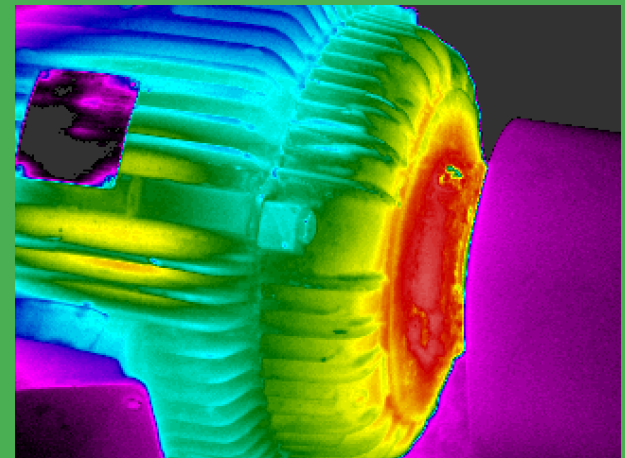


Swiss audit program "Easy"

Rita Werle

Swiss Agency for Efficient Energy Use



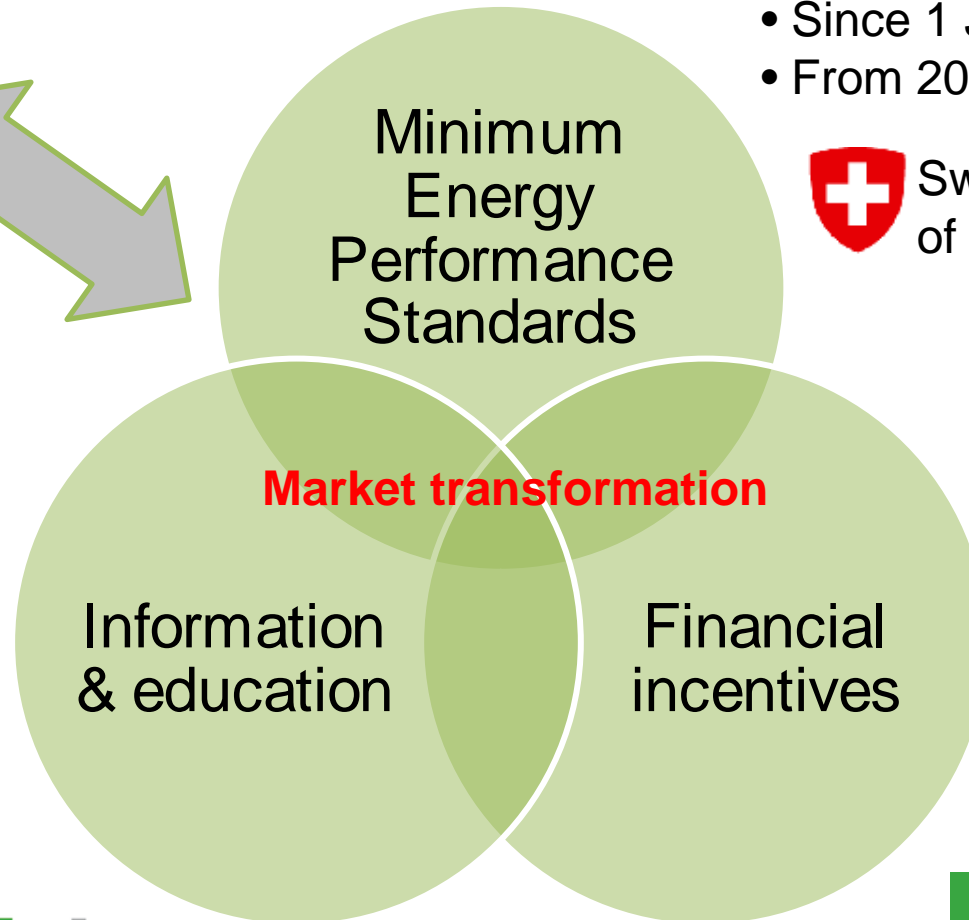
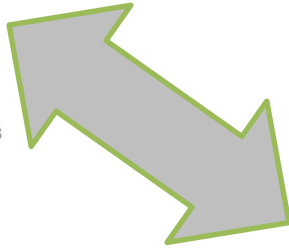
Contents

- Motor policy in Switzerland
- The Easy program
 - Method
 - Results
 - Lessons learned
 - Way forward



Swiss motor policy

International
exchange



Minimum requirements:

- Since 1 July 2011: IE2
- From 2015: EU Ecodesign

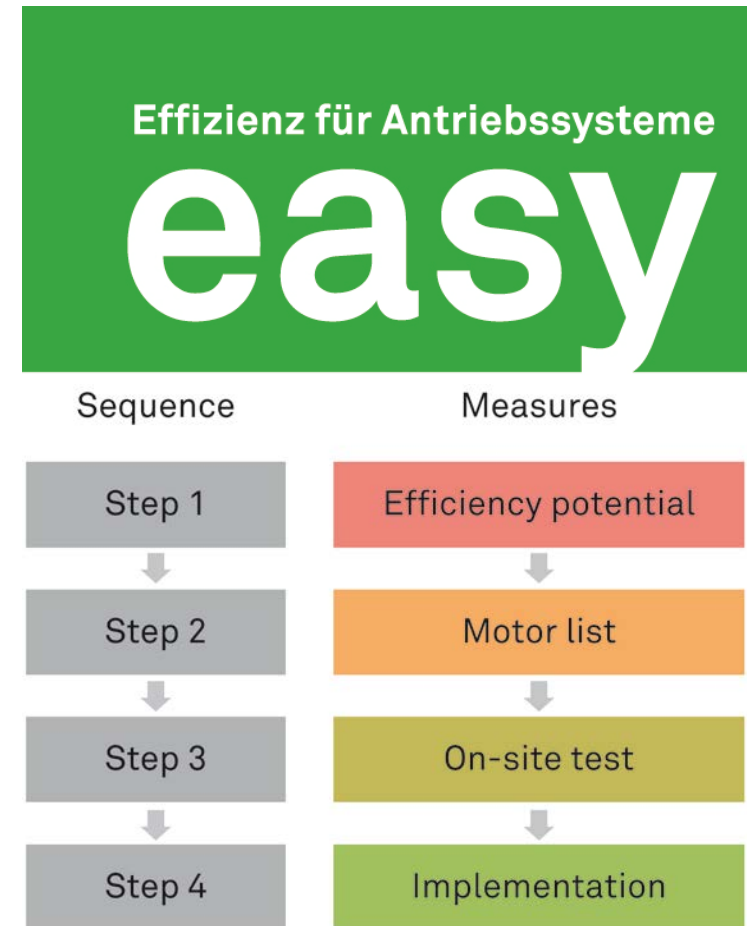


Swiss Federal Office
of Energy

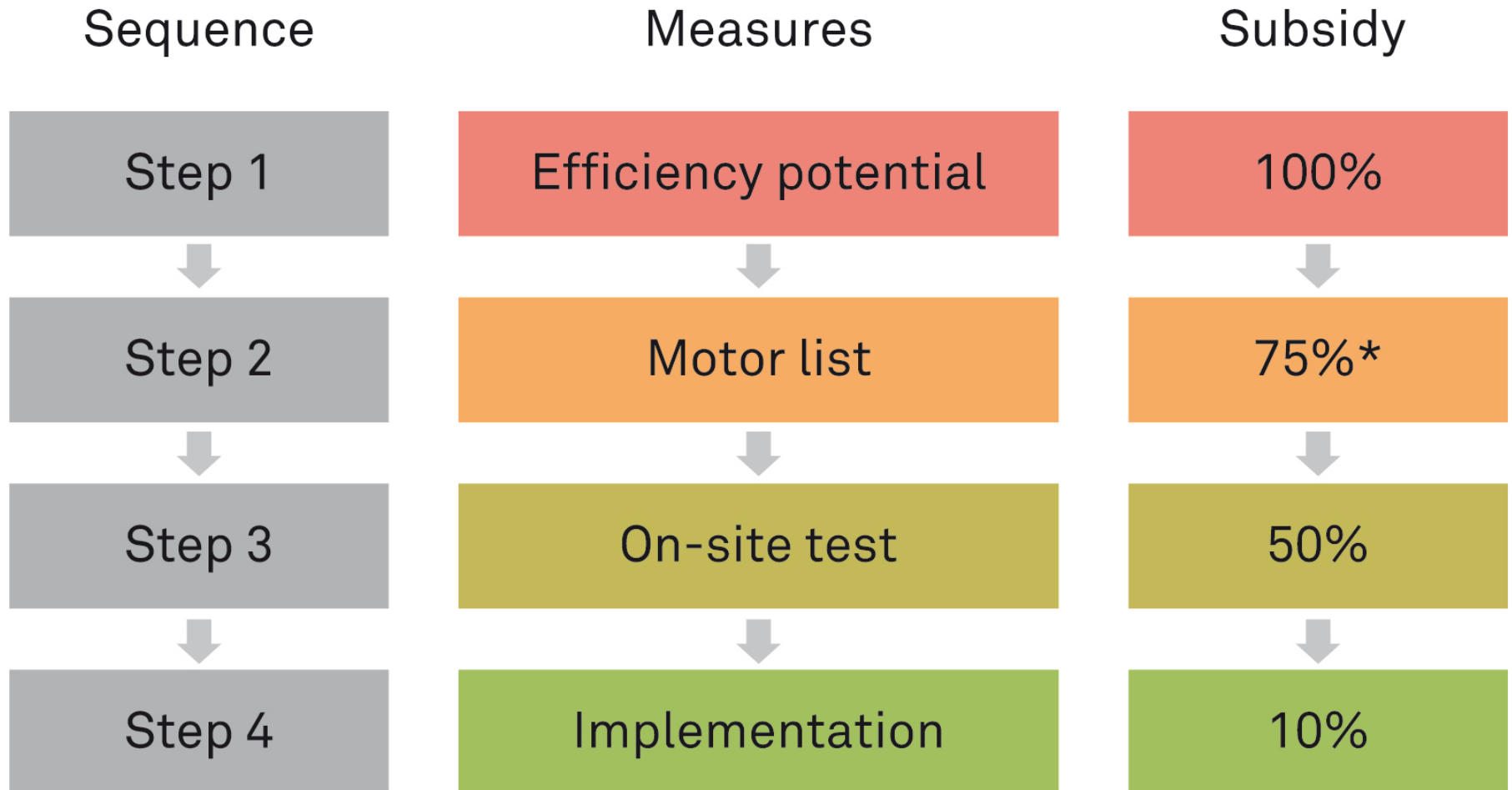
What is Easy?

Efficiency for motor systems

- Swiss audit program:
 - Motor-Check
 - Implementation
 - Financial incentives
- Optimisation of existing motor systems in:
 - Industrial plants
 - Infrastructure facilities
 - Large buildings
- 2010 – 2014
- CHF 1 million public funding
- Electricity consumption:
10 – 40 GWh/a
- Goal: overcome barriers

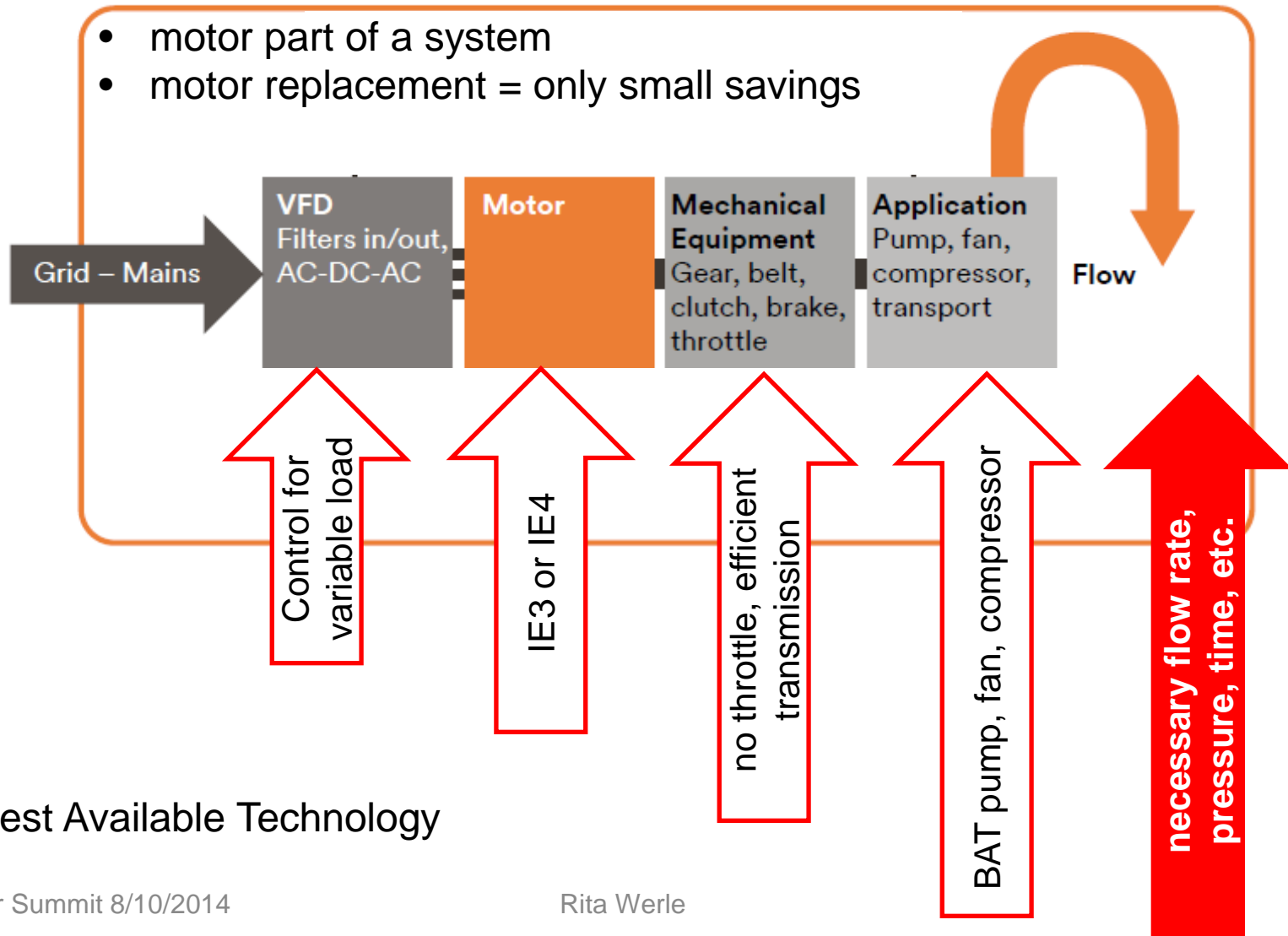


Motor-Check: 4 Steps



* min. 25 %, max. 75 %.

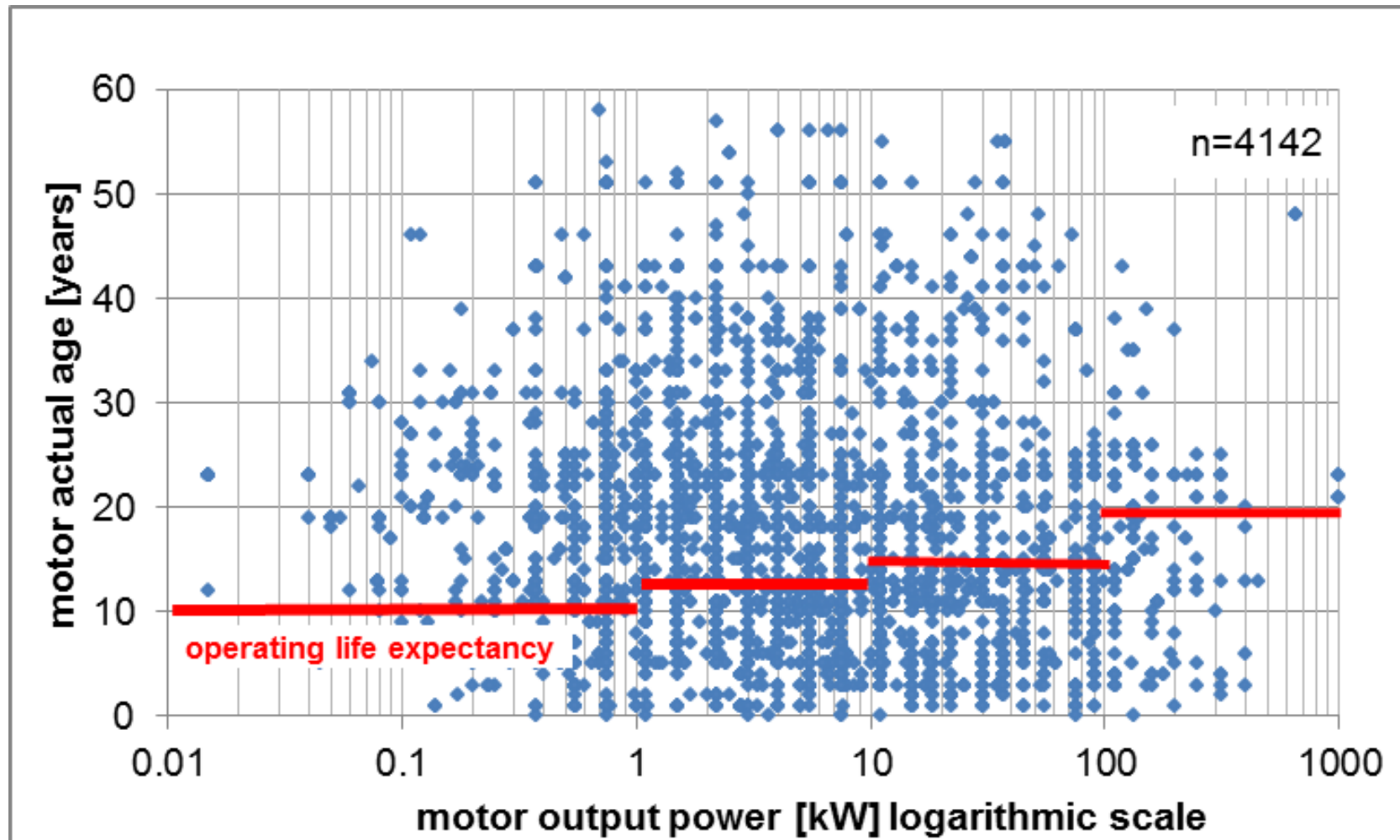
System optimization



BAT: Best Available Technology

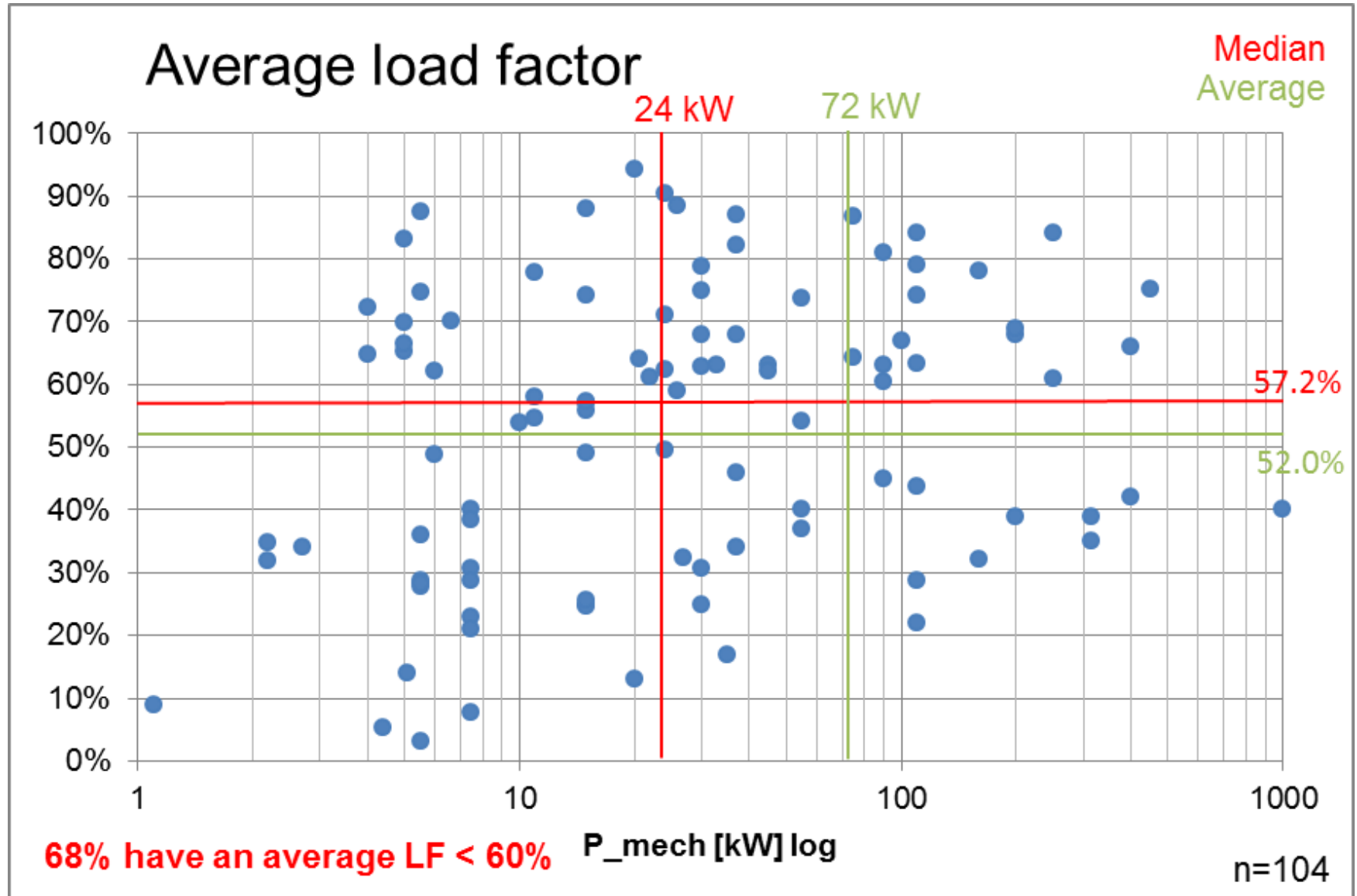
Results

Never touch a running system

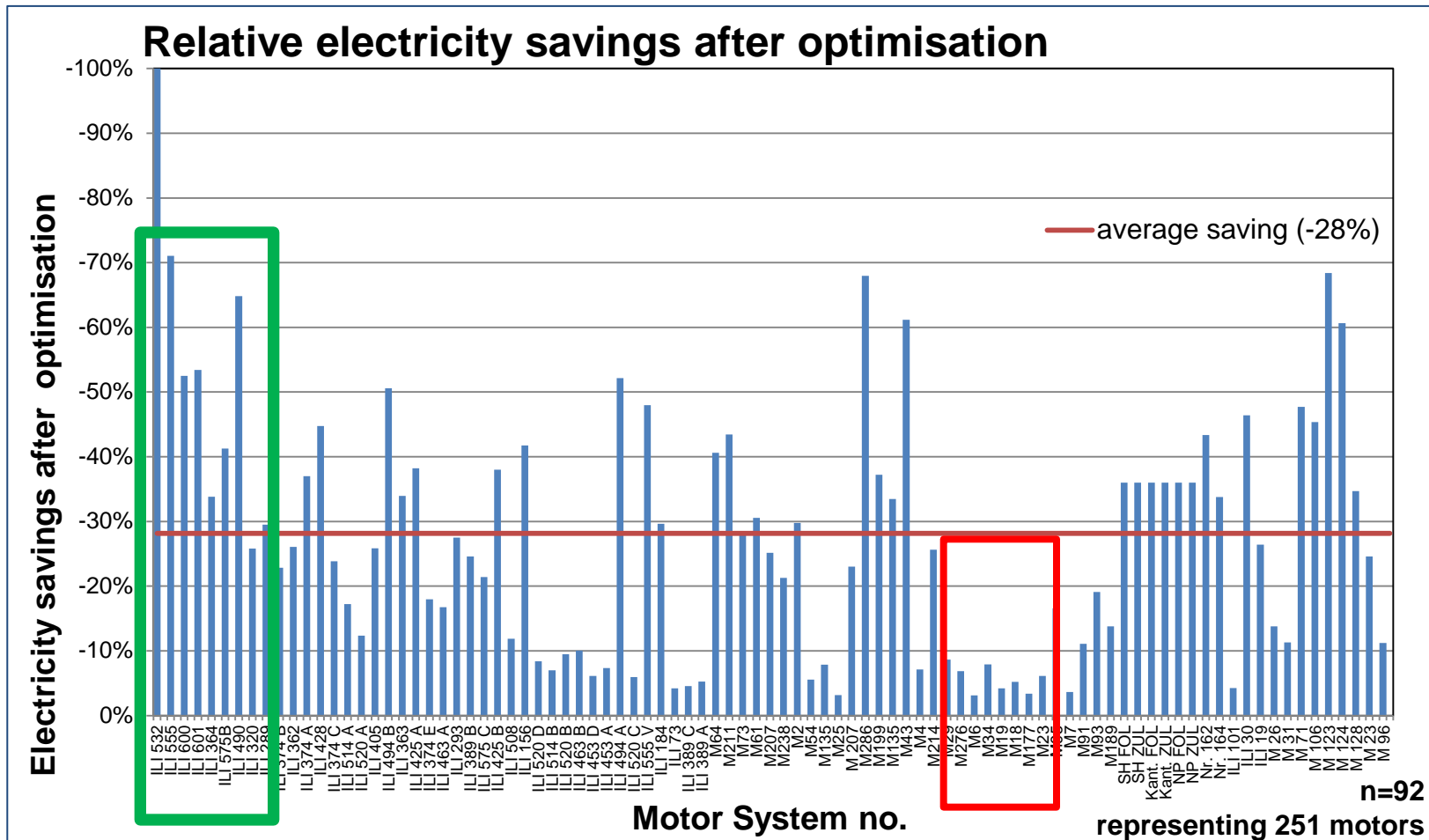


56% of motors are older than their operating life expectancy; these older motors are 99% too old.

Load factor



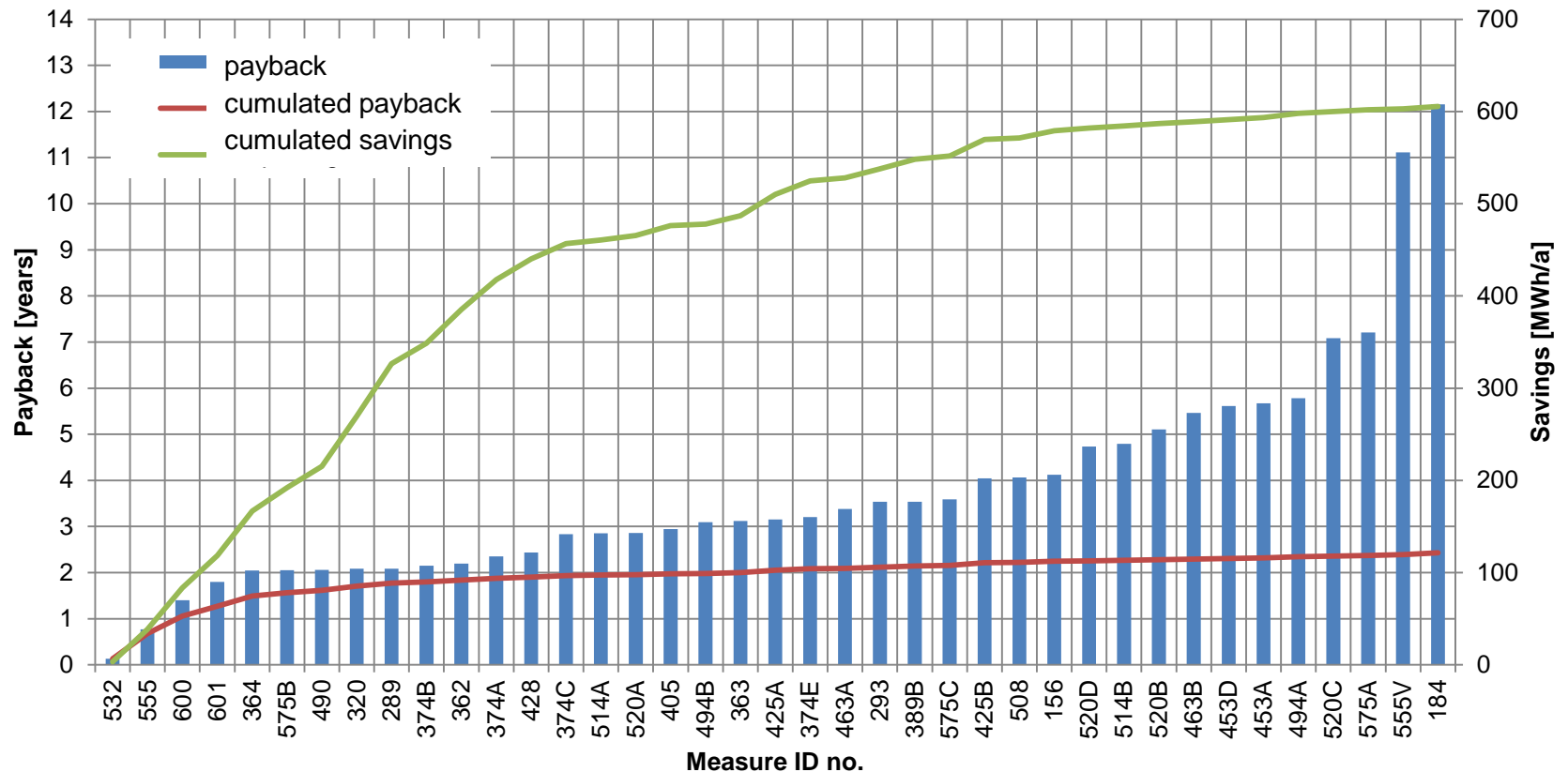
Electricity savings: 28%



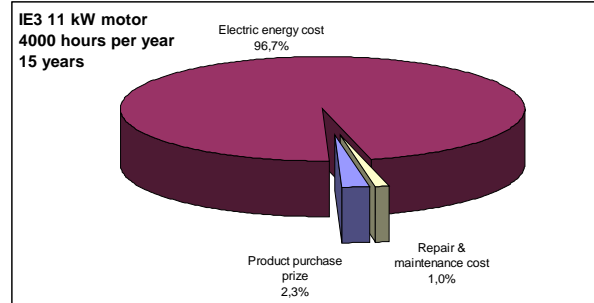
Package of measures

**Payback of entire package:
2.4 years**

Machine builder



Lessons learned



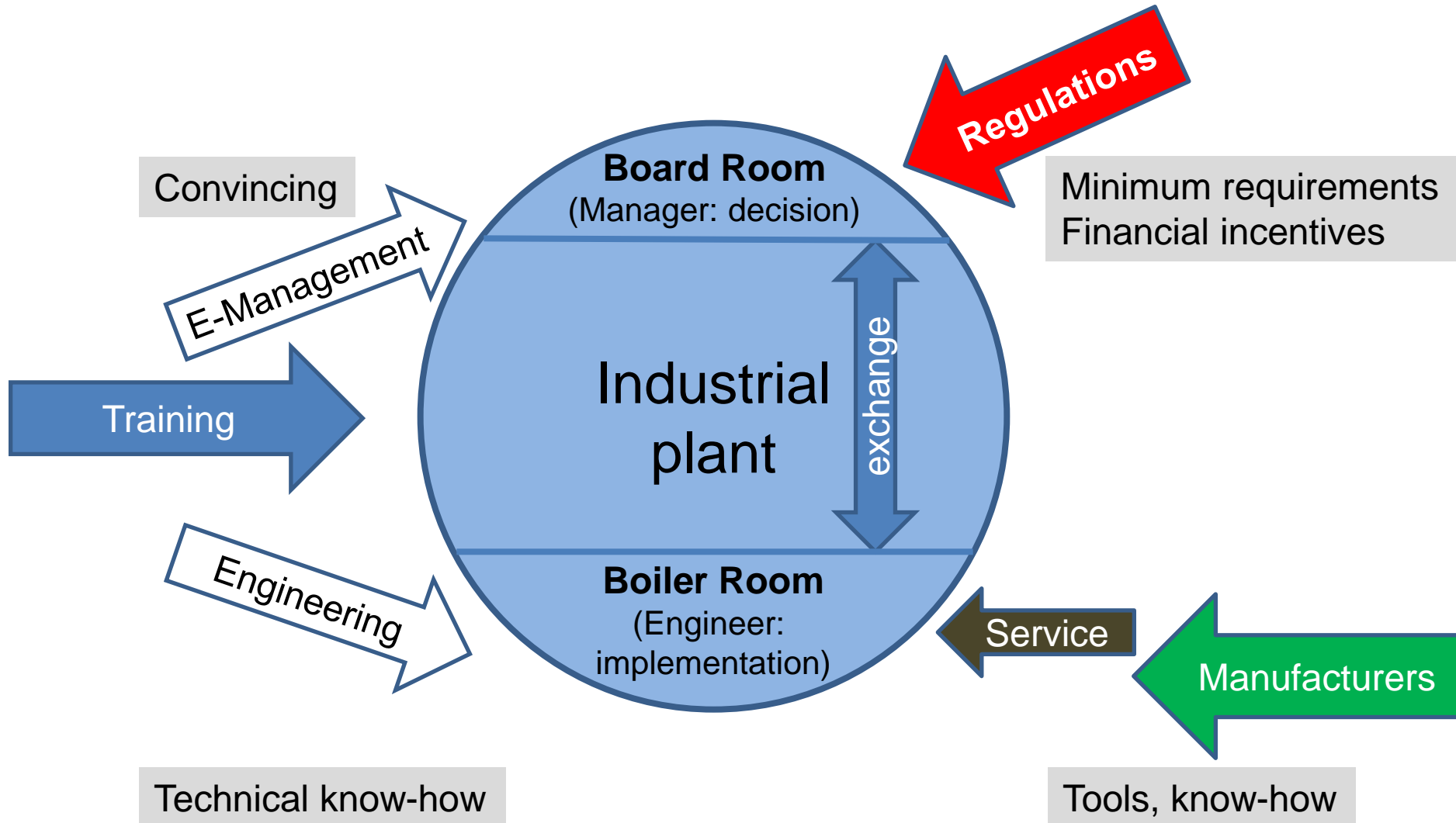
Factories

- Optimizing motor systems is complex (time, know-how, financing)
- Lack of resources, responsibilities
- Payback vs. life cycle cost
- Fears of production standstill hinder implementation
- Do plant managers have an influence on management decisions?
- First success spurs further steps

Motor manufacturers

- Sale of efficient motors requires:
 - change of business model
 - know-how for systems optimization
- Struggle to explain the efficiency benefits of their products

Decision Making



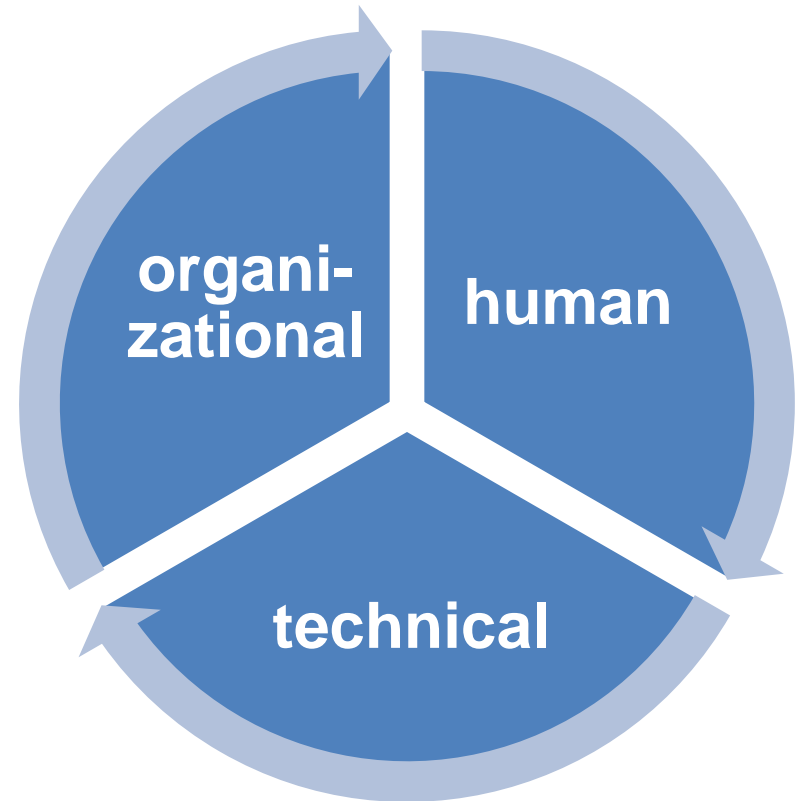
Way forward

Training for energy technology
and management in industry
(ET&M)

Goal



- Assess efficiency potential of motor systems
- Formulate project proposals
- Negotiate with OEMs, motor manufacturers
- Convince upper management to invest
- Lead a team
- Evaluate potential costs and savings, including life cycle costs



Content

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- A) Swiss energy & efficiency policy
- B) Electricity market Switzerland & Europe
- C) Project management and implementation

2 ENERGY MANAGEMENT

- A) Energy management:
method & implementation
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- D) Convincing management

3 ENERGY TECHNOLOGY

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- C) Applications
- D) Controls
- E) Motor-Check method

MOTOR SUMMIT 2014

Thank you for your attention!

Questions?

Rita Werle

rita.werle@impact-energy.ch

www.topmotors.ch/easy