

# ALDREN

ALliance for  
Deep energy  
RENOvation in buildings

Translating  
building performance into  
financial asset



**ALDREN** ALliance  
for Deep RENovation  
in buildings



REHVA BXL SUMMIT 2019,  
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# 8 European partners are working together to increase the building energy renovation rate and quality

**CSTB**  
*le futur en construction*

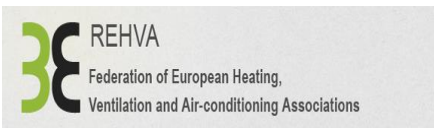


**POLITECNICO**  
MILANO 1863

(research)



(certification)



(development application)



# Why ALDREN?

- only about **1-2%** of the building stock is **renovated each year**;
- only around **15 %** of building refurbishments **incorporate significant** energy efficiency improvements.

energy savings are not the trigger for renovation

Some reasons:

- no sufficient financial interest;
- absence of a holistic strategy;
- lack of communication between the different stakeholders
- (building professionals, building owners, finance).

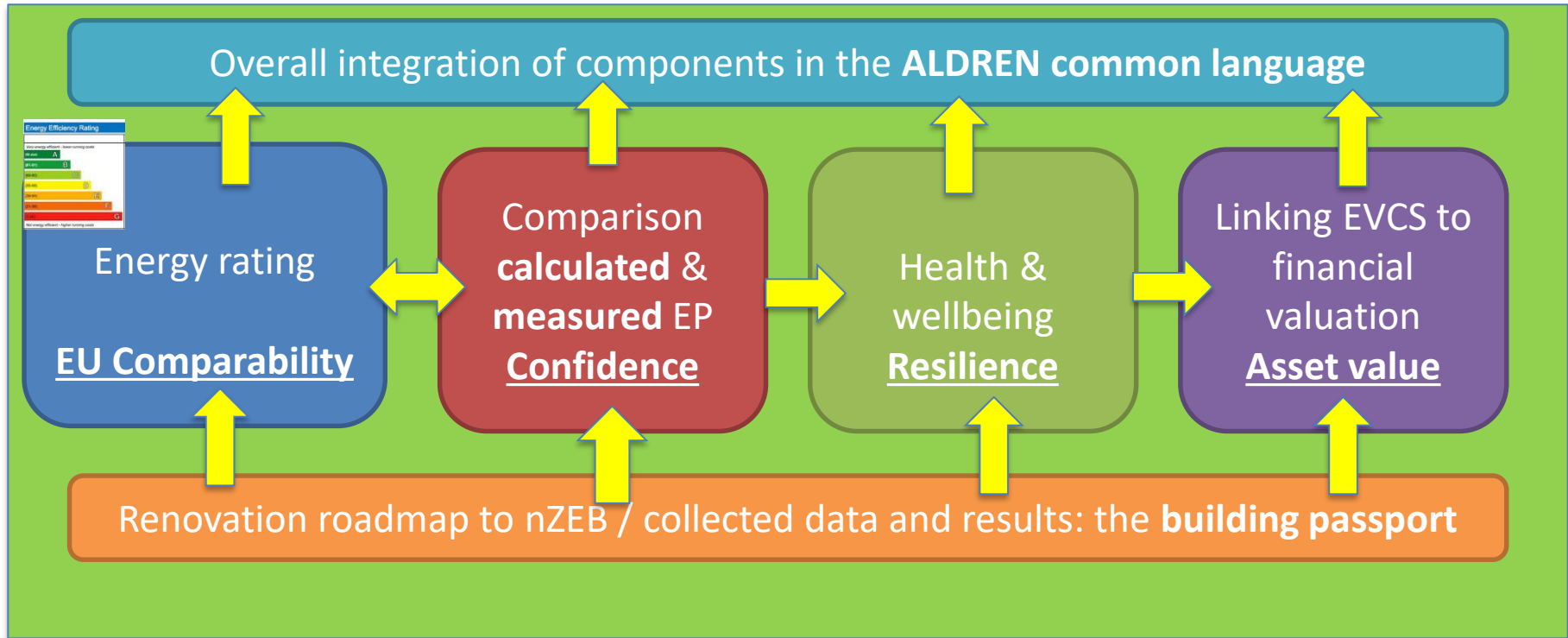
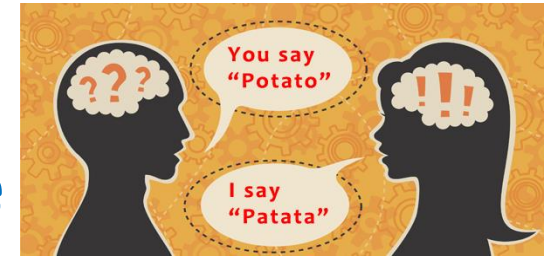


Communicate **all benefits** of energy renovation  
and **not only the energy savings**:  
**The ALDREN common language**



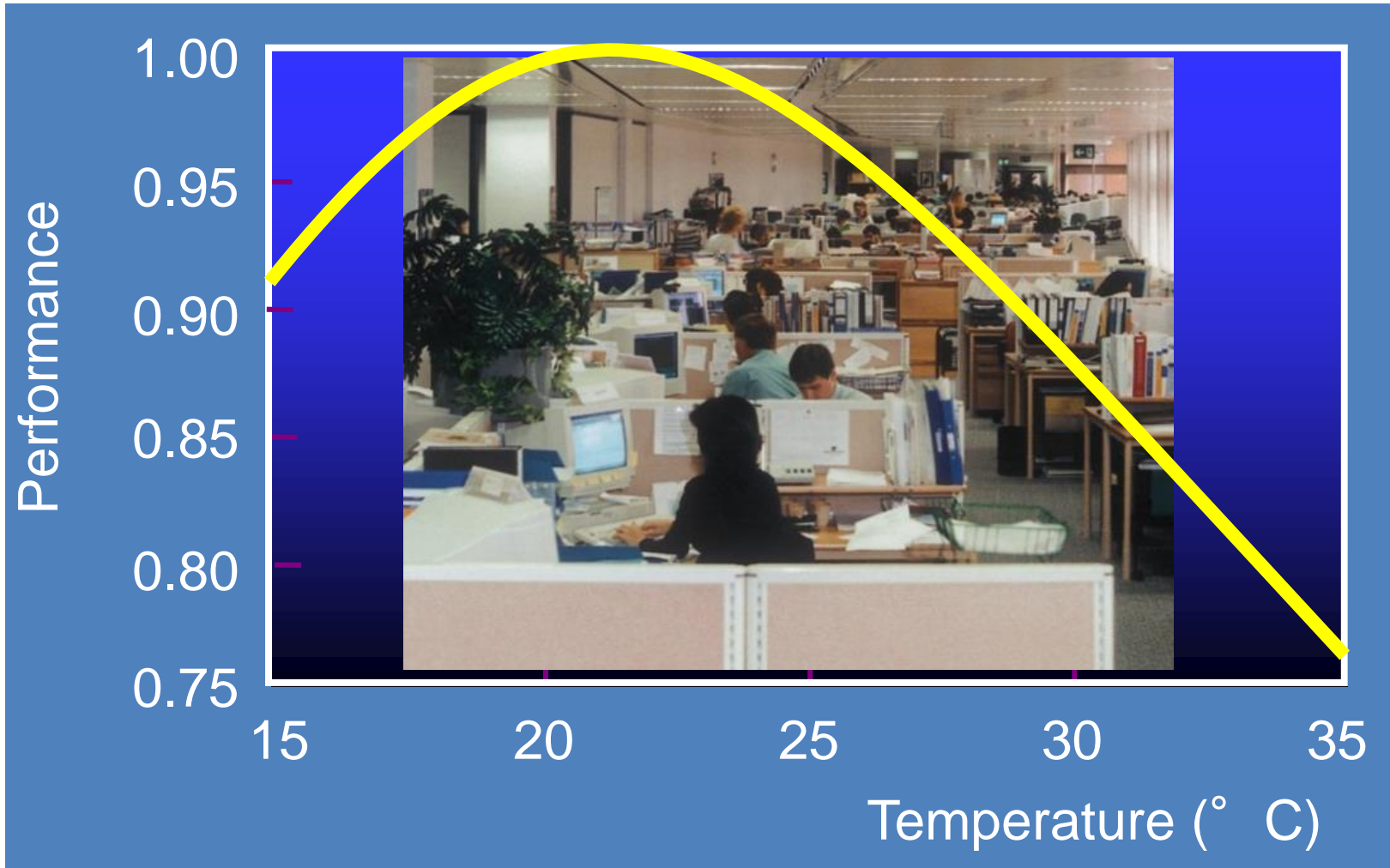
# The ALDREN common language

## 6 topics for an European Voluntary Certification Scheme related to energy renovation



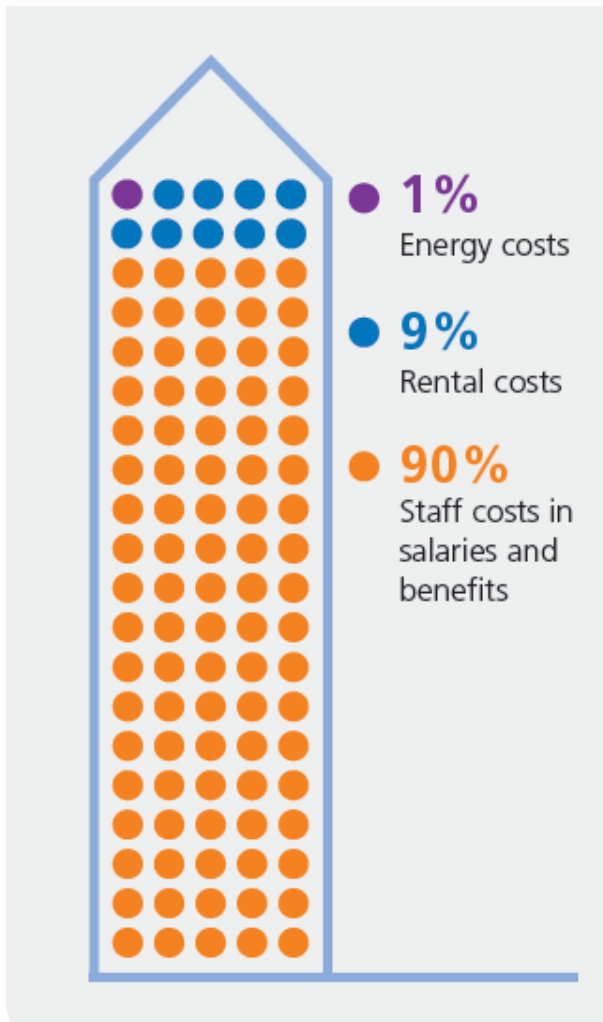
## Example: Addressing health & wellbeing

### TEMPERATURE AND PERFORMANCE OF OFFICE WORK



# CONSEQUENCES

## Example: Cost structure in an office building



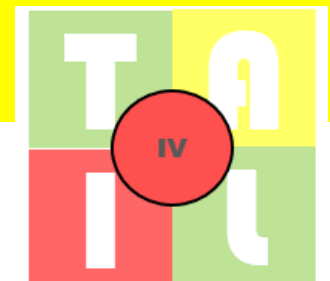
modest gains in work performance (staff costs) can deliver significant financial benefits

economic interest is more in the increase of productivity (90%) than in energy (1%)



**There is a need for:**

- **European Health + well-being indicator**
- **link** between this indicator
- and **financial benefits**



# ALDREN health + Well-being indicator

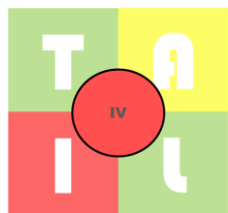
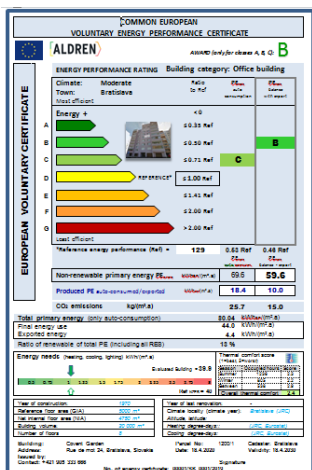
## Link between energy renovation and economic benefits

Energy renovation actions

Change in indoor environmental quality (IEQ)

Improved work performance

Economic benefits



### TAIL describing

- Thermal,
- Acoustic,
- Indoor air quality,
- Lighting



# Summary of ALDREN economic/ financial indicators

## Costs

Energy costs and revenues

Maintenance costs

Other running costs

Replacement costs

GhG costs

Global costs /life cycle costs

## Risks

Sustainability  
related-risks rating

## Value

Rental value

Rental growth

Discount rate

Vacancy and reletting costs

Occupation rate (hotels)

Room price (hotels)

(Investment) worth





Risks

Sustainability related-risks rating

Proposition of a standardised risk rating for more transparency

ALDREN Risk indicator

Performance

Management

Ease to  
upgrade

Market  
uptake



## Risks

## Sustainability related-risks rating

### Performance

Performance components	Score
- <b>Energy class</b> (from T2.2)	A=1; B=2; C=3; D=4; E=5, F=6; G=7
- <b>TAIL score</b> (from T2.4)	I=1; II=2; III=3; IV=4
- <b>Technical obsolescence</b> (from T2.6)	etc

### Market uptake

Market uptake components	Score
<b>Energy regulatory outlook</b>	<b>Climate change</b> 1 No energy target in regulation for exist. buildings 2 Energy regulation not yet aligned with NZEB 3 Energy regulation for existing buildings aligned with NZEB already implemented
etc	



Value

Market value

(Investment) worth

## Example:

how qualitative assessment of “performance”  
is translated into a financial value

(Part of mandatory method for asset valuation for bank loan secure in Slovakia).

Example Location: Assessor has to choose between classes:

The class	Value per class
I.	2,400
II.	1,600
<b>III.</b>	<b>0,800</b>
IV.	0,440
V.	0,080

+ guidelines

**ALDREN provide guidelines  
for energy performance**  
(e.g. energy -, maintenance costs, comfort)

The **mortgage / market value** is then calculated by multiplying:

**Localisation Differentiation coefficient X technical value**

The **technical value** are the construction costs for similar new building with depreciation by age of the given building

Mandatory method for asset valuation for bank loan secure in Slovakia.



# Résumé

- Energy savings alone do not trigger building renovation
  - *ALDREN offers an holistic approach on energy (e.g. linking it with health and well being, finance)*
- Communication between the different stakeholders involved in building renovation is needed
  - *ALDREN express building performance in reliable, transparent indicators and translate them into financial asset*



A methodology to stimulate the increase of renovation rate and quality has been created

**But...**



**...nothing will happen...**



**...without a strong  
strategic partnership for  
market uptake**



## Potential partnerships (even for modular market uptake)

- **Skilled professionals**  
to train / certify experts to apply the ALDREN method  
e.g. REHVA, CEN-CE project ([www.cen-ce.eu](http://www.cen-ce.eu))
- **Voluntary environmental certification schemes**  
to take over ALDREN indicators and methods (e.g. HQE, DGNB, BREEAM)
- **Financial institutes**  
to include ALDREN in asset valuation, linking interest to building performance
- **Asset managers, building owners**  
to include ALDREN methodologies in decision making/taking process
- **European Commission**  
to reference ALDREN as quality benchmark for EU funding  
(e.g. as voluntary common certification scheme)



**Thank you for your attention**



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# Join ALDREN

**ALDREN**  Alliance  
for Deep RENovation  
in buildings



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