



# The De-risking Energy Efficiency Platform (DEEP)

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# The Energy Efficiency Financial Institutions Group ‘EEFIG’

- The EEFIG was established in 2013 by DG Energy and UNEP FI as its platform for public and private financial institutions, industry representatives, sector experts and policy makers to **identify barriers to the long-term financing for energy efficiency and propose solutions.**
- The EEFIG 2015 report “**Energy Efficiency – the first fuel for the EU Economy**” highlighted that:
- EE Investment is strategically important for the EU
  - Public-private collaboration is required
  - Lack of evidence on the performance of EE investments makes the benefits and the financial risk harder to assess
  - Lack of commonly agreed procedures and standards for EE investment underwriting increase transaction costs
- The report has been a key source of inspiration for EU policy in the area and formative for the continued work of EEFIG.

## The EEFIG members

- Public and private financial institutions (banks, investors, insurers etc.)
- Banking associations and investor groups
- Industry representatives and associations
- Energy efficiency industry experts
- Energy efficiency services representatives
- SME associations and expert representatives
- Civil society experts representing diverse energy efficiency stakeholder groups
- International Energy Agency (IEA)
- European Commission
- UNEP FI

# EEFIG Working Groups, Tools and Activities

## EEFIG Working Groups

- EE in the EU Taxonomy and tagging of EE loans
- Evolution of EE financing practices
- Financial performance of loans for EE improvements
- Multiple benefits of EE projects
- Further improvements of EE in industry
- EE financing in the framework of the next MFF

## EEFIG Tools and other activities

- EEFIG De-risking Energy Efficiency Platform 'DEEP' (database for EE investments performance monitoring and benchmarking)
- EEFIG Underwriting Guidance (value and risk appraisal framework for energy efficiency finance and investments)
- EEFIG dissemination activities and stakeholder activation

## EEFIG Phases

1. The EEFIG Report 2015
2.
 

TOOLS: DEEP and Underwriting Guidance 2016-2017	ENGAGEMENT: EEFIG local in Member States
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3. Smart Finance 2018-2022

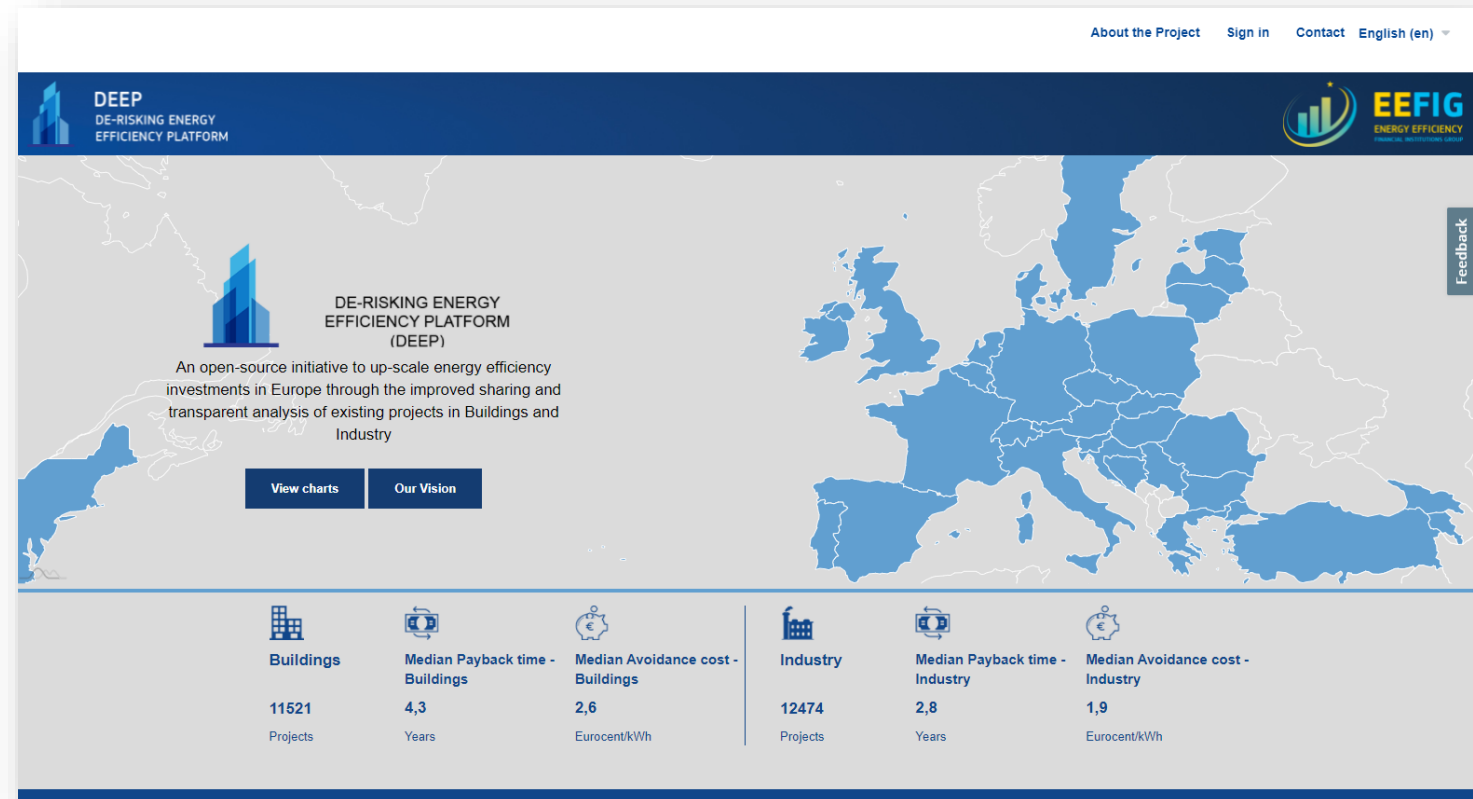
# The De-risking Energy Efficiency Platform (DEEP)

*An open-source initiative to up-scale energy efficiency investments in Europe through the improved sharing and transparent analysis of existing projects in Buildings and Industry*



# The De-risking Energy Efficiency Platform (DEEP)

- DEEP is an open-source database for energy efficiency investments performance monitoring and benchmarking.
- DEEP provides an improved understanding of the real risks and benefits of energy efficiency investments by providing market evidence and investment track records.
- Includes 24,000 energy efficiency projects in buildings and industry from 32 data providers.
- New data and improved functionality is added regularly.
- DEEP can be accessed at [deep.eefig.eu](http://deep.eefig.eu)



# What's new in DEEP 2.0

The new DEEP 2.0 launched in June 2021 includes a number of improvements:




- New structure where more information is directly available on the landing page and accessible without registering as a user or logging in.
- New data fields for buildings integrated RE and fields aligning with the new EU taxonomy.
- Improved benchmarking tool that allows users to benchmark their own portfolio against DEEP data as well as benchmarking between user defined subsets of the DEEP data.
- More advanced risk indicators (skewness, kurtosis and Value at Risk).
- Easier to access DEEP analysis through API with worked example.

# The DEEP Data Providers



# The DEEP Results – KPIs

## Payback time and Avoidance cost

		
<b>Buildings</b>	<b>Median Payback time - Buildings</b>	<b>Median Avoidance cost - Buildings</b>
<b>11521</b>	<b>4,3</b>	<b>2,6</b>
Projects	Years	Eurocent/kWh

		
<b>Industry</b>	<b>Median Payback time - Industry</b>	<b>Median Avoidance cost - Industry</b>
<b>12474</b>	<b>2,8</b>	<b>1,9</b>
Projects	Years	Eurocent/kWh

Note: The avoidance cost is the average cost in Eurocent for each kWh energy saved over the lifetime of the measure. Think LCOE from EE.

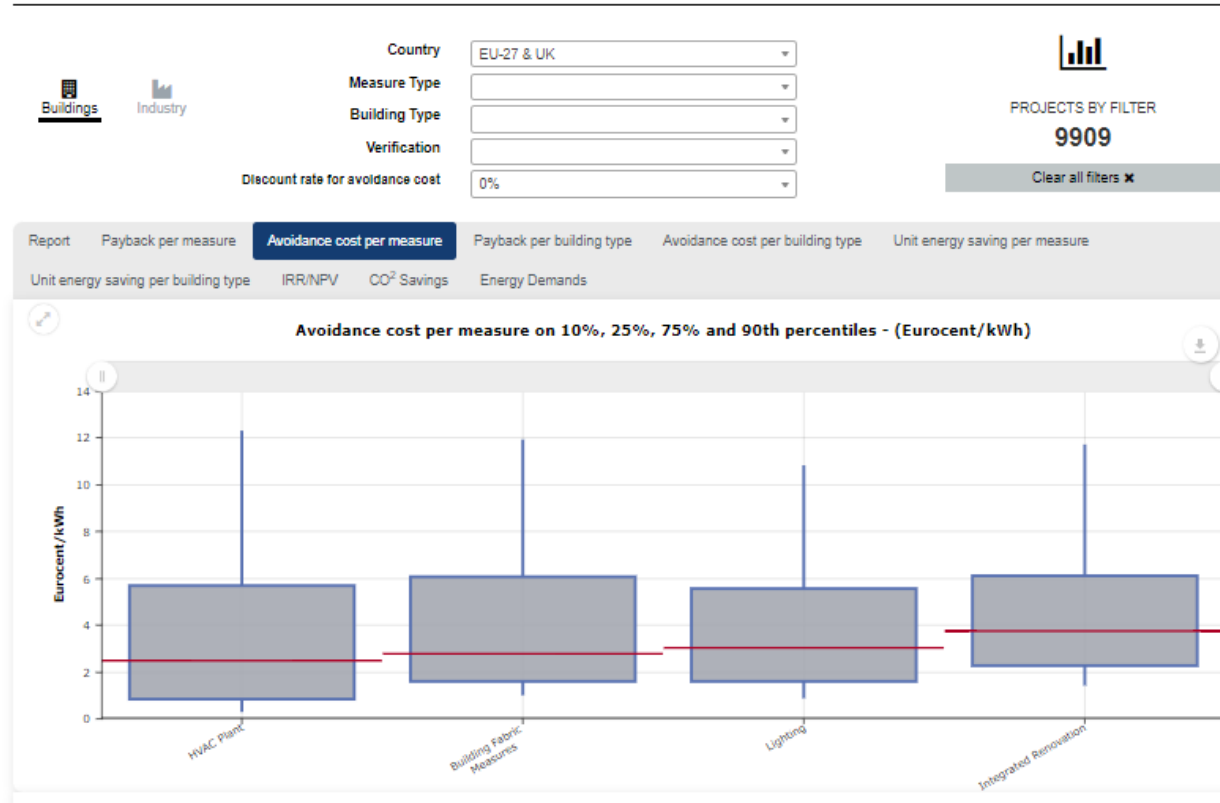


# The DEEP Results – Buildings

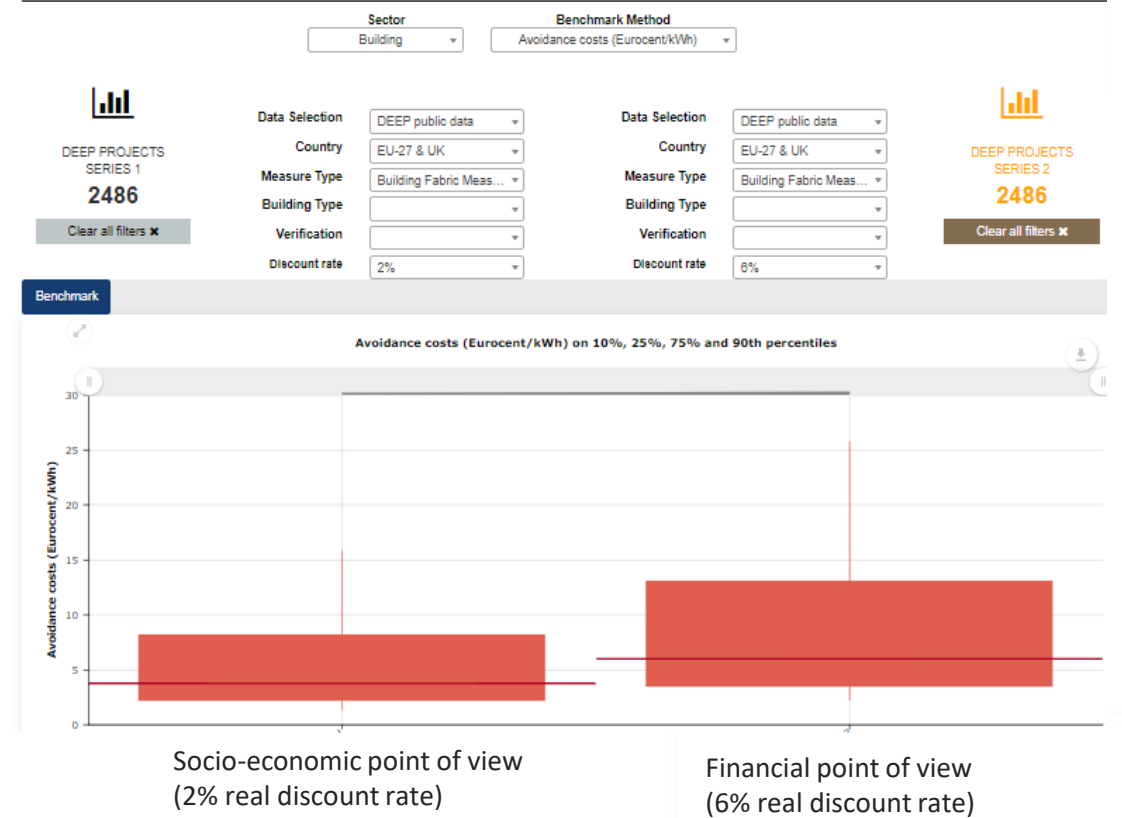
Deeper renovations are attractive from a socio-economic point of view but require access to long-term financing at attractive terms



## View Charts - Buildings



## Benchmark your Projects



# The DEEP Results – Industry

Energy efficiency is the cheapest source of clean fuel and many energy efficiency projects have payback times below 4 years

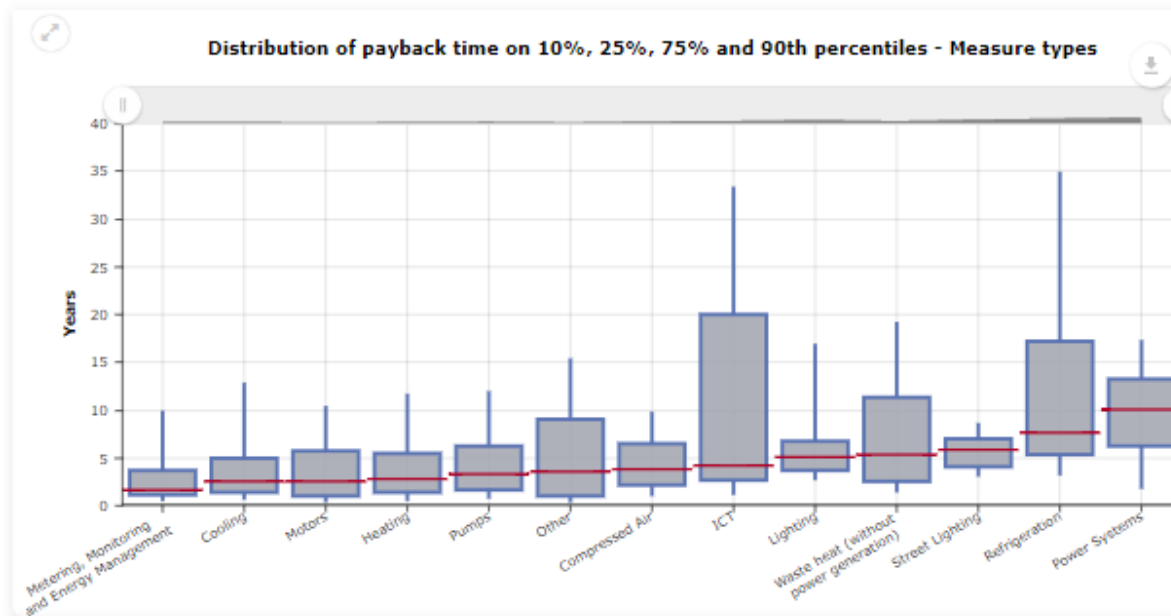


View Charts - Industry

Buildings **Industry** Country: EU-27 & UK Measure Type: [ ] Organization Size: [ ] Verification: [ ] Discount rate for avoidance cost: 0% PROJECTS BY FILTER: 8802 Clear all filters ✕

The payback time is the number of years of energy savings needed to pay back the initial investment before financing.

Report **Payback per Measure** Avoidance cost per measure Payback per Size IRR/NPV CO<sup>2</sup> Savings Energy Demands

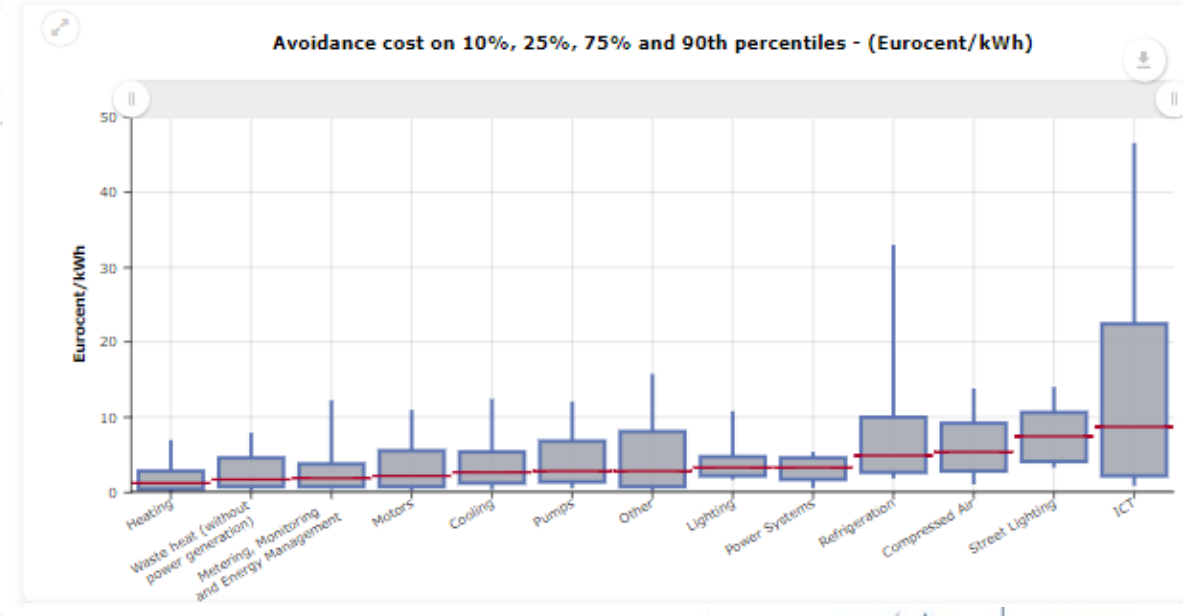


View Charts - Industry

Buildings **Industry** Country: EU-27 & UK Measure Type: [ ] Organization Size: [ ] Verification: [ ] Discount rate for avoidance cost: 0% PROJECTS BY FILTER: 8802 Clear all filters ✕

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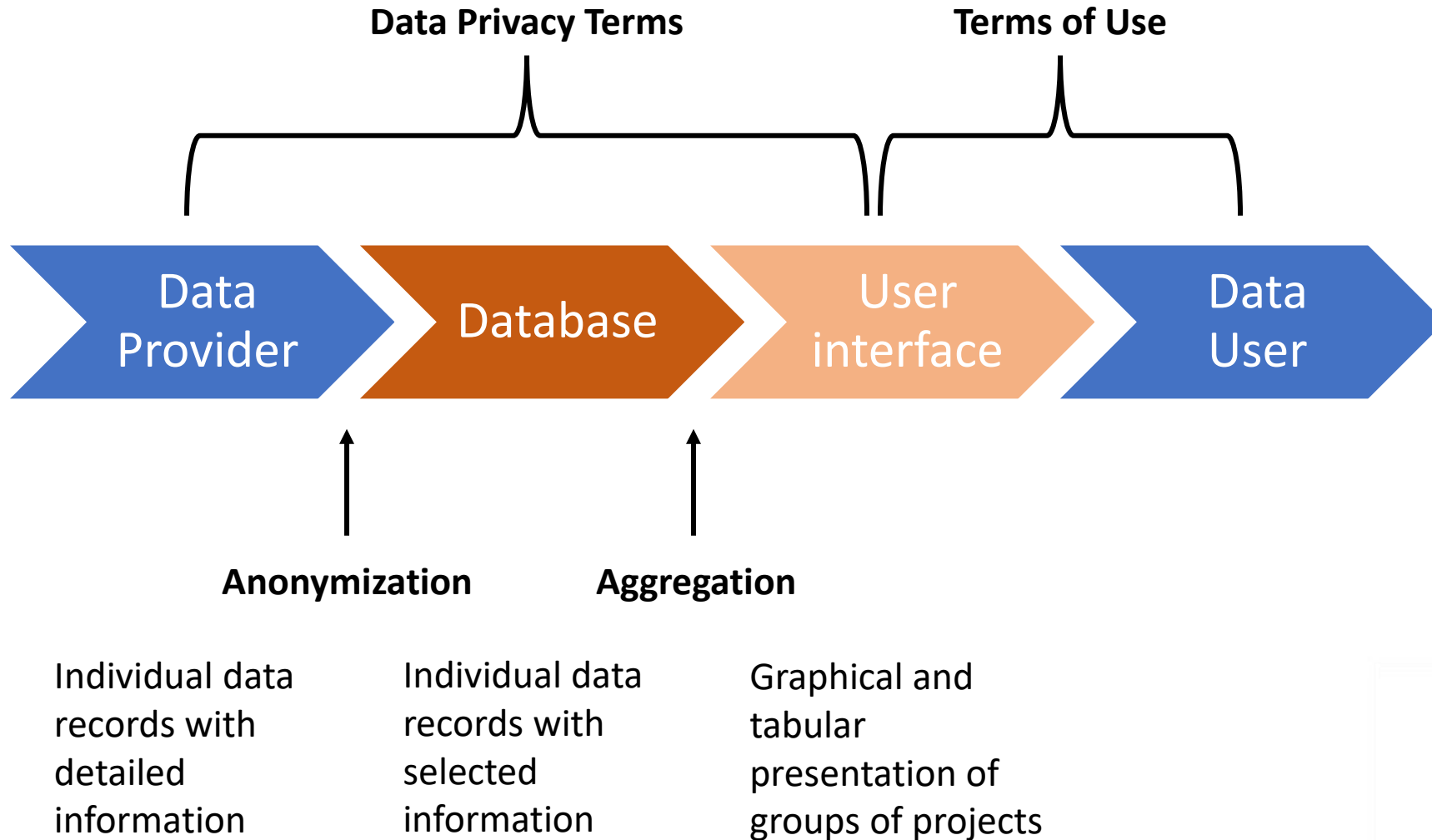
Report **Avoidance cost per measure** Payback per Measure Payback per Size IRR/NPV CO<sup>2</sup> Savings Energy Demands



# The DEEP Data Structure - Balancing complexity and simplicity

- The data template covers (simple 20 fields, advanced 200 fields):
  - Project and sector information
  - The energy efficiency investment measures
  - Energy consumption data before and after
  - Financial indicators
  - Qualitative indicators (reasons for investment and benefits realized)
  
- The minimum information for a project to be meaningful are:
  - Country
  - Building/industry
  - Measures included
  - Investment in EUR
  - Energy saving in EUR and/or Energy saving in kWh
  - Has the energy saving been independently verified

# Solving the data privacy issues

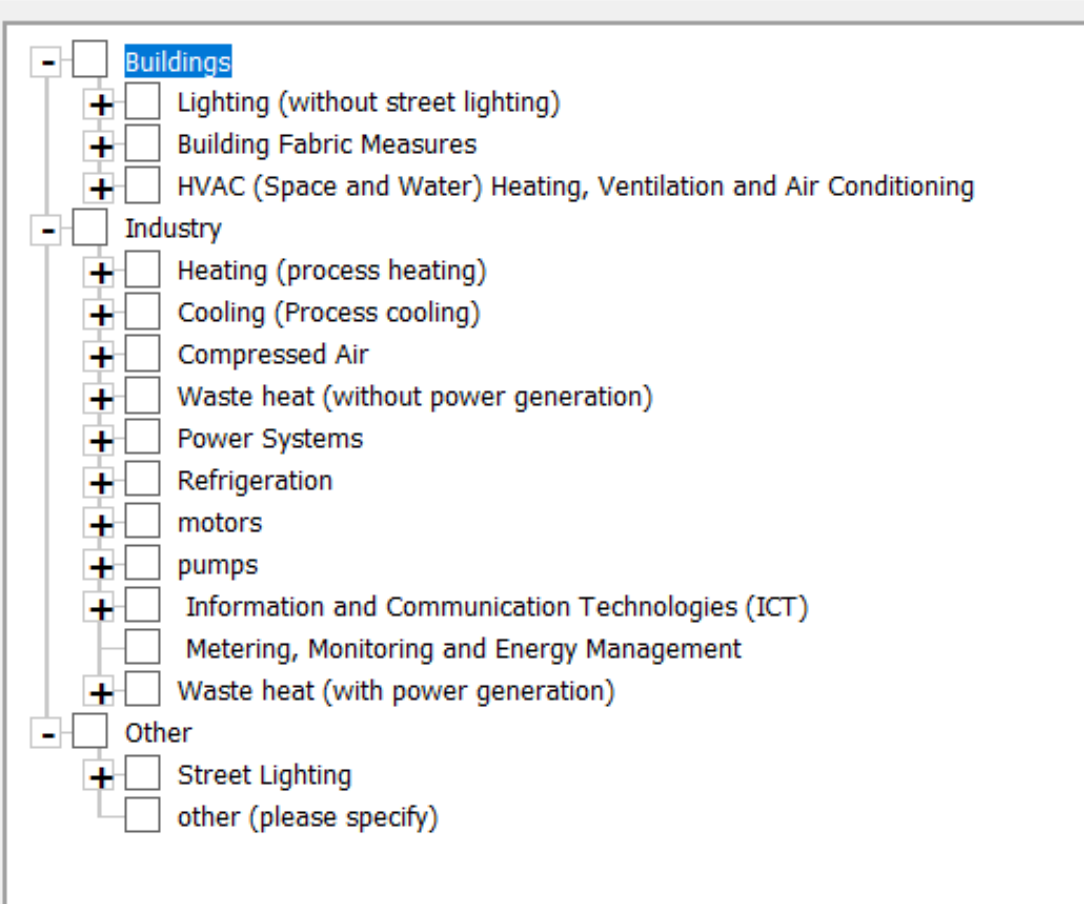


# The DEEP Data Structure – Key fields for Buildings

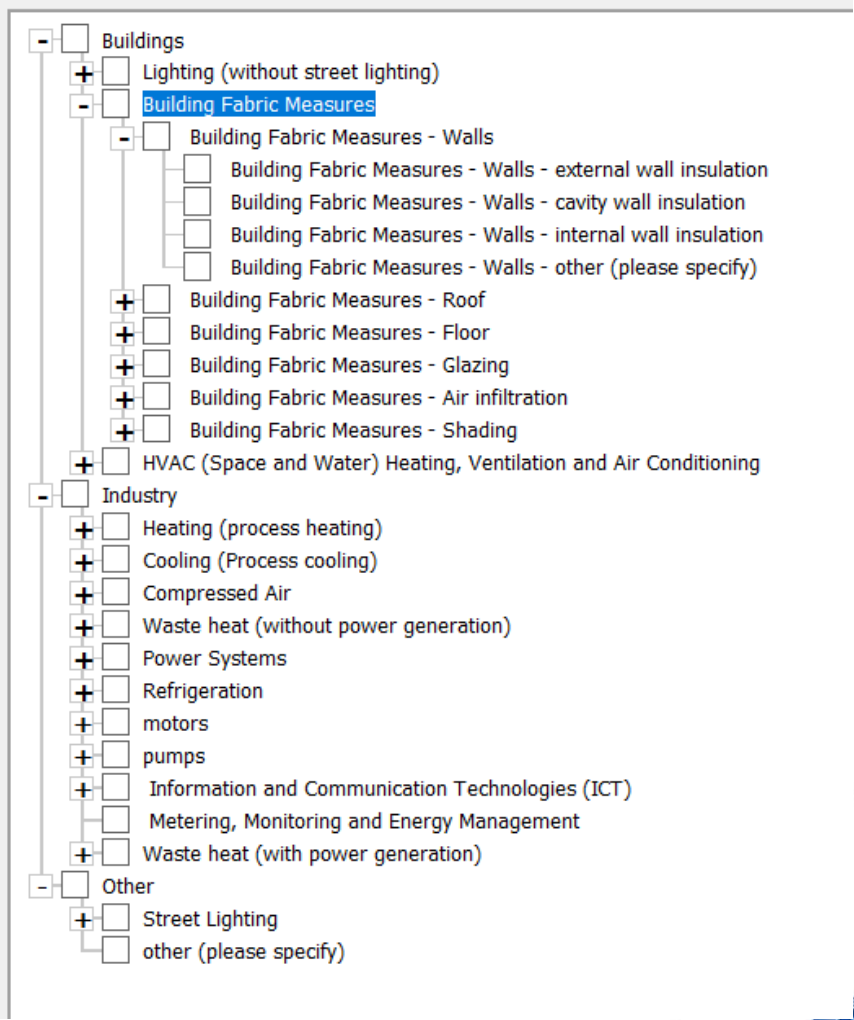
Field	Content
(1)	ID
(2)	Title
(3)	Country
(5)	City/locality
(12)	Building, Industry, or Infrastructure (list for selection)
(15)	Building type (list for selection)
(16)	Ownership
(17)	Floor area of building (m2)
(18)	Which Measures are included in the investment (list for selection)
(29)	Date investment became operational (month/year)
(31)	Energy Consumption BEFORE intervention (kWh/a)
(36)	Predicted Energy Consumption AFTER intervention (kWh/year)
(38)	ACTUAL Energy Consumption AFTER intervention (kWh/year)
(42)	Have the project energy savings been independently verified?
(51)	Value of EE investment (€)
(55)	Net annual saving (€)
(61)	Value of grant/subsidy (if any) (€)
(67)	Please state all the additional benefits triggered by the project (list for selection)
(68)	Please rate actual financial performance compared with expectation (list for selection)
(71)	Energy savings per year (kWh/y)

# The DEEP Data Structure – EE Measures

Select one or more measures



Select one or more measures



# The DEEP Data Entry Format

----- Sector Indicators -----										----- Please describe the energy efficiency in -----
Project		Where is the investment located?								(18)
(1)	(2)	(3)	(5)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Project ID	Project Title	Country	City/locality	Is the investment in a building, in industry, or in infrastructure?	Industry Sector/Organisation type	Organisation size	Building type	Ownership	Floor area of building m2	Which Measures are included in the investment
										Follow 3 steps to fill in measures: 1: Double click relevant cell to show measures 2: Mark selected measures as desired 3: Click on "select" in order to "save" your choices



Hide column comments

Show column comments

Coloring	
Essential	Drop down boxes
Confidential	Double click cells for multiple selection
Essential and Confidential	
Not in use	

## Simple data entry

About You, the data provider	
Your name	
Your email address	
Your telephone number	
Your organisation	
What is the nature of your organisation?	

Simple data entry

Detailed data entry

Field Description Simple

Field Description

# THE DE-RISKING ENERGY EFFICIENCY PLATFORM (DEEP)

## Why should you use it?



- DEEP provides anonymized historical data structured along major project characteristics (geography, energy efficiency measures, verification status, industry / type of building, multiple benefits, etc.).
- DEEP platform provides insight on financial performance indicators such as payback time (allows assessment of minimum loan tenure needed) and discounted avoidance cost (allows assessment of financial viability at different interest rates and energy prices).
- These clearly document the existence of many investment opportunities within energy efficiency in both buildings and industry.
- Financial institution may upload their own individual projects or portfolios as private projects and benchmark them against user-selected sub-sets of the projects in DEEP.
- Want to test it? Access DEEP through: [deep.eefig.eu](https://deep.eefig.eu)



### Become a user

- ✓ Access anonymized historical data structured along major project characteristics
- ✓ Enhance your understanding of and access to energy efficiency finance related business opportunities
- ✓ Streamline underwriting procedures and decrease due diligence and transaction costs
- ✓ Improve risk assessment through high quality and credible data framework
- ✓ Upload your own individual projects or portfolios as private projects and benchmark them against user-selected sub-sets of the projects in DEEP.





# THE DE-RISKING ENERGY EFFICIENCY PLATFORM (DEEP)

## Become a data provider!



- Through data sharing with EEFIG DEEP you may contribute to the de-risking of energy efficiency financing in buildings and industry and through this to decarbonization of the EU economy.
- Energy efficiency in buildings and industry is not only the cheapest fuel for the EU economy but also generate many non-energy benefits (reduced air pollution, improved indoor comfort, reduced respiratory deceases).
- EEFFIG DEEP is financed by the European Commission DG Energy and the data you share will be kept confidential, not shared with third parties and only shown through aggregated analysis.
- It is possible to enter data directly into the web interface, but an excel based input sheet allows easy data entry for multiple projects. An API for easy data upload and access to aggregated DEEP analysis is under development.
- The 20 most important data fields are included in the Simple Data Entry, whereas the Detailed Data Entry provides options for registering more detailed project data. New projects are quality assured and uploaded quarterly.



### Become a data provider

- ✓ Contribute to the de-risking of energy efficiency financing and through this to decarbonization of the EU and global economy
- ✓ Gain acknowledgement and visibility as data contributor
- ✓ Benchmark your project performance versus others, connect your data to investors and influence the industry best practice
- ✓ EEFIG DEEP is financed by the European Commission DG Energy and the data you share will be kept confidential, not shared with third parties and only shown through aggregated analysis.
- ✓ Enter data through web interface, excel template or API.



Thank you!