

The Role of The Investor Confidence Project in Standardizing the Energy Efficiency Market

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The Energy Efficiency Capital Gap

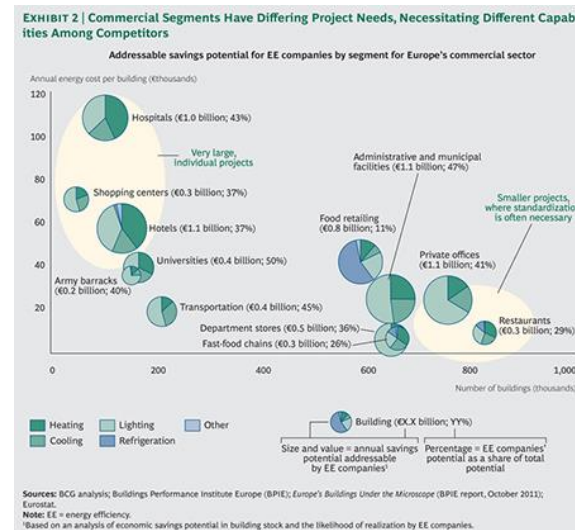
Energy Efficiency is a well-known untapped opportunity

No shortage of projects

**\$0.9tn to \$1.3tn
market opportunity**

Source: WBCSD

No shortage of capital



Source: BCG

At the end of September 2016, a staggering US\$12 trillion in global investment grade bonds were trading with negative yields. At the same time, 15% of bonds within the Barclays Global Aggregate, one of the most widely used global bond benchmarks, were trading with negative yields-to-maturity.

Source: PIMCO

But the Energy Efficiency capital gap remains

Projects & Potential

- Untapped Market Opportunity
- Healthy Returns
- Established Industry
- Established Technologies

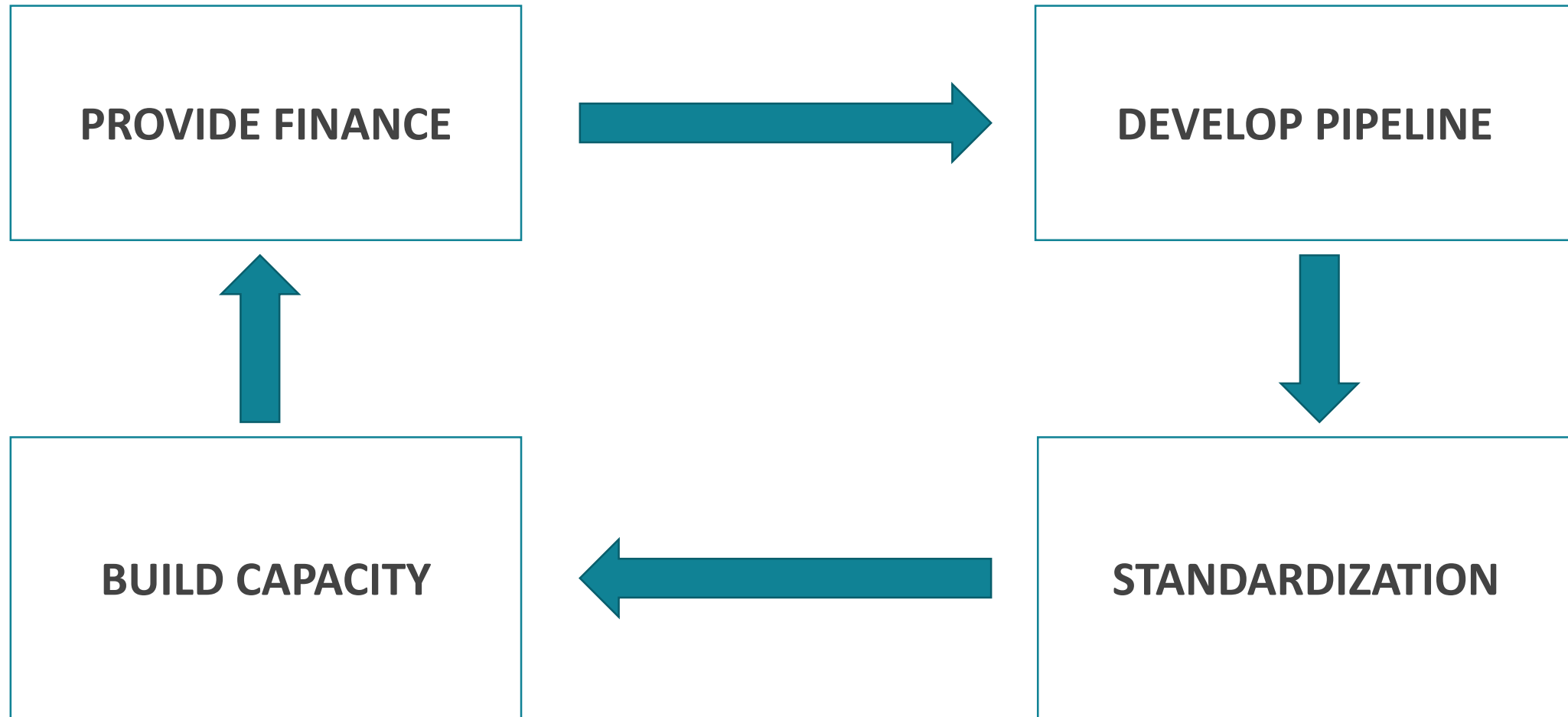


Investors

- Search for Yield
- Risk/Return
- Growing emphasis on Impact Investing
- Growing interest in EE



The Energy Efficiency finance cornerstones: one is still missing...



...Standardization

Lack of standardization (in project development and documentation) is one of the major barriers to increasing investment into energy efficiency



Energy Efficiency
Financial Institutions Group

Energy efficiency projects do not yet meet the requirements of capital markets. No two projects or contracts are alike.

*Michael Eckhart, MD
& Global head of
Sustainable Finance*



Standards are like DNA. They are the building blocks for all technology and economic systems

D.E. Purcell, 2004

Top Demand and Supply Drivers of Energy Efficiency Investment:



Standardisation

Clear Business Case

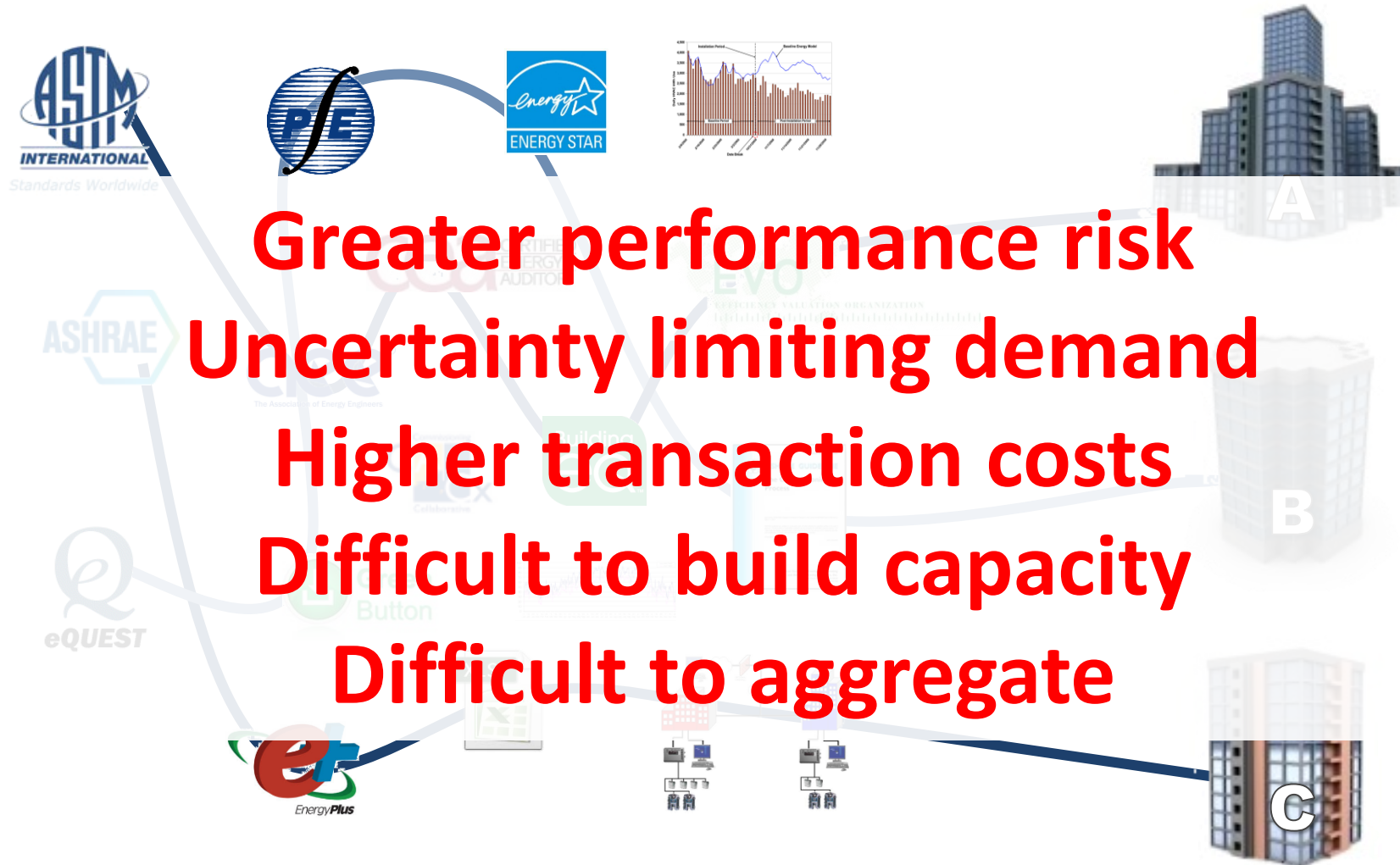
Increased Investor Confidence & Change in Risk
Perception

Energy Efficiency

Transaction costs / simplicity

Measurement, Reporting & Verification (MRV) and
Quality Assurance

The lack of standardization results in:



Standardization of what?



Project development and documentation



Understanding of risks and value



Contracts

Various EU standard contracts available



Performance data and reporting



Building Button is a data dictionary that simplifies how we share efficiency retrofit data across project developers, QA providers, building owners, and investors.



Building and industrial facility owners and
investors demand **transparent, consistent**
and **trustworthy** projects

ICP has developed a tool that reduces
performance risk

What is IREE™?

An international framework for reducing owner and investor risk, lowering due diligence costs, increasing certainty of savings achievement and enabling aggregation.



Ensures transparency, consistency and trustworthiness through **best practice and independent verification.**

What project types can be IREE™ certified?



Buildings

- Apartment blocks
- Tertiary

Available for
US & all EU¹
countries



Industry



District energy systems



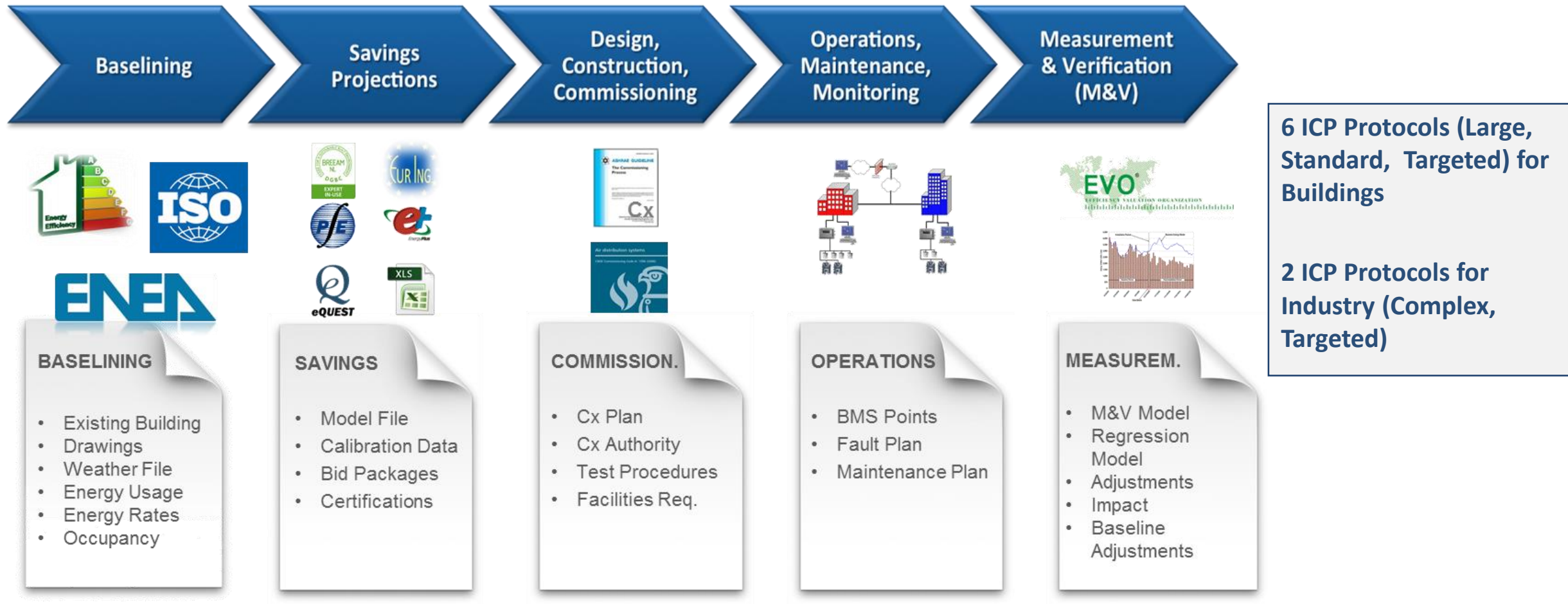
Street lighting upgrades

Under
development
for EU²

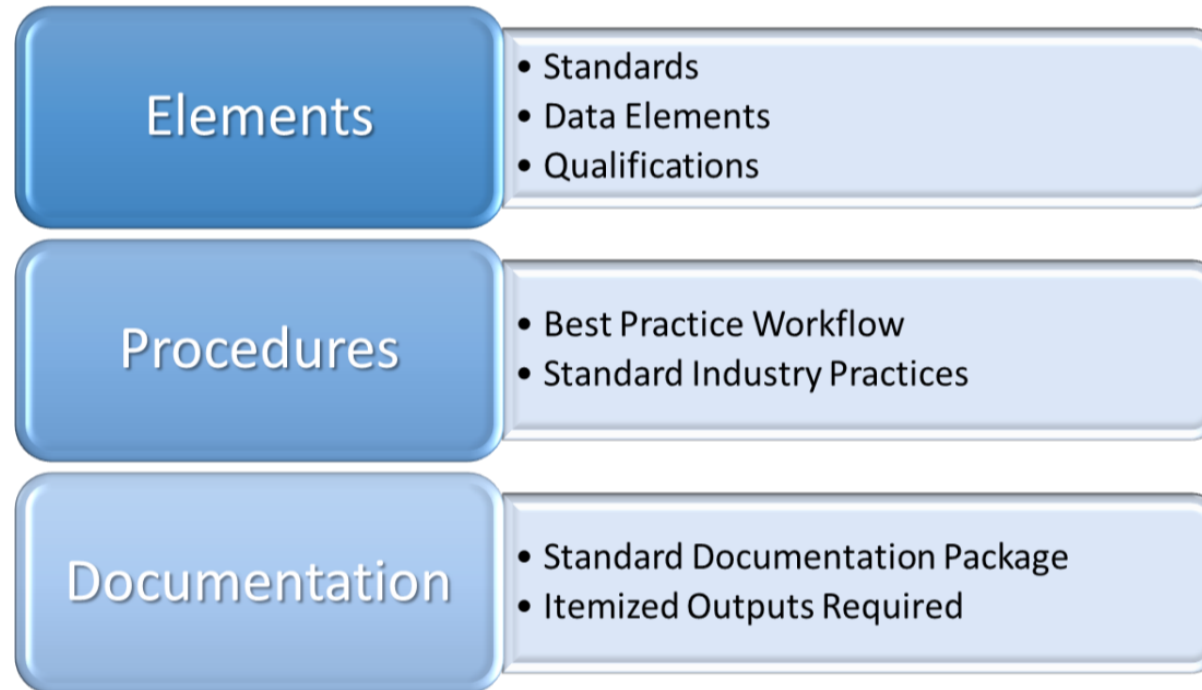
¹ Supported by Horizon 2020 grant Number: 649836

² Supported by Horizon 2020 grant Number: 754056

ICP standardises the energy efficiency project development process



ICP ensures consistent project development and documentation



6 ICP Protocols (Large, Standard, Targeted) for Buildings

2 ICP Protocols for Industry (Complex, Targeted)

The IREE™ Certification is delivered prior to investment decision



**Development
Period**

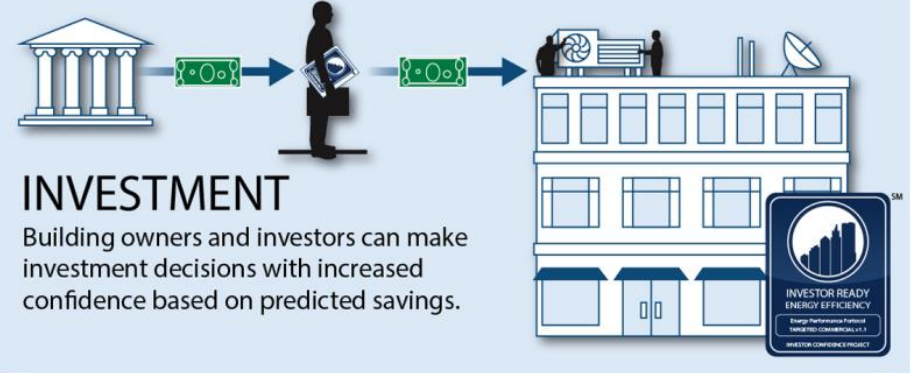
**Underwriting
Period**

**Performance
Period**

ICP opens the door to investors

PROJECT DEVELOPMENT

Credentialed Project Developer develops and documents projects according to ICP Protocols.

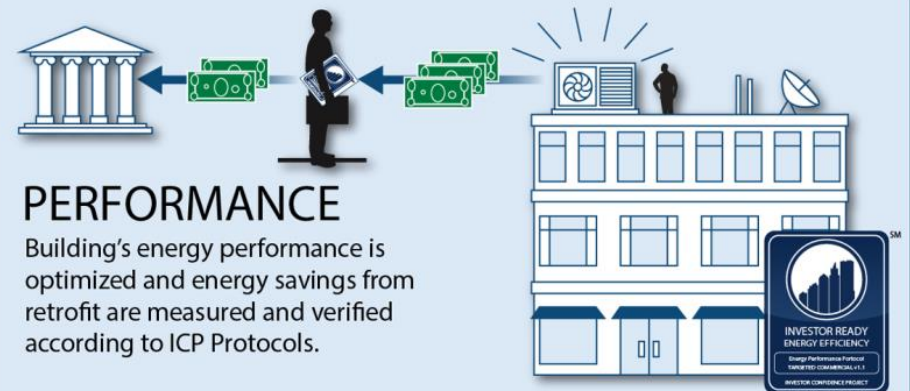


INVESTMENT

Building owners and investors can make investment decisions with increased confidence based on predicted savings.

CERTIFICATION

Independent Credentialed Quality Assurance Provider reviews project for ICP compliance and certifies qualifying projects as Investor Ready Energy Efficiency™.



PERFORMANCE

Building's energy performance is optimized and energy savings from retrofit are measured and verified according to ICP Protocols.

ICP certifies the project development process

PROCESS



ICP's IREE™ (Investor Ready Energy Efficiency) certification aims at becoming the global standard for certifying the **project development process** (of building renovations).

BUILDING



IREE™ can be combined with current building certifications that primarily address the **quality of the building**.

Benefits: Project owners

IREE's independent review and certification of proposed projects:

- Gives owners confidence in project development and savings achievement.
- Enables the comparison of projects and access to more project investment.
- Can function as a “Tender in a box” and underwriting criteria for buildings and portfolios.



Benefits: Investors

- IREE reduces due diligence costs and **speeds underwriting**.
- opens **access to quality projects** through Credentialed Project Developers
- increases **confidence in project fundamentals and engineering**.
- Standard projects and document packs with third party allows for the **aggregation of projects** across borders and programmes.



Benefits: Project developers

- Offers a **repeatable project process**, aiding Quality Assurance
- Enables **more project approvals** due to industry standards and 3rd party review
- **Differentiates your company** and increases credibility with customers
- Increases ability to **connect with finance**, insurance, utility programmes, without additional transaction costs



Benefits: Government programmes

- Investor Ready Energy Efficiency™ is based on internationally recognized and off-the-shelf technical standards **ready to deploy**.
- Ready made provider **credentialing and training programme**.
- Allows for the ability to distribute Quality Assurance **costs to the market**.



Working with you

How Can We Help You?

- We can **certify** your project
- We can **connect** you with investors
- We can **connect** you with industry-leading project developers
- We can help you **make your city/regional/national programme more attractive** to investors
- We can **train** and credential you which will enable you to stand out in your industry
- We can add you to our **Ally Network**

[illegible]

ICP Europe Investor Network

ICP Investor Network represents **€1.5 billion in energy efficiency project capital**. They are looking for quality projects built to IREE™ standards and some provide incentives for IREE projects.



INGENIOUS INFRASTRUCTURE

DARITY



Menhaden



ICP Credentialed providers: Project Developers



ICP Credentialed Project Developers (PDs) have been **trained** by ICP, their **qualifications and experience** have been vetted and are the only ones that can develop an **IREE™ project**.

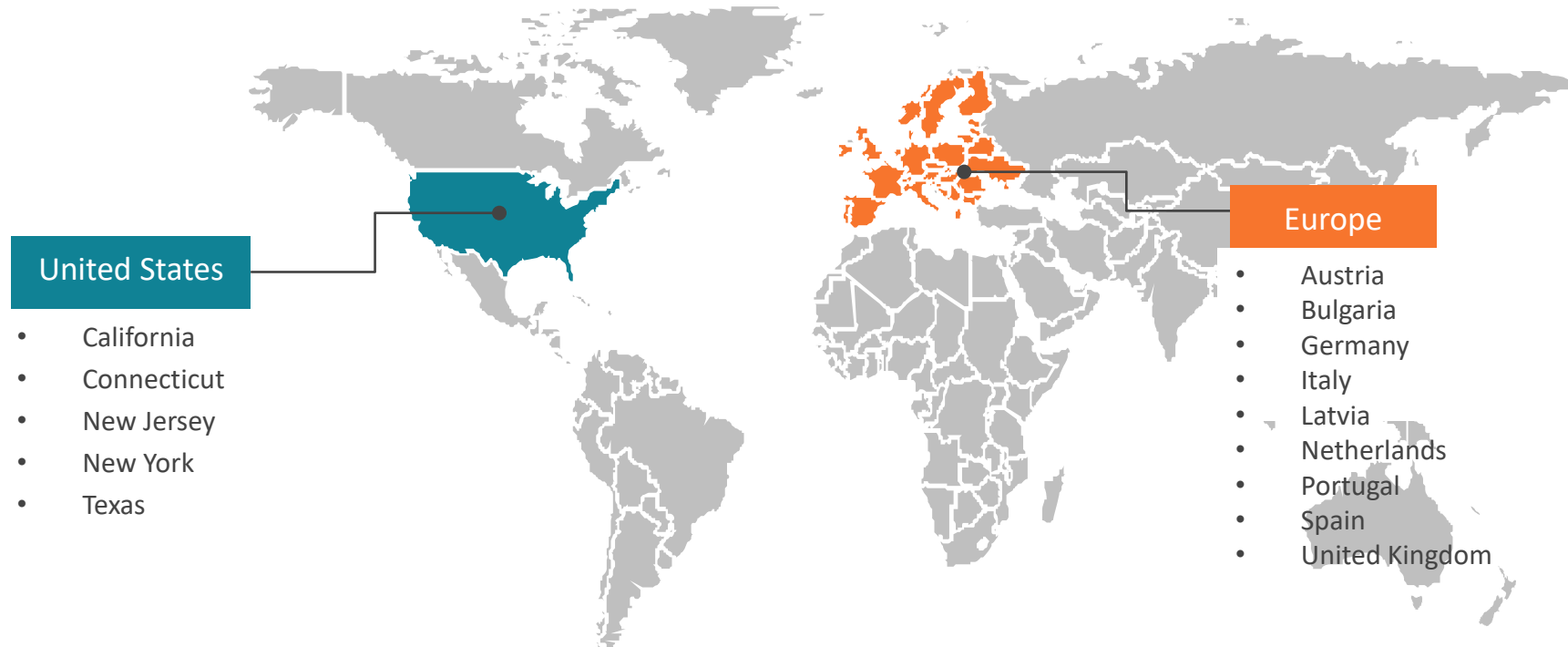
PDs can be ESCOs, Engineering firms, facility managers, building owners, or others that develop project proposals.

ICP Credentialed providers: Quality Assurance Providers



ICP Credentialed Quality Assurance Providers offer **independent and documented verification** of project compliance for IREE™ designation. They have been **trained** by ICP, their **qualifications and experience** have been vetted and can be an individual, independent firms or programs.

Overview of ICP Adoption



ICP is implemented in 33 projects and programmes in Europe, including in public sector frameworks, EE funds and all types of building projects

Projects and Programmes in Europe

33 projects and programmes in Europe are currently using ICP or are already IREE™-Certified...

ICP partners with organizations across Europe to **promote** the adoption of the IREE Certification and **train** professionals.

Examples:

- National Association of ESCOs, Spain (ANESE)
- Institute of zero energy buildings, Greece (INZEB)
- Public sector frameworks, UK (RE:FIT, CEF, Essentia)



IREE™ Certification in Europe - examples

- The **£100 million Carbon and Energy Fund** has committed to promote the use of the ICP Europe protocols and other tools on its projects, including the inclusion of a reference to the recommended use of ICP tools in any new frameworks.
- The **F3 Latvia EUR 100 million Fund** has written ICP into its rules.
- **SUMA Capital** has committed to promote ICP through its funds.



First IREE™ certified project in Europe

National Health Service Liverpool Trusts



Project	NHS Trusts - Liverpool, England
Project Developer	Carbon and Energy Fund
Quality Assurance Provider	Verco
Investment	£ 13,000,000
Contract duration	15 years
Predicted annual savings	£ 1,850,000
Average annual energy savings	50%
Average annual carbon savings	33%



ICP recognition at policy level



European Commission “**Winter Package**” – November 2016

This major energy policy update, which **references the Investor Confidence Project Europe as a “best practice”** to maximize environmental performance in new buildings and buildings requiring energy efficiency upgrades.



Department for
Business, Energy
& Industrial Strategy

Call for Evidence: Building a Market for Energy Efficiency – October 2017

Investor Confidence Project Europe **recognized as a tool enabling to improve the data** to open up the market for financing of energy efficiency.

Investor Confidence Project news

January 2017

- ICP taken over by Green Business Certification Inc. (GBCI), a not-for-profit, which operates LEED, GRESB, ParkSmart, EDGE, PEER and ZeroWaste. Gives ICP global presence and additional resources.

April 2017

- European Commission signed agreement with European ICP consortium for €1.5m, 2 year project to develop ICP for Industry and Infrastructure (street lighting and district energy). Project start 1st May.

Call for Projects

JUST PUBLISHED: 2 ICP Protocols for Industrial Energy Efficiency Projects

<http://europe.eepformance.org/industry.html>

Thank You

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Appendix: Scope

What building(s) projects is IREE™ designed for?

ANY TERTIARY AND APARTMENT BLOCK BUILDING

- Single or multiple buildings
- Any on-site measures, including building-integrated renewables
- Examples:
 - Lighting upgrades
 - Building controls modifications
 - Fabric improvements
 - Pump and fan motor replacements

What industrial building projects is IREE™ designed for?

ANY INDUSTRIAL FACILITY

- **Excluding** measures relating to sector-specific manufacturing processes
- Examples:
 - Boiler improvements
 - Compressed air and power supply systems
 - Steam system improvements, such as trap replacement
 - Recovery of process heat

What district energy system types is IREE™ designed for?

HEATING AND/OR COOLING SCHEMES

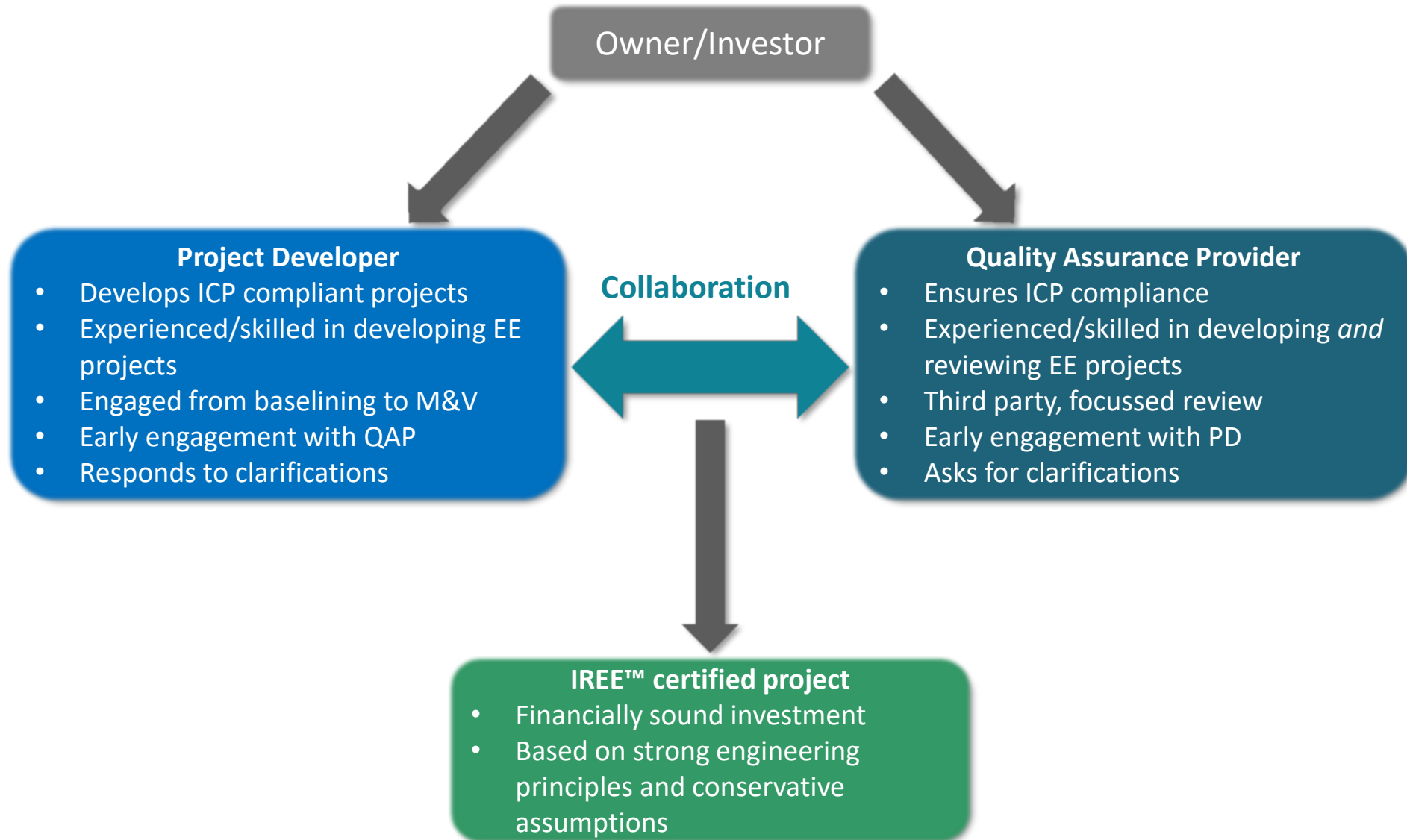
- Must serve multiple end users via an insulated pipe network
- Scale:
 - Small residential developments
 - Large mixed-use and city-wide schemes
- Examples of sources of energy:
 - Energy from waste facilities
 - CHP
 - Heat pumps

What street lighting project types is IREE™ designed for?

STREET LIGHTING UPGRADES

- Replacement of lamps or luminaries for more energy efficiency options (e.g.: LED)
- Installation of new energy efficiency lighting controls (e.g.: dimming controls)

Appendix: Project Roles



Appendix: Technical Assistance Process

