

The European ETICS market - Do ETICS sufficiently contribute to meet political objectives?

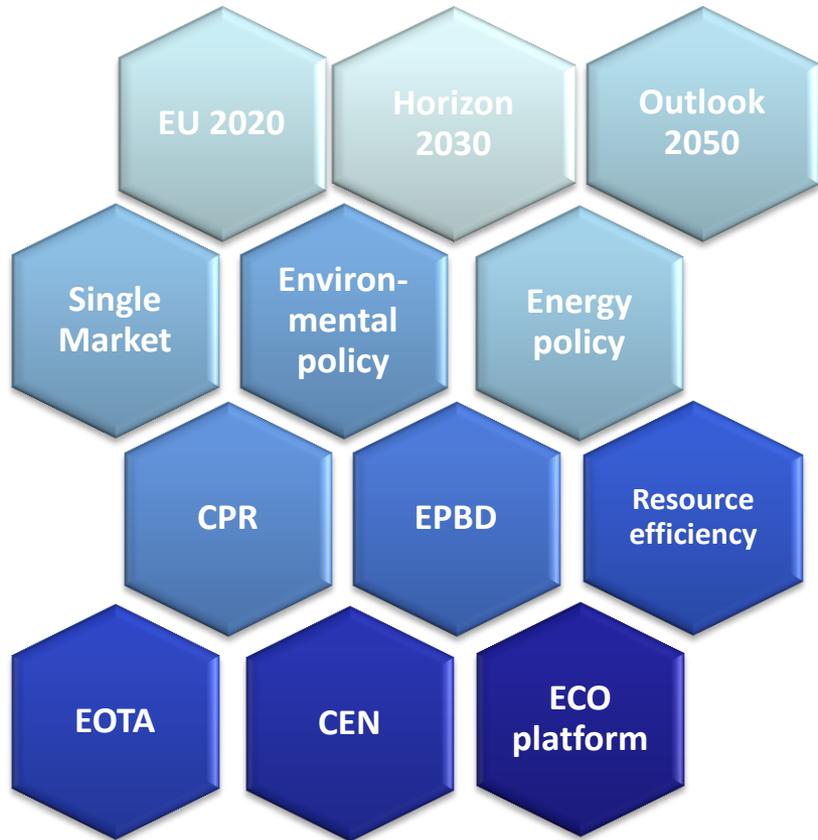
Ralf Pasker

EAE Managing Director

4th European ETICS-Forum | 5th October 2017 | Warsaw/POLAND



Manifold political and societal objectives



We have to meet many political objectives, haven't we?

- Different time scale
- Different policy areas
- Numerous regulation
- Different partners

Energy and environment

EU countries have agreed on a 2030 Framework for climate and energy, including EU-wide targets and policy objectives for the period between 2020 and 2030. These targets aim to help the EU achieve a more competitive, secure and sustainable energy system and to meet its long-term 2050 greenhouse gas reduction target.

Targets for 2030

- a **40% cut in greenhouse gas emissions** compared to 1990 levels
- at least a **27% share of renewable energy consumption**
- at **least 27% energy savings** compared with the business-as-usual scenario.



EU building stock at a glance

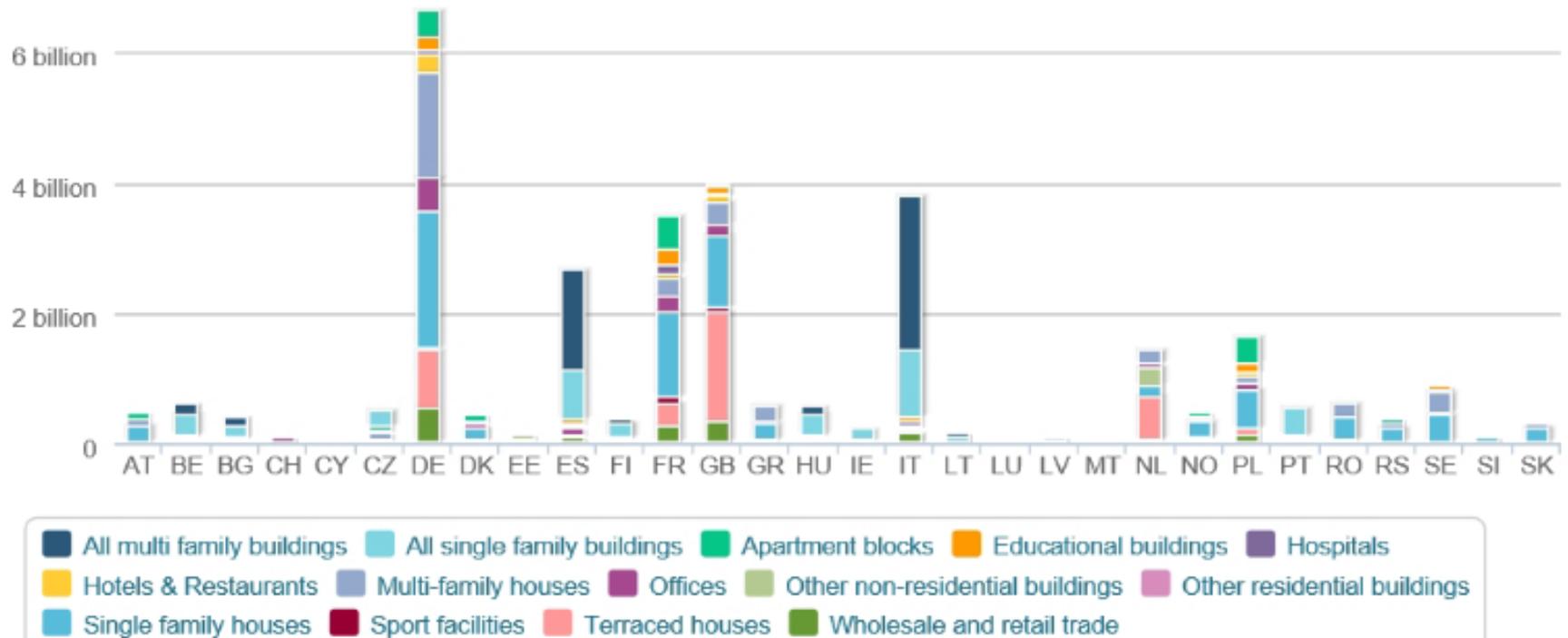
These ambitious goals – both at European and national level – cannot be achieved without improving the energy efficiency of Europe’s huge building stock:

- 210 million buildings in the EU
- More than 40% built before 1960
- 90% built before 1990
- 75% - 90% still occupied in 2050
- Renovation rate: ~ 1%
- Up to 110 million buildings could be in need of renovation



Residential buildings are key to lift existing potential

Building stock floor area (in m²) per building type and EU Member State



Source: www.buildingsdata.eu

Huge potential for energy renovation

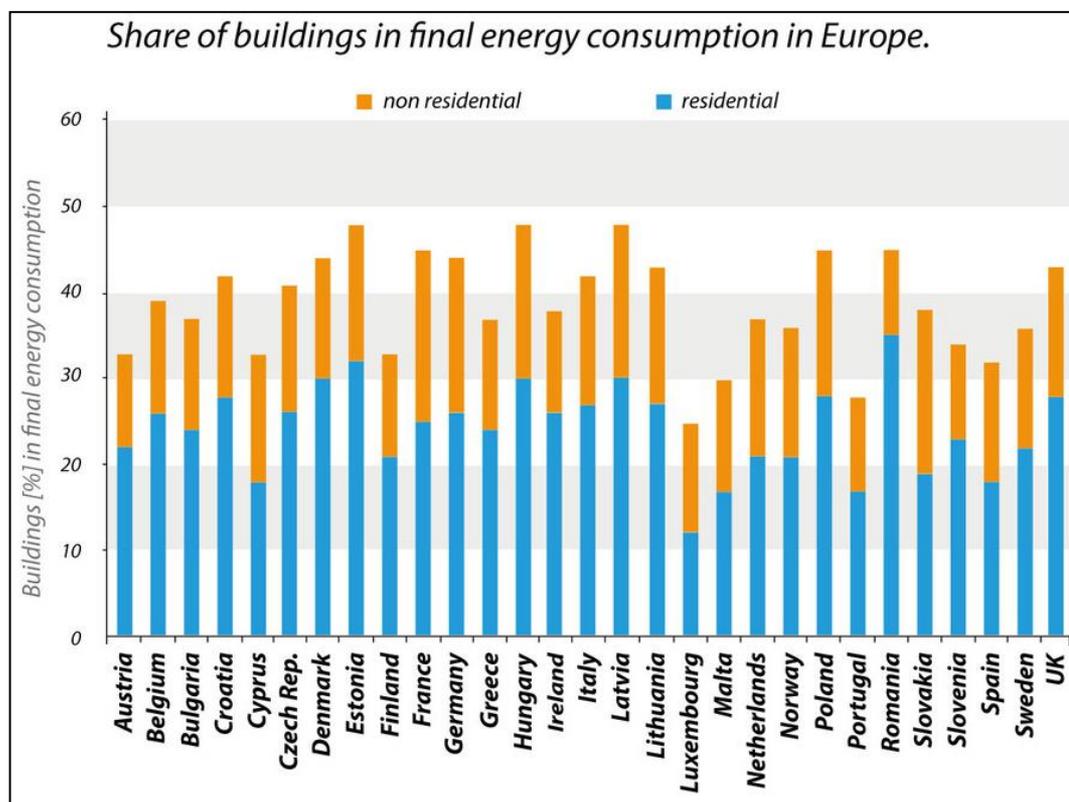
- Residential buildings: 65%
- Non-residential buildings: 35%
- Total: 82 bil €

Estimated size of energy renovation markets (in million €)

Source: openexp 2016 based on EUROCONSTRUCT data

Country	Residential energy renovation market	Non-residential energy renovation market	Total energy renovation market
Austria	766	412	1.178
Belgium	1.622	880	2.501
Czech Republic	169	505	674
Denmark	1.675	441	2.116
Finland	1.098	705	1.803
France	8.099	4.984	13.047
Germany	16.750	7.321	24.071
Hungary	161	236	396
Ireland	418	38	456
Italy	10.084	4.903	14.987
Poland	526	760	1.286
Portugal	608	176	784
Slovak Republic	63	94	156
Spain	2.317	1.862	4.178
Sweden	1.147	993	2.140
The Netherlands	2.159	1.434	3.592
United Kingdom	5.396	3.342	8.737
Total	53.055	29.046	82.101

Energy use of buildings per Member State



Differences at national level
(climate situation; traditional
building structure)

EU average:

- 40% primary energy
- 36% CO₂ emissions
- 38% of gas consumption
- 59% of electricity consumption
- Residential: 2/3 of consumption

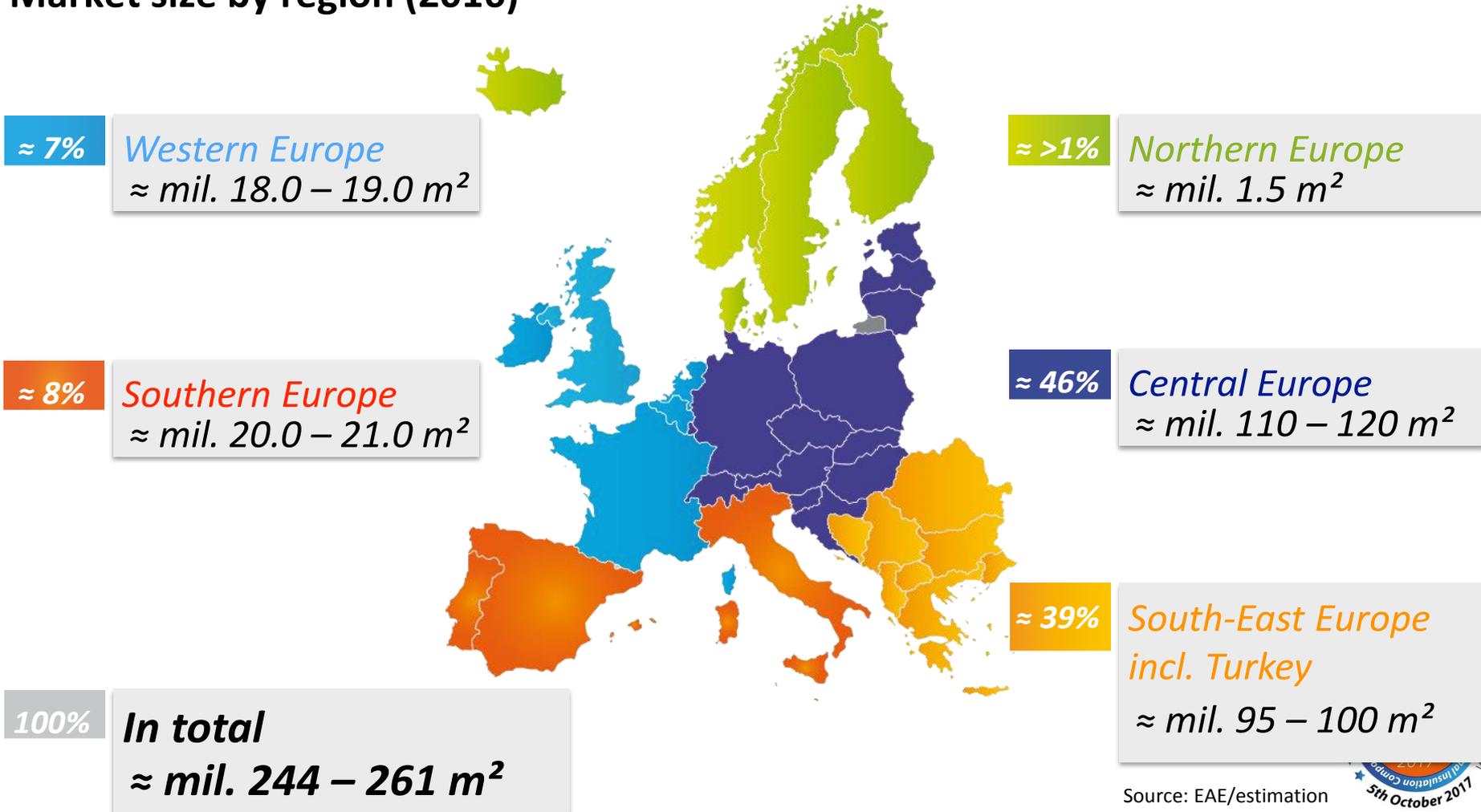
We summarize:

- The potential is huge.
- External Thermal Insulation Composite Systems (ETICS) are well-approved solutions, available on the market.

But do ETICS sufficiently contribute to European objectives?



Market size by region (2016)



Source: EAE/estimation



Market share insulation material (2016)

Western Europe

EPS 81%
MW ≈ 12%

Southern Europe

EPS ≈ 88%
MW ≈ 9%

In total

EPS ≈ 80 - 82%
MW ≈ 13 - 15%
others* ≈ 5 - 7%

*PF, PU, CG, XPS, WF, WW, ...



Northern Europe

EPS ≈ 70%
MW ≈ 23%

Central Europe

EPS ≈ 81%
MW ≈ 15%

South-East Europe

EPS ≈ 60%
MW ≈ 25%

Source: EAE/estimation

Trends observed in recent years

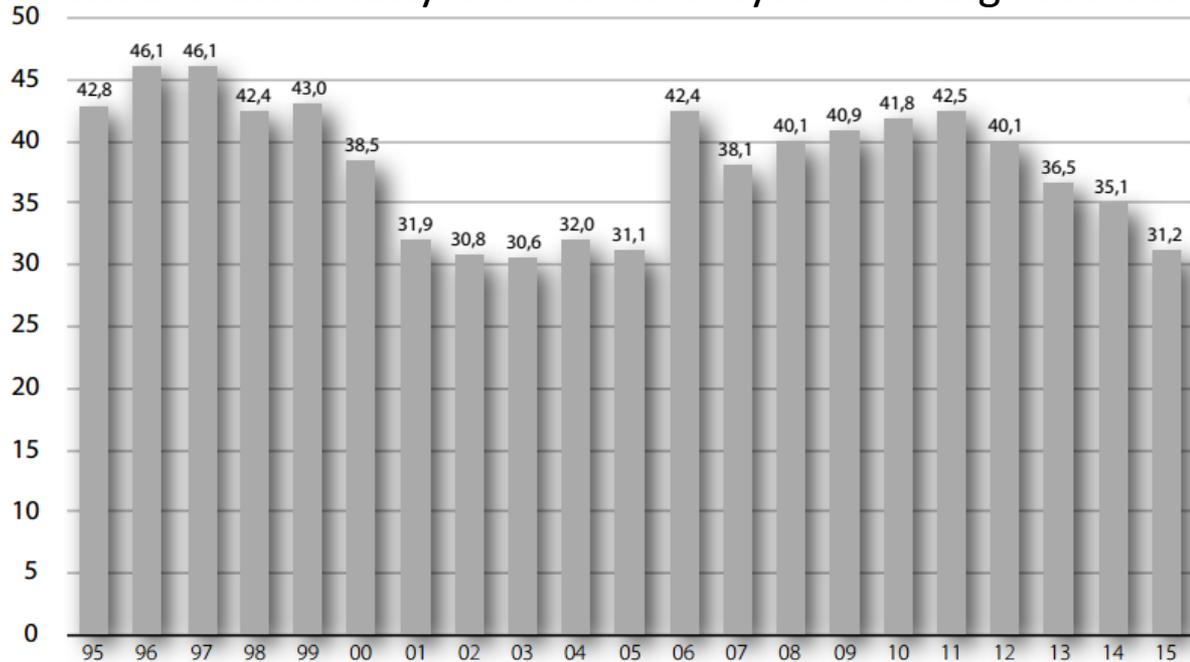
- ETICS have become standard solutions in all European countries.
- Dissemination of know-how in EAE, e.g. system loyalty, quality of application, fire barriers, sustainability, etc.
- National Action Plans to implement EPBD leading to converging insulation thicknesses
- Stable growth in several Member States
- Other markets stagnate at a high level
- Some markets suffer from significant decline
- Increasing variety of system configurations
- EAE contribution to Single Market, e.g. active support of CEN and EOTA activities

Some examples...



Downturning German market (mil m²)

- Disruptive factors: negative press, instable legal framework, continuous adjustments of incentive systems, over-boarding complexity of subsidy schemes, declining energy-costs
- Result: uncertainty in customers' eyes – leading to reluctance to invest!



Gap of 10 mil m² means:

- 200 t GHG emissions each year
- Development threatens the achievement of objectives.

Today's benchmarks measured in size

Poland and Turkey representing **largest** European ETICS markets:

- Turkey – 2016 m²: 65,000,000
- Poland – 2016 m² : 40,000,000



Considering the **per capita** ratio, the Czech Republic and Romania are **frontrunners**:

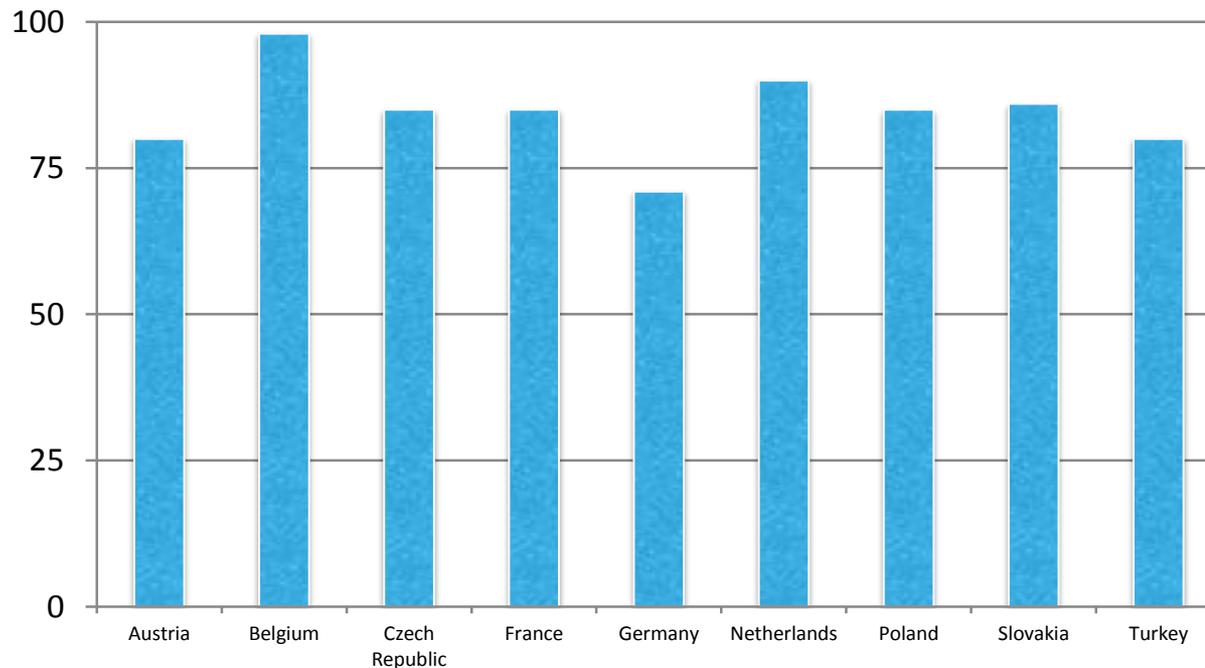
- Population CZ: 10,520,000
- Applied ETICS in m² 2016: 14,000,000
- Per capita ratio in m² : 1,33
- Population RO: 20,000,000
- Applied ETICS in m² 2016: 27,000,000
- Per capita ratio in m²: 1,35



→ **3 times higher than in Germany!**

EPS most popular insulation product

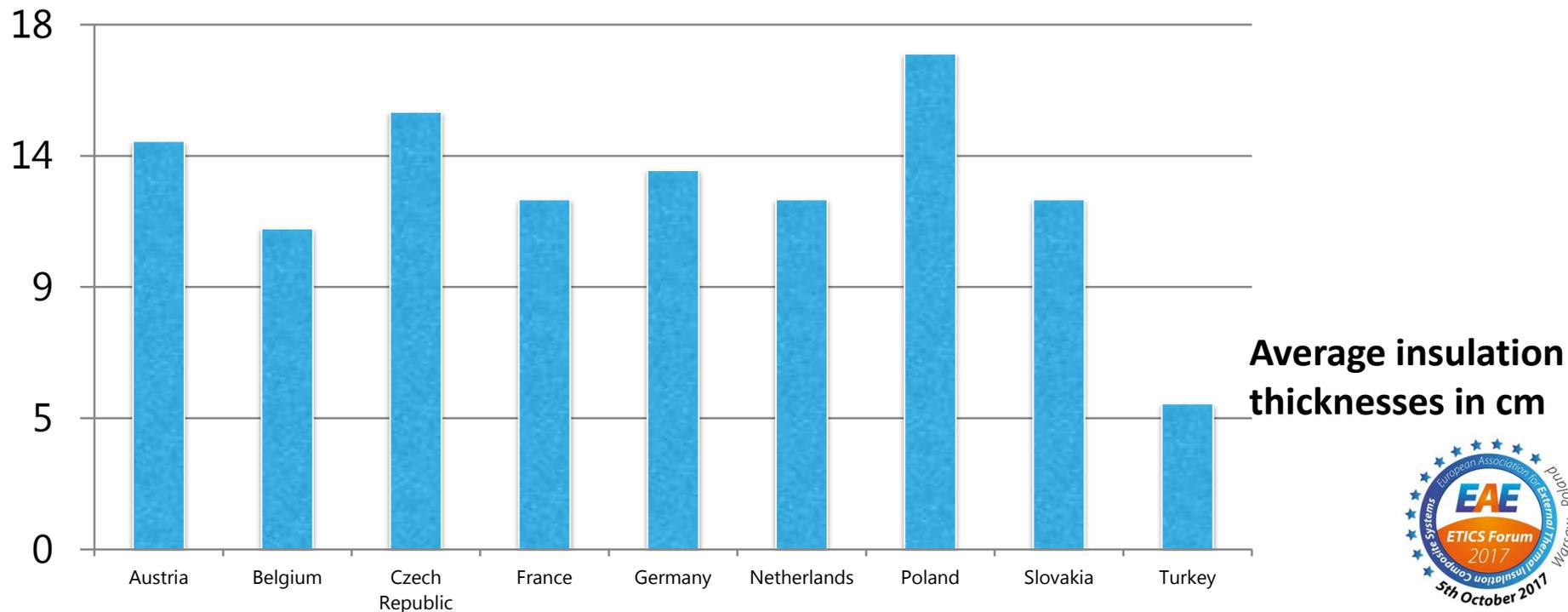
- However, a larger variety of insulation products is available on the market today.
- Share of mineral wool increasing in some countries, e.g. Germany after new fire-safety requirements.



EPS share in %

NAPes leading to converging requirements

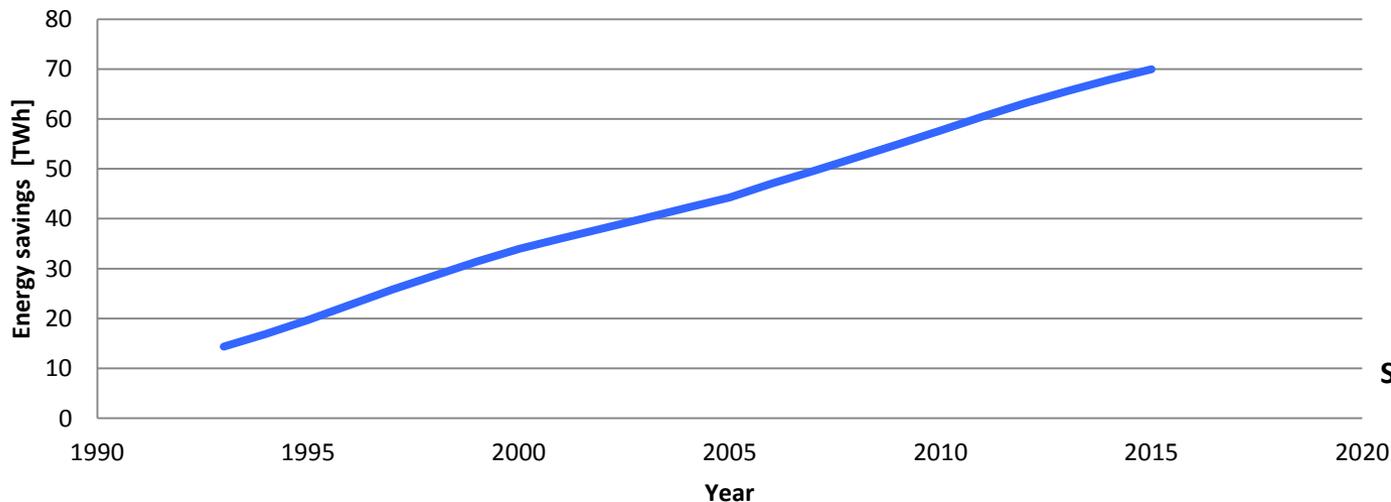
- National Action Plans Energy-Efficiency (NAPE) leading to converging insulation thicknesses.
- But: nZEB definition open in several Member States.



YES, ETICS already contribute significantly!

- Every m² of applied ETICS contributes to GHG reductions – for decades!
- Across Europe more than 2 bil m² have already been installed.
- With every additional m² cumulated reductions will increase.

Energy savings induced by ETICS in Germany



Source: FIW Munich



NO, ETICS do **not** contribute sufficiently!

- Why?
- A current annual refurbishment rate of ~ 1% means:
 - It will take **100 years** to refurbish Europe's aging buildings.
 - For achieving the 2050 objectives of carbon-neutrality, there are **only 33 years left!**
 - With every year lost, the challenge will become even harder.
 - **We already need to triple efforts!**
 - Some of EAE Member States show, that this is possible.

There are many good reasons for ETICS beyond energy saving

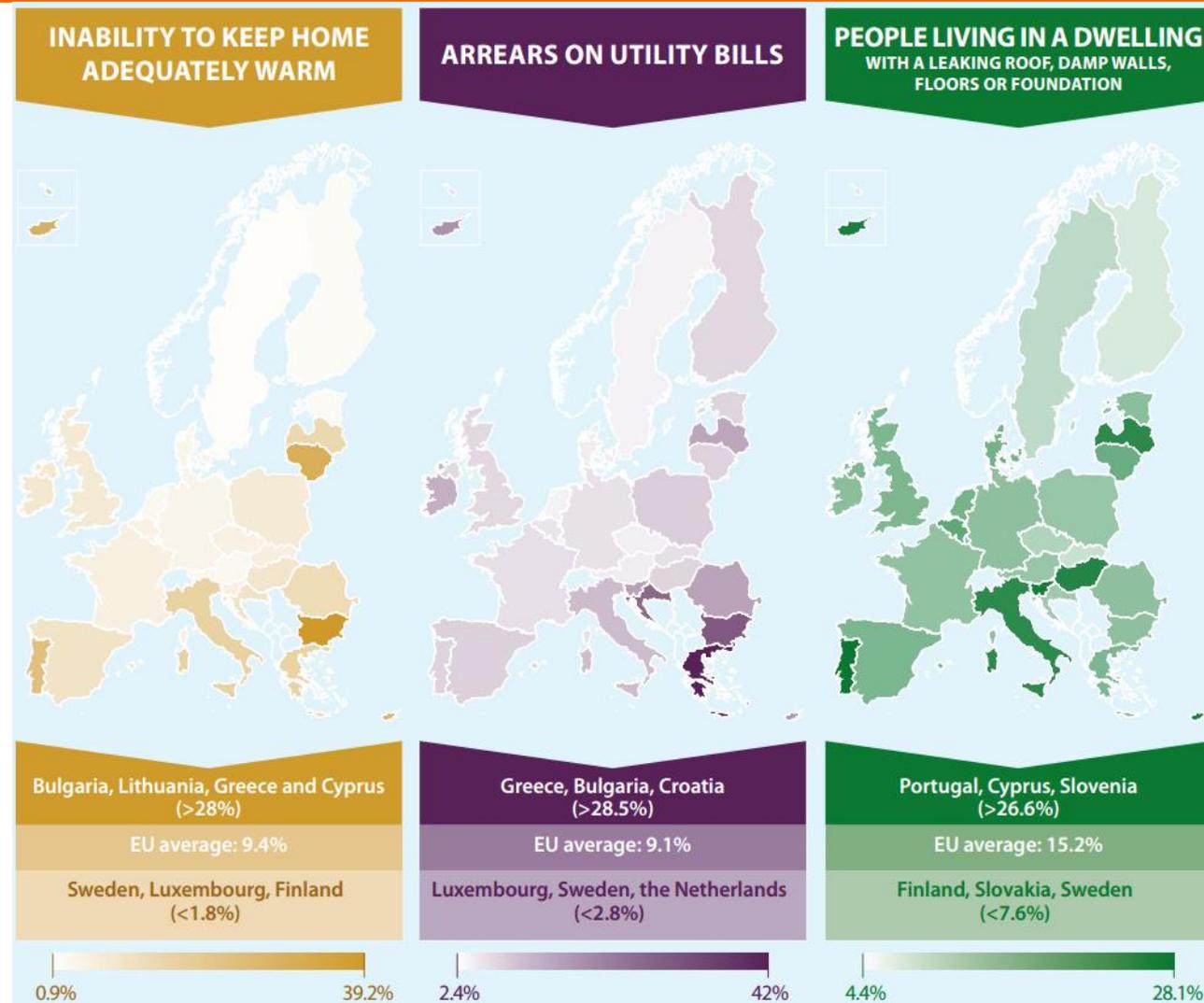
ETICS may perfectly contribute to achieving important economic and social EU objectives, mainly:

- Prevention of energy poverty
- Reducing the dependency on energy imports
- Creation of jobs



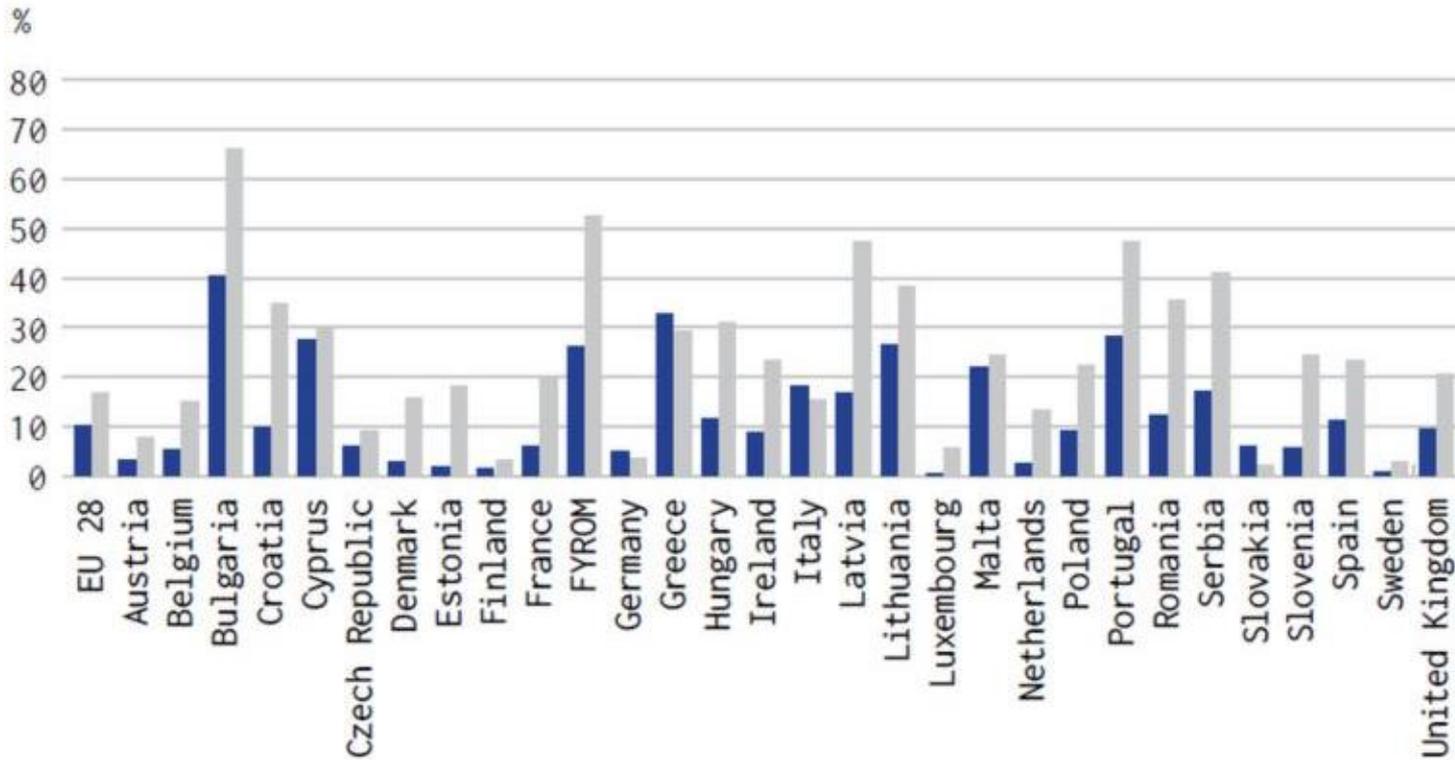
Energy poverty and health aspects are closely linked

- Comparison of European figures related to **energy poverty** demonstrates need to take action.
- **One in six** Europeans lives in a damp or mouldy building, increasing chances of getting illnesses such as asthma, according to a new study.



Inability to keep home adequately warm

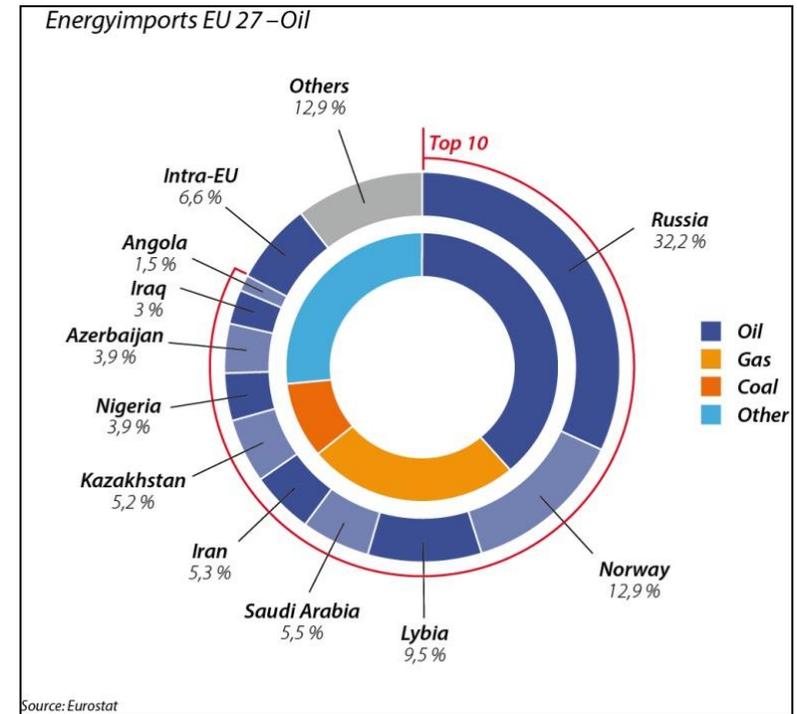
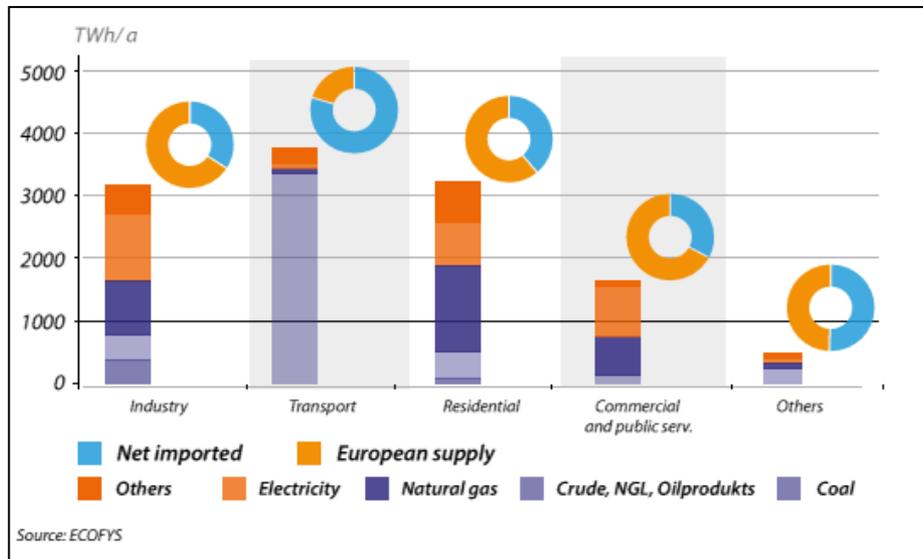
- Total population
- Population below 60 % of median equivalised income



Source: Eurostat 2015

Reduction of energy dependency

- Europe's energy supplies depend on imports from politically instable regions.
- Energy savings help reducing this dependency and support the shift to renewables.



Final energy consumption per sector and energy carrier with energy import dependency

Tremendous economic benefits

The economy of Member States would benefit from concerted action to increase the refurbishment rate.

- Work in the construction sector cannot be moved to other countries and regions; thus regions will benefit directly.
- A recent study estimated that the EU energy renovation market in 2015 was worth app. 109 billion €, providing for 882,900 jobs.

Imagine the economic effects if the renovation rate triples!

- Creation of jobs = reducing costs for unemployment
- Increasing income taxes and consumer taxes
- Compensation of incentives



How to utilize the “sleeping giant”?

- **We** as an industry must not just rely on political support, such as support schemes and building regulation.
- **We** have to convince people of the benefits ETICS offer – far beyond energy savings.
- **We** all together should strengthen our efforts, communicating the variety of solutions our industry offers – today and tomorrow.
- **We** have to provide answers to open questions.



YES, the ETICS industry is ready to take **responsibility**
and to **tackle the challenges!**

Concerted action required (1/2)

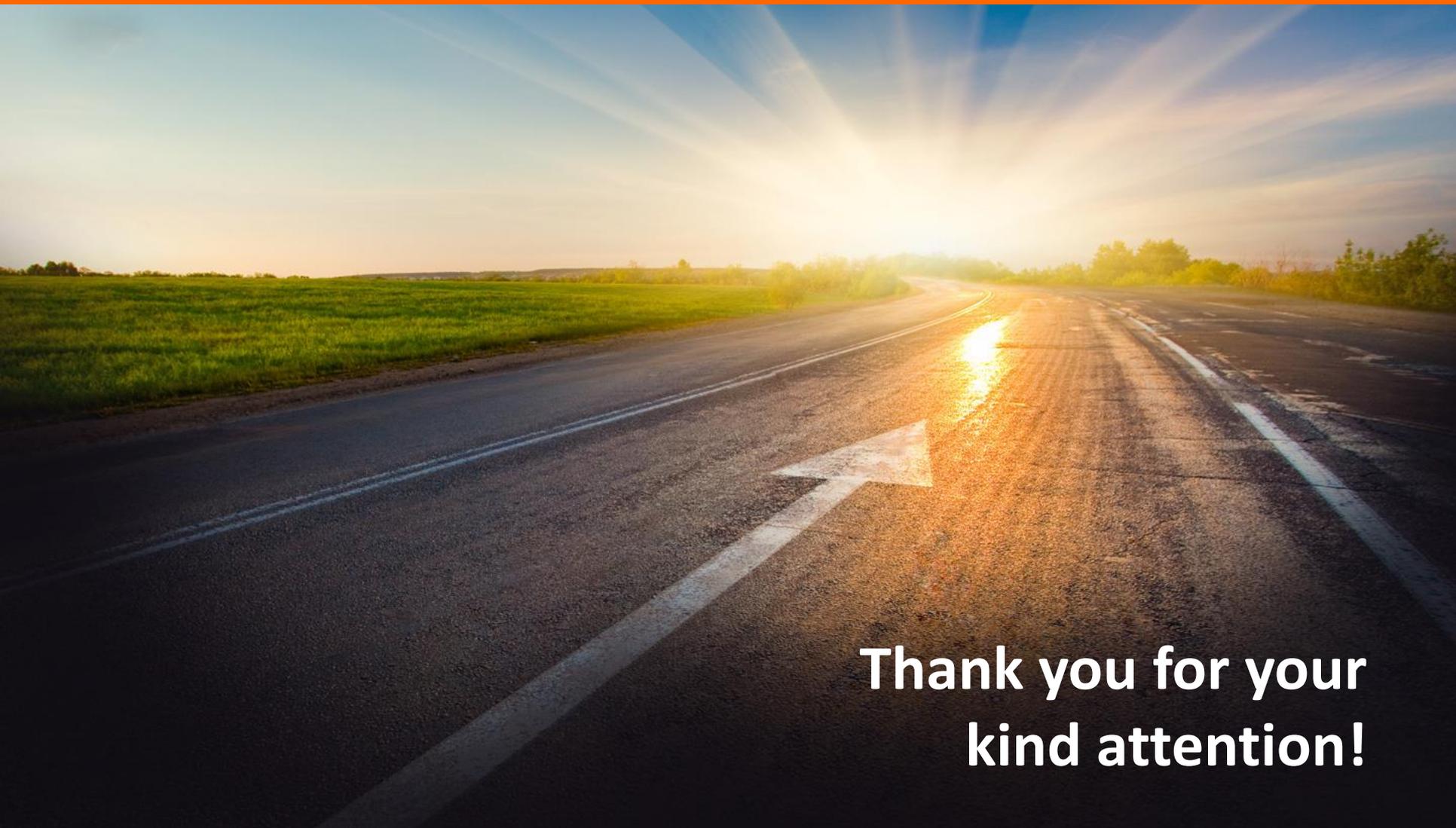
- (1) Let's create a new mindset already in education: energy efficient construction and refurbishment is state of the art.
- (2) Energy efficiency in the construction sector requires interdisciplinary action: neither energy-efficient building envelopes, nor renewables alone will achieve the targets.
- (3) Designers, consumers, construction companies and industry require long-term reliable regulatory conditions for taking investment decisions.
- (4) The same applies for support schemes. They should allow tailor-made solutions to meet the individual situation of consumers and investors.

Concerted action required (2/2)

- (5) Renovation of the huge building stock offers the biggest leverage for improvements.
- (6) Promote renewable energies adequately.
- (7) Find ways to solve the owner-tenant-problem, e.g. by allowing new renting models.
- (8) Public authorities should take a leading position to create shining examples, e.g. school buildings, social housing.

TOGETHER, we will solve the challenges!





**Thank you for your
kind attention!**