



Financial Opportunities for Energy Efficiency and Renewable Energy

Louise White

**JESSICA and Investment Funds
European Investment Bank**

09 June 2011

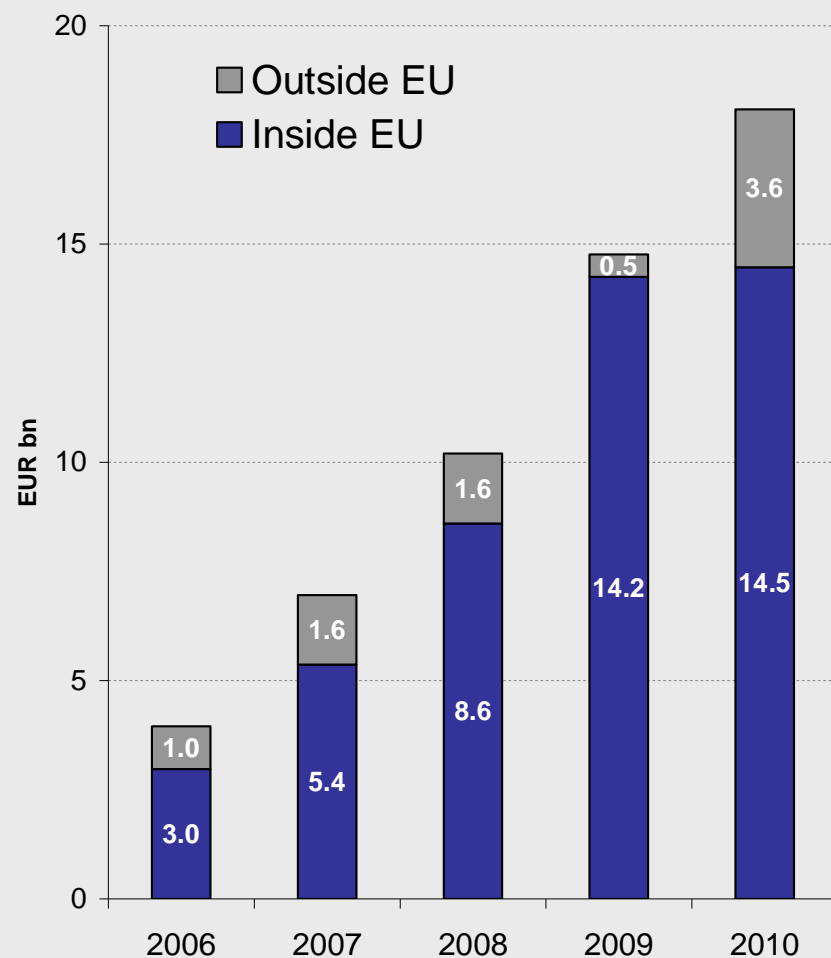
Cardiff

The key role of Structural Funds for Sustainable Energy in the EU

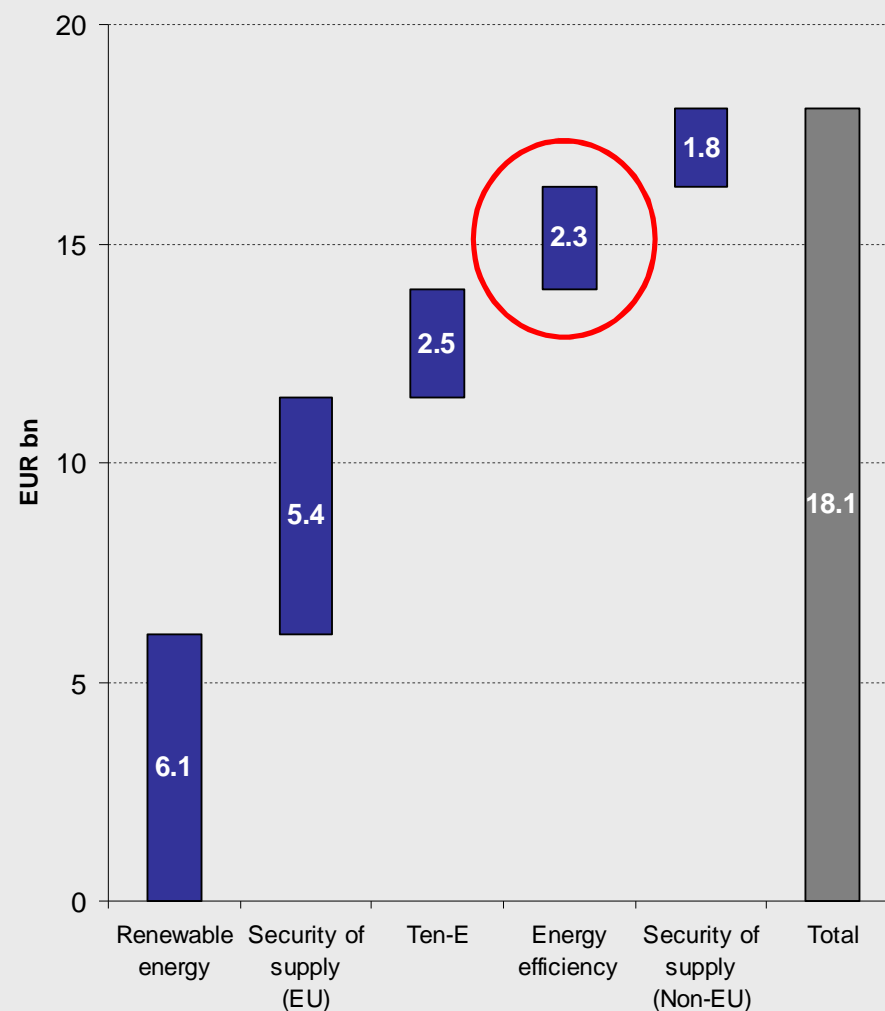
- The EIB has considerably boosted its lending for energy efficiency, which reached EUR 2.3bn in 2010 compared to EUR 1.6bn in 2009 - expected to continue to increase
- Energy efficiency considerations are mainstreamed into all the projects appraised by the Bank
- Two broad categories of projects:
 - Those which result in improvements in energy efficiency equal to at least a 20% reduction in energy consumption compared to the situation without the project
 - Those which, while improving energy efficiency by less than 20%, generate energy savings that account for at least 50% of the total investment cost

EIB lending in energy sector

EIB's lending in energy

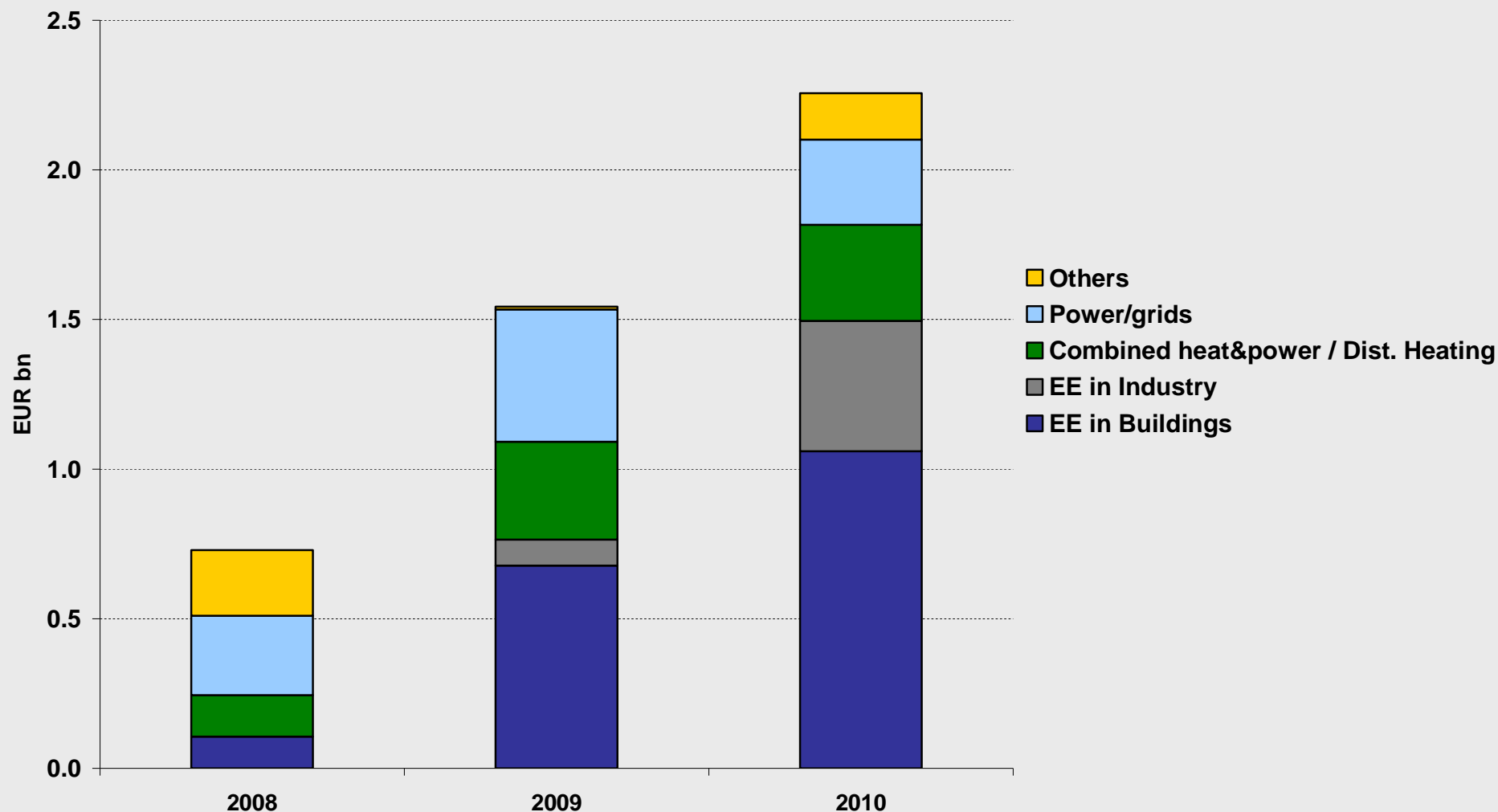


Breakdown of lending in energy in 2010



EIB lending in energy efficiency

Breakdown of EIB's lending in energy efficiency in 2010



Why is it important to invest in energy efficiency in housing?

- Cities consume approx 70% of world's energy
- Buildings which includes housing is the main energy consumer in EU (~ 40%)
- The promotion of sustainable, competitive and secure sources of energy is a key policy objective of the EU
 - EU Energy Targets for 2020
 - - GHG emissions should be cut by 20 % compared with 1990 levels
 - - Renewable sources to provide 20% of energy used
 - - Total energy consumption cut by 20 % through increased energy efficiency
 - - Biofuels to be 10 % of all transport fuels
- Investments in energy efficiency and local renewable energy, reducing fossil fuels and CO₂ emissions, are seen as tools that help to achieve sustainability and improve quality of life



EIB Financing of Social Housing

Refurbishment and new Construction

Characteristics Of Social Housing Operations are typically:

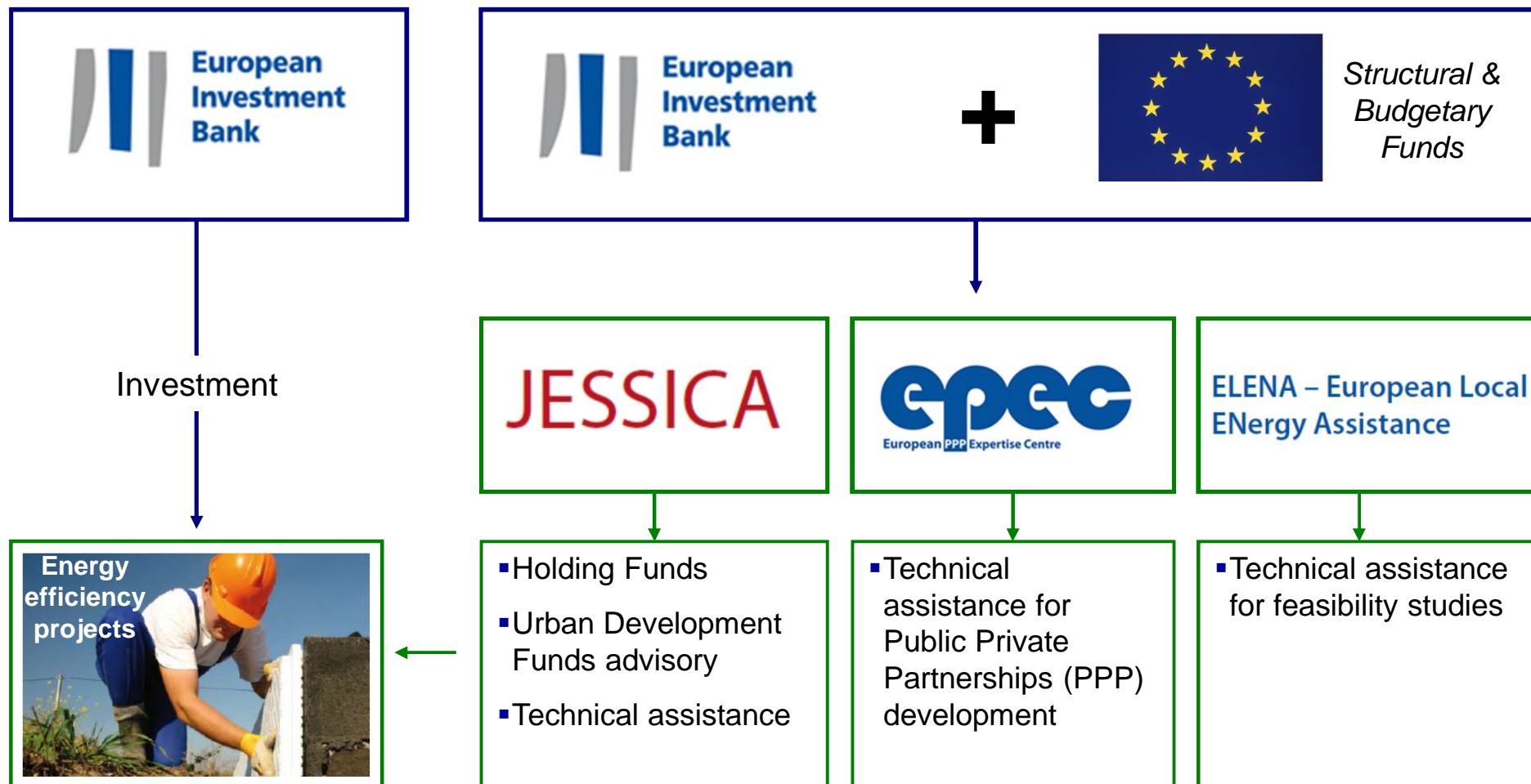
- A great diversity of sub-projects mainly of medium and small-scale
- In a number of towns and cities throughout a region
- Implemented by a number of social housing associations of medium to small-scale.

Loan Operations

- Intermediated via (i) a public intermediary (national or regional institution) or (ii) a financial intermediary (commercial or public bank) e.g. in the UK, Belgium, France, Poland;
- Projects need to comply with the transposed EU Directive on the Energy Performance of Buildings and in the future also with its recast
- Contributing higher energy performance to social housing

EIB's activity in energy efficiency

Financing and advising independently and in collaboration with EU



ELENA – Overview

European Local ENergy Assistance

- ***ELENA is a technical assistance facility providing grants to finance investment programmes that fight against climate change***
- Covering up to 90% of eligible costs
- Only Public Bodies from IEE* countries can apply
- Area: Renewable energy in the built environment, energy efficiency, district heating, transport
- 3 years to implement the programme
- Minimum leverage factor of 25 (to be verified at the end of the financing period)
- Replication potential - minimum project size of 50 MEUR
- The funds available are: EUR 15m for 2009 + EUR 15m for 2010 + EUR 19m (expected) for 2011. Some EUR 30m has already been assigned to projects

*EU-27 + Iceland, Norway, Lichtenstein and Croatia

EPEC – overview

European PPP Expertise Centre

- ***EPEC is a joint initiative of the EIB, the European Commission and European Union Member States and Candidate Countries***
- EPEC helps strengthen the capacity of its public sector members to develop Public Private Partnership (PPP) policies and programmes by
 - Sharing Experience
 - Leveraging Capacity
 - Solving New Challenges
- ⇒ The goal of EPEC is to assist the public sector to deliver more and better PPP deals
- EPEC Membership:
 - Public sector entities with policy and programme responsibility for PPP in EU and Candidate countries
 - 31 national / regional members including EU PPP taskforces
 - 25 members initially
 - 33 total as of February 2011
- Currently EPEC is carrying out a Europe-wide study on guidance for municipal, regional and national bodies to develop and deliver PPPs for EE in public buildings



Joint **E**uropean **S**upport for **S**ustainable **I**nvestment in **C**ity **A**reas

- Initiative of the European Commission (DG REGIO) which was launched in 2006 and is supported by the EIB & CEB
- **Financing sustainable urban development in Member States and regions** and strengthening the urban dimension in cohesion policy through the “transformation of grants” into repayable/recyclable assistance
- Invest Structural Funds in urban projects, including energy efficiency and renewable energy projects in buildings

Overall JESSICA objectives

- **Higher productivity of Structural Funds / public funds**

Increase **efficiency and productivity** of Structural Funds by making use of innovative and **revolving financing instruments** in the urban sector (complementary to grant financing)

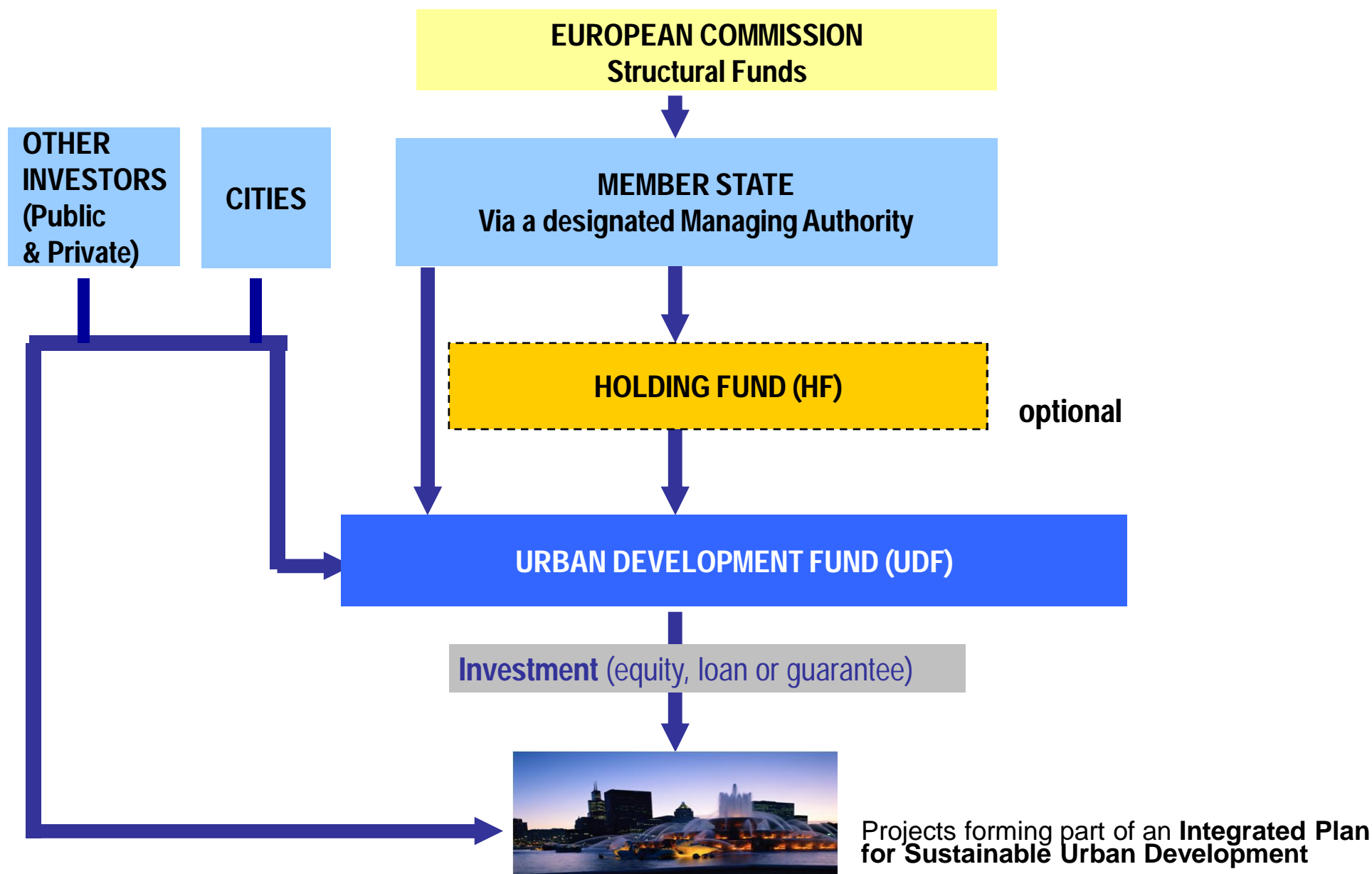
- **Leverage effect**

Mobilise additional public and private sector resources for the benefit of sustainable and integrated urban development (schemes)

- **Expertise - new partnerships and synergies**

Utilise financial, managerial and project implementation expertise from private sector or international financial institutions such as EIB

General JESSICA implementation model






State of play of existing JESSICA mandates

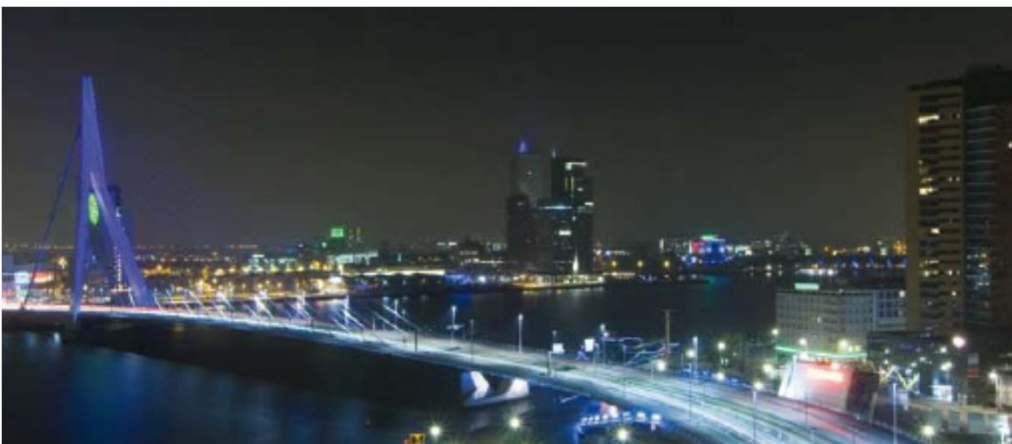
- End Q1 2011, EUR 1.65 billion of Structural Funds have already been committed to 19 JESSICA funds in 11 Member States:
 - 15 Holding Funds agreements signed with EIB (totaling EUR 1.49bn)
 - 1 Holding Fund set up with a national financial institution (Estonia)
 - 3 UDFs established directly (Brandenburg, East Midlands of England and Wales)
- 7 current fund structures out of 19 have an energy component, with investment potential of approximately EUR 600m for energy efficiency and renewable energy projects
- Energy components being considered as part of traditional UDFs
- Energy focused Urban Development Funds (UDFs) already established in Lithuania and London and new Energy focused UDFs in pipeline elsewhere e.g. Sicily Call of EoI launched in April 2011
- Urban projects now being financed by the UDFs “on the ground”

State of play of EIB JESSICA Holding Funds

EIB Holding Fund mandate			Implementation progress						
Managing Authority	Volume (EUR m)	HF FA	0	1	2	3	4	5	6
HF - Wielkopolska (PL)	67	II/09							
HF - Andalucía (ES)	86	II/09							
HF - Lithuania (LT)	227	II/09							
HF - Portugal (PT)	130	III/09							
HF - WestPomerania (PL)	33	III/09							
HF - London (UK)	110	IV/09							
HF - NorthWest England (UK)	110	IV/09							
HF - Sicily (IT)	148	IV/09							
HF - Moravia Silesia (CZ)	20	I/10							
HF - Campania (IT)	100	I/10							
HF - Scotland (UK)	55	II/10							
HF - Greece (GR)	258	III/10							
HF - Silesia (PL)	60	III/10							
HF - Pomerania (PL)	57	III/10							
HF - Bulgaria (BG)	33	III/10							
Total signed 2010	1,494								
HF - Energy Efficiency (ES) *	110	II/11							
HF - Galicia (ES)	15	II/11							
HF - Sardegna (IT)	60	II/11							
HF - Masovia (PL)	40	II/11							
Total additional expected mid 2011	225								

Key implementation stages:	
0	Pre-negotiation Stage/ HF Agreement to be signed
1	HF Agreement signed/ Investment strategy/ Investment board
2	Call(s) for Expression of Interest in preparation
3	Call(s) for Expression of Interest launched
4	Call(s) for Expression of Interest closed
5	UDF(s) selected
6	Operational agreements in place (HF/ UDF)

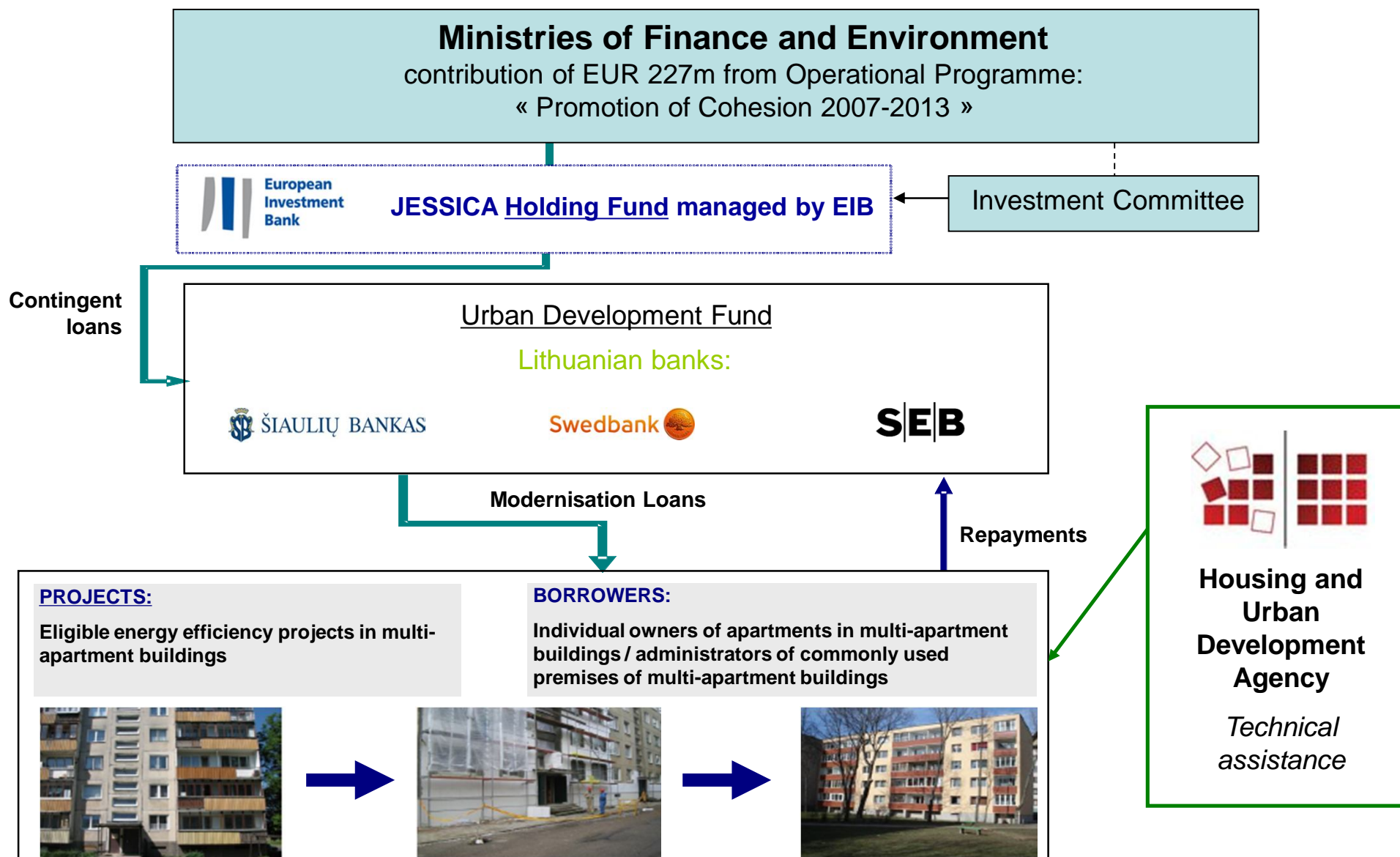
Legend		Stage Achieved
		Implementation of the stage imminent
		Signature expected in coming months



JESSICA in practice

Lithuania Holding Fund
London Green Fund

JESSICA scheme in Lithuania



Role of Housing and Urban Development Agency (“HUDA”) in Lithuania

- Since 2005 HUDA has been administering the modernization programme for multi-apartment buildings in Lithuania by:
 - Providing state support (100% grant for preparation of projects*) for homeowners implementing multi-apartment renovation projects
 - Evaluation of renovation project investment plans
 - Evaluation of implemented renovation projects
 - Running public information campaigns
 - Organising related training and education in the areas of management, accounting, housing administration and planning

*Until 31/12/2013 after which the grant will be 50%

Before modernisation



After modernisation



Key parameters of a JESSICA loan in Lithuania

for energy efficiency renovation of a multi-apartment block building

State support elements	→	100% grant* for preparation of renovation documentation (national budget)
	→	15% loan rebate where a minimum energy efficiency level is achieved (class “D” level) Additional 15% grant when at least 40% of energy savings is reached compared to initial energy consumption
	→	Exceptional 100% subsidy on loan repayments for low-income persons
Maturity	→	up to 20 years
Interest rate	→	fixed for entire loan period at 3% p.a.
Re-financing	→	allowed
Self-financing	→	bank may require a down payment (not more than 5%)
Maximum monthly instalment	→	determined for each multi-apartment building
Insurance	→	no loan insurance requirements
Guarantees	→	no third party guarantee requirements

*Until 31/12/2013 after which the grant will be 50%

JESSICA in Lithuania



- Multi-apartment renovation projects support national and European objectives related to improving energy efficiency as well as security of energy supply objectives
- National plans to refurbish 24,000 apartment block buildings by 2020
 - JESSICA target: 1000 renovation buildings by 2015
- Estimated cost to renovate one apartment block (60 apartments, each approx 50 m²) - EUR 290,000
- After the modernization, one block is expected to have energy savings in the range of 40-50%
- To date, circa 100 projects have been approved for funding by HUDA.
- Future plans: renovation projects to be undertaken in student dormitories (classified as housing in Lithuania)

JESSICA In Lithuania – Next Steps

- JESSICA HF is looking to channel funds through the banking sector (financial intermediaries acting as UDFs) to support energy efficiency projects to be undertaken by educational institutions in **student dormitories**.
- Current and future activities: assessment of universities as borrowers; State aid issues; market testing with the banks; analysis of necessary legal amendments, etc.



Implementation of JESSICA in Lithuania

- Indicators

Indicator	As at 31/05/2011
Number of consultations provided by HUDA to the participants of housing sector starting from 4 January 2010	16,710
Number of seminars organised by HUDA in the municipalities	144
Discussions with administration companies	20
Decision to take part in the JESSICA programme	89
Procurement of the Investment Plan (according to announcements)	75
Number of Investment Plans presented for HUDA's approval	45
Procurement of construction works (announcement on HUDA's website)	17
Number of Renovation projects financed by UDFs (total amount ~EUR 1m)	3*
Number of projects approved for JESSICA under the "old" modernisation programme (total amount ~EUR 1.7m)	17

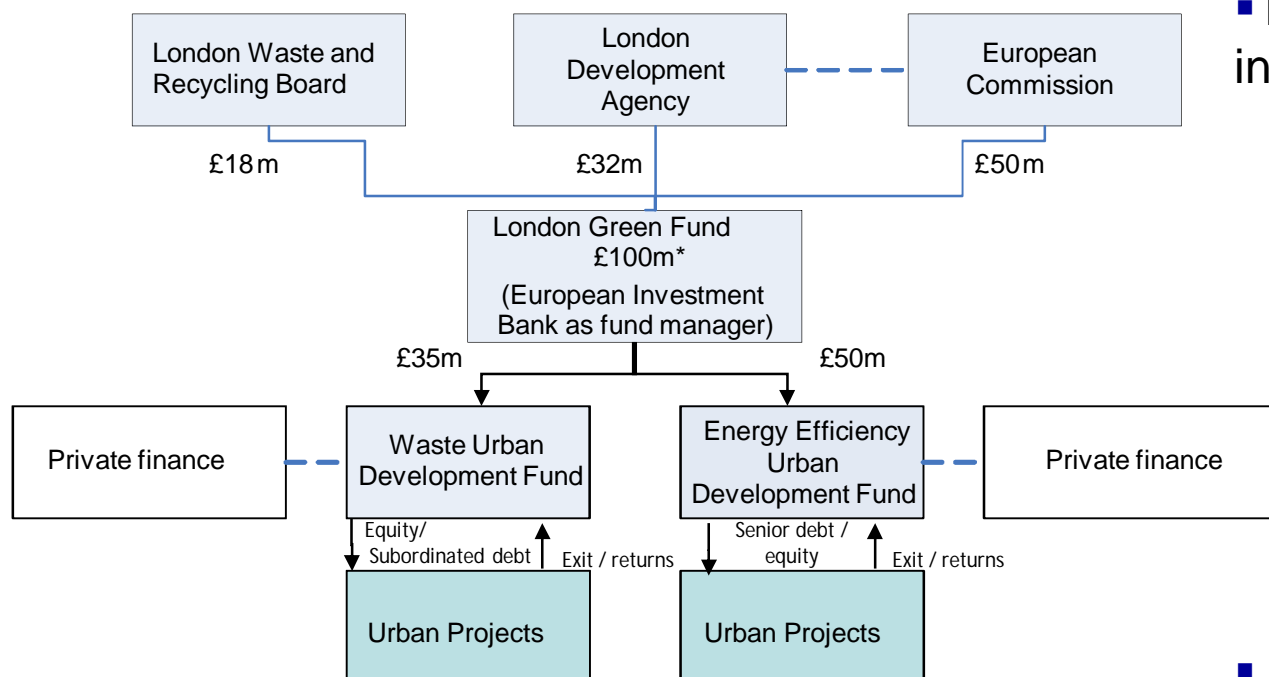
*2 more already approved for funding (total amount ~EUR 0.2 m)

Benefits of JESSICA in Lithuania

- Energy efficiency programme designed with the support of both grants and financial engineering instruments – scheme could be replicated in other Member States and in future programming periods
- Quicker absorption of EU funds compared to grants
- Recycling ability via repayable investment
- Mobilisation of the country's financial and construction sectors
- Large scale national programme with a potential to become an important stimulus for the economy

The London Green Fund

Energy Efficiency UDF



- Uses Structural Funds (ERDF) to stimulate private investment at UDF and project level.

- The Energy Efficiency UDF will initially focus on projects involving:

- Energy efficiency improvements to existing social housing.
- Adaptation/refurbishment of existing public and voluntary sector buildings to make them more sustainable and environmentally friendly

- Capital must be invested by the UDFs into projects by 2015 and will be repayable with a return (which varies from project to project)

* The remaining £15m in the London Green Fund may be invested in one or both UDFs in due course

Energy efficiency projects using ESCOs

- Energy efficiency projects can involve Energy Service Companies (ESCOs)
- ESCOs can operate through Energy Performance Contracts with Client e.g. apartment block, housing association, enterprise, municipality etc
- Different types of contracting and terms to suit the stakeholders involved but all based on the investment being paid for from energy cost savings
- UDF could give loan to client and/or ESCO

Energy efficiency challenges with the assistance of JESSICA and EIB

- Financing instruments needed to support actions in energy efficiency - increase leverage between subsidies and investments / combining loans with grants
- Energy efficiency measures require long term contracts and financing - advantage of using JESSICA funds
- Risk mitigation - give incentives for banks to increase and leverage investments, for instance to facilitate financing of ESCOs
- Knowledge transfer - Network to share information and best practice experiences and disseminate knowledge between Managing Authorities with JESSICA network of Member States, financing, urban and energy experts
- Lack of technical capacity - Technical assistance, such as ELENA and/or ERDF grant, in combination with JESSICA financing

For more information please contact:

**European Investment Bank
JESSICA and Investment Funds Division
100, bd. Konrad Adenauer, L-2950 Luxembourg
www.eib.org/jessica
+352 4379 83069
jessica@eib.org**