
- Types: capex grants, concessional loans, guarantees and risk sharing facilities

Introduction of new technologies:

- Drone use in infra asset management and supervision (to improve safety, reduce downtime, lower cost)
- Application of Internet of Things Solutions (HVAC maintenance, lighting efficiency, energy and water consumption, supply management, etc)
- Digitalisation of Logistics (dynamic pricing models, cargo management, designed marketplace)

Funding: Blending Facilities Available



Green Logistics Program (funded by EBRD and GEF):

- Objective: Support modal shift and innovation in logistics sector in Mediterranean and Black Sea with a focus on private sector.
- Conditionality: National Logistics intensity level, Impact (avoid,shift, improve), Best available technology, green corporate governance (carbon footprint, EE action plan, improved standards) etc.
- Concessional finance at L+75bps covering up to 10% of project costs

Green Energy Special Fund (funded by EBRD and ICDF of Taipei China)

- Objective: carbon reduction through introduction of new technologies "BAT"
- Conditionality: Best available Technology,
- GESF can cover up to 1/3 of an EBRD loan at an interest rate proportional to carbon savings (Not less than 3%) blended with market based EBRD loan (focus is currently public sector only but covers all COO's)



Fintecc (funded by GEF and EU)

- Objective: Introduction of climate technologies with low penetration by private sector in KZ, UK, Central Asia and SEMED
- Provision of incentive of up to 25% of eligible costs (capped at 0.5-1 mln EUR) + TC for project preparation and implementation

Sustainable Logistics and Interconnectivity Guarantee (funded by EC)

• Expected in 2019: Terms currently being discussed with the European Commission



• Terms: Guarantee/Risk mitigation type instrument to cover first-loss



EBRD Engagement in Green Transport



EBRD Invests across the Green Transport Value Chain

Infrastructure

- Improvements in ports, logistics and transport support buildings such as solar panels, heat recovery, electric equipment
- Refurbishments and international certification such as BREEAM and LEED
- Predictive maintenance technologies for large infrastructure.
- Development of virtual arrival networks at ports
- Improved signalling technologies for railways and air navigation systems
- Renewable energy (solar panels, wind, etc.); Energy efficient lighting; Thermal insulation of the building
- Investments in charging infrastructure for vehicles
- Electrification of road networks via embedded track and overhang wires
- Electrification of railway networks

Governance & Capacity

- Capacity building in best practice (carbon accounting and reporting, climate adaptation, carbon reduction strategies).
- Eco driving and or navigation
- Electric mobility strategies at country levels
- Avoiding locking in fossil fuel pathway
- The role of innovation in the private and public sector

Fleets and Operations

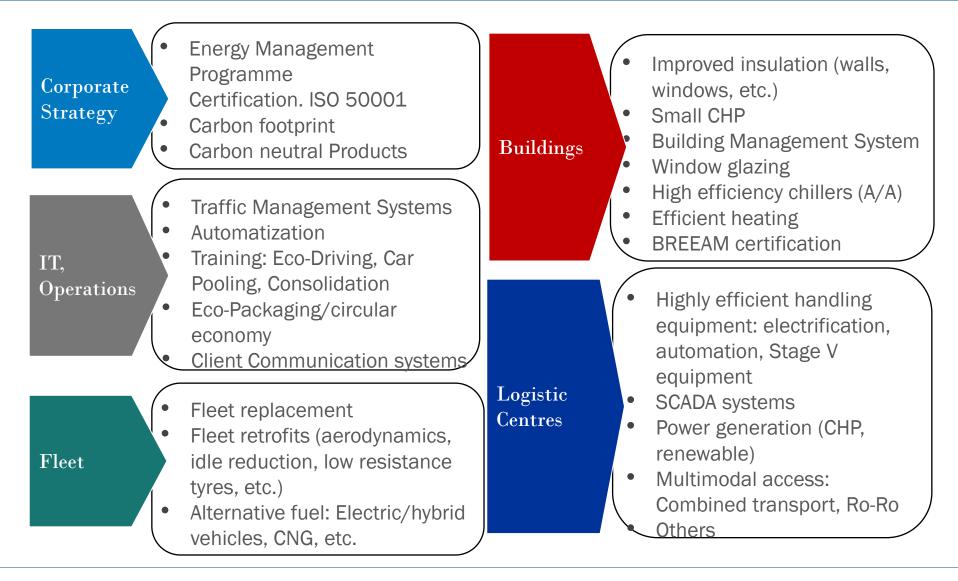
- Batteries and energy storage (battery sharing/replacement logistics for long haul freight transport
- Electrification of sea faring vessels such as ferries for short commutes (2-3 hours)
- Regenerative braking technology
- Implementation of ITS technology for routing, drive assistance, etc.; Anti-idling technologies; Low rolling resistance tires and aerodynamic technologies
- Introduction of fuel inject ion systems, alternative fuels (biofuel, CNG, LPG, etc.), electrification and battery power
- Utilization of light-weight materials (e.g. aluminium); Eco driving and energy management systems, platooning;
- External lifting equipment (double-deck trailers); EURO 6 compliant fleets; Other modern auxiliary equipment (for refrigerated fleets, etc.);



Corporate Strategy	 Certification. ISO 14001 (Environmental Mgmt), ISO 50001 (Energy mgmt) Port Environmental Review System (PERS) Port emission assessment and reduction strategies as per IMO / Glommep guidelines Tariffs based on ESI or EEDI index 	
Operations	 Cold Ironing / Onshore Power E-Vehicles for port operations and container handling Electric or Stage V certificated Non-Road machinery Dust suppression equipment 	
Infrastructure	 Waste management system BREEAM certification 'Very Good' as minimum for buildings Smart LED illumination of facilities Renewable energy generation (Solar / Wind/ Geothermal etc 	
Vessels	 LNG berthing vessels Hull and superstructure optimisation, propeller and rudder optimisation, advanced propeller designs, supporting systems (waste heat recovery) Ballast Water Management, scrubbers Bringing fleets in line with IMO 2020 SOx and NOx caps 	

EBRD solutions for Logistics







- IPPF launched in September 2015 with EUR 40 million in funding from the EBRD's Shareholders Special Fund to provide high quality project preparation, policy support and institutional strengthening to our clients in PPPs :
 - Promote more efficient delivery of projects
 - Improve quality of service offered to clients
 - Deepen focus on commercialised approaches
 - Strengthen institutional capacity
 - Facilitate the integration of project preparation with higher level policy dialogue
- Two windows: Public Sector Window & PPP Window
- One stop shop and quick mobilization: Framework agreement with up to 8 consultancy firms.
- Average projected size (PPP Window) = EUR 1.5 mln

Ongoing:

1.M-10 Road PPP, Belarus 2.0lvia and Herson Ports, Ukraine 3.Sofia Airport, Bulgaria: 4.Almaty LRT, Kazakhstan 5.6th of Octobre Dry-Port, Egypt 6.Belgrade Parking, Serbia 7. Athens Biomedical Research Center, Greece 8.Beirut Expressway, Lebanon

Transport at a glance¹











¹ Data at end June 2018

€15.6 billion invested

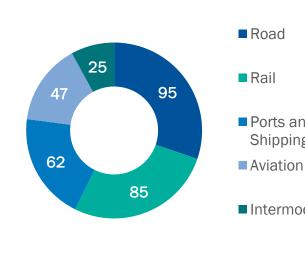
Number of projects per sector

Total project value: €59.1 billion

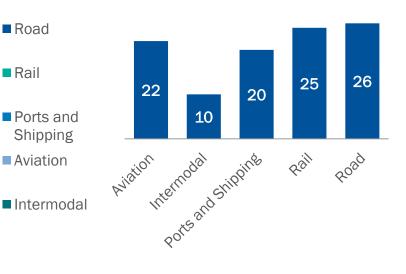
314 projects

36 of the EBRD's countries of operation

Over 30 dedicated sector coverage bankers in London HQ and EBRD resident offices



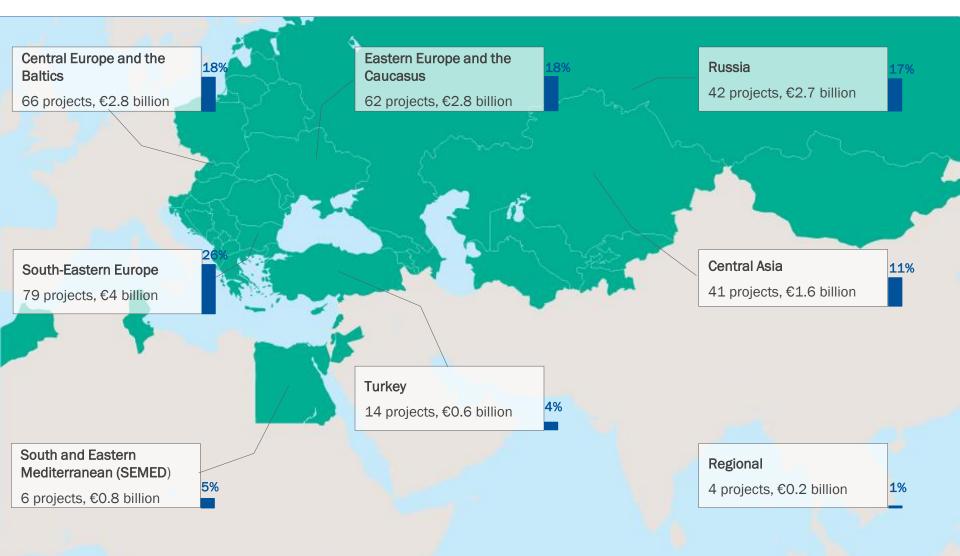
Country presence per sector



20 September 2018

The Bank invests in a broad range of Transport projects in¹...





¹ Bar charts display the share of the Net Cumulative Bank Investment in the regions.

Some references in the Maritime Sector



The Bank is financing a wide spectrum of transactions, through debt, equity, or mezzanine instruments. The examples of our **recent projects in the maritime sector** include:

- Pre- and post- delivery financing of fleet modernisation and renewal (i.e. Maridive in Egypt, Ekol in Turkey, CMS in Azerbaijan)
- Financing port infrastructure (i.e. Nador West Med in Morocco, Deep-Water Container Terminal in Gdansk Poland, Transhipment Hub in Lithuania, Yuzhny Grain Terminal and GNT in Odessa) to contribute to more efficient and sustainable transport routes
- Equity participation (IPO Port of Tallinn, Global Ports Holding in Turkey, IPO LSE - Globalports Russia) and Infrastructure Eurobond (Mersin Port in Turkey)
- Supporting privatisation activities (debt financing of the Port of Bar in Montenegro, participation in the sale of minority state shareholding through an IPO – IPO of the Port of Tallinn)
- Supporting introduction of innovative technologies to promote environmental and energy efficiency best practices (i.e. Tersan Floating Dock in Turkey, Ukrelevatortrans in Odessa Port in Ukraine).



Case Study Port of Tallinn, Estonia



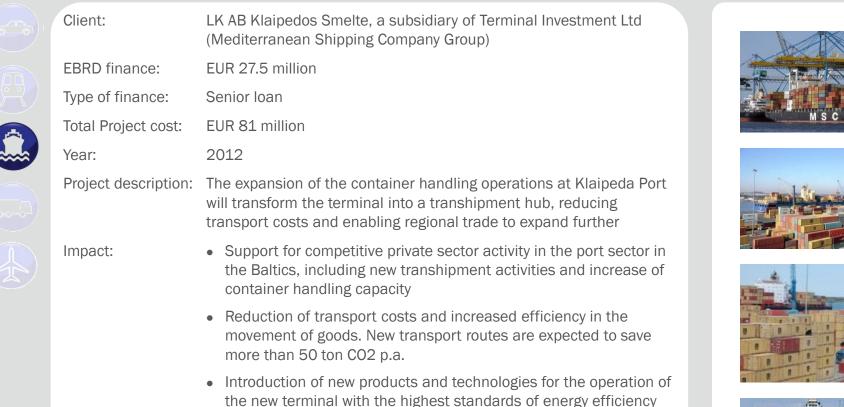
Client:	AS Tallinna Sadam ("Port of Tallinn"), one of the largest cargo- and passenger port complexes in the Baltic Sea region
EBRD finance:	EUR 15.9 million
Type of finance:	Ordinary Shares
Total Project cost:	EUR 147.4 million
Year:	2018
Project description:	Acquisition of a minority shareholding in the Initial Public Offering ("IPO") of the Port of Tallinn on the Nasdaq Tallinn Stock Exchange
Impact:	 Facilitating development of local capital markets through support of one of the largest listings on NASDAQ Tallinn Stock Exchange.
	 Demonstrating that the sale of shares in state-owned enterprises can be successfully implemented via local stock exchanges.
	 Improvement of corporate governance practices.

The Bank supported the first public listing of a landlord port in Baltics. The public listing is expected to increase transparency and efficiency of AS Tallinnna Sadam and facilitate the achievement of its strategic objectives.



Case Study Transhipment Hub, Lithuania





The transformation of Klaipeda into a major regional transhipment hub will reduce transport costs, facilitate trade and help to reduce carbon emissions.



• Investors' Forum (Lithuania): - Investor of the Year 2014











Case Study Deep-Water Container Terminal, Poland











Client:	DCT Gdansk S.A.
EBRD finance:	EUR 31.0 million
Type of finance:	Senior Ioan
Total Project cost:	EUR 361.0 million
Year:	2014
Project description:	Construction of the second deep-water container terminal at the Port of Gdansk, home to the only deep-water container port facility in Poland

- Doubling the Polish containerisation ratio from 43 TEU per 1,000 inhabitants handled annually in 2014 to 86 TEU handled by 2020
- Expanding the market interactions in other sectors by supporting the development of intermodal logistics transport in Poland as well as alleviating bottlenecks and capacity constraints

The Project supports market expansion through a capacity increase in deep sea cargo infrastructure, as well as the incorporation of cutting edge technologies and best practices in energy management to consolidate its strong focus on efforts to "de-carbonise" transport

Industry Recognition 2014 European Port Deal of the Year



Impact:

Case Study CTGC (Port of Bar) Privatisation Project, Montenegro



DRIA

Client:	Port of Adria ("PoA"), formerly known as Container Terminal and General Cargo ("CTGC"), with Global Ports Holding PLC as the Sponsor	
EBRD finance:	USD 20.0 million	
Type of finance:	Senior Loan	PORT OF AI
Total Project cost:	USD 30.0 million	
Year:	2018	Ž.
Project description:	Finance capital investments and the social programme as foreseen by the Sponsor's privatization commitments, mostly retroactively	
Impact:	 Promoting commercial solutions and private sector participation by supporting completion of PoA's privatization process 	
	 Improving the country's connectivity and regional integration through development of Port of Adria which serves both Montenegro and its geographic hinterland in the Western Balkans 	
	 Increasing Montenagre's comparative advantage as a tourism 	

 Increasing Montenegro's comparative advantage as a tourism destination by supporting construction and operation of a cruise terminal at what previously was only a freight oriented port

The Project capitalises on the success of the Bank's pre-privatisation project with the Government of Montenegro, which transformed the state-owned CTGC into a commerciallyoriented entity and will contribute to effective cost management. The Project also promotes corporate governance improvements through achievement of ISO certification.



Case Study Tersan Floating Dock Project, Turkey

company incorporated in Turkey

Senior Secured Loan











Total Project cost: USD 31.4 million Year: 2017 Project description: Finance the construction of a new floating dock in Yalova for the servicing, retrofitting, and repairing of commercial maritime vessels Impact: Expanding the competitiveness of the Turkish vessel repair and maintenance sector by creating a purpose built, best in class floating dock which will be able to service Panamax sized vessels Optimising the flexibility and reliability of vessel repair services for both Turkish and Western European vessels given the strategic location of the new dock near the Marmara Sea, a high traffic area for container and other types of vessels Facilitating a healthier shipping industry in the region by eliminating the capacity and capability constraints of the existing shipyards by introducing a new dock offering the most sophisticated retrofits and repair services, including LNG retrofits

Tersan Tersanecilik Taşımacılık Sanayi ve Ticaret A.Ş., a joint stock

USD 21 million, including USD 1.5 million under NØW programme

The Project will be supported by the Near Zero Waste ("NØW") programme to promote stateof-the-art waste minimisation technologies. The Project also supports the introduction of energy efficiency and other environmental protection measures in the shipping fleet.

Client:

EBRD finance:

Type of finance:

Case Study Maridive, Egypt





The Project will have a strong demonstration effect of new replicable behaviour and activities in Egypt following Maridive's compliance with the EU Offshore Safety Directive.









Case Study Ekol Ro-Ro Projects I and II, Turkey



Client:	Alternative Tasimacilik AS, with Ekol Lojistik A.S ("Ekol"), one of the largest third party logistics providers operating in Turkey, as the Guarantor
EBRD finance:	EUR 64.5 million (Project I) and EUR 18.5 million (Project II)
Type of finance:	Senior Loan
Total Project cost:	EUR 84 million (Project I) and EUR 46.5 million (Project II)
Year:	2014 (Project I) and 2017 (Project II)
Project description:	Finance the acquisition of three modern Ro-Ro vessels (Project I) and an additional Ro-Ro vessel (Project II) to provide maritime logistic services between the ports of Haydarpasa, Turkey and Trieste, Italy
Impact:	• Demonstrating the wider availability of financing to the logistics shipping industry in Turkey by employing an innovative "two-stage" financing model with an initial market-testing leasing stage followed by acquisition of the operating assets
	 Contributing to the development of "Motorways of the Sea" as an alternative to land transport between Turkey and Europe by expanding the Haydarpasa – Trieste corridor capacity and, thus, supporting a cleaner, safer and more efficient transport system
The Project II will als	so be eligible for a junior facility of up to EUR 4.5 million under the EBRD

The Project II will also be eligible for a junior facility of up to EUR 4.5 million under the EBRD Green Logistics Program ("GLP"), a special programme administered by the Bank and funded by the Global Environment Facility ("GEF") to unlock investment opportunities supporting the decarbonisation of the logistics sector.









Case Study Fast Crew Boat Financing, Azerbaijan









onona	("OSV") operator in Azerbaijan
EBRD finance:	USD 20.4 million
Type of finance:	Senior Loan
Total Project cost:	USD 34 million
Year:	2016
Project description:	Finance part of the acquisition cost of a new-built Fast Crew Boat ("FCB") to be operated in the territorial waters of the Caspian Sea
Impact:	 Promoting participation of private sector players in Azerbaijan's state dominated OSV market by strengthening CMS's competitive position
	• Supporting CMS in implementing a systemic approach to energy and carbon management through adoption of international certification and standards beyond what is legally required, thus setting the bar high amongst the market competitors
	Demonstrating new replicable behaviours and activities by

• Demonstrating new replicable behaviours and activities by introducing a new generation fuel efficient boat meeting the highest safety and passenger comfort standards

Caspian Marine Services Limited ("CMS"), an Offshore Supply Vessels

The Project contributes to reduction of greenhouse emissions through facilitating a shift to fast crew boat transportation of staff to offshore platforms. The Project vessel can also be effectively used as an Emergency Response & Rescue vessel due to its high service speed, capacity, and technological capabilities.

Client:

Case Study Yuzhny Grain Terminal, Ukraine



	Client:	MV Cargo LLC, an SPV established to operate the terminal	
	EBRD finance:	USD 37 million	Port of
	Type of finance:	Senior Loan	Yuzhny
	Total Project cost:	USD 150 million	
	Year:	2016	
,	Project description:	Financing the development of a greenfield port terminal for the handling of grain in the Port of Yuzhny	
	Impact:	• Addressing bottlenecks in Ukraine's grain infrastructure by strengthening backward linkages to Ukrainian commodities suppliers as well as increasing access of small and medium-sized local traders and foreign traders which have no facilities in Ukraine	
		• Setting standards for corporate governance and business conduct for Ukrainian corporate sector through enhancement of financial reporting and planning	
		• Facilitating the implementation of environmental and climate- related measures and contributing to saving of over 16 kilotons of CO2 emissions as a result of accommodation of larger vessels with better fuel efficiency performance by the Port	
	The Project contribu	tes towards achieving a more market-based approach to providing	

Iai Net-Dased app transport infrastructure and services to the wider economy and increases commercialisation and private sector participation in transport in Ukraine.



Case Study Nador West Med, Morocco



Client:	Societe Nador West Med	
EBRD finance:	EUR 200 million	
Type of finance:	Senior Loan	NADOR
Total Project cost:	EUR 943 million	WESTMED
Year:	2015	
Project description:	Financing the construction of basic port infrastructure for a greenfield port in Nador, Morocco	
Impact:	• Expanding competitive market interactions by attracting FDI investors with subsequent market linkages to creating a local industry	
	• Promoting private ownership by awarding all commercial port operations to third parties under concession contracts, including container handling and operation of a hydrocarbon terminal	
	• Setting standards for corporate governance and business conduct for infrastructure projects in Morocco through implementation of environmental and climate-related measures	

The Project provides a platform for inward investment by the private sector in the Orientale region, one of Morocco's less developed regions, and introduces best practice in environmental management with substantial demonstration effects for the SEMED region.



Case Study GNT Grain Terminal, Ukraine



Client:	G.N. Terminal Enterprises Limited	
EBRD finance:	USD 40 million	GNT Group
Type of finance:	Senior Loan	
Total Project cost:	USD 69.3 million	
Year:	2016	
Project description:	Financing of the expansion of grain port terminal operations in the Port of Odessa	1 Billing Contraction
Impact:	• Expanding competitive market interactions among Ukrainian terminal operators by addressing the shortage of high quality common user grain terminal capacity in Ukraine, and subsequently normalizing the grain handling charges (currently high by international standards)	
	• Addressing bottlenecks in Ukraine's grain infrastructure by strengthening backward linkages to Ukrainian commodities suppliers as well as increasing access of small and medium-sized local traders and foreign traders which have no facilities in Ukraine	
	• Setting standards for corporate governance and business conduct for Ukrainian corporate sector through enhancement of financial reporting and planning and implementation of environmental and climate-related measures	
transport infrastruct	tes towards achieving a more market-based approach to providing ure and services to the wider economy and increases commercialisation articipation in transport in Ukraine.	

Case Study Olimpex Dry Port, Ukraine



Client:	GNT Trade DMCC
EBRD finance:	USD 18.7 million
Type of finance:	Senior Loan
Total Project cost:	USD 18.7 million
Year:	2015
Project description:	Development of a grain cleaning and drying facility located on the territory of a "dry port" in the neighbourhood of the Port of Odessa
Impact:	 Adoption of best practice business standards by the Sponsor, including the introduction of efficient energy management systems, setting standards for other industry players
	have no sent of the officiency of grain overally choic and

- Improvement of the efficiency of grain supply chain and enhancement of competition in the grain export sector via enablement of a wider access to global soft commodities markets by the local producers
- Engagement of the company in EBRD's policy dialogue aimed at bringing together the private and public sectors with the aim of intensifying dialogue over key issues affecting barriers to private sector investment.

The Project contributes towards achieving a more market-based approach to providing transport infrastructure and services to the wider economy as well as green investment.

GNT Olimpex Holding Ltd.







Case Study Asya Port, Turkey





Yea Pro

Client:



onona		
EBRD finance:	USD 92 million	
Type of finance:	Senior loan	
Total Project cost:	USD 394.6 million	
Year:	2013	
Project description:	Financing the construction of a container terminal in Barbaros (Turkey) which will become a transhipment hub for cargo bound for the Black Sea	
Impact:	• Promoting containerisation process in the Turkish and provision of additional container handling capacity	

Asvaport Liman AS

- Contributing to improvement of the quality of port services in the Bosporus Strait and fostering greater competition in the Black Sea container shipping market
- Setting standards for corporate governance and business conduct including demonstration effect via utilisation of the highest technical and management standards

The Project supports a private sector operator in the development of intermodal transport operations through the provision of long term funding, and also promotes productive, competitive private sector activity and higher standards of corporate governance and business standards.

F asyaport







Case Study Global Ports Holding, Turkey



Client:	Global Ports Holding (GPH), the world's largest operator of cruise port/terminals based in Turkey	
EBRD finance:	EUR 53.4 million	G
Type of finance:	Equity investment	GLOBAL PORTS
Total Project cost:	EUR 286 million	HOLDING
Year:	2015	2139
Project description:	A pre-IPO equity investment to support GPH expansion strategy including port acquisitions in the EBRD Countries of Operations	le -
Impact:	 Support to the company's expansion plans 	
	 Improvement of corporate governance standards through adoption of corporate governance action plan and enhanced disclosure 	

• Enhancement of environmental standards and implementation of environmental and social action plan

The Project supports a quality private operator in their international expansion strategy to other port/terminal facilities in the Mediterranean Sea and beyond to enhance port interconnectivity and passenger flow.





Case Study Turkey's First Infrastructure Bond – Mersin Port



Client:	Mersin International Port	
EBRD finance:	EUR 61.2 million	MID
Type of finance:	Eurobond	
Total Project cost:	EUR 634 million	MERSIN INTERNATIONAL PORT
Year:	2013	
Project description:	Financing part of the capital investment programme for the capacity expansion of Mersin Port and optimisation of the Company's long debt financing	
Impact:	• Demonstrating new ways of financing infrastructure through participation in the debut bond issue by an infrastructure company	
	• Contributing to improvement in the quality and variety of port services, expansion of the product offering by the Company, and encouraging further development of regional port hubs as well as	

• Strengthening competitive position of Mersin port with respect to its main competitors in the Eastern Mediterranean

The Project supports the reorganisation and commercialisation of a state-owned entity into a majority private-owned company, and introduces advanced technologies in manufacturing of rolling stock.

> **Industry Recognition 2013** Port Deal of the Year (MEA)

increased transhipment







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