

Energy Research in Austria

Sabine List

Federal Ministry of Transport, Innovation and Technology

Heat Pump Workshop

Vienna, 9th November 2010

Comprehensive Energy Strategy

EU



National

20-20-20 targets

SET- Plan

European Strategic
Energy Technology
Plan

Energy Research
strategy

**renewable
energy directive**

Renewable
Energy Action Plan

**directive on
energy end-use
efficiency and
energy services**

Energy Efficiency
Strategy

climate target

Climate Strategy

overall energy and
climate strategy

Energy
efficiency

Intelligent system
integration

Renewable
energies

Strategy Process „e2050“

Objective:

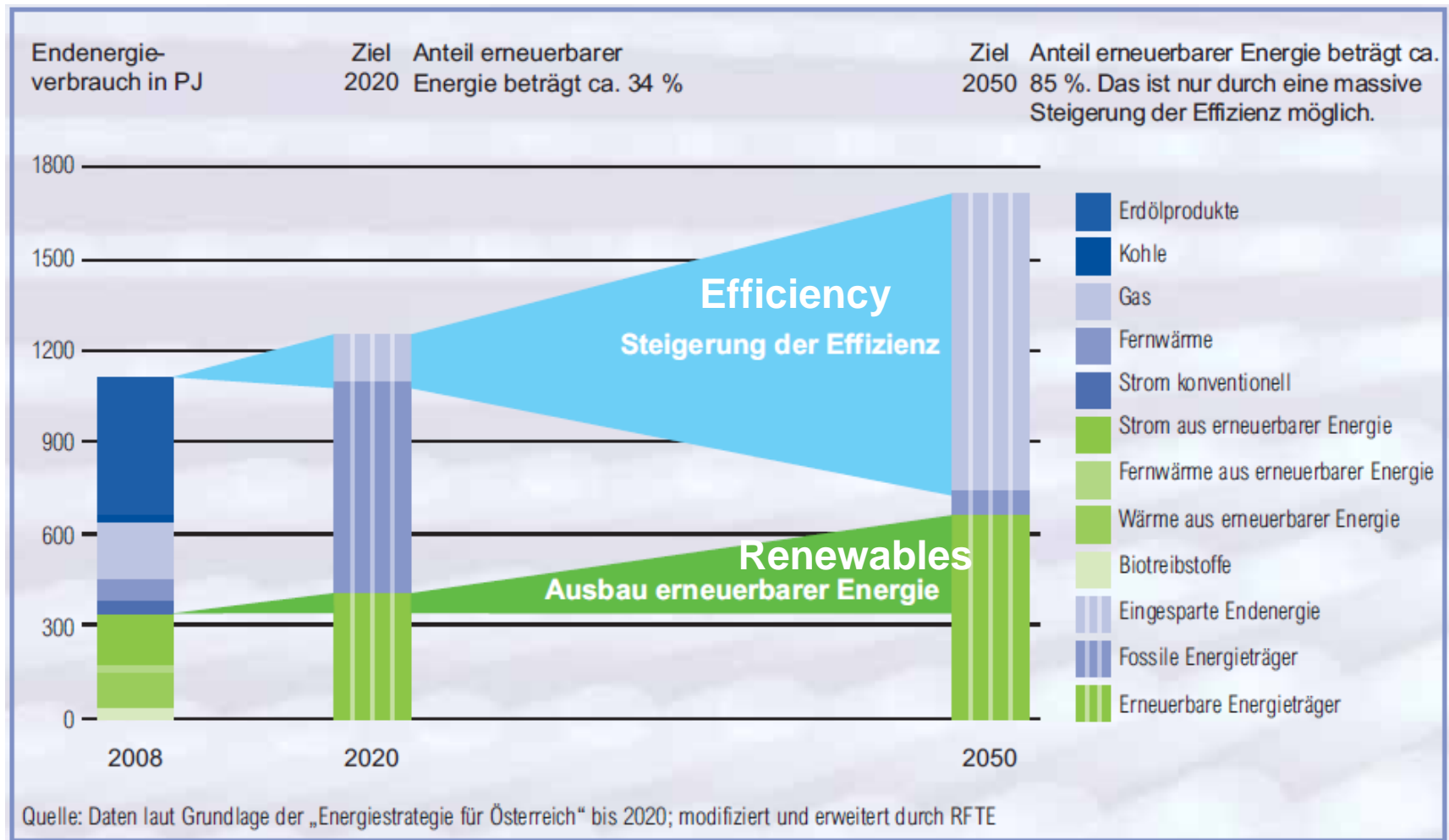
- development and evaluation of longterm energy-options (technology paths)
- definition of innovation strategies and set up of RTD-programmes
- formulation of basics for an Austrian energy research strategy
- formulation of input for an overall energy and climate strategy of the Austrian Government

Results:

- expert's report on thematic priorities
- technology roadmaps for Austria (PV, Solarthermal, **Grids ...**)
- Austrian Energy Research Strategy

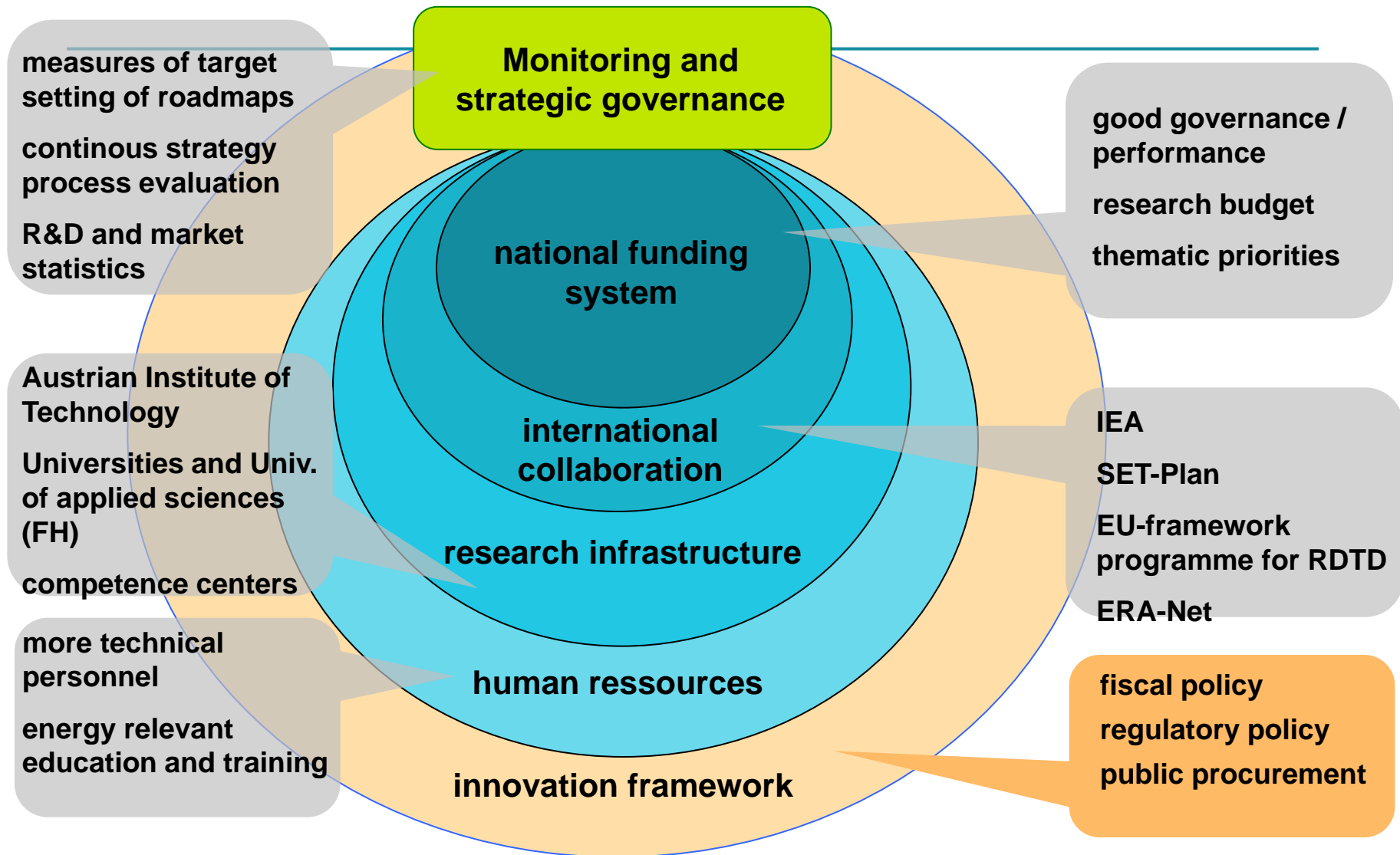


Making the Zero Carbon Society Possible!

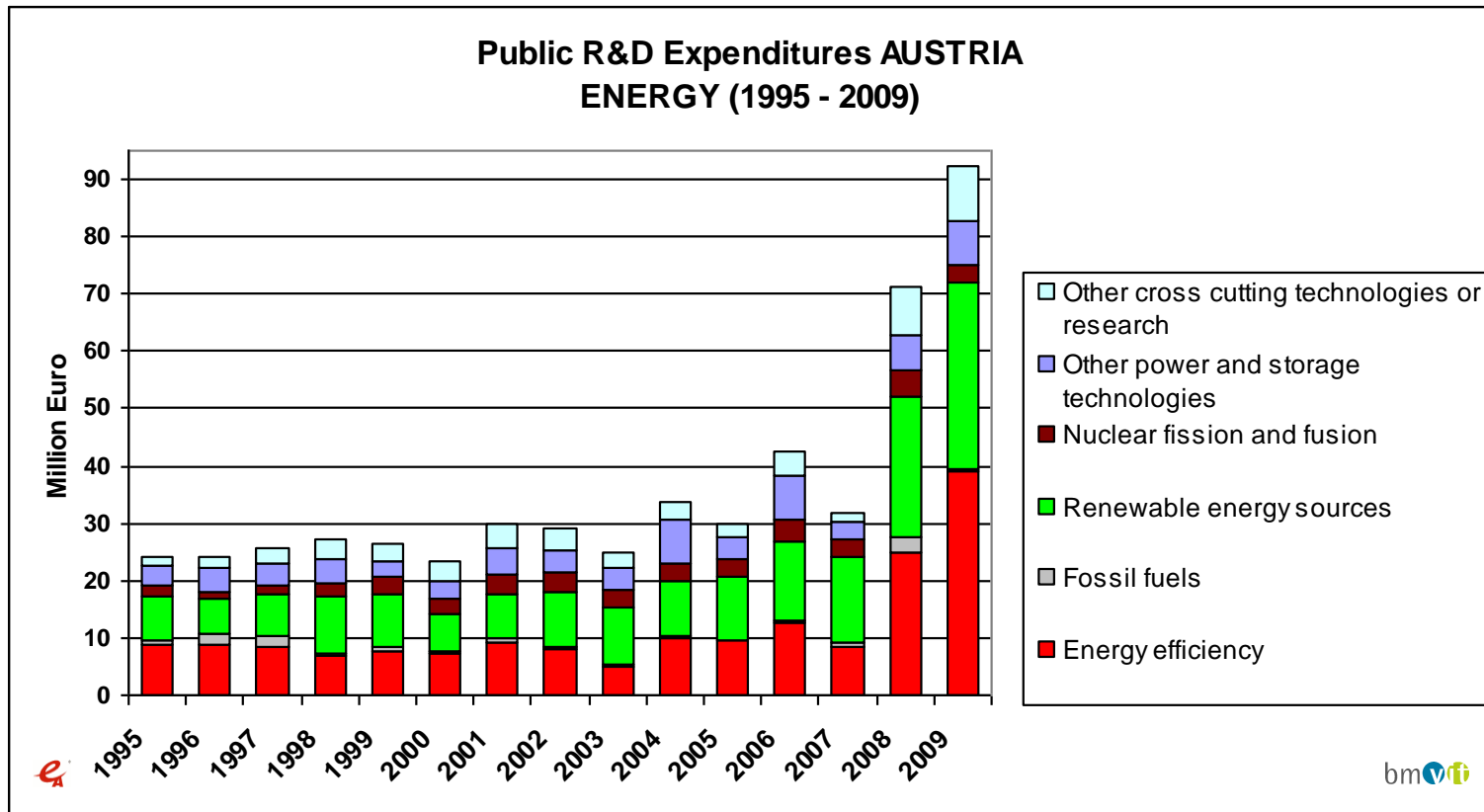


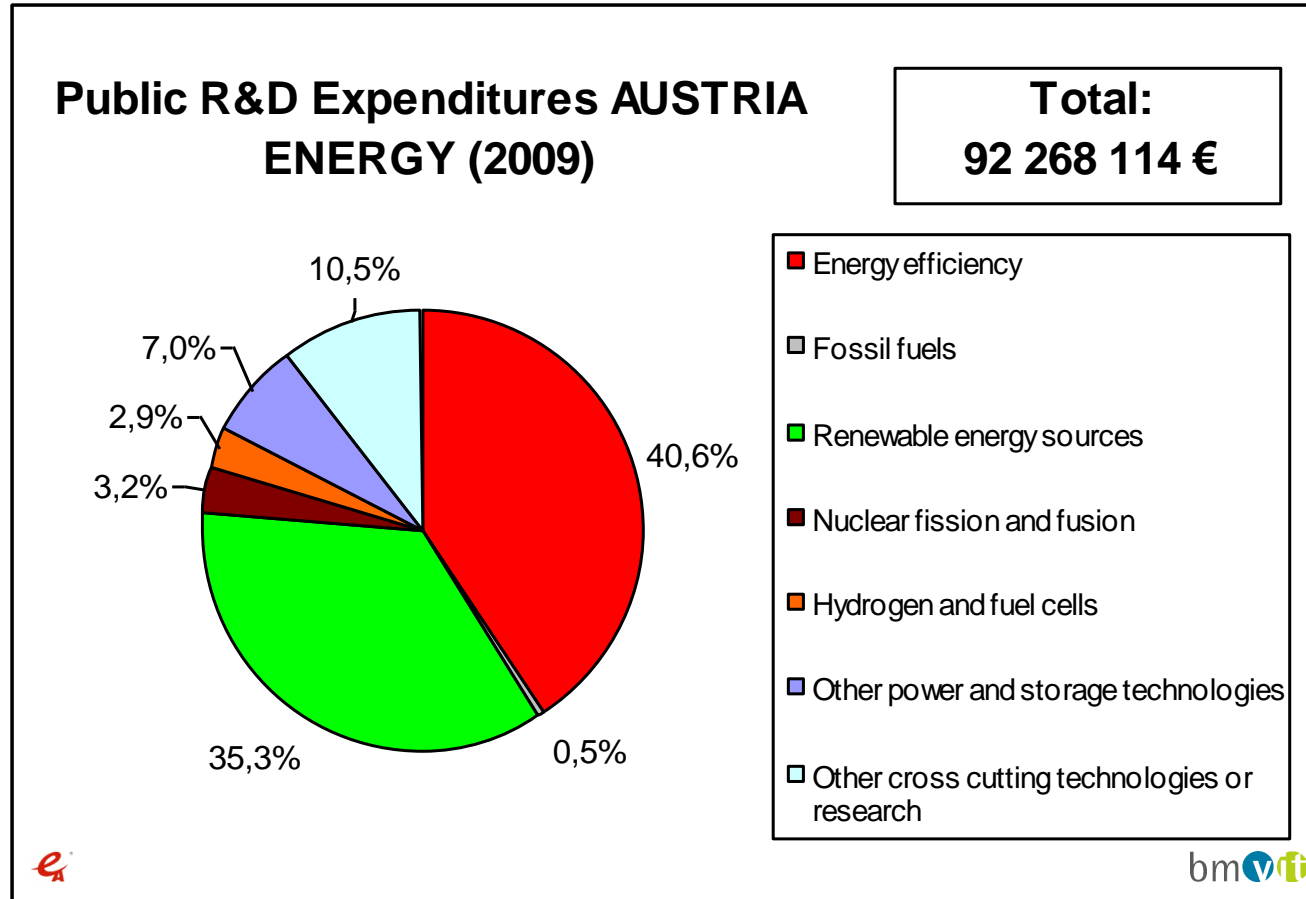
Energy Research Strategy

Operation levels and measures



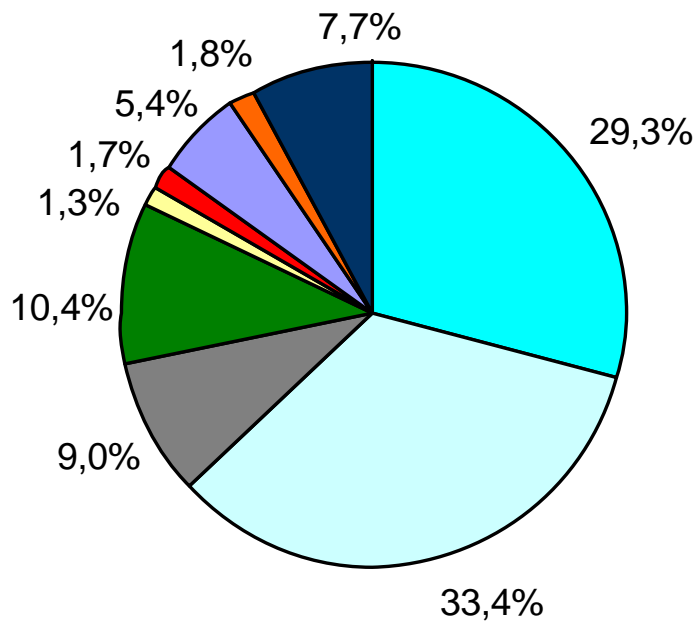
Public Energy R&D Expenditures Energy sectors



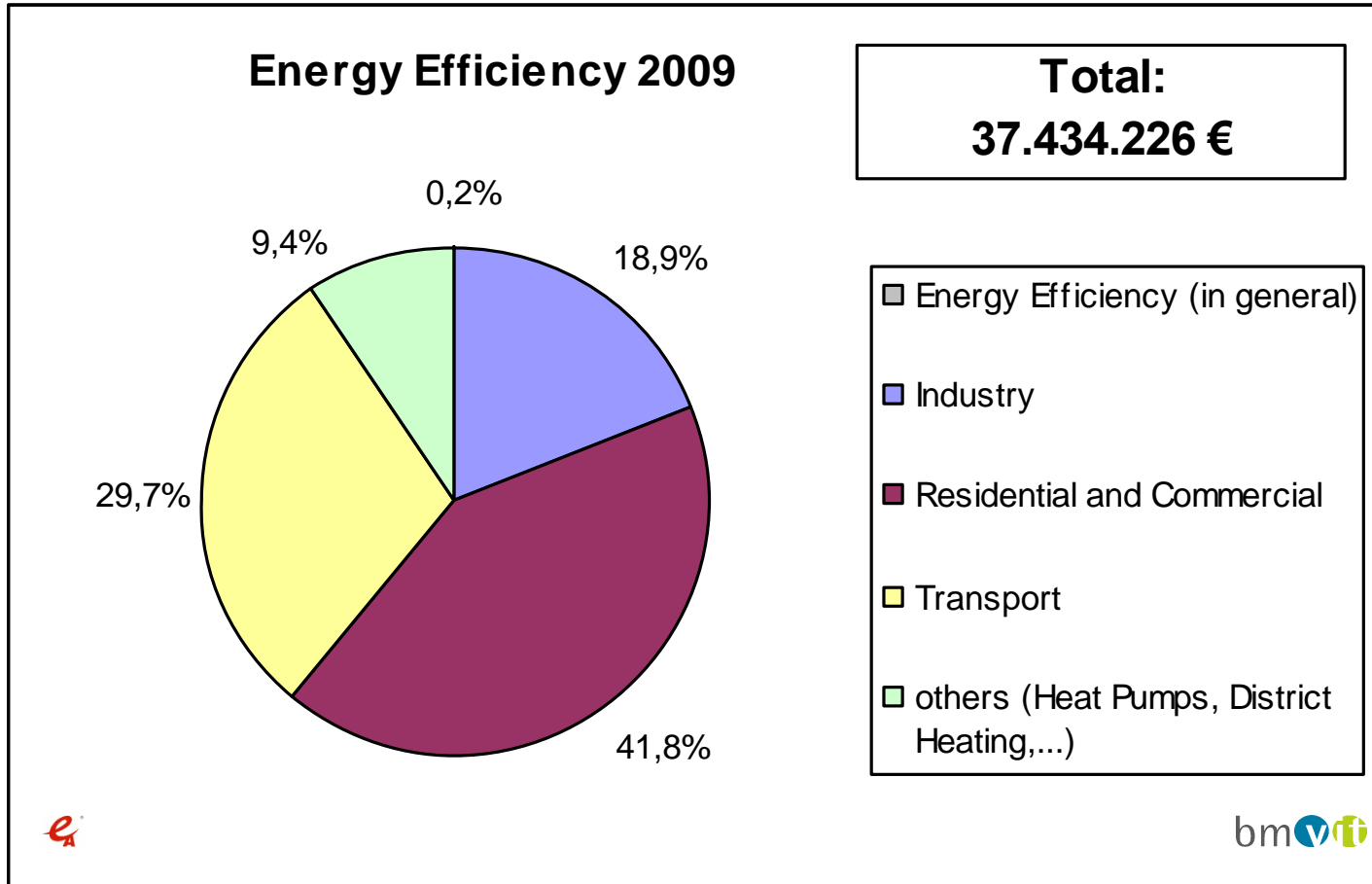


Public R&D Expenditures AUSTRIA ENERGY - Institutions (2009)

Total:
92 268 114 €

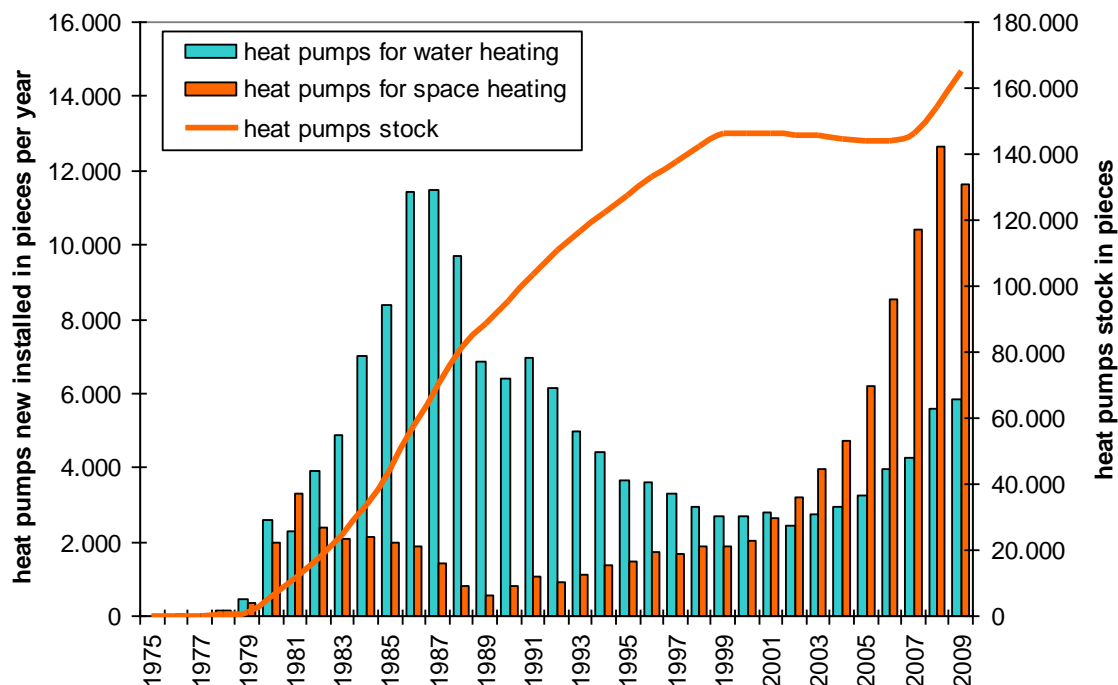


- Federal ministries
- Climate and Energy Fund
- Länder (provinces)
- Research Promotion Agency (FFG), Basisprogramme
- Austrian Science Fund (FWF)
- AWS (national promotional bank)
- Non-university research institutions
- Fachhochschulen (colleges)
- Universities



- **active involvement of Austrian experts in the implementing agreements and expert groups of the International Energy Agency (IEA)**
- **Austrian participations in the EU Framework Programme for Energy**
- **increasing participations in European Technology Platforms and PPP (Renewable Heating and Cooling, Smart Cities)**
- **Joint calls within energy relevant ERA-Nets (Bioenergy, ...)**
- **participation of Austria in „European Energy Research Alliance“**

development of home market 2009



Source: Faninger (2007), EEG

2009 installed (pieces):

water heating: 5.837

space heating: 11.637

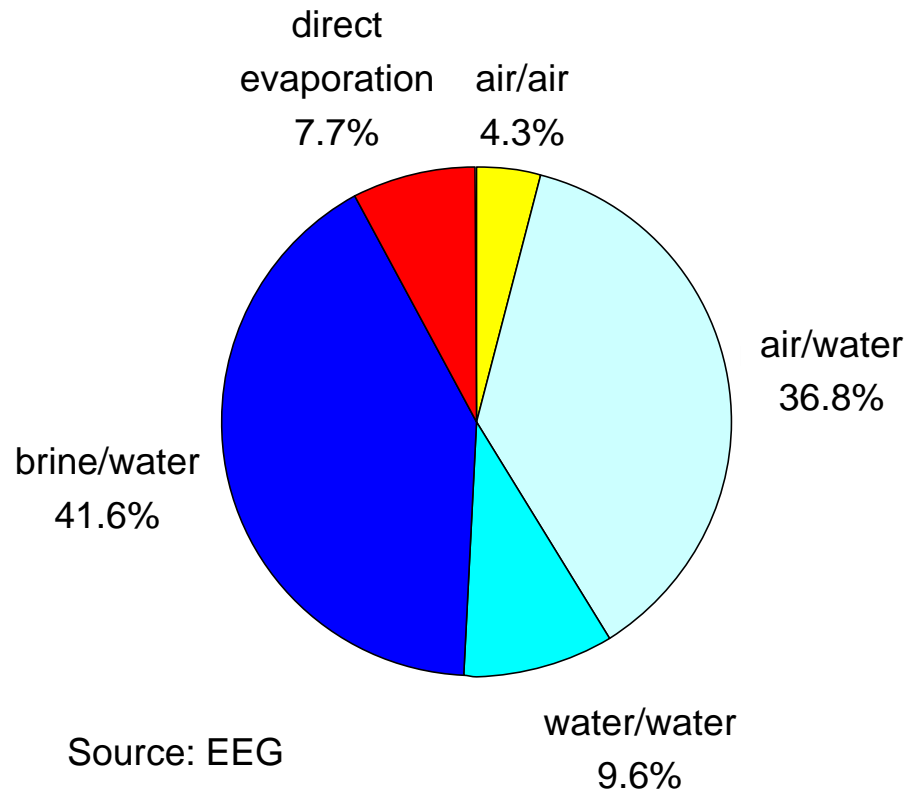
ventilation: 523

total: 17.997

total: -3,8%

cumulated: 166.894 Stk.

home market 2009: types of heat source

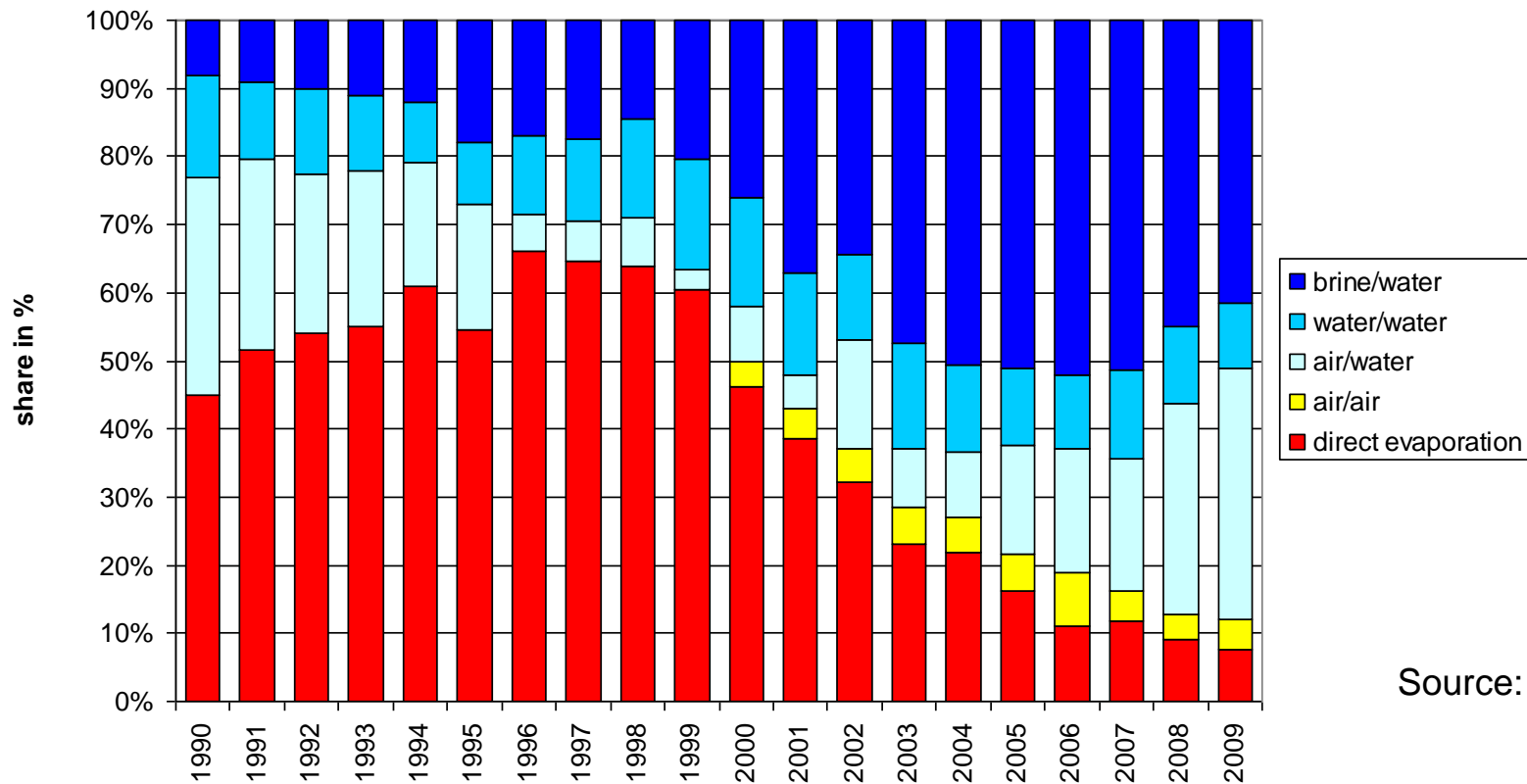


changes 2009: (refer to pieces 08/09)

air/air:	+7%
air/water:	+4%
water/water:	-22%
brine/water:	-11%
direct evaporation:	-20%

total:	-7%
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development of the share of heat sources (home market)



Source: EEG

ENERGY Base Vienna



- reduction of energy consumption by 80 %
- 100 % supply with daylight by light control

- passive house office building
- 4500 m² offices
- 1500 m² laboratories
- 100% heating and cooling based on Renewables
- 400 m² PV-plant => ca. 42.000 kWh/a
- Solarthermal heating and cooling
- heat pump
- plants moisturisation

Thank you for your attention!

Download of workshop presentations

www.nachhaltigwirtschaften.at/iea

Information about “Building of tomorrow”
programme

www.hausderzukunft.at