

# Green Economy Financing

Libor Krkoska, EBRD, October 2017

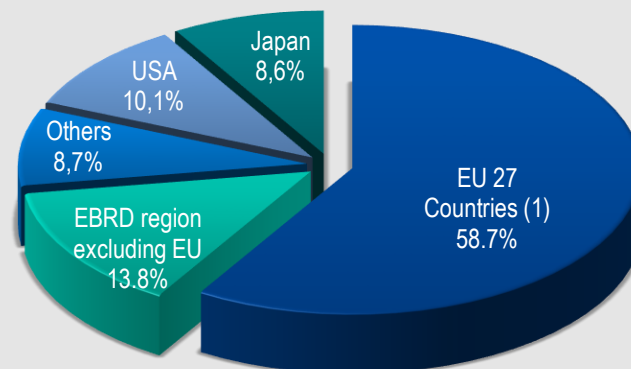


**European Bank**  
for Reconstruction and Development

# What is the EBRD?

- An international financial institution, with the mandate to promote transition to modern and well-functioning markets in 36 countries from Central and Eastern Europe, Caucasus, Central Asia and the Southern and Eastern Mediterranean – SEMED region.
- Owned by 65 countries and 2 inter-governmental institutions (EU, EIB).
- Capital base of €30 billion
- Highest credit rating (AAA/Aaa) from all three main rating agencies (S&P, Moody's and Fitch)
- In January 2016, China became our 67th shareholder

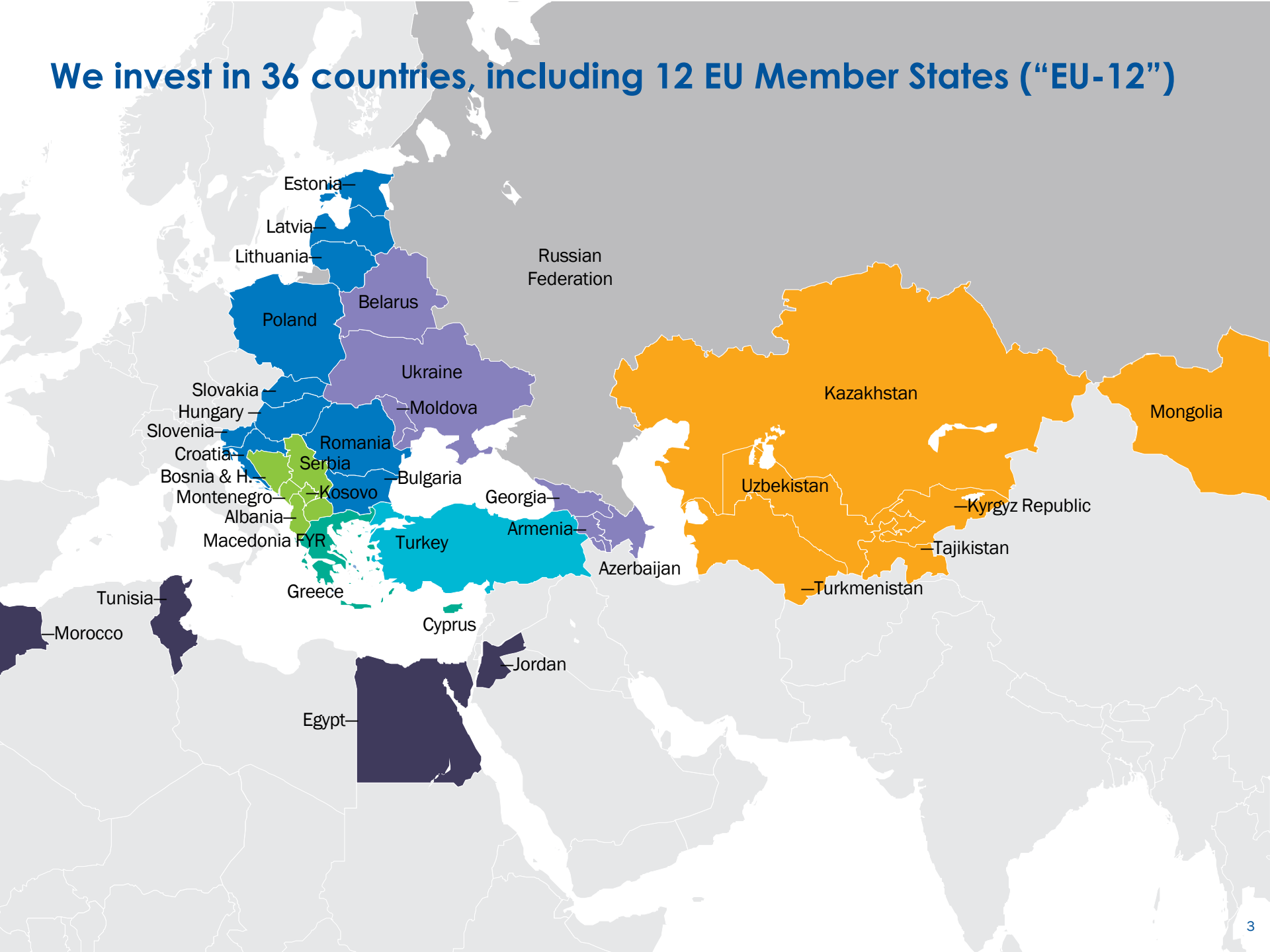
## Shareholding structure



(1) Includes European Community and European Investment Bank (EIB) each at 2%.

Among other EU countries: France, Germany, Italy, and the UK each holds 4.0%.

## We invest in 36 countries, including 12 EU Member States (“EU-12”)



# EBRD Investment Summary

## Invest in a diverse range of Enterprises

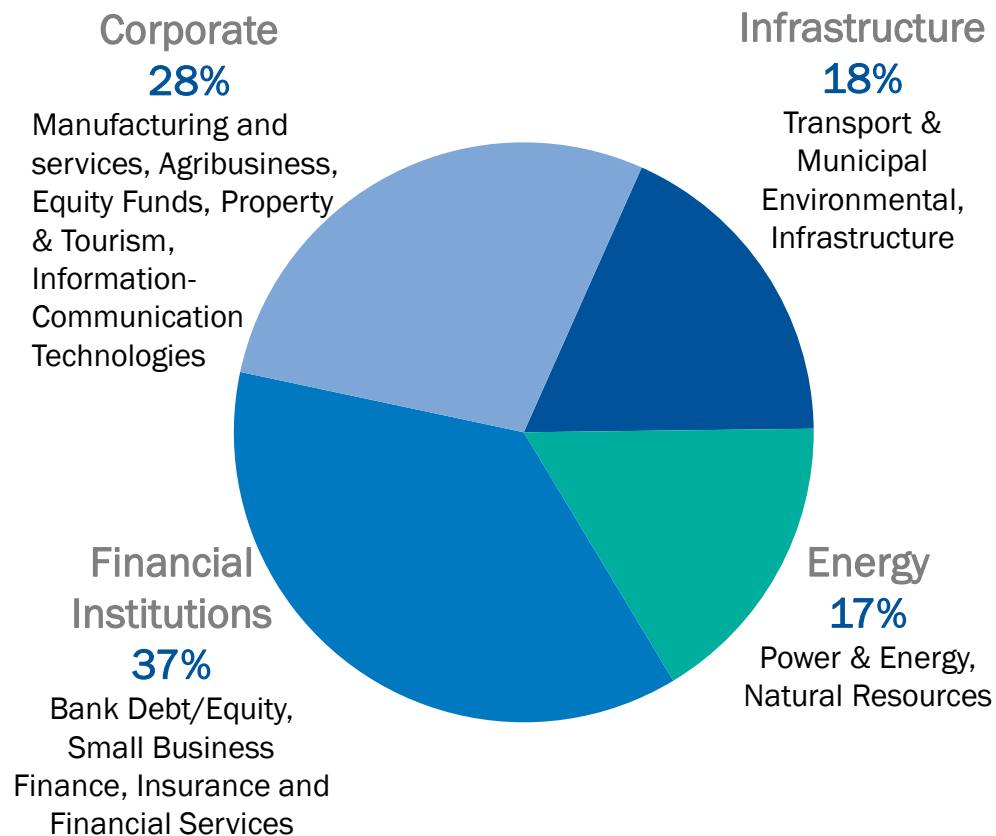
Since EBRD Inception 1991\*

- More than **€115 million** in over **4,700 projects**
- Private sector accounted for 80% share

In 2016

- **€9.4 billion** invested in **378 projects**
- Private sector accounted for 69% share

\* Data as of December 2016



# EBRD Product Flexibility tailored to project needs

## Loans

Senior, subordinated, convertible

Long term (up to 10yr. or more) or short term

Floating/Fixed rates

Choice of currencies (€, US\$, etc.)

## Equity

Common stock or preferred

Minority position only (up to 35%)

Mezzanine debt

Private equity, VCs

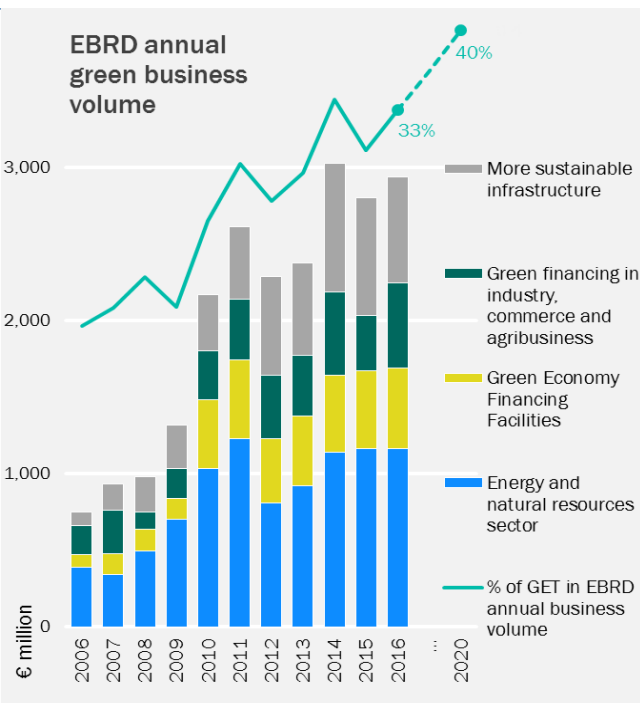
## Technical Cooperation

As a Multilateral Development Bank, EBRD can bring in additional financing and technical assistance to economically viable projects

**Other:** PPPs, guarantees, swaps, etc.

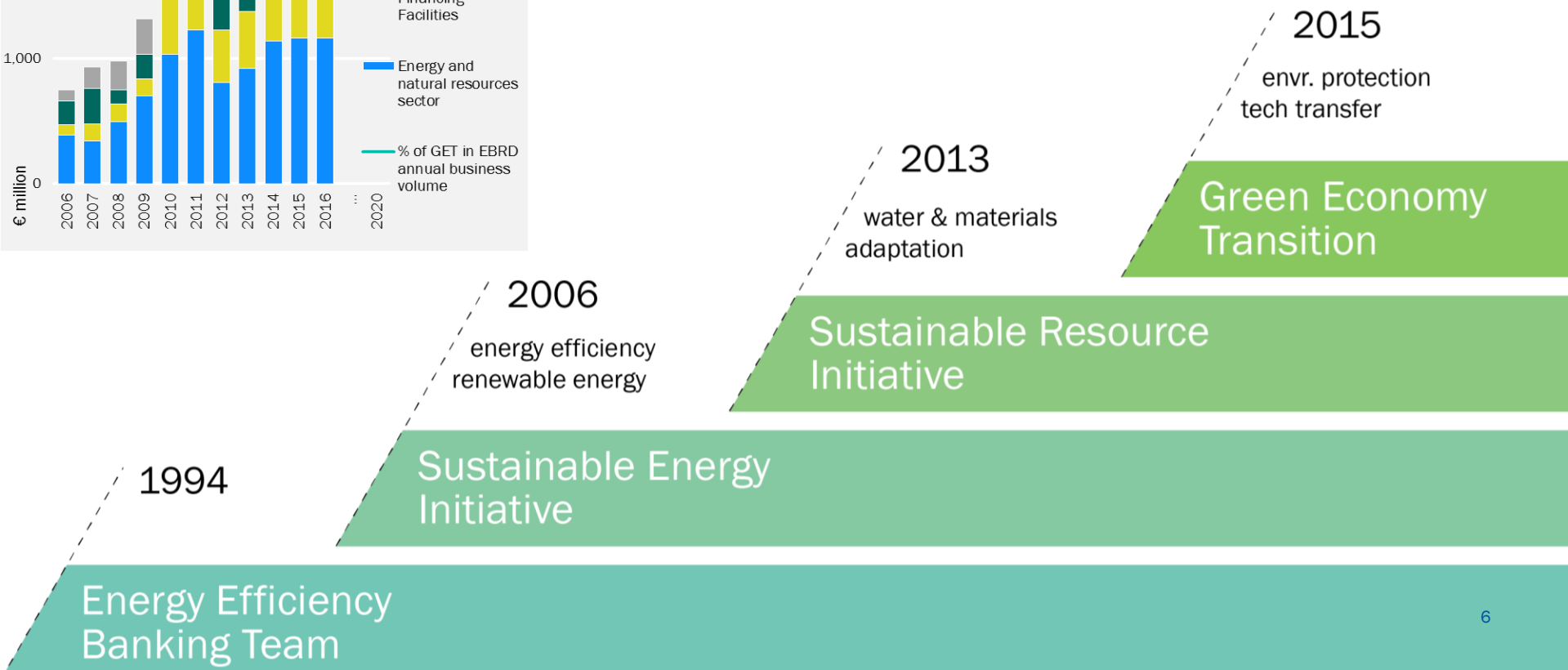
Potential to complement some EBRD products/programmes with those from other IFIs

# EBRD has extensive experience in green financing, and plans to scale up even more



## GET Strategy:

- further scale-up
- broaden the environmental dimension
- innovation and new areas
- Use more financing channels





# EBRD green financing – scale and results

FINANCED

**1,300+**

projects and credit lines

1,000+ directly financed projects with green components, and

290 credit lines to local financial institutions for on-lending to smaller projects

*324 projects in EU-12*

SIGNED

**€23.1 billion**

of green financing

For projects with a total value of €130 billion

In 2014-2016 green financing represented 36% of EBRD's total business, up from only 15% in 2006.

*EUR 5.9 bn in EU-12*

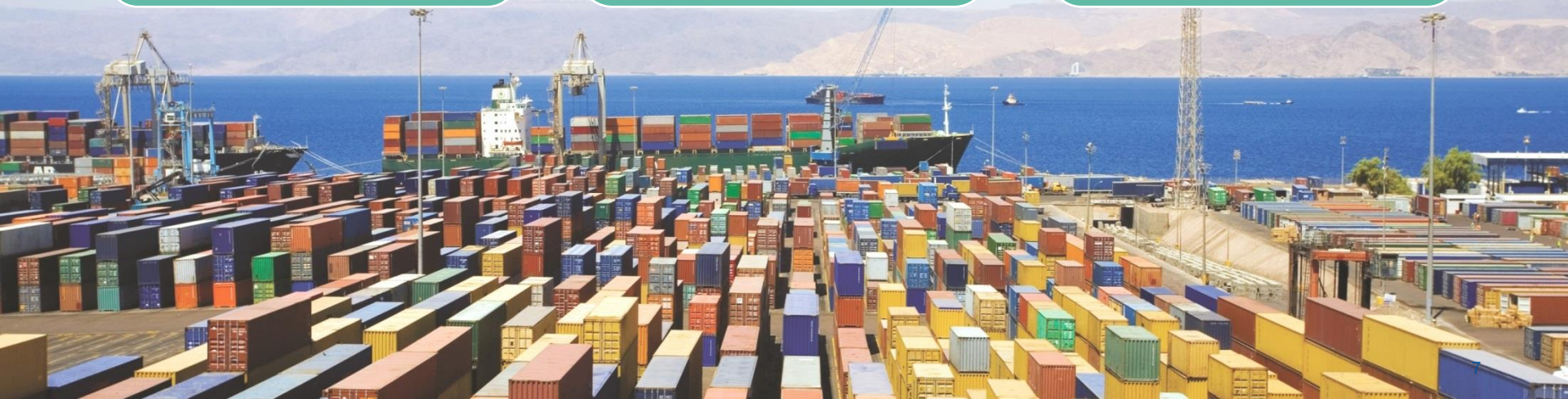
REDUCED

**85 million**

tonnes of CO<sub>2</sub>/year

Emission reductions equal to twice the annual energy use-related emissions of Sweden  
+annual water savings of 0.2 km<sup>3</sup> since 2013 equal to a third of Londoners' water use

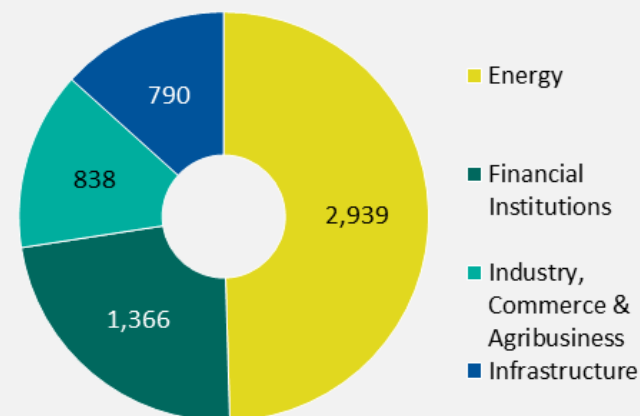
*16 m tonnes in EU-12*



# EBRD green investment in EU-12 – by ‘sector’

Countries \Sectors	Energy and Natural Resources	Financial Institutions	Industry, Commerce & Agribusiness	Infrastructure
Bulgaria	224	288	122	78
Croatia	232	56	52	67
Cyprus <sup>2</sup>	10	-	-	-
Estonia	86	-	-	-
Greece <sup>2</sup>	89	8	44	10
Hungary	50	14	-	56
Latvia	85	-	10	2
Lithuania	101	-	-	100
Poland	1,296	529	362	266
Romania	665	174	158	206
Slovak Republic	-	298	26	-
Slovenia	100	-	64	5
<b>Total</b>	<b>2,939</b>	<b>1,366</b>	<b>838</b>	<b>790</b>

EBRD green finance in EU-12 countries, 2006-June 2017, € million

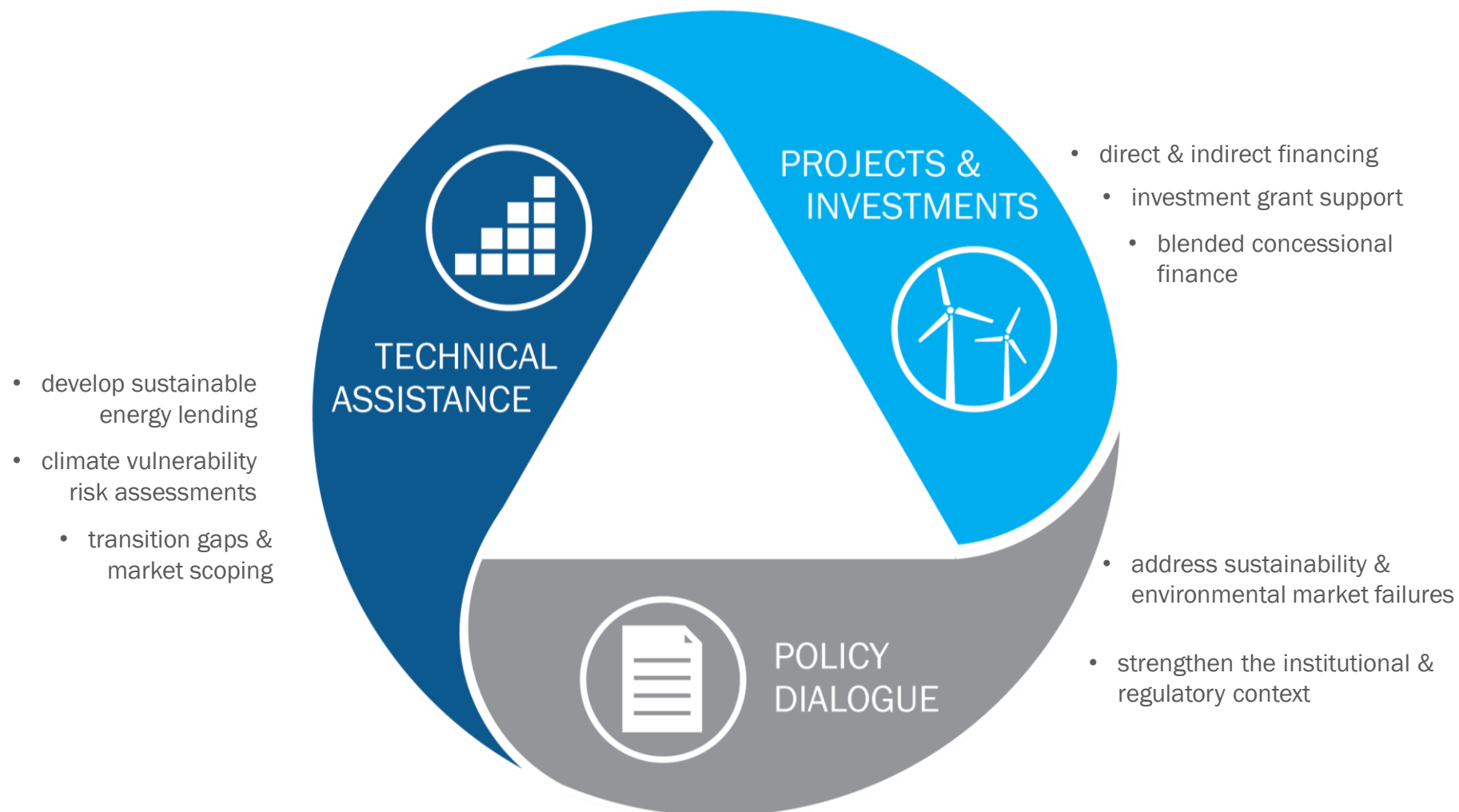




# Green financing business model

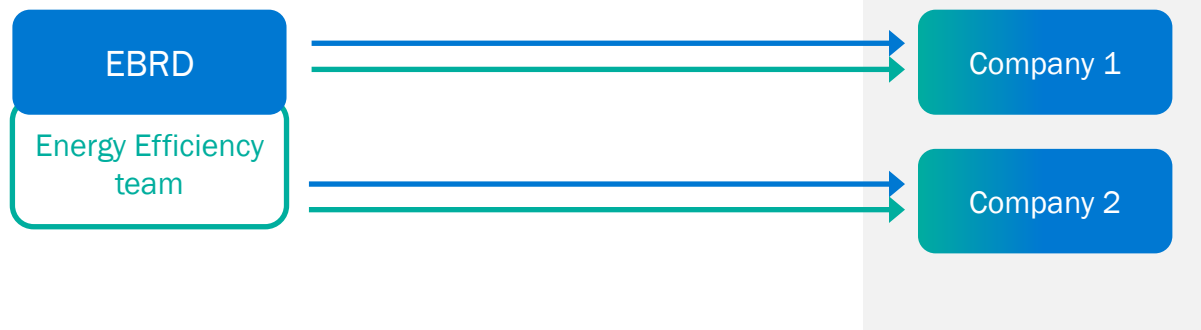


**European Bank**  
for Reconstruction and Development

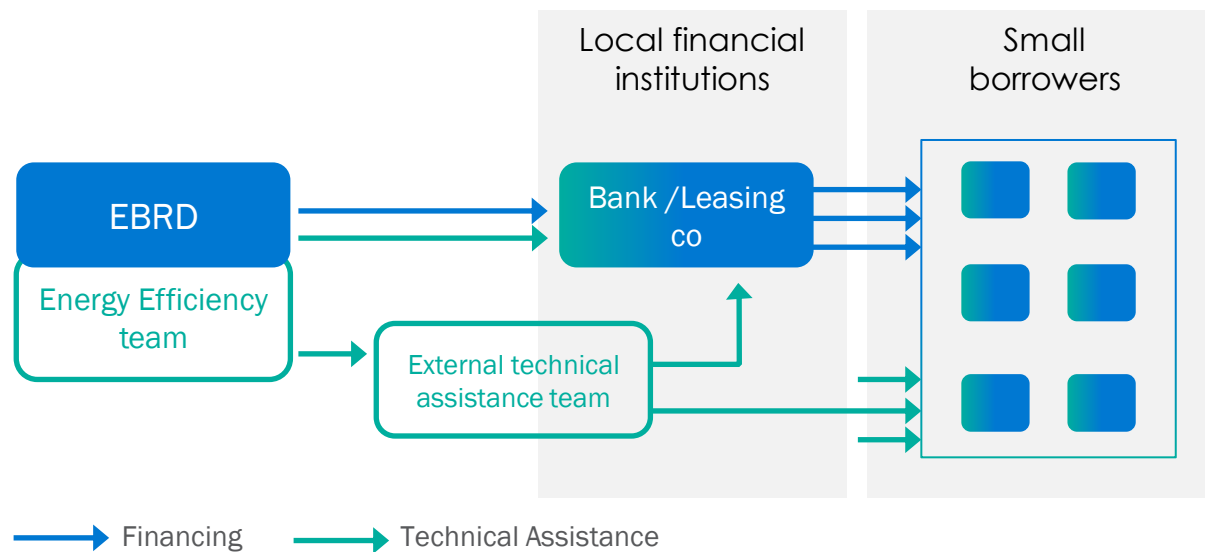


# EBRD financing channels

## DIRECT FINANCING AND SUPPORT



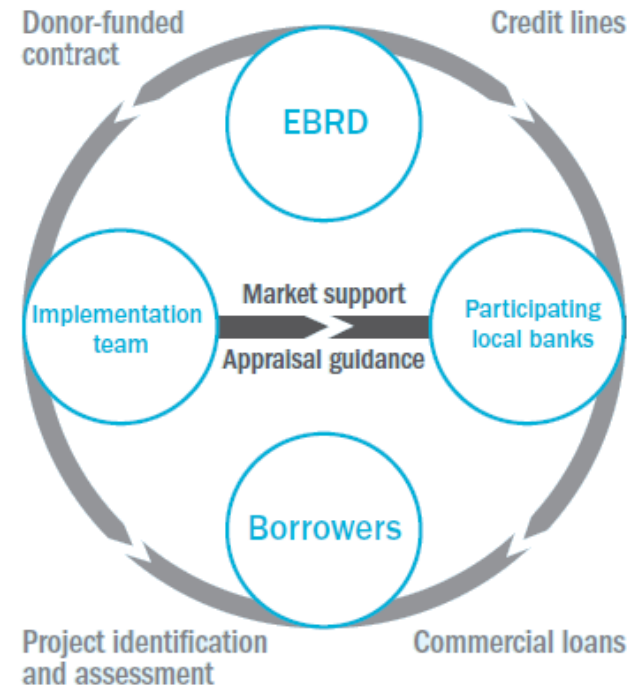
## FINANCING VIA PARTNER FINANCIAL INSTITUTIONS



# Green Economy Financing Facility (GEFF)



- GEFFs are a good example of products that blend both public and private finance.
- Through GEFFs the EBRD extends credit lines to local financial institutions seeking to develop sustainable energy and resource financing as a permanent area of business.
- Local financial institutions on-lend funds to small and medium-sized businesses, corporate and residential borrowers.
- Finance is provided for energy efficiency and small-scale renewable energy, water and waste efficiency projects.
- GEFFs establish project implementation teams who support local financial institutions and their clients.
- GEFFs are effective in reaching a wide range of small and medium-sized business and residential clients.



# GEFF Investment areas

## Industrial and commercial sector:

- SME/Corporate borrowers
- Vendors and suppliers of equipment



Agriculture, forestry and fishing



Food processing



Manufacturing



Commercial sector

## Residential sector:

- Individuals
- SME/Corporates in the residential sector



Individual households



Multi-family residential buildings

## Municipal sector:

- Municipalities and municipal companies
- Municipal service providers (including ESCOs)



Municipal infra and services

- Public transport
- district heating
- water supply
- waste and waste water treatment

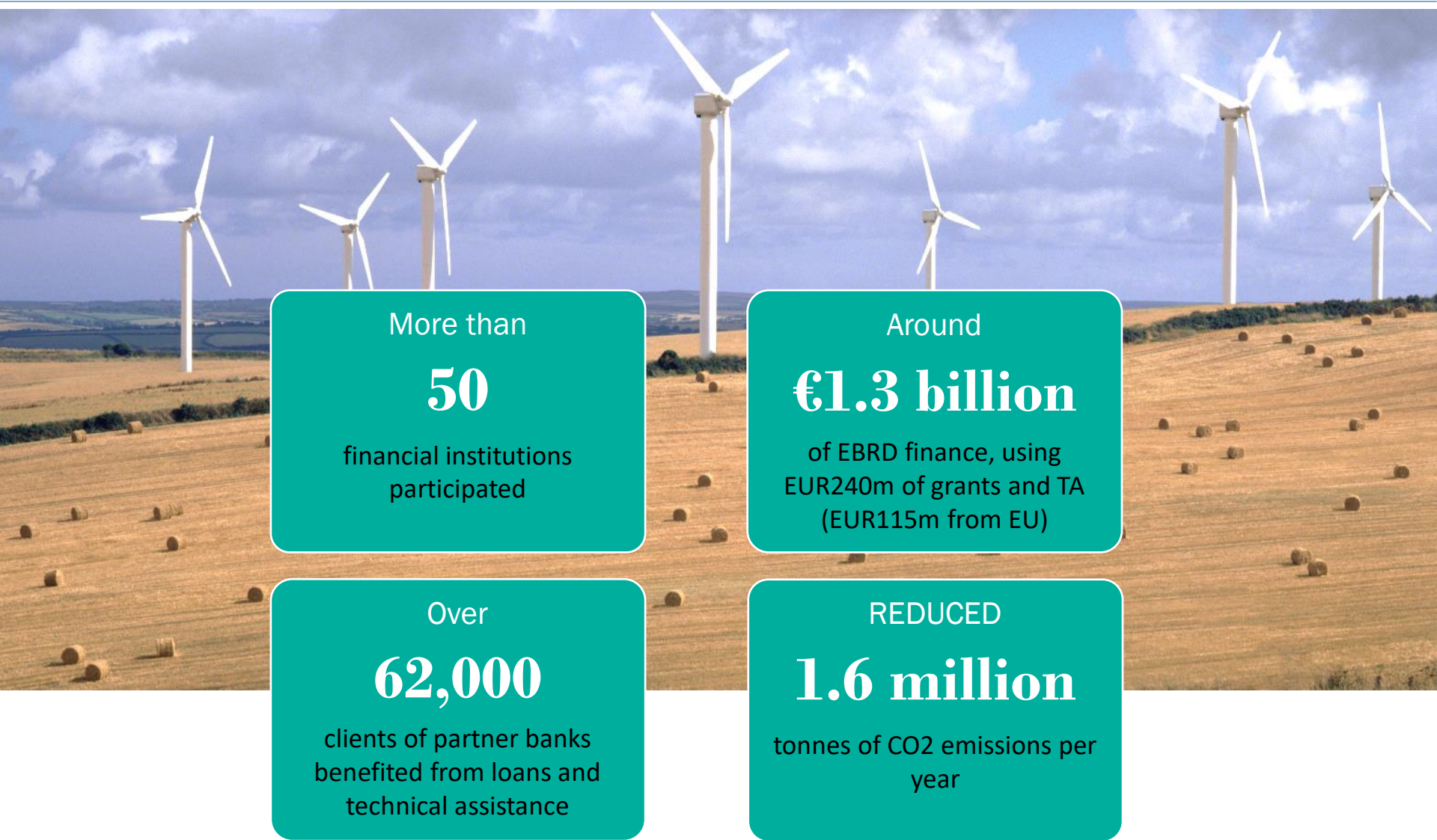


Public buildings

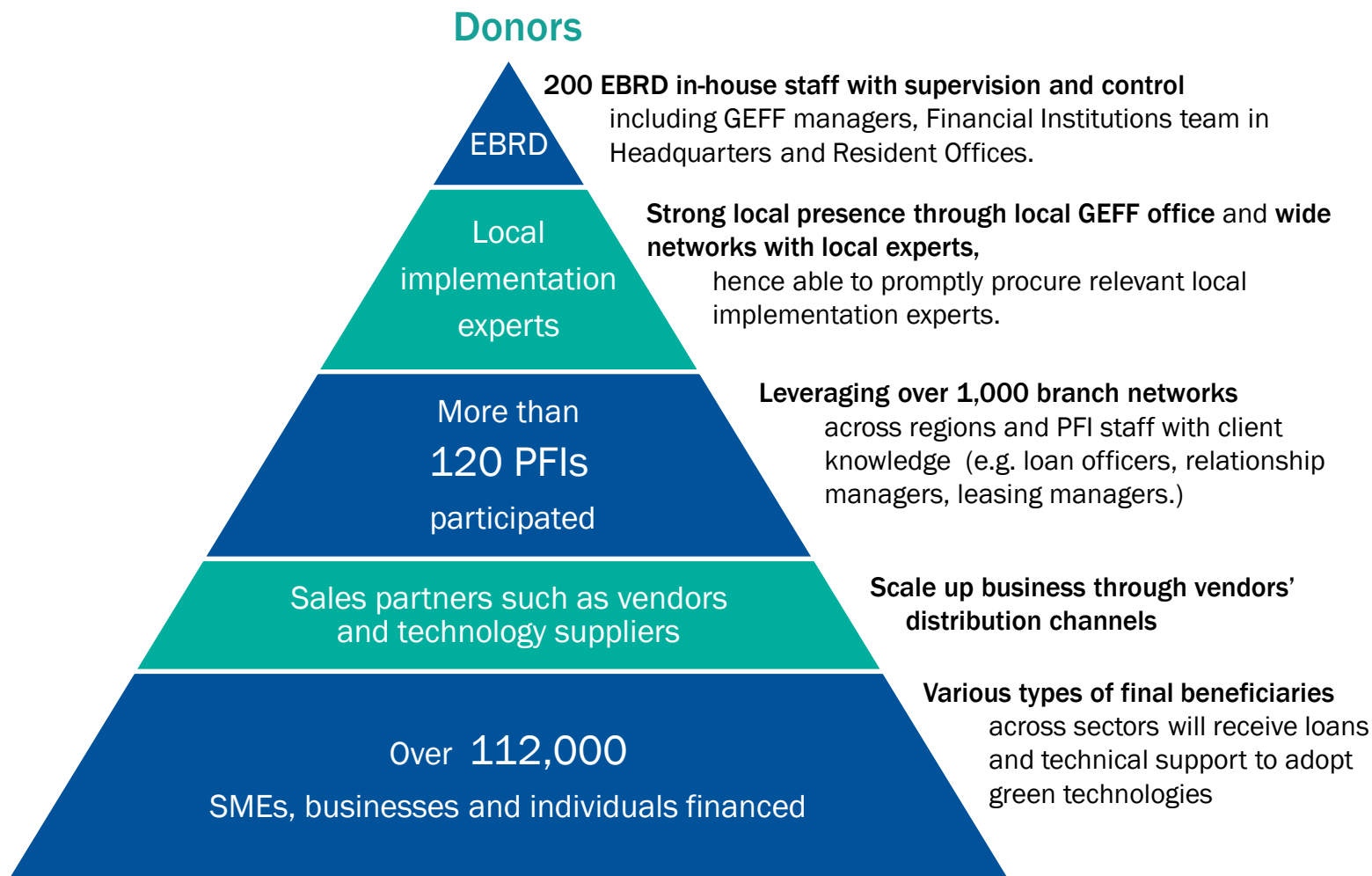
# GEFF results to date in the EU-12



European Bank  
for Reconstruction and Development



# Donors leverage the EBRD's networks for green economy financing





# Example: GEEFs in Romania: Sustainable energy in the commercial and industrial sectors

## PROGRAMME

Two EBRD Sustainable Energy Financing Facilities were active in Romania in 2008-2015 aiming to develop the local financing market for sustainable energy projects in the industrial and commercial sectors.

EEFF and RoSEFF combined credit lines to local partner banks, technical assistance for sub-project appraisal and banks' capacity building, and partial grant incentives.

## STRUCTURE OF FACILITIES

EBRD credit lines	€ 130 million
Incentive payments	€ 19 million
and technical assistance from the EU	€ 7 million

## RESULTS AND IMPACT

- 7 local participating banks
- 470 sub-projects, total investment value of €164 million
- 290,000 tonnes of CO<sub>2</sub> estimated annual emission reductions – comparable to 15% of the annual emissions from the energy use of buildings in Bucharest
- 900 GWh estimated energy savings – comparable to 6% of the hydroelectricity produced in Romania.



## PROJECT EXAMPLE

- SE-GES, a Romanian ESCO, received a SEFF loan of € 1.1 million from BRD Groupe Société Générale to build a heat and power cogeneration unit.
- The unit supplies baseload electricity and hot air to the factory of one of Europe's largest maize-based food producers, Sam Mills.
- The "Build-Own-Operate-Transfer" model means the ESCO builds the unit, gradually recovers the costs from energy sales and eventually transfers it to the site owner.
- The investment received an EU grant of €165,000.
- Primary energy savings were of 32% and emission reductions of 3,300 tCO<sub>2</sub>/year.



Healthcare

Hotels &  
Lodging

Residential  
buildings

Office &  
Commercial  
buildings

Public  
buildings

Retail &  
Logistics

- **€15 billion** of GET enabled green buildings investments, with EBRD's contribution of € 2 billion;
  - More than **25 million m<sup>2</sup> of floor area** of green buildings was financed by EBRD;
  - **71,000 GWh of energy savings** are expected from EBRD's Green Buildings Investments over life-time (15-25 years) with emission savings of **335 million tonnes of CO<sub>2</sub>e**.
- 
- Dedicated credit lines (Financing Facilities) through local financial intermediaries (*any buildings*)
  - Larger scale PPP framework programs (*greenfield and brownfield public buildings*)
  - Sustainable property funds (*commercial and private residential buildings*)
  - Sustainable retail (*commercial buildings*)
  - Structured financing: EPC/ ESCOs/ Forfaiting (*residential, public buildings*)
  - Labelled green property bonds (*commercial/public buildings*)

# Hines Poland Sustainable Income Fund



**European Bank**  
for Reconstruction and Development

## THE CLIENT

Hines is a privately owned global real estate investment firm with locations in 185 cities in 19 countries. Hines has a commitment to sustainability.

## THE PROJECT

EBRD helped develop, and invested in this Fund – it is the 1<sup>st</sup> Green Property Fund in the EBRD region.

Investing in commercial property in Poland, the Fund will create value through active asset management, including systematic introduction of sustainability measures and sustainability certification.

## FINANCIAL STRUCTURE

EBRD equity investment	EUR 50 million
Fund Value at final closing	EUR 155 million

## TECHNICAL ASSISTANCE

- Support in setting up green lease policies
- identifying cost-effective sustainability measures within the Sustainability Management Plan for selected assets.



## INTEGRATING SUSTAINABILITY MEASURES IN MANAGED ASSETS

- building infrastructure upgrades and improvements
- professional facility management with strong focus on energy/water saving and waste reduction
- Tenant engagement through green lease policies and dedicated Building Management Committees
- Sustainability policies embedded in Fund mgmt, with qualitative and quantitative targets
- LEED/ BREEAM certification
- Sustainability performance will be linked to the Management Company's remuneration.

# Supporting ESCOs in Latvia using innovative forfeiting mechanism

## THE PROBLEM

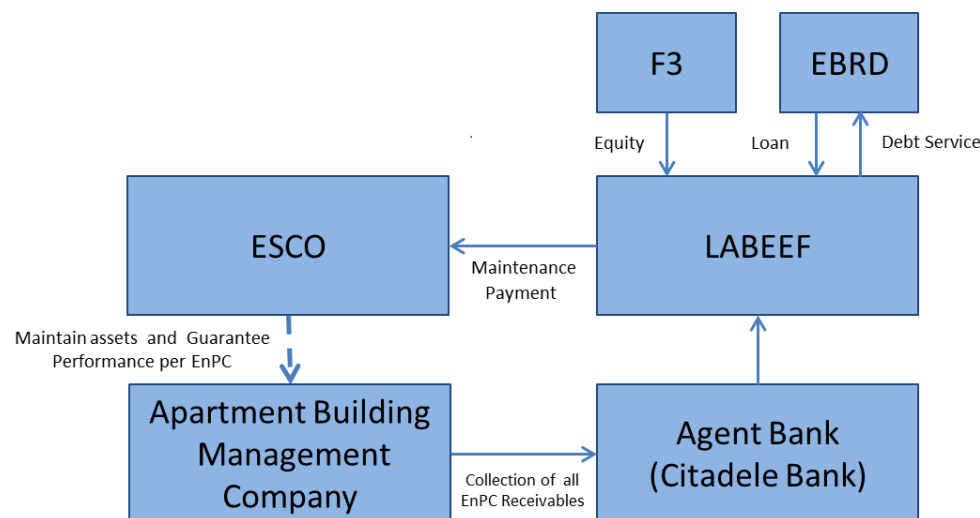
- ESCOs are typically paid back through energy bills over a number of years
- This can however leave them short of cash with which to do more projects
- Typical bank debt helps only partially as it is short-term, borrowing capacity is reached quickly

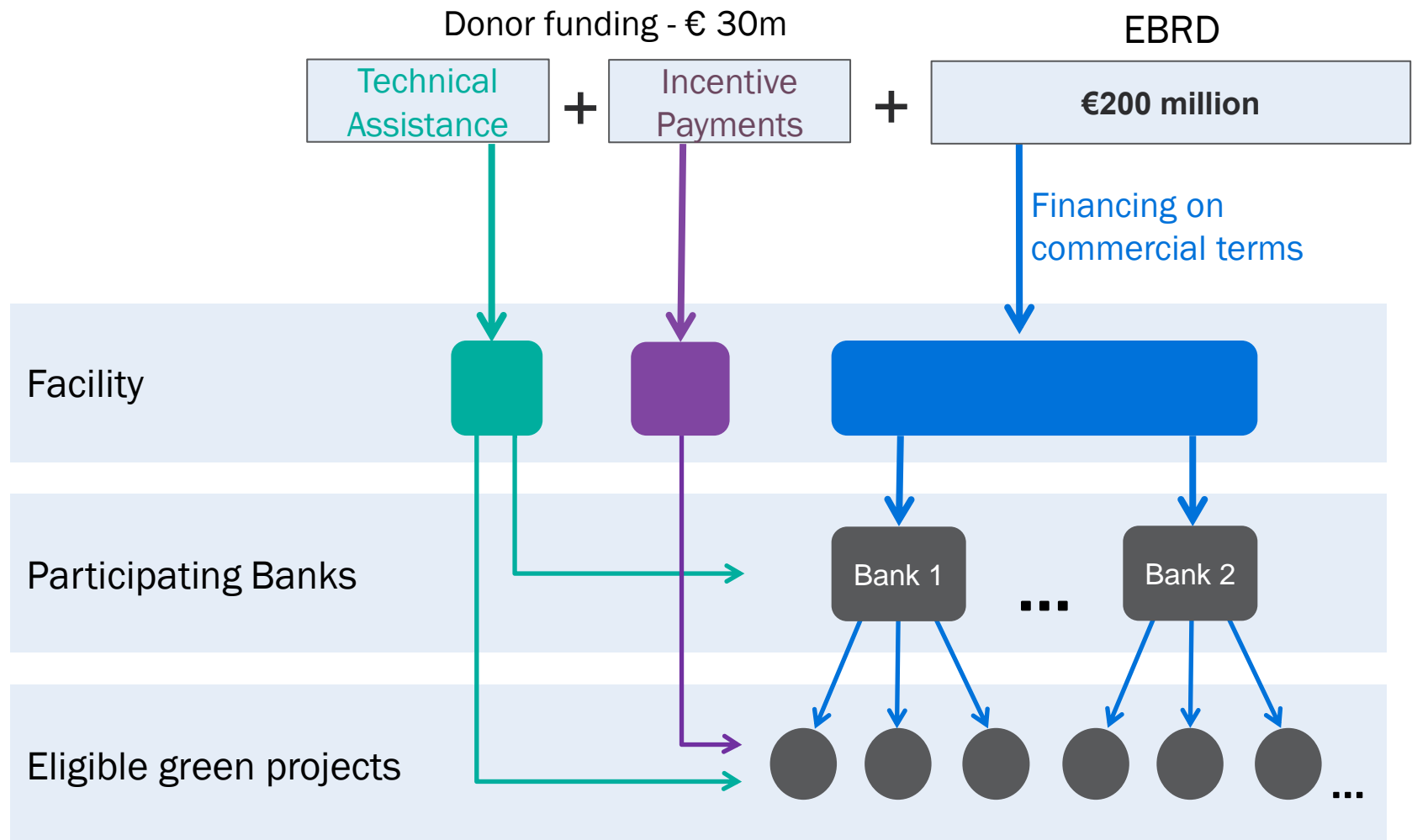
## THE INNOVATION

- A fund specifically set up to purchase the receivables
- Receivables are from projects where the ESCO has begun to receive its payments from end-client
- Through the sale the ESCO has the cash needed to invest in further projects
- The ESCO is provided a fee to cover its maintenance and guarantee obligations under its contract with the end-client

## THE EBRD'S ROLE

- Helped develop the financing structure
- Intend to provide debt financing to the fund purchasing the receivables





- EUR 6.25 million in non-recourse debt financing to CYPV Energy Ltd, LGEG Photovoltaic Ltd and LGEG Solar Power Ltd for the construction, development and operation of three solar photovoltaic parks of total capacity 7.4MWp located in the areas of Frenaros, Nisou and Dhali.
- EUR 4.1 million in non-recourse debt financing to TPM Abitenergy Ltd and Conbetter Ltd for the construction, development and operation of two solar photovoltaic parks of total capacity 4.5MWp located in the areas of Paliometochos and Malounta.
- EBRD supports renewable energy projects tapping the island's huge potential in the sector and contributing towards Cyprus' 2020 target for power generation from sustainable sources.
- Benchmark transactions for non-recourse financing in the Renewable Energy sector.



## Terna Energy

*Signed in November 2016*



### Client Description

Terna Energy, owned by GEK Terna Group, is one of the largest and most respected renewable energy companies active in Greece. It directly owns and operates 110 MW of renewable energy projects while another 557 MW are indirectly owned through SPVs located in Greece, Bulgaria, Poland and the USA

### Project Size

Senior secured €60 million Greek bond loan

### EBRD Finance

€50 million senior secured loan alongside a €10 million parallel loan to be provided by a Greek commercial bank

### Use of Proceeds

The proceeds to finance the development, construction and operation of renewable energy power plants in Greece, which will support Greece in achieving the target to reach 40% of electricity consumption from renewable sources by 2020

# The EBRD on the ground in Greece

- EBRD established its local presence in Athens in September 2015 and opened its office in March 2016
- The regional office in Athens includes a multidisciplinary team of local and international bankers
- Support from sector and product teams in EBRD headquarters in London

## EBRD Regional Office in Athens

5<sup>th</sup> floor, Othonos 6,  
Athens, 105 57  
+30 211 1064 300  
[athens@ebrd.com](mailto:athens@ebrd.com)



**Sabina  
Dziurman**  
Regional Head  
of Greece and  
Cyprus



**Alkis  
Drakinos**  
Deputy Head  
of Greece



**Harris  
Damaskos**  
Associate  
Banker



**Augusta  
Vrachnou**  
Associate  
Banker



**Angeliki  
Kalligiannaki**  
Associate  
Banker



**George  
Maltezos**  
Associate  
Banker



**Dimitris  
Chatziakovou**  
Analyst



**Ioannis  
Papaleonidopoulos**  
Analyst



# Contacts



**European Bank**  
for Reconstruction and Development

For all further enquiries , please contact:

Libor Krkoska  
Head of Office  
23 John Kennedy Avenue  
Nicosia 1075, Cyprus  
Email: [krkoskal@ebrd.com](mailto:krkoskal@ebrd.com)  
Tel: +357 22 39 55 00

