


# EU Ecodesign regulations for industrial equipment: opportunities and challenges




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**O**rganisation for

**S**tandardisation

# What are we talking about?

**How to make sure they are designed to save energy?**

safety

performance

etc.

+

environmental requirements

Information requirements

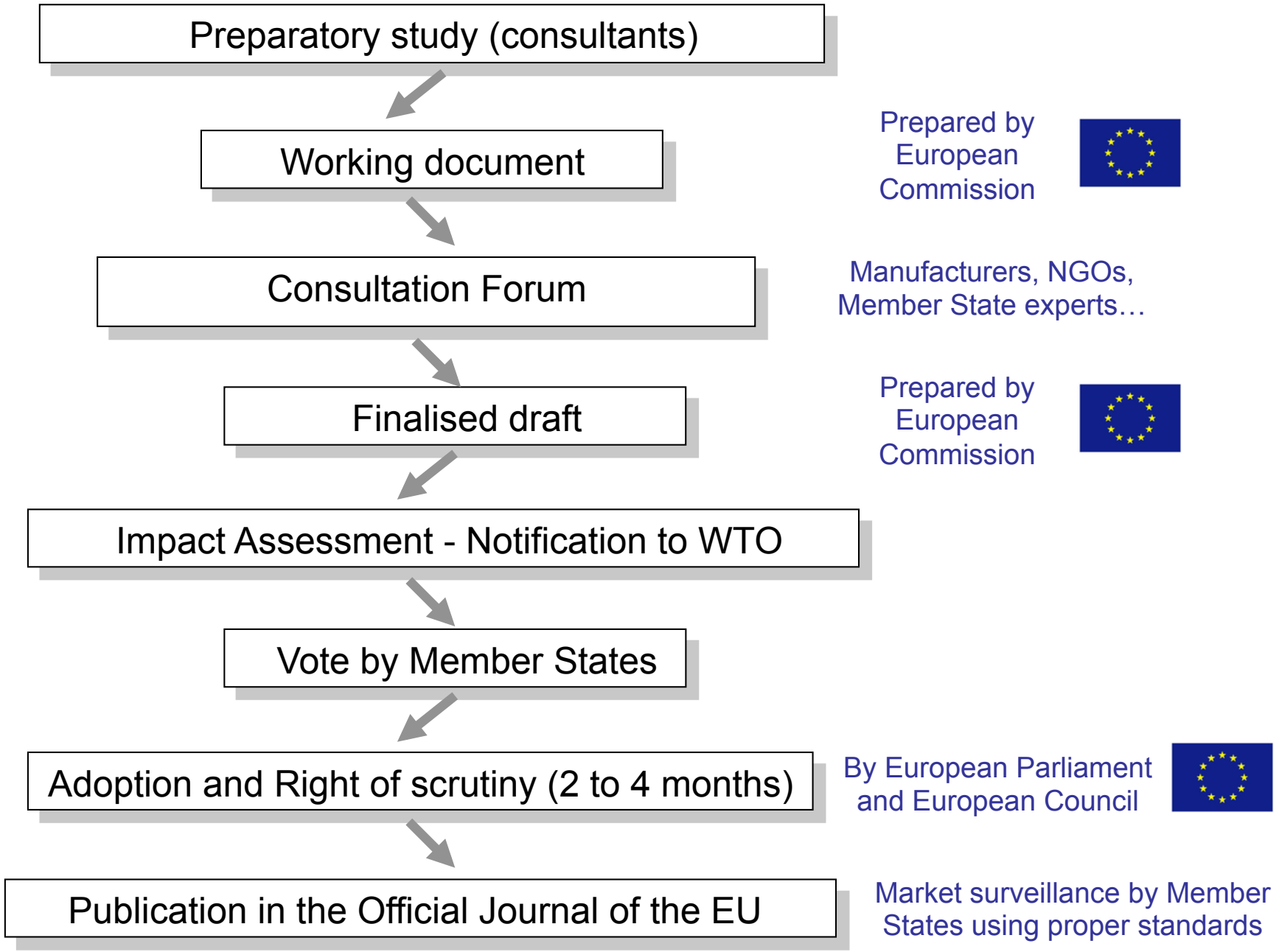
generic design requirements

CE

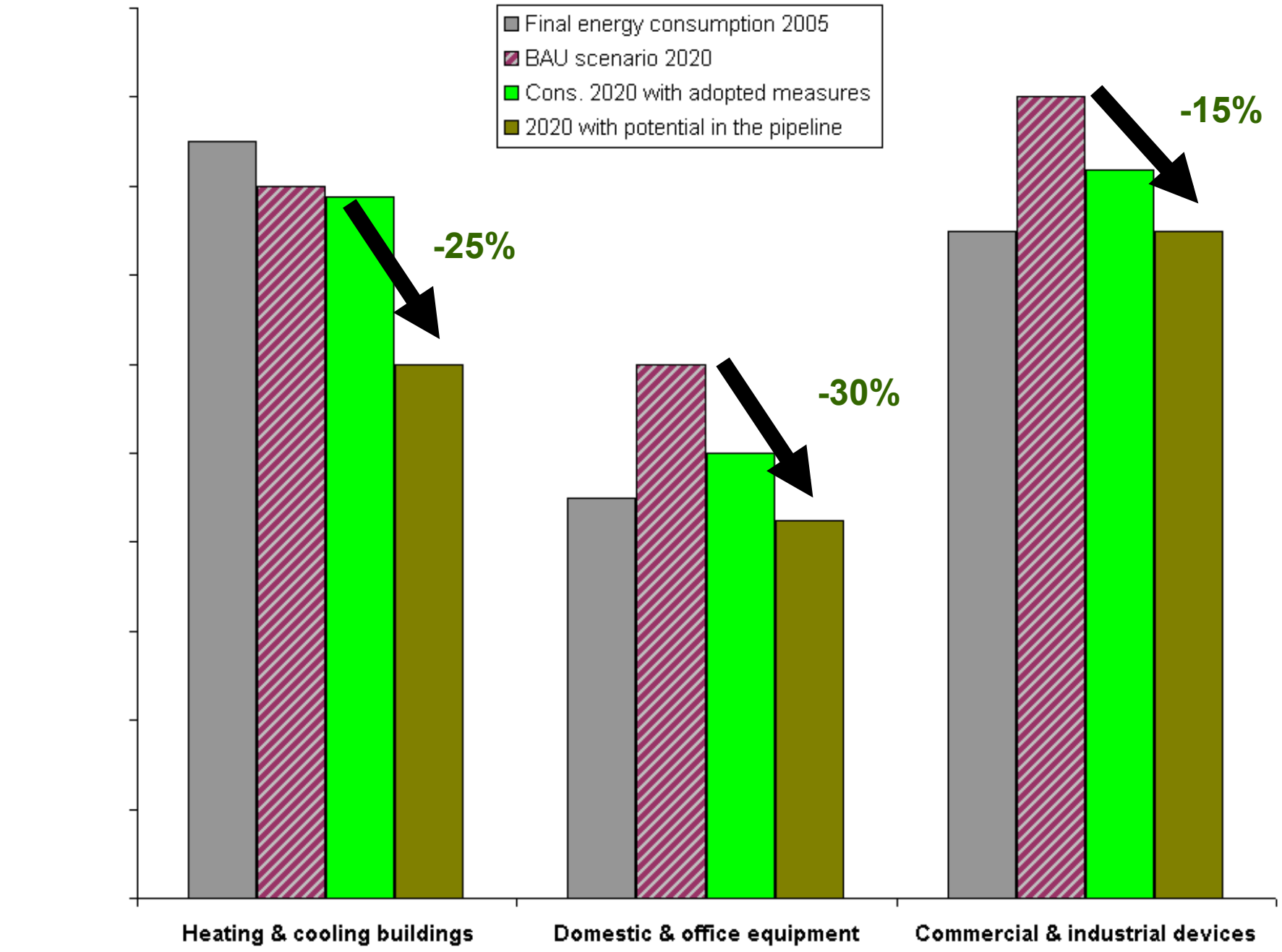
Market surveillance

27 Member States

# EU Ecodesign process



# High energy saving potentials



# Industrial products under the scope of this EU policy

Standard motors

Special motors

Standard pumps

Special pumps

Industrial fans

Compressors

Refrigerating & condensing units

Transformers

Industrial ovens & furnaces

Machine tools

# Content of the regulations (so far)

(revision: 2016) → IE2 binding & by 2015: IE3 or binding VSD (drive)

(revision: 2016) → Efficiency 10% by 2013 & 40% by 2015

(revision: 2015) → Requirements per fan categories in 2 tiers

Vote expected 2013 → Requirements in 2 tiers (2014 & 2017)

Vote expected 2013 → Max. level of load & no-load losses

1st consultation 2013 → *tbd*

1st consultation 2013 → *tbd*

IE4 (permanent magnet) / VSD

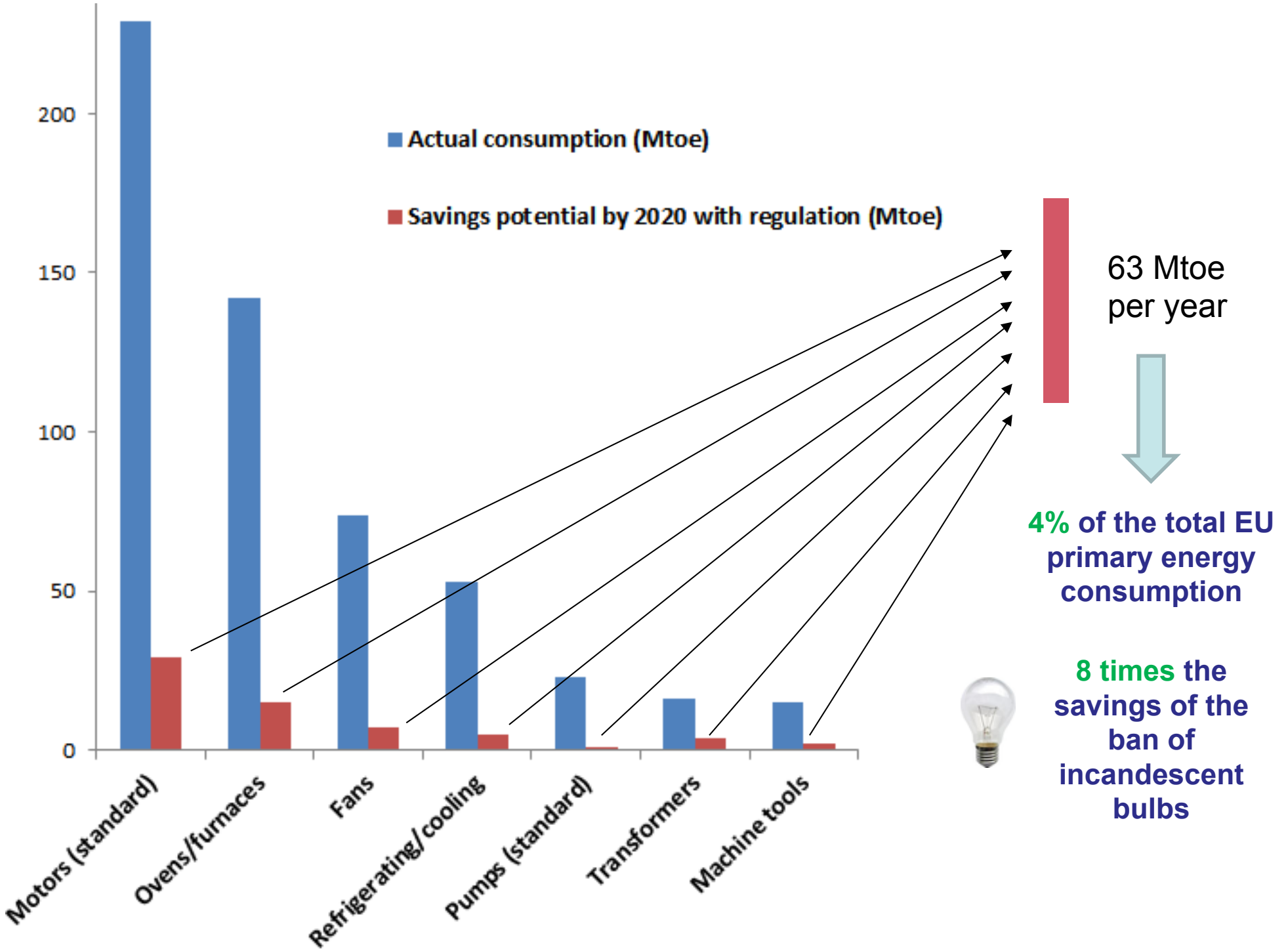
Efficiency > 70%

Backward curved fans, efficiency 70%

Optimised amorphous design

Optimised design, controls, recovery

Optimised design, controls, recovery


200
150
100
50
0
Actual consumption (Mtoe)
Savings potential by 2020 with regulation (Mtoe)
Motors (standard)
Ovens/furnaces
Fans
Refrigerating/cooling
Pumps (standard)
Transformers
Machine tools
63 Mtoe per year
4% of the total EU primary energy consumption
8 times the savings of the ban of incandescent bulbs

# Challenge #1

**Loophole in high altitudes!**

☞ ***Issue with ISO definition***

# Challenge #1

**Scope and definitions**

- **Usually recommended to align with international standards & definitions (ISO / IEC)**
- **But… there may be loopholes in standard definitions**
- **Scope can be too wide, or too narrow**
- **Alignment of calendars proves tricky**

**Suggestions:**

- **Scope should be clarified & fixed early in the process (at kick-off of prep. study) with standardisation bodies**
- **Budget allowed to studies consistent with scope**
- **Exemptions need to be limited in time and size**

# Challenge #2

**Manufacturers complain that proposed regulation for professional refrigeration « *…goes beyond the laws of physics* »!**

☞ ***Dispute on market data***

# Challenge #2

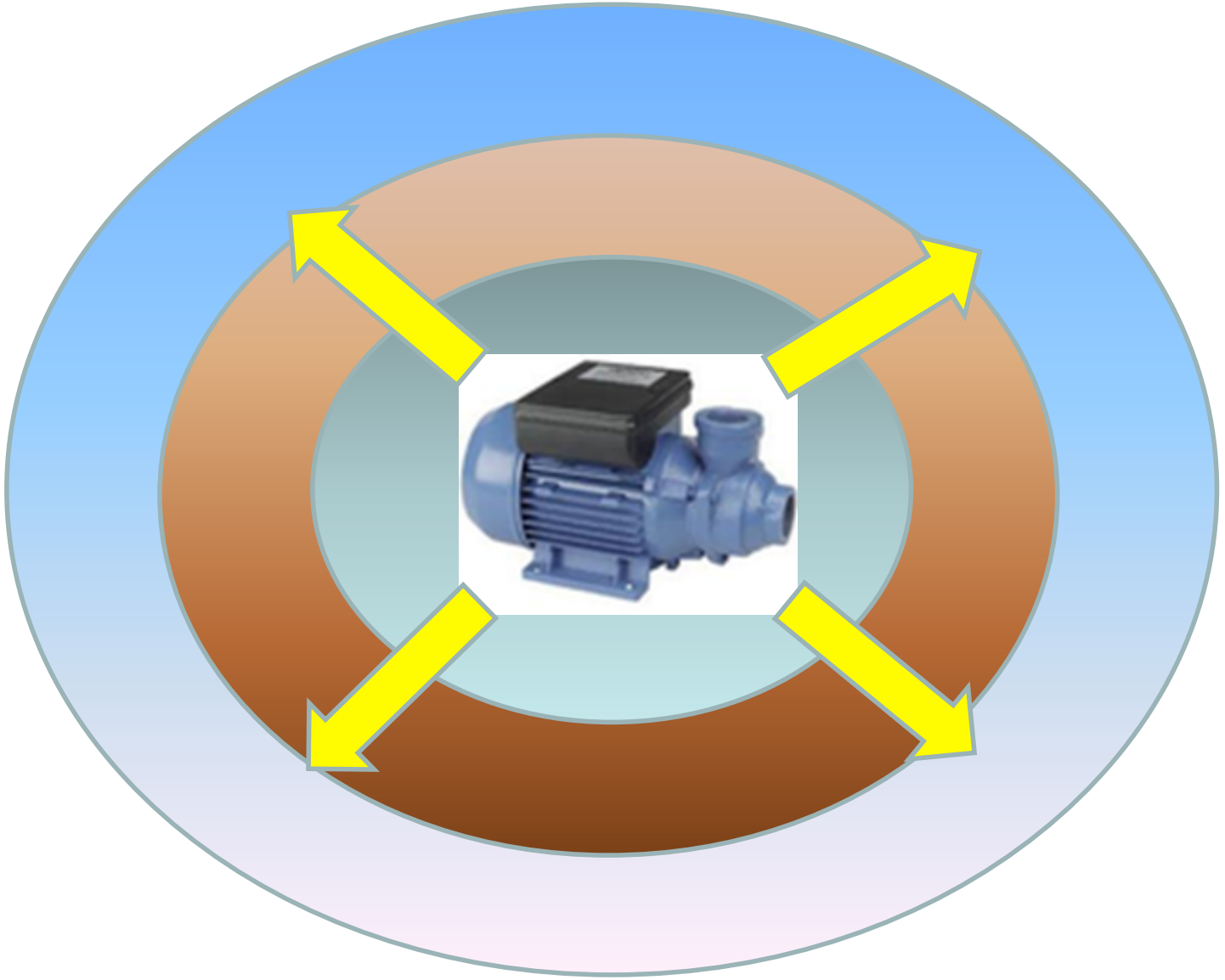
**Access to quality data**

- **Credible and up-to-date data is a prerequisite to setting adequate regulatory levels**
- **But… industrial federations sometimes do not provide**
- **EU does not have a market database or registration**

**Suggestions:**

- **More pressure on industrial federations to report on energy performance of their members' products**
- **EU should set up market monitoring tools**
- **Data collection should start one year before revision**

# Challenge #3



# Challenge #3

**System approach vs components**

- Targeting products misses savings in systems
- But… regulations need to remain enforceable
- In some cases, ‘extended product approach’ can help?

**Suggestions:**

- More work from standardisers necessary (on measurement, interfaces, controls, interoperability…)
- Use more generic requirements
- Information requirements also required

# Challenge #4

**How do you verify compliance of such a large machine?**

☞ ***Enforceability***

# Challenge #4

**Verification & enforcement**

- Very scarce verification from legal authorities
- Challenge of testing big industrial machines
- Issue of ‘batch’ for tailored-made equipment
- How can sanctions be implemented?

**Suggestions:**

- Horizontal discussion on MVE for industrial products
- Consider ‘on-site’ control, check-lists, qualitative requirements
- Information requirements also required

# How to find detailed information on the status of the different measures?

## www.expert.coolproducts.eu