



EEnvest H2020 project GA #833112



EEnvest Final Event  
29 June 2022

# The EEnvest Investment Evaluation Methodology and the EEnvest Risk Assessment Report

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EEnvest Methodology

## The EEnvest Investment Evaluation Methodology

Streamlining and standardising internal evaluation processes supporting investment decision making in energy efficiency projects

- Adapts to a wide range of users, from private investors, asset managers, financial institutions and property owners
- Enables informed investment decision-making related to building energy efficient renovations
- Provides relevant KPI along three assessment dimensions: Technical risk, Financial performance and Multi-Benefits





# The EEnvest Investment Evaluation methodology

**1** Input data Collection sheet  
Basis for running the EEnvest assessments

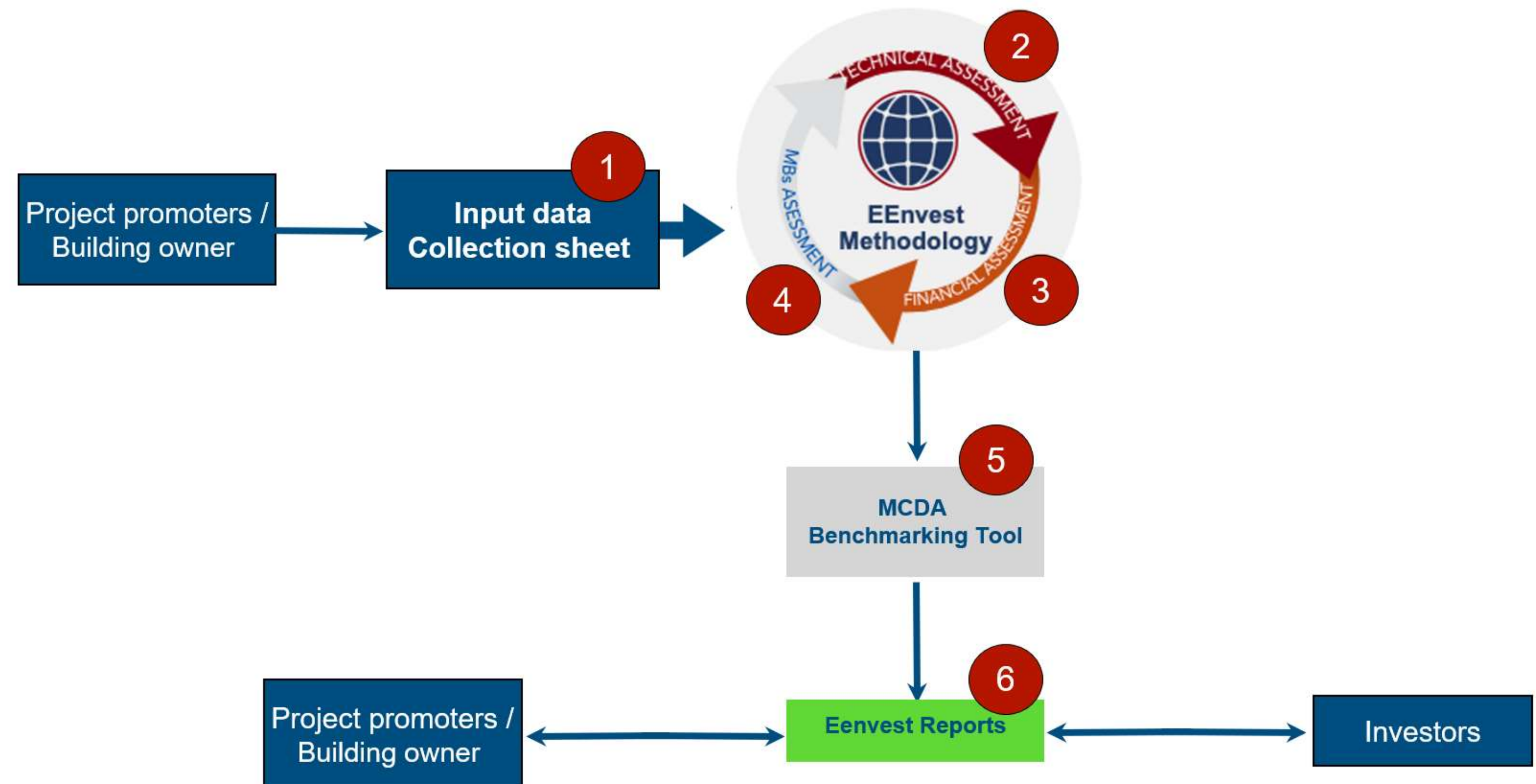
**2** Technical Risk Assessment

**3** Financial Assessment

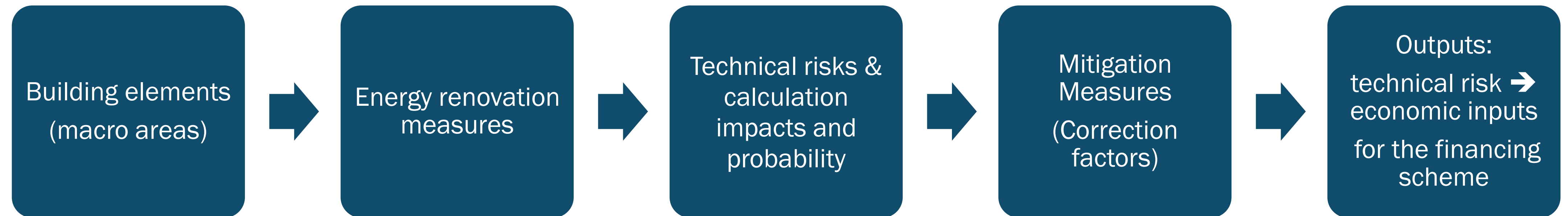
**4** Multi-benefits Assessment

**5** MCDA benchmarking  
To compare different project alternatives

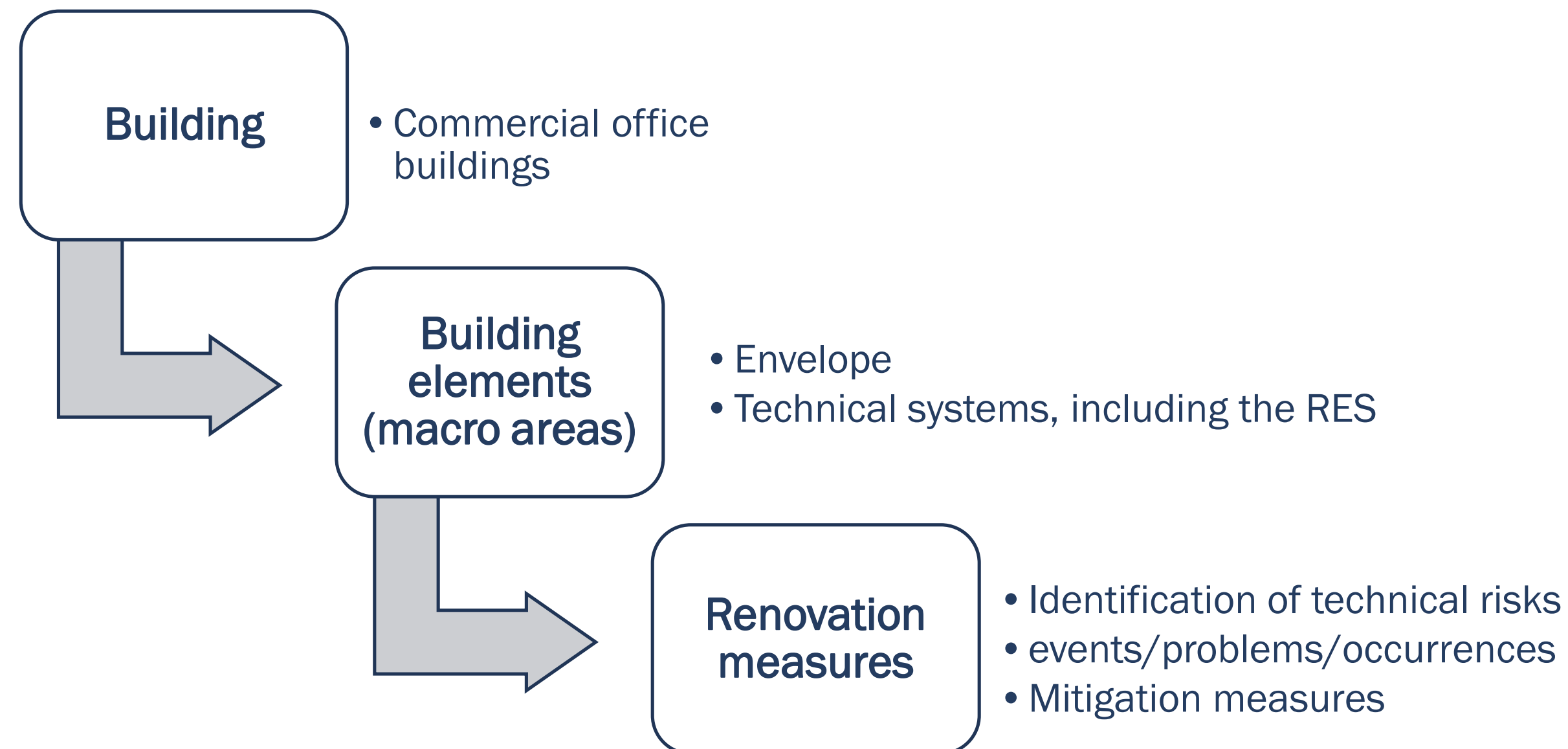
**6** EEnvest Risk Assessment Reports



# Technical Risk Assessment



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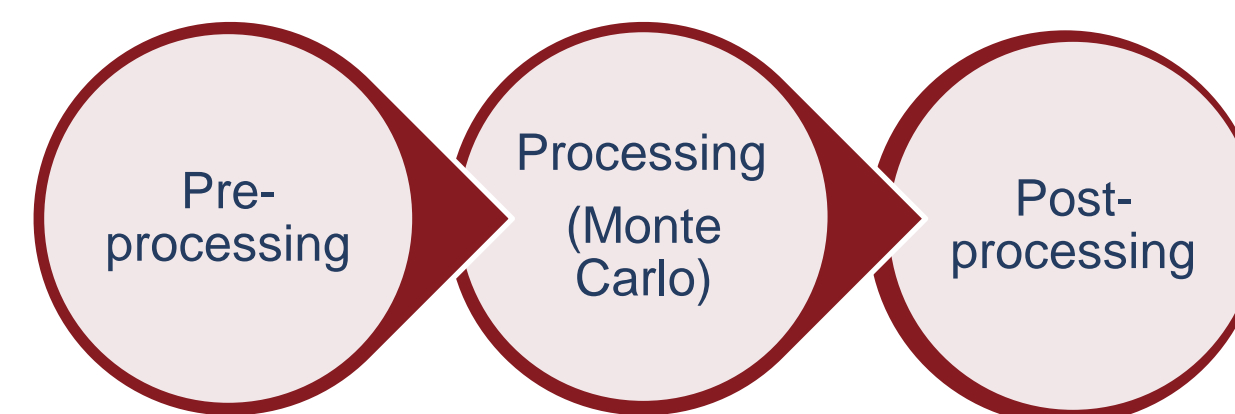
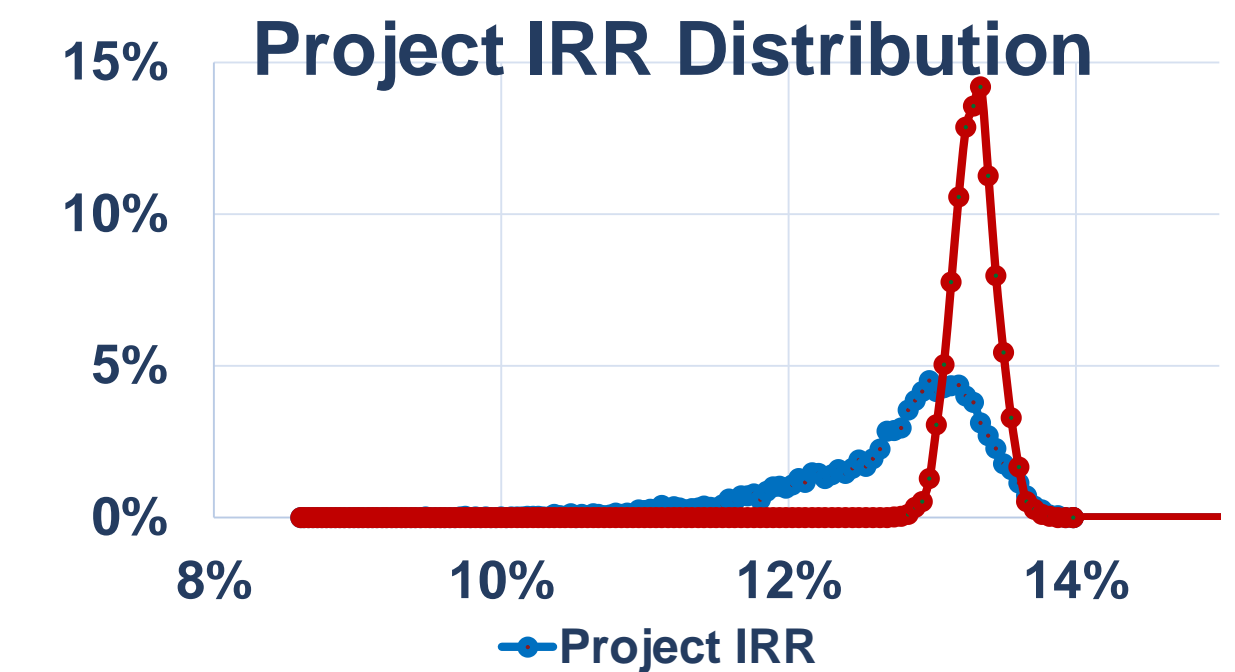
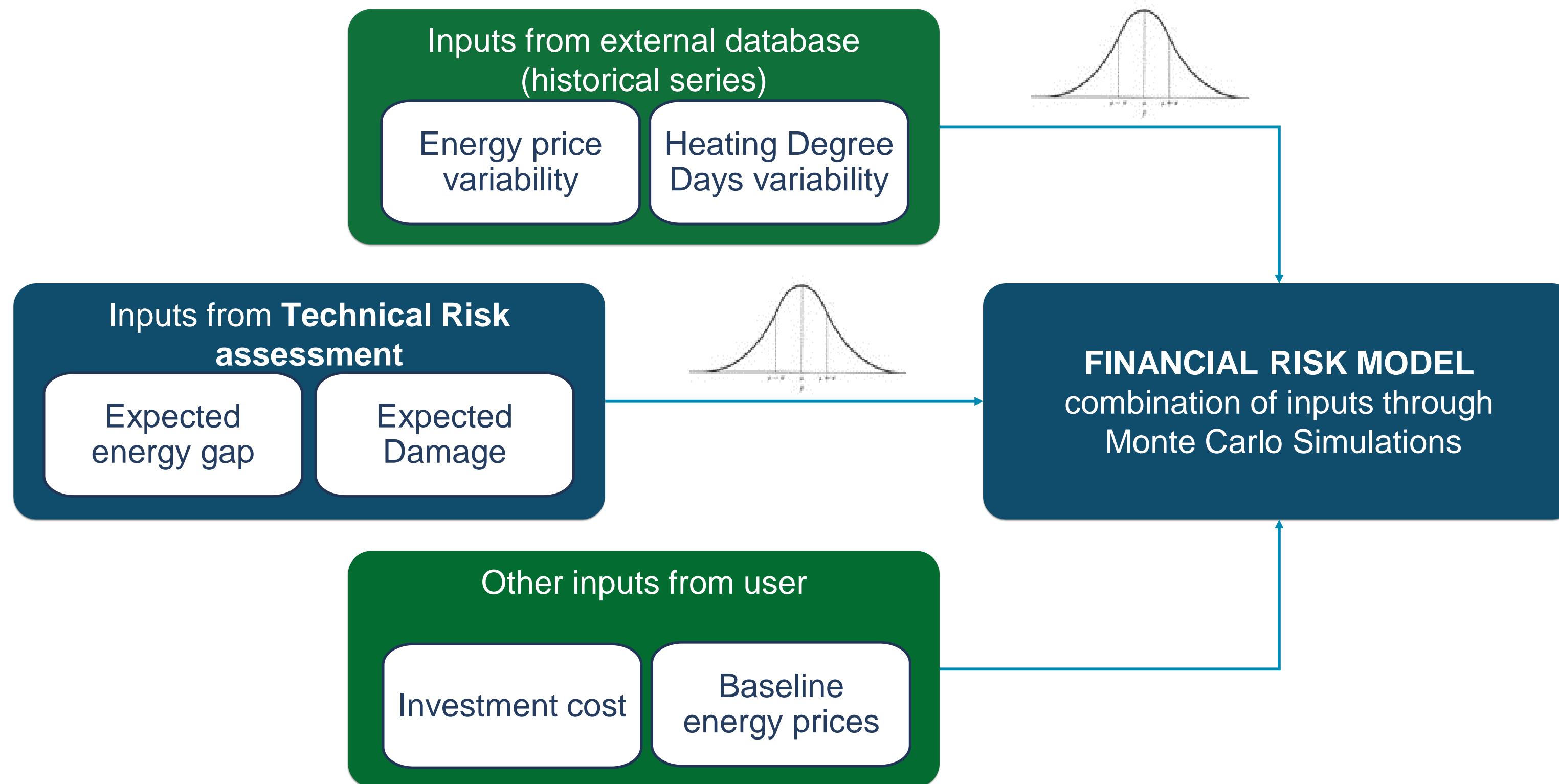


Output technical risk,  
Input for financial performance

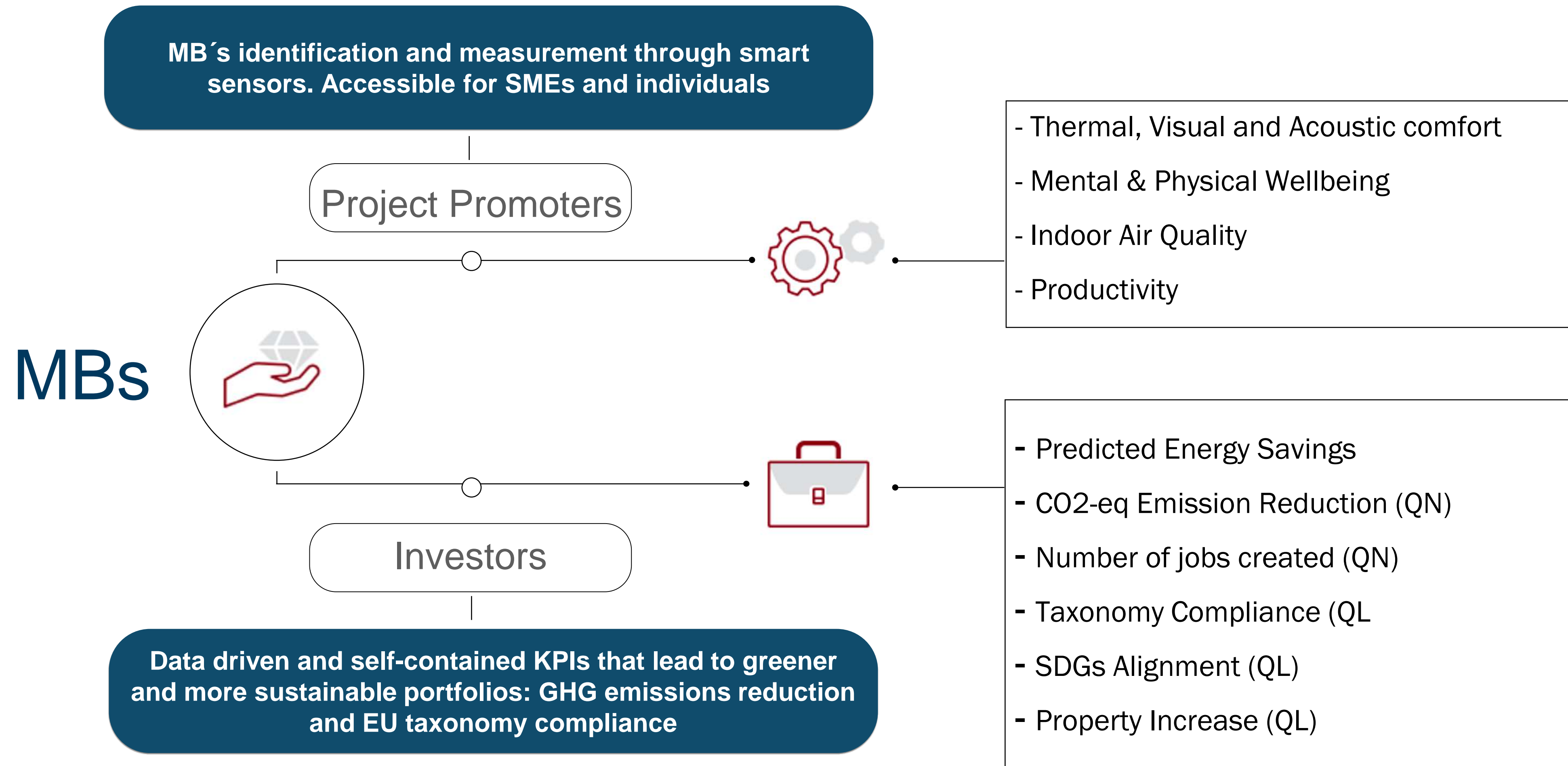
Energy performance gap

Damages

# Financial Risk Assessment



# Multiple Benefits Assessment



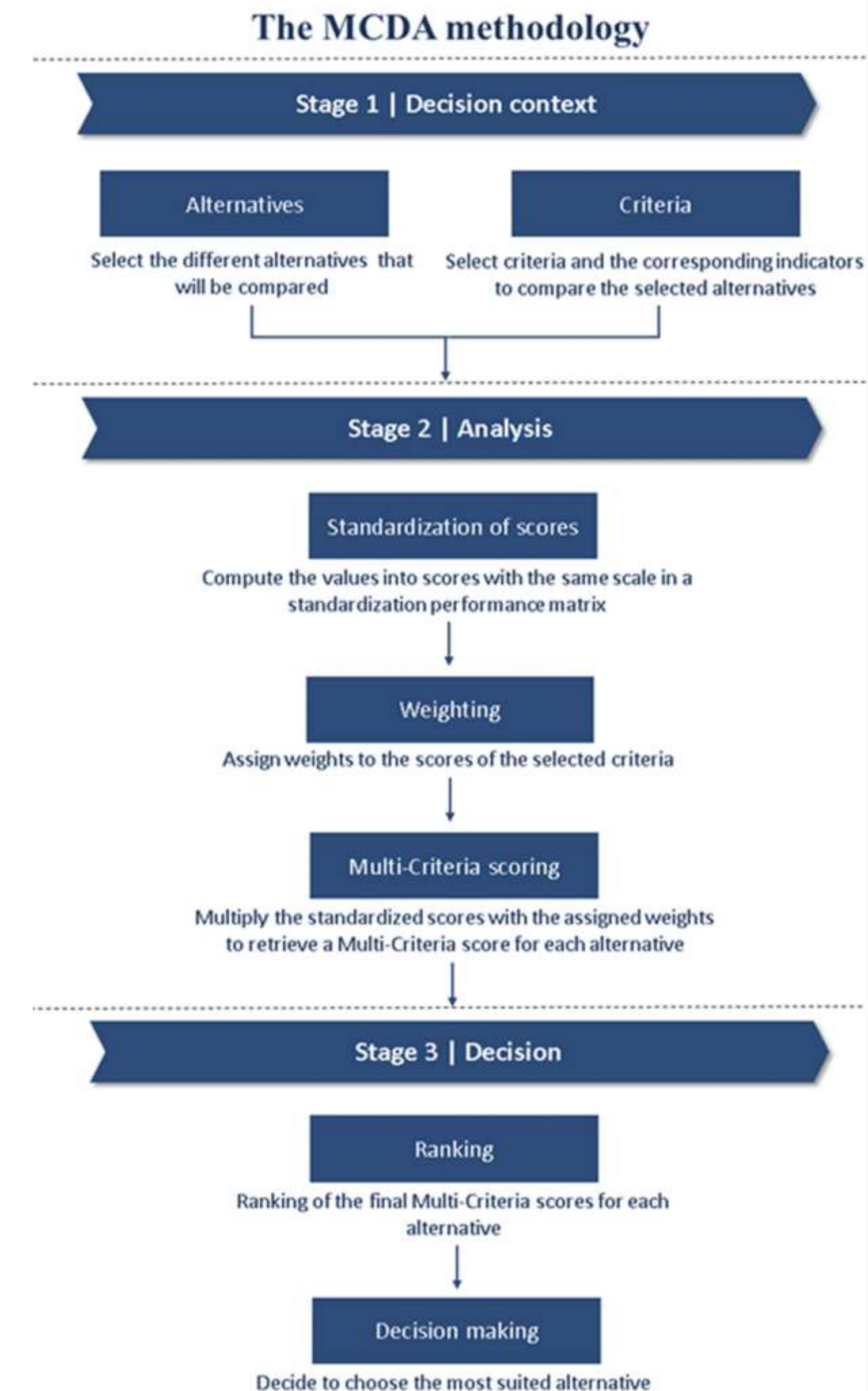


# Multiple Criteria Decision Analysis

Decision-making support

Provides investors with a method to compare different investment alternatives

Based on investor's own criteria and weighing







## EEnvest RISK ASSESSMENT REPORT

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement n° 833112

**1**

**EEnvest RISK ASSESSMENT REPORT**

**GENERAL DATA**

Name: IFAD  
Address: Via Paolo di Dono 44, Rome, IT  
Building use/typology: Office  
Owner: -  
Contact: -

**TECHNICAL DATA**

Construction year: 2001  
Last renovation year: 2019  
Gross floor area: 46,000 m<sup>2</sup>  
Gross volume: 97,048 m<sup>3</sup>  
HDD: 1,902

Project size: 1,300,000.00 €  
Financing amount requested: 1,300,000.00 €  
Investment cost: 53.37 €/m<sup>2</sup>  
Expected M&O costs: 6.87 €/m<sup>2</sup>

Primary Energy savings: 27%  
Primary Energy demand: 266 kWh/m<sup>2</sup>y  
PV production: Yes: 43,200 kWh/y  
Solar thermal production: No

Expected start date of the renovation: 01/01/2018  
Expected end date of the renovation: 31/12/2018

Project ambition: Minimum primary energy cost saving of 35%

Renovation and mitigation measures adopted: Heating system, Cooling system, Ventilation system, Lighting system, PV system, Energy monitoring, LEED certification

Project Quality Self-Assessment score: High probability of reliable, consistent and achievable energy savings. **370/400**

Technical average risk: Mitigate, Needs attention, Needs action

Financial average performance: High, Medium, Low

Multi-benefit average performance: High, Medium, Low

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### EEnvest RISK ASSESSMENT REPORT

The indicator quantifies the investment risk due to possible malfunctioning of the energy renovation measures in the renovation project. Such expressed as a percentage of the planned investment.

For this specific project, the Damage indicator has been estimated as:

**0.30 %**

The gap indicator quantifies the energy performance deviation. It is expressed as a percentage of the calculated energy performance costs after the renovation project.

For this specific project, the estimated Energy gap is:

**1.04 %**

#### TIME

Payback time is the amount of time that an investor will take to recover the initial investment. It is expressed as a percentage of the calculated energy performance costs after the renovation project.

For this specific project, the estimated Payback time is:

**8 years**

#### NPV

NPV is defined as the total duration of the project needed to achieve a zero NPV (Net Present Value) of the cost of capital.

For this specific project, the estimated Maturity is:

**12 years**

#### RATE OF RETURN (IRR)

Internal Rate of Return (IRR) is the discount rate that makes the net present value of the project equal to zero.

For this specific project, the Internal Rate of Return is:

**12.70 %**

#### NET VALUE ON INVESTMENT (NPV/investment)

Net Value (NPV) is the value of all future cash flows (positive and negative) over the life of an investment discounted to the present. The NPV/investment ratio is a measure of profitability of the project.

For this specific project, the estimated NPV/investment is:

**0.71**

#### DEBT SERVICE COVERAGE RATIO (DSCR)

Debt Service Coverage Ratio (DSCR) is an indicator of the project's ability to repay a loan. It is calculated as the ratio between the operating cash flows generated by the project and the cash flows for debt, lease, or other obligations (debt service, both for principal and interest) due in one year.

For this specific project, the DSCR has been estimated equal to:

**2.36**

#### JOBS CREATED

Jobs Created metric refers to new jobs created as a result of the renovation project. It is based on a proclaimed BPIE study that states that per 1 million energy efficiency projects, 18 new jobs on average are created. It is calculated as the ratio between the energy efficiency of the building (for example, country) and the amount of the investment.

For this specific project, the number of jobs created is:

**23.5 jobs**

This KPI contributes to the following SDG targets: 8.2, 8.5, 9.1

For this specific project, the number of jobs created is:

**23.5 jobs**

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## Project Self Assessment Tool

- Questionnaire with scoring, 6 themes evaluated
- Self assessment (input from the Project Owner)

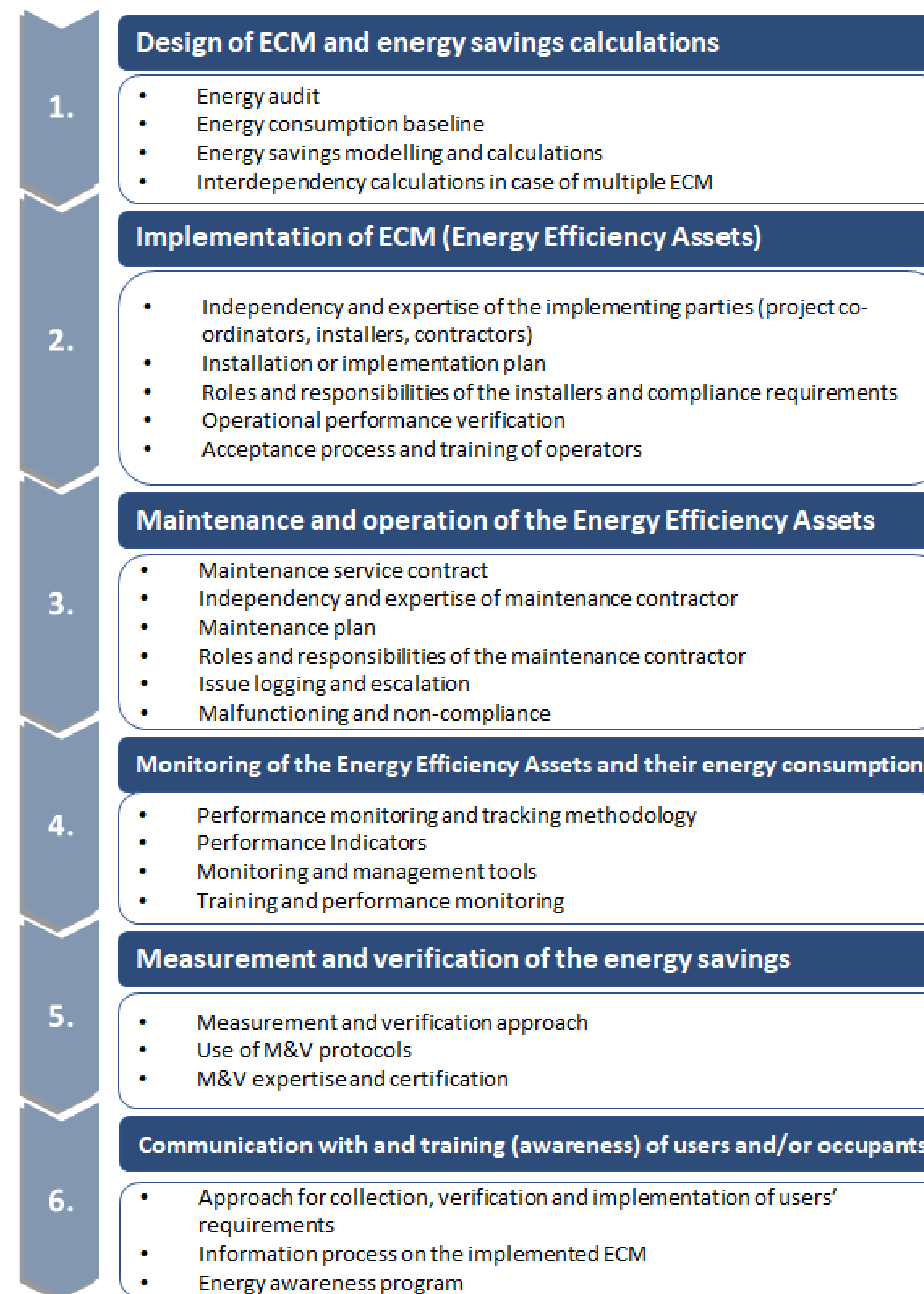


Final project scoring reflects the level of Implementation of EE project best practises

**370/400**

All of the Themes have been adequately conceived and set up, **with some minor flaws, almost always** taking into account the **highest** standards, highest quality criteria and best practices. This level of conception and implementation indicates a **high probability** of the envisaged energy savings being reliable, consistent and achievable and the uncertainties surrounding the investment cost and future operation and maintenance costs being minimised.

- Balance between size of the project and PQSA scoring needs to be considered





# Thank you

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