

MICHAEL K. RASMUSSEN, EUFORES, DANISH PARLIAMENT  
08-10-2016




**VELUX**<sup>®</sup>

# MARKETS FOR ENERGY EFFICIENCY

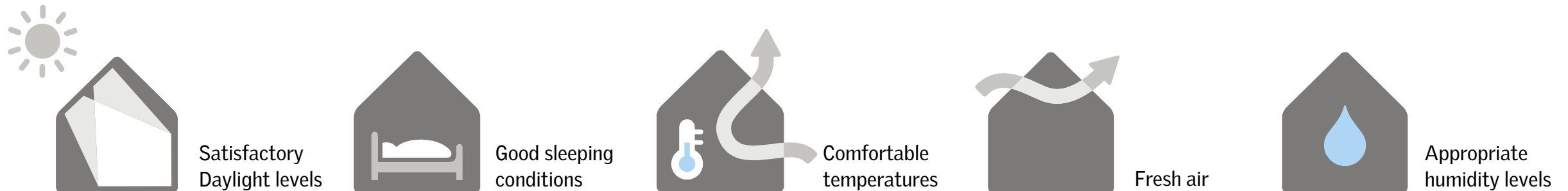
## Best practice examples



# THREE KEY MESSAGES OF TODAY'S PRESENTATION

- 
 Energy Efficiency and EPBD legislative frameworks deliver **positive results** but **there is room for improvements**.
- 
 Holistic approach incorporating **huge potential of healthy/comfortable buildings** would add significant value to EU citizen's well-being, health and performance.
- 
 VELUX 75 years of experience prove this **can be done in a sustainable, affordable and replicable manner**.

## Overall five home characteristics that make for a healthy home



# BUILDINGS IS THE SECTOR WITH THE BIGGEST SAVING POTENTIAL

Buildings account for **40%** of total energy use in Europe. One important reason is that **75%** of the European building stock today is not energy efficient. Energy renovation can cut the energy use by **80%\***.

Renovation programs also benefit public finances: Ambitious renovation investments can bring a return of up to **€39 billion** in 2020 and double that by 2030 to public finances if investments are maintained\*.

Furthermore, a good indoor climate contributes to Europeans' wellbeing, health, learning abilities and productivity.

\*[www.renovate-europe.eu](http://www.renovate-europe.eu)

# 75 %

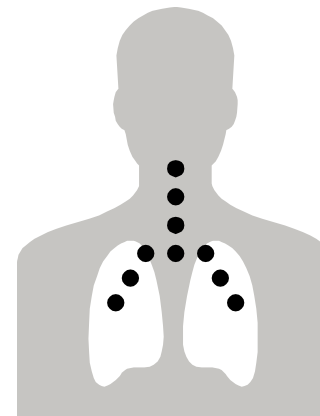
Of the European building stock today is not energy efficient

# 40 %

Of the total energy consumption in Europe is used in buildings

**80 MILLION** OR 15%  
OF THE EUROPEANS LIVE IN  
**DAMP AND MOULDY HOMES**

#HealthyBuildings



A damp  
and unhealthy  
home nearly  
**doubles**  
the risk of asthma

15%

# BUILDINGS IMPACT PRODUCTIVITY & LEARNING ABILITIES

**15 %**

productivity at work can rise if the indoor climate is healthy (Seppanen, 2009)

**15 %**

increased learning in schools due to better daylight or air quality (Inserm, 2016 & Fraunhofer, 2016)

**€bn 40**

is the indirect cost of asthma due to loss of productivity in Europe (Fraunhofer, 2016)



# MARKET TRENDS

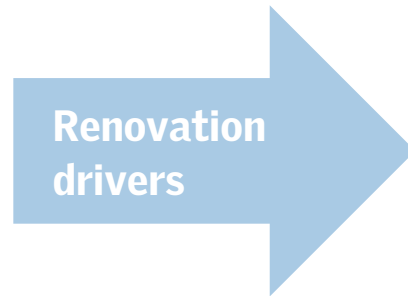
## – ENERGY SAVINGS & COMFORT DRIVE RENOVATION

- ▶ Continued focus on energy efficiency
- ▶ New trend focusing on indoor climate, health and comfort
- ▶ Consumer is king – energy savings & comfort go hand in hand in driving renovation



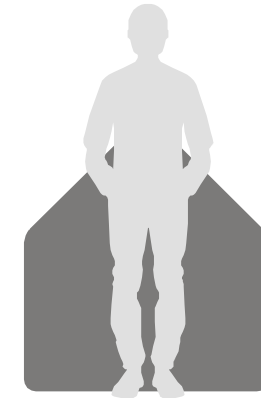
**50 %**

of the European have made changes to their home within the last five years



**75 %**

Wish to reduce energy costs

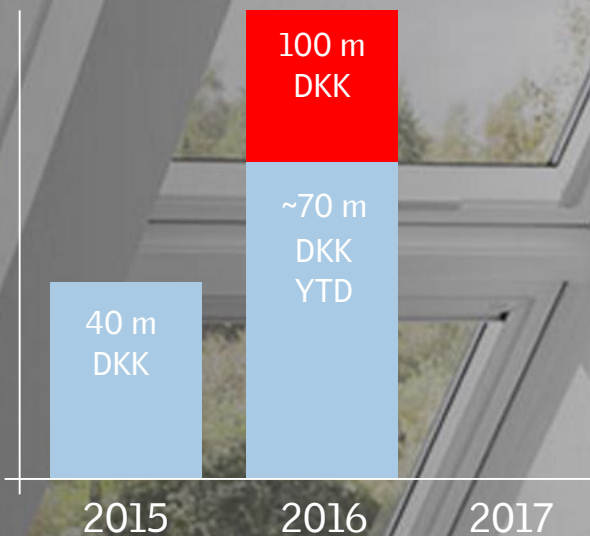


**73 %**

Wish to improve overall wellbeing

Better Home

# NEW BUSINESS MODELS FOR RENOVATION



## SPAR PENGE OG FÅ EN SUND BOLIG

Danfoss, Grundfos, ROCKWOOL og VELUX GROUP har tilsammen 300 års erfaring med energirigtige løsninger - og en lang tradition for et tæt samarbejde med håndværkere. Nu er de gået sammen for at gøre det nemt for danske boligejere at skabe energibesparende hjem med godt indeklima. Det kalder vi BetterHome.



### TAG ET GRATIS ENERGITJEK

Se, hvor meget du kan spare.

Hav oplysninger om dit energiforbrug klar til senere.

Tjek energispild

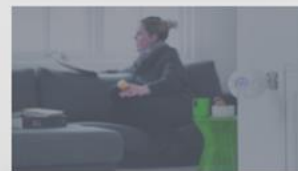
### INSPIRATION FRA BETTERHOME

- Se aktuelle projekter



#### SÅDAN FÅR DU ET GRATIS TJEK AF DIT ENERGISPILD

Det er nemt og helt uforpligtende at finde ud af, om du har mulighed for at spare på energiregningen.



#### SÅDAN SPARER DU PÅ VARMEREGNINGEN

Hvis du er god til at styre dine radiators, kan der være mange penge at spare på din varmeregning.



#### FÅ TILSKUD TIL DIN ENERGIRENOVERING

Allerede inden du går i gang med at energirenovere, er der penge at hente fra dit energiselskab. Læs her, hvad du kan få tilskud til og hvordan du gør.



#### DERFOR SKAL DU SKIETE DINE VINDUER

Har du gamle vinduer, der lækker varmen ud og kølen ind?



#### FÅ STYR PÅ DIN ENERGIREGNING

Har du gamle radiators, der lækker varmen ud og kølen ind?



#### VI VAR TRÆTTE AF KULDE OG VARM

Har du gamle radiators, der lækker varmen ud og kølen ind?

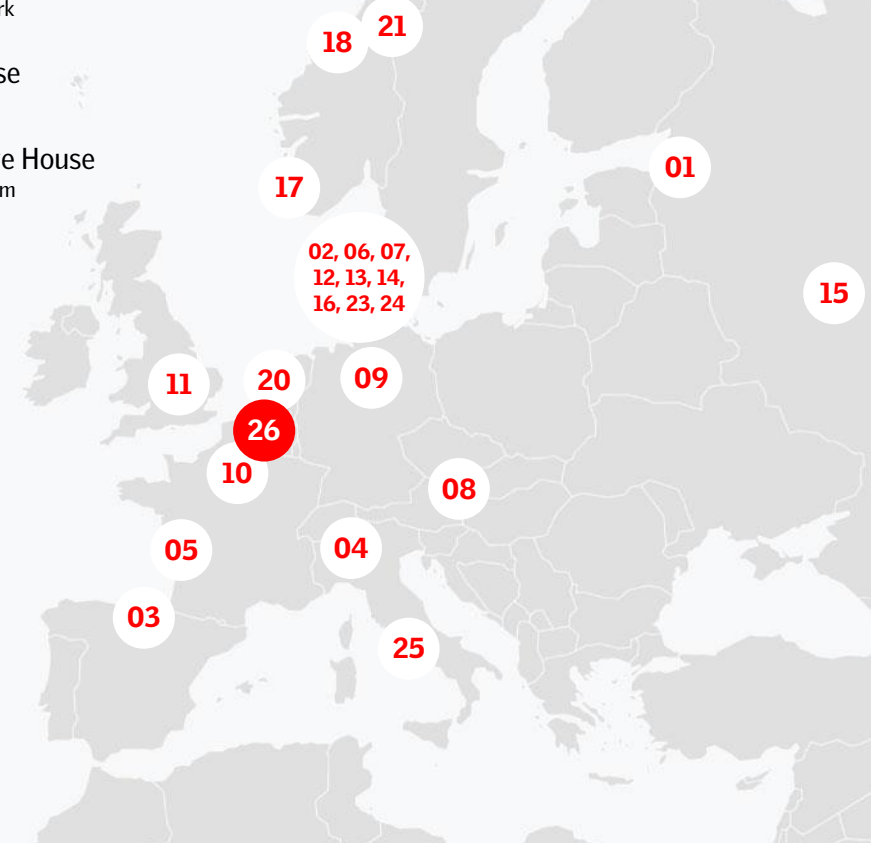
VELUX®



# A DECADE OF FULL-SCALE EXPERIMENTS

26

-  **01** Torzhkovskaya Street  
St Petersburg, Russia
-  **02** Soltag  
Copenhagen, Denmark
-  **03** Átika  
Bilbao, Spain
-  **04** VELUXlab  
Milan, Italy
-  **05** VELUX House, COP15  
La Rochelle, France
-  **06** Home for Life  
Aarhus, Denmark
-  **07** Green Lighthouse  
Copenhagen, Denmark
-  **08** Sunlighthouse  
Vienna, Austria
-  **09** LichtAktiv Haus  
Hamburg, Germany
-  **10** Maison Air et Lumière  
Paris, France
-  **11** CarbonLight Homes  
Kettering, UK
-  **12** Osram Culture Centre  
Copenhagen, Denmark
-  **13** Guldberg School  
Copenhagen, Denmark
-  **14** Albertslund Solar Prism  
Albertslund, Denmark
-  **15** Russian Active House  
Moscow, Russia
-  **16** Solhuset  
Hoersholm, Denmark
-  **17** ISOBO Aktiv  
Stavanger, Norway
-  **18** Future Active House  
Trondheim, Norway
-  **19** Smith Residence  
St. Louis, USA
-  **20** De Poorters  
Montfoort, the Netherlands
-  **21** Healthy Home townhouses  
Stjoerdal, Norway
-  **22** Great Gulf Active House  
Toronto, Canada
-  **23** Langebjerg School  
Fredensborg, Denmark
-  **24** Green Solutions House  
Roenne, Denmark
-  **25** Active House  
Rome, Italy
-  **26** RenovActive House  
Brussels, Belgium



19

22

03

05

10

11

17

18 21

02, 06, 07,  
12, 13, 14,  
16, 23, 24

20

26

09

04

25

08

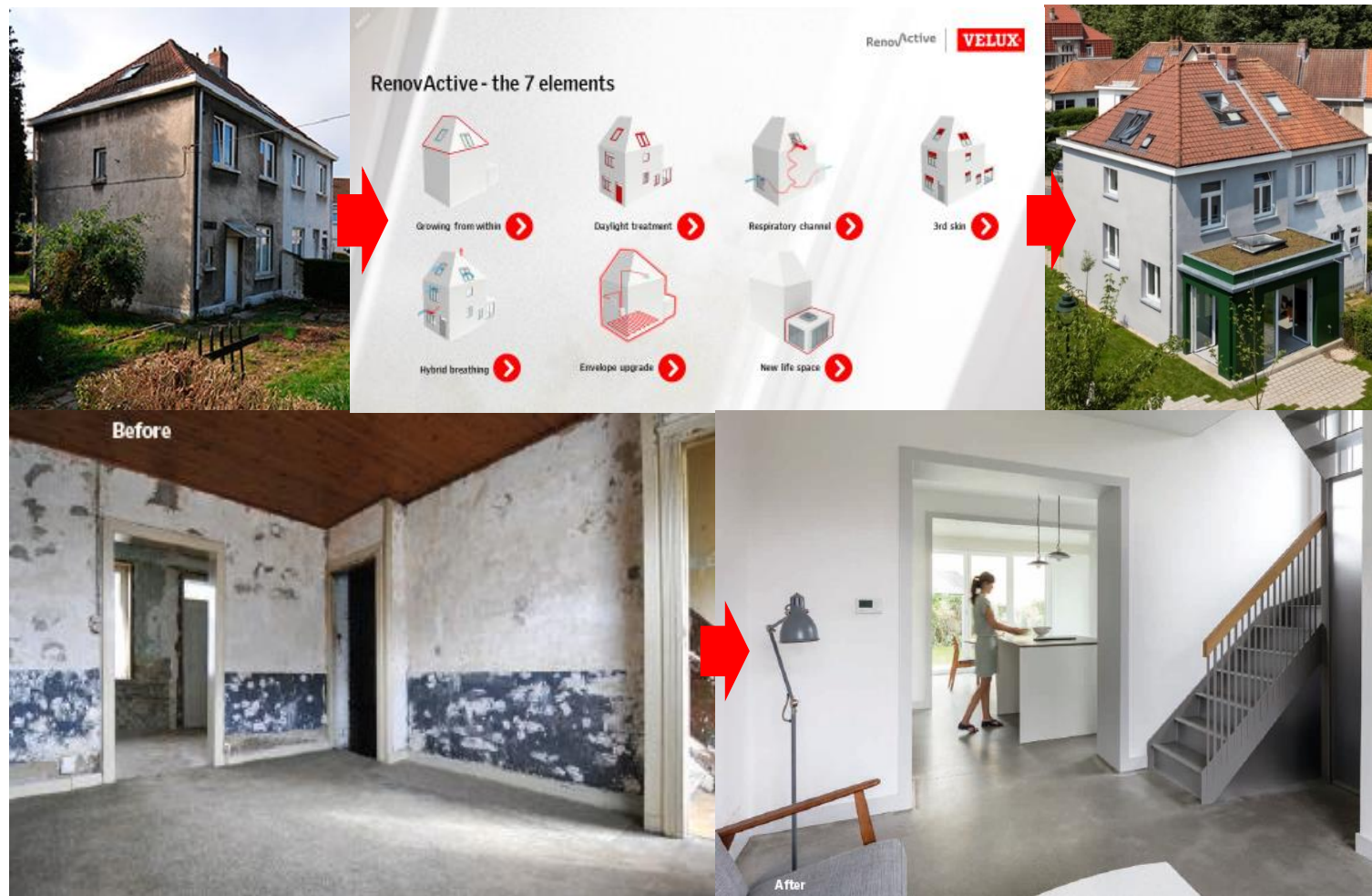
01

15



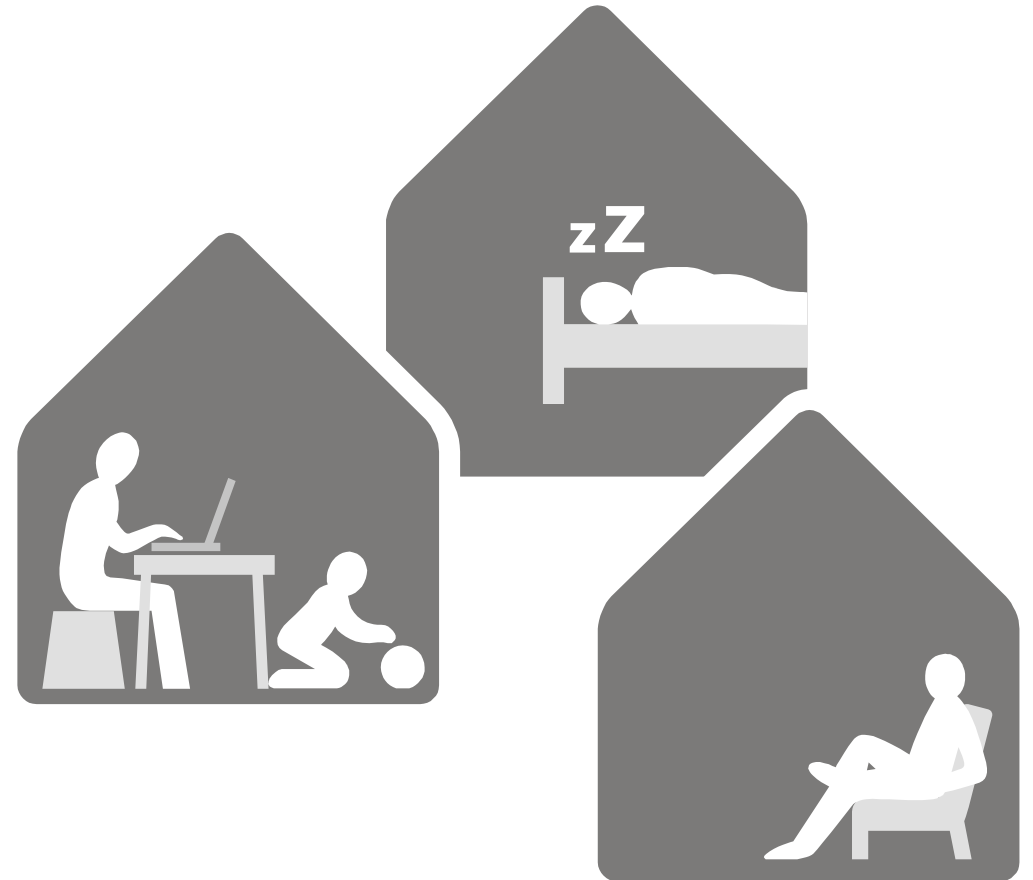
# EU EXAMPLE: RENOVACTIVE

VELUX has joined forces with local social housing authorities in Anderlecht (BE) developed and implemented a seven stage healthy, affordable and replicable renovation model – RenovActive.



# WHAT CAN THE EU IMPROVE?

1. BUILDINGS ARE 'PEOPLE CONTAINERS' – NOT 'HEAT CONTAINERS'  
Put energy efficiency and indoor comfort on equal footing in Energy Performance of Buildings Directive.
2. Include passive solar gains (energy balance) in energy performance requirements for buildings and products.
3. 'IF YOU WANT TO CREATE REAL CHANGE WITH PEOPLE – COME UP WITH AN ATTRACTIVE ALTERNATIVE'  
Focus on the indoor climate (thermal comfort, fresh air, day light)



*Bringing light to life™*

**CONTACT INFO**

Michael K. Rasmussen, SVP Global Marketing

[michael.rasmussen@velux.com](mailto:michael.rasmussen@velux.com)

VELUX Group

[WWW.VELUX.COM](http://WWW.VELUX.COM)

**FIND US HERE**

