Quality Management
De-Risking Green Building Investments to Meet EU Taxonomy Requirements

BuildUp Webinar March 22nd, 2022
Europe Goes Green

12. Mai 2020
Union Investment initiiert weltweit anwendbaren Nachhaltigkeitsstandard

- Initiative „ESG Circle of Real Estate“ gegründet
- Entwicklung eines Skoringmodells für die aktuelle Nachhaltigkeitsperformance von Objekten und Portfolios
- Das Punktesystem ermöglicht eine weltweite Vergleichbarkeit
- Orientierung am Klimaschutzplan 2050 und der EU-Taxonomie
“Europe Goes Green” really means: Millions of individual measures
Big Investments Carry Big Risks: The Performance-Gap

CO₂ emissions in buildings

100%
75%
50%
25%
0%

2020 2030 2040 2050

Today’s emissions in buildings

Potential emissions by 2050 without Quality Management

10-20% potential performance loss due to lack of technical quality per renovation

Where we **should** be in 2050

https://project-quest.eu/
Objective:
Use Quality Management to De-Risk Investments in Green Building

Today

With application of QUEST

Energy consumption (kWh)

Target  Actual

Energy consumption (kWh)

Target  Actual

15-30% Performance gap = risk

< 10% Performance gap = risk

https://project-quest.eu/
Starting Point: What are Quality Management Services (QMS)?

Quality Management Services

• Digital Technical Monitoring
• Commissioning Management
• Green Building Certification

Reference document: REHVA Guidebook 29
Europe Goes Green ...
Europe Goes **Green** – De-Risk ...
Europe Goes **Green** – De-Risk With Certified Quality Management!

**Quality Management Services**
- Digital Technical Monitoring
- Commissioning Management
- Green Building Certification
Go for **Green**: The QUEST Tool helps you to

- Identify the best value for money QMS for your building
- Integrate budgets for QMS in your buildings in early stages
- Apply QM-Services to de-risk your green investments

[Source: https://project-quest.eu/](https://project-quest.eu/)
### Tracking Green Investments: The QUEST Data Engine

**Evaluation:** Continuous, Objective, Unified, Cross-Asset, Cross-Owner

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**1. Post Project Evaluation**
- Interview on technical and financial performance
- Interview on tenant satisfaction
- Data based analysis of technical building services
- Review of panel data
- Review of QMS service contract and report

**2. Statistical Aggregation**
- of multiple projects
- = Trusted Data

**3. Application of trusted data**
- to apply QMS and to reduce risk premium in your investments

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**New Construction, Retrofit & Re-Commissioning Projects (Measures)**

22/03/2022

https://project-quest.eu/
Tracking Green Investments: The QUEST Data Engine
Certified Post Project Evaluation

1. Standardized Pre- & Post-Documentation according to QUEST Technical Manual
2. + Guided Expert Post Project Interview
3. + Certified Technical Monitoring
4. + Certified Cx and/or Green Building Certification

QUEST Partners offer Certified Post Project Evaluation Services.
Join the QUEST Network

Want to join the QUEST network?

• Interested in training courses?
  ➔ To stay informed subscribe to our newsletter!
This project has received funding from the European Union’s Horizon 2020 research and innovation programme under the Grant Agreement number 846739. The European Union is not liable for any use that may be made of the information contained in this document, which is merely representation of the author’s view.
De-Risking Building Investments to Meet EU Taxonomy Requirements

BUILD UP

22 March 2022
Why QUEST? The need for credible green investment tools

Sarah Goddard, Secretary General, AMICE
Sustainable finance programme | Overview

2018 Sustainable Finance Action Plan
1. Re-orient capital flow towards sustainable investment
2. Main-streaming sustainability risk into risk management
3. Foster transparency and longtermism in markets

2021 Renewed Sustainable Finance Strategy
1. Fostering transition
2. Improving the inclusiveness of the sustainable finance framework
3. Improving the financial sector’s resilience and contribution to sustainability

EU Green Deal (cross-sectoral policy)
EU Climate law (climate neutral by 2050)

- Taxonomy Regulation
- Sustainable Finance Disclosures Regulation
- Corporate Sustainability Reporting Directive
- IDD delegated acts
- Solvency II / prudential requirements
- Sustainable corporate governance
- EU Green Bond Standard
- Ecolabel
- Sustainability ratings
Sustainable finance programme | Current developments/1

- **EU Taxonomy**
  - Application of Taxonomy Climate Delegated Act (DA) since January
  - Adoption of the Complementary DA on natural gas and nuclear energy
  - Publication & adoption of DA specifying technical screening criteria for remaining 4 environmental objectives
  - Platform on Sustainable Finance report on Social Taxonomy & Extended environmental Taxonomy framework published March 2022
  - Entry into force of Article 8 DA | Sustainability KPIs for insurers
Sustainable finance programme | Current developments/2

• **Sustainable Finance Disclosures Regulation**
  o The EC to adopt a single DA building 13 Regulatory Technical Standards (RTS) concerning taxonomy-related disclosures, as well as sustainability-related disclosures
  o Deferral of the application date to 1 January 2023

• **Integration of sustainability preferences in the sales process | IDD DA**
  • Possible deferral of the application of IDD requirements re customers’ sustainability preferences from August 2022 to January 2023
Sustainable finance programme | Current developments/3

- **Corporate Sustainability Reporting Directive (CSRD)**
  - The Council agreed its position on 24 February
  - European Parliament plenary vote expected in April
  - Proposals to extend the scope to all large companies, as defined in the Accounting Directive
  - EFRAG ongoing technical work on the draft European Sustainability Reporting Standards to be submitted to the EC by June 2022 and to be endorsed by the EC in the form of DA by October

- **EU Green Bond Standard (EU GBS)**
  - Ongoing negotiations in the Parliament & Council
  - ECON Committee expected to reach a position by April
Sustainable finance programme | Current developments/4

- **European Single Access Point (ESAP)**
  - Adoption of the Commission’s proposal on ESAP in November
  - Establishment of ESAP for public financial and sustainability-related information on EU companies and EU (insurance-based) investment products

- **Sustainability ratings**
  - European Commission Call for Evidence on use of ESG Ratings by Financial Market Participants

- **Sustainable corporate governance initiative / due diligence**
  - Adoption of Commission proposal on 23 February 2022
Mutual/cooperative insurance attributes

• Policyholder ownership model with democratic governance
• Long-term orientation providing economy stability, with sustainability as a core feature of the model
• Social responsibility, including engagement in societal activities
• Long-term business and investment models
• c. €3trn in assets under management in Europe
The challenge for mutual/cooperative insurance investors

- Quality
- Accuracy
- Reliability
- Certainty
- Responsiveness
- Suitability
- Ethical
Representing the European mutual and cooperative insurance sector with ONE voice

www.amice-eu.org
How Quality Management Services Support EU Taxonomy Requirements

Ole Teisen, Sweco
Alexander Kaae Petersson, Sweco

Buildup Webinar, 22 March 2022
What are Quality Management Services?

• Technical Monitoring, TMon
• Building Commissioning Process, Cx
• Green certification, LEED, DGNB, BREEAM, HQE

• TMon and Cx are technical focused (HVAC) processes minimising “the Performance Gap”
• Green Building Certification has a broader scope which can contain both TMon and Cx
• TMon can be a part of Cx.
WITHOUT QMS
YOUR GREEN INVESTMENTS ...

... WILL WORK LIKE PV IN THE DARK!
Technical Monitoring (TMon)

Data driven testing of system performance

• Digital third-party service and certification scheme
• Mandatory service for federal and many state buildings in Germany
• Publicly and privately tendered and applied
• Target values set before or in the Design Phase
• Logged data from a period of trial operation handed over from the Building Automation System and analyzed in construction phase
• Results are reported to engineers, contractors and/or operational staff for taking appropriate actions to optimize the building
Technical Monitoring (TMon)
The control- and correction loop

The earlier the monitoring is started up
- the earlier feedback for the construction process can be implemented
Building Commissioning Process (Cx)

In-depth design reviews & testing and Documentation through Experts

- Covers all phases from pre-design, through design, construction and operations
- Third party service and certification scheme
- Comprehensive expert service for technical complex projects
Building Commissioning Process (Cx)

Follow-up on issues handed over from one phase to another

Pre-design ➔ Design ➔ Construction ➔ Operations

Owners Requirements
- Measureable requirements!

Review Design Requirements followed?

Witness tests, training, documentation
- Performance according to requirements

Continue testing and monitoring
- Does it still work according to requirements?

- Activities in all phases
- Operations-focused design reviews to facilitate proper construction in the first attempt
- Construction phase includes activities to support the needs of the operations training, O&M, documentation

22/03/2022
Green Building Certification

Environmental, economic, social, technical and process Quality

- Green Building Certification can include Tmon and/or Cx; The use of these processes are typically documented by the contracting of a provider of the service
- Today Green Building Certification programs are not yet aligned with Taxonomy requirements
- Some Green Building Certification programs support UN Sustainable Development Goals
- Should be chosen where Green certification is a part of the marketing strategy for the building
Green Building Certification

- Set point-giving requirements in pre-design phase including requirements for Cx and Tmon
- Life-cycle cost analysis (LCC) and a life-cycle assessment (LCA) in the design-phase
- Selected measurements e.g. TVOC's and setup of required monitoring and operations procedures, such as Taxonomy reporting in the construction phase
- On-going Commissioning activities (OCx) that can include Monitoring-Based Commissioning activities (MBCx) and energy management in the operations phase. These activities can include:
  - Define or review target values.
  - Analyse data continuously or cyclically.
  - Report continuously or cyclically.
  - Conduct Taxonomy focused reporting on the efficiency of operations, including energy consumption, according to EU Taxonomy Annex 1
Financial market participants offering financial products in Europe must now incorporate disclosures with reference to the EU Taxonomy.

Requirements for low energy consumption and documented effective operations.

A desk-top exercise with the energy label is not enough... it is required that the building is efficiently operated through energy performance monitoring and assessment.
EU Taxonomy

ANNEX 1 - section 7.7. Acquisition and ownership of buildings:

1. For buildings built before 31 December 2020, the building has at least Energy Performance Certificate (EPC) class A.

2. For buildings built after 31 December 2020, the building meets the criteria set out for the activity ‘construction of new buildings’ in Section 7.1 of this Annex that are relevant at the time of the acquisition.

3. Where the building is a large non-residential building (with an effective rated output for heating systems, systems for combined space heating and ventilation, air-conditioning systems or systems for combined air-conditioning and ventilation of over 290 kW) it is efficiently operated through energy performance monitoring and assessment.

Taxonomy regulation Annex 1:

Acquisition and ownership of buildings - EU Taxonomy Compass | European Commission (europa.eu)
EU Taxonomy – setting up requirements
Initial sorting of buildings

Portfolio managers: Before 31. dec 2020

Residential
1: EPC A
2: 30 year climate assessment that is implemented and monitored

Commercial
Commercial w. HVAC systems under 290 kW and 5,000 sq.m
1: EPC A
2: 30 year climate assessment that is implemented and monitored

Commercial w. HVAC systems over 290 kW and 5,000 sq.m
1: EPC A
2: 30 year climate assessment that is implemented and monitored
3: HVAC is monitored and efficiently operated.
EU Taxonomy – requirements
Initial sorting of buildings

Portfolio managers: After 31. dec 2020

Residential
- under 5000 sq.m
  1: PED 10% lower than NZEB
  2: 30 year climate assessment that is implemented and monitored

Residential over 5000 sq.m
  1: PED 10% lower than NZEB
  2: 30 year climate assessment that is implemented and monitored
  3: GWP have been made

Commercial
- w. HVAC systems under 5000 sq.m
  1: PED 10% lower than NZEB
  2: 30 year climate assessment that is implemented and monitored

Commercial w. HVAC systems over 5000 sq.m
  1: PED 10% lower than NZEB
  2: 30 year climate assessment that is implemented and monitored
  3: HVAC is monitored and efficiently operated.
  4: GWP have been made
  5: Test of Air-tightness and Thermal integrity
Manage Quality
in your construction project!

Use the QUEST Tool to get started

https://project-quest.eu/

ole.teisen@sweco.dk
alexanderkaae.petersson@sweco.dk

22/03/2022
Evaluate ROI of energy efficient investments in buildings
**QUEST Tool**

*Developed under EU Horizon 2020 research and innovation programme, Grant Agreement number 846739*

Simple **INPUT** generates dynamic **OUTPUT** estimation of the value-add of certified solutions that improve building quality & performance

- Type of building
- Confidence in technical teams
- Project cost
- OPEX cost
- Investment time horizon

Value-add (€ per m2) of certified solutions

03/21/2022

https://project-quest.eu/
Certified solutions: standardised approach & 3rd party validation

Technical **due diligence** ➔ systems functionality & operation verification

![](COPilot.png) ➔ verify & control performance

Green buildings ➔ sustainability verification

![](BREEAM.png) ![](LEED.png) ![](DGNB.png) ![](NF.png) ➔ attain ESG objectives

Building **commissioning** ➔ building design-build-operate verification

![](COPilot.png) ➔ achieve the building you expect
QUEST Tool

Developed under EU Horizon 2020 research and innovation programme, Grant Agreement number 846739

Available on Project QUEST, synavision & COPILOT websites

De-Risk Your Building Project

What is the type of the building? Office

How do you rate the experience in the technical teams managing the project? Medium confidence

What is the estimated project cost (per m²)?
Build/renovation/refurbishment/technical installation including design work 1000 €/m²

What are the expected operating expenses per m² per year (OPEX/m²/year)?
Energy, operation & maintenance 20 €/m²/y

Define the time horizon that the rating should consider for your QM-investment (minimum 5 years, maximum 20 years.)
This value is used to capitalise annual savings 10 y

Quality Management Services

<table>
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<tr>
<th>Service</th>
<th>Cost (per m²)</th>
<th>Value-add (per m²)</th>
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<tr>
<td>Certified Technical Monitoring (ex. COPILOT)</td>
<td>1 €</td>
<td>13 €</td>
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<td>Certified Building Commissioning (ex. COPILOT)</td>
<td>10 €</td>
<td>63 €</td>
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<td>Certified Green Buildings (ex. DGNB, LEED)</td>
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**QUEST Tool**

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- 10 years

**Quality Management Services**

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Strong ROI ➔ Important to invest in certified quality to minimise « normal » extra costs

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03/21/2022
QUEST Tool

Available on Project QUEST, synavision & COPILOT websites

Developed under EU Horizon 2020 research and innovation programme, Grant Agreement number 846739

- Technical Risks
- OPEX improvement (energy, O&M)
- Investment time horizon
- CAPEX improvement (design, build, install & startup)

Value-add of Certified QMS
QUEST Tool

Developed under EU Horizon 2020 research and innovation programme, Grant Agreement number 846739

Available on Project QUEST, synavision & COPILOT websites

CERTIFIED Quality Services

Technical Risks

OPEX improvement (energy, O&M)

Investment time horizon

CAPEX improvement (design, build, install & startup)

Value-add

QUEST-Tool (online)  Project quest
QUEST Tool

Developed under EU Horizon 2020 research and innovation programme, Grant Agreement number 846739

Make sure your projects work

Please send us your email in the chat if you want us to quality control your buildings and building projects

(We do not otherwise have access to your contact details due to BuildUP confidentiality)
Demonstration of QUEST Methodology

BUILD UP
22 March 2022

Sergio Olivero
Head of Business & Finance Innovation, Links Foundation, Turin, Italy

Marta Bottero
Politecnico di Torino, Turin, Italy

https://project-quest.eu/
Residential Building, Via Torino 134 – Caselle Torinese, Italy
Existing residential buildings undergoing energy retrofit
**BMS SYSTEM**

- Energheia Building Management System system installed on site
- Dialoguing with ASHRAE standard's BACnet protocol
- Automation of the operation of the heating and electric systems
- Physical inputs from external and process temperature probes
- Thermal and electrical meter readings via third party protocols BMS system connected to Tecnozenith servers via secure VPN connection
- Remote reading and management of the system in real time at any time
- Alarm notifications in case of faults
- Graphic synoptics provided to customers for performance visualization of their own building
- Automatic data download and storage
- Analysis of the building performance
DATA ANALYSIS

- Examination of the data collected and downloaded from the site with a periodic frequency
- Analysis of data, to modify the working parameters and report the deviation from the expected values
- Use of the data to improve model and designs for new buildings to be renovated
DATA COMPARISON

- Interpolation of the data deriving from different buildings for comparative analysis on all the efficient buildings
- Combined data analysis to evaluate the intrinsic and external factors that influence the performance of the renewed residential buildings
PREDICTIVE TOOL

• QUEST Tool very useful a priori in order to evaluate the quality services for the building
• After renovation, a helpful instrument to report and assess the goodness of the interventions carried out
• Suitable introductory guidelines to quickly explain the types of risk to which it refers
• QUEST Tool simple and immediate for companies like ESCOs as Tecnozenith is
• Strong point: ease of use, with clear and punctual data required to be able to draw up evaluations
• Results obtained from the assessments consistent and liable compared to forecasts.
• Convenient tool to have a unified instrument for comparing interventions on different buildings
• Hint: different default values depending on the type of building or geographical location: specific values in the tool [€/m2] are slightly high for Italian residential buildings
• For Energheia, a useful tool whose integration into its own EPCs contracts can be studied
Office Building, Nuvola Lavazza, Turin, Italy
A new office building following LEED sustainability criteria
Identity card of the project

Name and address of the project: Nuvola Lavazza Turin business center, Via Bologna, 32 - 10152, Turin (TO), Italy
Project completion date: 31 December 2016
Project owner: Luigi Lavazza S.p.A.
Architectural Project: Cino Zucchi Architetti
Urban Planning: Studio Picco Architetti
Green areas project: Cino Zucchi Architetti with Camilla Zanarotti
Structural design: Al Studio s.r.l.
Electrical system design: Manens-Tifs s.p.a, Verona
Thermomechanical systems project: Manens-Tifs s.p.a, Verona
Sustainability certification: LEED Platinum
The intervention is spread over almost **30,000 square meters** of GFA with various destinations: about 60% of executive offices, as well as residential, commercial and public and private services.
LEED sustainability criteria

- Adopting an intelligent approach to energy
- Protection of water resources
- Minimizing waste and maximize reuse
- Promoting health and wellness
- Protecting the territory and the outer space
- Future developments and resilience
- Links & communities
- Considering the entire Life Cycle
- Fitting into the Local/Regional Context
- Integrating, training and sharing best practices
Energy and monitoring systems

- The air conditioning of the buildings is guaranteed by Climaveneta high efficiency multi-purpose heat pump (plant type: hydronic system).

- BMS monitor consumptions (25,000 monitoring points). A software called "Navigator" was developed for simplifying the information provided by BEMS.

Electricity consumption 2019 VS 2018:
8% reduction in electricity consumption, 321 MWh saved
The QUEST tool showed that Certified Building Commissioning guarantees a high economic return compared to the other two quality management tools (given an initial expenditure of 25€/m², commissioning could guarantee a total annual return of 65€).

- Certified Technical Monitoring follows, with a return of 13€ against an expenditure of 3€/m².
- Lavazza's professionals were quite satisfied with the results, not surprised by the slow economic return, which is repaid in other terms, such as the company’s visibility.
<table>
<thead>
<tr>
<th>DESTINATION</th>
<th>ENERGHEIA</th>
<th>NUVOLA LAVAZZA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing residential building</td>
<td>New office building</td>
</tr>
<tr>
<td>INTERVENTION TYPE</td>
<td>Energy retrofit, PV, heat pump</td>
<td>Groundwater heat pump system, heat recovery system, LED lighting system, PV system.</td>
</tr>
<tr>
<td>QMS</td>
<td>BMS</td>
<td>BMS, LEED commissioning</td>
</tr>
<tr>
<td>DECISION MAKER</td>
<td>Management group</td>
<td>Energy manager, facility property manager</td>
</tr>
<tr>
<td>RESULTS</td>
<td>• QUEST Tool simple and immediate for ESCOs</td>
<td>• The QUEST tool helps to understand the role of QMS in the green transition process of the construction sector.</td>
</tr>
<tr>
<td></td>
<td>• Ease of use, with clear and timely data needed to process assessments</td>
<td>• Gap between expected and actual performances can be reduced.</td>
</tr>
<tr>
<td></td>
<td>• Results obtained from the assessments consistent and liable compared to forecasts</td>
<td>• Managing real estate portfolios as large as Lavazza’s could be easier.</td>
</tr>
</tbody>
</table>
QUEST

De-risking financial investments in Real Estate & Predicting the value-add generated by different quality solutions for building projects

Thanks for your attention

https://project-quest.eu/
EEnvest Project

Project Overview and EU Taxonomy

Patricio Cartagena – Business Analyst, GNE Finance
EEnvest H2020 project GA #833112

EEnvest project

- EU Project duration: from July 2019 until June 2022
- 9 Partners from the technical and financial field + Advisory Board
- 2 demo sites in Italy and in Spain

The main objective of EENVEST is to enhance investors’ trust in energy efficiency renovation projects through the development of a combined technical-financial risk evaluation framework focused on the renovation of commercial buildings.
Outputs in a nutshell

Technical-financial performance analysis
Value = De-risking tool

Multiple-Benefits Assessment
Value = Impact metrics and contribution to SDG

Project Self Assessment Tool
Value = Project quality rating

Multiple Criteria Analysis
Value = Decision making support tool

EEnvest Platform
Value = Automated derisking report using blockchain
Multiple Benefits Assessment

- Thermal, Visual and Acoustic Comfort
- Mental and Physical Wellbeing
- Indoor Air Quality
- Productivity
- Predicted Energy Savings,
- CO2 Emission Reduction
- #Jobs Created
- Taxonomy Compliance
- SDGs Alignment

MB's identification and measurement through smart sensors. Accessible for SMEs and individuals.

Data driven and self-contained KPIs that lead to greener and more sustainable portfolios: GHG emissions reduction and EU taxonomy compliance.
Multiple Benefits Assessment

EU Taxonomy Compliance

- EU Taxonomy matters
- EU Taxonomy Compass
- Relies on the de-risked Primary Energy Savings

Substantial contribution criteria

The building renovation complies with the applicable requirements for major renovations. Alternatively, it leads to a reduction of primary energy demand (PED) of at least 30%.

< 30% PE savings achieved → EU Taxonomy non-compliant
> 30% PE savings achieved → EU Taxonomy compliant

EEnvest KPIs and Multiple Criteria Analysis

✓ Benchmarking tool
✓ Weights can be customized by the investor based on its own criteria and investment objectives
✓ Taxonomy Compliance KPI flags whether an investment is compliant or not compliant

Technical KPIs

<table>
<thead>
<tr>
<th>KPI</th>
<th>Weight</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damage</td>
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<td>XX</td>
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<tr>
<td>Performance Gap</td>
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<tr>
<td>Technical Assessment</td>
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</table>

Financial KPIs

<table>
<thead>
<tr>
<th>KPI</th>
<th>Weight</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td>Simple Payback Period</td>
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</tr>
<tr>
<td>Net Present Value (NPV)</td>
<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>Internal Rate of Return (IRR)</td>
<td>XX</td>
<td>XX</td>
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<tr>
<td>Debt Service Coverage Ratio (DSCR)</td>
<td>XX</td>
<td>XX</td>
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<tr>
<td>Financial Assessment</td>
<td>XX</td>
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Multiple Benefits KPIs

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<tr>
<th>KPI</th>
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<tbody>
<tr>
<td>Energy Savings</td>
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<td>XX</td>
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<tr>
<td>CO2 Emission Reduction</td>
<td>XX</td>
<td>XX</td>
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<tr>
<td># Jobs Created</td>
<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>Taxonomy Compliance</td>
<td>GO</td>
<td>NO</td>
</tr>
<tr>
<td>Taxonomy Compliance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MBs Assessment</td>
<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>Multi-Criteria Scoring</td>
<td>XX</td>
<td>XX</td>
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</table>
EEnvest platform for investors - Building portfolio

- Listing of location on a map of buildings
EEnvest platform for investors – Report Sheet

Arena Tower
25 Crossharbour Plaza, Isle of Dogs, London E14 9EU

£2,000,000

CONSTRUCTION YEAR
1990

RENOVATION YEAR
2014

BUILDING USE
Office

Investment Evaluation

FINANCIAL
Medium

TECHNICAL
Low

MULTIBENEFIT
High

Building’s Technical Data

Area

BUILDING HEIGHT
18 m

BOOTH AREA
854 m²

WINDOWS AREA
380 m²

WALL + (WITH WINDOWS) AREA
299 m²

Border conditions

DIFFICULT CONSTRUCTION SITE
Yes

BUILDING MOSTLY SHAD
Yes

DIFFICULT CONSTRUCTION SITE
Yes

BUILDING MOSTLY SHAD
Yes

Certifications

PE ELECTRICAL DEMAND
55 kWh/m²y

EXPECTED PRIMARY ENERGY SAVINGS
95 kWh/m²y

Border conditions
EEnvest platform for investors – Benchmark Sheet

- Comparaison sheet to benchmark the calculated KPIs
EEnvest H2020 project GA #833112

EEnvest’s Platform Report

- A user-friendly online platform promoting Energy Efficiency Building Retrofits investments

- EEnvest platform acts as a search and match tool connecting building owners with retrofit investors

- It proposes derisking KPIs computed from project data, allowing the assessment and benchmarking of EE projects

- It operates in a secure environment that ensures data integrity

- The investor is saving time and do not need to have technical skills to benchmark projects and select the ones fitting his/her organisation goals.
Eager to find out more? We have an **invitation for you!**

1. **What?**
   EEnvest upcoming workshop: Platform release

2. **When?**
   By the end of April. Stay tuned!

3. **How?**
   Easy… contact us!
   
   Let’s connect → [p.cartagena@gnefinance.com](mailto:p.cartagena@gnefinance.com),
   Cristian.Pozza@eurac.edu
Thank you

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www.eenvest.eu
Applying QUEST to De-risk Green Investments

Jasper Vermaut, Policy & Project Officer, REHVA
**QUEST with a focus on ‘Quality’**

- Addressing the “building performance gap”

- Applying Quality Management Services to mitigate technical risks
  - Supporter with Taxonomy-compliance

- QUEST Toolbox to integrate QMS:
  - QUEST Tool
  - QUEST Data Engine

https://project-quest.eu/
Technical Manual: Applying QUEST!

Easy-to-understand guide with the objective to:
• Integrate quality into building projects;
• Continuously improve the collection of building data.

Download our Technical Manual on our website: https://project-quest.eu/technical-manual-applying-quest
Technical Manual: Structure

• Chapter 1 – Explaining the challenge: Risk of the Building Performance Gap & impact on building value

• Chapter 2 – What are the solutions: How can Quality Management Services help you

• Chapter 3 – Budgeting the solution: Calculating the added value of QMS through the QUEST Tool

• Chapter 4 – Learning & Continuous Improvements: Data set to evaluate the impact of QMS

• Chapter 5 – Complementary Projects: EEnvest & CRREM
QUEST Post-Project Evaluation

• Chapter 4: Introduces how to collect building data and evaluate the impact of the quality measures & services

• Annex II: Describing the steps needed for post-project evaluation

• Annex III: Data set template which allows the assessment of post-project evaluation and alignment with Taxonomy requirements (Climate Change Mitigation)
Take a look at the Technical Manual

• Subscribe to our newsletter to stay up to date about future developments.

• Questions? Email:
  Dr. Stefan Plesser – plesser@synavision.de
  Jasper Vermaut – jv@rehva.eu

Download the Manual here

https://project-quest.eu/
## Contacts

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