

FINANCING ENERGY EFFICIENCY

**Financing Energy Renovation of buildings in Italy, Croatia and Slovenia
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Who we are?



- **Natural financing partner for the EU institutions since 1958**
- **Around 90% of lending in the EU**
- **Shareholders: 28 EU Member States**
- **Largest multilateral lender and borrower in the world**
- **Some 450 projects/year in over 160 countries**
- **Headquartered in Luxembourg**
- **Around 3,000 staff**

Investing in Europe's growth

Who we are? Our key priorities



Environment



EUR



16.9bn

Infrastructure



EUR



19.7bn

Innovation



EUR



13.5bn

SMEs



EUR

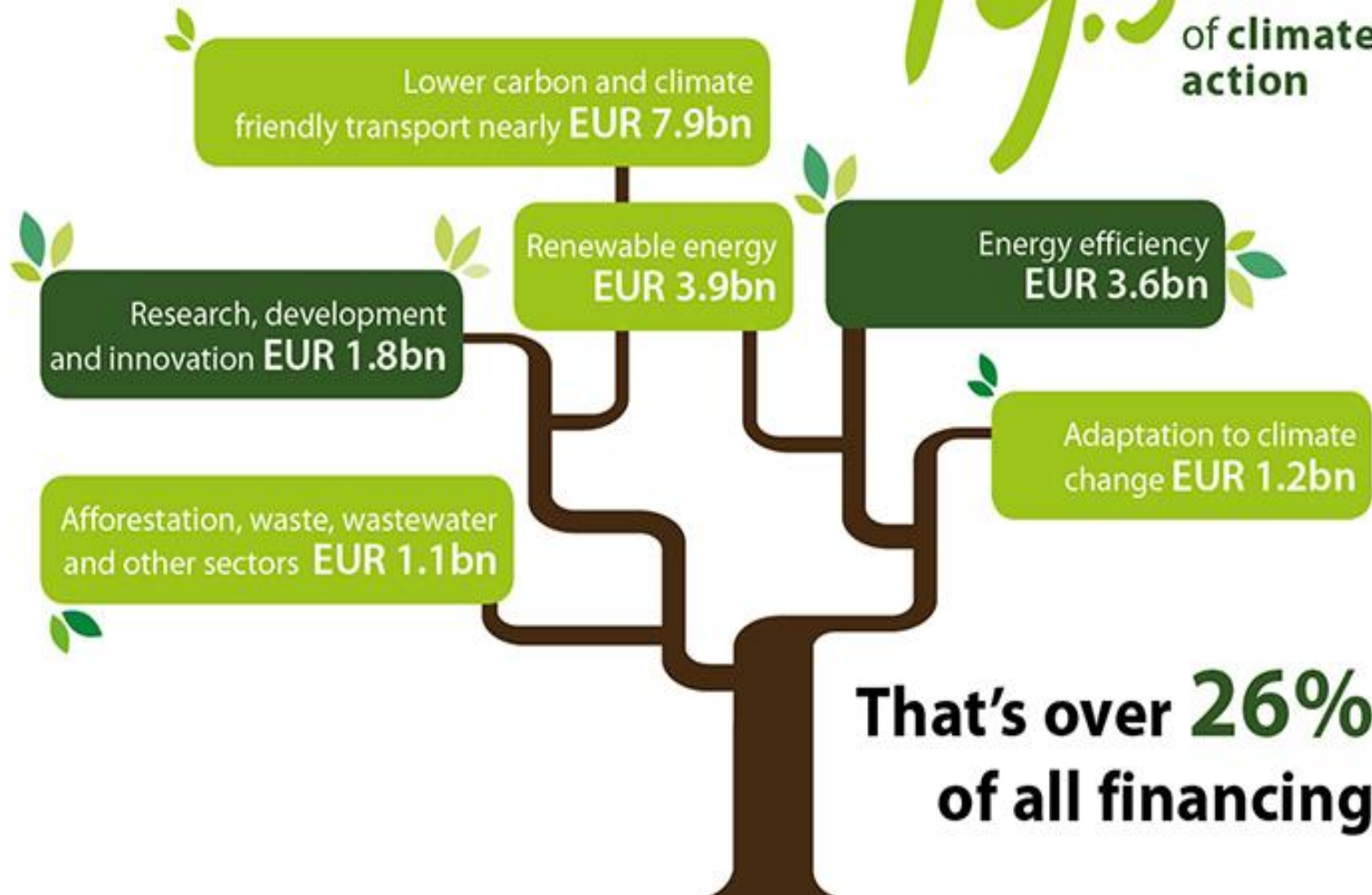


33.6bn

Who we are? Climate Action priority



In 2016 the EIB financed **EUR 19.5bn** of climate action

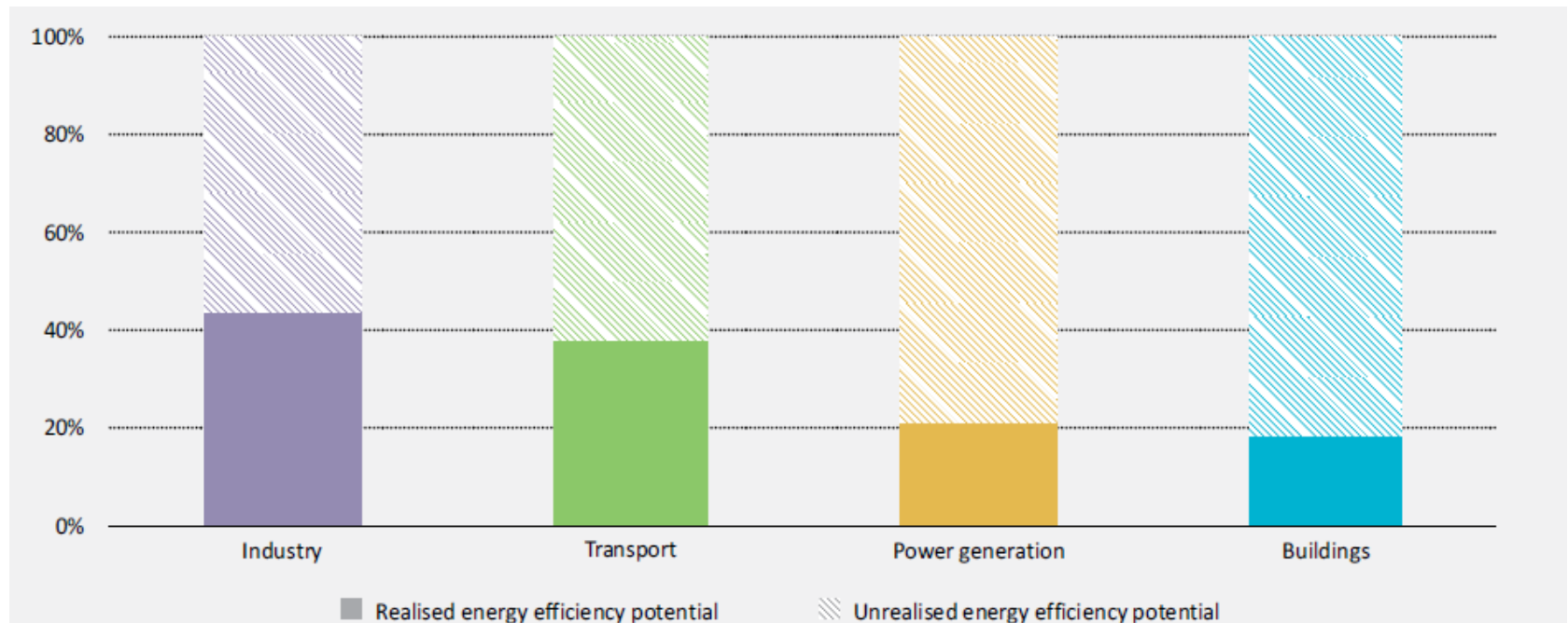


Why Energy Efficiency?



Huge investment needs EU

Energy-consuming sectors with untapped potential (particularly buildings): buildings account for 40% of EU final energy consumption, transport for 30% and industry for 25%



Typical barriers to delivering EE



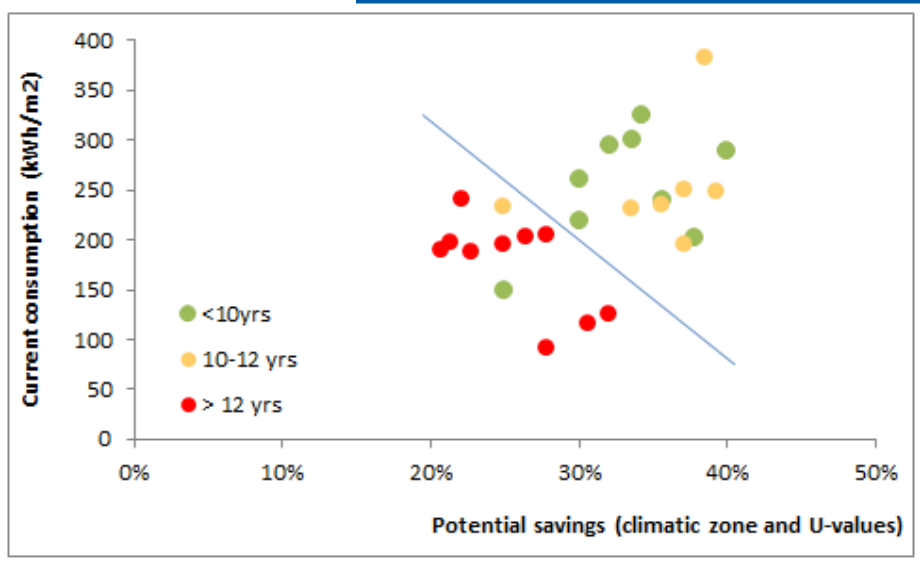
Fragmentation of projects

Capacity of beneficiaries to define and implement projects

Subsidized tariffs

Long pay-back

Split incentives

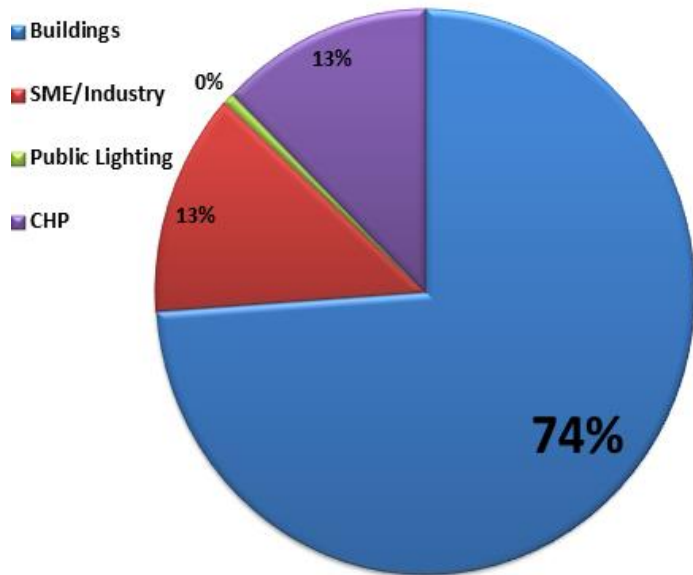




Energy Efficiency Lending 2012-2016

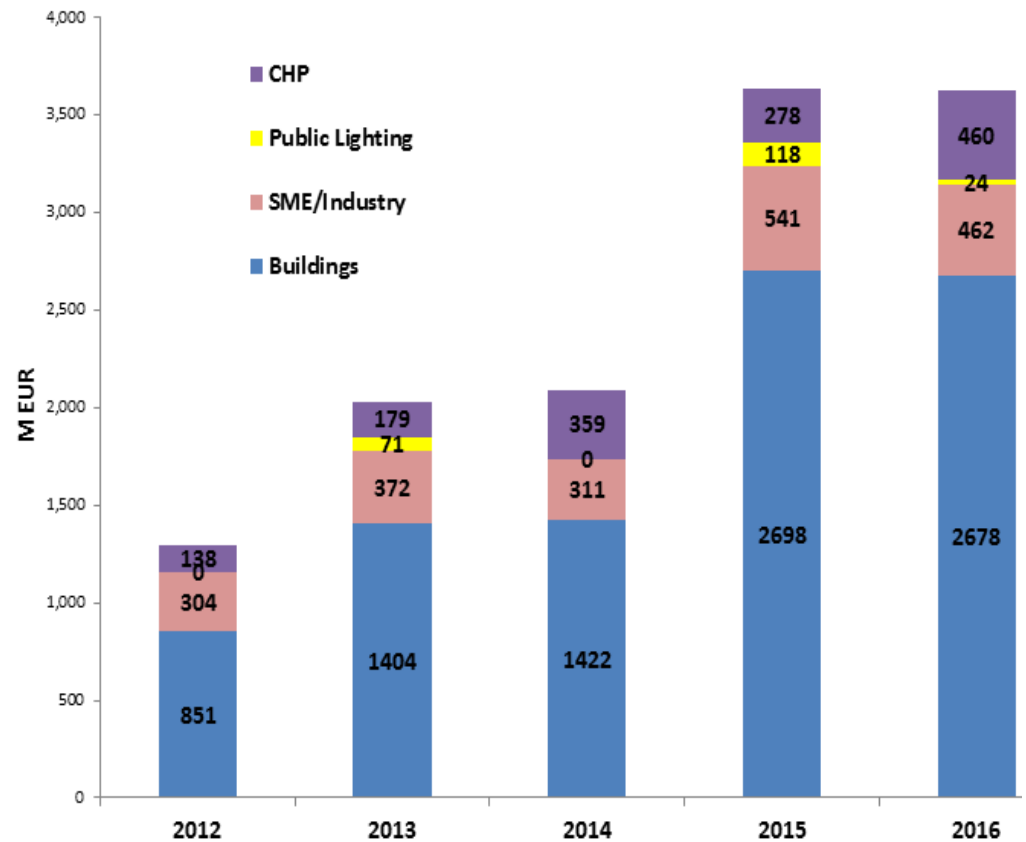


In 2016



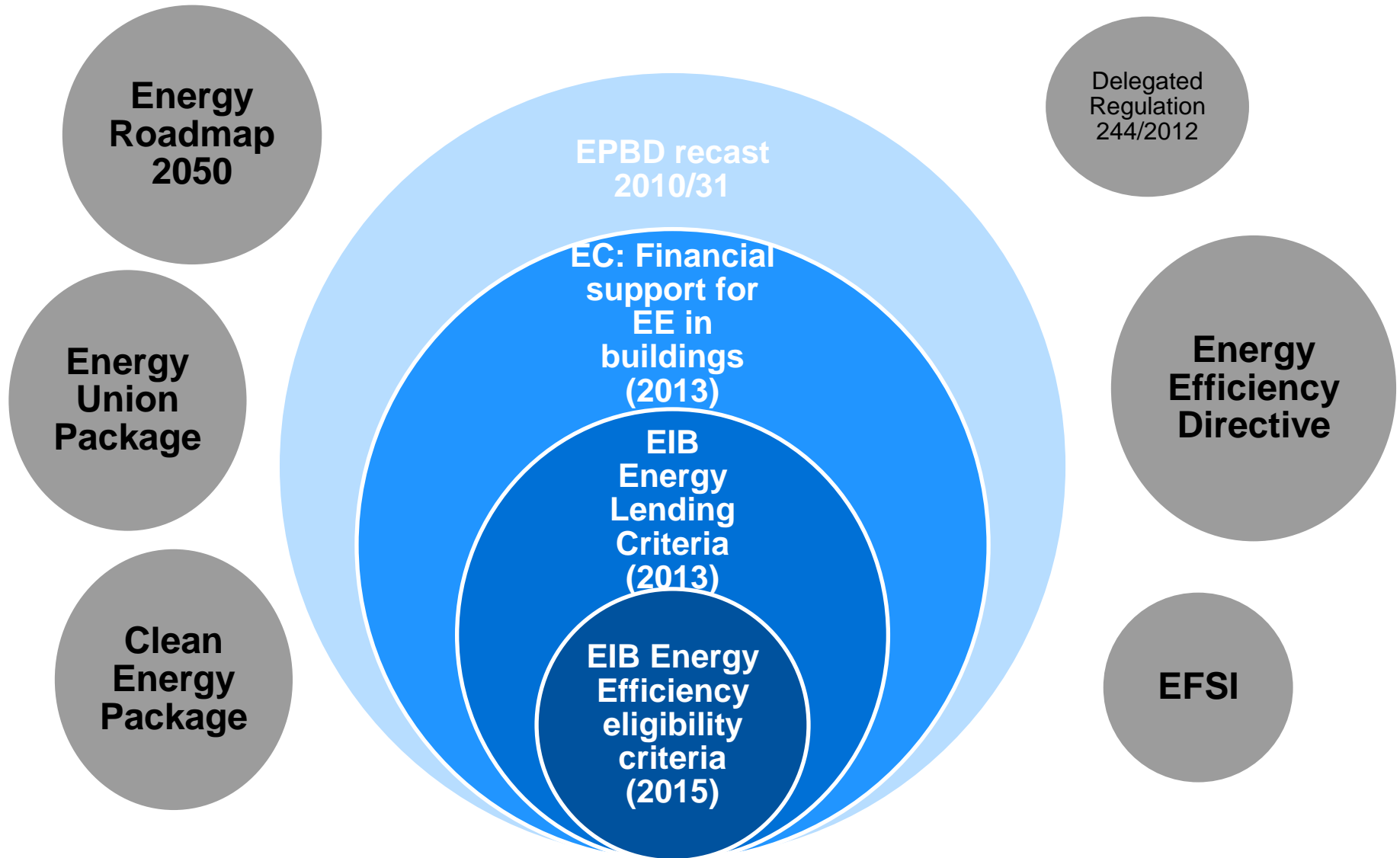
Overall EE-lending increased by 3x since 2012

Total EE-lending in 2016 amounted 3.62 b€, of which 74% to buildings





EU Legal Framework & EIB eligibility





We help catalyse investment

LENDING	BLENDING	ADVISING
<p>Loans</p> <p>Guarantees (trade financing)</p> <p>Equity participation</p> <p>Specific tools:</p> <ul style="list-style-type: none"> • EFSI • PF4EE 	<p>Combining EIB finance with EU budget (Project Bond Initiative)</p> <p>Higher risk projects for innovation (InnovFin)</p>	<p>EIAH (European Investment Advisory Hub)</p> <p>ELENA (European Local Energy Assistance)</p> <p>JASPERS (Joint Assistance to Support Projects in European Regions)</p> <p>Support for public/private partnerships (EPEC)</p>

Attracting **FUNDING** for Long-Term Growth



EFSI - European Fund for Strategic Investments



Of which
EUR 30.5bn
signed

EIB Group figures

As of 18/10/2017



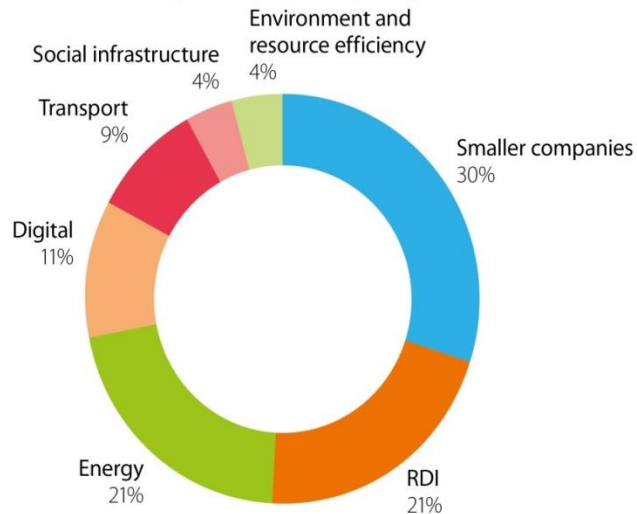
EUR 47.4bn

EUR 240.9bn

* EIB-approved: EUR 36.6bn
EIF-approved: EUR 10.8bn

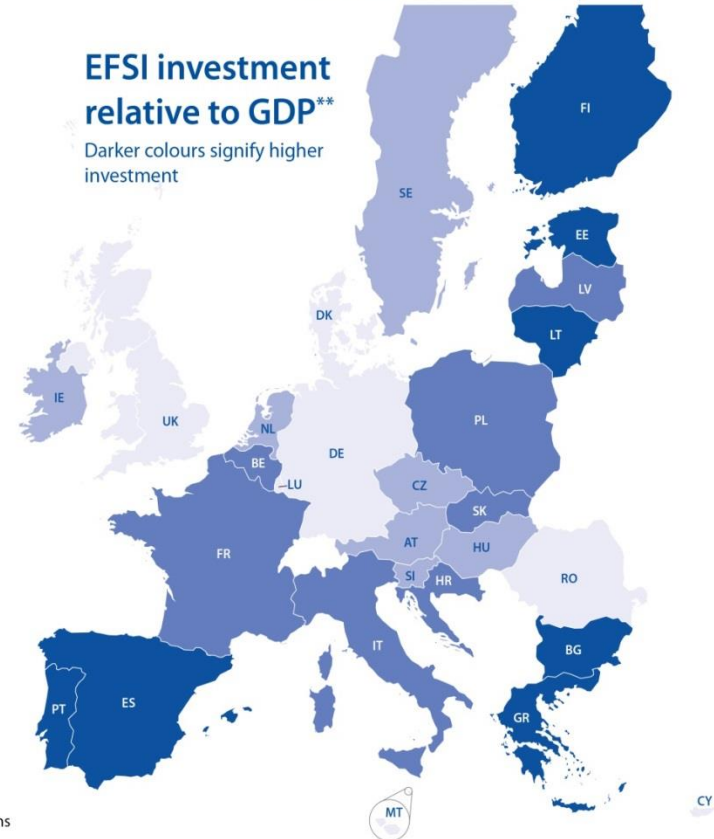


EFSI investment by sector**



EFSI investment relative to GDP**

Darkers colours signify higher investment



**based on approved operations



Scaling up Energy Efficiency Investments

- Technical, financial & regulatory barriers
- EFSI: TA & Risk Sharing Instruments

Meeting EU Renewable Energy Targets

- Regulatory uncertainties, emerging technologies
- EFSI : can accelerate projects (project finance)

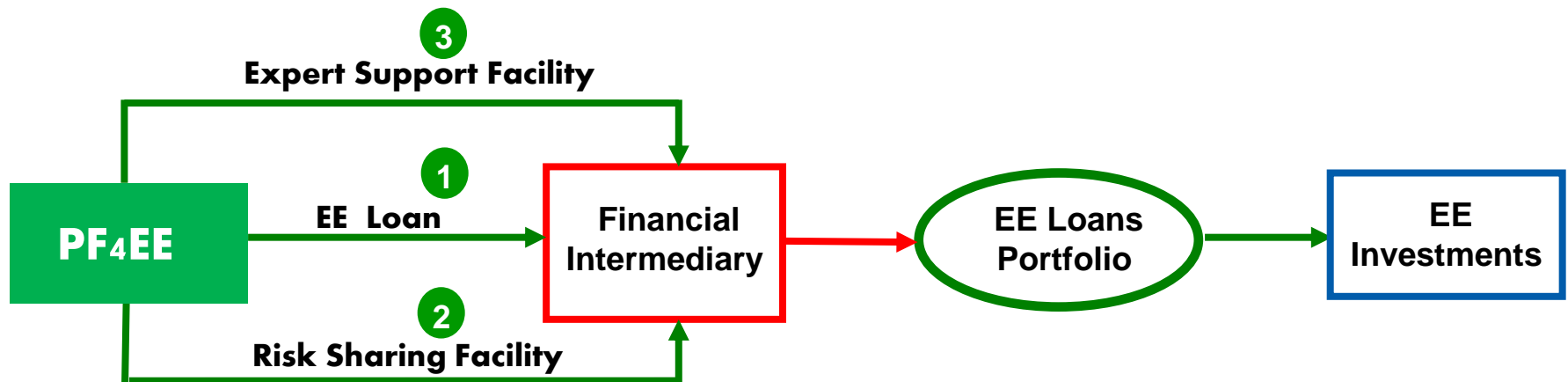
Networks Integration & Modernisation

- Permitting, cross-border issues, financial strength of TSO/DSOs
- EFSI: increase support for weaker grid companies, reinforce Bank capacity to support project financed operations

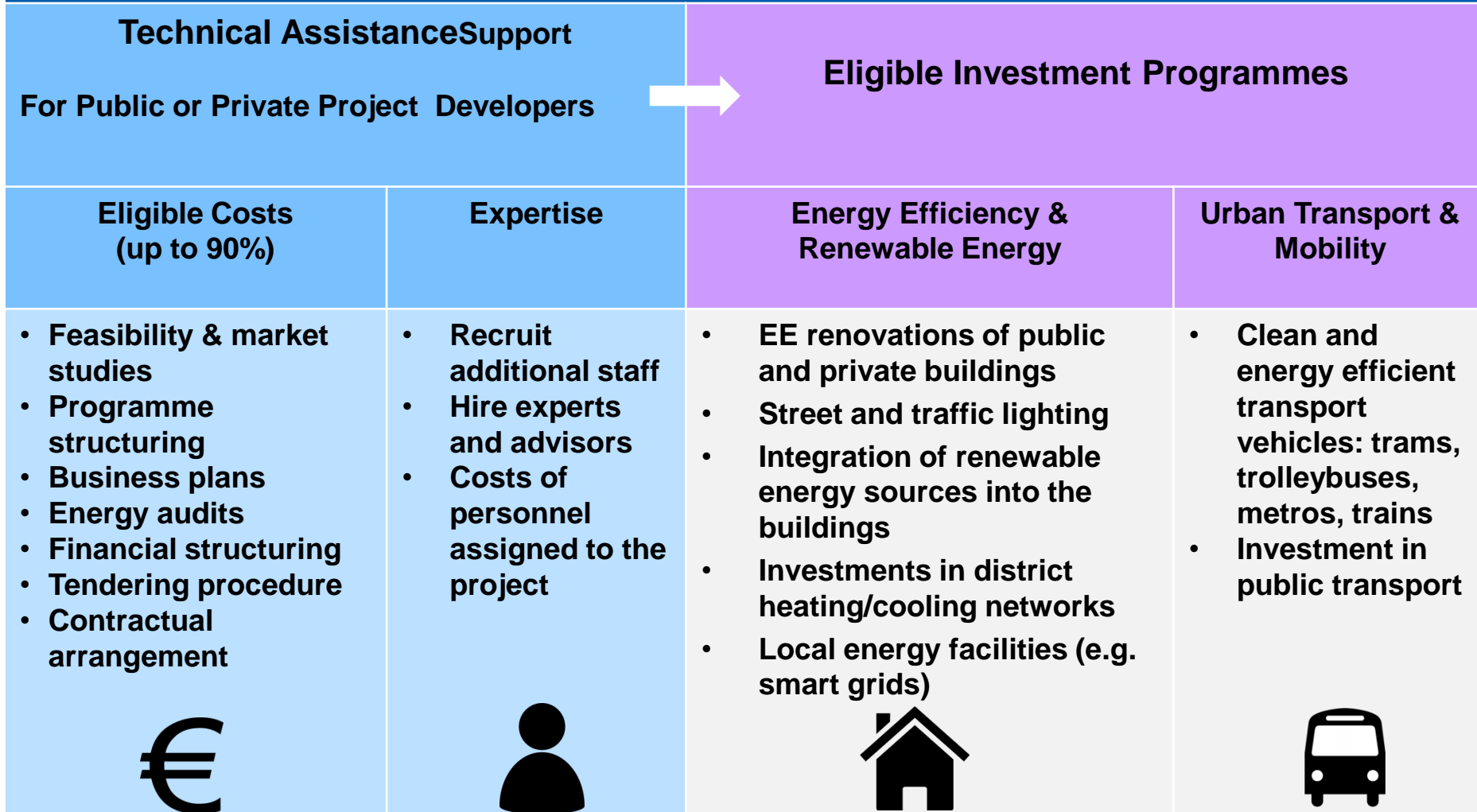
PF4EE - Private Finance for Energy Efficiency

PF4EE
comprises three
components

- A loan to the financial intermediary to be on-lent for financing of energy efficiency investments (“EE Loan”)
- A risk mitigation mechanism, which covers losses incurred in the portfolio of EE loans granted by the financial intermediary to on-lend the EE Loan (“Risk Sharing Facility”)
- Consultancy services aiming at supporting the financial intermediary to create the abovementioned EE loans portfolio (“Expert Support Facility”)



European Local Energy Assistance



Conclusion: Unlocking EE

Huge investment needs and real potential to consume energy more efficiently

But...

- Fragmentation (small projects and high transaction cost)
- Split incentives (landlords vs tenants)
- Subsidized energy costs
- Capital constraints to expand into new products
- Lack of technical expertise

EIB's response

- Aggregation (intermediated lending, investment Funds, project and promoter aggregation, etc.)
- Innovative set ups (ESCO, French SEM)
- Broad range of instruments : direct and intermediated operations
- Provision of TA: PF4EE, ELENA and high-involvement in direct operations (NZEBS)
- However, some barriers non-addressable by EIB (e.g. regulatory barriers, ESCO market, public sector limitations)



THANK YOU !



Any questions?

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EFSI www.eib.org/efsi

ELENA www.eib.org/elena

PF4EE www.eib.org/pf4ee





EFSI Project: SEM Energies POSIT-IF Ile de France

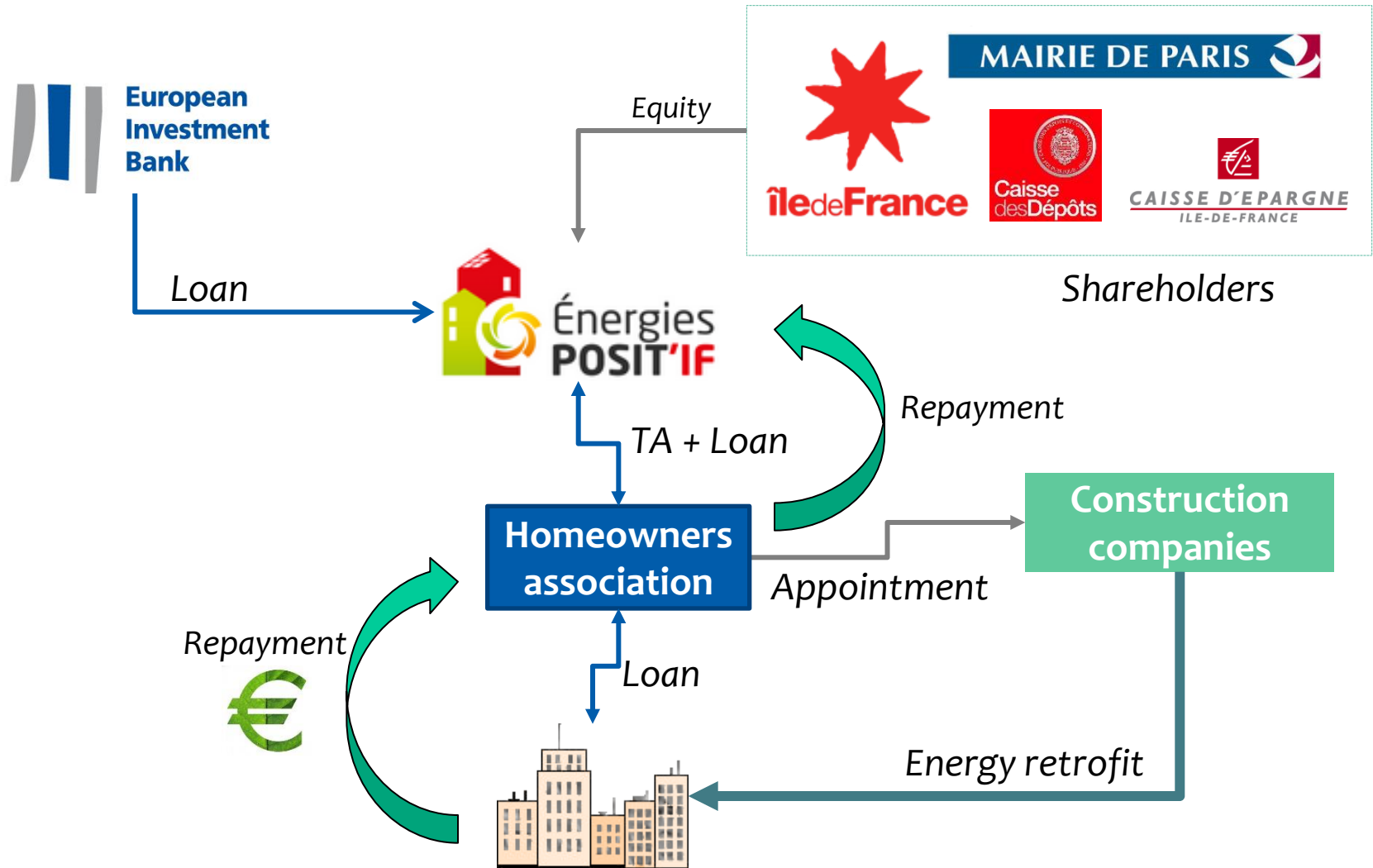
Energy efficiency refurbishment in residential buildings



**EFSI Financing
amount:
EUR 100m**

- **Financing backs:**
 - Energy efficient refurbishment in residential buildings (ca 75% of the buildings are condominiums or social housing apartments)
 - 50 to 75 % reduction of overall energy consumption of the buildings
- **Market failure between what commercial banks offer and what individual owners required.**
- **EFSI allowed the semi-public company Energies POSIT'IF to offer financing directly to the owners.**

EFSI Project: Ile-de-France STF



PF4EE project examples: BPER and ZABA



BPER in Italy
PF4EE FL:
EUR 50m

ZABA in Croatia
PF4EE FL:
EUR 40m

- Both framework loans finance small-scale investments targeting energy efficiency and renewable energy measures in the private sector particularly SMEs
- Projects aims at generating energy savings and enhance energy efficiency in buildings or production facilities

ELENA: EOL project in Slovenia



**ELENA Technical
Assistance :
EUR 1.3m**

- EOL is a large investment programme of the City of Ljubljana for energy retrofit of the public buildings that is implemented by ESCOs.

ELENA TA supports:

- Set-up of project implementation unit (PIU)
- Energy audits
- Checking energy baseline
- Project tenders and documentation
- Preparation of contracts
- Legal and financial advice



Range of Financing Instruments



The EIB has an **extensive range of instruments** to finance public and private sectors at investment and sub-investment grades of risk to its disposal.

EIB lending instrument
For Investment Grade operations



EIB special activities
For Low and Sub Investment Grade operations

Banks



Public Sector Financing

Project Finance Direct Loans

Intermediated Loans

Project Finance with direct project risk

Risk Sharing

Equity through Funds

Project



Energy Efficiency: Eligibility Overview



Sector	Main Eligibility Rule	Alternative Eligibility Rule
New construction	NZEB (EPBD)	EU recommendation 2016/1318 and analysis of the Government NZEB Working Group's proposal
Building refurbishment	Cost-optimal level (EPBD)	Ad-hoc gap analysis of the national regulation
CHP	High-efficient cogeneration (EED and Decisions 2011/877/EU and 2008/952/EC)	
Public lighting	Cost-effective investments identified by an energy audit	
Industrial facilities and SMEs	Eligible measures defined on the basis of either an energy audit or white certificate scheme. 50% rule.	List of measures set up by the EIB. 50% rule.
District heating/District cooling	Viable long-term least-cost solution including environmental externalities	