

Renewables in Heating and Cooling

A giant step for energy security



Fanny-Pomme Langue

EUFORES 16th IPM

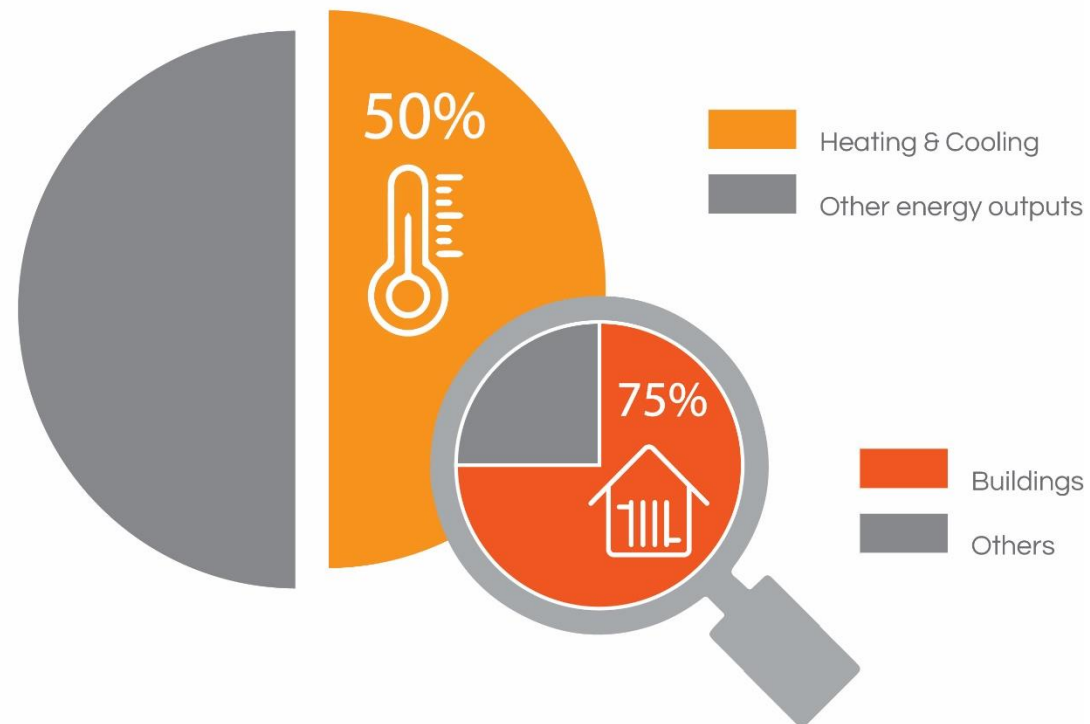
Copenhagen

7 October 2016



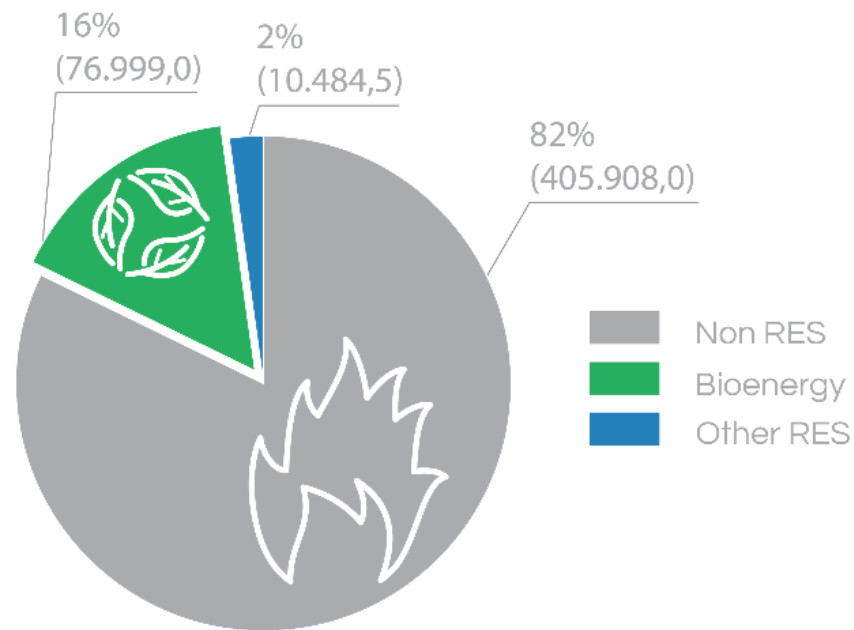
H&C sector = 50% of EU energy consumption
Buildings = $\frac{3}{4}$ of H&C sector

Share of H&C in the EU gross final energy
consumption
(in 2015, in %)



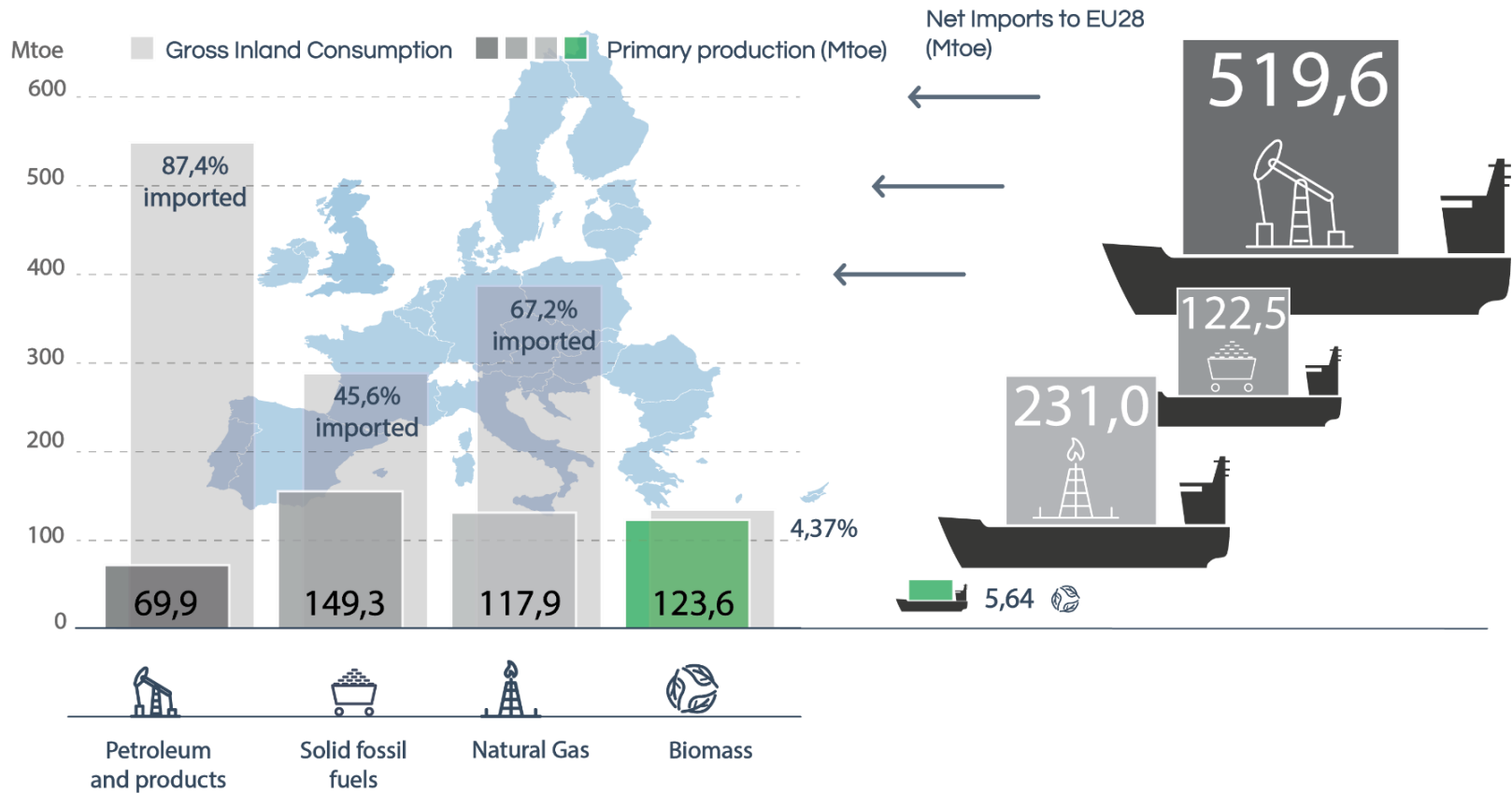
82% of H&C consumption is non-RES

EU gross final energy consumption - Heating & Cooling
(in %, in Ktoe)



EU28 is highly dependent on energy imports!

European Energy Dependency (in 2014)

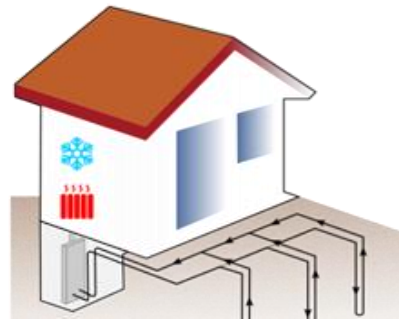


To Decarbonise the H&C sector
To Reduce our energy dependency

RENEWABLE HEATING AND TECHNOLOGIES ARE AVAILABLE!



Biomass heat



Geothermal heat



Solar Thermal heat

How to accelerate their deployment?



IEE FROnT project → recommendations at EU and national level

<http://www.front-rhc.eu/>

FROnT Project Partners:



Austrian Institute of Technology – AIT
www.ait.ac.at/



Instituto para la Diversificación y Ahorro de la Energía – IDAE
www.idae.es/



Creara s.l. www.creara.es/



NL Agency/ Agentschap NL
english.rvo.nl/



European Biomass Association – AEBIOM
www.aebiom.org



Polish National Energy Conservation Agency/ Krajowa Agencja Poszanowania Energii S.A. – KAPE
www.kape.gov.pl/



European Geothermal Energy Council – EGEC
www.egec.org/



Portuguese Energy Agency/ Agência para a Energia – ADENE
www.adene.pt/



European Heat Pump Association – EHPA
www.ehpa.org/



Quercus
www.quercus.pt



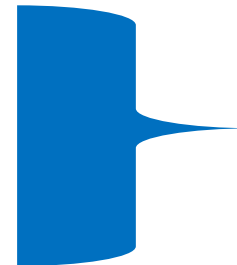
European Solar Thermal Industry Federation- ESTIF
www.estif.org/



The Energy Saving Trust- EST
www.energysavingtrust.org.uk/

Addressing Barriers

- ✓ Financing
- ✓ Awareness

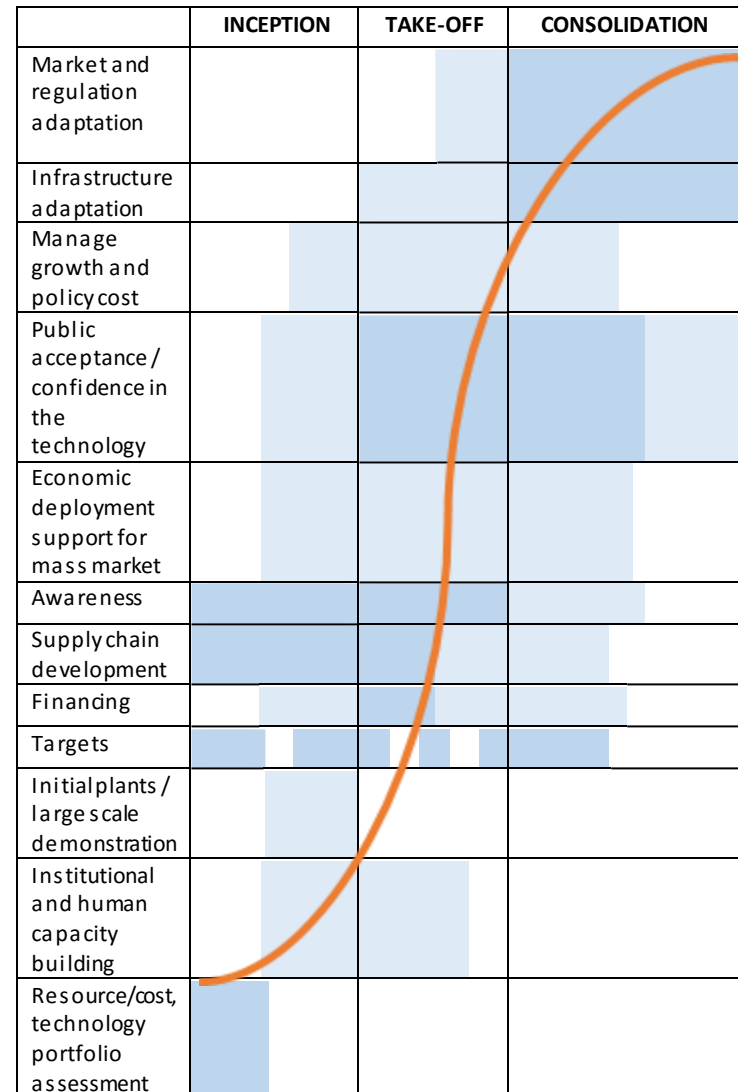


- ✓ Market conditions
- ✓ Strategic priorities
and governance



First of all, Long-term approach & **tailor-made instruments** adapted to market and technology maturity

	INCEPTION	TAKE-OFF	CONSOLIDATION
Market and regulation adaptation			
Infrastructure adaptation			
Manage growth and policy cost			
Public acceptance / confidence in the technology			
Economic deployment support for mass market			
Awareness			
Supply chain development			
Financing			
Targets			
Initial plants / large scale demonstration			
Institutional and human capacity building			
Resource/cost, technology portfolio assessment			



Source: IEA: Best and Future Policy Practice (2011)

Financing

Recommendations



Promote existing support and new financing opportunities



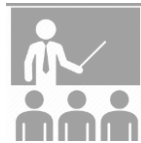
Support schemes financed 'off-budget' – long term perspective



Streamline administrative procedures related to support schemes

Awareness

Recommendations



Strengthen dissemination and training



Highlight the heating system performance and costs in
buildings' energy performance certificates (EPC)



Promote district heating (DH) and the use of RES in DH

Market conditions

Recommendations



Phase out fossil fuels subsidies and use in new and existing buildings

➔ Example of Denmark!



Improve building codes (NZEB standard)



Set national long term renovation strategies

Strategic priorities & governance

Recommendations



Set long-term decarbonisation roadmap



Improve data collection and reporting



Continue RD&I in renewable heating & cooling technologies

Also... consistency in EU legislation!

Energy efficiency and **RES** create synergies and should reinforce each other – not the opposite.

Energy Efficiency Directive (EED) → 13 Member States subsidize new fossil heating installations

- ✓ lock-in effect
- ✓ In contradiction with numerous calls for the removal of fossil fuels subsidies

→ EC Communication *Road from Paris: [...] 02.03.2016 - **This can provide a good opportunity not only to introduce carbon pricing but also to remove fossil fuel subsidies***

→ European Council conclusions 22.05.2013 - **urging Member States to phase-out fossil fuel subsidies and to focus incentives on non-fossil fuel based heating and cooling systems.**

- ✓ In contradiction with EU long-term Climate and Energy objectives (80-95% GHG emissions reduction by 2050)



...consistency needs to be ensured in upcoming revisions of Energy Efficiency Directive (EED), Energy Performance of Building Directive (EPBD) and RES-D

Thank you !

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