



## EUROPEAN INVESTMENT BANK

# Financing Smart City Development

*Hana Nylander, Head of EIB Prague Office*

### **Workshop**

## **JAK JE DŮLEŽITÉ BÝTI SMART: Aneb 7 kroků na cestě do chytrého města**

*Praha, 23 March 2017*



# Presentation Outline

- EIB - Background
- Why is EIB interested in Smart City investment?
- Smart City projects – where do they fit?
- Towards Smart City investment criteria
- Financing instruments for Smart City investment
- EIB Advisory support



# EIB – The EU Bank

## ■ The EU's long-term financing institution

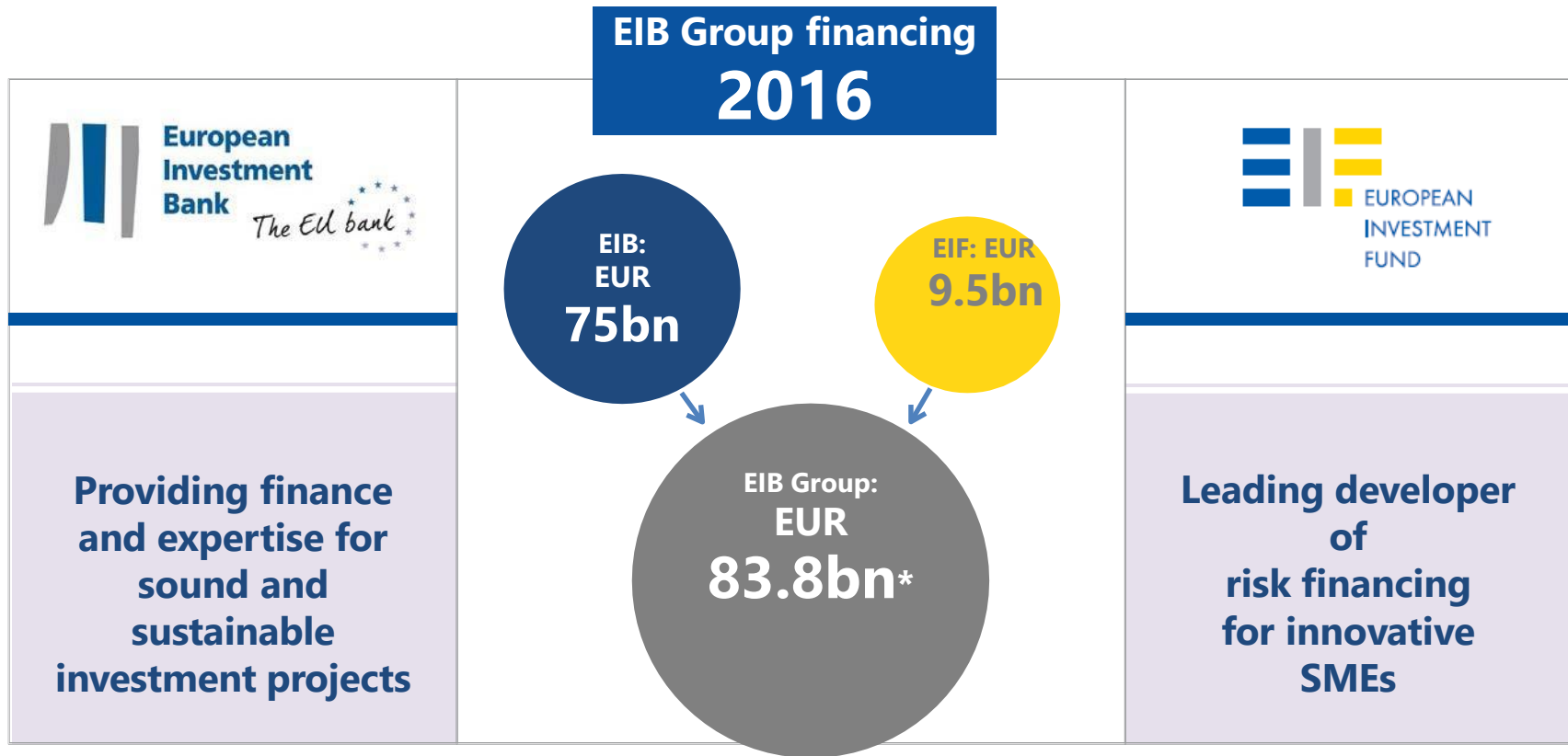
- Created in 1958
- Shareholders are 28 EU member states
- AAA-rated (by S&P, Moody's and Fitch) supra-national not-for-profit bank, largest lender and borrower in the world
- HQ in Luxembourg and 37+ local offices
- Around 3000+ staff, including specialist technical staff

## ■ Provides mainly **long-term loans to support EU policies**

- In 2016, EUR 83,8bn of financing signed by the EIB Group (= EIB + EIF) in EU and outside EU – more than the World Bank, EBRD and all other IFIs taken together
- Many other activities too: guarantees, equity participation, investment funds, technical assistance, project bonds, etc.

# The EIB Group

## The world's largest multilateral financier





# EIB – the Bank promoting EU objectives

## Lending within the EU:

1. SME financing (40%, EUR 33,6bn)
2. Infrastructure (24%, EUR 19.7bn)
3. Environment (20%, 16,9bn)
4. Innovation (16%, EUR 13,5bn)

## Blending:

Combining EIB finance with EU budget:

- EIB finance + ESIF Operations Programmes grants
- Higher risk projects for innovation (EFSI)

## Advising:

- Prepare, evaluate and support (i.e. TA) the implementation of the grant financed projects (JASPERS)
- TA grant support for preparation of urban Energy Efficiency and Renewables linked to the Covenant of Mayors (ELENA)



# Policy context for Smart Cities

- The basis for the EU Smart City concept is **Europe 2020 Strategy** and particularly the EC communication that launched the **European Innovation Partnership on Smart Cities and Communities (EIP-SCC)** in 2012.
  
- **EU Cohesion Policy** and the recent **Pact of Amsterdam** (30.5.2016) have formally embraced an **EU Urban Agenda** and thus cities are now at the heart of EIB business (70% of Europeans live in urban areas and 55% of public investment is made by regional or local governments).
  
- - **Energy Union:** On 30 November 2016, the EC adopted the **Clean Energy for All Europeans package** (30% is a new EU target for EE by 2030). It also proposed the **Smart Finance for Smart Buildings** initiative.

The current EIB lending policy is broadly consistent with the EU policies.

# The Smart City concept is closely linked to other city visions



**Sustainable development**



## Sustainable City

Emphasis on sustainable development including resource efficiency, long term approach etc.

**Ecology and environmental protection**



## Eco/Green city

Emphasis on environmental protection

**Climate change**



## Resilient City

Emphasis on adaptation and risk management

**Social Inclusion and cohesion**



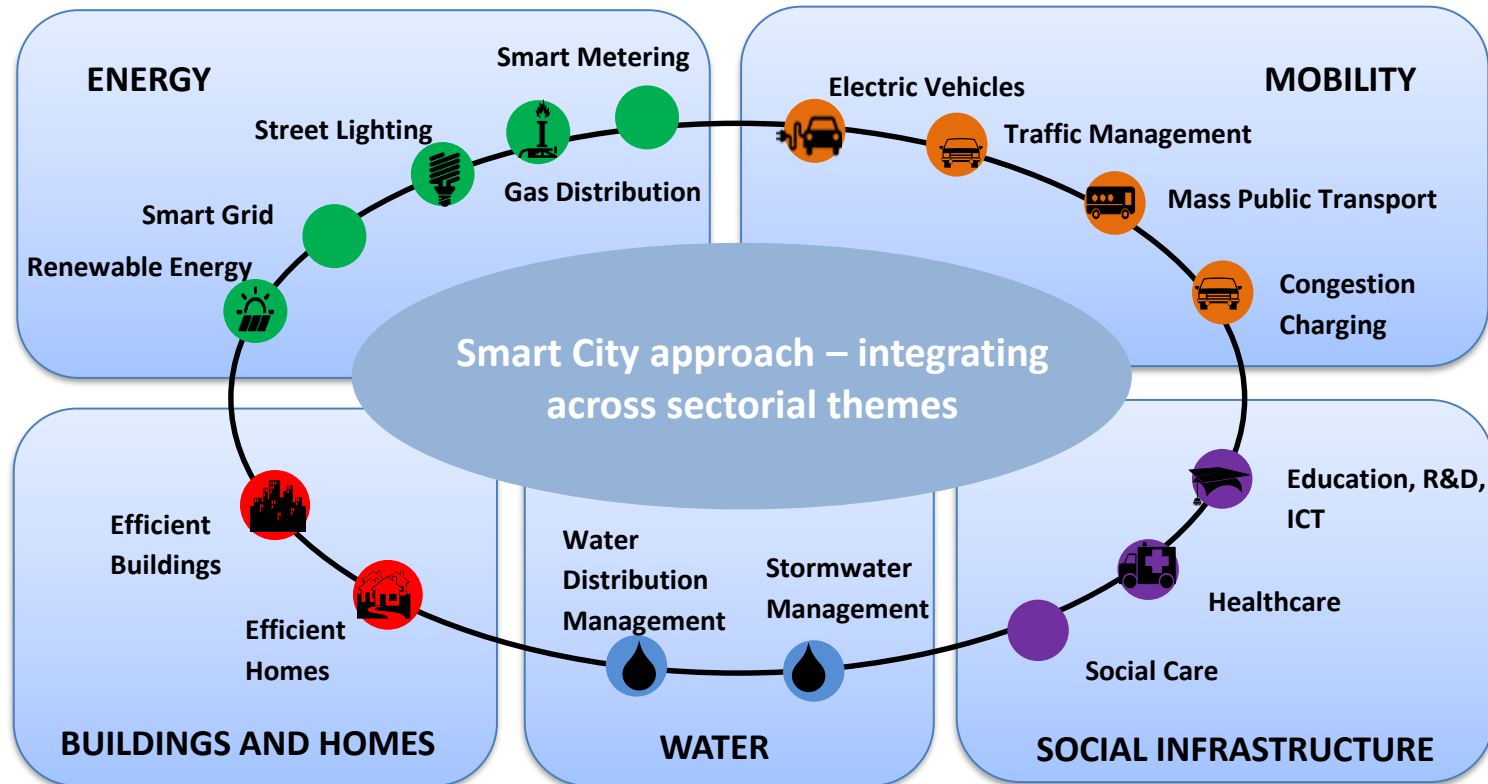
## Inclusive city

Emphasis on social and economic issues to promote more equitable place-making and social inclusion

**Smart City**  
A new paradigm or an enabler?



# Smart City investment – cutting across the sectors

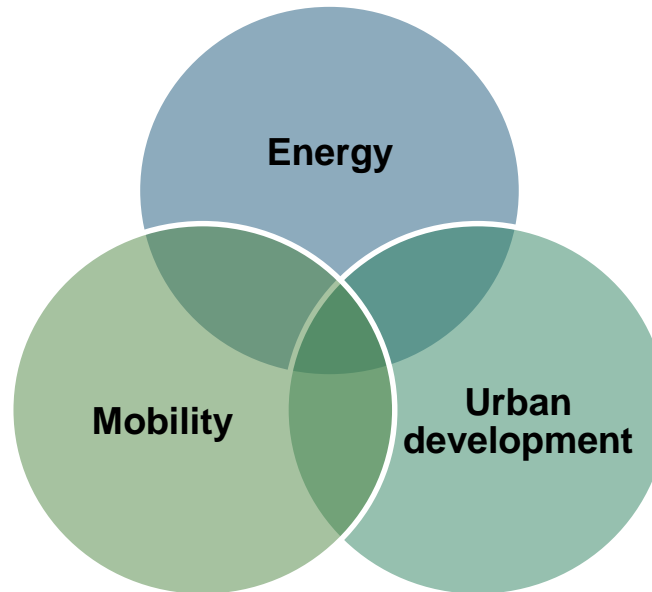






# EIB's emerging Smart City investment criteria

## Sustainable



### Sustainable Communities:

- Led by urban strategy, local development plan
- Promote employment and growth
- Alleviate social exclusion
- Brownfield redevelopment
- Public buildings
- Social and affordable housing
- Invest in heritage sites

### Sustainable Mobility:

- Fit into a mobility plan
- Public transport infra + rolling stock
- Road safety and energy efficiency improvements
- Intelligent transport systems
- Traffic control systems
- Intermodal transfer
- Demand management measures

### Energy efficiency and renewables:

- New buildings – near energy neutral
- Existing buildings – cost-optimum approach
  - Efficient lighting – energy savings stream > 50% of investment cost
  - Support to meeting EU2020 and national RES targets
  - Support to mature and emerging RES technologies



# EIB's emerging Smart City investment criteria

## Sustainable and Smart

### Sustainable and ....

#### Integrated

- Included in the urban strategy plan
- Cover two or more sectorial dimensions

#### Innovative

- Smart technology or materials
- Smart governance

#### Inclusive

- Stakeholder participation
- Partnership government-business-universities

### and ....

#### Dynamic in time

- What is Smart today may not be "normal" tomorrow

#### Dynamic in space

- Small towns can be Smart too...
- What is Smart in a small town may not be Smart in a big city

#### Specific

- Not just a label
- Can be monitored



# Financing Tools

Instrument	Examples of potential Smart City financing
<p><b>Investment Loans</b>                      Direct loan for a specific investment project or programme</p>	<ul style="list-style-type: none"> <li>• Loan to <b>a City</b> to finance an urban renewal project with smart features</li> <li>• Loan to <b>co-finance</b> an Integrated Territorial Investment with structural funds (ESIF)</li> <li>• Loan to <b>a private partner</b> to implement a Smart City programme under contract</li> <li>• R&amp;D loan to develop innovative Smart technology</li> </ul>
<p><b>Framework Loans</b>                      Loan for a programme of investments meeting defined criteria but not finally prepared at time of signing</p>	<ul style="list-style-type: none"> <li>• Framework loan to <b>a city</b> or region to finance a programme of small or medium Smart investments</li> <li>• Framework loan to <b>co-finance</b> sustainable urban investments under a structural fund operational programme</li> </ul>
<p><b>Global (MBILs) Loans</b>                      Credit lines to banks</p>	<ul style="list-style-type: none"> <li>• Multi-purpose and multi-beneficiary credit line including smart city projects</li> </ul>
<p><b>Funds</b>                      Investment in a fund</p>	<ul style="list-style-type: none"> <li>• Investment into an urban development fund, brownfield fund, fund specialised in Smart City investment</li> </ul>

# Major Project - Warsaw Metro

- **ESIF funding EUR 945m out of EUR 1.5 billion project**
- **JASPERS support**
- **EIB loans for:**
  - **rolling stock (EUR 111m in 2012)**
  - **line 2 construction (EUR 115m in 2013)**





# Urban Framework Loan Case Sweden Örebro

- **City of Örebro, 25 year loan SEK 1.700m (EUR 180m), or 15 year bullet**
- **EIB finances the City's investment programme 2014-2017. Some 40 small to medium sized schemes in education, childcare, municipal housing, and wastewater treatment.**
- **The EIB has in 2014-15 approved similar municipal multi-sector framework loans to 7 different cities in Sweden: Stockholm, Malmö, Lund, Västerås, Örebro, Norrköping and Uppsala**



Renovated rental municipal housing units in the district of Varberga



Night view of Örebro

# Intermediated Loans – Belfius Smart and Sustainable Cities

- **EUR 400m joint (EIB & Belfius) financing programme for the implementation of smarter more sustainable cities across Belgium**



- Covers wide range of Smart investments and promoters
- Aims to cover the whole country – Smart is not only for big cities!
- Stimulates best practice – integrated approach, innovative governance, use of tested smart technology, consultation
- Relies on an intermediary bank with technical capacity and market reach in the municipal market



## Smart City investments under Belfius facility

Urban regeneration	Sustainable mobility	Energy efficiency/ Renewable energy
Redevelopment in existing built up area	Urban roads	Solar PV
Brownfield redevelopment	Public transport	Solar water heating
Urban open space	Traffic management systems	Wind
Public administrative buildings	Clean/safe/efficient urban transport	Biomass
Education buildings	Intermodal/logistics centres	Geothermal (heat pumps)
Healthcare buildings		District heating/cooling
Sports/recreational facilities		Cogeneration
Cultural heritage		energy efficiency in buildings (renovation)
		Energy efficiency in buildings (new)
		Energy efficient street or traffic lighting



European  
Investment  
Advisory  
Hub

*Europe's gateway to investment support*



**ELENA – European Local  
ENergy Assistance**

**InnovFin**  
investment by sector



**fi**  **compass**





## EIB Advisory Services

### JASPERS

- **Project preparation support for:**
- Strategy development and implementation
- Advice in project preparation for ESIF-supported investments
- Networking & Competence Centre to share knowledge on cross-cutting themes

### ELENA - European Local ENergy Assistance

- Support to local and regional authorities for preparation of programmes and projects in energy efficiency, renewable energy or smart mobility

### FI-Compass

- Platform for awareness raising and best practice knowledge transfer in the design and implementation of financial instruments
- Bespoke bilateral advice also available from EIB

### European Investment Advisory Hub

- Single point of entry to advisory and TA support under the Investment Plan for Europe
- Also gives access to other relevant services e.g. EPEC (European PPP Expertise Centre), InnovFin Advisory, EIB experts



# Thank you!

More information at:

[www.eib.org](http://www.eib.org)

[www.eif.org](http://www.eif.org)

[h.nylander@eib.org](mailto:h.nylander@eib.org)

Tel.: +420 222 191 179