



Where finance and green technologies meet

# Green Economy Financing Facility Programme

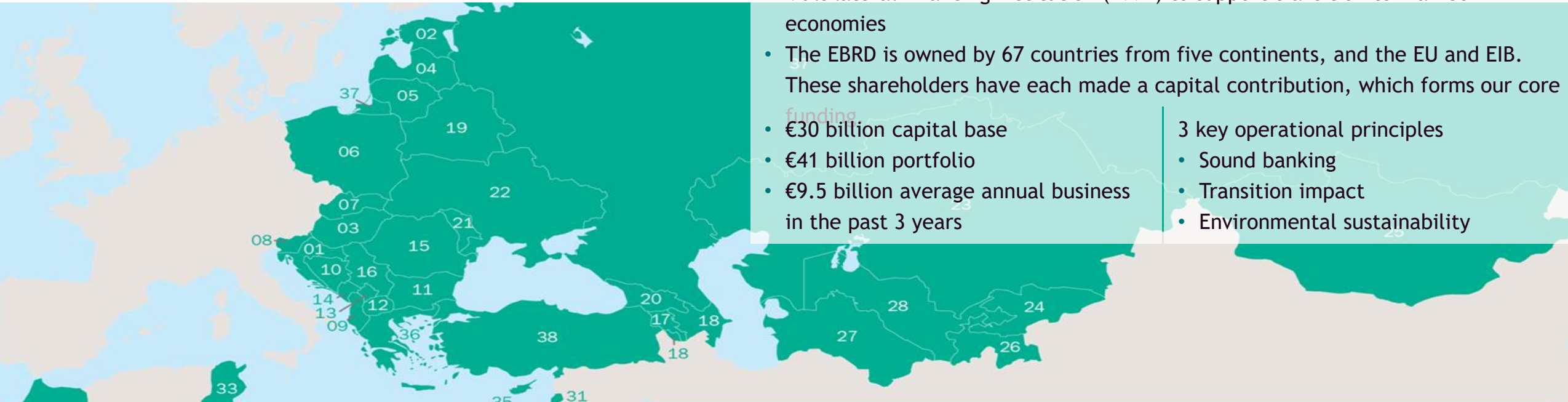


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# What is the EBRD?

- Multilateral financing institution (1991) to support transition to market economies
  - The EBRD is owned by 67 countries from five continents, and the EU and EIB. These shareholders have each made a capital contribution, which forms our core funding
  - €30 billion capital base
  - €41 billion portfolio
  - €9.5 billion average annual business in the past 3 years
- 3 key operational principles
- Sound banking
  - Transition impact
  - Environmental sustainability



#### Central Europe and the Baltic states

01 Croatia  
02 Estonia  
03 Hungary  
04 Latvia  
05 Lithuania  
06 Poland  
07 Slovak Republic  
08 Slovenia

#### Southern and eastern Mediterranean

29 Egypt  
30 Jordan  
31 Lebanon

#### South-eastern Europe

09 Albania  
10 Bosnia and Herzegovina  
11 Bulgaria  
12 FYR Macedonia  
13 Kosovo  
14 Montenegro  
15 Romania  
16 Serbia

32 Morocco  
33 Tunisia  
34 West Bank and Gaza

#### Eastern Europe and the Caucasus

17 Armenia  
18 Azerbaijan  
19 Belarus  
20 Georgia  
21 Moldova  
22 Ukraine

35 Cyprus  
36 Greece

#### Central Asia

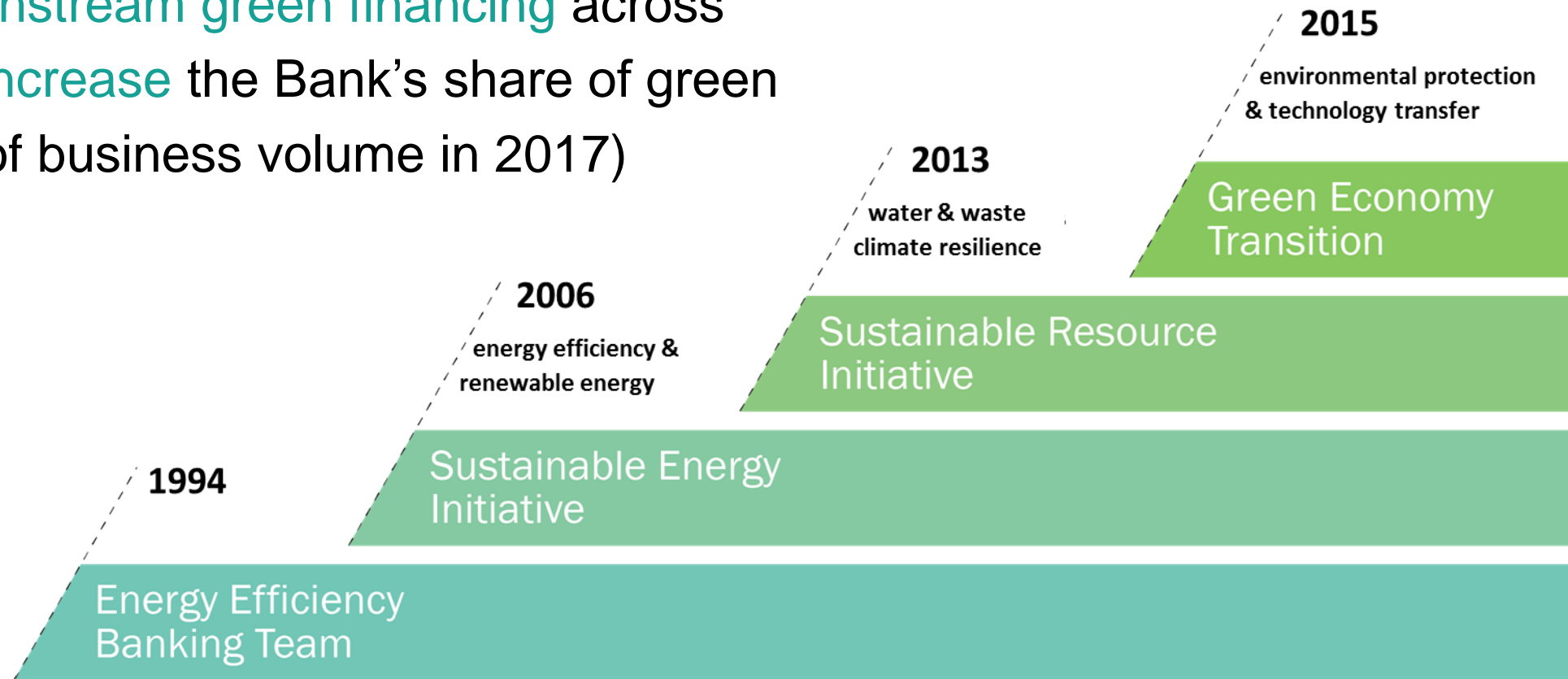
23 Kazakhstan  
24 Kyrgyz Republic  
25 Mongolia  
26 Tajikistan  
27 Turkmenistan  
28 Uzbekistan

37 Russia  
38 Turkey

# EBRD's strategic approach



The EBRD has adopted a sequence of cross-sectorial strategies to **mainstream green financing** across operations and **increase** the Bank's share of green finance (> 40% of business volume in 2017)





**European Bank**  
for Reconstruction and Development



# BUSINESS MODEL



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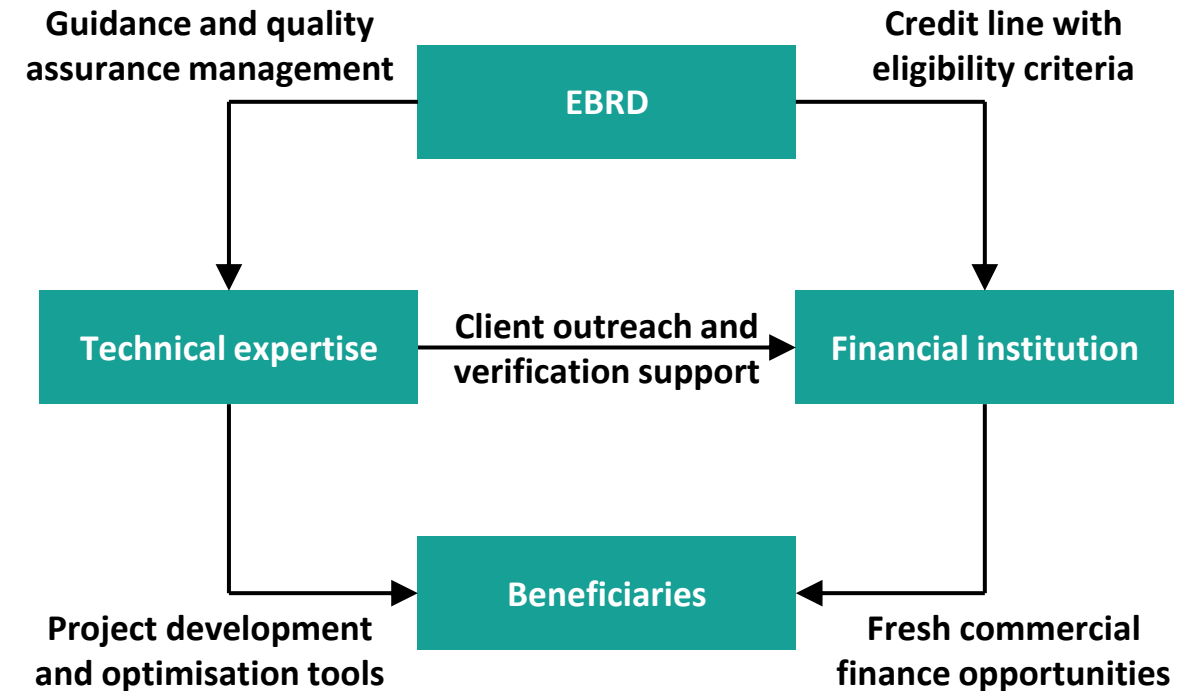
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# GEFF business model



The EBRD extends credit lines to local financial institutions to provide finance to small and medium-sized businesses, corporates or households for high performance climate and environmental technologies

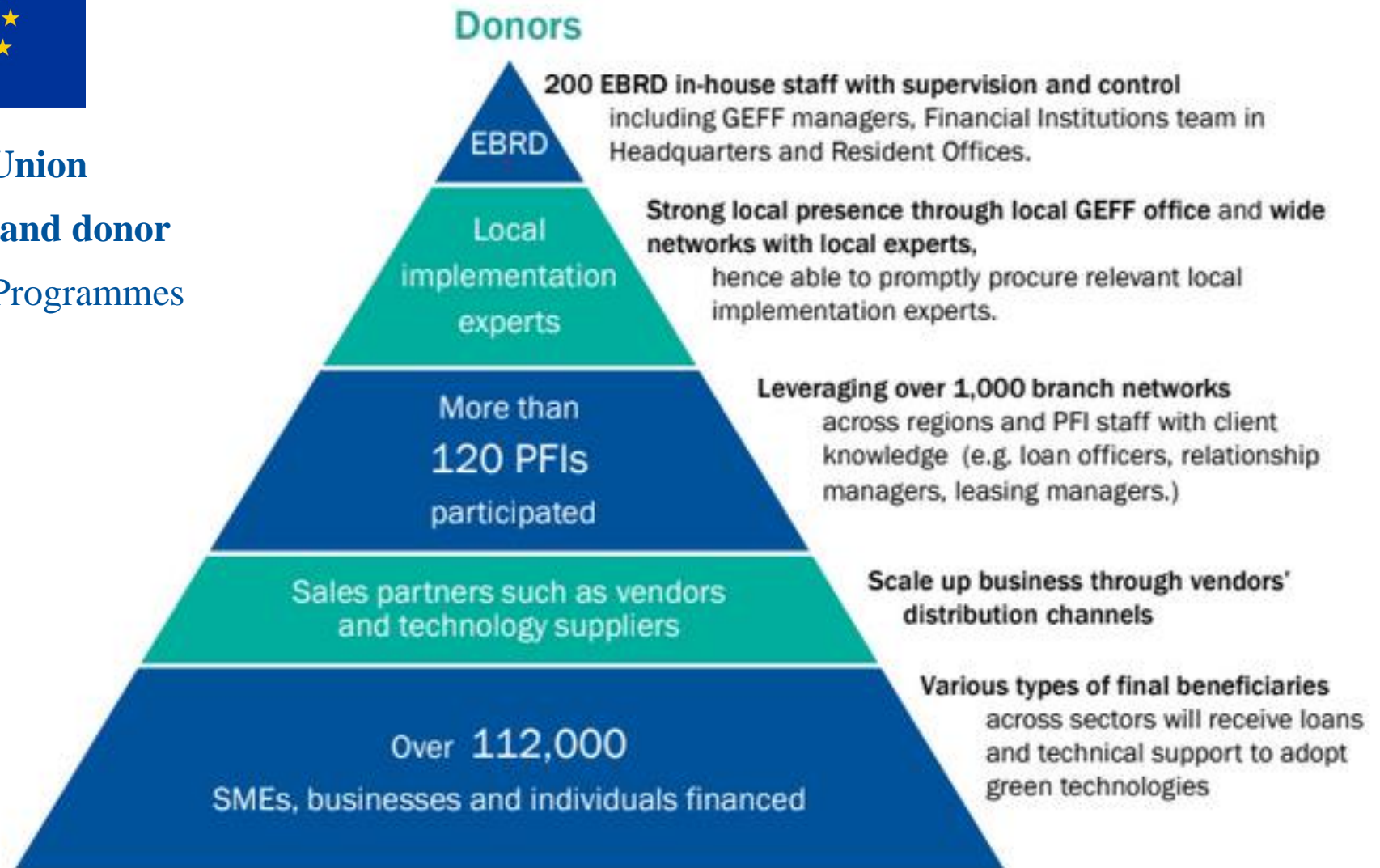
- Local implementation teams enable **greater outreach** to clients that need green technology solutions
- Project development support helps **identify eligible technologies** and quantify the benefits (climate mitigation, adaptation or other environmental benefits)
- Awareness and capacity raising helps local markets **recognise green opportunities** and assess the financing potential



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



**European Union**  
is a key partner and donor  
for EBRD GEFF Programmes



# GEFF investment areas

## Private industrial and commercial sector

- Small businesses
- Mid-sized corporates

## Residential sector

- Individuals
- SME/corporates in construction

## Municipal infrastructure and services

- Private service providers
- Municipalities and municipal companies



Agriculture



Manufacturing



Individual dwellings



Public transport



Waste and waste water treatment



Production



Commerce



Multi-family buildings



Public buildings



Street lighting

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# TA COMPONENT



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# TECHNICAL ASSISTANCE



**Under the EBRD's supervision, dedicated local implementation teams carry out:**

- Technical Eligibility Checks
- Facility Management (Operations Manual, MIS)
- Product Development support and training
- Originating new client opportunities
- Marketing toolkit (website, case studies, templates and guideline)
- Verification



# Identifying eligible technologies



## Assessment-based

- Best practice experience determines reference standards (baseline)
- On-site involvement of technical experts identifies potential solutions
- Detailed assessment report (technical and financial opportunities and risks)

## Technology-based

- Pre-identifies high performance technologies in specific markets
- Technologies are eligible for EBRD financing via local financial institutions
- Enhances local market awareness of efficient solution availability
- Recognised technologies enable faster finance processing
- Transaction costs are reduced for all parties

# Technical Eligibility Check

## 1) Project Assessments



Project Assessments are carried out by consultants for PFIs and their clients.

Only available for **complex investments and supplier/vendor loans** that are not automatically eligible for financing through the Technology Selector.

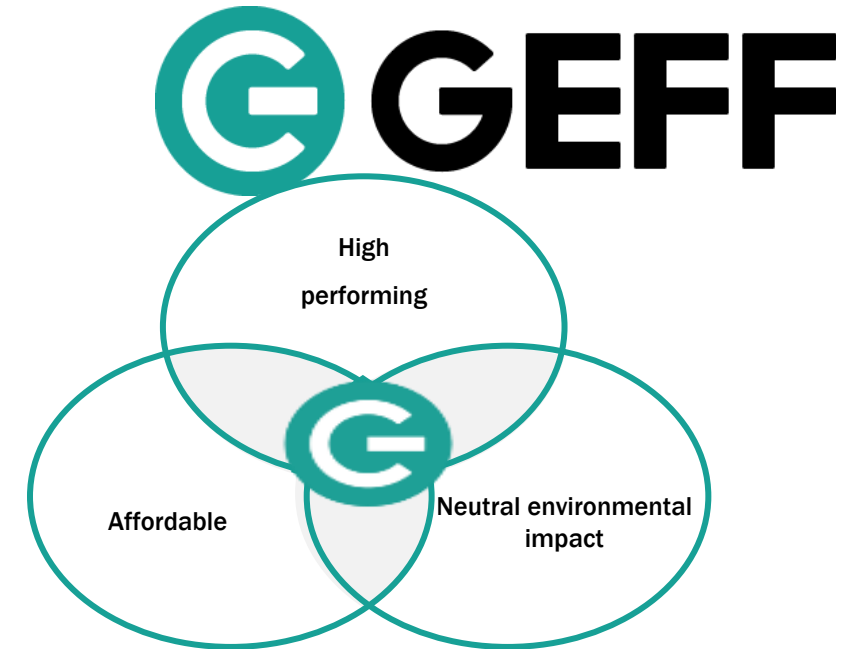
- Unbiased assessment & advice
- Confirms viability of the project
- Mitigates risks
- Ensures technical feasibility
- Ensures application of health & safety and environmental standards
- Ensures technology is fit for purpose



# Technical Eligibility Confirmation

## 2) Technology Selector

The EBRD helps PFIs with financing green technologies (high-performing technologies that are both affordable and environmentally neutral) so that such solutions will be replicated and scaled up on commercial terms under local market conditions.



### The EBRD sets technology eligibility criteria

The EBRD sets the eligibility criteria based on the extent to which each specific technology performs beyond the reference baseline according to:

- Technological progress
- Maturity of market supply
- Market penetration rates
- Technology costs



### The EBRD confirms technical eligibility through

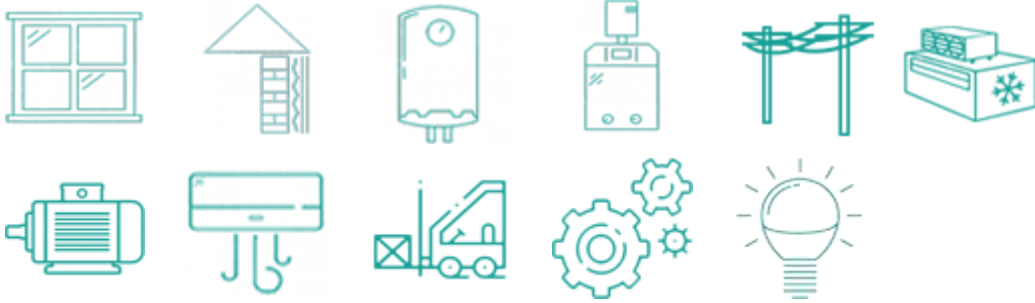
- Technology Selector for simple technologies
- For complex projects, local implementation experts conduct Project Assessments:
  - Preliminary Assessments
  - Further assessment and advice if more complex investment ideas required



### The EBRD sets the minimum performance threshold

- Energy efficiency projects: minimum 20% energy savings.
- Renewable energy projects: technology and market specific
- Water and resource efficiency: technology and market specific

# Eligible technologies...



- Windows & Doors
- Insulation material
- Boilers
- CHP
- Heat Pumps
- Chillers & Cooling
- Motors & Pumps
- Domestic Appliances
- Transport
- Process technologies
- Lighting

## Examples of sub-categories:

- Biomass boilers
- Solar thermal
- Solar photovoltaic
- Electric battery storage
- Fuel cells
- Low carbon transport solutions

20% improvement of performance

Available in the market

Fair competition

Local vendors & suppliers



We are looking to include more high performance technologies for (but not limited to):

- Waste treatment and disposal
- Waste minimisation and recycling
- Efficient water use and treatment
- Soil quality and advanced agriculture
- Reducing local pollution
- And many more...



CATEGORY

Windows & Doors



Insulation



Boilers



Heat pumps



Power & Cogeneration



Cooling



Motors & Pumps



Process Technologies



Transport



Domestic Appliances



Lighting



# TECHNOLOGY CATALOGUE

Browse products that are assessed as eligible by EBRD, per country. [Read more...](#)

Quick search:

Country



Technology



Manufacturer



🔍 Search



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### Windows & Doors

- Windows
- Glazing
- Doors

### Insulation

- Thickness from 50 to 99 mm
- Thickness from 100 to 149 mm
- Thickness greater than 150 mm

### Boilers

- Biomass boilers
- Gas boilers
- Oil boilers
- Solar thermal collectors

### Heat pumps

- Water source heat pumps
- Air source heat pumps
- Ground source heat pumps

### Power & Cogeneration

- CHP Combustion engine
- CHP Sterling motor
- CHP Gas turbine
- Photovoltaics
- CHP Fuel cell
- Li-Ion batteries
- Redox flow batteries

### Cooling

- Water-cooled chillers
- Air-cooled chillers
- Absorption chillers

### Motors & Pumps

- Compressed air
- Electric Motors
- Circulators
- Water pumps

### Process Technologies

- Injection moulding machines
- Extruder machines

### Transport

- Electric forklifts
- Diesel forklifts
- LPG forklifts
- Heavy duty trucks
- Tractors
- Combine Harvester

### Domestic Appliances

- Fridges / Freezers
- Hot water cylinder
- Air Conditioners

### Lighting

- High pressure sodium lamps
- LED lighting

Lighting



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# Benefits



- **Technology manufacturers:**

- ✓ Local marketing channel – high performance standards
- ✓ Increased sales and brand awareness

- **Technology vendors:**

- ✓ Compare product performance to best-in-class
- ✓ Find additional products to offer or import

- **Technology users:**

- ✓ Locally available, best-in-class products
- ✓ One-stop-shop – products are eligible for finance



## Other benefits



- Reaches tens of thousands of businesses and households
- Reduces transaction costs for all parties
- Performance standards rise and make a real impact
- Activates local networks of technology providers
- Attracts available green finance via EBRD GEFFs
- Accelerates deployment of high performance technologies



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# Facility Management and Monitoring



The EBRD have a number of tools that ensures efficient rollout, facility management and monitoring, including:

- Dedicated full time staff managing each facility
- Operations manual and standard templates for all stakeholders
- Marketing and sales tools
- Tailored training packages (eLearning under preparation)
- Dedicated websites
- MIS

The screenshot displays the GEFF website interface. At the top, there are logos for GEFF and the European Bank for Reconstruction and Development. Below the header, there is a navigation menu with links for ABOUT, ELIGIBILITY, FINANCING, TECHNOLOGIES, and SUCCESS STORIES. The main content area features a 'Latest News from Egypt' section with a featured article titled 'Green Economy Financing Facility event in Cairo'. Below the news section, there is a 'Select a tech' button and a 'FIND OUT MORE' button. The right side of the page shows a detailed 'Eligibility and Benefits' section with a table of metrics and a 'Measure Overview' table.

Eligibility and Benefits	
Show EUR Equivalents	
<b>Total Investment Cost</b>	1,471.94 PFI Loan Currency USD
<b>Expected Incentive Amount</b>	294.00 PFI Loan Currency USD
<b>Expected Completion Date</b>	25/08/2017
<b>Total Primary Energy Use Avoided</b>	8.3617 GJ/year
<b>Total GHG Emissions Avoided</b>	1.0351 tonnes/year
<b>Total Allocated Sub-loan</b>	1,471.67 PFI Loan Currency USD
<b>Expected Incentive %</b>	19.98
<b>Eligible for Incentives</b>	Yes (Green checkmark)
<b>Total Water Use Avoided</b>	0.00 m3/year
<b>Total Material Use Avoided</b>	0.00 tonnes/year

Measure Overview			
Measure Category	Measure Sub-category	Investment Costs (USD)	Allocated Sub-loan Amount (USD)
Insulation of floor	Households	912.60	912.43
Insulation of roof	Households	559.34	559.24

**Sub-loan Information**

Show EUR Equivalents

Sub-loan ID: 01-30-1300001      Loan or Lease: Loan

# PFI Product Development Support and Training for Loan Officers



## Portfolio Screening

To identify most promising customer segments

## Capacity Gap Analysis

Define capacity building needs and agree on training plan

## Face-to-Face Training

Face-to-face training courses to close know-how gaps

## GEFF Product Design

Support in designing GEFF product features

## E-Learning

Participate in EBRD Green Finance Academy E-Learning Programme

## Train-the-Trainer

Train-the-trainer program to ensure sustainability

*90% of training participants: “very useful” or “extremely useful”*

(EBRD evaluation study, 2016)

# Client Origination



- Hotline to answer FAQs
- Joint client meetings and site-visits to advise on investments
- Advise staff on cross-selling opportunities
- Marketing through Vendors
  - ❑ Scale up business through vendors' distribution channels
  - ❑ Greater advertising opportunities
  - ❑ Convenience for clients
  - ❑ Straightforward via Technology Selector

# Marketing Toolkit



- Website – EBRDGEFF.com
- Brochures
- Technology Selector
- Launch event and award ceremonies
- Case studies, videos
- Presentations
- Press releases

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# TRACK-RECORD & SELECTED EXAMPLES



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# EBRD GEFF Programme – Cumulative Results

Experience gained from

**12 years**

of programme refinement

Operational in

**25 countries**

of the EBRD region

Engagement with

**130**

local financial institutions

Providing over

**€4 billion**

of EBRD finance

Supporting more than

**130,000**

green investments

Avoiding more than

**7 million**

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



# RoSEFF



No of PB participating	4
Volume of EBRD finance disbursed	EUR 60 mil.
No of sub-projects financed	340
EU incentives disbursed to end borrowers	EUR 7.4 mil.
EU-funded Technical Assistance	EUR 3.7 mil.
Annual CO <sub>2</sub> Emission Reduction, tonnes CO <sub>2</sub> /annum	116,076
Annual Energy savings (MWh/y)	317,143

# PoISEFF



No of PB participating	6
Volume of EBRD finance disbursed	EUR 210 mil.
No of sub-projects financed	2,111
EU incentives disbursed to end borrowers	EUR 18.8 mil.
EU-funded Technical Assistance	EUR 8.1 mil.
Annual CO <sub>2</sub> Emission Reduction, tonnes CO <sub>2</sub> /annum	110,350
Annual Energy savings (MWh/y)	364,551



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# GEFF ADDED VALUE



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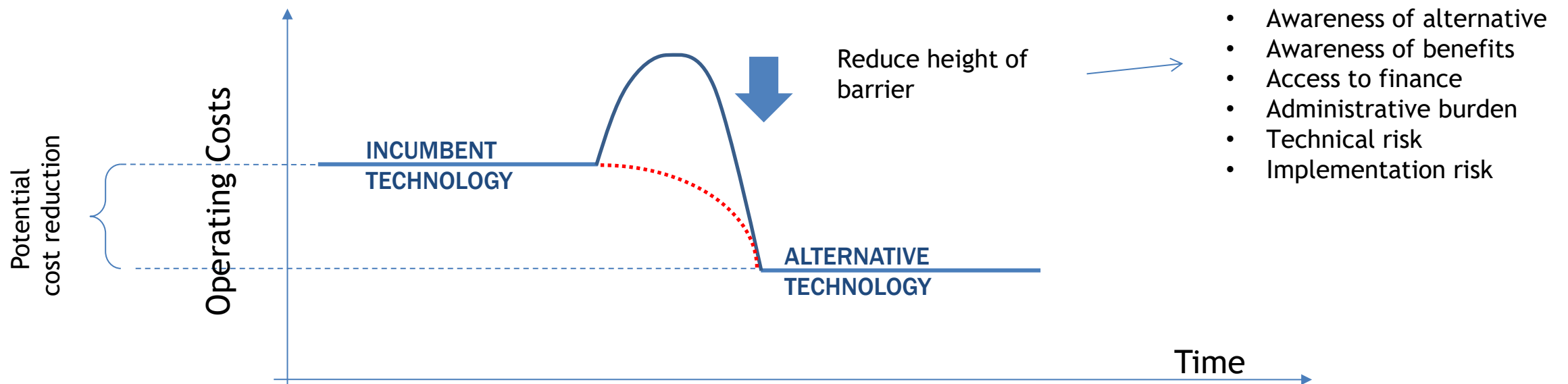
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# CREATING AN ENABLING ENVIRONMENT



Market barriers (e.g. early-mover costs, entrenched behaviour and information asymmetries), may **increase transaction costs** affecting the rate of adoption of high performance technologies.

**Access to broad knowledge base** is often the greatest transaction cost to making an informed investment decision.



# CHALLENGING ENTRENCHED BEHAVIOUR



**Entrenched behaviour restricts uptake and favours smaller upfront investment cost typically associated with lower performance technologies.**

**The EBRD GEFF model seeks to change this behaviour by:**

- increasing awareness of **multiple benefits of higher performance technologies**
- establishing **minimum performance criteria** so easier to identify and select higher performance technologies
- **demonstrating cost-effectiveness** of investing in green economy solutions for process modernisation, equipment upgrades and building refurbishment
- **illustrating the business case** for using commercial sources of finance for solutions otherwise constrained by affordability
- **partnering with local financial institutions** to instil competition and target a far greater number of clients than the EBRD could influence directly.

# GEFF BUSINESS PROPOSITION



EBRD GEFFs **de-risk the introduction of green financing products**. Through GEFFs, financial institutions gain the ability to:

- access a **knowledge-base of high performance solutions** that result in clear environmental benefits beyond business-as-usual
- enhance **client competitiveness** by focusing on improving the quality and capacity of their activities
- originate **new investment opportunities** that are a business priority for clients
- attract / **retain clients** that want to increase their competitive advantage
- **reduce project risk** via technical due diligence and verification services
- use EBRD GEFF programmatic know-how to **reduce upfront costs** of investment in development of green financing activity.

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- There is a successful model and track record of implementation in Romania and +24 countries with approx. EUR 4 billion committed so far. The business concept delivers an important leverage effect (typically at least 5x)
- By combining and integrating commercial loans with TA and small grants linked to high performance equipment and technologies under a one-stop-shop umbrella, we are addressing market barriers in a concerted way and using hundred of branches in partner banks' networks as distribution channels to reach a significant number of beneficiaries
- EBRD stands ready to structure and implement another programme for energy and resource efficiency investments for Romanian enterprises via local partner banks. We are currently looking for a source of donor funds to support the TA and incentives – one potential source in Romania as well as in other Member States could be the national environmental funds.



**European Bank**  
for Reconstruction and Development



# Thank You!

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