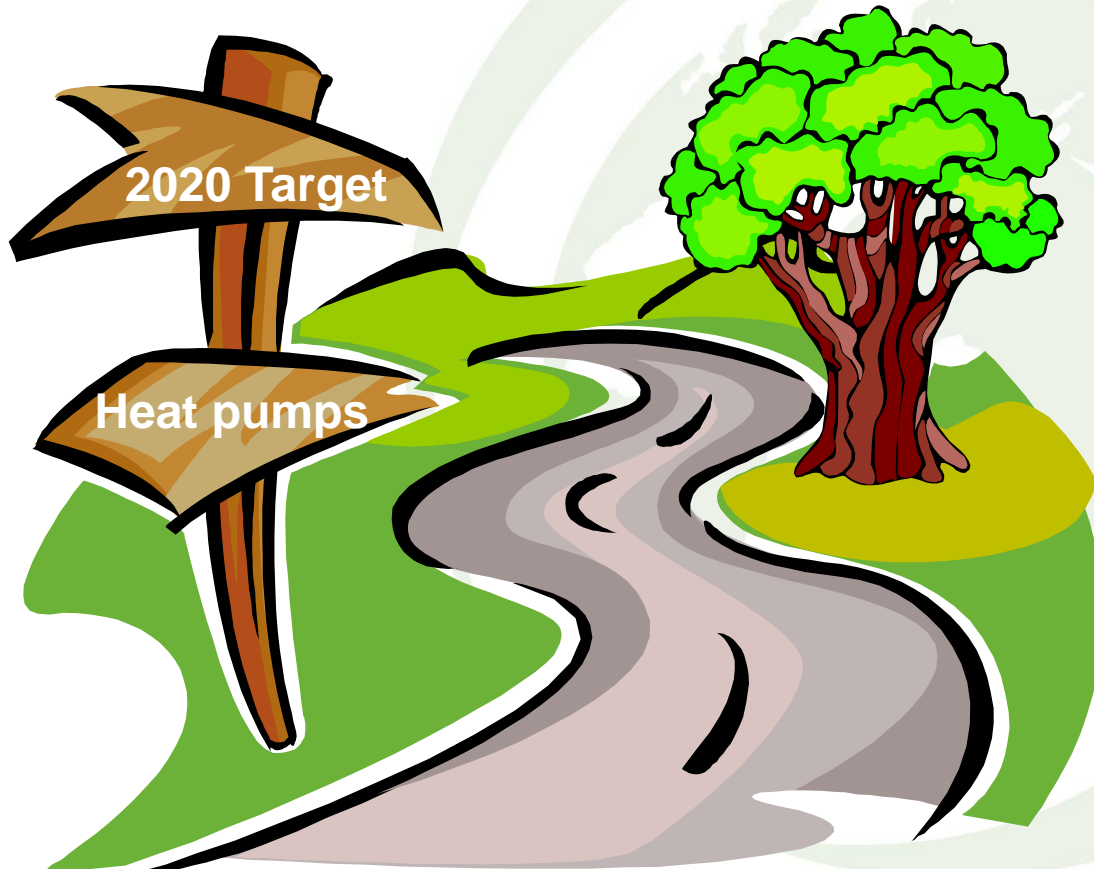


EPEE

The European Partnership for Energy and the Environment



**Heat Pumps:
The
Renewable
Way Forward**

Who is EPEE?



EPEE is a broad based HVACR industry association supporting the promotion of energy efficiency and the freedom of refrigerant choice



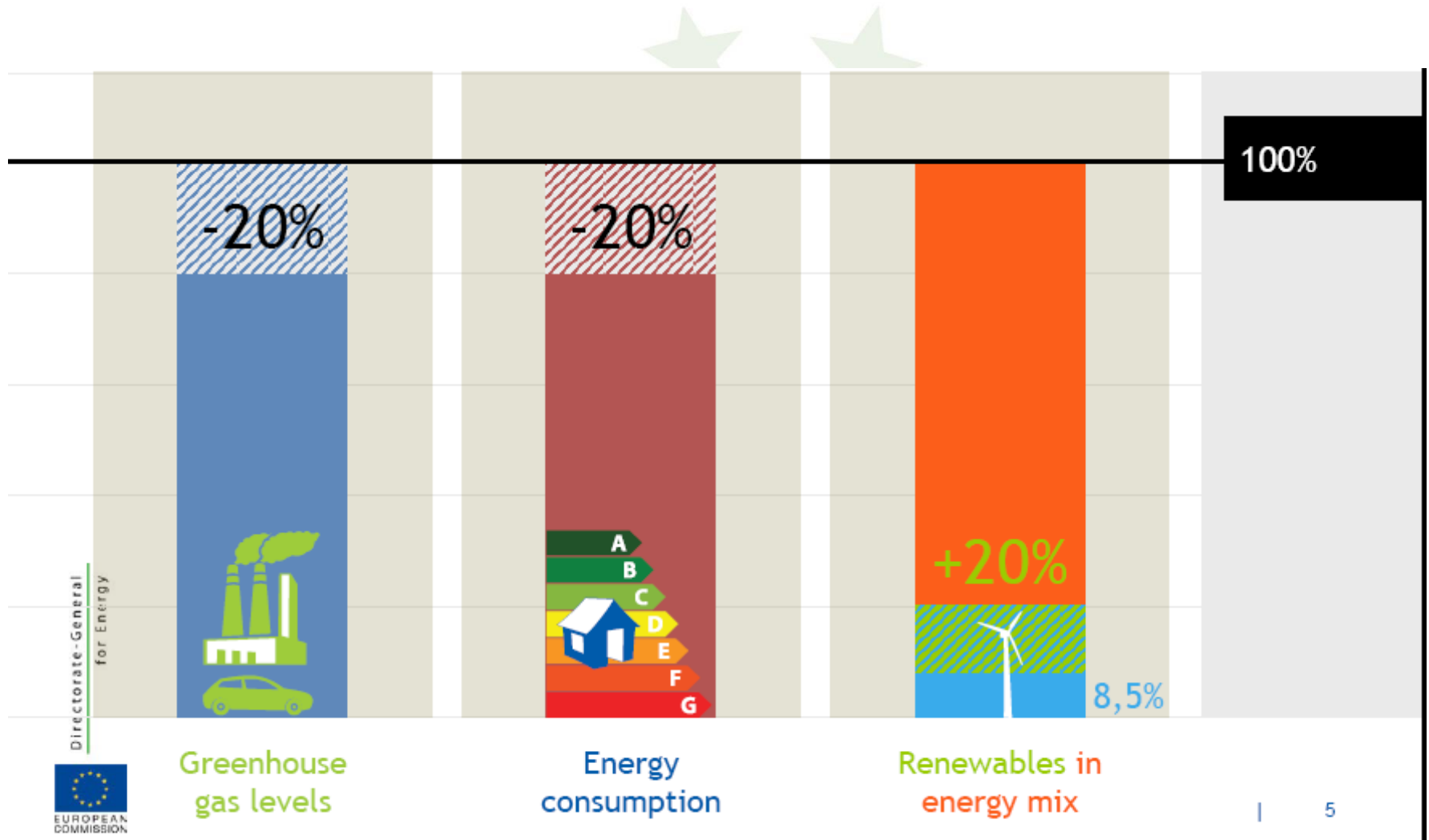
27 member companies, **12** member associations

... **producing a/c equipment, components, refrigeration systems, heat pumps, refrigerants**

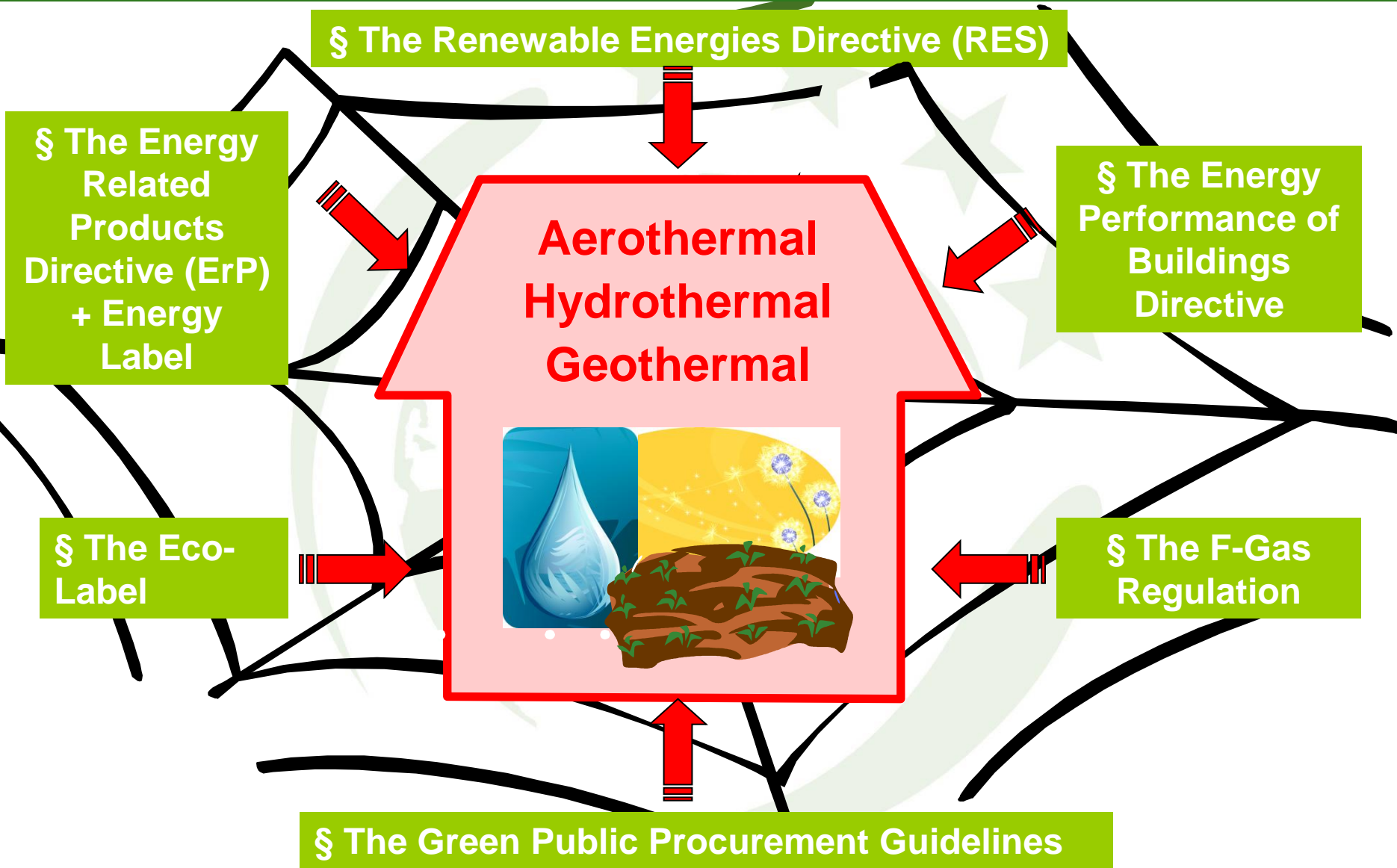
... employing more than **200,000** people in Europe

... And realising a turnover of more than **€ 30 billion** in Europe

The EU 20 – 20 – 20 Target



Heat pumps in the EU's complex regulatory context



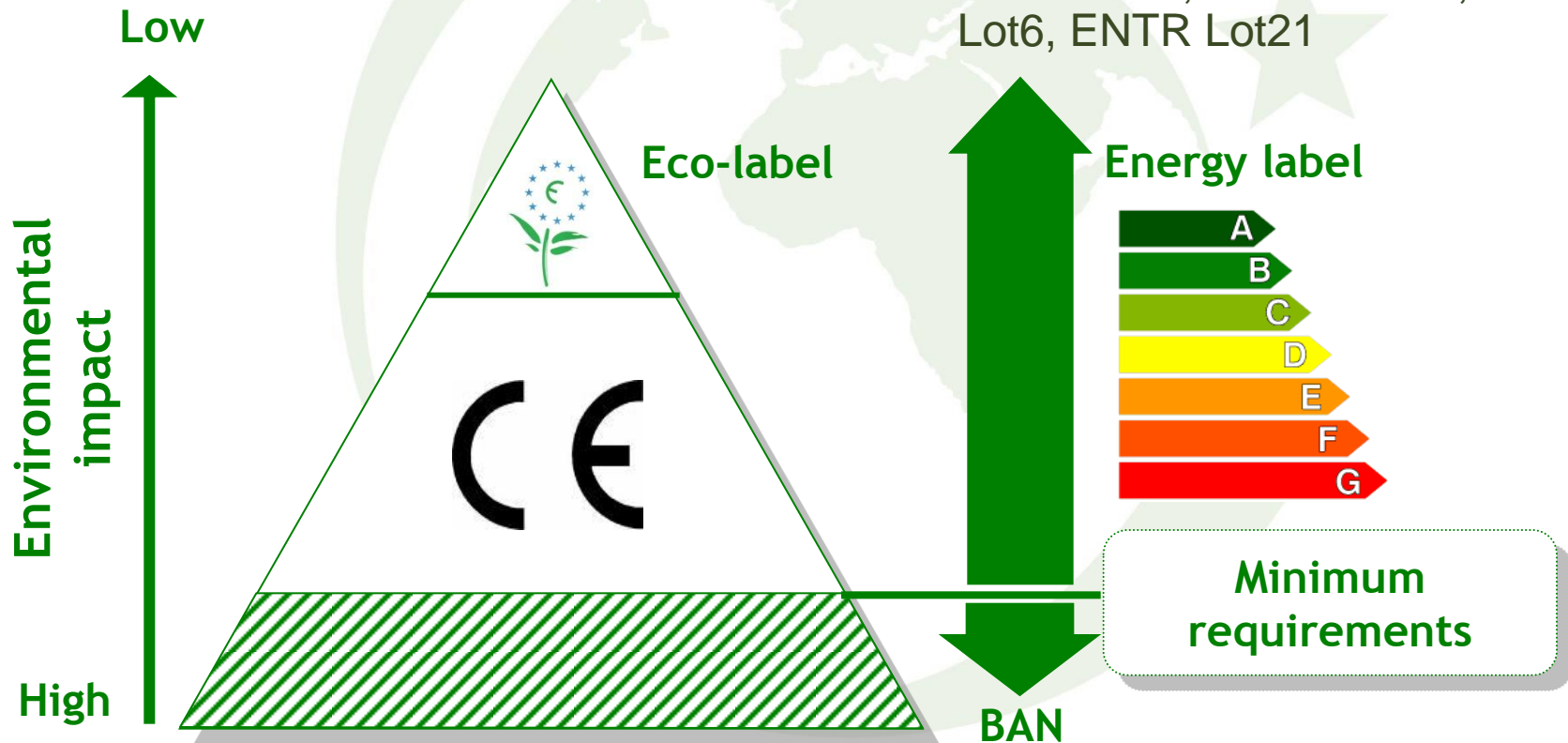
Focus on interactions between: Eco-Design – Energy Label – Eco-Label

Eco-Label: main criteria for heat pumps:

- Gas driven, electrically driven, absorption
- Excludes hot water only and cooling only HPs
- Efficiency in heating and cooling mode
- Refrigerants GWP < 2000

Eco-Design (ErP): HP criteria set in:

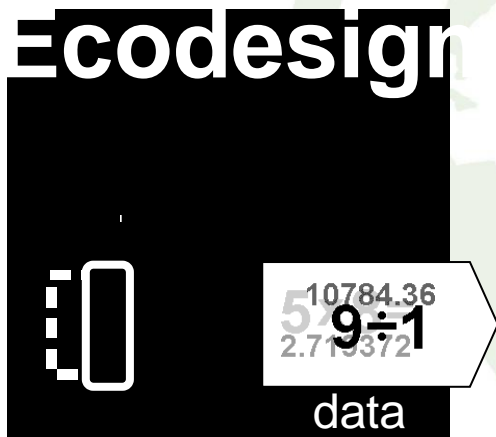
- ENER Lot1, ENER Lot10, ENTR Lot6, ENTR Lot21



Focus on interactions between: RES - Eco-design – EPBD

Heat pumps ensure high efficiency: ex. Lot1

Heat pumps help achieving the 20% RES target



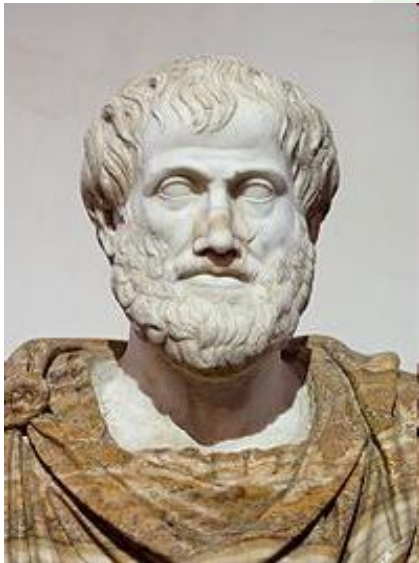
Target: minimum product energy efficiency criteria



Target: Nearly zero energy buildings

Heat pumps are part of the solution to achieve (nearly) zero energy buildings

Consistent legislation is key for the success of heat pumps

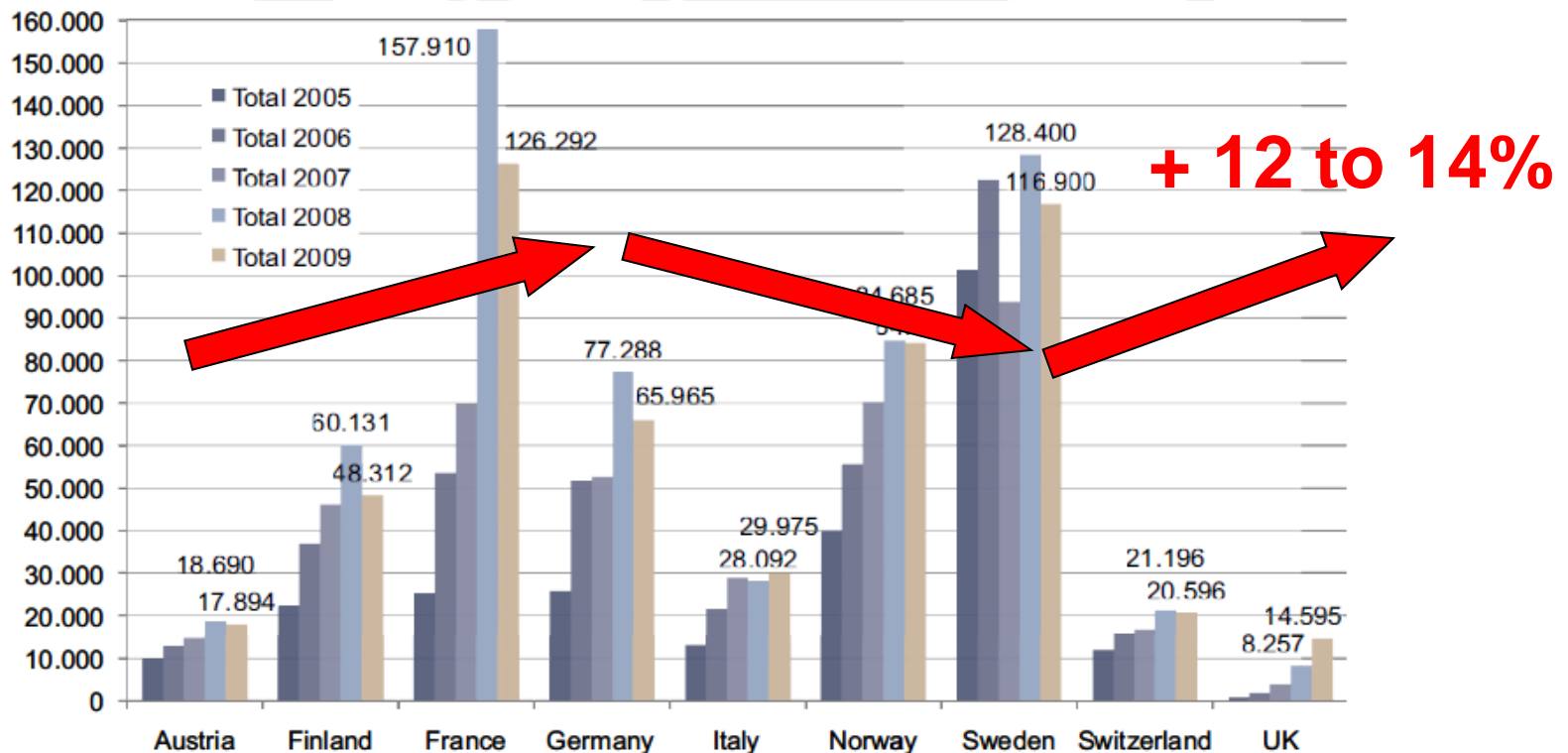


Aristoteles, 384 – 322 BC

„The whole is more than the sum of its parts“

And what happens in the market?

- ⇒ Continuous growth until 2008
- ⇒ In 2009 / 2010 the economical crisis hit the heat pump market as well



Source: EHPA

Heat pumps still need to be pushed as renewable energy technology

The EPEE heat pump manifesto

Brussels Workshop
17 Nov 2010

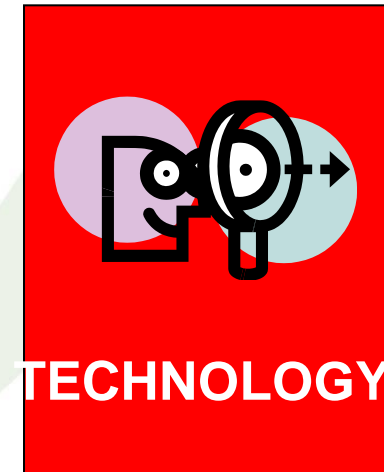
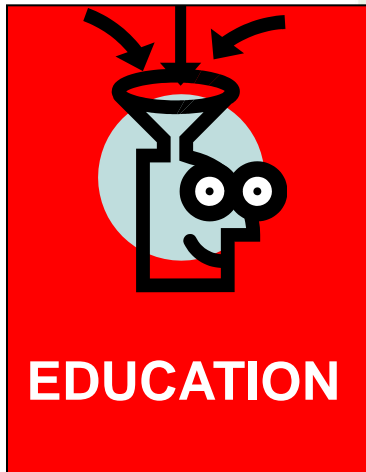


- Developed by > 50 stakeholders from governments, NGOs, academia and industry
- Hosted by Jan Březina, Member of the European Parliament (EPP, Czech Republic)

Heat Pumps have made their way into society, but ...



... there are still barriers to overcome

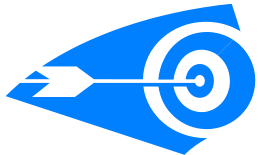


EDUCATION & AWARENESS



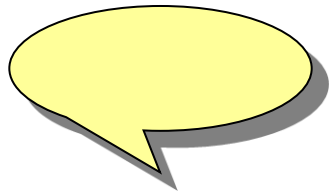
Barrier

Knowledge about heat pumps as renewable energy technology and their benefits



Target group

The whole value chain: governments, planners, architects, installers, banks and end-users



Message

Heat Pumps save money & provide energy security!

- ☞ Life Cycle Approach: Investment vs. operating costs
- ☞ Smart Grids: Heat pumps help managing load variations
- ☞ EU 20-20-20 target: Heat pumps use renewable energy



Tools

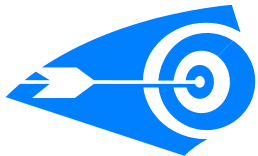
Information campaigns tailored to the needs of different target groups.

- ☞ Sharing of best practice, availability of trustworthy data
- ☞ Public and private cooperation

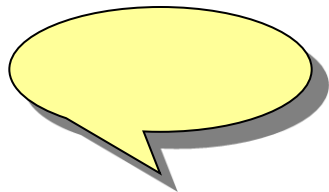
§ POLICY



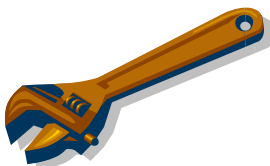
Barrier



Target group



Message



Tools

Knowledge about heat pumps as renewable energy technology and their benefits

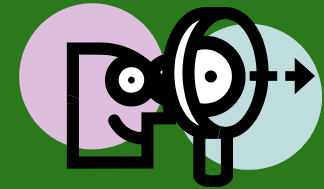
European, national and local governments

Heat pumps cannot be ignored to reach the EU's 20-20-20 target .

- ☞ All heat pump types are renewable energy technologies
- ☞ Smart Grids: Heat Pumps help managing load variations in power grids due to decentralized renewable energy production

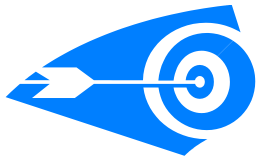
- Include all heat pump types (air, water, ground) in the national renewable energy action plans (NREAP).
- Concerted activities on EU level comparable to the IEA Heat Pump Centre
- EU harmonized standards, regulation, certification, qualification

TECHNOLOGY



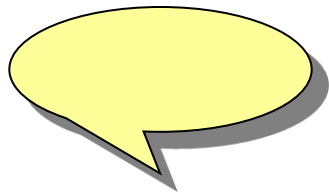
Barrier

Efficiency of heat pumps and technical compatibility with other renewable energies



Target group

Industry, research institutes, academia



Message

Heat pumps need to be further improved

- ☞ To manage load variations due to renewable energies production in decentralised grids.
- ☞ To provide truly efficient heating systems in new and existing buildings



Tools

- R&D to increase heat pump efficiency and compatibility with other systems (hydropower, micro generation wind power, PV...)
- Public-private cooperation to gather more insight into heat demand patterns, consumer behaviour, use of different types of energy

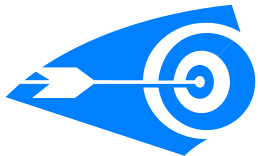


FINANCING



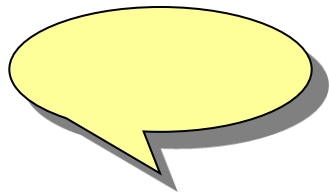
Barrier

Investment costs of heat pumps vs. conventional technologies (e.g. condensing boilers)



Target group

European, national and local governments;
Banks



Message

Due to higher initial investment costs, incentives are useful to stimulate the whole value chain

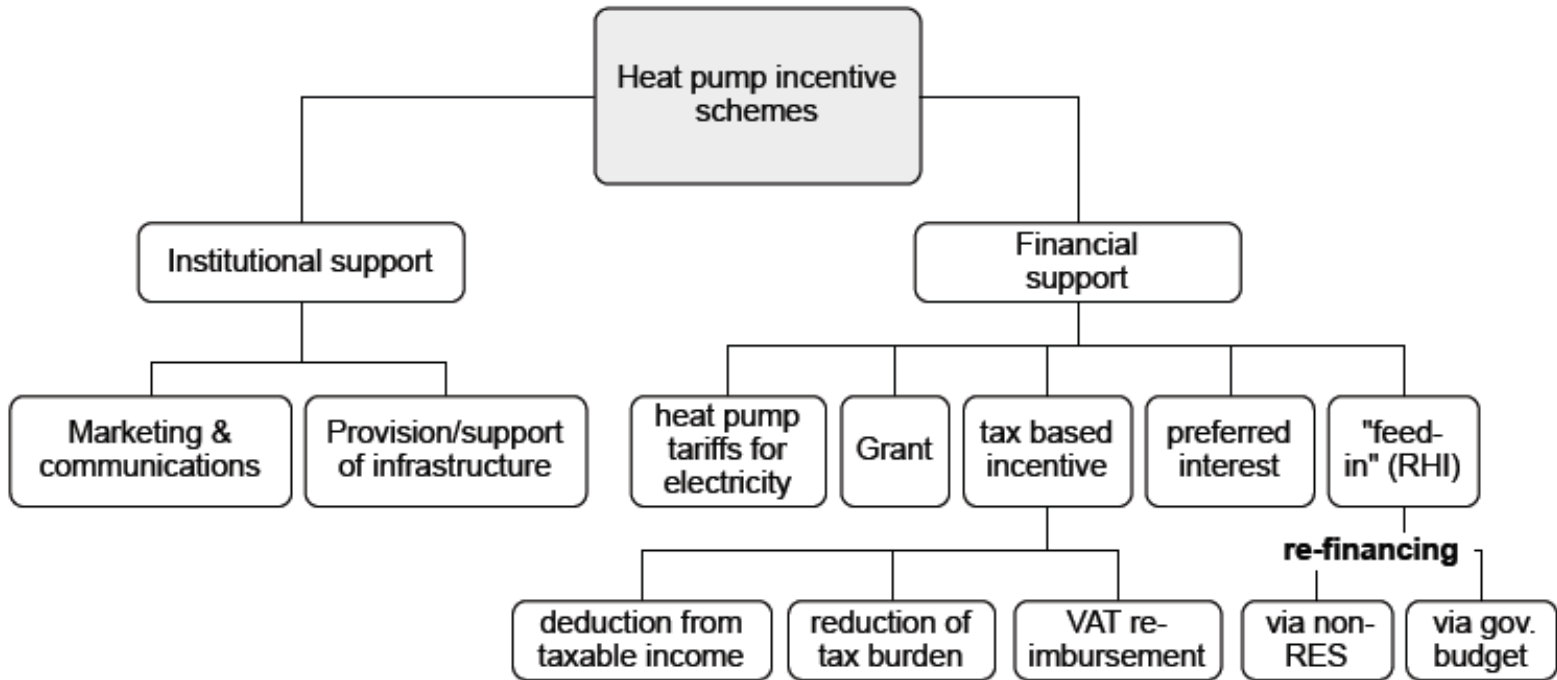
- The market needs to be prepared for incentives:
 - ☞ enough qualified installers, certified equipment
- Financial incentive schemes tailored to local market requirements
- Incentive schemes such as Green Public Procurement



Tools



Focus on incentive schemes



- **The market needs to be prepared**

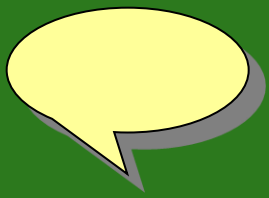
- ☞ Enough qualified installers, certified equipment

- **Tailored to local requirements**

- **Transparent**

- ☞ Defined timeline, quality based, easily accessible and comprehensible, technology neutral, clearly defined amounts

source: EHPA



Focus on the main messages

Heat pumps cannot be ignored to reach the EU's 20-20-20 target!

- **Heat pumps save money**
 - ☞ Life Cycle Approach
- **Heat pumps provide energy security**
 - ☞ Renewable energy, smart grids
- **Heat pumps contribute to achieve the 20-20-20 target**
 - ☞ Air, Water, Ground heat pump equipment
- **Incentives are necessary to stimulate the market**
 - ☞ Overcome the barrier of higher initial investment costs
- **Heat pump technologies need to be further improved**
 - ☞ Efficiency and compatibility with other technologies

CONCLUSION

Heat pumps have clear benefits !



Savings



Jobs



EU Competitiveness



Energy Security



GHG Reduction



RES Target

Policy makers

- Jobs
- EU Competitiveness
- Energy Security
- GHG Reduction
- RES Target

Industry

- Jobs
- EU Competitiveness
- Energy Security

End-Users

- Savings
- Jobs
- Energy Security

THANK YOU FOR YOUR ATTENTION !

For more information on the heat pump manifesto and EPEE please contact:

a.voigt@epeeglobal.org

secretariat@epeeglobal.org

www.epeeglobal.org