

Third meeting of the project  
“Monitoring of EU and national energy efficiency targets” (ODYSSEE-MURE  
2010)  
Warsaw, 6-7 October 2011

## Wood boiler policy in Austria

Reinhard Jellinek, Austrian Energy Agency (AEA)  
Project Manager

# Small Scale Biomass Combustion for Households

Examples:

- Wood-stoves & Fire-place inserts
- Tile stoves (Heat storing stoves)
- Log Wood boilers
- Wood chip boilers
- Wood pellet boilers





# Wood boiler policy in Austria

- 1995: Introduction of maximum emission values for wood boilers (log wood, wood chips, wood pellets)
- More demanding maximum values over the years
- More demanding values for large boilers > 2 MW (including particulates)
- All new boilers on the market have to be checked and approved in a test centre
- Test reports are publicly available  
→ Competition between producers

# Effects

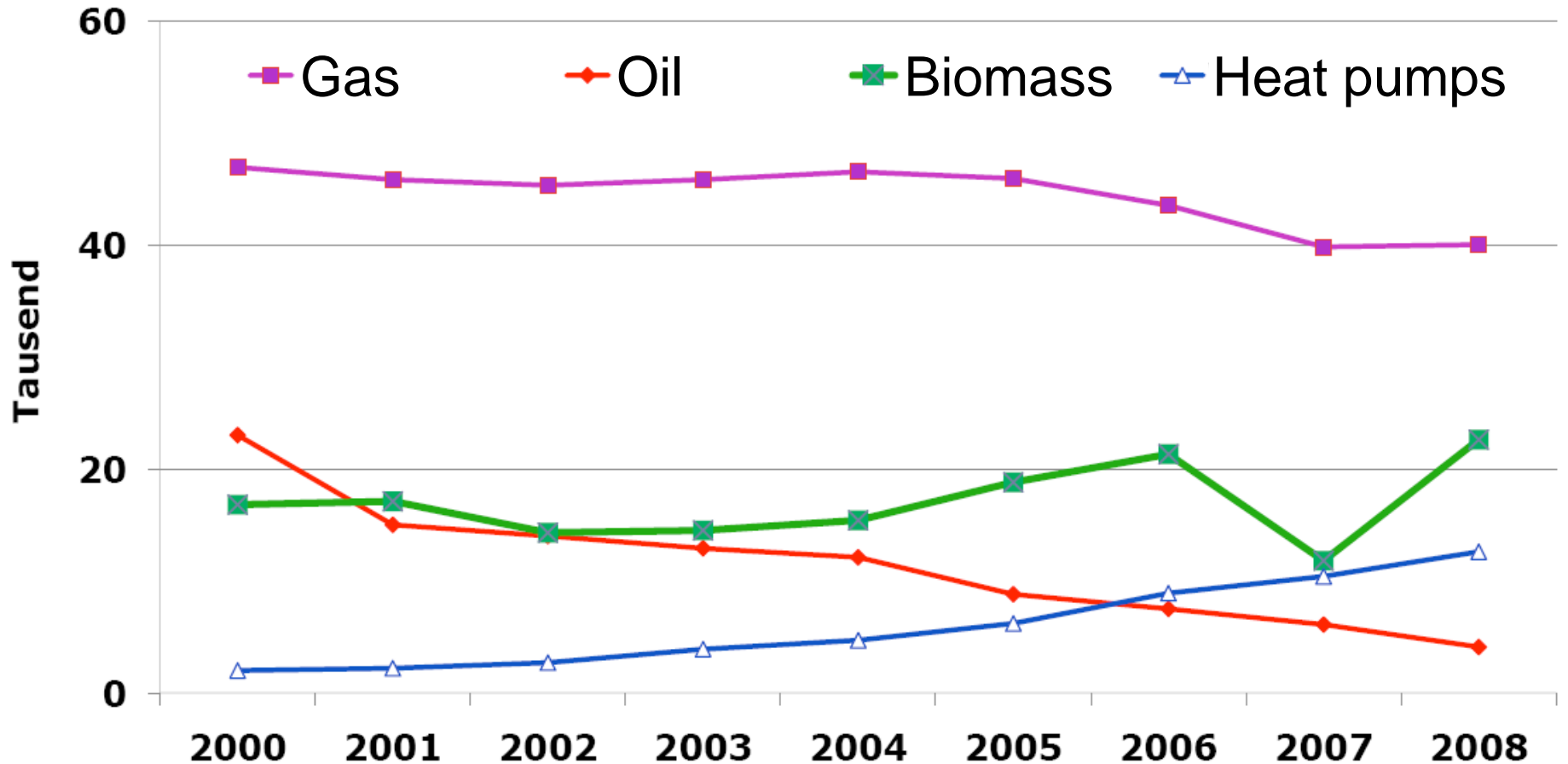
- More insight into the combustion process for developers due to modern and exact measurements
- Huge improvement of technology
- Much higher quality of combustion
- Huge decrease of pollutants (NO<sub>x</sub>, CO, particulates, ...)
- Huge decrease of CO<sub>2</sub>-emissions
- Improvement of operating comfort (e.g. longer combustion duration, automatic ignition devices)



# Impacts on the market

- Austrian experiences were integrated in the European standard EN 303-5
- Austrian companies are worldwide market leaders in terms of technology
- Two thirds of produced boilers are exported
- Austrian companies produce boilers in Germany
- The share of biomass boilers is now equal to the share of oil boilers in the 90s
- Success story especially for pellet boilers

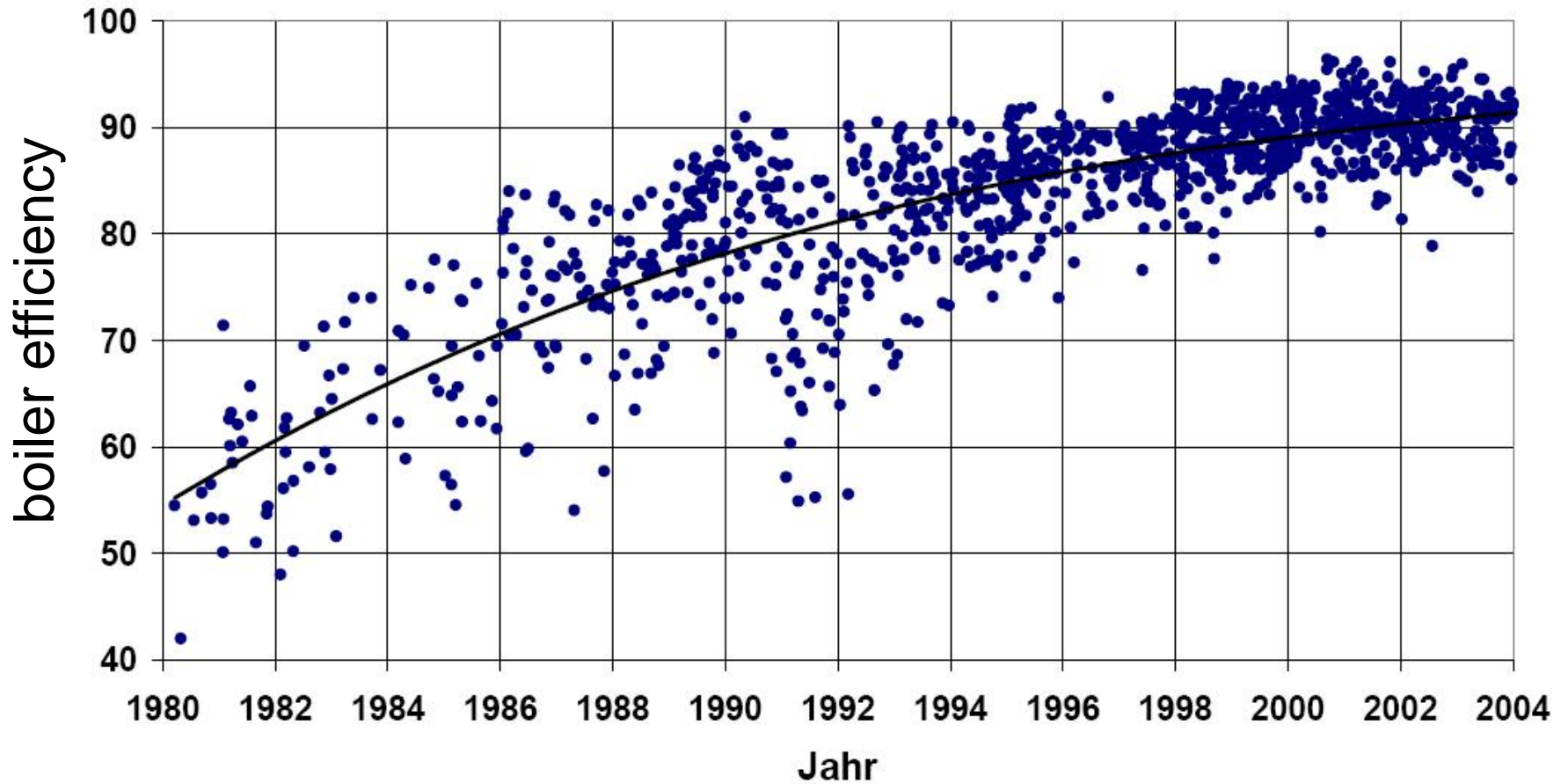
# Austria's domestic boiler market



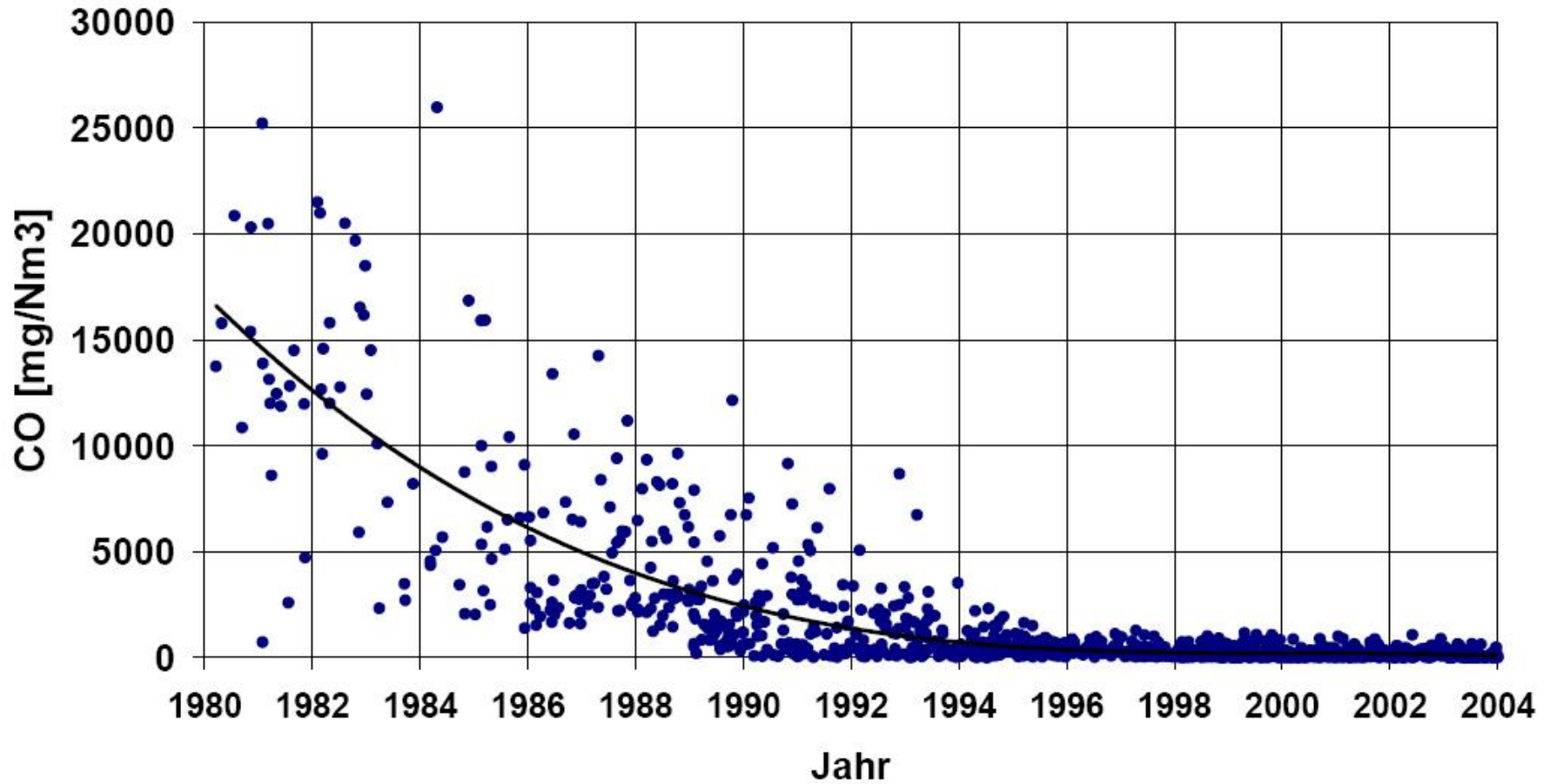
Biomasse 2000 und 2001 inkl. alle Festbrennstoffkessel

Quelle: Daten von Regionalenergie Steiermark, VÖK; Grafik: proPellets Austria

# Efficiency progress of wood boilers in Austria



# CO-Emissions of wood boilers in Austria





AUSTRIAN ENERGY AGENCY

# Typical wood pellet boiler for domestic use in Austria

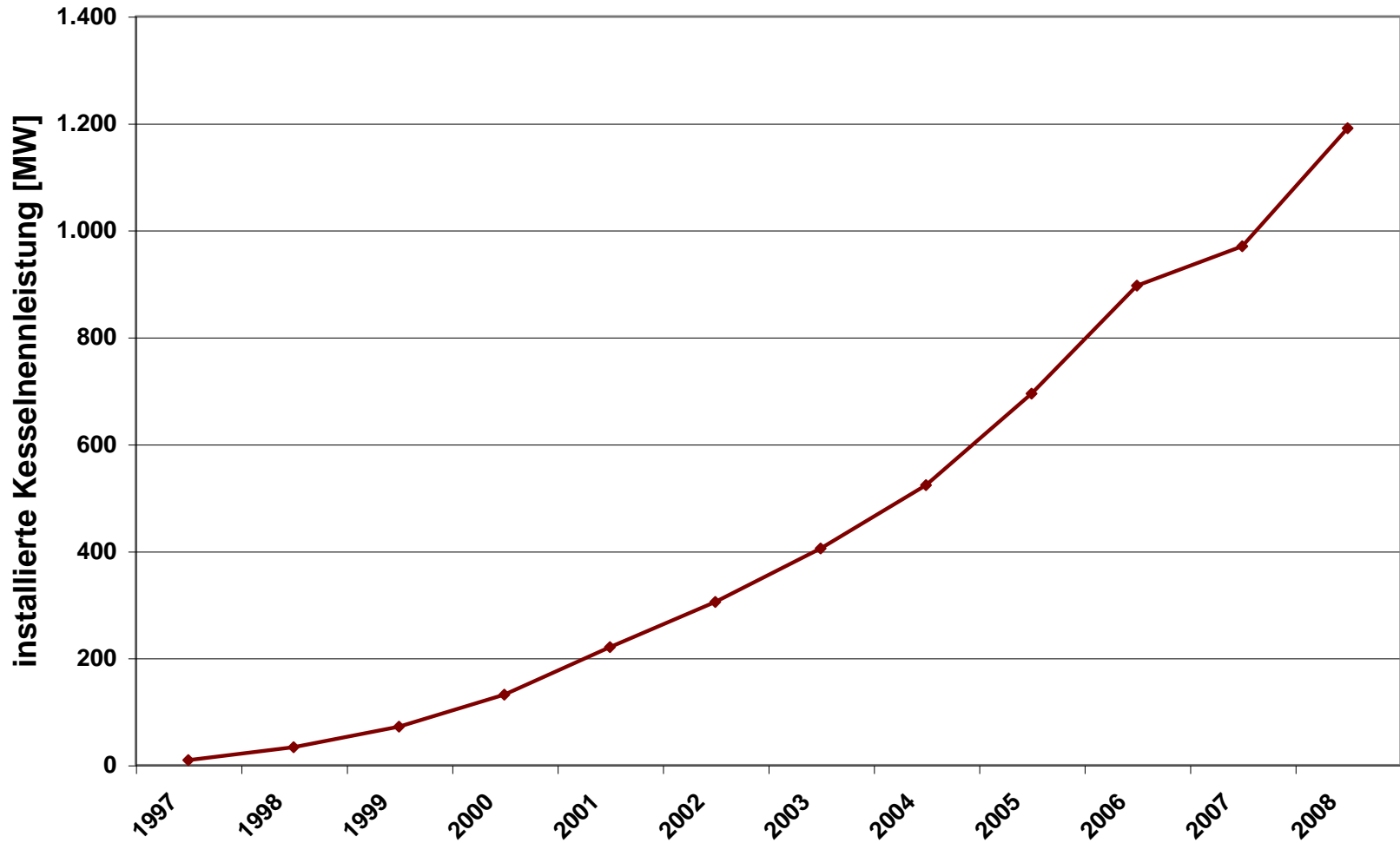
- 10 - 30 kW
- Full automatic ignition and ash cleaning device
- > 90% efficiency
- Very low emissions  
50 mg CO / m<sup>3</sup>
- underfed burners or overfed burners



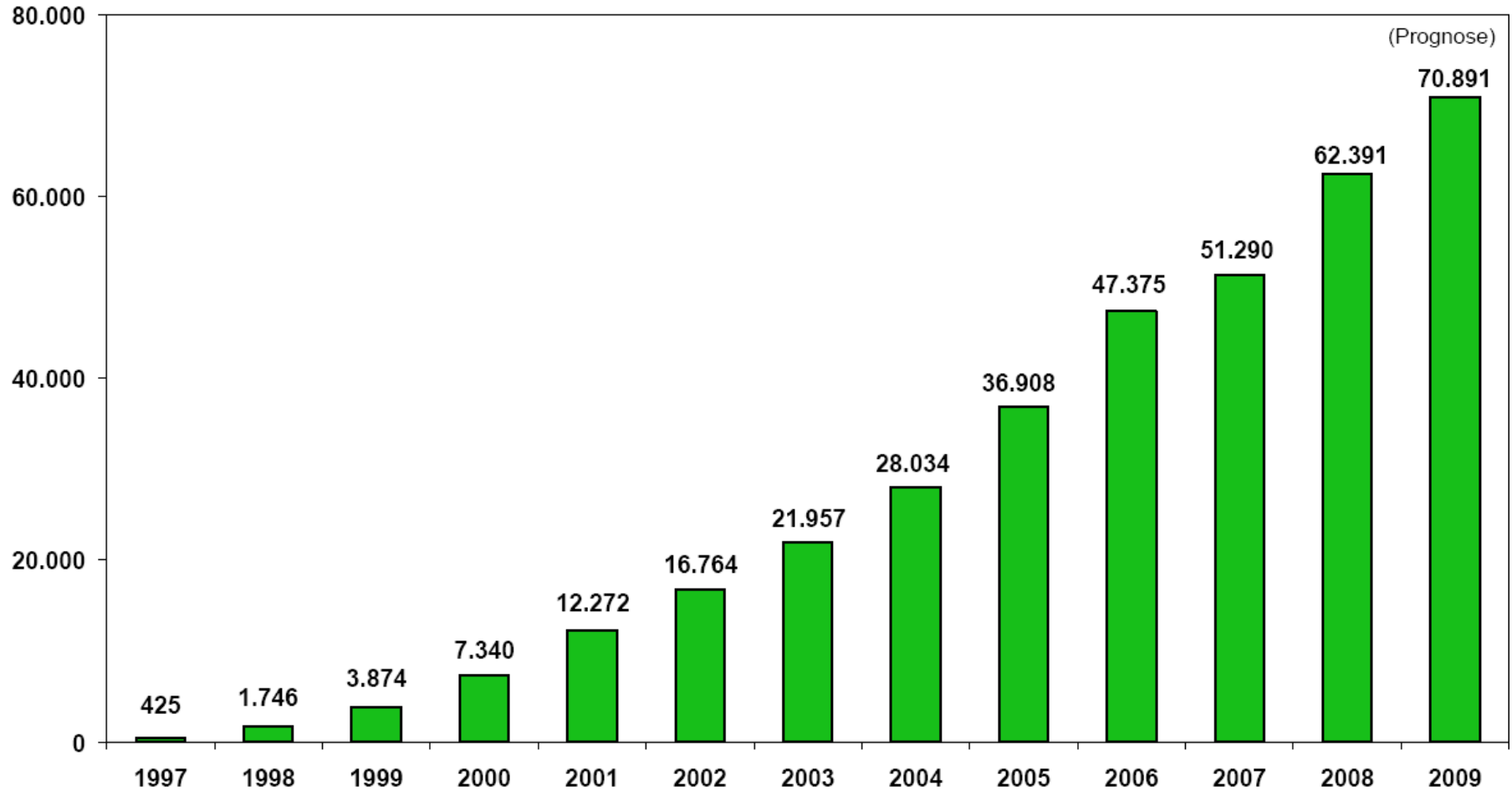


AUSTRIAN ENERGY AGENCY

# Development of the nominal capacity (MW) of pellet boilers



# Stock of pellet boilers



Quelle: proPellets Austria, Jänner 2010

# Not only households: Pellet boilers in SMEs (e.g. 80 kW)



# Not only heat: Combined heat & power (micro CHP)

- Products available but not yet in large series



# Not only wood: Also pellets from miscanthus and straw

- Larger pellet size
- To be burnt in boilers for wood chips
- Huge potential to use energy plants from acres and grasslands for “wood”-boilers



# Thank you for your attention!

**Contact:**

Reinhard Jellinek

Austrian Energy Agency

Mariahilfer Straße 136

1150 Vienna, Austria

Tel. ++43 / 586 15 24-138

[reinhard.jellinek@energyagency.at](mailto:reinhard.jellinek@energyagency.at)