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**Beyond building certification:  
verified performance, indoor  
climate and the evolution towards  
building renovation passport**

**EUSEW19 session "lucky" 13: Wednesday 19 June, 9h00 – 10h30  
NEW EPBD: THE VALUE OF ACTUAL PERFORMANCE AND  
DIGITALISATION**

17-21 JUNE 2019  
SHAPING EUROPE'S ENERGY FUTURE  
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# Why « beyond » energy certification?

## The situation

- only about **1-2%** of the **building stock** is renovated each year,
- around **85 %** of **building refurbishments** **do not** incorporate significant **energy efficiency improvements** (energy is not the trigger of renovation)

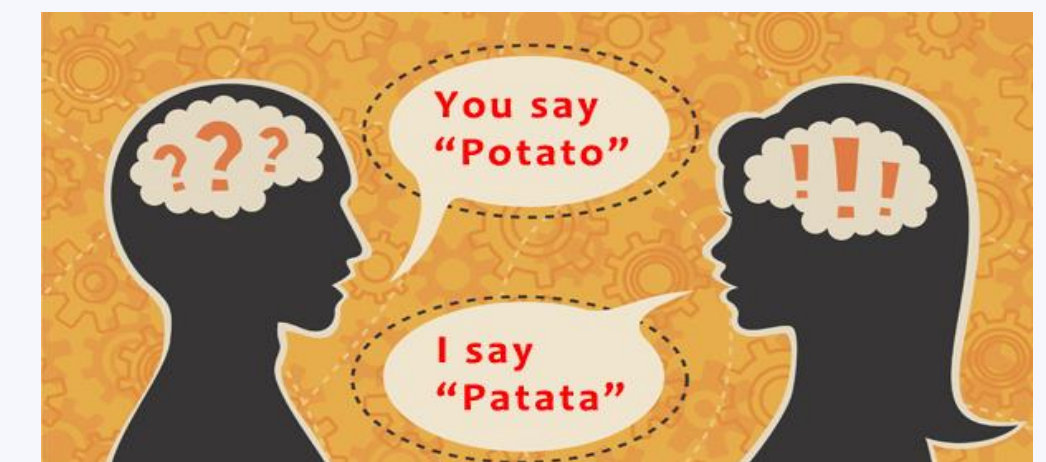
## The problem

- one of the **major barriers** to improve building renovation numbers is the **absence of a holistic strategy**, the **lack of a strong relationship** and **communication between the different stakeholders** (building professionals, building owners, finance).



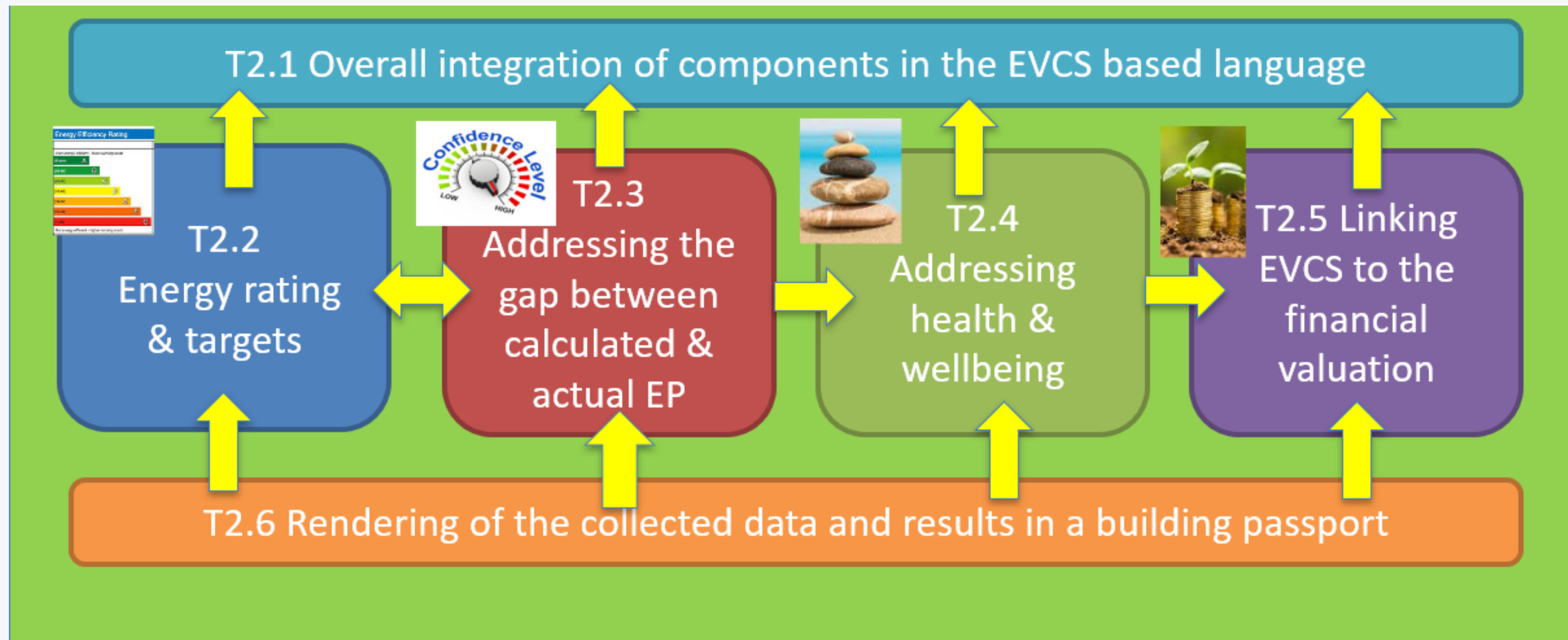
## The solution

- **ALDREN common language** describing the holistic approach in renovation and allow communication (how a thermal bridge can talk to a banker)?



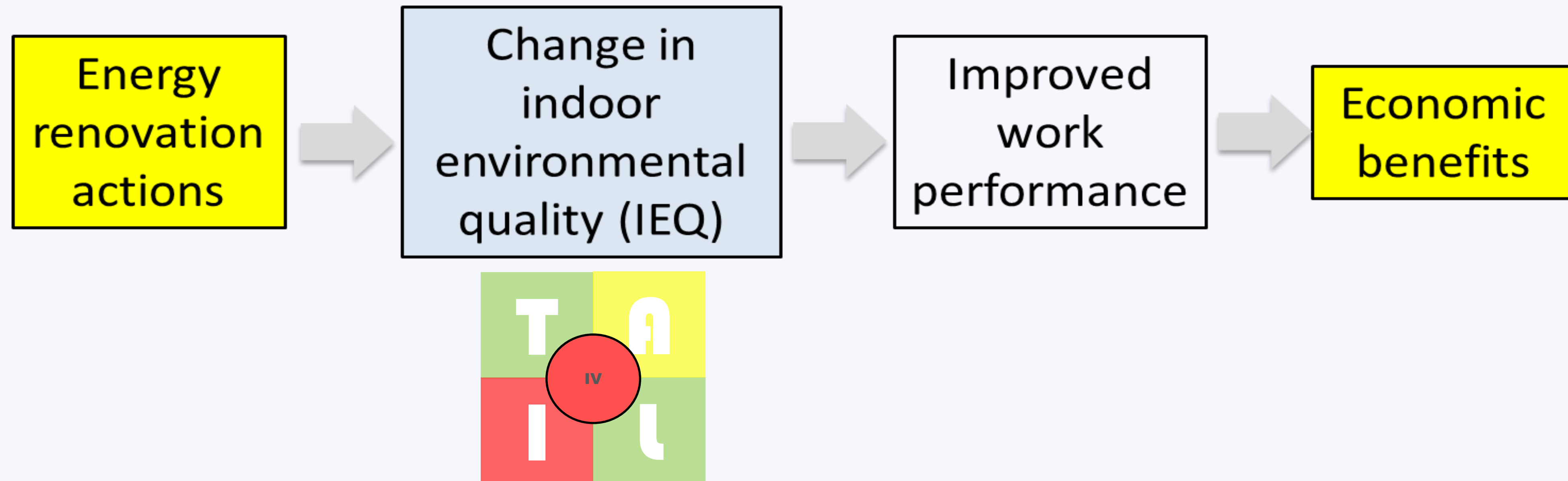
# The ALDREN common language

## 6 topics for consolidation and adaptation of an EVCS (European Voluntary Certification Scheme)



# ALDREN common language: Linking energy renovation actions to economic benefits

## ALDREN health + well-being indicator TAIL

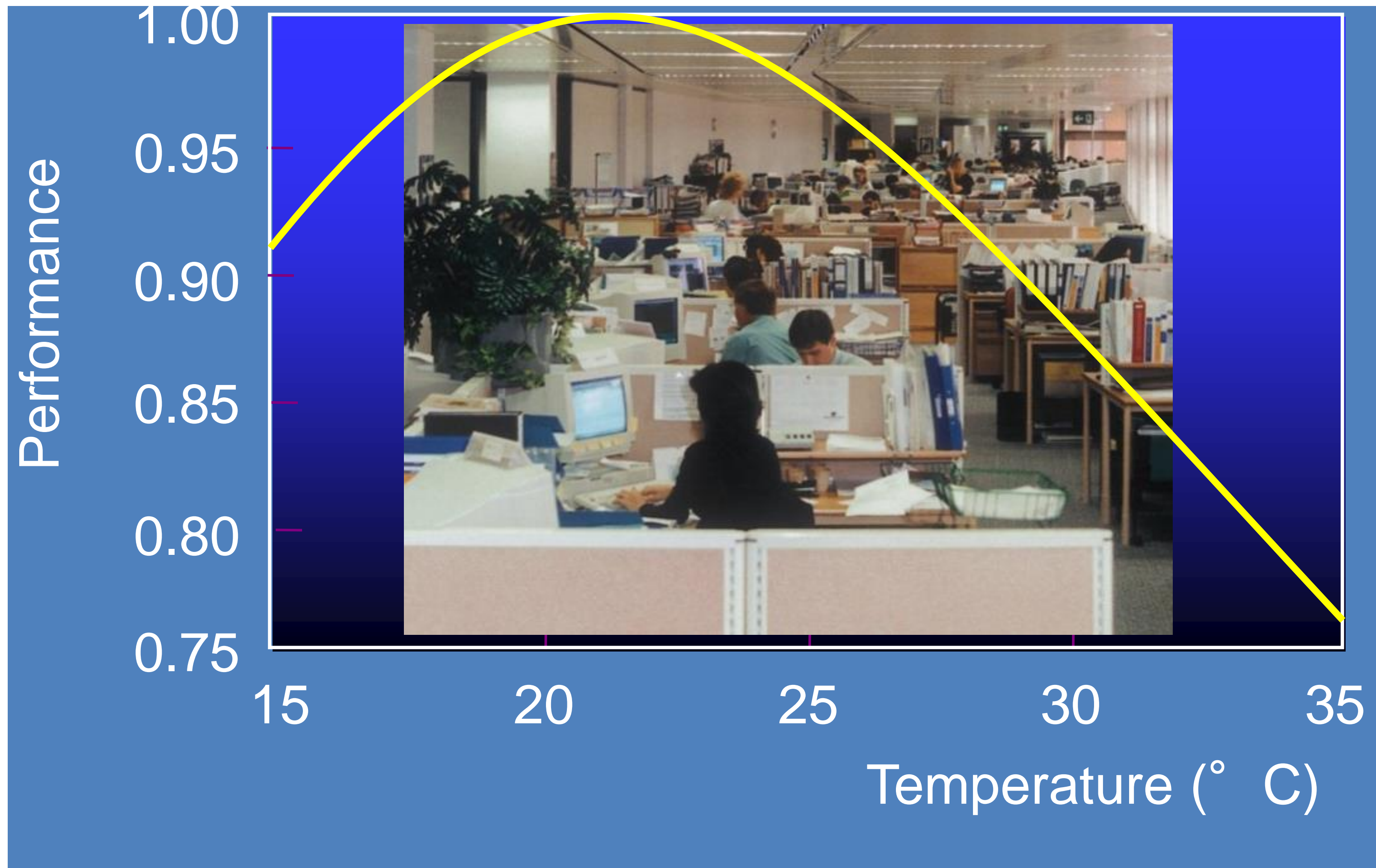


**TAIL** describing **T**hermal, **A**coustic, **I**ndoor air quality and **L**ighting (visual) environment

# New challenges and requirements in revised EPBD

## Example: Health & wellbeing

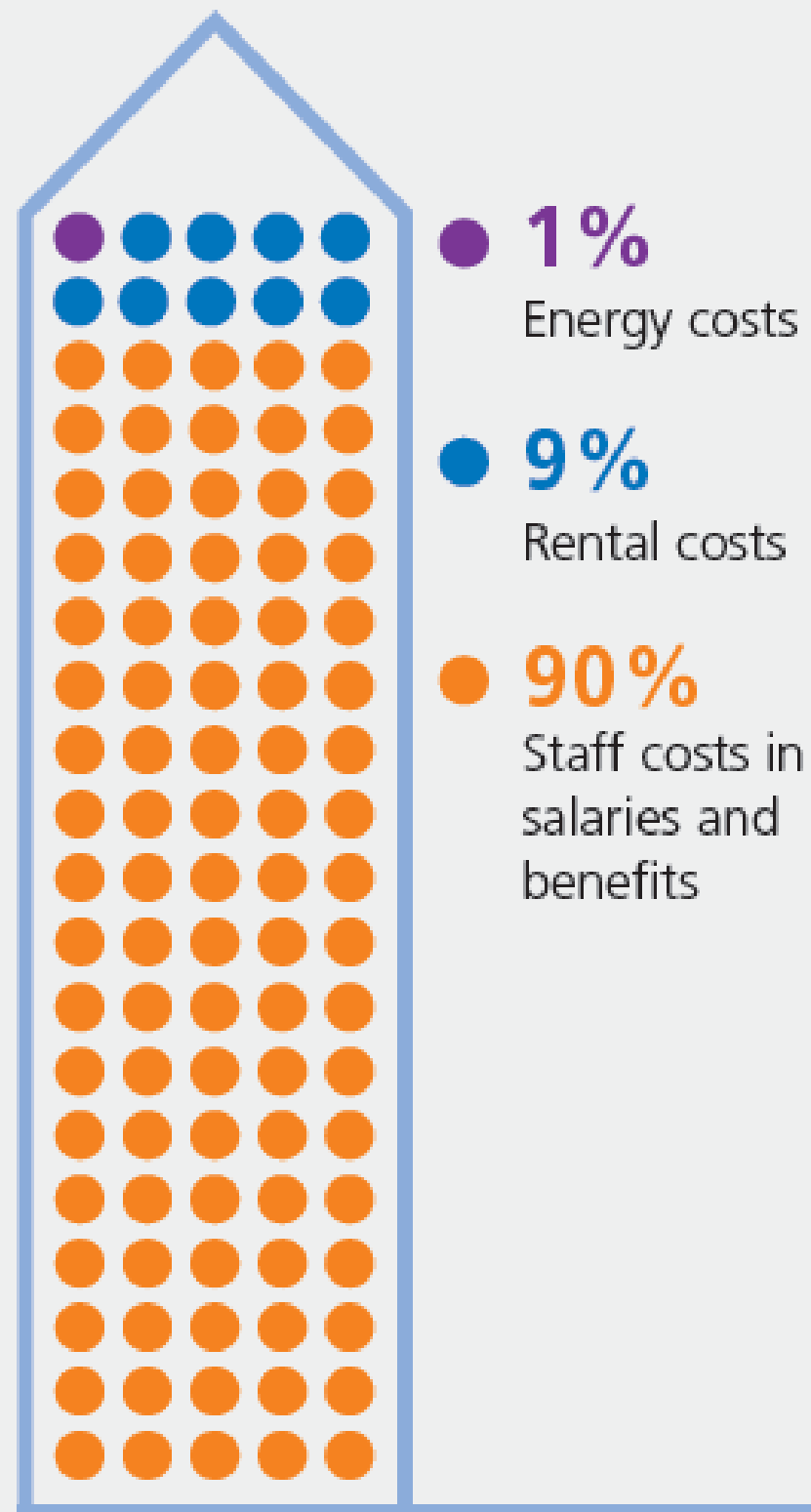
### TEMPERATURE AND PERFORMANCE OF OFFICE WORK



Source: Seppanen et al. (2005)

# Well-being: An additional motivation for energy renovation

## Example: Cost structure in an office building



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



**Energy renovation improving productivity is cost-effective**



**There is a need for:**

- a **European Health + well-being** indicator
- a **link between health+ well-being indicator and the financial benefits**

# Contribution of the ALDREN project to the transposition of revised Directive - May 2018

	T2.1 Overall integration	T2.2 EVCS	T2.3 Measured energy	T2.4 Health Wellbeing	T2.5 Financial evaluation	T2.6 Building passport	T3.2 Training
<b>Art 1 Amendments Directive 2010/31/EU</b>							
<b>'(2) Article 2a Long-term renov. Strategy</b>							
(g) evidence of expected energy savings and related to health, and air quality.							
<b>3. mobilisation of investments</b>							
(b) the reduction of the perceived risk							
<b>(4') Article 7 existing buildings</b>							
high-efficiency alternative systems and shall address healthy indoor climate'.							
<b>(6) Article 10</b>							
'6. link their financial measures to the targeted or achieved energy savings							

**ALDREN outcomes are related to 17 paragraphs of revised EPBD amendments**

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# Conclusions

- Revised EPBD transposition **offers the possibility for common implementation**, considering technical progress and new challenges

**but**

- To increase the renovation rate and consider significant energy efficiency improvements a **holistic approach “beyond” building (energy) certification** including verified performance, indoor climate, building renovation passport and building asset valuation is needed

**and**

- Only a **common European transposition** will allow:
  - to be able to work on the “other side of the border”,
  - to have a “level playing field” (fair competition) for products,
  - to get common databases, common information.

- EU Commission **initiated EU projects** (e.g. ALDREN, CEN-CE to **help Member States** to transpose the new requirements of revised EPBD and to **favor common transposition**.





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**Thank you for your attention!**

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