

# **EBRD Sustainable Energy in Turkey**

## **Financing Clean Technologies for Sustainable Development**



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# Outline

- **EBRD: Mission & Operations**
- **The Bank's Approach to Climate Change: The Sustainable Energy Initiative**
- **The Sustainable Energy Action Plan**
- **EBRD's Financial Products in Turkey to Promote Clean Technologies**
- **Contribution to Development of Carbon Markets**

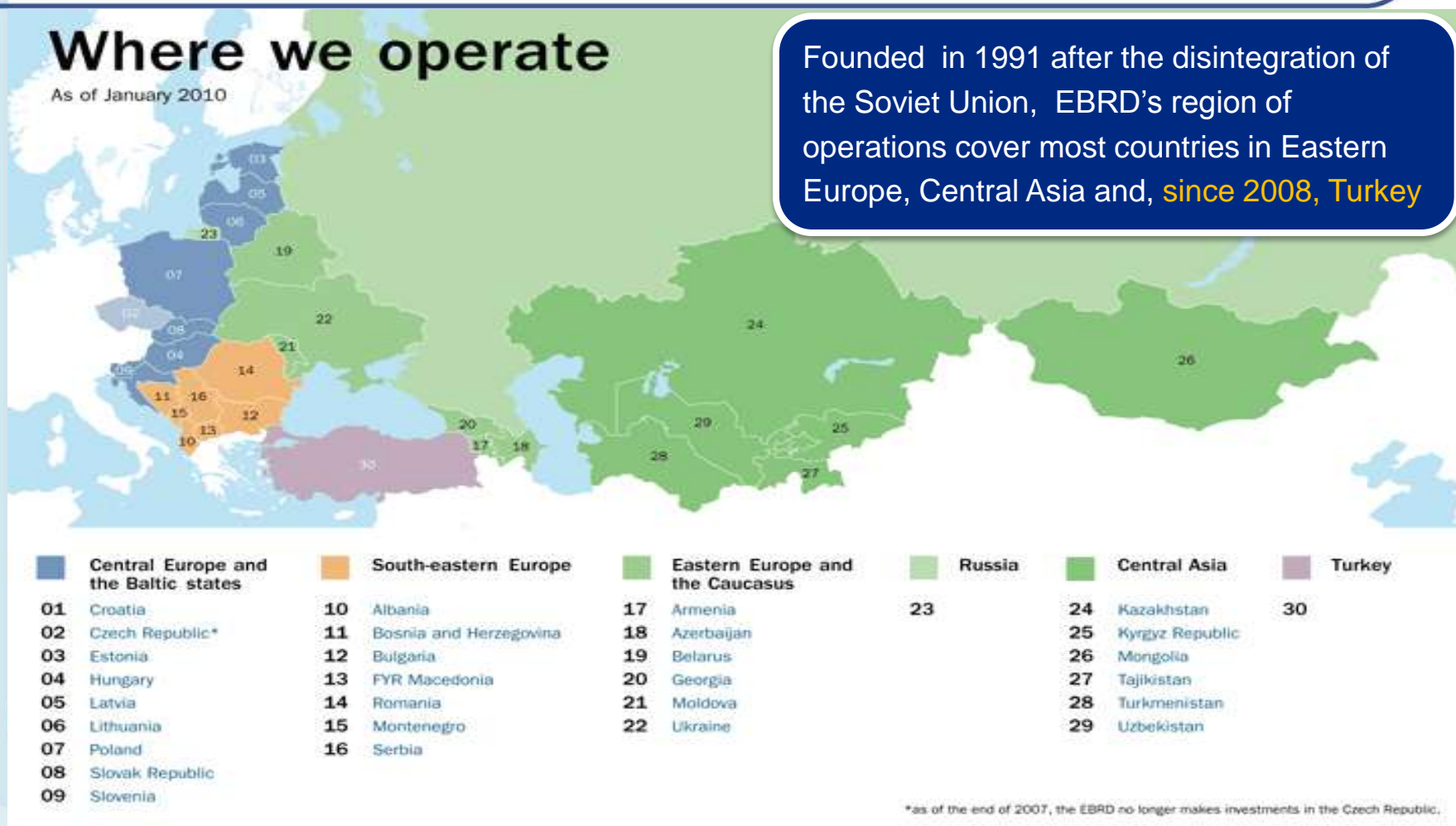


# The European Bank for Reconstruction and Development: Regional Leader in its Countries of Operations

## Where we operate

As of January 2010

Founded in 1991 after the disintegration of the Soviet Union, EBRD's region of operations cover most countries in Eastern Europe, Central Asia and, **since 2008, Turkey**



\*as of the end of 2007, the EBRD no longer makes investments in the Czech Republic.



# The European Bank for Reconstruction and Development: Mission and Vision

Since its inception in 1991, EBRD's operations are based on three principles:

Promoting transition to market economies, private ownership and good governance

Investing in financially viable projects, together with the private sector

Providing financing at reasonable terms, otherwise not available from private sources

**Transition  
Impact**



**Sound  
Banking**

**Addition-  
ality**

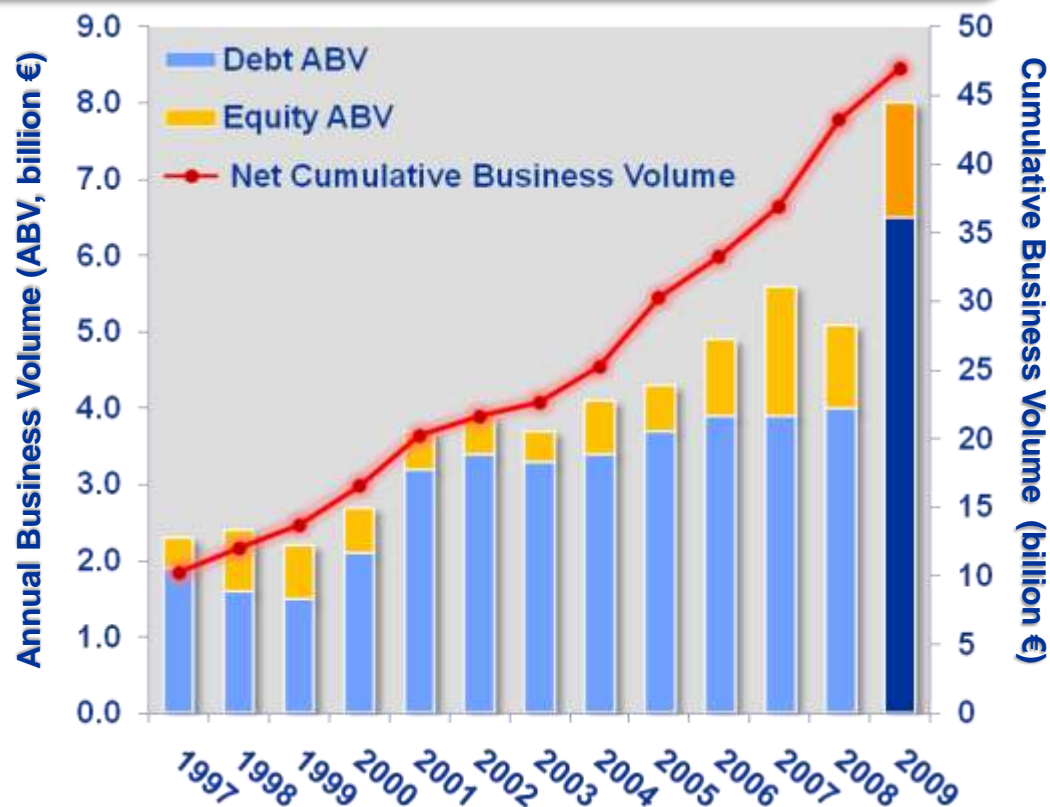
Focusing on the **triple-bottom line** benefits:  
**Economic, Social** and  
**Environmental**



## The European Bank for Reconstruction and Development: Investments in the Times of Crisis

**Catalyst for Commercial Investment:** Every € 1 invested or lent by the EBRD mobilises more than € 3 from other sources

- Since 1991, has invested more than **€ 50 billion** in **3,000 projects**
- **Private sector** > 80% of portfolio
- **Debt 80%, Equity 20%** of portfolio
- **€ 9 billion** invested in 2010
- € 622 mln in 2010 in **Turkey**, expanding to **€ 1.2 billion in 2011**



# EBRD's Sustainable Energy Initiative (SEI): Expanding Investments in Energy for Low-Carbon Sustainable Growth

Launched in 2006 in response to the **energy transition needs** of EBRD's area of operations. Its **achievements up to Q3 2011** were:

- EBRD's sustainable energy investments to **€8.1 Billion**, for total project value of **€44.1 billion in 431 projects in 29 countries**;
- Annual savings of **45.8 million tonnes CO<sub>2</sub>-eq p.a.** (~17% of Turkey's emissions) and **15.1 million tonnes of oil eq. p.a.** (~21% of Turkey's energy net imports)

**SEI 6 areas of investment are:**



1. Industrial  
Energy  
Efficiency



2. Sustainable  
Energy  
Financing  
Facilities



3. Power  
Sector  
Energy  
Efficiency



4. Renewable  
Energy Scale-  
up



5. Municipal  
Infrastructure  
Energy Efficiency



6. Carbon  
Markets  
Development



# EBRD Sustainable Energy Operational Approach: A Successful Holistic Strategy

Via these three parallel activities **SEI accounts for 21% of EBRD's ABV; In Turkey in 2011 to-date it is 54% of the ABV**

**Technical Assistance**

**Policy Dialogue**

Working with governments to support development of **strong institutional and regulatory frameworks** that incentivise sustainable energy



**Projects & Investments**

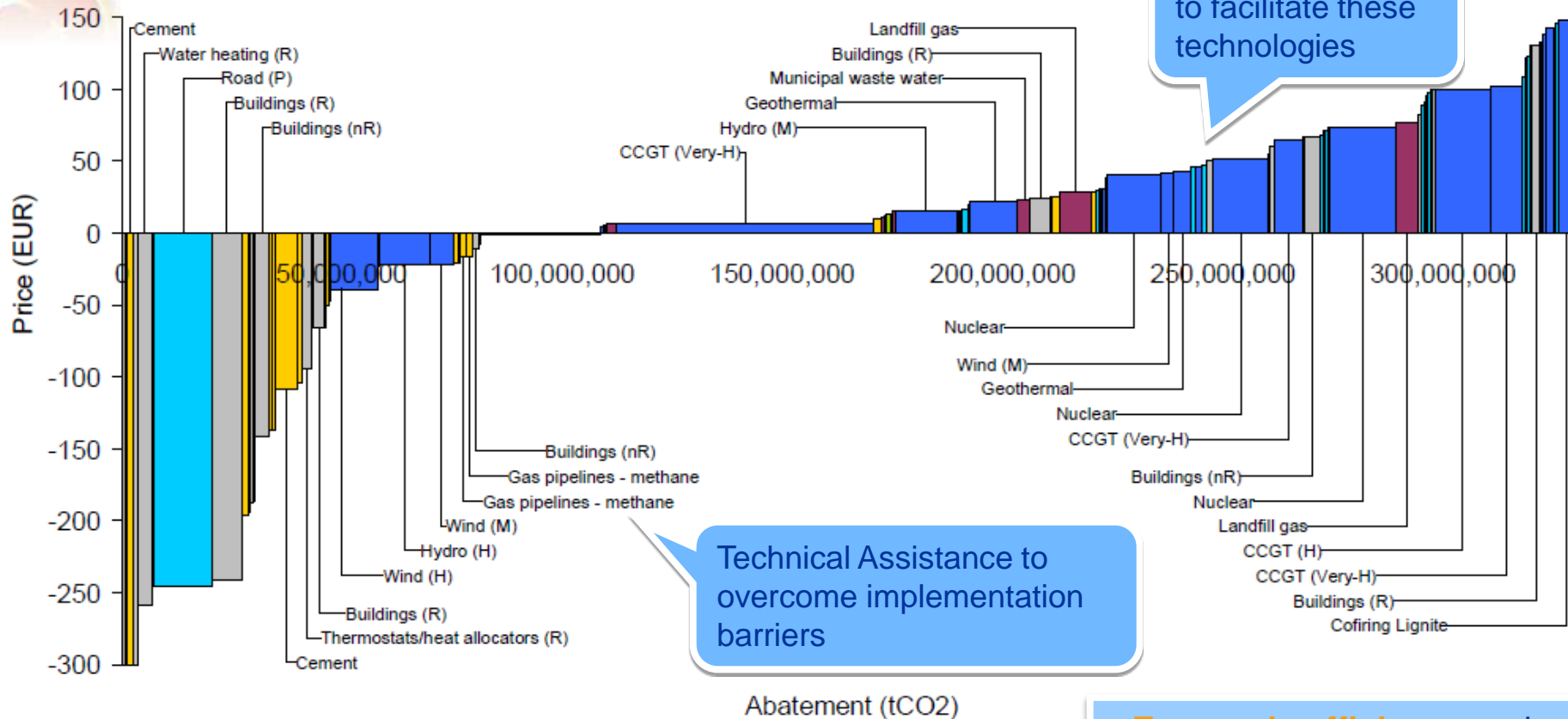
**Technical assistance to overcome barriers:** market analysis, energy audits, training, awareness raising; grant co-financing to provide appropriate incentives and address affordability constraints

Projects with numerous clients, public and **private, with a range of financing instruments**





# The Carbon Abatement Curves: Cost-Efficient Technologies for Greenhouse Gas Emission Reduction



Notes: Categories of Power generation are labelled L (Low), M (Medium), H (High) and Very-H (Very-high). (Passenger) and F (Freight). Buildings are R (Residential) or nR (non-Residential)

• **Economic efficiency** and capital expenditure are two major criteria for technology choice





# Sustainable Energy Action Plan (SEAP):

## An Integrated Approach towards Sustainable Development



### Rationale

- Provides a roadmap for institutional cooperation
- Mainstreams sustainable energy
- Creates a framework for investments in the country

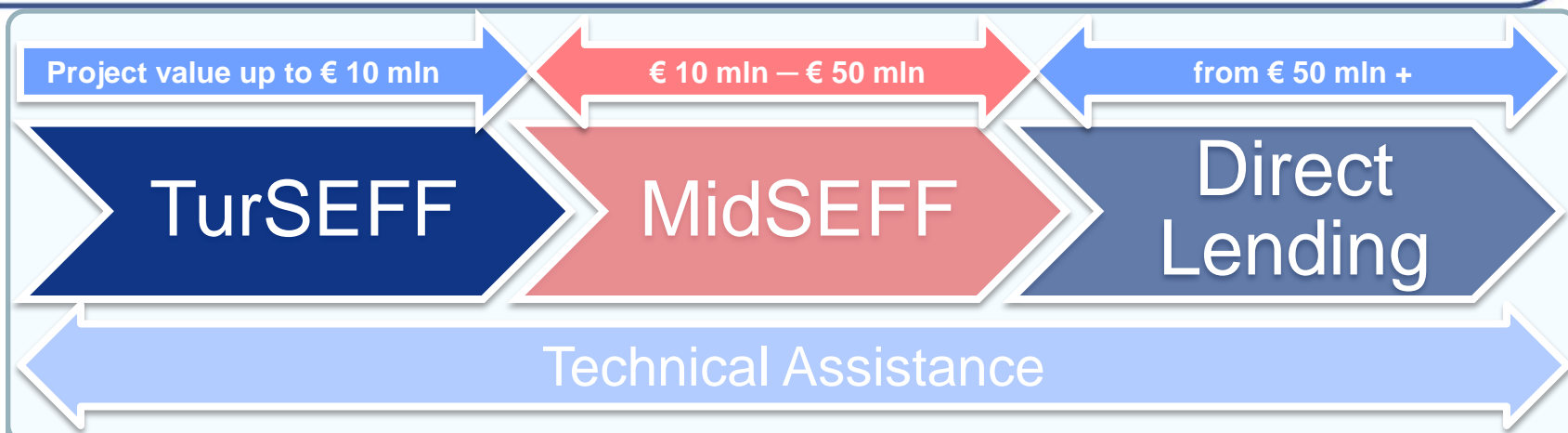
### Institutional Roles

- **Government of Turkey:** identify priority areas for investment
- **EBRD:** close cooperation with Turkish institutions + focus investments in strategic areas

### Value Proposition

- Scale-up investments in sustainable energy
- Mobilise additional Technical Assistance funds
- Advise on policy development to promote sustainable growth

## The European Bank for Reconstruction and Development: Modus Operandi



- **Financing Facilities** through partner financial institutions – individual clients, small size projects and SMEs; up to € 5 million loans (€ 20 million project value)
- **Direct Lending Facilities** – limited recourse, mid-sized projects, flexible approval procedure; up to € 15 million investments (€ 50 million project value)
- **Direct Investment** – loans and equity investment; investments above € 15 million for overall project value of € 50 million+
- **Technical Assistance** (e.g. energy audits, financial advisory services) – applicable to any sector and project size

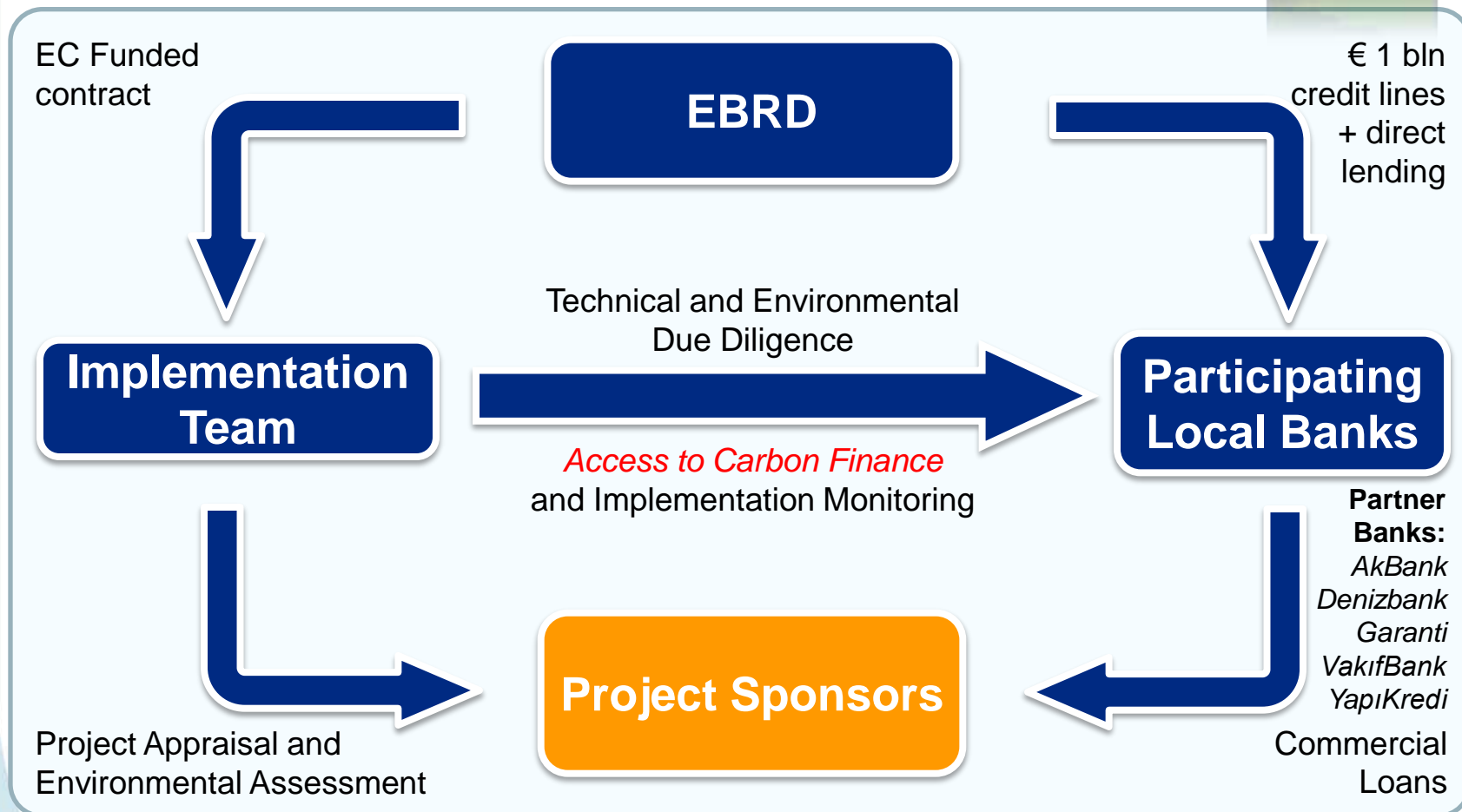
## Mid-Size Sustainable Energy Financing Facility (MidSEFF):

Working with our Partner Banks to Scale-up Clean Energy in Turkey

- Objective: To **scale-up Sustainable Energy (RE, EE & WtE) investment in Turkey**, in medium-size projects (up to € 50 mln)
- **€1.2 bln Facility by EBRD, EIB and JBIC**: €100 mln EBRD financing to AkBank, DenizBank, Garanti, Vakıfbank, YapıKredi and potential two more PBs
- **EU-funded Technical Assistance** for banks and sponsors, to apply EBRD-EU environmental standards
- Since May-2011: **2 WEPP and 4 HEPP** subprojects disbursed, for total project volume of **EUR 158 mln**, an installed capacity of **110 MW** and an annual abatement of **190,000 tonnes of CO<sub>2</sub>e**



## MidSEFF Value Chain: From Disbursement to Projects



## MidSEFF Carbon Market Development: Supporting the Development of Carbon Markets in Turkey

- Support further **build up of the market infrastructure**, engaging Banks, develop carbon market products services and use Voluntary Carbon Registry
- Contribute to **growing demand for Turkish carbon credits** by:
  - A pipeline of good quality carbon projects(4 – 8 carbon MidSEFF projects)
  - Analyse Turkish VCM, disseminate results and recommend on (regulated) domestic carbon market and its integration into global carbon markets
  - Explore new domestic and international markets, including developments under PMR, EU ETS and (credited) NAMA / Sectoral approaches
- Contribute to **lower carbon transactions costs** by:
  - Standardisation of approach (list of standardised and eligible documentation)
  - Publish transaction documentation market standards (ERPA)
  - Determining a standardized carbon emission factor for electricity supply

**EBRD focus will be on the value added to sub-projects and Participating Banks**



## MidSEFF Carbon Market Development: Supporting the Development of Carbon Markets in Turkey



- **At Sub-project level: Develop Carbon Projects** - Provide assistance to Sub-borrowers to develop and register their emission reduction projects (RE and EE) as “Carbon Projects”, so that these projects would generate an additional revenue stream from the sale of Carbon Credits;
- **At Facility level: Develop PBs’ Carbon Market Services** - Building capacity by engaging, developing, structuring and providing training to PBs so they can provide Carbon Market Services to both Sub-borrowers and Carbon Credit buyers, e.g. by developing the relationships between the national and international VER buyers
- **At National level: Provide capacity building to Turkey** - to support the carbon market development in Turkey in co-operation with sovereign and private sector stakeholders, including (but not limited to): i) determining a standardized carbon emission factor for electricity, ii) setting standard for bankable Emission reduction Purchase Agreement, iii) making operational sovereign regulated Carbon Project / VER registry for Turkey; and iv) analyze and disseminate results and make recommendations towards a (regulated) domestic carbon market and its integration into regional and global carbon markets





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