

# The role of lifestyles in the demand for energy services – insights from the EUFORIE project

**EU Calculator workshop on lifestyles**  
**30.06.2017 Brighton**

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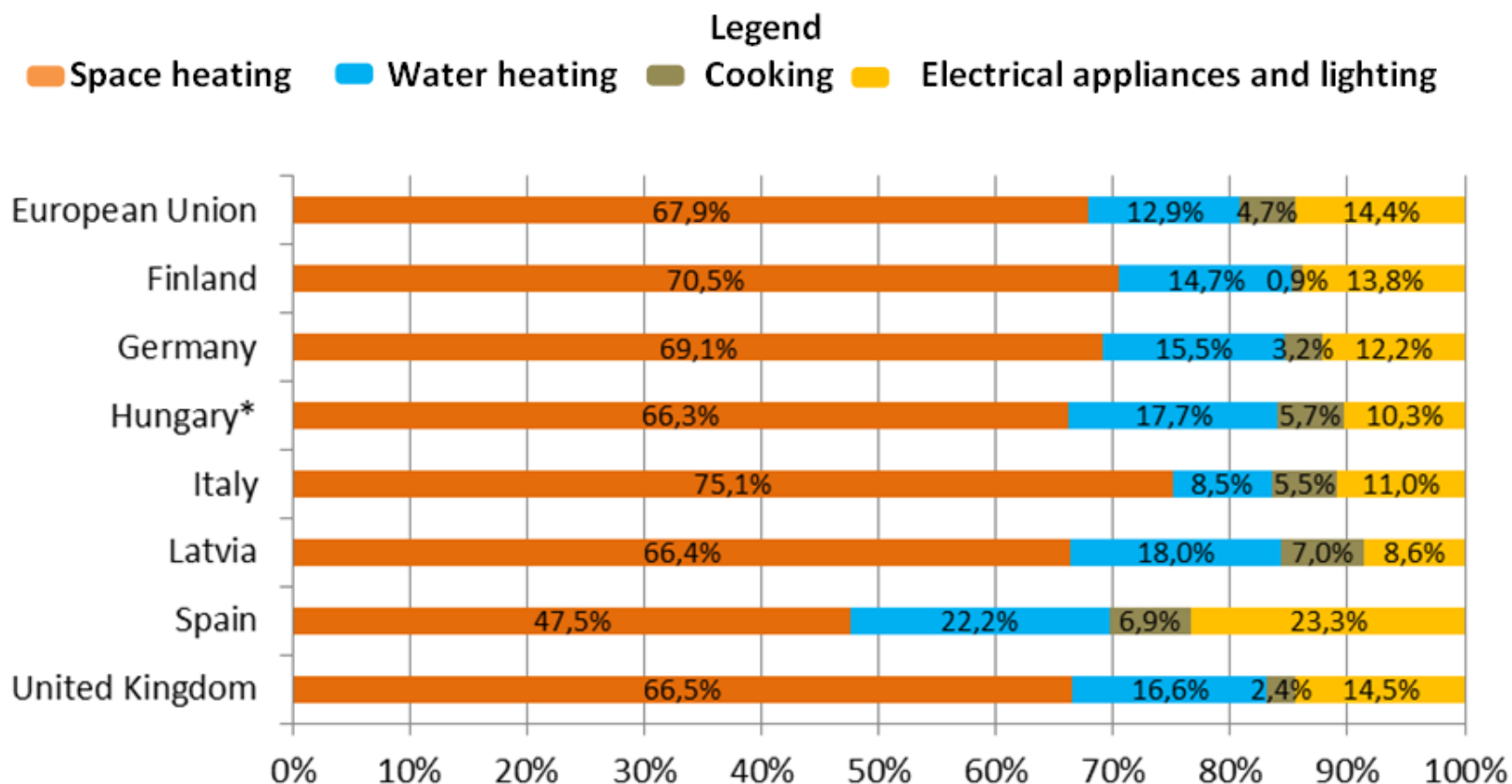
## Calculating what matters

→ from weak to strong sustainable consumption

applied to energy consumption

→ from energy efficiency to energy sufficiency

## Final residential energy consumption by end-use 2013 (%)



## Environmental aspects of residential energy consumption (2012)

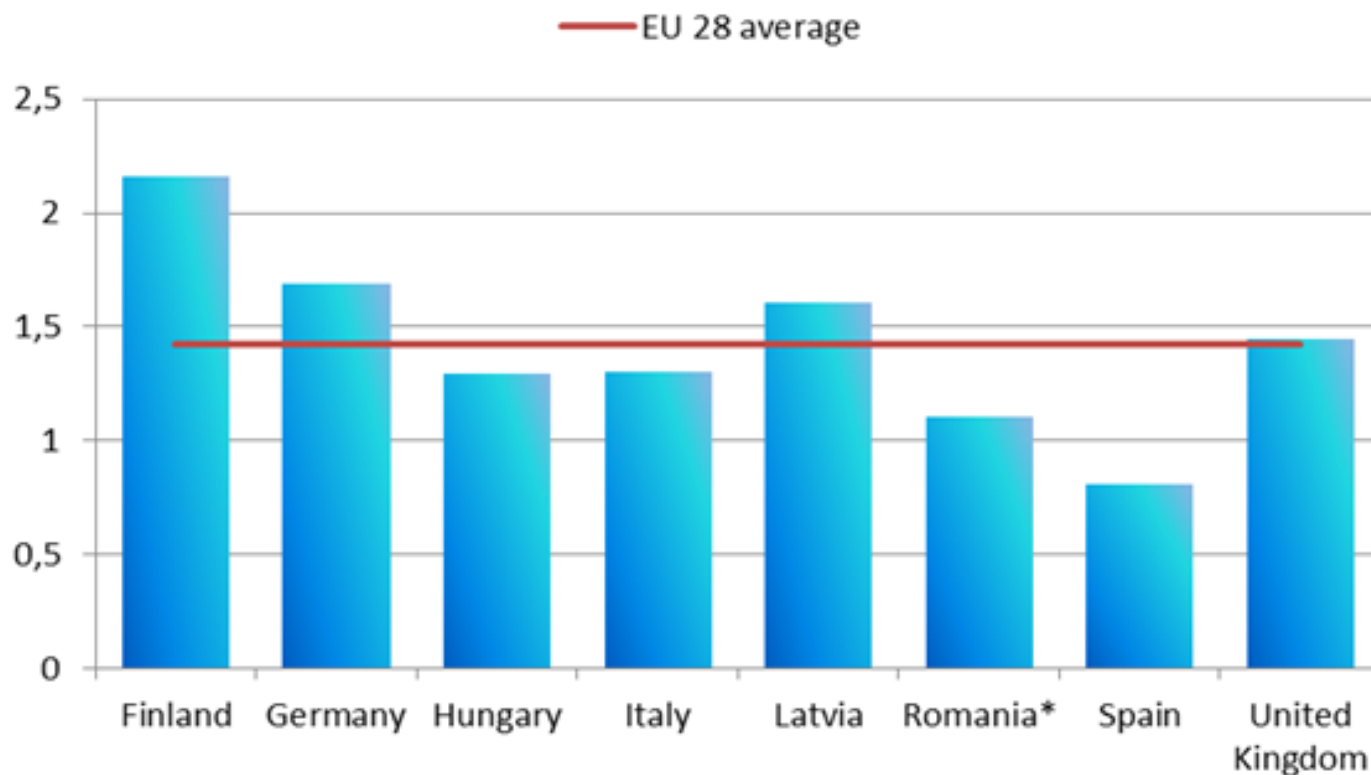
### ENVIRONMENT

Item	Unit	EU 28	Finland	Germany	Hungary	Italy	Latvia	Romania*	Spain	United Kingdom
CO <sub>2</sub> emissions of households (excluded electricity)	MtCO <sub>2</sub>	410,35	1,43	93,32	7,35	47,27	0,45	7,1	16,66	72,98
Total CO <sub>2</sub> emissions of households (included electricity)	MtCO <sub>2</sub>	781,75	6,23	177,34	11,63	75,37	1,06	16,44	44,21	133,5
CO <sub>2</sub> emissions per dwelling	tCO <sub>2</sub> /dw	1,95	0,55	2,44	1,87	1,92	0,56	0,95	0,92	2,71
CO <sub>2</sub> emissions per dwelling (with climatic corrections)	tCO <sub>2</sub> /dw	1,98	0,56	2,52	1,92	2,01	0,56	0,95	0,92	2,7
CO <sub>2</sub> emissions per dwelling with climatic corrections (included electricity)	tCO <sub>2</sub> /dw	3,74	2,42	4,71	3,02	3,16	1,31	2,2	2,44	4,95
CO <sub>2</sub> emissions of space heating per dwelling	tCO <sub>2</sub> /dw	1,58	0,44	2,01	n.a.	1,57	0,27	0,26	0,55	2,31
CO <sub>2</sub> emissions of space heating (with climatic corrections)	tCO <sub>2</sub> /dw	1,63	0,45	2,08	n.a.	1,44	0,27	0,22	0,54	2,27
CO <sub>2</sub> emissions of space heating with climatic corrections (included electricity)	tCO <sub>2</sub> /dw	2,03	1,39	2,3	n.a.	1,67	0,53	0,35	0,91	2,74
Degree-days	degree	2733,08	4423	3573,87	2770,95	1828,97	4357	3061,92	1871,27	3182,72

Source: Odyssee database

\* Data for Romania are of 2011

## Final energy consumption per dwelling of 2013 (toe/dwellings)



Source: Author's elaboration based on Odyssee database

\* Data for Romania are of 2011

## Stocktaking of administrative, economic and informational instruments to increase energy efficiency

Fokus: EU, Finland, Germany, Hungary, Italy, Latvia, Romania, Spain, UK

### Summary results:

- It is unlikely that the European and national energy targets will be reached
- Policy instruments still too much focus on technological standards and investment in energy efficient appliances
- The importance of existing buildings is recognised but adequately considered

**Working on weak sustainable consumption policies only reaches its limits**

## Stocktaking of social innovation for energy sufficiency (1)

- Sharping the lenses for the surplus of the sufficiency perspective
  - Engaging households into energy learning stories
  - Recognising the importance of space as component of energy use
  - Measuring energy use per capita not per m<sup>2</sup>
- Supporting sufficiency through smart home solutions
  - Experimenting on technology-behaviour interface
  - Vertical Villages
  - Tiny homes
- Financial incentives
  - Investing in new housing cooperatives
  - Location efficient mortgages
  - switching loan criteria from m<sup>2</sup> perception towards per capita calculation

## Stocktaking of social innovation for energy sufficiency (2)

- Engaging with stakeholders
  - The design role of planners and architects
  - Housing companies and cooperatives
  - Middle actors
  - Municipalities
- Importance of participation and planning process
- Public policies
  - Clear price signals
  - Targeting space