Why financial instruments to support energy efficiency (EE) uptake

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Overview

- Understanding Energy Efficiency (EE) Finance
  Value Chain, Barriers and Targeting
- Introduction to Financial instruments (FIs)
  Rational, Principles, Managing Authority and EU Frameworks
- Policy considerations
  Effectiveness, Criteria and Approach

Understanding Energy Efficiency (EE) Finance

Mapping EE support value chain

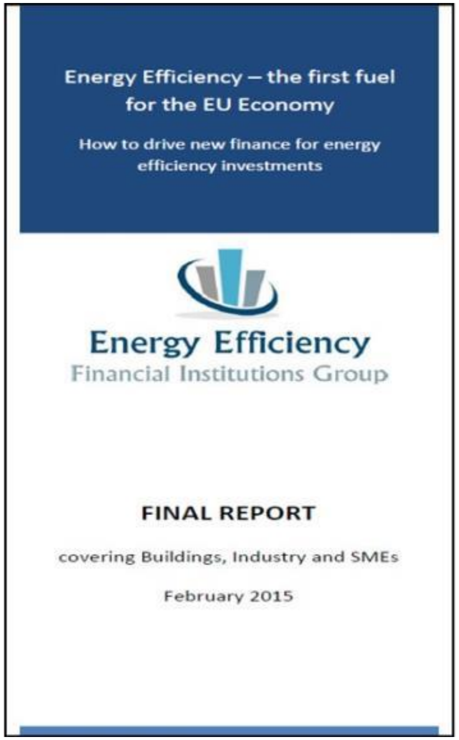
SAVINGS IDENTIFICATION		ENERGY & CARBON SAVINGS		
BUSINESS CASE DEVELOPMENT		OPERATIONS		ASSETS
TECHNICAL ASSISTANCE SUPPORT			CAPITAL INVESTMENT SUPPORT	
			MEASURES	
TIME	EXPERTISE	BEHAVIOURAL CHANGE*	MANAGEMENT SYSTEMS	EQUIPMENT/ TECHNOLOGY/RETROFIT
• Temporary dedicated resource(s) to focus on energy audits and business case development • Internal resource(s) to support and learn from the process	• Recruit temporary skilled resources • Hire trusted experts and commercial advisors • External training for selected internal resources	• Training of employees by internal resource • Creation of targeted guidelines • Optimisation of existing systems and processes	• IT (Hardware, Software) • ISO 14000 • BEMS • New monitoring resources	• Equipment (lighting, heat, voltage, boiler etc.) • Micro-generation (PV, CHP, heat pumps etc.) • Building fabric retrofit • Installation costs • Contractors overheads

*** Note**: For energy efficiency measures where no capital investment was required, implementation rates were low (20%).

EEFIG* report

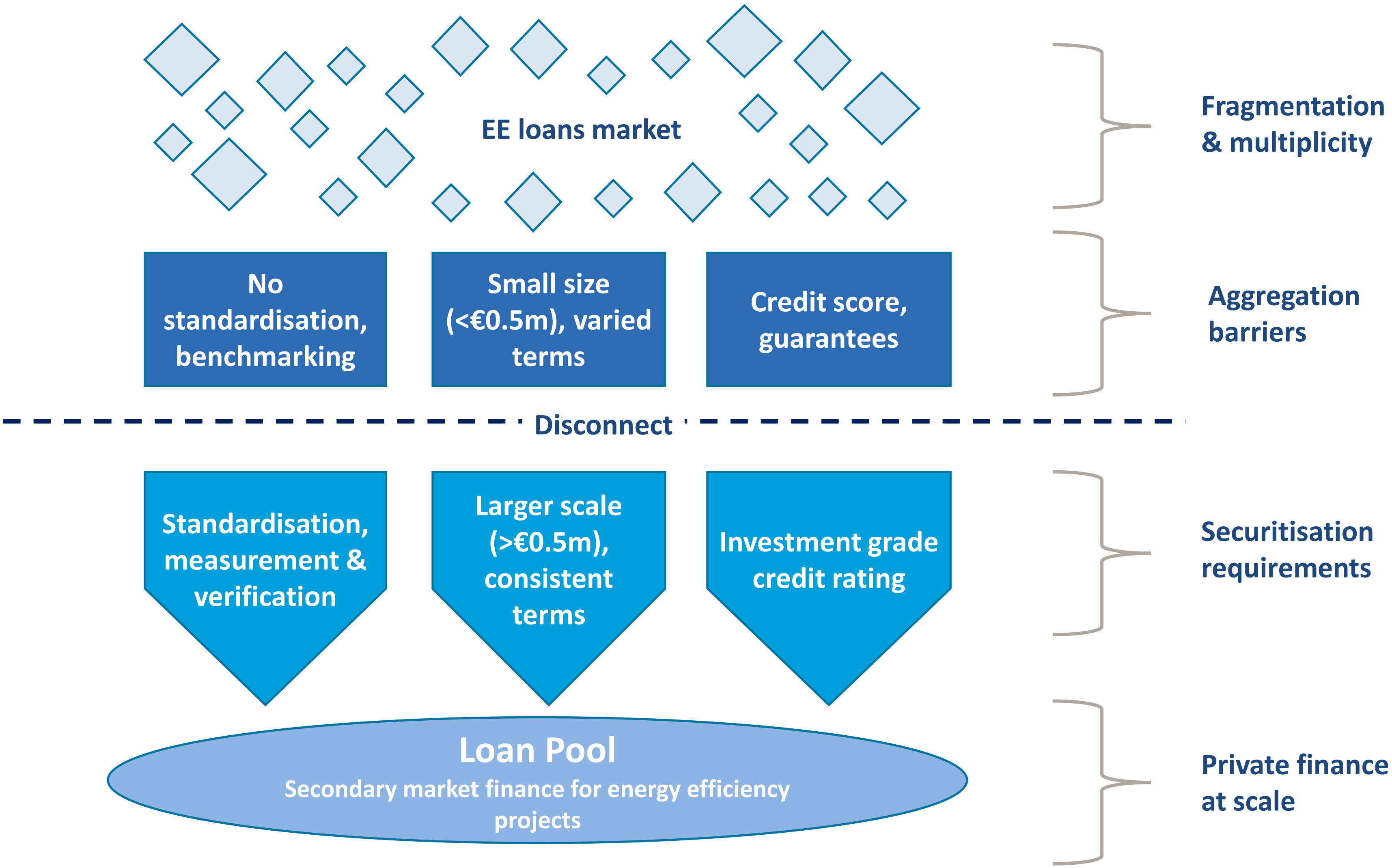
Phase I report conclusions

- Lack of knowledge and information
- Lack of performance data
- High upfront investments
- Fragmentation, transaction costs
- Complexity of financing
- Longer payback periods for certain measures
- The market is not clear
- Available financing products do not reflect EE fundamentals



Note: https://ec.europa.eu/energy/en/news/new-report-boosting-finance-energy-efficiency-investments-buildings-industry-and-smes

Aggregation barriers in EE financing



Source: Ceres

Targeting EE support finance

Size of project	Micro & Small (<50 to 100 staff) average to good credit rating	Medium size (>100 to 250 staff) average to good credit rating	Medium to Large (>250 staff) Average to good credit rating	Large (>250 staff) Good credit rating
< €25k	Own resources / Bank loan	Own resources / Bank credit line	Own resources	Own resources
€25 – 100k	Own resources / Bank loan	Own resources / Bank loan	Own resources/ Bank credit line	Own resources/ Bank credit line
€100 – 250k	Bank loan	Bank loan / EPC Solutions	Own resources / Bank loan	Own resources / Bank loan
€250k – 1million	n/a	Bank loan / EPC Solutions	Bank loan / EPC Solutions	Own resources / Bank loan
€1-3million	n/a	Bank loan / EPC Solutions	Bank loan / EPC Solutions	Project loan / EPC Solutions
>€3 million	n/a	n/a	EPC Solutions	EIB / Project loan / EPC Solutions

- Easy to access finance
- Limitations in accessing finance
- Difficult to access finance

Placing focus

Small to medium sized businesses having limitations or difficulty accessing finance based on the size of EE project

Introduction to Financial Instruments

Why financial instruments

Rational

- **The scale of investment:** To meet the EU's 2020 energy efficiency target, annual investment is estimated at around €100 billion.
- **Additionality:** There is a need to boost private energy efficiency investments through a targeted use of public funds to develop robust investment solutions and support activities for project developers.
- **Leverage effect:** Financial instruments, compared to grants, mobilise more private investment and public resources to complement the initial public funding and can be reinvested over several cycles.
- **Transformation:** Financial Instruments (FIs) transform EU resources into financial products such as loans, guarantees, equity and other risk-bearing mechanisms (e.g. interest rate subsidies) to support economically viable projects.
- **Efficient use:** FIs aim to put funds to good and efficient use, ensuring that grants are complemented by other financial products so that funding can be used again in a revolving fashion. FIs can be combined with technical support.
- **Performance evaluation:** Conditional for establishing financial instruments is the ex-ante evaluation based on consistent performance indicators and pre-defined terms and conditions designed for a swift roll-out.

Principles of financial instruments

Types of financial instruments	• **Grants** • **Incentives** (Tax) • **Loans*** • **Guarantees****	• Addressing lack of available financing • Providing financing at favourable terms • Increase use and efficiency of funding
Advantages of financial instruments	• **Leverage** • **Revolving** • **Targeting**	• Ability to generate revenue • Coverage where it matters • Alignment of interest fostered by co-investment
Ways to implement financial instruments	• **Tailor made** • **Off-the-shelf** • **Commoditised** • **Market-based**	• Allowing for different implementation options • Allowing for standardisation, customising and aggregation • Allowing for commercial intermediaries to provide

Note *: It includes off the shelf instruments, risk sharing facilities, bridge financing and mezzanine loans
Note **: It includes off the shelf instruments like risk sharing facilities

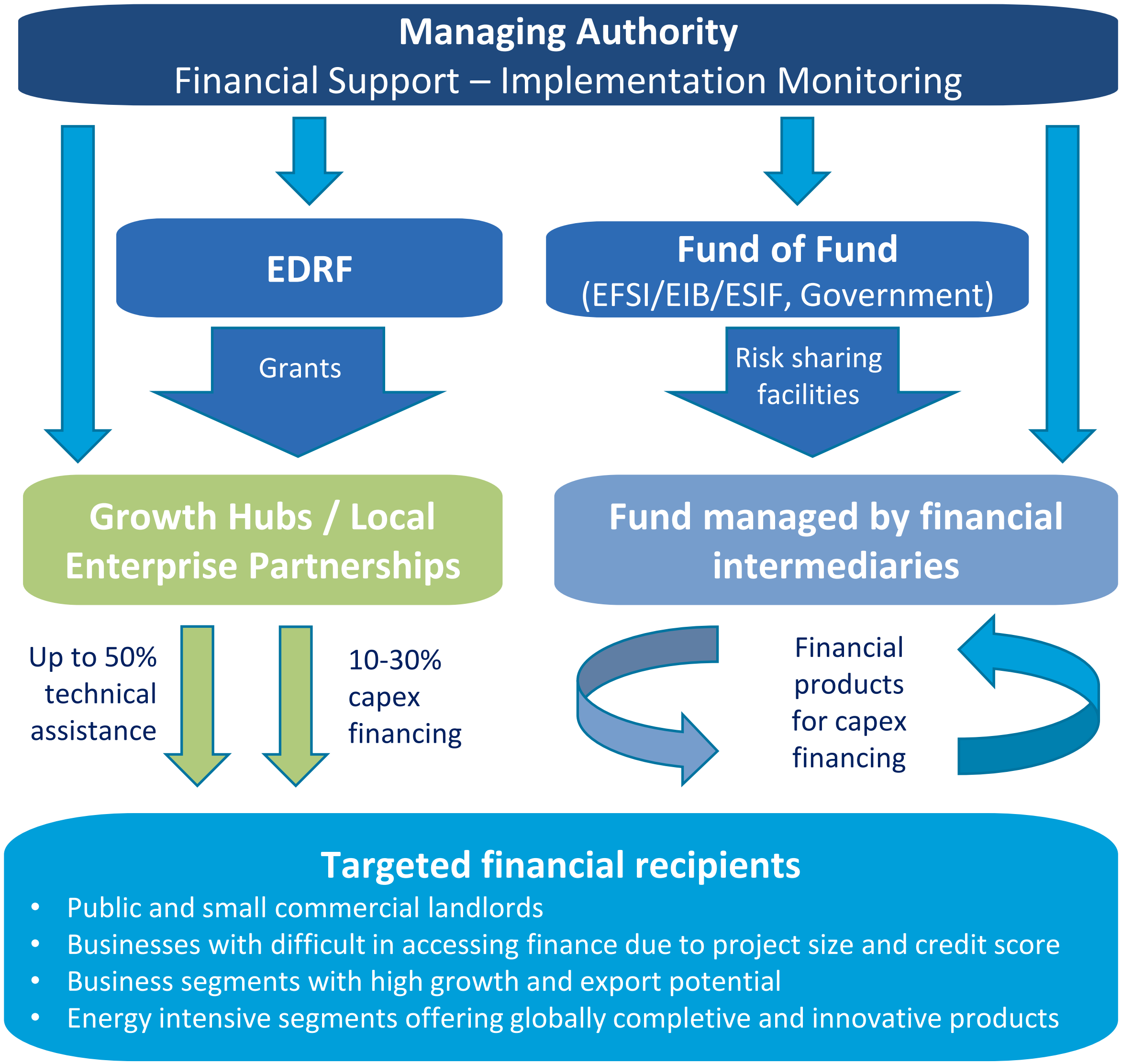
EU frameworks supporting EE FIs

Existing frameworks

- **European Structural and Investment Funds (ESIF)** framework for 2014-2020 provides more flexibility, clarity and possibilities to use financial instruments. The scope for the use of these instruments has been widened to include SME support, energy and resource efficiency. Over €20 billion from the ESI Funds are planned to be used through financial instruments throughout 2014-2020.
- **HORIZON 2020:** Horizon 2020 is the biggest EU Research and Innovation programme ever with c.€80 billion of funding available over 7 years (2014 -20) – in addition to the private investment that this money will attract. Horizon 2020 funds support the research, demonstration and market up-take of energy efficient technologies.

- **European Fund for Strategic Investment (EFSI):** The EFSI aims to overcome the current investment gap in EU by mobilising private financing for strategic investments, which the market cannot finance alone. It will support strategic investments in energy efficiency as well as riskier finance for small businesses. EFSI will be managed by European Investment Bank (EIB).
- **European Energy Efficiency Fund (EEEF):** EEEF aims to provide market-based financing for commercially viable public energy efficiency, renewable energy and clean urban transport projects related to public sector activities in the 28 EU member countries.

A managing authority to support and monitor



Off-the shelf instruments:

- Financial instruments complying with the EC terms and conditions
- Help to accelerate implementation
- Build on previous experience

Advantages

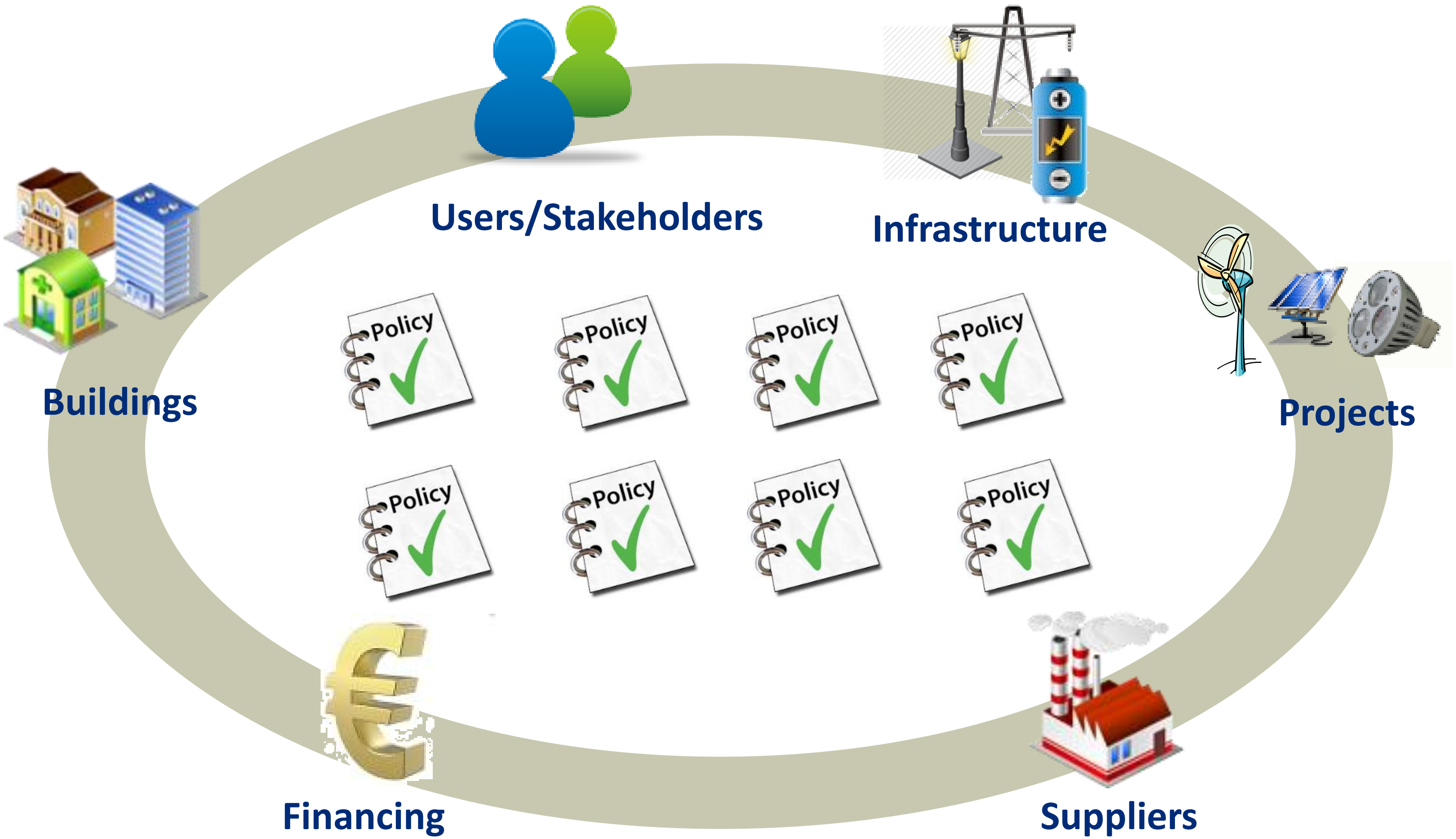
- State aid compatibility
- Governance structures
- Market based approach
- Full pass on to final recipient
- Minimum leverage ensured

Support examples

- Technical assistance grant to hire resources to develop the appropriate business case
- Public buildings renovation zero interest revolving loan.

Policy Considerations

Effectiveness of EE policy support



Assessment criteria in government led support

Simplicity for business	• Difficulty/cost of taking the required action • Site versus organisation level • Predictability – guaranteeing a payback in x years
Government administration	• Impact on Government • Which ministry/department is involved and who is the administrator? • The level of assurance needed (self certification / verification / audits)
Deliverability	• Availability of funds? State Aid? Impact on the Treasury's budget • Legal complexities • IT systems required
Likely additionality?	• It will help overcome other barriers to energy efficiency deployment • Link to an established process • Not targeting particular payback periods or technologies
Which / how many covered?	• No winners and losers but those are in need and matter • Those with the biggest energy saving potential • Those with limited access to available market financial products

A multi-step gradual approach

1st Step — **Accelerating Demand**

1. Trusted information
2. Audits, opportunity
3. Business case development
4. Senior management buy-in

2nd Step — **Aggregating the Pipeline**

1. Standardisation
2. Segmentation
3. Risk management (M&V)
4. Procurement & contracting

3rd Step — **Projects Implementation**

1. Market based delivery
2. Financial instruments
3. Bank financing
4. Securitisation

Energy Efficiency - Productivity Enhancement

Technical Assistance

TECHNICAL ASSISTANCE		
MEASURES		
BEHAVIOURAL CHANGE*	TIME	EXPERTISE
• Training of employees by internal resource • Creation of targeted guidelines • Optimisation of existing systems and processes	• Temporary dedicated resource(s) to focus on energy audits and business case Dedicate internal resources to support and learn from the process	• Recruit temporary skilled resources • Hire trusted experts and commercial advisors • External training for selected internal resources

Thank you. Q&A

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