



Department for
Business, Energy
& Industrial Strategy

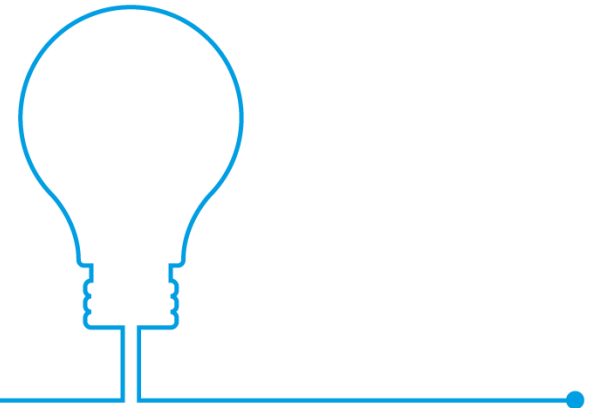
Promoting Energy Efficiency in the UK Landscape and Considerations

Sustainable Energy Investment Forum, Dublin



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28 September 2017



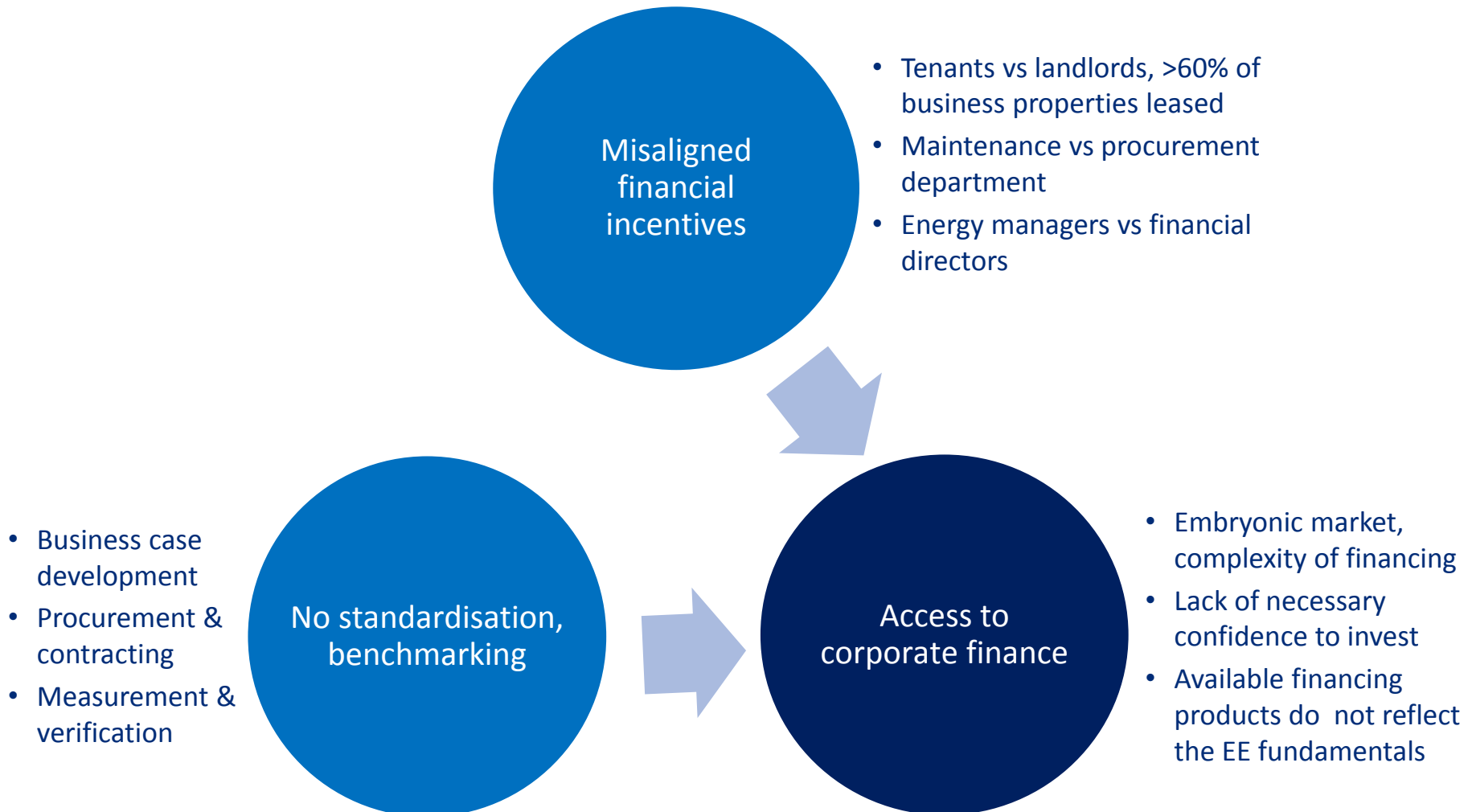
- **Recognised Energy Efficiency Finance Barriers**
General, SMES and aggregation
- **UK (*non-domestic*) Landscape**
Market, policies, consumers, businesses and SMEs
- **External Engagement**
G20, EEFIG, ICP, DfP and LENDERS
- **Policy Considerations**
Value chain, targeting and approach

Recognised Energy Efficiency Finance Barriers



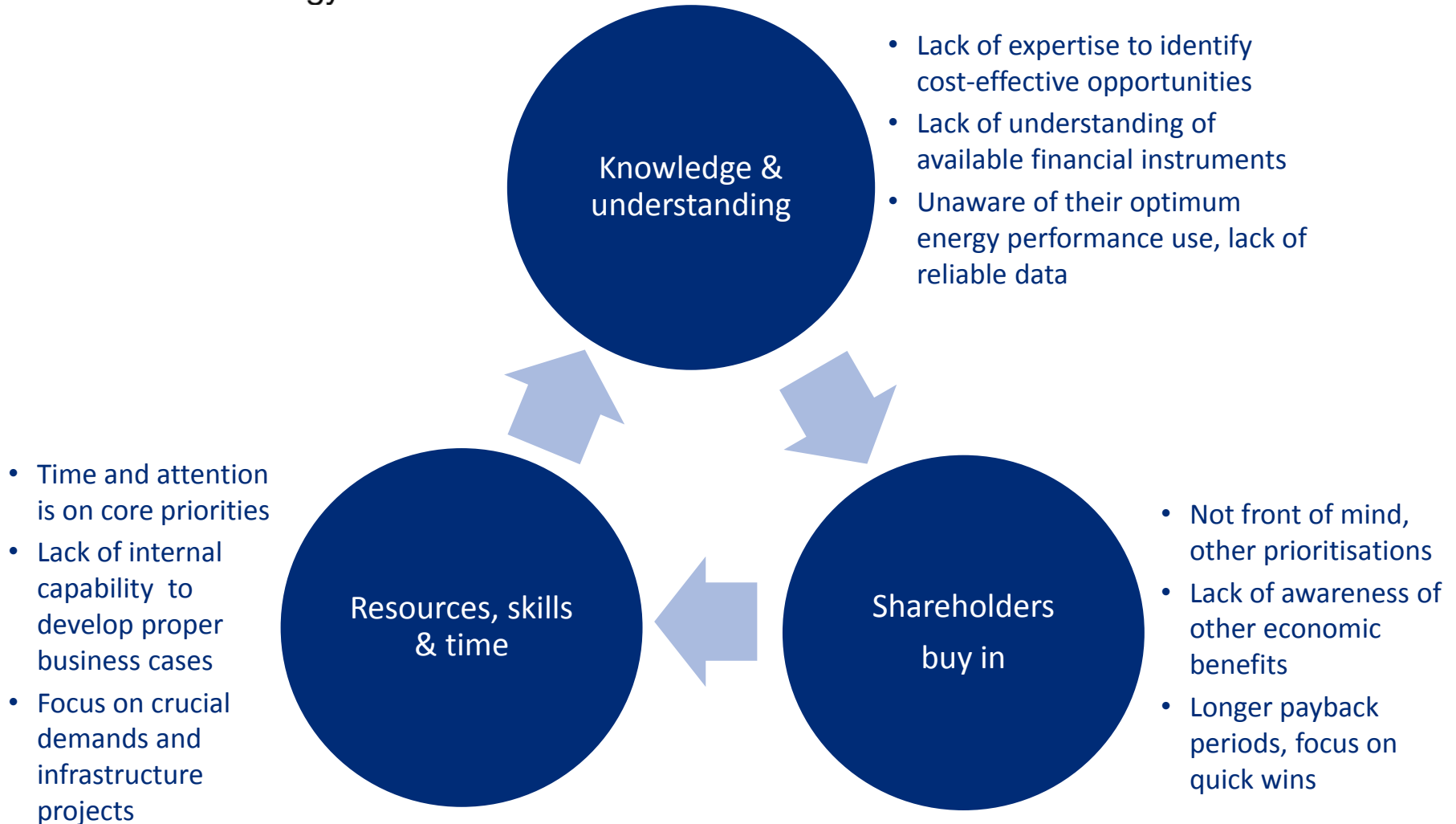


The general market barriers to EE finance uptake



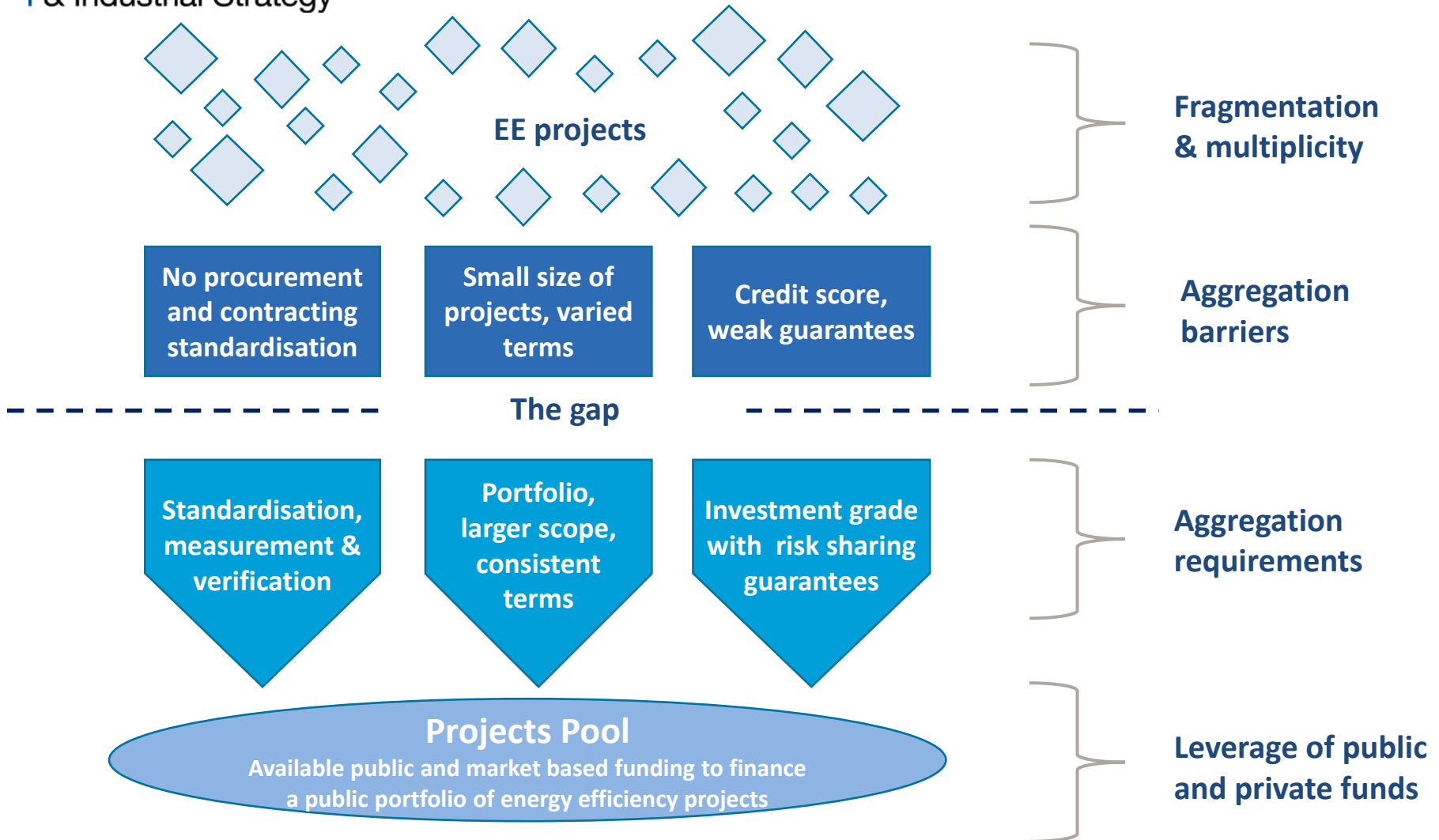


More difficult for SMEs to decide actions?





Need to overcome aggregation barriers



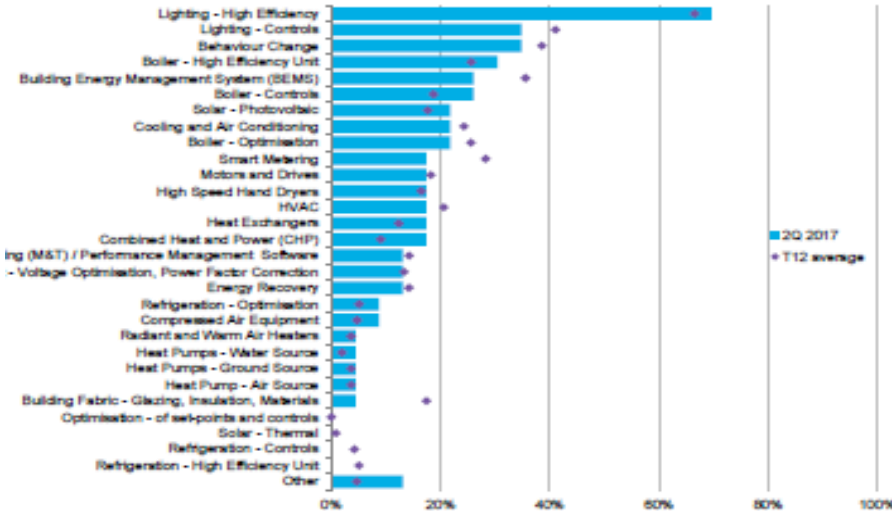
UK Landscape



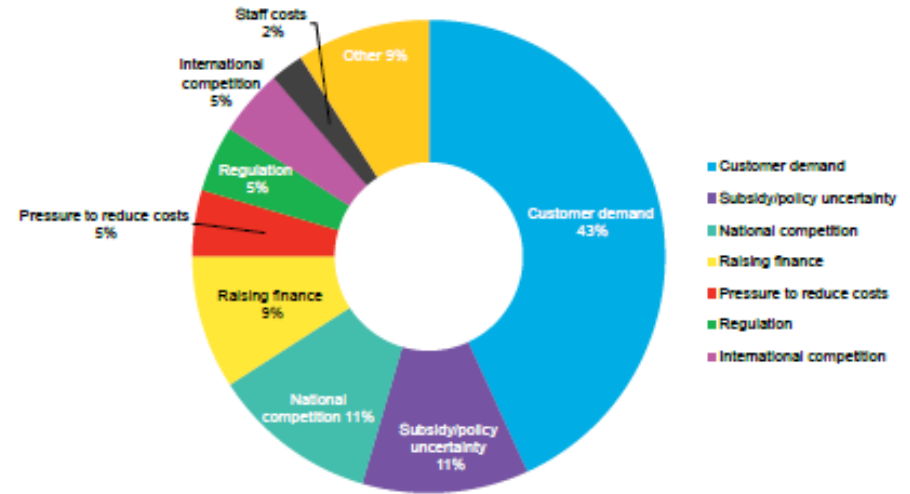


Recent non-domestic energy efficiency market stats

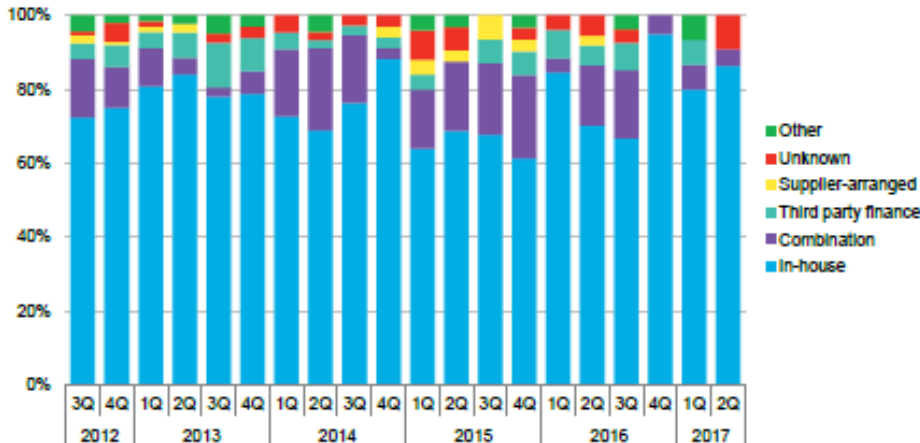
Uptake of technologies, Q2 2017 vs 12mths average



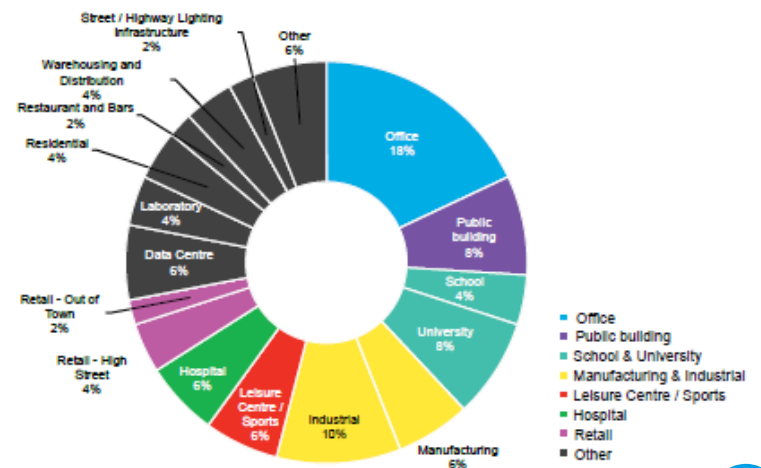
Key issues of concern to energy efficiency suppliers, Q1 2017



Trends in finance models, Q3 2012- Q2 2017



Breakdown of commissioned projects by property type, Q2 2017





Non-domestic energy efficiency policies

Highlights

- **Climate Change Levy (CCL):** A tax on energy delivered to non-domestic users to provide an incentive to increase energy efficiency and to reduce carbon emissions
- **Climate Change Agreements (CCAs):** Voluntary agreements that allow eligible energy-intensive sectors to receive up to 90% reduction in the Climate Change Levy if they sign up to stretching energy efficiency targets agreed with Government.
- **Enhanced Capital Allowance (ECA):** The scheme allows businesses to benefit from tax breaks when investing in eligible energy-saving technologies
- **Energy Demand Reduction (EDR):** A pilot programme rewarded kW of electricity capacity savings that are achieved by installing energy demand reduction measures.
- **Energy Savings Opportunity Scheme (ESOS):** A mandatory energy assessment scheme that requires non-SMEs to carry out energy audits, at least every 4 years
- **Energy Company Obligation (ECO):** Imposes obligations on larger gas and electricity suppliers to promote energy efficiency measures in domestic households.
- **Salix Finance:** Interest-free Government funding to the public sector to improve their energy efficiency, reduce carbon emissions and lower energy bills
- **RE:FIT:** Pioneered by GLA, the scheme provides to public sector a procurement framework for commercial energy efficiency projects. BEIS provides grant funding to LPs (in England outside London) to cover their administering implementation costs.
- **PRS:** Private landlords will need to ensure that their properties reach at least an E EPC rating before granting a tenancy to new or existing tenants.





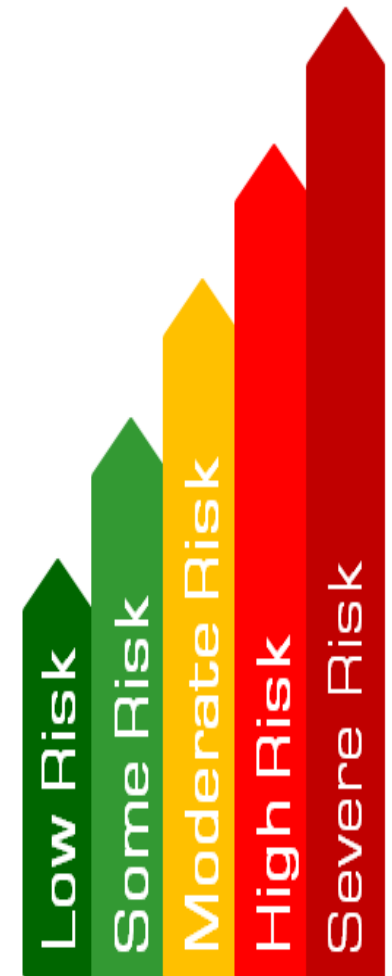
Example: The minimum energy performance standard

Minimum standard

- Properties in scope need to reach a minimum E EPC rating or above in order to be let
- Landlord's obligation to ensure the property complies
- 18% non-domestic property currently F or G
- However, it may not be appropriate for all buildings to reach an E EPC rating - prescribed time-limited exemptions apply for these situations

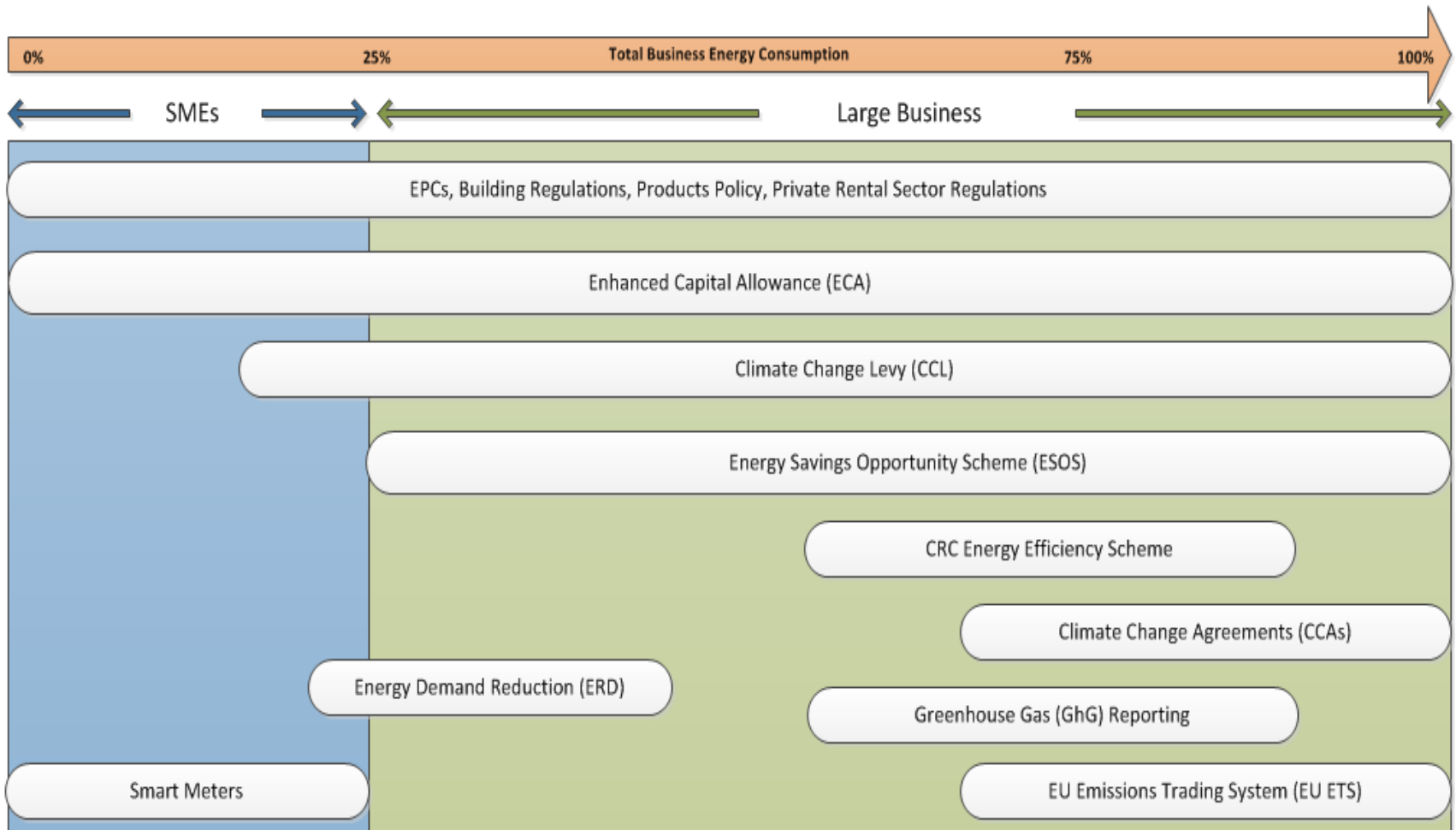
Trigger point

- Minimum standard to apply in a phased manner:
 - ✓ New and renewed leases from 1 April 2018
 - ✓ All privately rented non-domestic properties in scope – incl. occupied property – from 1 April 2023 (“backstop”)
- Where a lease is granted on a non-compliant property without a landlord's control (e.g. under operation of law or by order of a court), an additional six months is provided for a landlord to comply



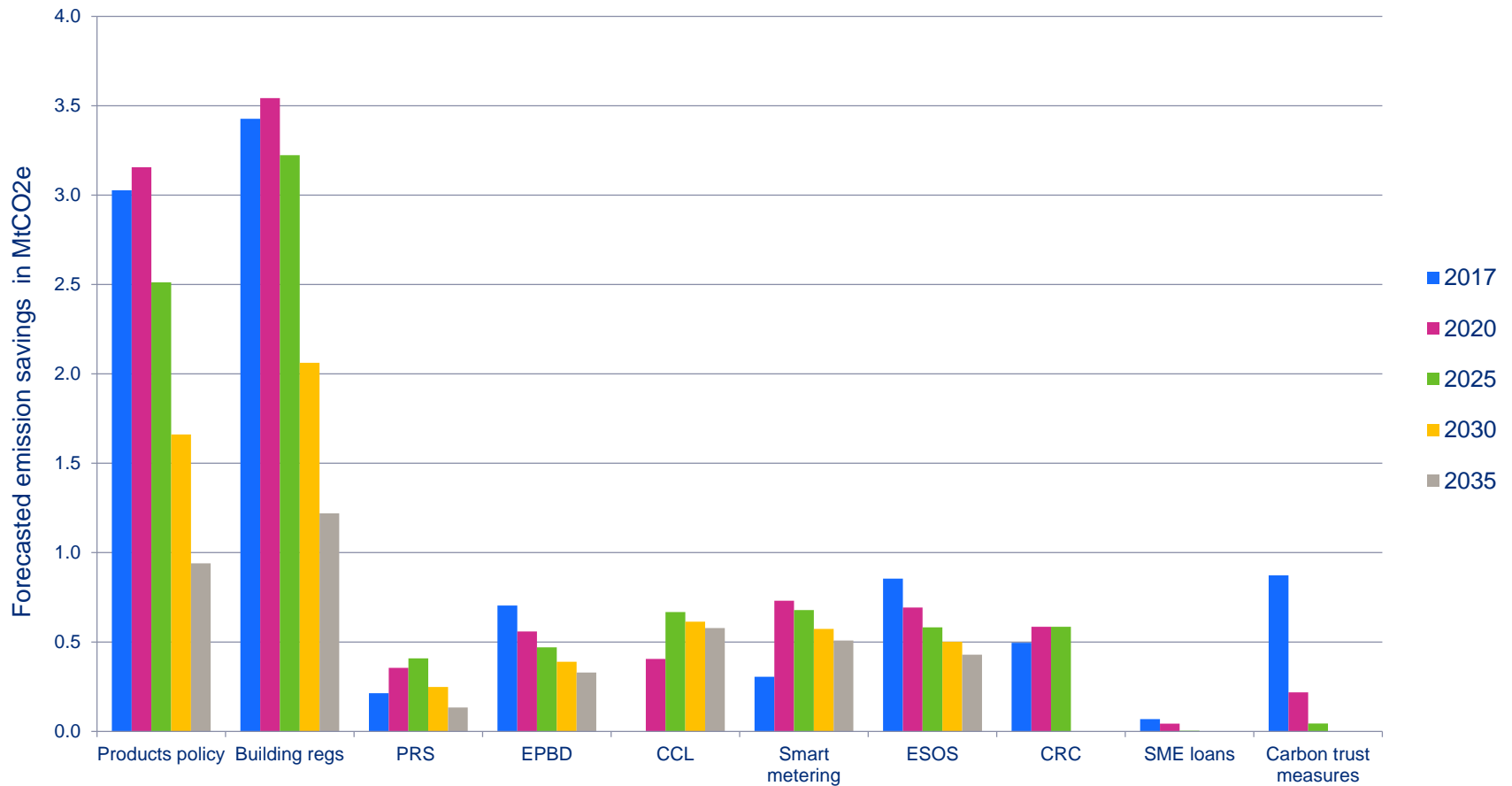


Business energy efficiency regulatory landscape





Additionality impact forecast in existing policies





Who are the non-domestic consumers?

Fig 1: Private sector - # of premises, BEES

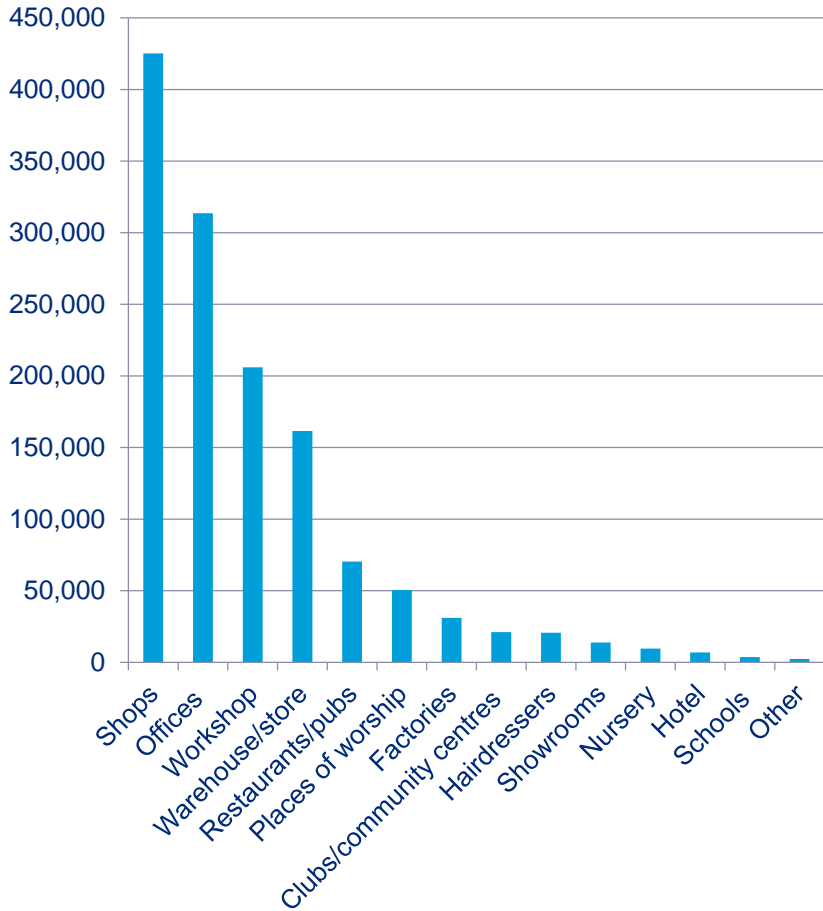
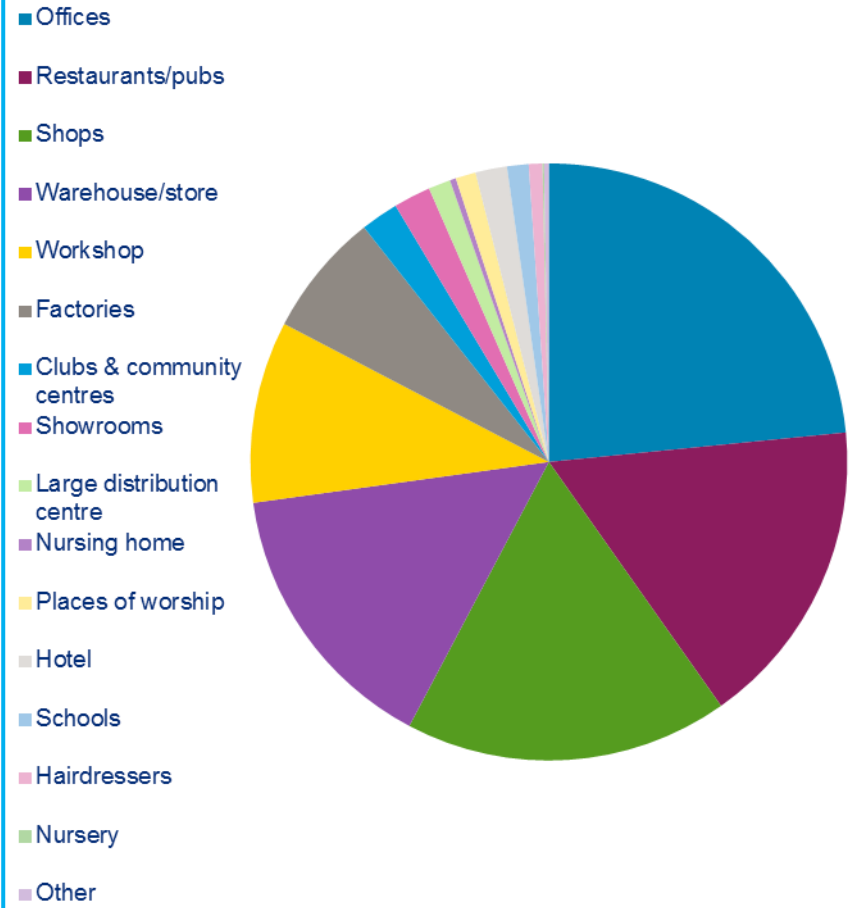


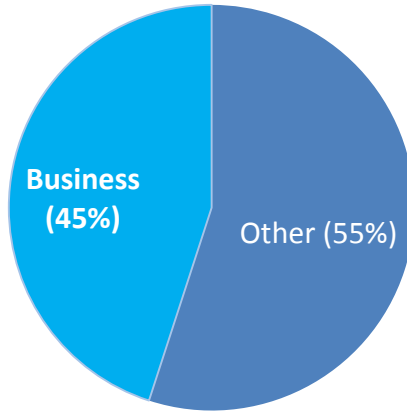
Fig 2: Private sector – total energy consumption GWh, BEES



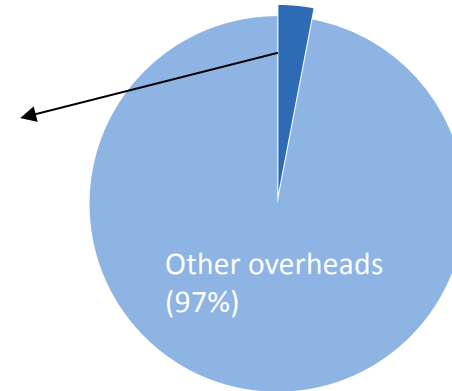


Energy is a small part of the costs in non-industrial businesses

Business energy use accounts for around 45% of total UK energy consumption*

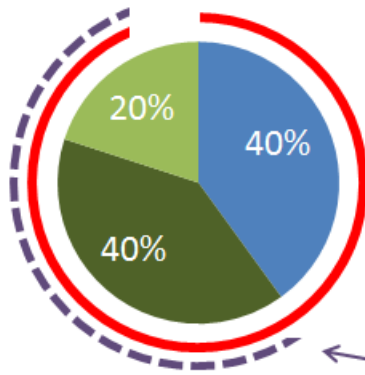


But for individual businesses energy accounts for only around 3% of operating costs.

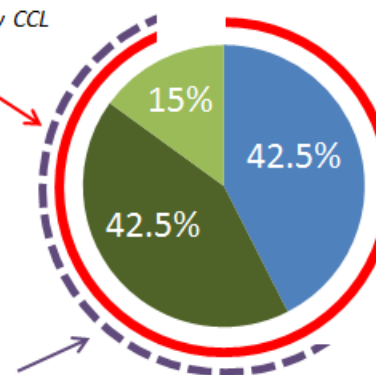


* Including business surface transport energy consumption

Electricity use



Gas use



Energy use covered by CCL

Energy use which SMEs

- Large business consumers
- top 5% SME consumers
- Bottom 95% SME consumers



Annual energy efficiency potential for SMEs in England by payback periods

	0-2 years payback		3-7 years payback		Over all payback periods	
	All	of which owner occupiers	All	of which owner occupiers	All	of which owner occupiers
Bill savings (£m/annual)	98	66	894	484	1,394	746
Traded emissions savings (MtCO2e/annual)	0.2	0.1	2.1	1	3	1.5
Non-traded emissions savings (MtCO2e/annual)	0.2	0.2	0.9	0.6	1.9	1.3
Capital cost associated with potential (£m)	172	82	3,862	1,837	11,324	5,428

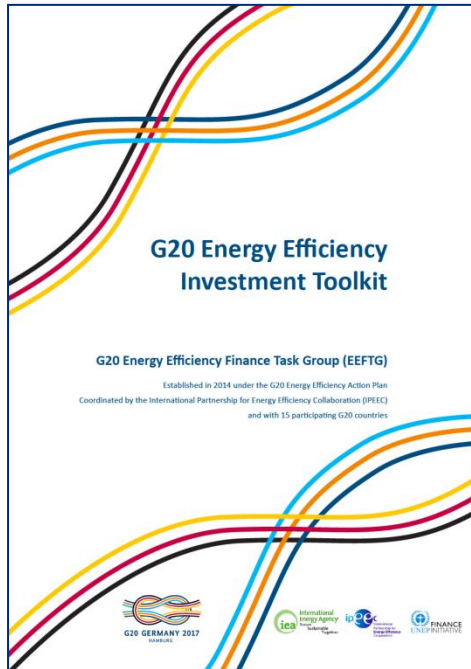
Source: Building Energy Efficiency Survey (BEES), 2014–15: (adjusted to England)

External engagement





G20 Energy Efficiency Investment Toolkit (May 2017)



In summary, the G20 Energy Efficiency Investment Toolkit:

- Launched for world's major economies to further develop USD 221bn energy efficiency opportunity
- A product of 15 country members collaborative work.
- A result of 3 years work of G20's Energy Efficiency Finance Task Group (EEFTG), constituted under G20's EE Action Plan in 2014 and reinforced through 2016 EE Leading Programme.
- Provides a framework and tools by which G20 countries can enhance capital flows for energy efficiency investments.
- Includes an assessment of current energy efficiency investment by sector and region.
- Published under the content direction of the International Energy Agency (IEA); the International Partnership for Energy Efficiency Collaboration (IPEEC); and the United Nations Environment Finance Initiative (UNEP FI).

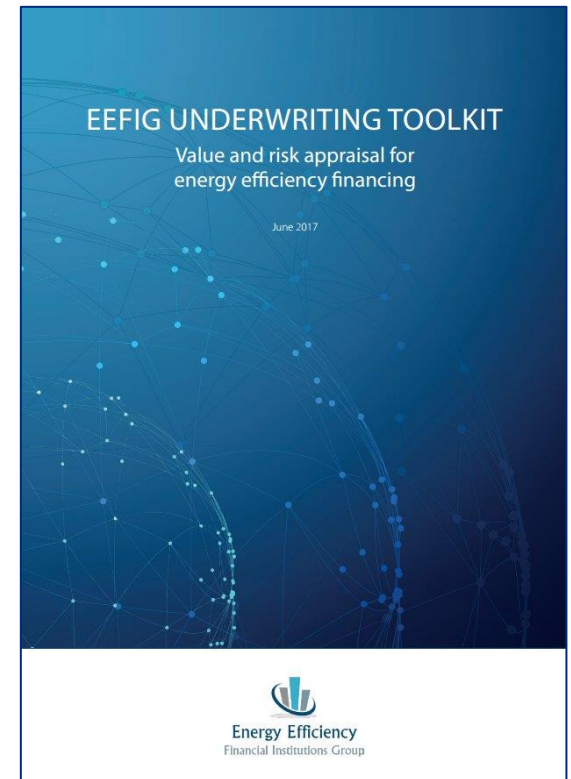




EEFIG Underwriting Toolkit (Jun 2017)

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.





Other examples of national engagements

ICP Europe (UK):

The Investor Confidence Project Europe unlocks access to financing for the building, industry, district energy and street lighting markets by standardizing how energy efficiency projects are developed, documented and measured.



Design for Performance

The Design for Performance Project is an industry initiative supported by the BBP, which aims to change new office development designs in the UK. The project looks to the Australian NABERS Commitment Agreement and explores the applicability in the UK.

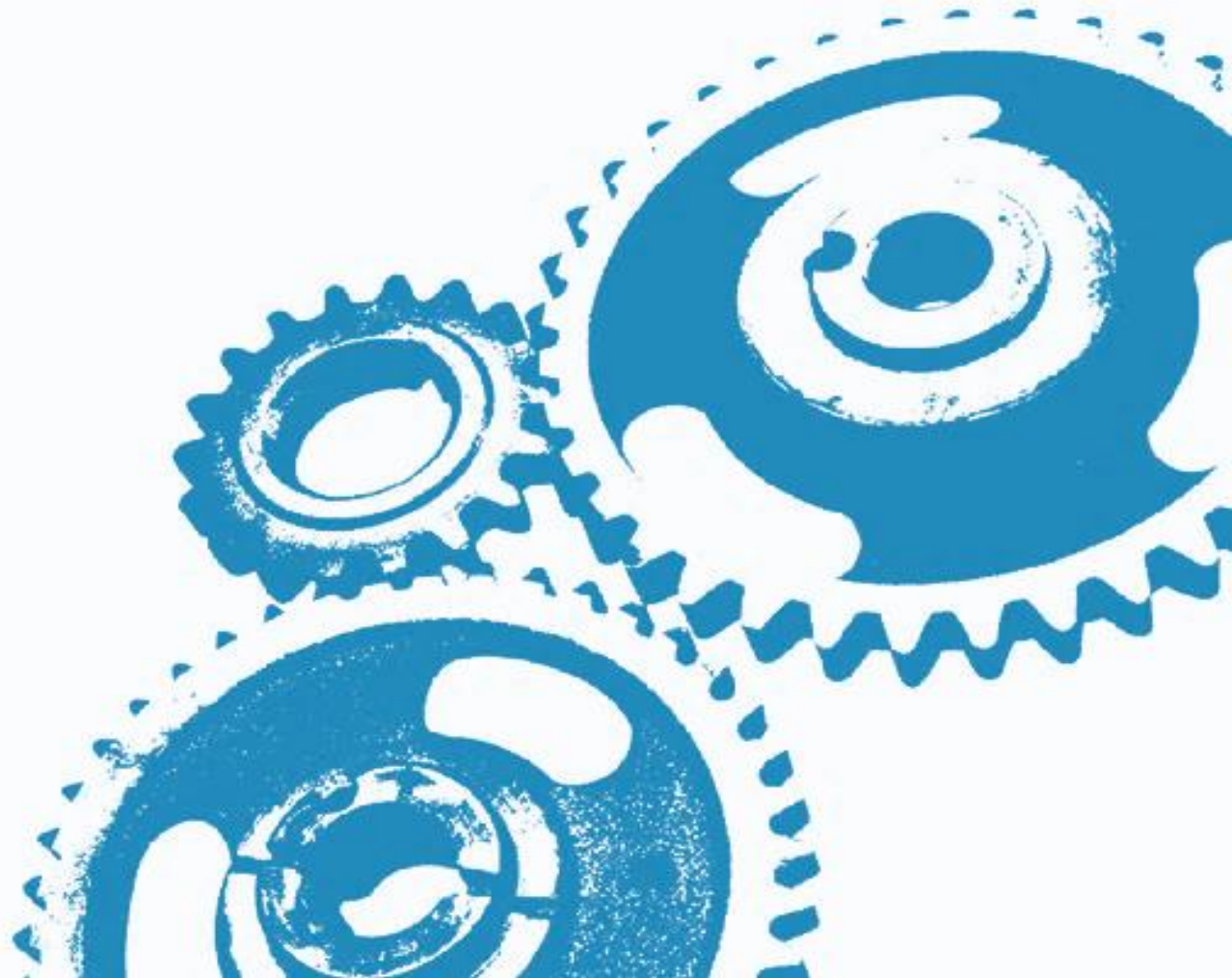


LENDERS Project

A UK GBC led research project jointly with mortgage lenders, that examines the link between energy costs, affordability and mortgage borrowing. It builds the evidence base for using more accurate estimates of energy bills in mortgage affordability calculations.



Policy Considerations








Mapping EE support value chain





Desired focus in energy efficiency support finance

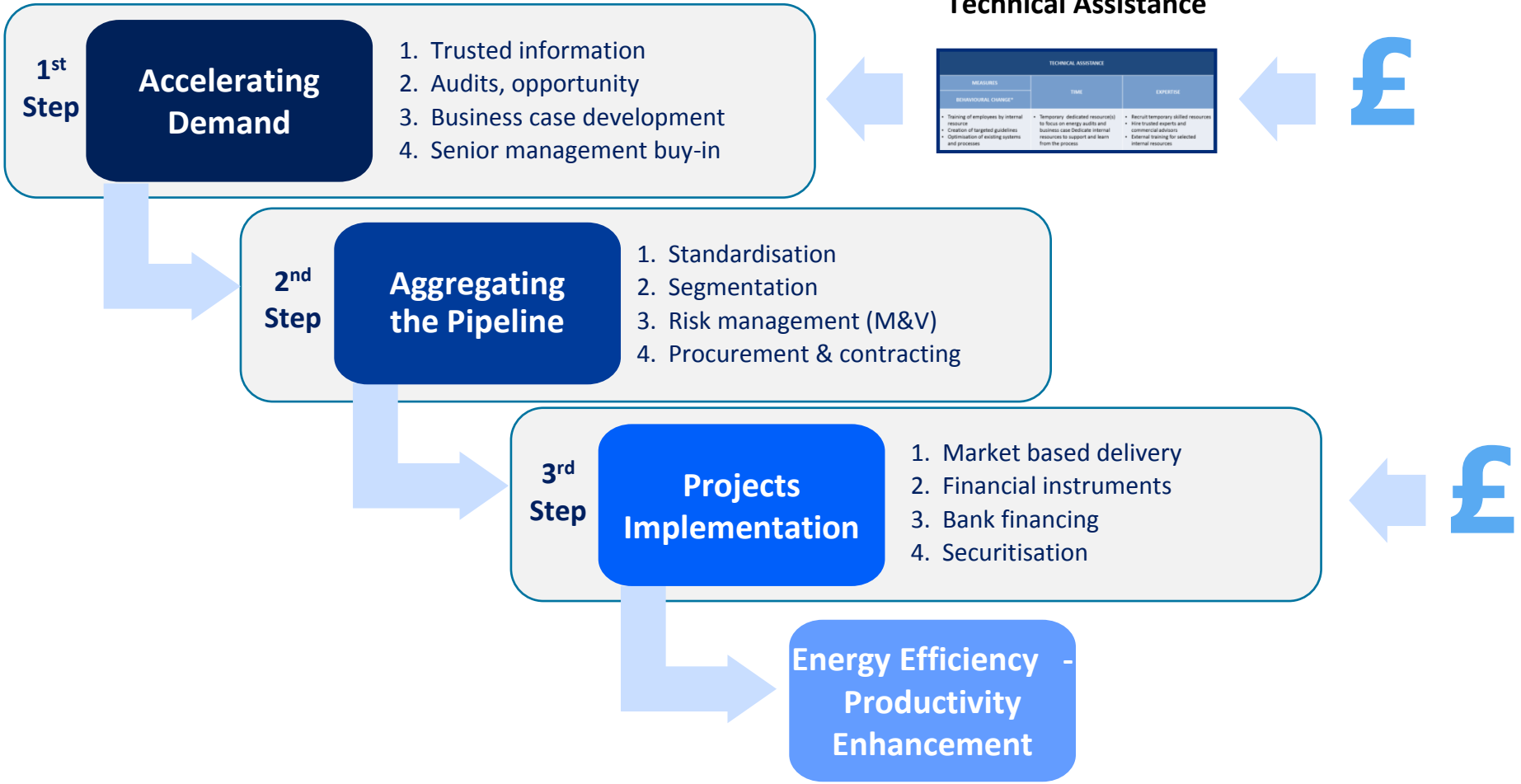
Size of project	Micro & Small (<50 to 100 staff) average credit rating	Medium size (>100 to 250 staff) average to good credit rating	Medium to Large (>250 staff) poor to average credit rating	Large (>250 staff) Good credit rating
< £25k	Own resources / Bank loan	Own resources / Bank credit line	Own resources	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	GIB / Project loan / EPC Solutions

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

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



A multi-step gradual approach





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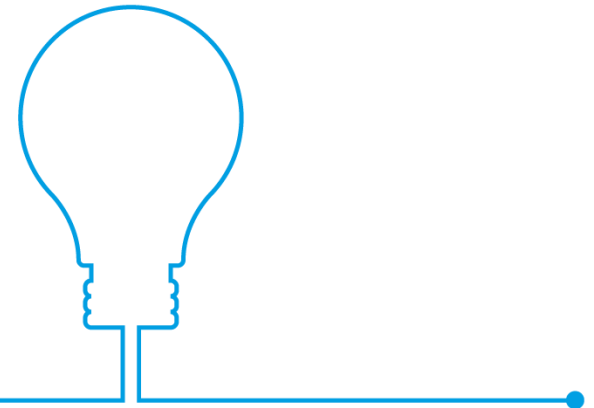
Thank You. Q&A

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