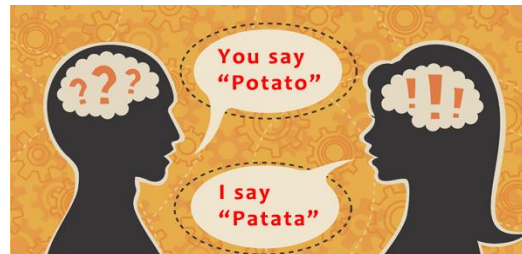


# Context

- Current levels of investment are insufficient to deliver on the Union's energy objectives for 2030
- €100 billion was needed annually to achieve Europe's 2020 energy efficiency targets, less than half has been invested (> 2015)
- Sustainability topics: gap between an engineer's approach of **building performance** and a financial analyst's **appraisal of real estate assets**
- Sustainability information remains underexploited in multi-year plan provisions, financial valuation and asset risks appraisal



# Main objectives of the approach

## ALDREN approach

→ working out **a common language** to better highlight direct and indirect financial benefits of energy, health and comfort upgrades in terms of asset value and risk protection

- Informing renovation decision-makers through dedicated indicators provided as a direct output of the ALDREN Protocol

Renovation Costs

ALDREN-related  
Obsolescence Risks

- Outlining guidelines for better integration of sustainable performance assessment results into renovation decision-making process and value appraisals

Asset Value  
(Investment worth)

# Overview of the protocol : tools and indicators

## Costs

Energy costs and revenues

Maintenance costs

Other running costs

Replacement costs

GhG costs

Global costs/life cycle costs A

**Global costs** calculations  
Business as Usual + renovation scenarios

## Risks

Sustainability-risks rating B

**Risk rating:**  
from current building and local market outlooks

## Value

Rental value

Rental growth

Discount rate

Vacancy and reletting costs

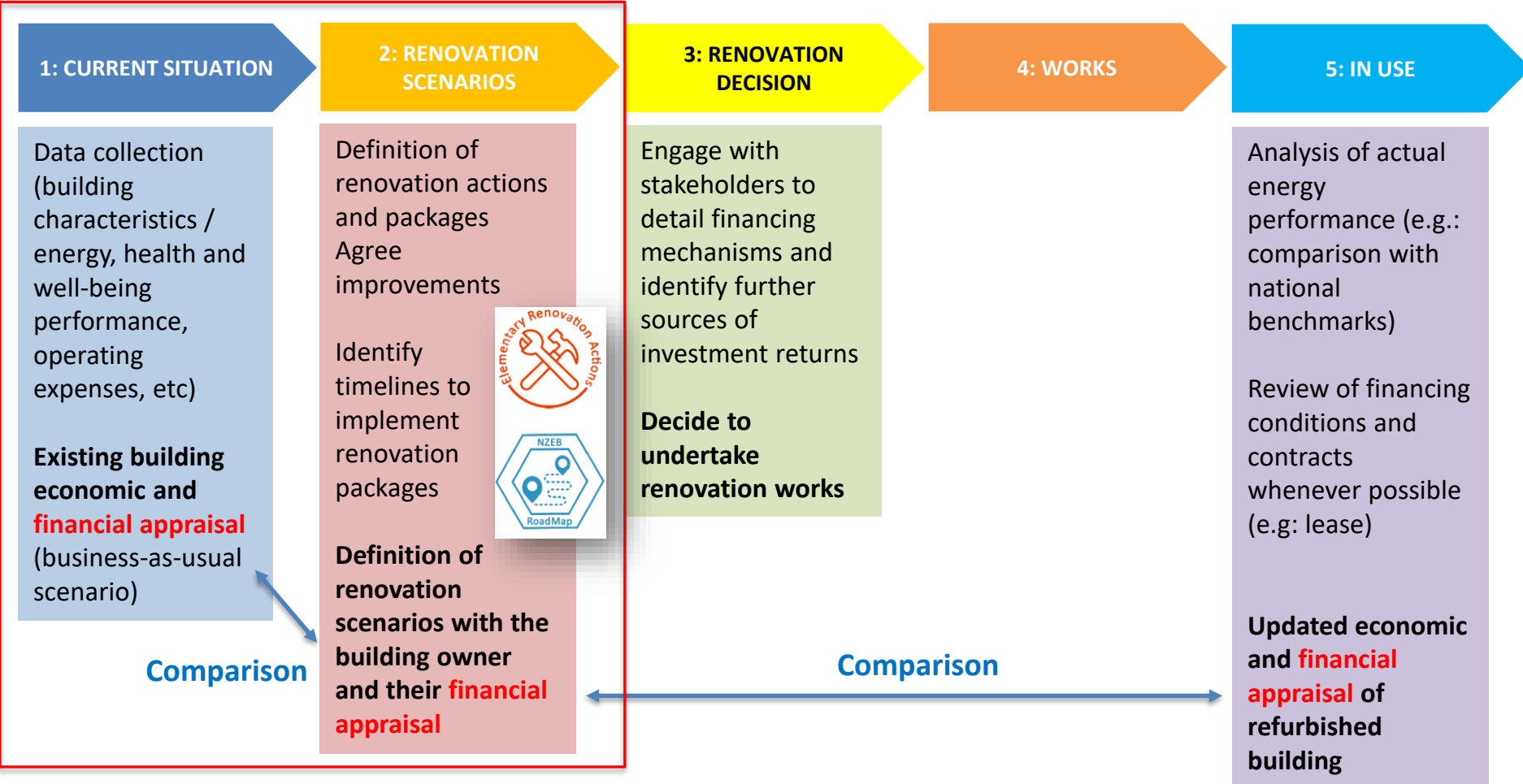
Occupation rate (hotels)

Room price (hotels)

Investment worth C

**Discounted Cash Flow** calculations  
Business as Usual + renovation scenarios

# Applying the protocol through time: main steps



# Evaluating key indicators for one renovation scenario

Outcomes from other ALDREN assessment procedures are inputs for financial assessment

