Introduction to the EBRD

The EBRD is a **triple-A** rated* bank with a capital base of **€30 billion**.

Operating in **35 countries** from central Europe to central Asia, the EBRD:

- Promotes transition to market economies
- Mobilises foreign direct investment
- Improves people’s lives through enhancing municipal services
- Encourages sustainable development

The EBRD is owned by **65 countries** and two inter-governmental institutions.

* From all three main rating agencies (S&P, Moody’s and Fitch)
Sustainable Energy Investment (SEI)

- Central Europe and the Baltic 2006–2014: €2.9 billion
- Russia 2006–2014: €3.2 billion
- Eastern Europe and the Caucasus 2006–2014: €3.0 billion
- Turkey 2008–2014: €2.1 billion
- South-Eastern Europe 2006–2014: €3.1 billion
- South and Eastern Mediterranean 2012–2014: €0.6 billion
- Central Asia 2006–2014: €1.0 billion
- Regional 2006–2014: €0.7 billion

- Total signed SEI finance in 2006-14: €16.4 billion
- Total estimated GHG emissions reductions 70 million tonnes CO₂e /year
### SEI Finance since 2006, by Business Area

<table>
<thead>
<tr>
<th>BUSINESS AREA</th>
<th>(€ bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate energy efficiency</td>
<td>4.5</td>
</tr>
<tr>
<td>Cleaner energy production</td>
<td>4.2</td>
</tr>
<tr>
<td>Renewable energy</td>
<td>2.9</td>
</tr>
<tr>
<td>Sustainable energy financing facilities</td>
<td>2.8</td>
</tr>
<tr>
<td>Municipal infrastructure &amp; energy efficiency</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16.4</strong></td>
</tr>
</tbody>
</table>

27% Corporate energy efficiency<br>26% Cleaner energy production<br>17% Renewable energy<br>17% Sustainable energy financing facilities<br>12% Municipal infrastructure & energy efficiency
FINTECC
Finance and Technology Transfer Centre for Climate Change

- Part of a global technology transfer initiative created at COPs 13 and 14.
- Aims to improve deployment rates of the best available climate technologies in markets where deployment is very slow compared to others.

<table>
<thead>
<tr>
<th>GEF FUNDING IN EARLY TRANSITION COUNTRIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAPITAL GRANTS</strong></td>
</tr>
<tr>
<td>Mitigation</td>
</tr>
<tr>
<td>USD 6.55 million</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EBRD SSF FUNDING IN SEMED (MITIGATION AND ADAPTATION)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAPITAL GRANTS</strong></td>
</tr>
<tr>
<td>EUR 5 million</td>
</tr>
</tbody>
</table>

KAZAKHSTAN: RESET programme running, with USD 6 million of funding from the GEF for incentive grants

UKRAINE: Launching FINTECC in Ukraine with support from the GEF and the NIF

Early Transition Countries (ETCs):
Armenia, Azerbaijan, Belarus, Georgia, Kyrgyz Republic, Moldova, Mongolia, Tajikistan, Turkmenistan and Uzbekistan

Southern and eastern Mediterranean (SEMED) countries:
Egypt, Jordan, Morocco and Tunisia
<table>
<thead>
<tr>
<th>Key Barrier</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of reliable baseline information on market penetration</td>
<td>There is limited availability of reliable information on technology baseline in individual countries and sectors, limiting the ability of both private sectors and policy makers to make well informed decisions.</td>
</tr>
<tr>
<td>Lack of knowledge, awareness and absorption capacity of businesses</td>
<td>Often results in perception of high risk, low profitability, and high transaction costs. The companies lack in-house capacity to develop bankable projects and may not have possibility to acquire such expertise in the market.</td>
</tr>
<tr>
<td>Lack of adequate regulatory framework to incentivize technology transfer</td>
<td>Regulatory frameworks not conducive to technology transfer, e.g. no labelling of products available in most of the cases.</td>
</tr>
<tr>
<td>Limited availability of financial instruments suitable for financing</td>
<td>There is a limited number of financing instruments available to support technology transfer, in particular those instruments working alongside standard financing.</td>
</tr>
<tr>
<td>technology transfer</td>
<td></td>
</tr>
<tr>
<td>Underdeveloped supply chains with limited competition</td>
<td>Underdeveloped supply chains with lack of competition among suppliers, limited availability of technology solutions, and limited market for engineering / maintenance service providers.</td>
</tr>
</tbody>
</table>
Financial support for projects:
Needs based incentives for demonstration projects financed by the EBRD, incentivizing implementation of best available technologies in the specific sector and country.

Technical Assistance (TA):
Development of market monitoring tools and techniques, project assessment tools and methodologies together with a needs-based technical assistance for individual projects.

Policy Dialogue:
Working with governments to support development of a strong institutional and regulatory framework that incentivises technology transfer and climate technology deployment.

Networks, Insights, Capacity Building and Market-Building:
Establishment or support to networks promoting technology transfer, organization of stakeholder events and sharing information on climate technology markets.
Non-TC grants: Case Studies, and status

12 signed transactions, incentives worth USD 1.9m, supporting USD 30m of SRI investments. Transactions benefiting were in Agribusiness (4), M&S (5), Natural Resources (1), Corporate (1), and Property and Tourism (1)

**Workshop and showroom, ETC**
- Technologies considered: tri-generation, clean burn boiler, water recovery and re-use, variable refrigerant flow cooling system complemented with BEMS, LED lighting.
- **Grant:** USD 360,000
- **SEI investment:** USD 6.3 mil
- **EBRD transaction:** USD 13 mil

**Bear Beer, Kyrgyz Republic**
- Technologies supported: CO$_2$ recovery system in fermentation and EMS.
- **Grant:** EUR 127,327
- **SEI investment:** USD 1.1 mil
- **EBRD transaction:** USD 9.5 mil

**Manufacturing facility, SEMED**
- **Grant:** EUR 380,000
- **SEI investment:** EUR 2.2 mil
- **EBRD investment:** EUR 4.6 mil
PRIORITY AREAS IDENTIFIED

1. Preparation of National Energy Efficiency Action Plans (NEEAP), which identify areas of energy efficiency potential; establish energy saving targets; prioritise energy efficiency actions; mobilise resources; establish accountabilities; and put in place monitoring and evaluation procedures.

2. Creation of Energy Performance Standards and Labelling schemes, such as by helping adapt the EU’s Eco-Design and Eco-Labelling Directives.
   - IEA: over 1,300 mandatory and voluntary energy efficiency standards with estimated savings of over 500 TWh each year - approximately equivalent to the total electricity consumed by all homes in the United Kingdom and Japan combined.

3. Developing associated Standards & Labelling Monitoring, Verification and Enforcement processes.
   - IEA: over 4,000 TWh (~ 2,000 MtCO2), may be lost globally between 2010 and 2030 due to technologies that do not comply with government minimum energy efficiency standards.
FINTECC Insights
Incremental cost Assessment, Ukraine

TECHNOLOGY DEPLOYMENT BARRIERS IDENTIFIED

1. Lack of domestic producers
2. Lack of EPC contractors
3. Extremely high costs of financing
4. Underdeveloped biomass supply chains
5. Lack of capacity among service industries
6. Inadequate policy framework

* Developed with Larive as part of PPG activities for FINTECC Ukraine, funded by the GEF
### (Back pressure) Steam Turbines level of penetration and investment potential

<table>
<thead>
<tr>
<th>(Sub)Sector</th>
<th>Total installed, MWe</th>
<th>Penetration level (UA)</th>
<th>Total potential capacity, MW</th>
<th>Investment potential, million euro</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agroindustry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil &amp; Fat</td>
<td>14.20</td>
<td>1.4%</td>
<td>500.04</td>
<td>125.01</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemicals</td>
<td>6.00</td>
<td>0.2%</td>
<td>3,396.00</td>
<td>543.36</td>
</tr>
<tr>
<td>Metallurgy</td>
<td>56.00</td>
<td>6.0%</td>
<td>877.33</td>
<td>140.37</td>
</tr>
<tr>
<td>Plastics &amp; polymers</td>
<td>12.00</td>
<td>0.8%</td>
<td>1,470.00</td>
<td>235.20</td>
</tr>
<tr>
<td>Pulp &amp; paper</td>
<td>6.00</td>
<td>1.8%</td>
<td>324.00</td>
<td>51.84</td>
</tr>
<tr>
<td>Mining</td>
<td>12.00</td>
<td>0.3%</td>
<td>4,752.00</td>
<td>760.32</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>106.20</strong></td>
<td><strong>11,319.38</strong></td>
<td><strong>1,856.10</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Developed with Tebodin as part of PPG activities for FINTECC Ukraine, funded by the GEF*
FINTECC Insights – Market Penetration Methodologies (IEA and FAO)

Do you have national level data on energy use by subsector?

- YES: Do you have information on trends, policies, etc. influencing subsector energy use in future?
- NO: collect or estimate data on energy use by subsector

- YES: Evaluate data, trends and policies to select priority subsectors
- NO: gather information on trends, policies, and national priorities

Do you have activity data for each priority subsector for energy intensity monitoring?

- YES: Select ideal activity data for each subsector and identify ongoing data sources
- NO: establish feasible activity data for each priority subsector

Have you established priority EETs for tracking within each subsector?

- YES: Do you have established data sources for tracking EET penetrations over time?
- NO: Do you have a quantitative understanding of major EET wedges?

- YES: Identify EETs from various sources
- NO: Conduct “hot spot” analysis as described in this methodology

- YES: Establish data collection systems for all required data
- NO: identify data needs and sources for monitoring of enabling environment

Collect data and compute indicator and penetration metric values

- Do results make sense?
  - YES: Analyze values and assess markets
  - NO: Monitor markets
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