

# Varmepumper i Finland

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# Market characteristics

- 1) In Finland still “1 million wrongly heated small houses”
- 2) New houses, 10.000 pcs /a,  
have no significant effect CO<sub>2</sub>- releases 2020

## Market Characteristic

### Replacement market

300.000 Oil heated houses  
200.000 Water based electric heated houses  
500.000 Direct electric heated houses  
500.000 Free time houses (electricity)  
100.000 Big estates outside district heating (oil, electricity, wood)

=====

1.600.000 houses potential for

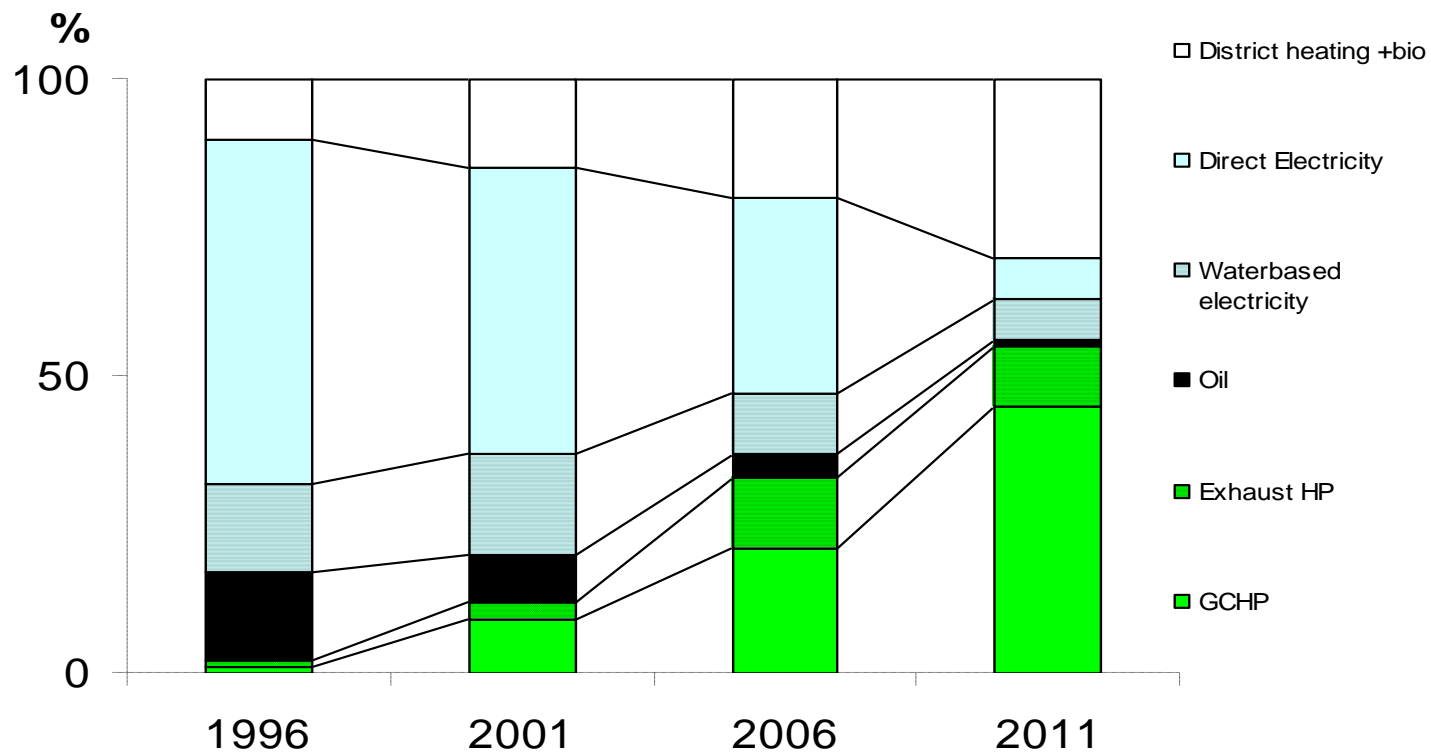
- **heat pumps**
- **bio/pellets**
- **district heating**
- **(solar)**



# Market Characteristic

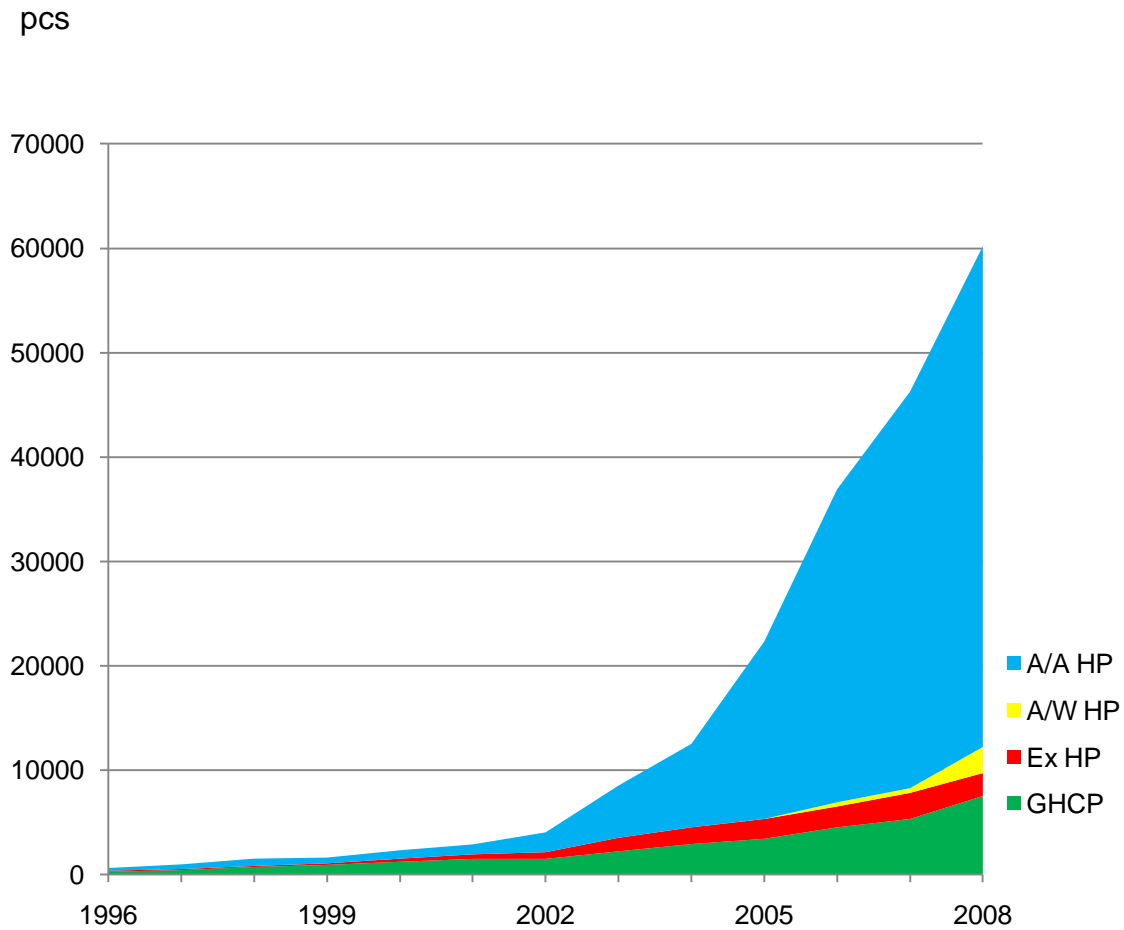
## New single family houses

**Heating systems of the new houses (10.000 pcs/2008)  
market shares 1996-2011 (2011 prognose by JH) %**



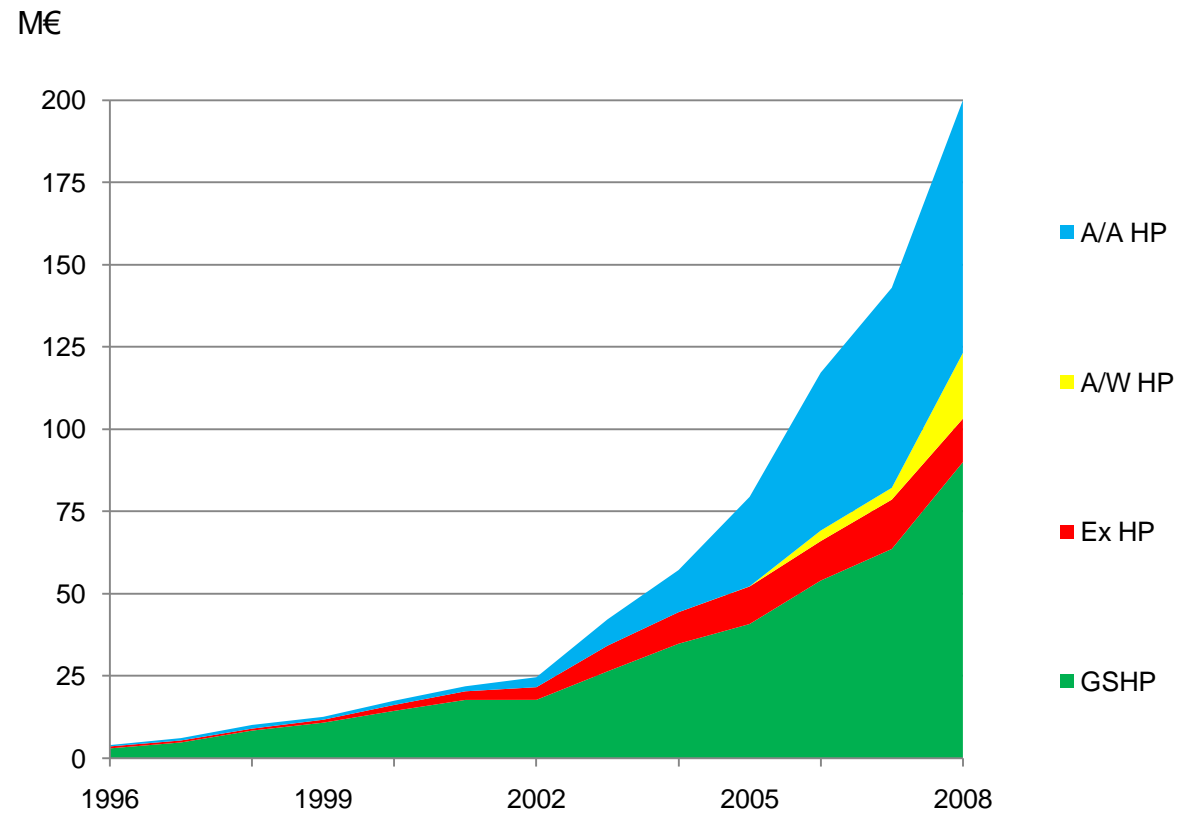
# Heat pump figures

HPs in Finland 1996-2008 pcs



# Heat pump figures

Finland , Heat pumps, in Euros, 1996-2008  
(as installed with VAT)



GSHP 18.000€ Ex HP 6.000€ A/W HP 11.000€ A/A HP 1.800€

## Heat pump figures

Finland , installed heat pumps 2008, 2007

|               | <b>2008</b>   | <b>2007</b>   | <b>Growth</b> |
|---------------|---------------|---------------|---------------|
| <b>GSHP</b>   | 7 500         | 5 300         | 42 %          |
| <b>EXHP</b>   | 2 200         | 2 500         | -12 %         |
| <b>A/W HP</b> | 2 500         | 450           | 456 %         |
| <b>A/A HP</b> | 48 000        | 38 000        | 26 %          |
| <b>Total</b>  | <b>60 200</b> | <b>46 250</b> | <b>30 %</b>   |

# Legislation affecting heat pumps

## EU-RES Directive in Finland

- Renewables from 28,5 % to 38 % in 2020, energy savings -20%
- Total energy consumption in Finland is ~300TWh/a
- Directive means increase of 30TWh/a in renewables
- With today's over 200.000 HPs 2-3 TWh/a RES is used
- With 1.000.000 HPs 25% of the RES goal of Finland is achieved
- In 12 years that means 50.000-70.000pcs/a
- Last year 60.000 HPs were sold in Finland, whereof 48.000 a/a HPs

**SPF calculation method in RES DIR affects a lot what is HP RES in Finland 2020**

## Institutional & financial support:

Homework tax deduction

60 % of installation work, max 3000€/a/earning family member

# The Finnish Heat Pump Association SULPU

>100 members

coverage of HP market

- GCHP/ExHP over 90%
- a/a and a/w about 50%

annual budget >100.000 €

active in

- dissemination
- lobbying
- EHPA, IEA HP

EUCERT Training started 2009

- First 31 passed exam
- 5 courses / 100 participants 2009

# Lämpöpumppu Fantastinen laite

