

European building renovation legislation & opportunities ahead

Maarten De Groote - Head of Research

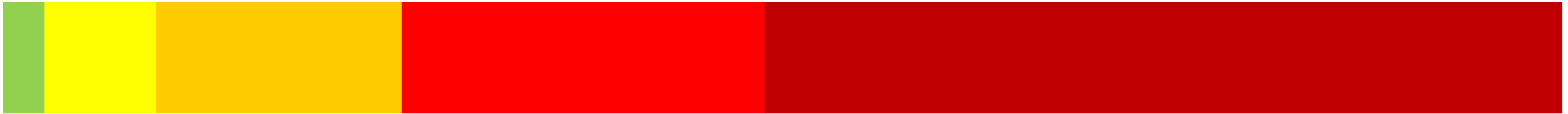
Buildings Performance Institute Europe

VIPA Conference 2018, 27 September, Vienna

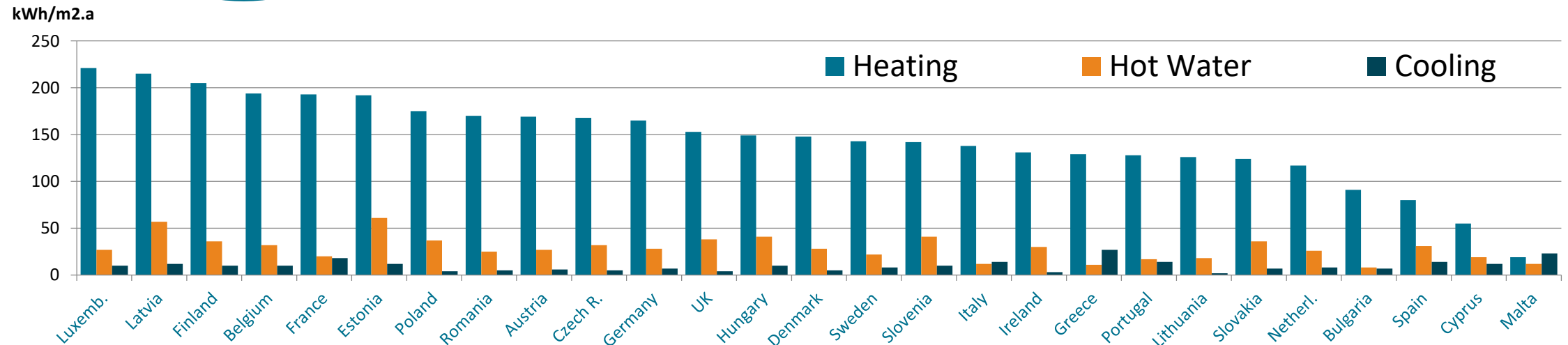
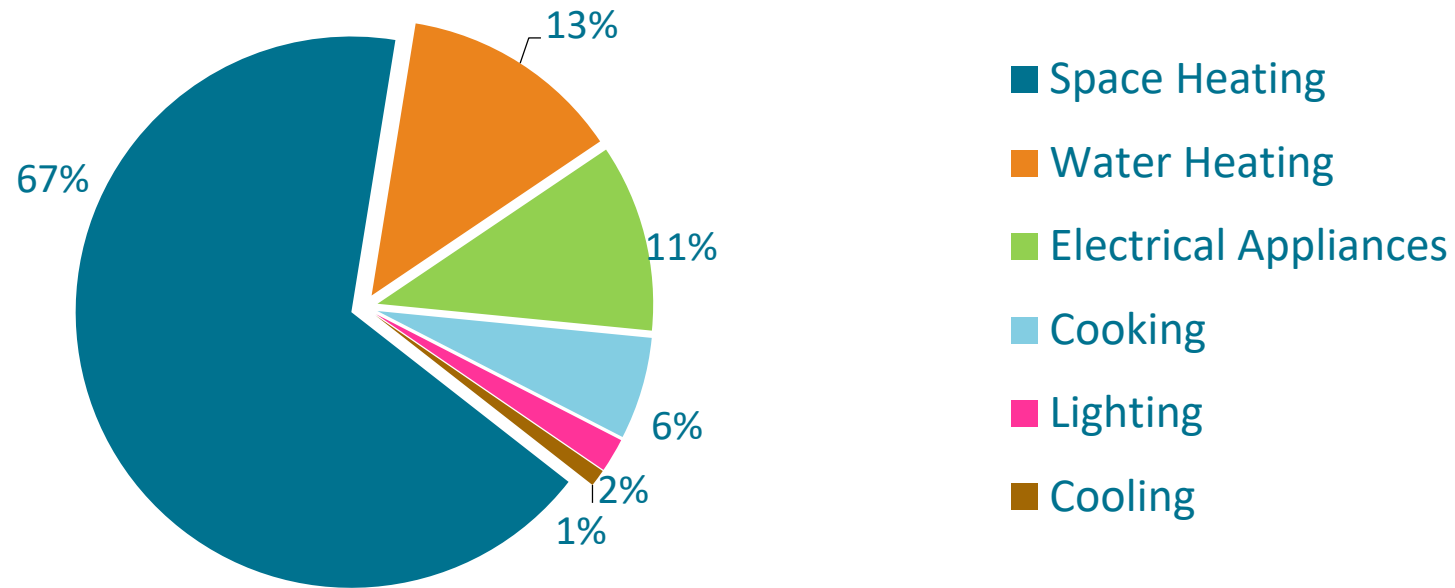
90% OF OUR TIME IS SPENT INDOORS



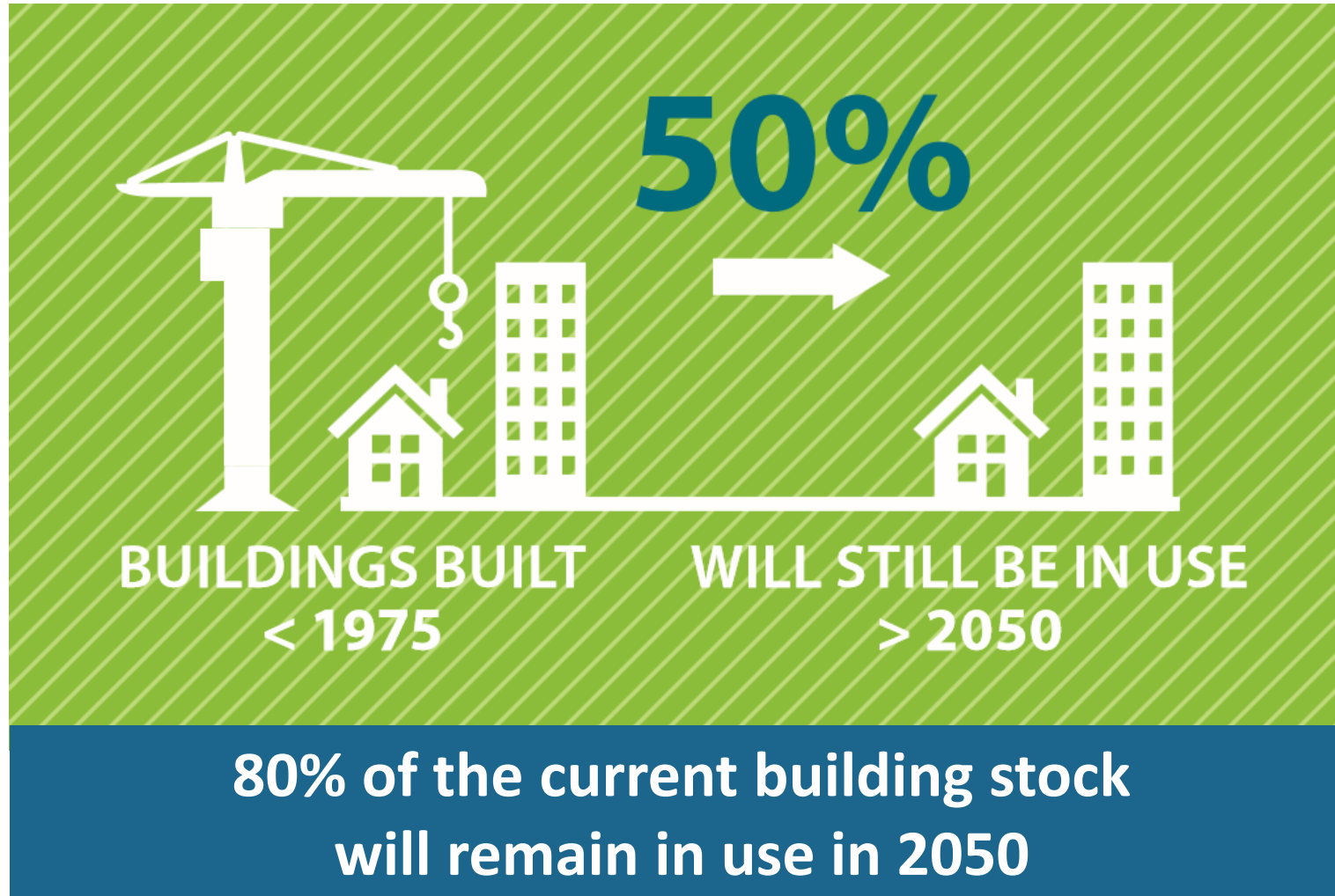
97% OF EU BUILDINGS IS NOT FUTURE PROOF



European household energy consumption by end use

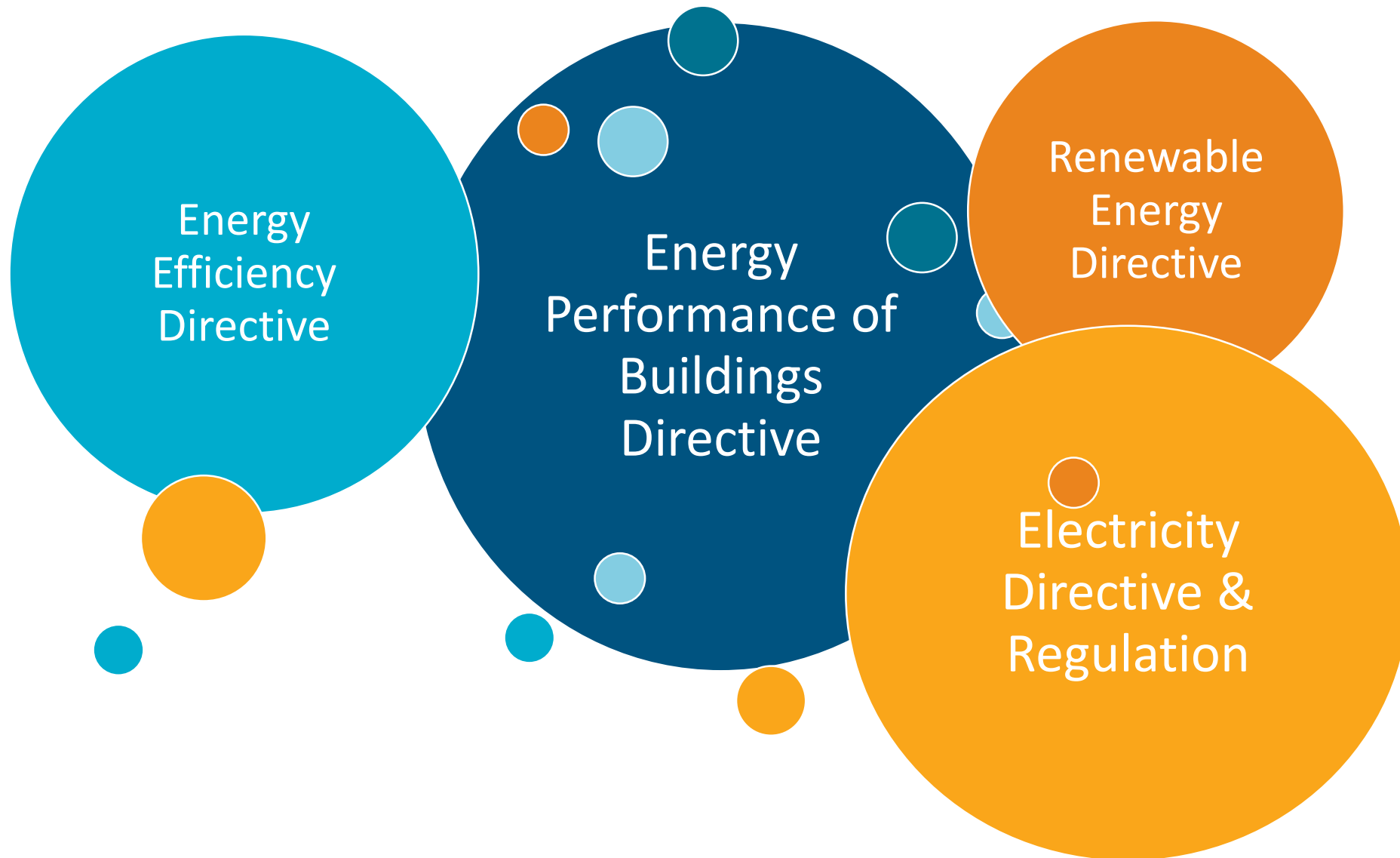


Highly efficient and decarbonised building stock by 2050

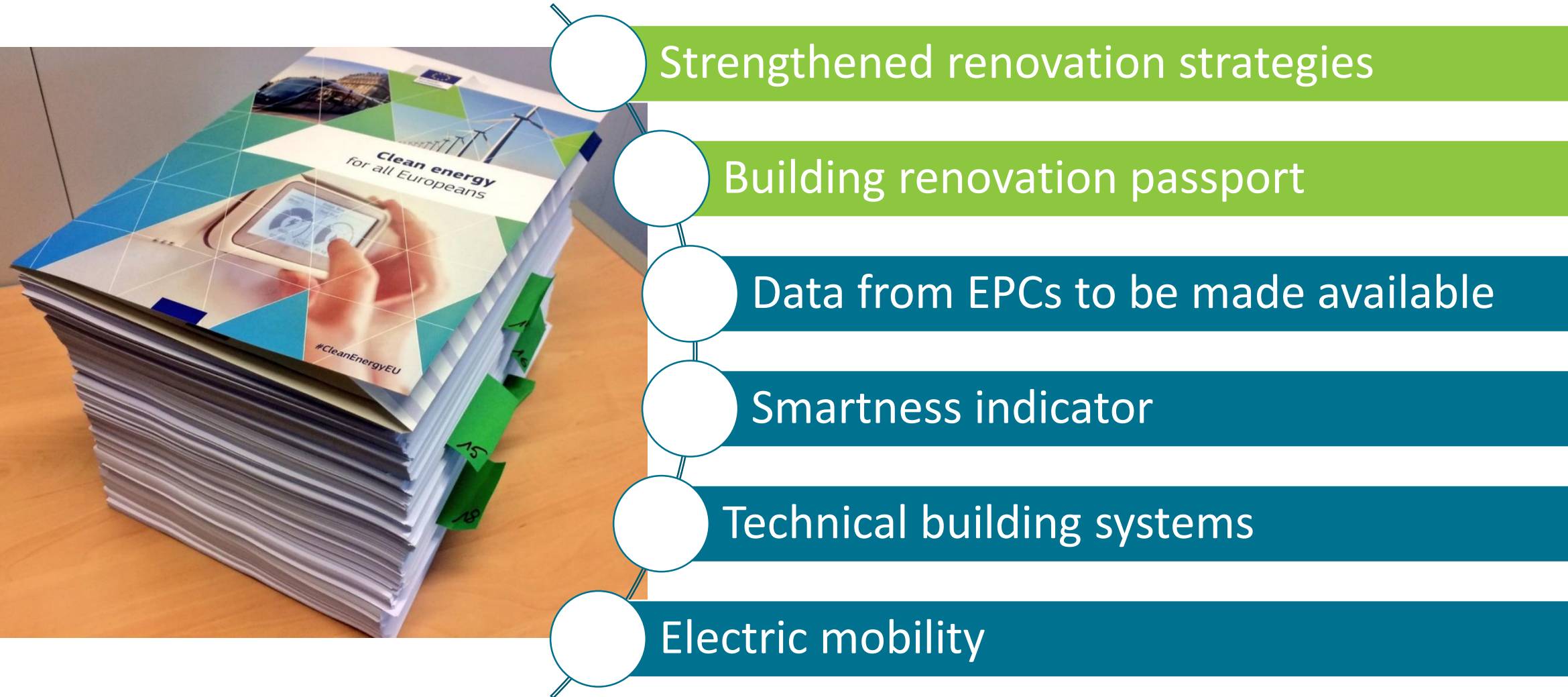


Renovation is the main challenge!

EU legislation is a complex interaction of initiatives



Clean energy package – is the EPBD 2018 a game changer?



Revised article on Long-term Renovations Strategies



Highly energy
efficient and
decarbonised
building stock
by 2050

Progress
indicators &
milestones in
2030 and 2040

Actions to
contribute to
the alleviation
of energy
poverty

Address the
multiple
benefits of
renovation

**National Renovations Strategies – the central
tool for Member States to achieve impact**

Reality check of national renovation strategies



PROMISE

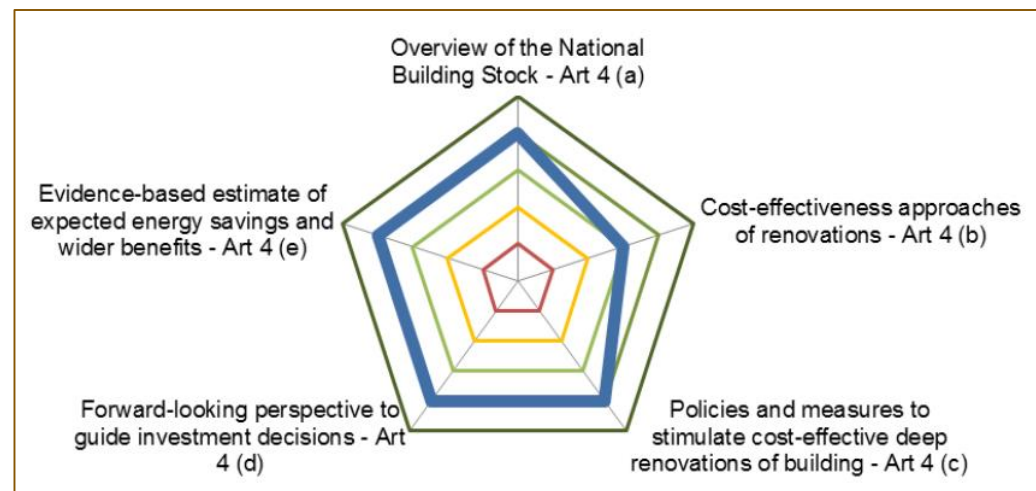
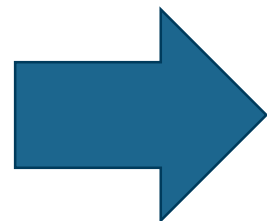
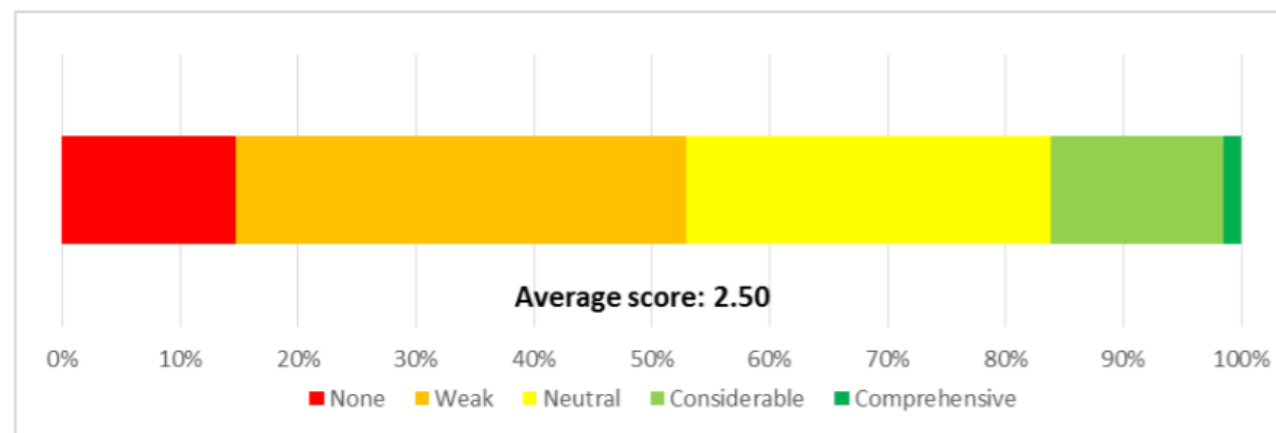
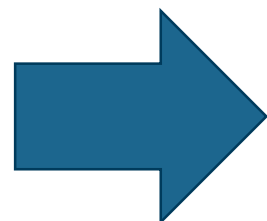


Figure 3 - Has action been taken since 2014 to remove barriers to renovation?

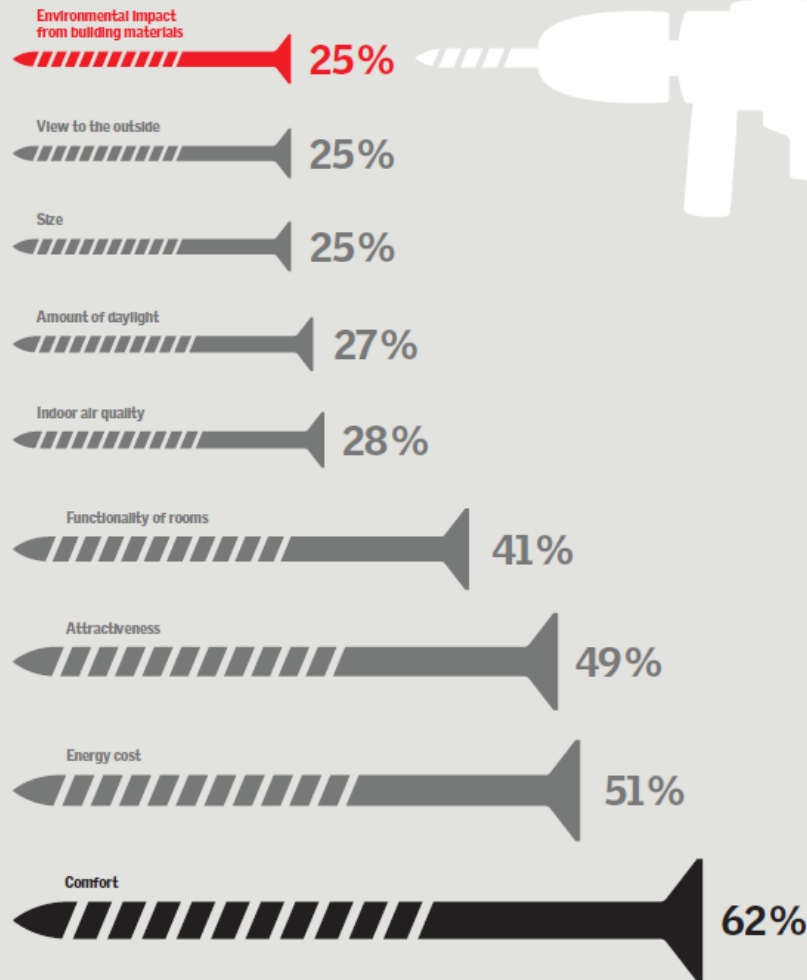


REALITY



Why do Europeans renovate?

Reasons Europeans renovate



Source: Velux

62% comfort

51% Energy costs

49% Attractiveness

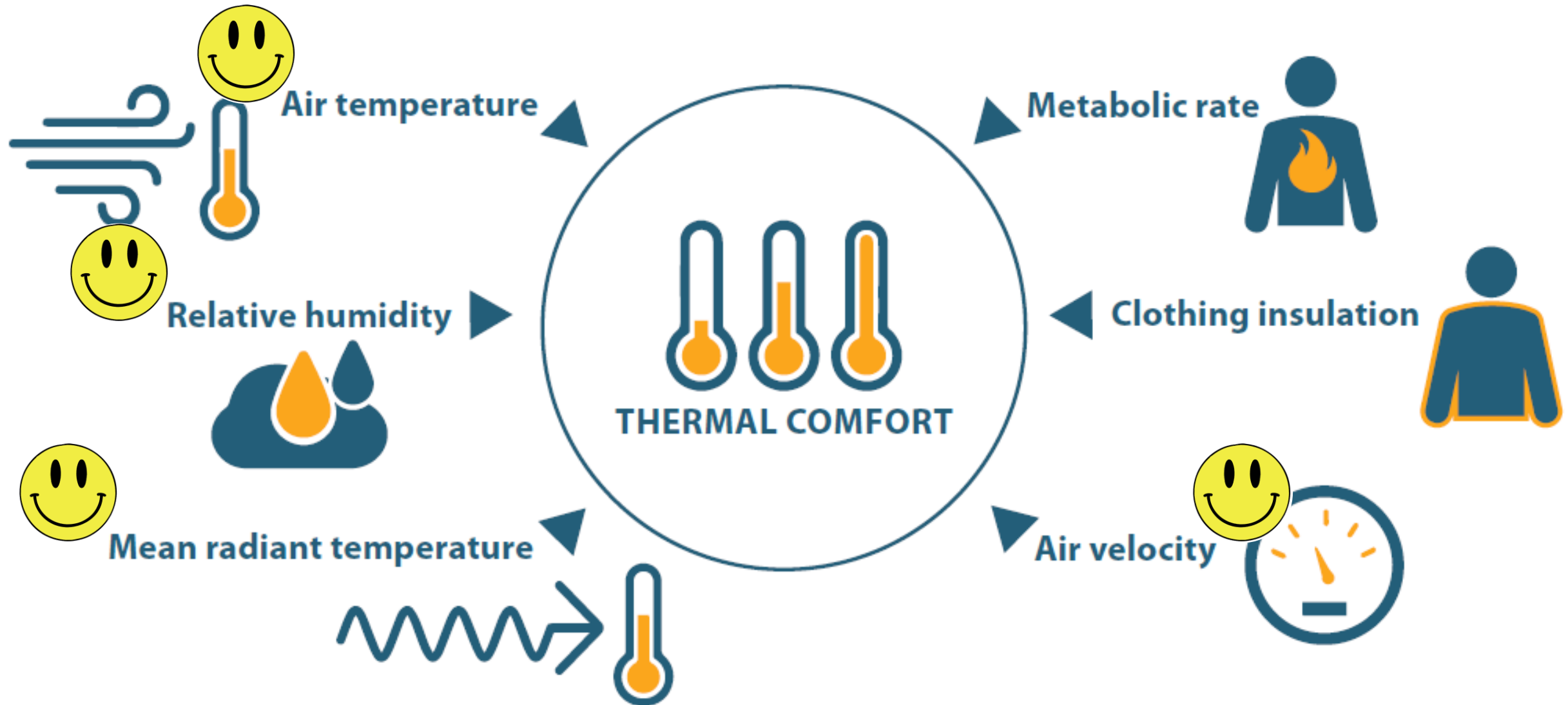
41% Functionality of rooms

28% Indoor Air Quality

27% Amount of daylight

25% Size

Factors that primarily affect thermal comfort



Elements and impact of Indoor Environmental Quality



Creating real value for building users

THE INNER VALUE OF A BUILDING



Residential

- 1 in 6 Europeans live in buildings that make them sick

Offices

- 6%–9% decreased productivity in poor indoor air quality

Schools

- 7-26% learning progress improvement in better IEQ

Hospitals

- Hospitalization decreased 16-41% in highly daylight rooms

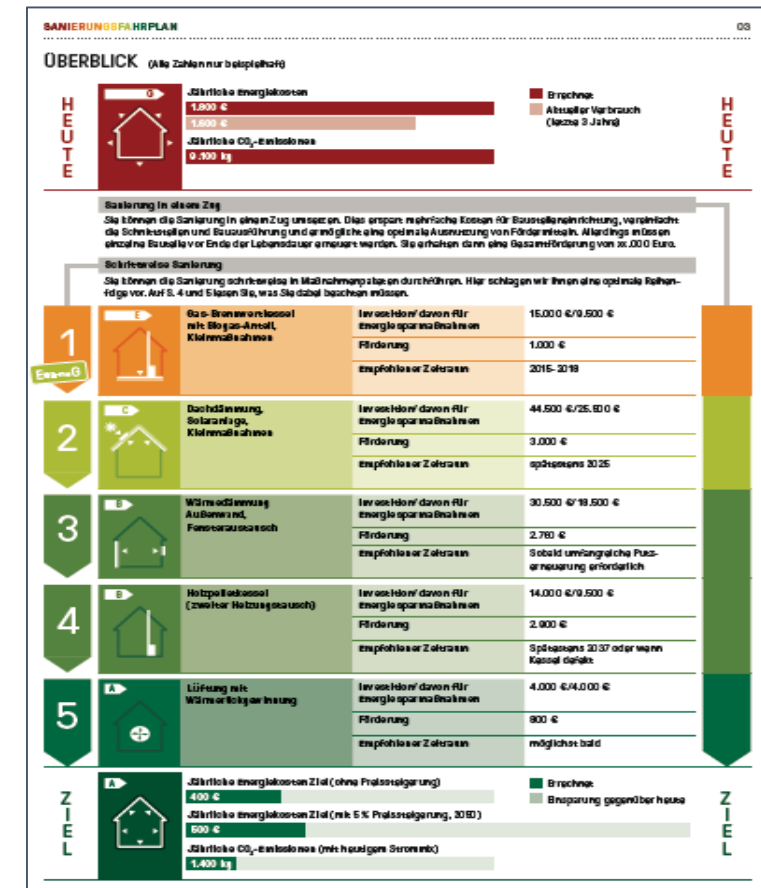
Achieving deep energy renovation

Holistic one step deep renovation

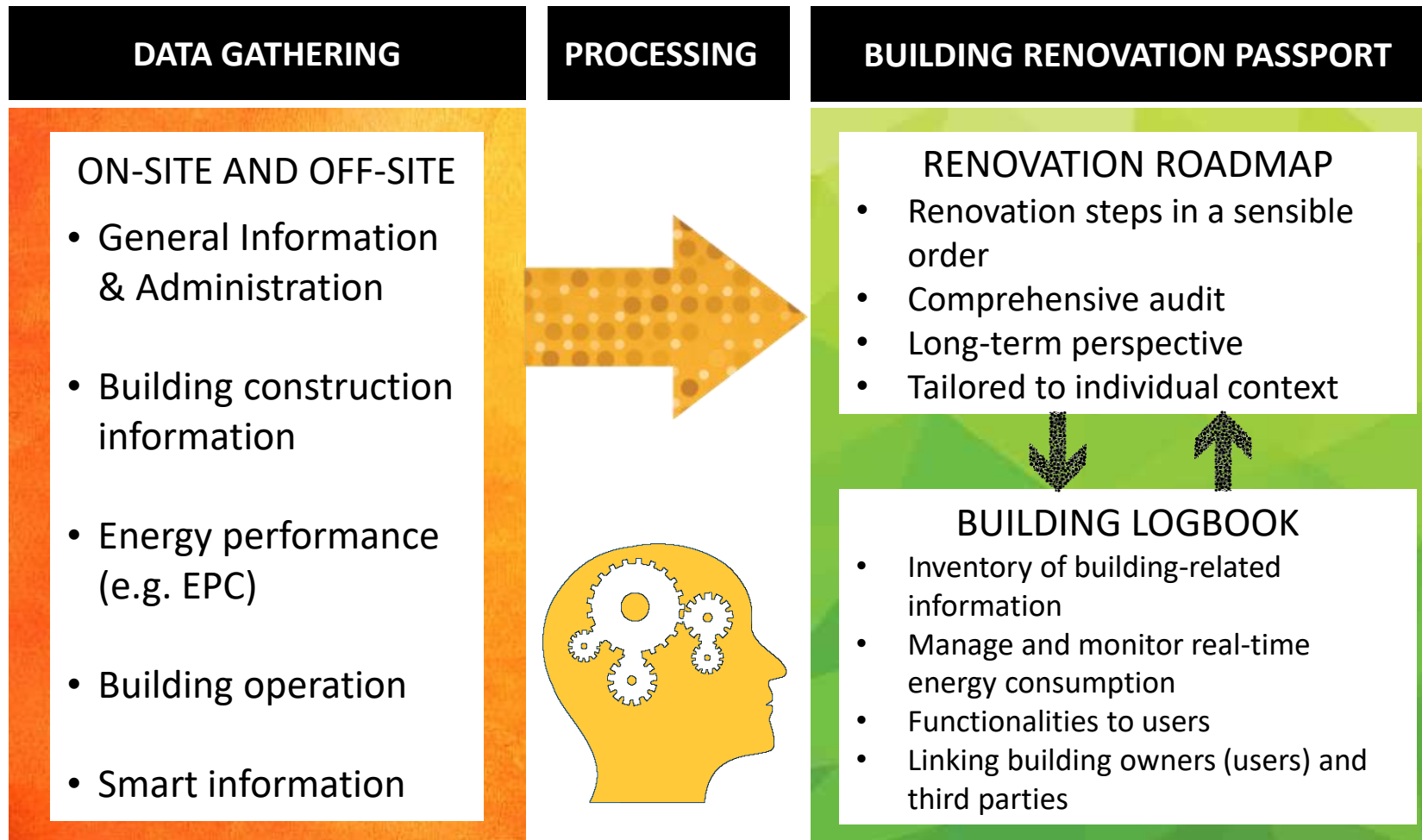


Source: Energiesprong

Planned staged deep renovation



Source: ifeu



Driving transformational change in the renovation sector

Unleashing the potential through innovation & industrialisation



Energiesprong – nZEB renovation in one week



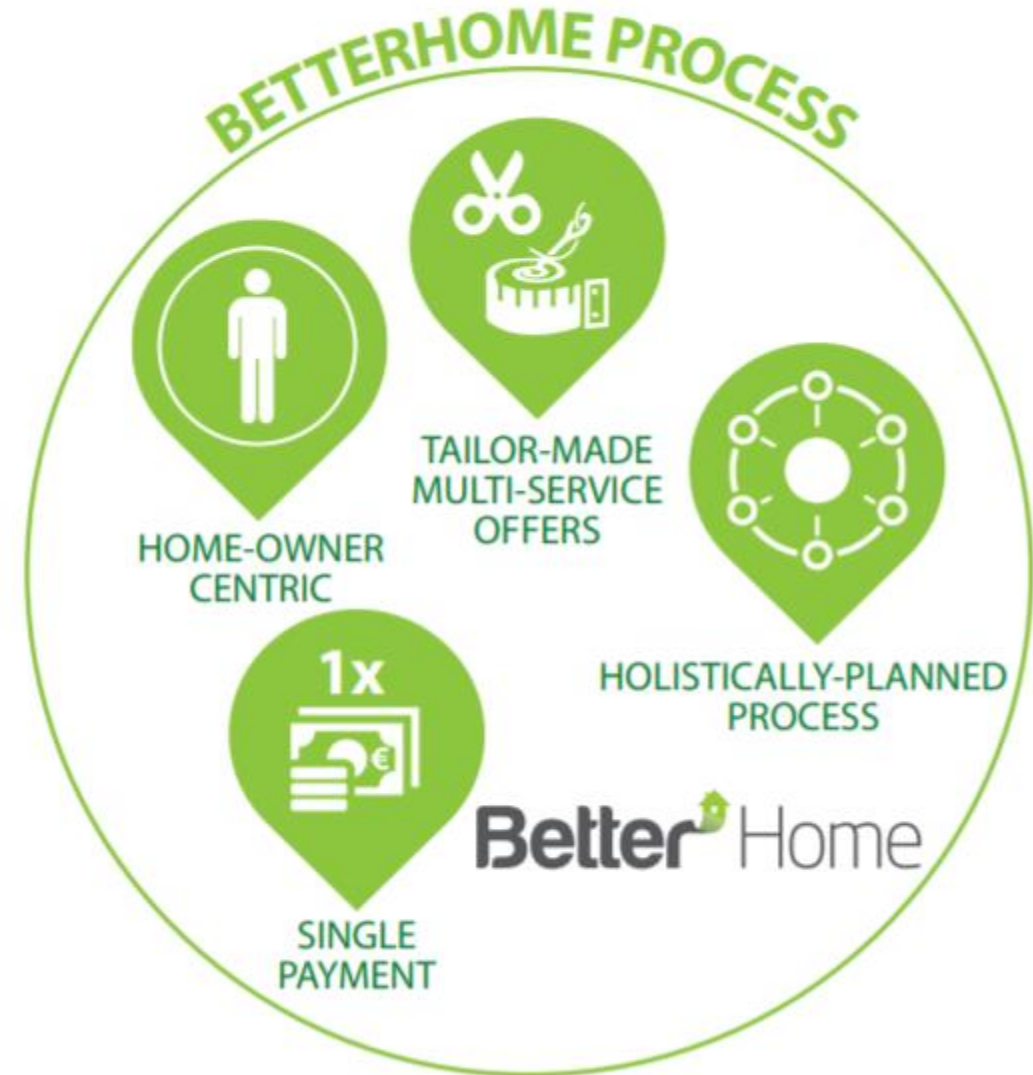
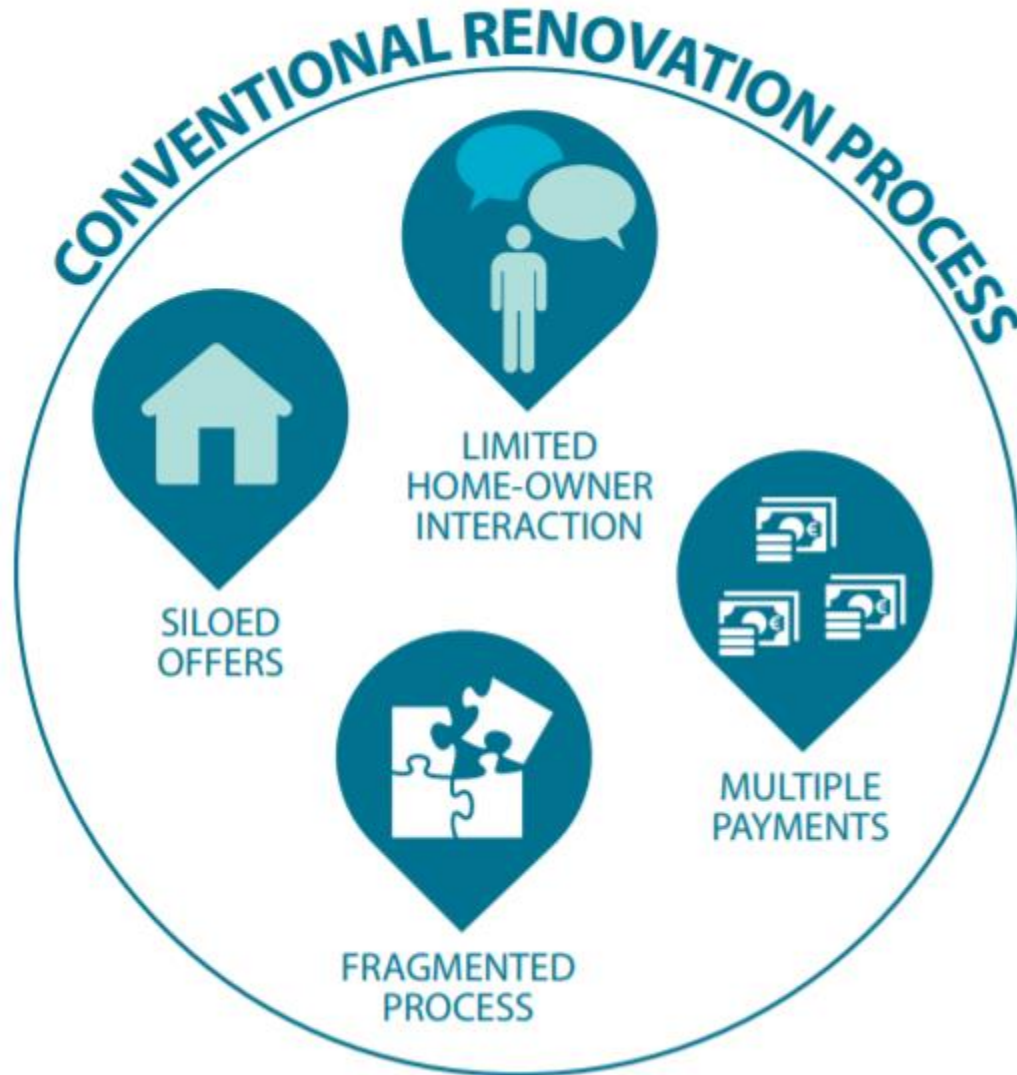
Energiesprong – nZEB renovation in one week



Source: www.energiesprong.uk



The BetterHome business model – driven by the industry



Opportunities ahead?



Recommendations for national policies

- Ambitious and real implemented national renovation strategies
- Energy performance requirements for renovations demanding high insulation levels

Develop pilot cases

- Use available EU funding and financing
- Disseminate experience
- Develop handbooks, guidelines, training etc.
- Join forces with other industries (e.g. BetterHome)

Focus on the end-user

- Focus on comfort, health and wellbeing
- Provide service and system solutions, not construction materials
- Develop business models, including financial services

Thank you...

Maarten De Groote

maarten.degroote@bpie.eu

www.bpie.eu



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