De-Risking Energy Efficiency Finance

Focusing on EEFIG De-Risking Project

CA EED Plenary Meeting, Sofia

Energy Efficiency
Financial Institutions Group

DEEP
DE-RISKING ENERGY
EFFICIENCY PLATFORM

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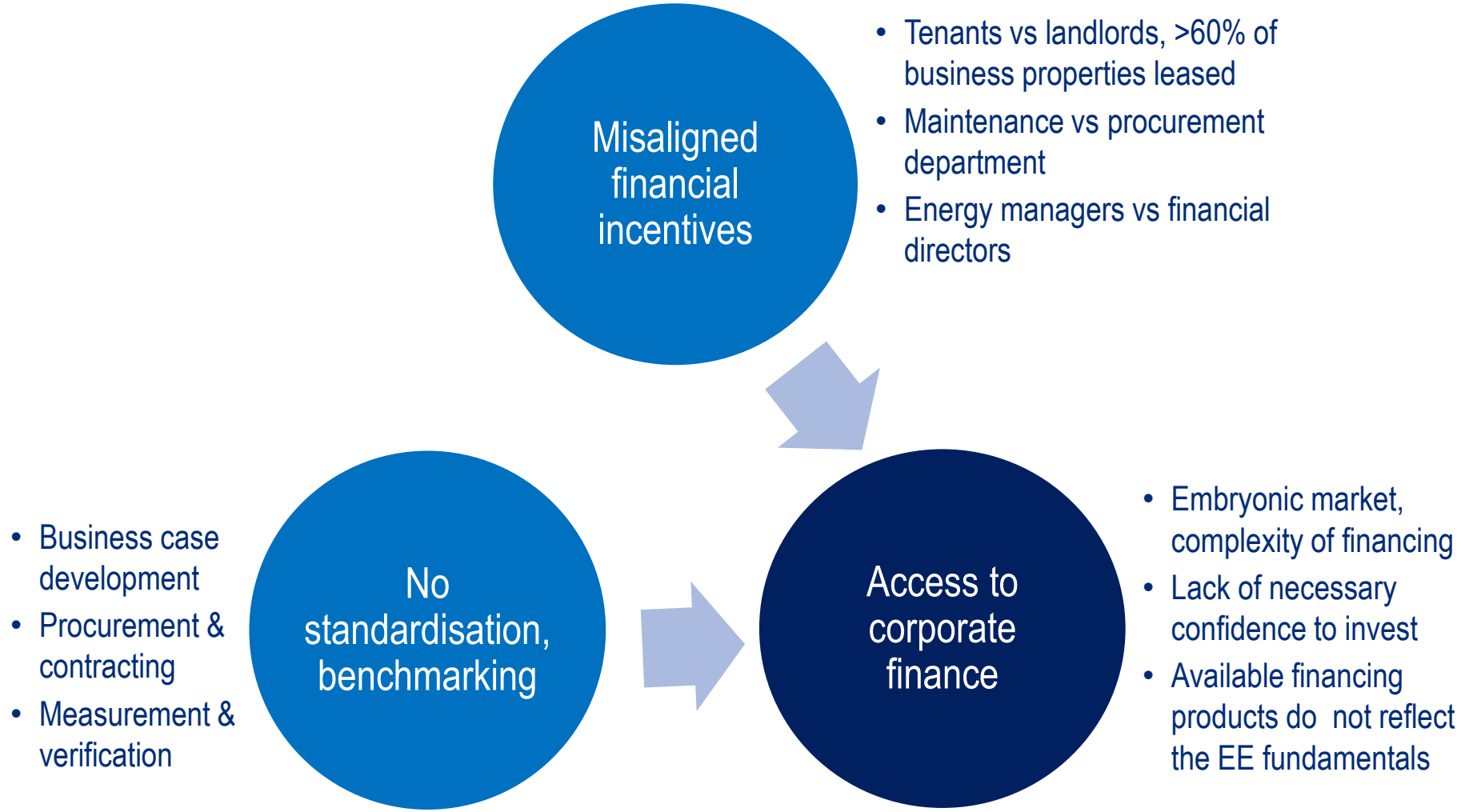
Overview

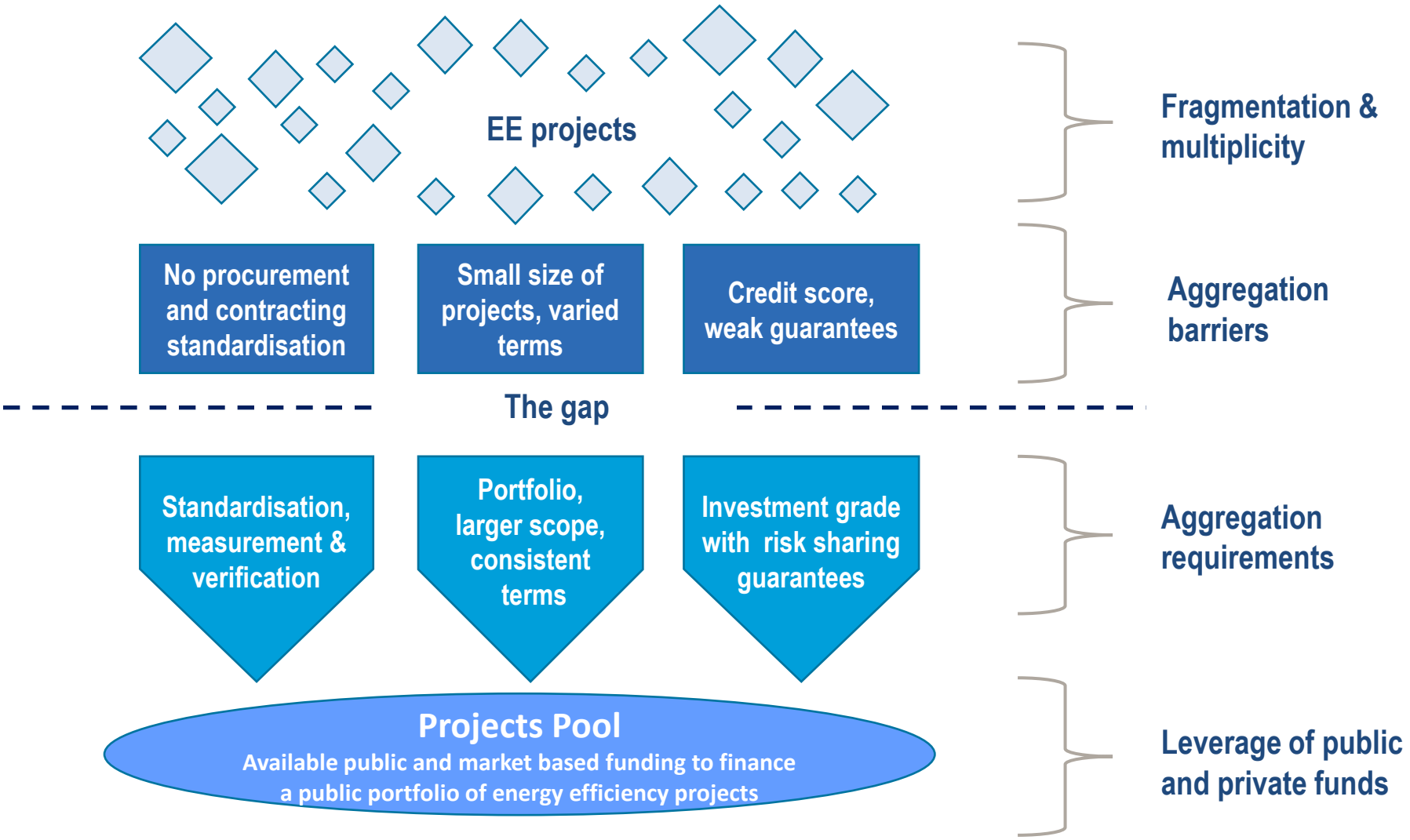
- Recognised Barriers & Challenges
- EEFIG De-Risking Project
  - ✓ *Phase I*
  - ✓ *Underwriting Guide*
  - ✓*DEEP*
- Considerations

Recognised Barriers & Challenges

The general market barriers to EE finance uptake



Need to overcome aggregation barriers



Energy efficiency finance challenges in Europe

Event though the scale of investment needed to achieve Europe's 2020 energy efficiency target is estimated at €85-120 billion per year across economic sectors.

- The current investments are **below half** of this requirement.
- The current investments are **5 times lower** than required to deliver 2050 decarbonisation targets.
- **Common language** between project developers, project owners and financial institutions remains still a challenge.

Source: DG Energy

EEFIG De-Risking Project

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Energy Efficiency Financial Institutions Group (EEFIG)

General background

- Established in 2013 by the European Commission (DG Energy) and United Nations Environment Program Finance Initiative (UNEP FI).
- Created an open dialogue and work platform for public and private financial institutions, industry representatives and sector experts
- Aimed to identify the barriers to the long-term financing for energy efficiency and propose policy and market solutions to them.
- EEFIG has engaged 120 active participants from 100 organizations to deliver clear and unambiguous messages.

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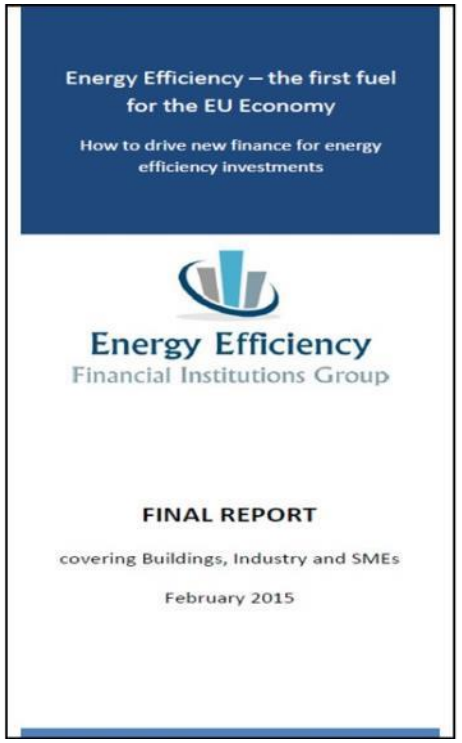
EEFIG Phase I Report (Feb 2015)

Phase I report conclusions on barriers

- 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

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The EEFIG Phase I findings

- Lack of evidence on the performance of energy efficiency investments makes the benefits and the financial risk harder to assess.

- Lack of commonly agreed procedures and standards for energy efficiency investment underwriting increase transaction costs.

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EEFIG Phase II, The De-risking Project

- **In 2016**, a consortium was formed – *EEFIG De-risking Project* – to pursue EEFIG's conclusions and create an evidence base that would de-risk energy efficiency investments for a new and emerging number of financial institutions entering this market.

✓ Creation of an open source **database** for energy efficiency investments performance monitoring and benchmarking

✓ Development of common, accepted and standardized underwriting and investment **framework** for energy efficiency investing

EnergyPro COWI BPIE CLIMATE STRATEGY PARTNERS Fraunhofer

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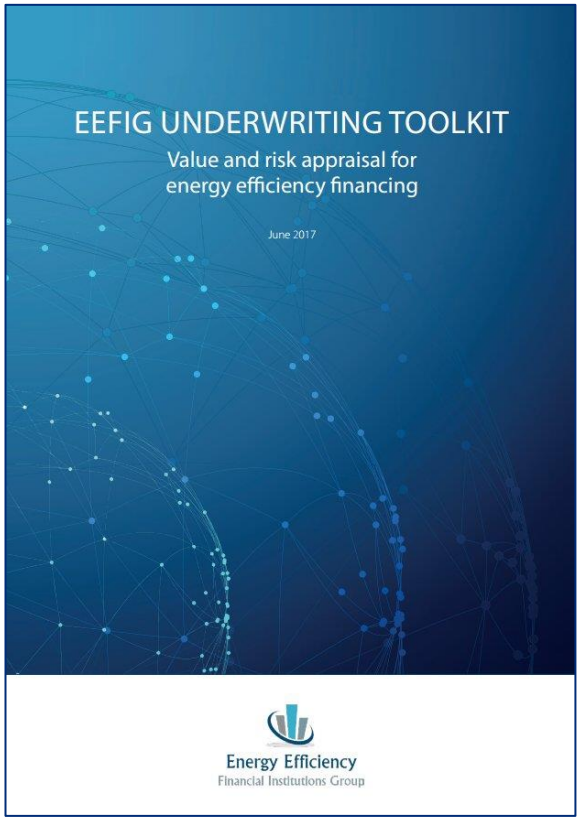
EEFIG Underwriting Toolkit (Jun 2017)

Designed to assist financial institutions to scale up their deployment of capital into energy efficiency:

- to help originators, analysts and risk assessors better understand energy efficiency investments and therefore better evaluate both their value and the risks.
- to provide a common framework for evaluating energy efficiency investments and analysing risks to allow capacity building around standardised processes and understanding.
- to help developers and owners seeking to attract external capital to (develop) energy efficiency projects in a way that better addresses the needs of financial institutions.
- to foster a common language between project developers, project owners and financial institutions.



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Access on-line the EEFIG underwriting toolkit

https://valueandrisk.eefig.eu/

EEFIG UNDERWRITING TOOLKIT
Value and Risk Appraisal for Energy Efficiency Financing

A tool to assist financial institutions to scale up the deployment of capital into energy efficiency

Introduction

Financial Institutions and Energy Efficiency

Financing Energy Efficiency

The Project Life Cycle

Value and Risk Appraisal

Resources

"I strongly recommend this toolkit to project promoters, banks, financial institutions and anyone else interested in financing energy efficiency."

Foreword by Maroš Šefčovič, European Commission VP

"I recommend this toolkit to any policy maker, investor, business, developer or citizen seeking a more inclusive, green economy."

Foreword by Erik Solheim, UN Environment

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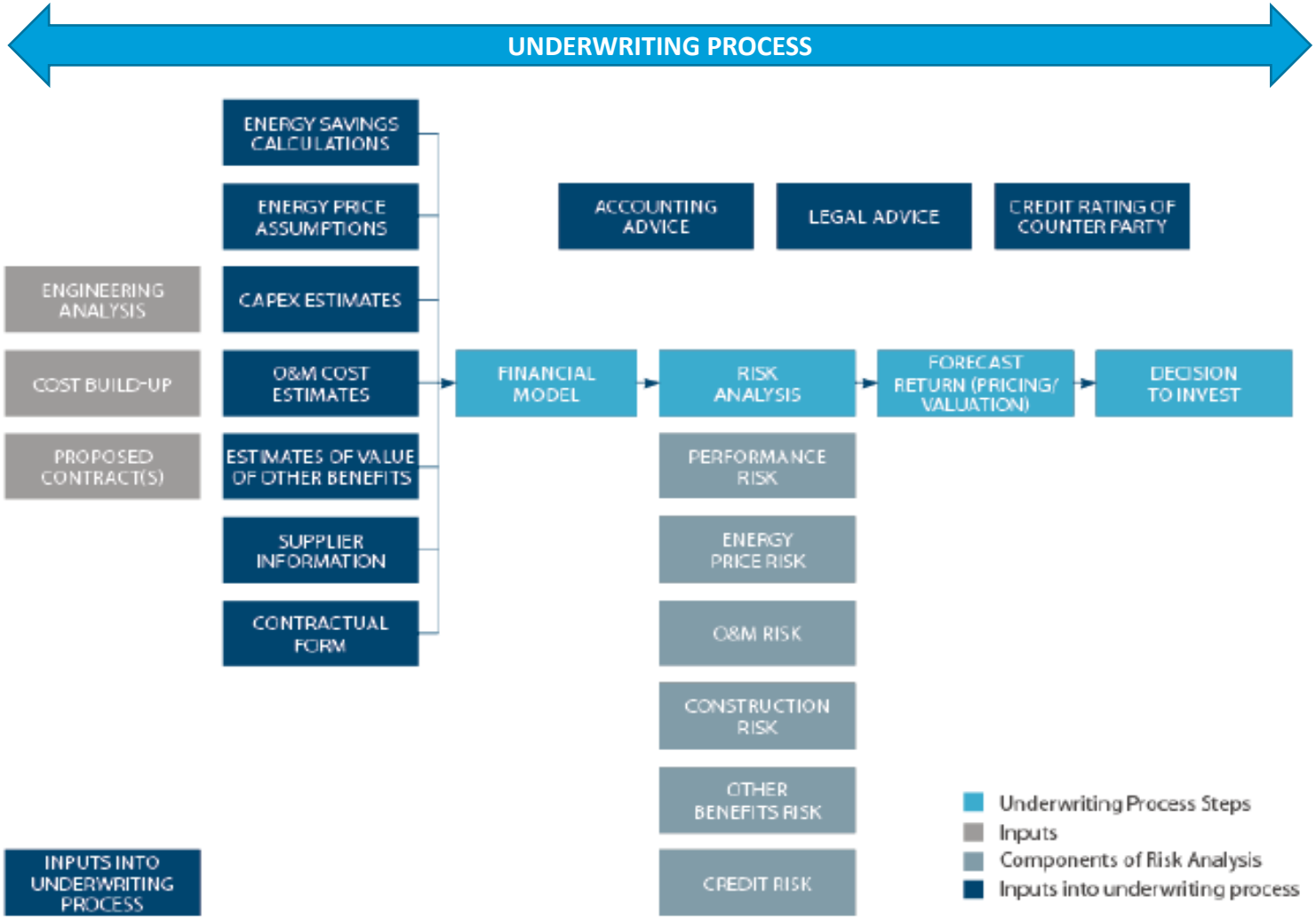
Energy efficiency finance underwriting process

Taken from EEFIG Value & Risk Appraisal Tool



De-Risking Energy Efficiency Platform (DEEP)

The DEEP platform was launched* in Nov 2016:

- An open-source database to up-scale energy efficiency investments in Europe through the improved sharing and transparent analysis of existing projects in Buildings and Industry.
- Offers to the user the following services:
  1. Key figures
  2. Data overview
  3. View Charts
  4. Add and manage projects
  5. Analysis toolbox
  6. Benchmark of projects

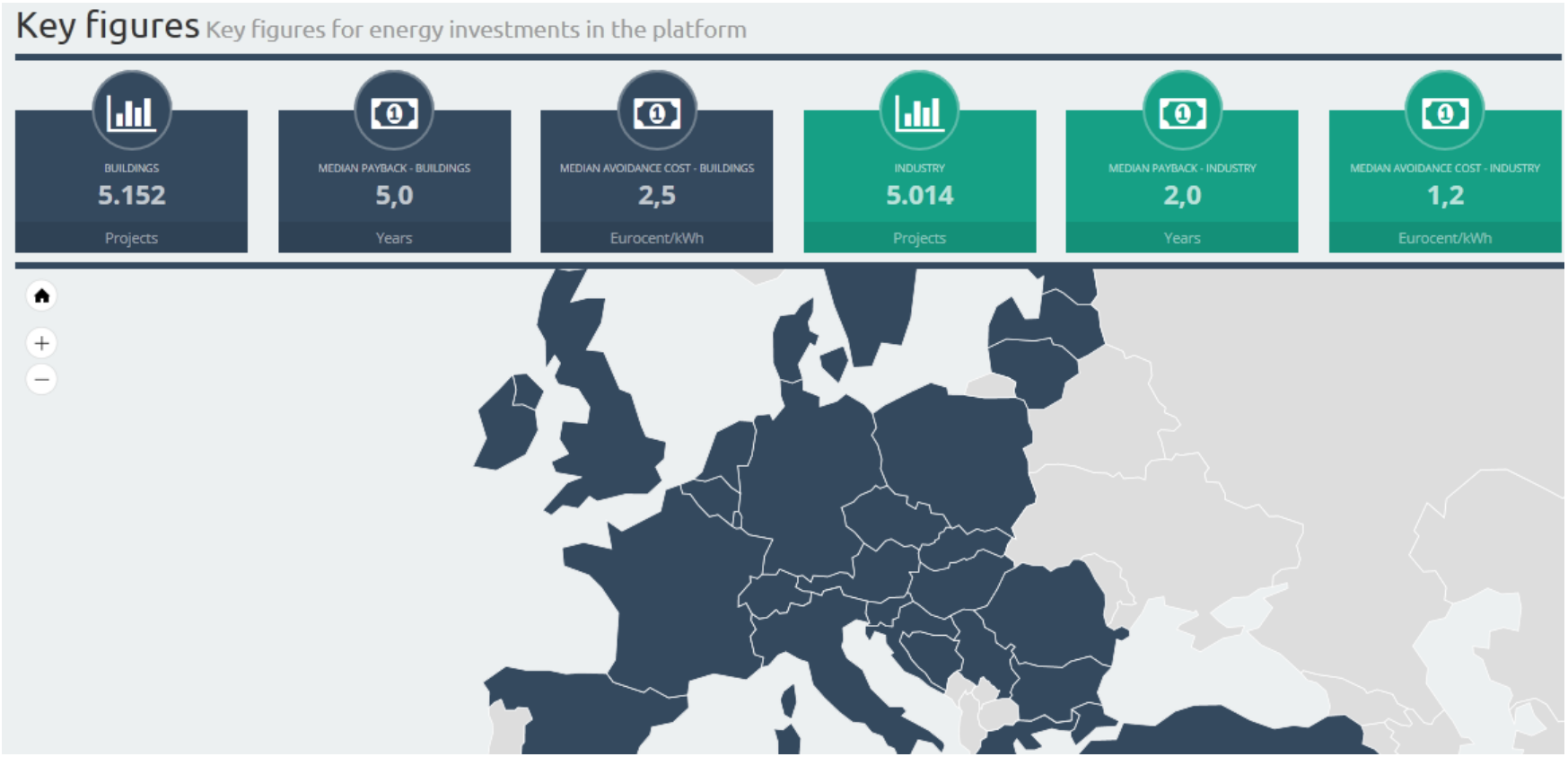
The projects are not a statistically representative sample of all energy efficiency projects in EU !

Note: In close coordination with the Commissions launch of the Clean Energy for All Europeans package.

On-line access to EEFIG DEEP

https://deep.eefig.eu

Overview of the interface (1/2)

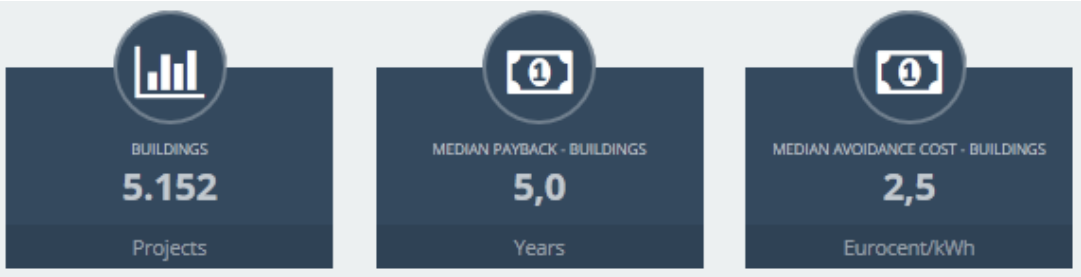


✓ More than 11,000 European EE projects included (Oct2017) described by public and private investment funds and financial institutions, national and regional authorities, as well as energy efficiency solution providers

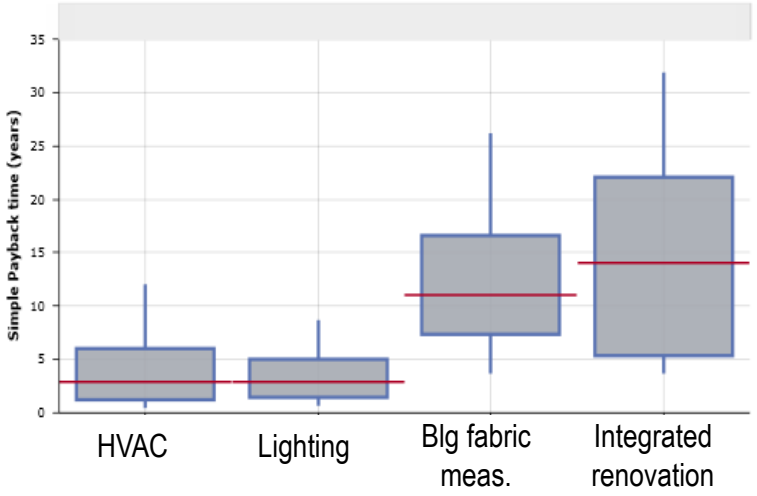
Source: DEEP Output data on 17/10/2017

Focus on building data - payback time*

** years required for the saving to pay for the investment without any interest costs*

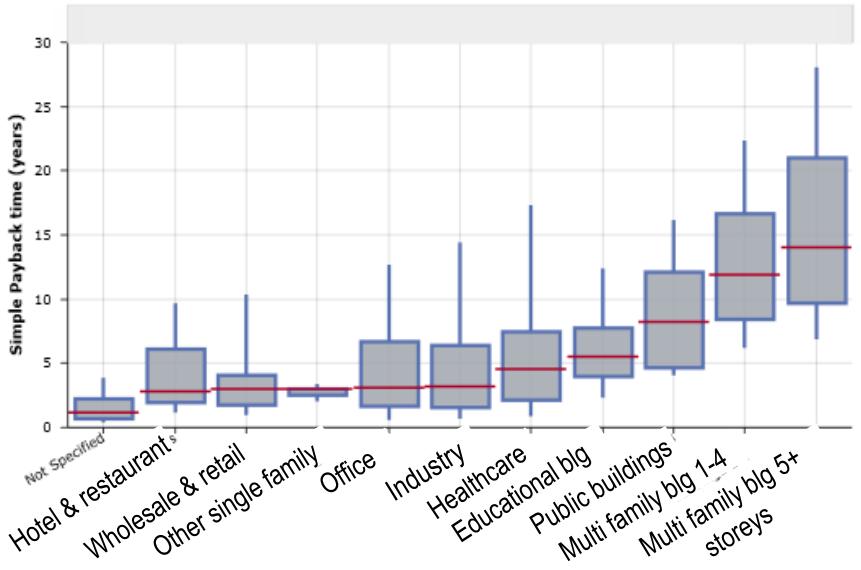


Distribution of payback time per measure type (in year)



Sub-set of projects shown in Chart = 3.500 from a Database total of 10166

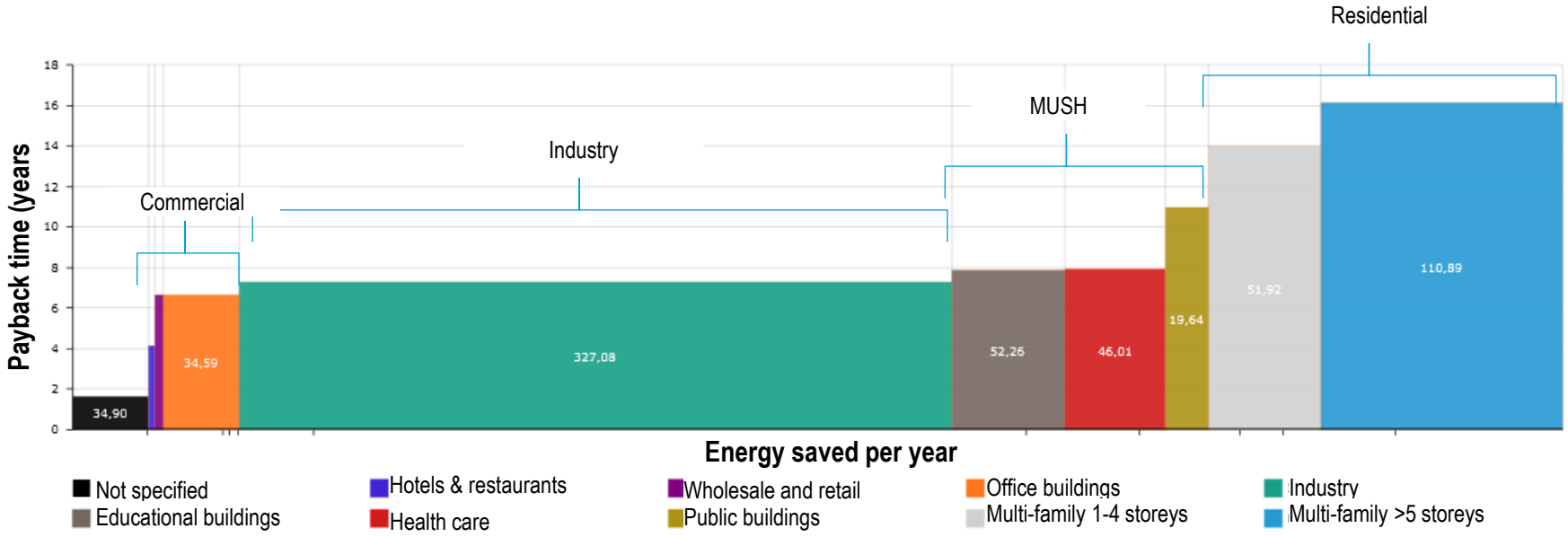
Distribution of payback time per blg type (in year)



Source: DEEP Output data on 17/10/2017

Focus on building data – energy savings

Energy saving potential in building (GWh/y) by average payback time (y) and use

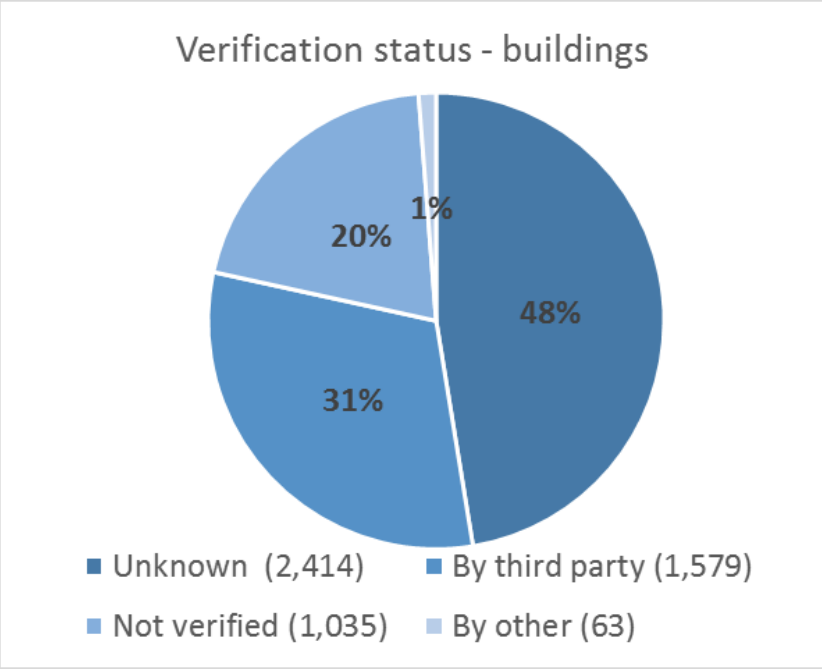


Sub-set of projects shown in Chart = 3.495 from a Database total of 10166

Source: DEEP Output data on 17/10/2017

Emerging results - Verification

- For buildings projects, savings have been **verified by third parties for 31%** of the projects and 20% have not been verified (status is unknown for almost 50% of the building projects).
- For industry projects, less than 1% of the projects have an independent ex-post verification of the energy savings.
- EE projects continue to lack sufficient monitoring of ex-ante and ex-post data, leading to higher risk perception.



Note: Data providers can upload data for verification by the administrators of the platform

Focus during 2017

Focus on supplementary data collection during 2017:

- Better geographic spread of buildings energy efficiency projects (more projects outside Germany, Poland, France, UK and Belgium);
- Better geographic spread of industrial energy efficiency projects (more projects outside Germany, USA and UK);
- More projects with data on verification status (for both buildings and industry);
- More projects with information on multiple benefits (for both buildings and industry).

New:

- Step-by-step user guidance;
- Translation of interface and user guide to French, German, Italian, Spanish and Polish.

Considerations

Making the Energy Efficiency market investible

1

Risks

What are the main risks that investors face in a country /sector when investing in energy efficiency energy technologies?

2

Triple-A

What are the Triple-A investments?
(investments that have an extremely strong capacity to meet their financial commitments, by attaining the expected performance targets)

3

Recommendations

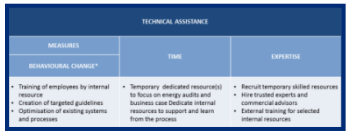
- ✓ What energy efficiency investments are **realistic and feasible** in the country context and each sectors?
- ✓ How they could be **financed in practice** in the short/ medium term?

A multi-step gradual approach

1st Step — **Accelerating Demand**

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

Technical Assistance



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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

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Energy Efficiency - Productivity Enhancement

De-Risking Energy Efficiency Finance

Thank You. Q&A

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