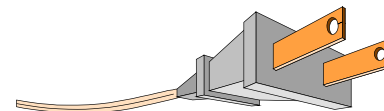




EN 16001: a powerful tool for Energy Management



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Energy Management Systems

CEN-CENELEC Annual Meeting
Madrid 1 July 2009



CEN/CLC BT/TF 189 Project Team “Energy Management Systems”

The work was decided on November 20, 2006

Chairman:

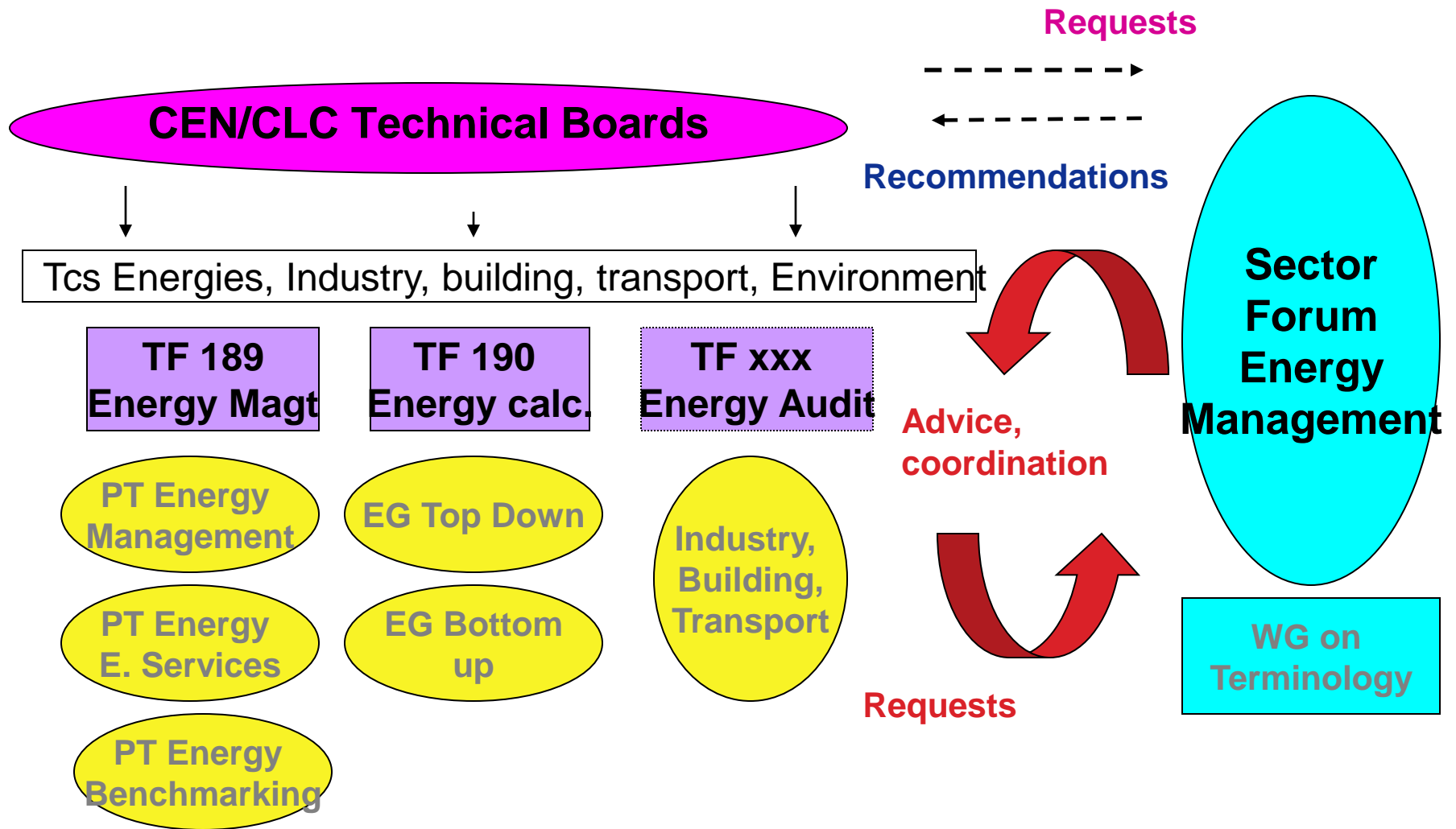
Mr. Inge Pierre
Swedenergy

Secretary:

Mr. Lars Jonsson
Swedish Standards Institute, SIS



Energy efficiency and services in CEN and CENELEC



National standards for Energy Management Systems in use in Europe

- **Netherlands, 2000:** An Energy management system Specification to be used for the companies participating in their “LTA -Long Term Agreement”
- **Denmark 2001:** Issued it's DS 2403 Energy Management System Standard, based on ISO 14001, with “Guidance on Energy Management” DS/INF 136 E
- **Sweden 2003:** Published SS 627750 Energy Management Systems standard, based on ISO 14001
- **Ireland 2005:** Published the I.S. 393 Standard on Energy Management System, based on ISO 14001
- **Germany 2007:** VDI, the Association of the German Engineers, published it's VDI 4602/1 Technical rule on Energy Management



Practical implementation of the standards

- These Standards have been issued under request of the National Governments to support their Energy Efficiency improvement policies based on Voluntary Agreements
- Many companies have adopted the Energy Management System inside their organizations, often as part of their already implemented management system (ISO 14001, 9001 etc), and have been certified by independent third parties
- Energy management systems are therefore already well-known, tested and widely spread, with good results



Reasons for a European standard

Directive 2006/32/EC on energy end-use efficiency and energy services (EEESD) establishes an overall national energy savings target of 9% for the ninth year of application (2016) of the Directive

The European Union has committed to reach the following targets by 2020:

- cutting greenhouse gas emissions by at least 20%
- **improving energy efficiency by 20%**
- raising the share of renewable energy to 20%
- increasing the level of biofuels in transport fuel to 10%



Meetings of CEN/CLC BT/TF 189/PT Energy Management Systems

Five meetings from

January 25, 2007 – 1th meeting, Brussels

to

September 15-16, 2008 – 5th meeting, Copenhagen

plus

November 13, 2008 – Annex A editing meeting, London



Present status for the standard EN 16001 Energy Management Systems – Requirements with guidance for use

- December 2008 – submission of document to CEN CMC for Formal Vote preparation
- March 5, 2009 – FprEN 16001 submission for Formal Vote
- May 5, 2009 – Formal vote deadline (Approved)
- July 1, 2009 – Presentation at Annual Meeting in Madrid
- July 2009 – anticipated publication as EN 16001
- September 10 – EN 16001 Launching event, Brussels

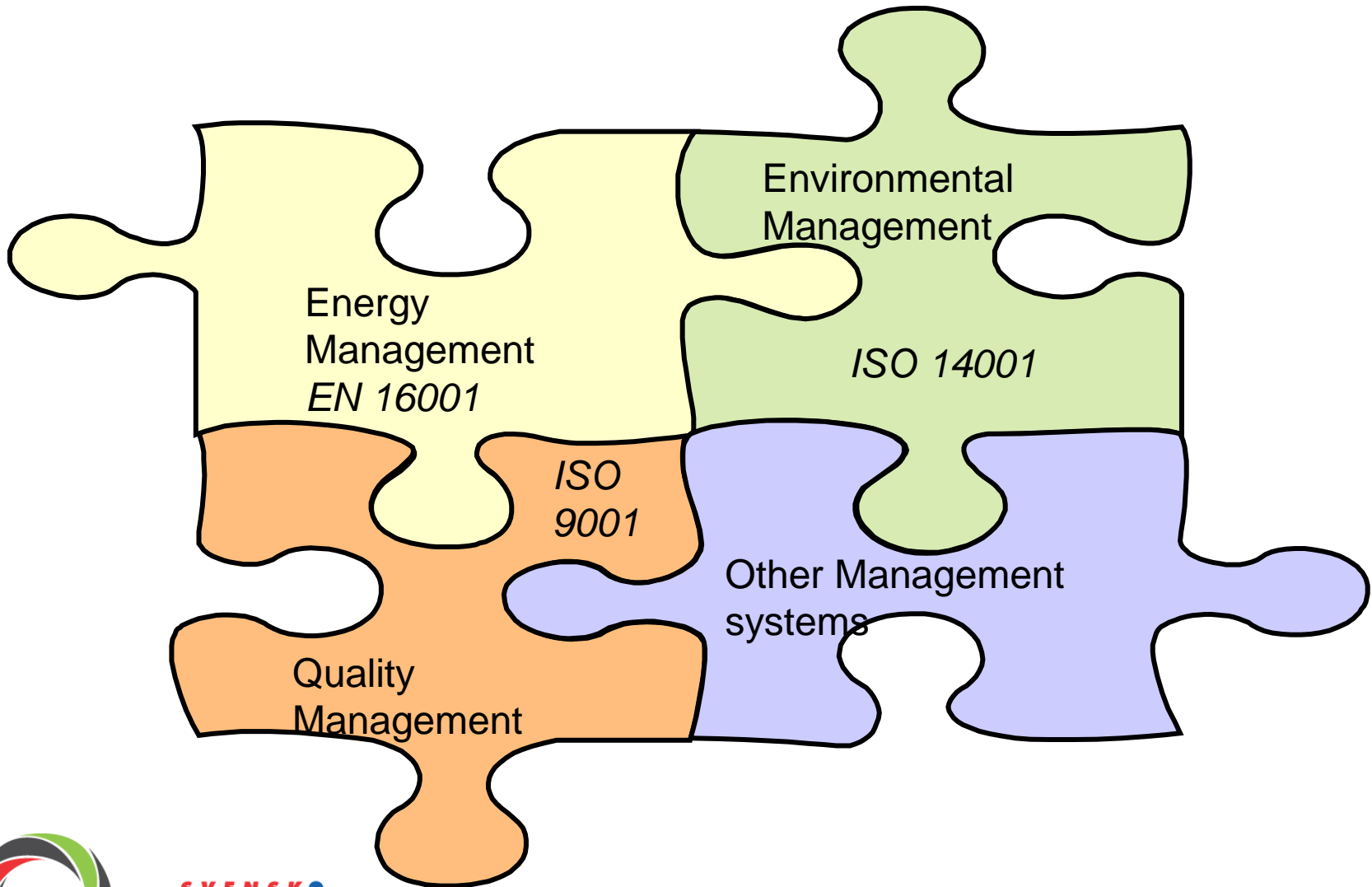


Some general principles for the standard

- Consistency with the ISO 14001 environmental management systems standards and practices
- Avoid creating unnecessary bureaucracy
- Using common “management standard’s jargon”
- Concentrated normative text, accompanied by informative annex(es)
- The Energy Management Standard shall work as a “module” to fit into an organisation’s existing management system



Compatibility

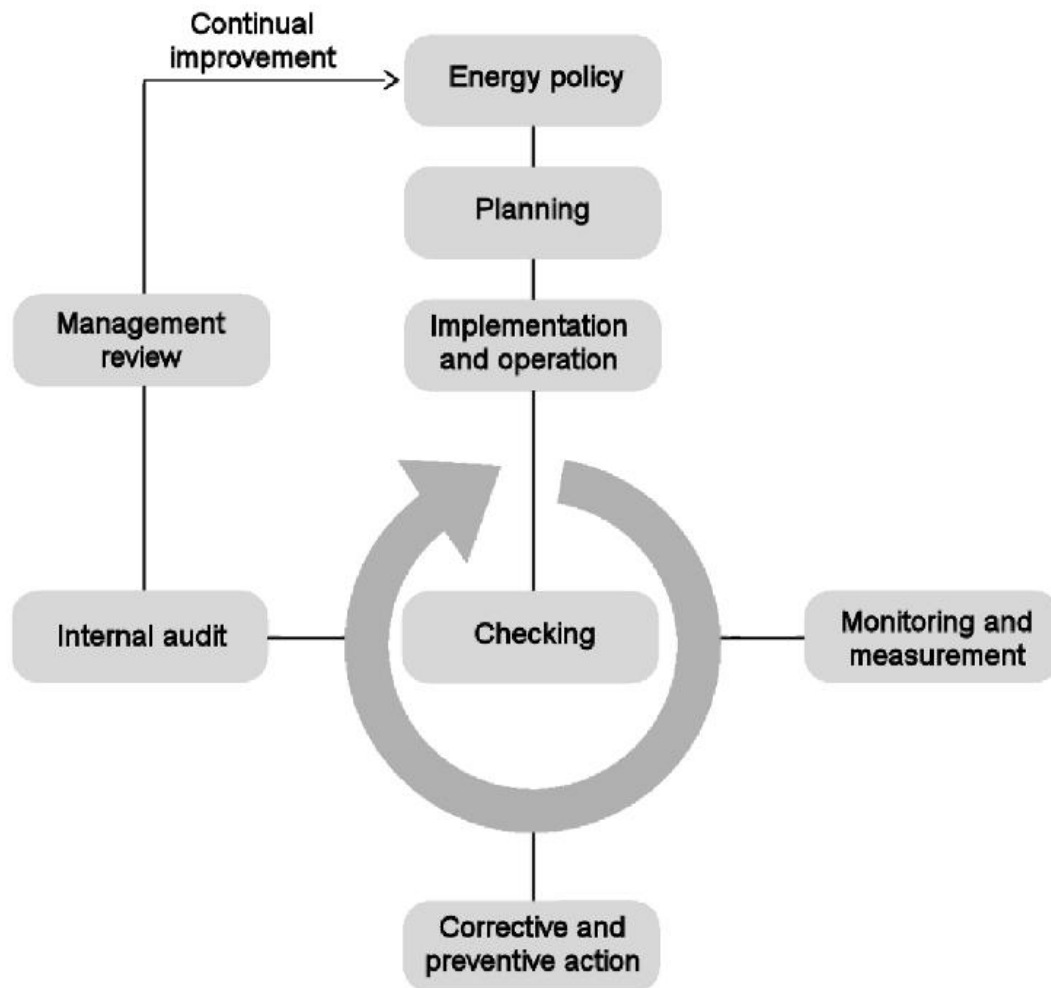


Compatibility EN 16001 and ISO 14001

- The standard for Energy Management Systems can be used separately, but has been designed to complement ISO 14001. Even if the two standards have different scopes, they have similar designs in order to facilitate their use.
- It is intended to apply to all types and sizes of organizations
- The standard applies on the activities under the control of an organization, within defined geographical boundaries.



PDCA-cycle (Plan, DO, Check, Act)



Head-lines in the EN 16001 Standard for Energy Management Systems

Foreword and Introduction

1. **Scope**
2. **Terms and definitions**
3. **Energy management system requirements**
 - 3.1 General requirements
 - 3.2 Energy policy
 - 3.3 Planning
 - 3.4 Implementation and operation
 - 3.5 Checking
 - 3.6 Review of the energy management system by top management

Annex A: Guidance on the use of this European standard



Some examples of the content (1)

3.2 Top management must create and implement an energy policy for the organisation

3.3.1 Identification and review of energy aspects including past, present and future energy consumption and opportunities for improving energy efficiency

3.3.3 Setting energy objectives and targets, creating energy management programme

3.4.1 Defining roles and responsibilities

3.4.2 Awareness and training of the personnel



Some examples of the content (2)

3.4.4 and 3.4.5 Documentation and control of documents

3.5.1-3 Monitoring and measurement of compliance with targets and corrective actions

3.5.5 Internal audit of the energy management system

3.6.1 Review of the energy management system by top management



Conclusion

With the new European standard for Energy Management Systems (EN 16001) there is a tool for all kinds of companies to review their energy situation and improve their energy efficiency in a systematic way

