



# INFORSE-EUROPE

International Network for Sustainable Energy



## Ecodesign

by

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INFORSE-Europe

*INFORSE-Europe*

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*Centre for Alternative Technologies (CAT), Wales, UK*

[http://www.inforse.org/europe/seminar2010\\_CAT.htm](http://www.inforse.org/europe/seminar2010_CAT.htm)



# Ecodesign

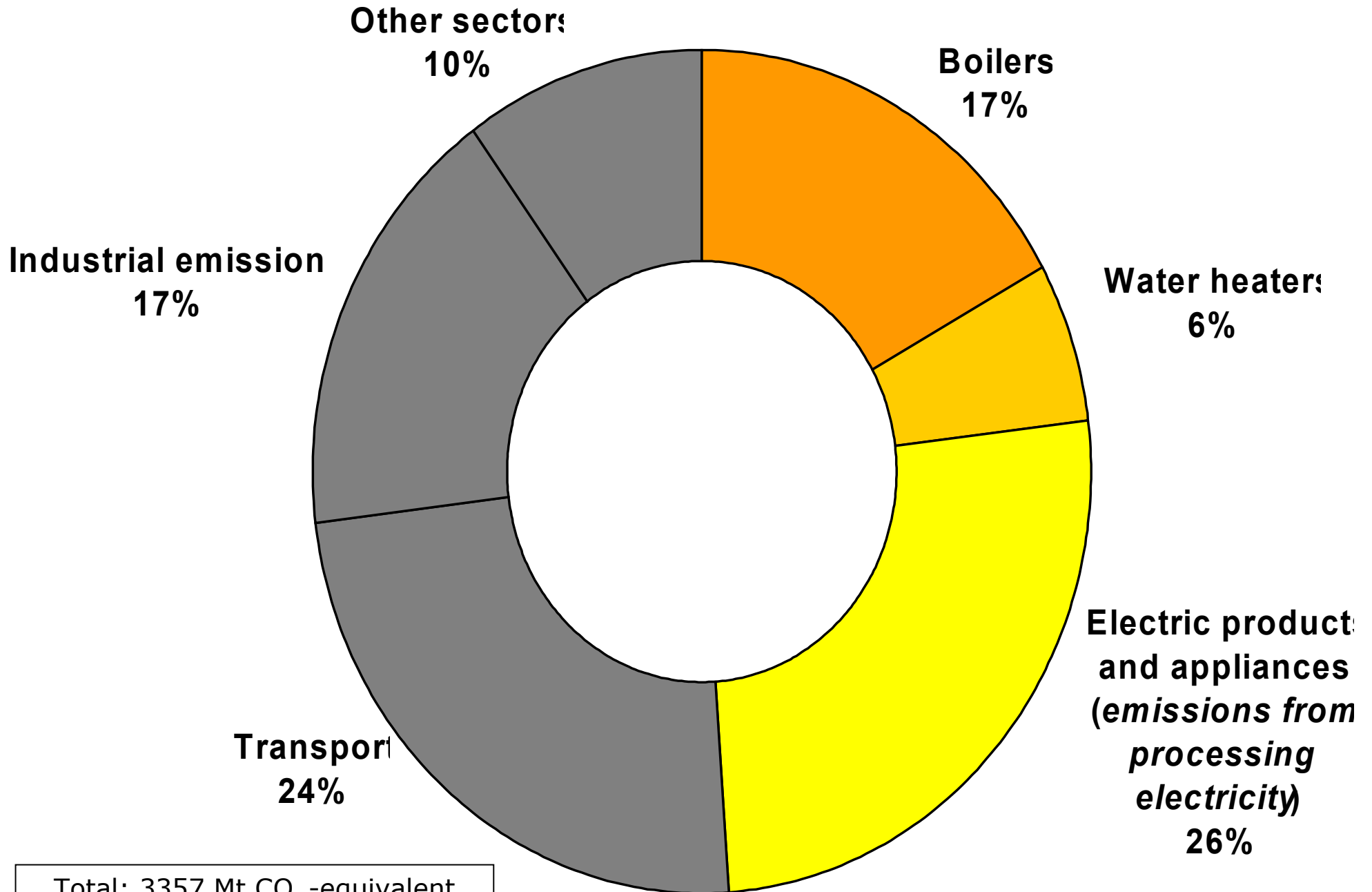
## - Product Energy Efficiency in EU

Gunnar Boye Olesen,  
INFORSE-Europe

# *Why is the EU Ecodesign Directive Important?*

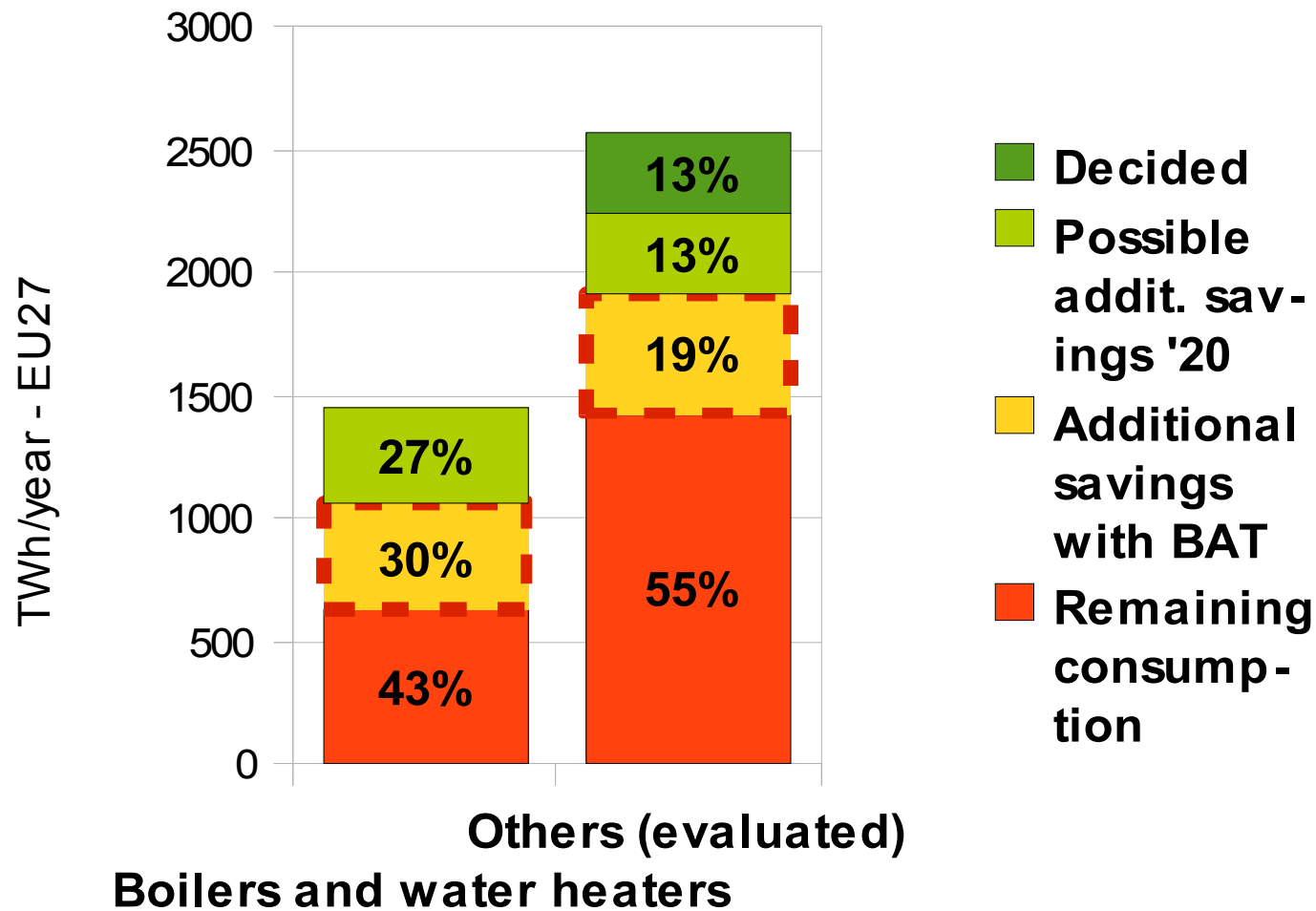
- It covers products, responsible for over 50% of EU's greenhouse gas emissions
- The saving potential is massive: 50% with Best Available Techniques (BAT), 24% with Least Life Cycle Cost (LLCC) for consumers
- It requires Commission to set energy efficiency requirements and labelling, as well as tackle other environmental issues
- Next 6 months will be decisions on heating products (water / space heating): with LLCC consumers can save 44 bill € (23%) yearly by 2020, and environment can save 8% of EU CO2 emissions

# Greenhouse gas emissions in the EU-15 (2005)



Total: 3357 Mt CO<sub>2</sub>-equivalent

# Ecodesign: Consumption and Saving Potentials



# Many Products Covered

Stand-by electric losses

Refrigerators, washing machines, dishwashers

Airconditioning, coming soon

Pumps, coming soon

Electric motors

Lighting, **phase out the bulb**

**TV's coming**

**Water heaters and boilers coming up**

Many more in pipeline

# Long Process

## **Energy efficiency limits:**

Preparatory study

Working paper Commis.

Consultation Forum

Proposal by Commission

Regulatory Committee

Evt. veto by Parliament

## **Labels:**

Preparatory study

Working paper Commis.

Consultation Forum

Adoption by Commission

Evt. veto by Parliament or  
countries

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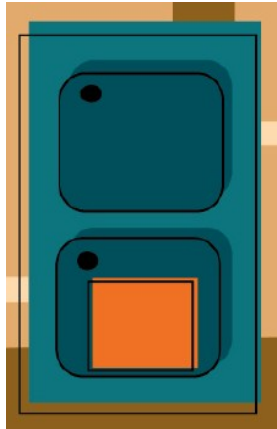
International Network for Sustainable Energy - Europe

# Water heaters - a simple way to use and save energy

**Gunnar Boye Olesen,  
INFORSE-Europe**

# Water Heaters & Boilers: From Inefficient to Efficient Technologies

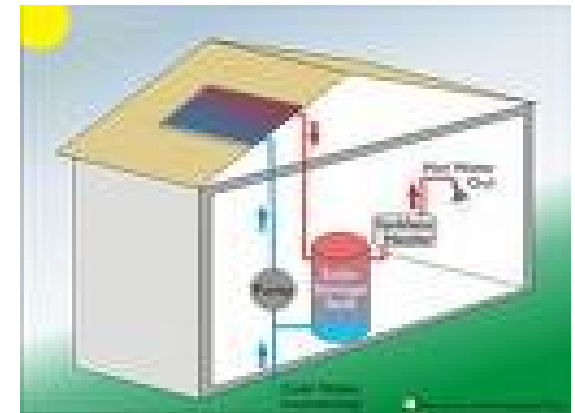
## Inefficient



**Traditional boilers and  
gas+el. water heaters**



## Efficient

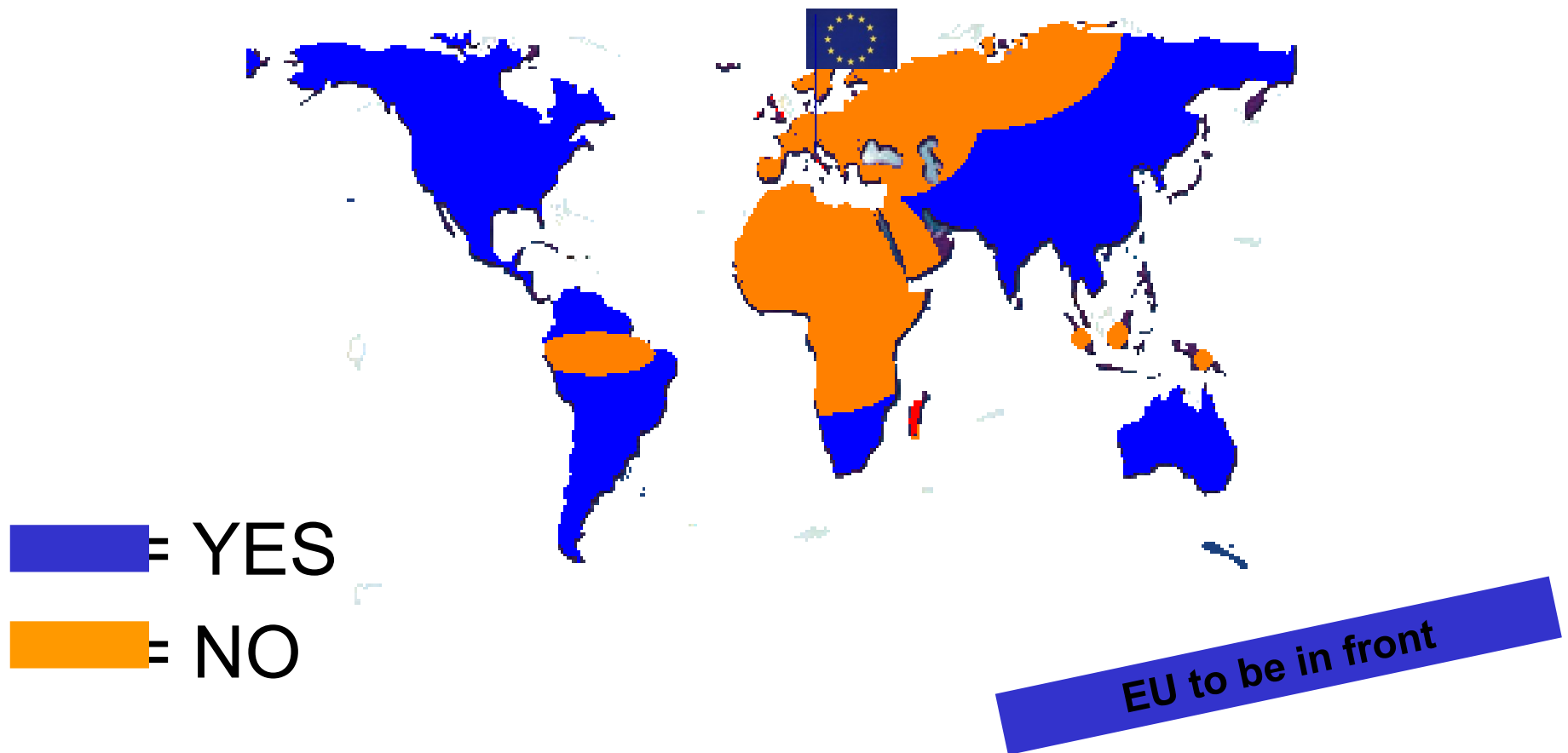


**The transition  
can save  
200 mill. tons CO<sub>2</sub>  
until 2020,  
> 450 mill. t. with  
BAT**

**Condensing boilers, high eff. gas water  
heaters, heat pumps, solar heating and  
new solutions (CHP, heat recovery  
water heaters and others)**

# EU Legislation Lags Behind for Water Heaters

Minimum energy efficiency standards for water heaters:



# Not Just Energy

**Gas and oil water heaters emit NO<sub>x</sub>, CO, methane, evt. soot/particles**

**Heat pump water heaters contain refrigerants that are greenhouse gases**

**Heat pump, oil and gas water heaters make noise**

# **Water Heaters in the Front and in the Way for Heating Efficiency:**

**Methodologies for boilers close to ready, discussion  
Dec.2009 – Mar.2010 is basically over, concluded**

**Proposals (Working documents) for water heaters,  
deadline for comments friday 3/9 (but Germany asked  
for delay)**

**Interservice consultation in September?**

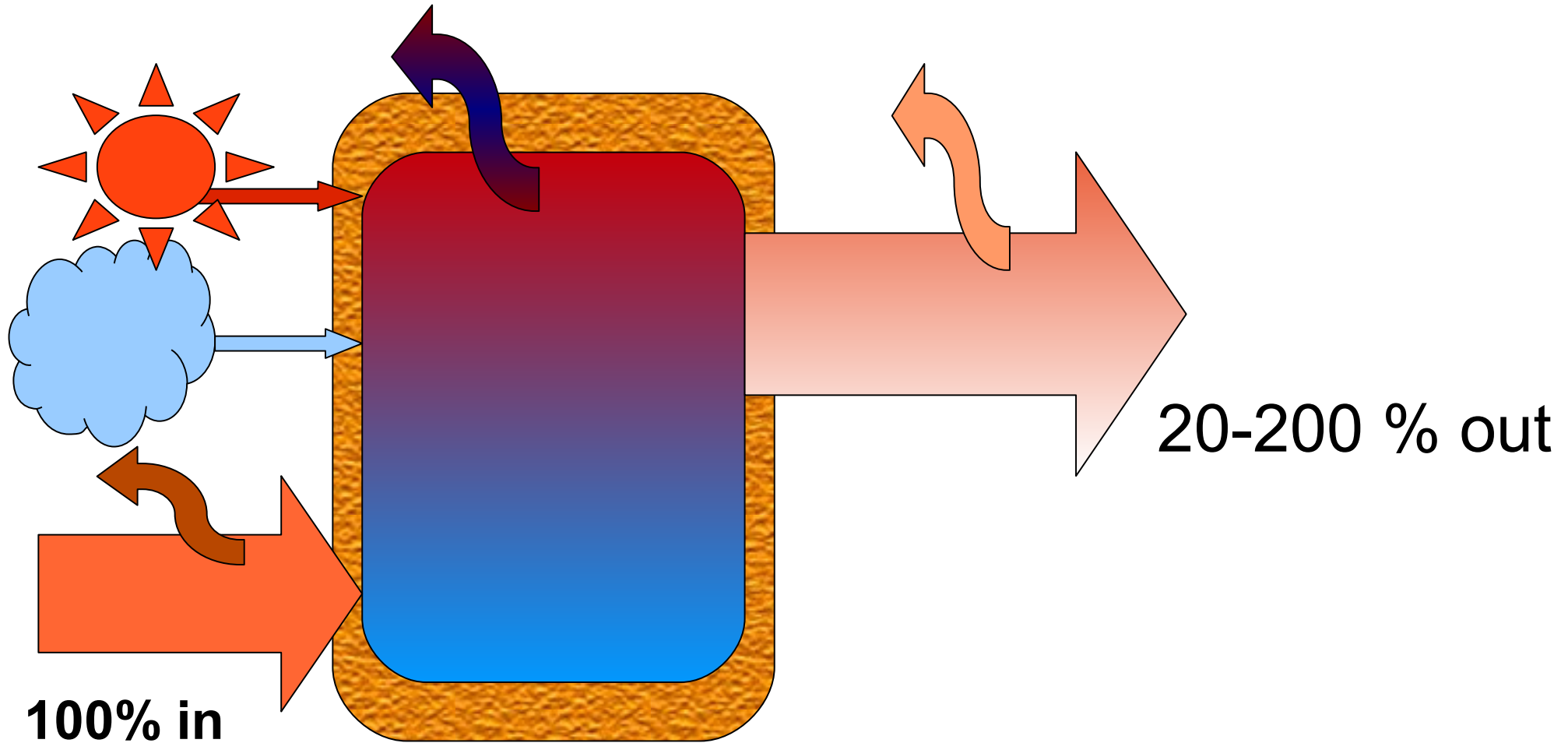
**Regulatory body and scrutiny in 2010!?**

**If water heaters get blocked, boilers will  
be delayed, maybe also solid fuel etc.**

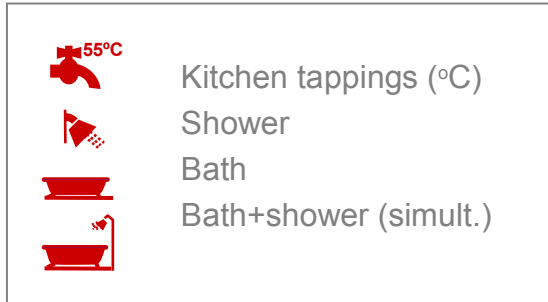
# Efficient Water Heaters - Simply

- You can save half of the energy
- The consumers should know, and should have a choice
- It will be cheaper for each of us, the countries and the environment

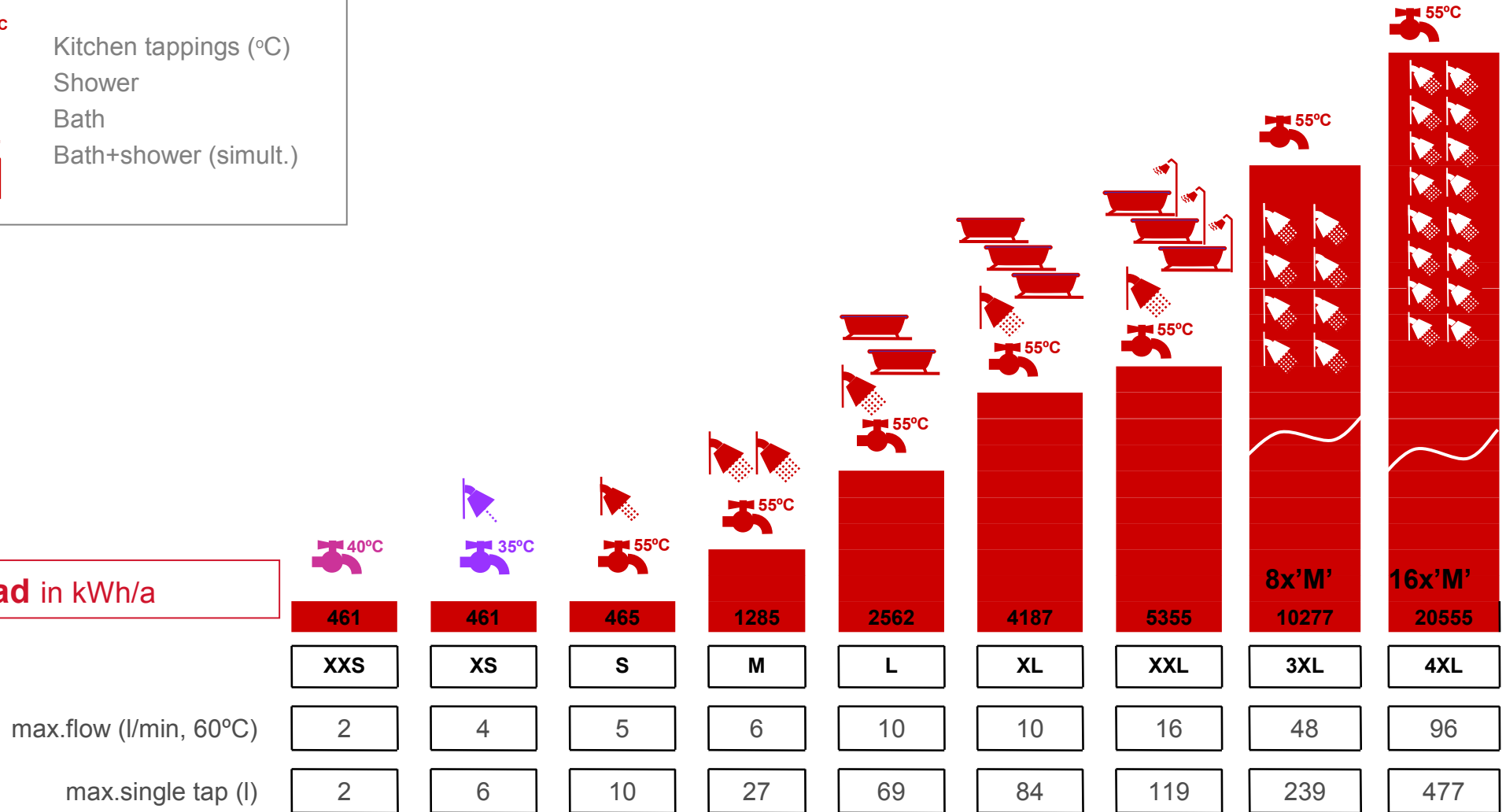
# Efficient Water Heaters Simply



# Load Profiles Water Heating



**Qload** in kWh/a



Derived from prEN 50440 "electric storage" and EN 13203-2/3 "gas/solar"

# What We Need

- **Phase-out least efficient water heaters, also larger, simple electric water heaters**
- **Give clear information to consumers on efficiency of different options, including controls, solar. Proposed labelling scheme seems to do that.**
- **Not give heat pumps unjustified benefits (methodology, refrigerents)**
- **Newer A+++ in a new labelling scheme, (?A+)**
- **Fast action**

# What We Would Like

**Stronger requirements in a third stage**

**The regulation must not leave simple electric water heaters on the market indefinitely**

**Penalty for heat pumps with Greenhouse gases as refrigerants**

**Limit air emissions sooner than 5 years**

**Intelligently charged water heaters**

**No cheating with methodology, clarity.**

**Easy dismantling**

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Sustainable Energy

Network Formed in 1992  
Europe: Global Forum  
Organisation in Rio, Brazil

Strategy

What do you  
REALLY know...?

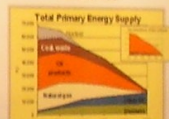


12 Questions  
Try out HERE!!

Energy & Climate

Quiz

Sustainable Energy Vision:  
100 % renewables in 2050  
in EU-25



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Sustainable Energy Vision:  
How to Do? - Denmark



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