



Current Status and Perspective on Energy Management Systems Standardization in the European Union

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The European EMS: The starting point

National standards in use:

- **Netherlands** developed in **2000** an EMS Specification to be used for the companies participating in their “LTA - Long Term Agreement”
- **Denmark** has issued in **2001** its **DS 2403** EMS Standard with “Guidance on Energy Management” DS/INF 136 E
- **Sweden** issued in **2003** its **SS 627750** EMS Standard, derived from the Danish one
- **Ireland** issued in **2005** the **I.S. 393** Standard on “EMS Requirements with guidance for Use”, also derived from the previous ones
- In **Germany** VDI, the Association of the German Engineers, published its **VDI 4602/1** Specification on “Energy Management”

The European EMS: The starting point

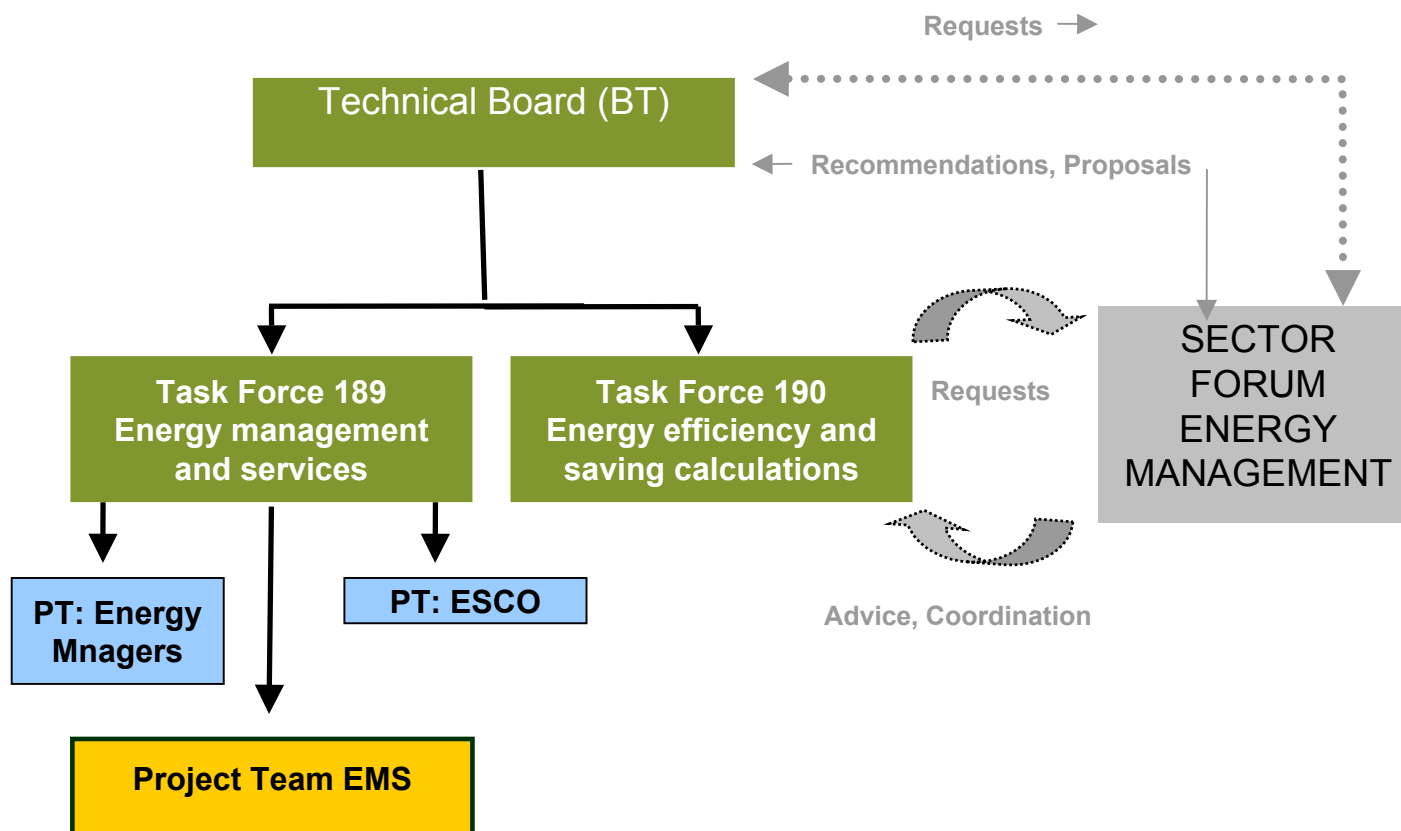
- These Standards have been issued under request of the National Governments to support their Energy Efficiency improvement policies based on Voluntary Agreements
- Many companies have already adopted the EMS inside their organizations, and have been certified by independent third parties.
- EMS are therefore already well known, tested and spread-out, with good results

The European EMS: Motives

- **Market requests:** International markets and international operating companies request for shared **references**
- **European Directive 2006/32/EC:**
 - “Energy end use Efficiency and Energy Services” to reach the Kyoto targets by improving the energy end use efficiency
 - “**Action Plan for Energy Efficiency**” (COM 2006/545), including the measure “..., **to promote Energy Management Schemes,...**”
 - Therefore the European Commission is preparing a mandate to CEN/CENELEC to develop a.o. an EMS

The European EMS: Required a new structure in CEN

STRUCTURE ENERGY MANAGEMENT SECTOR



The European EMS: Projectteam and Progress

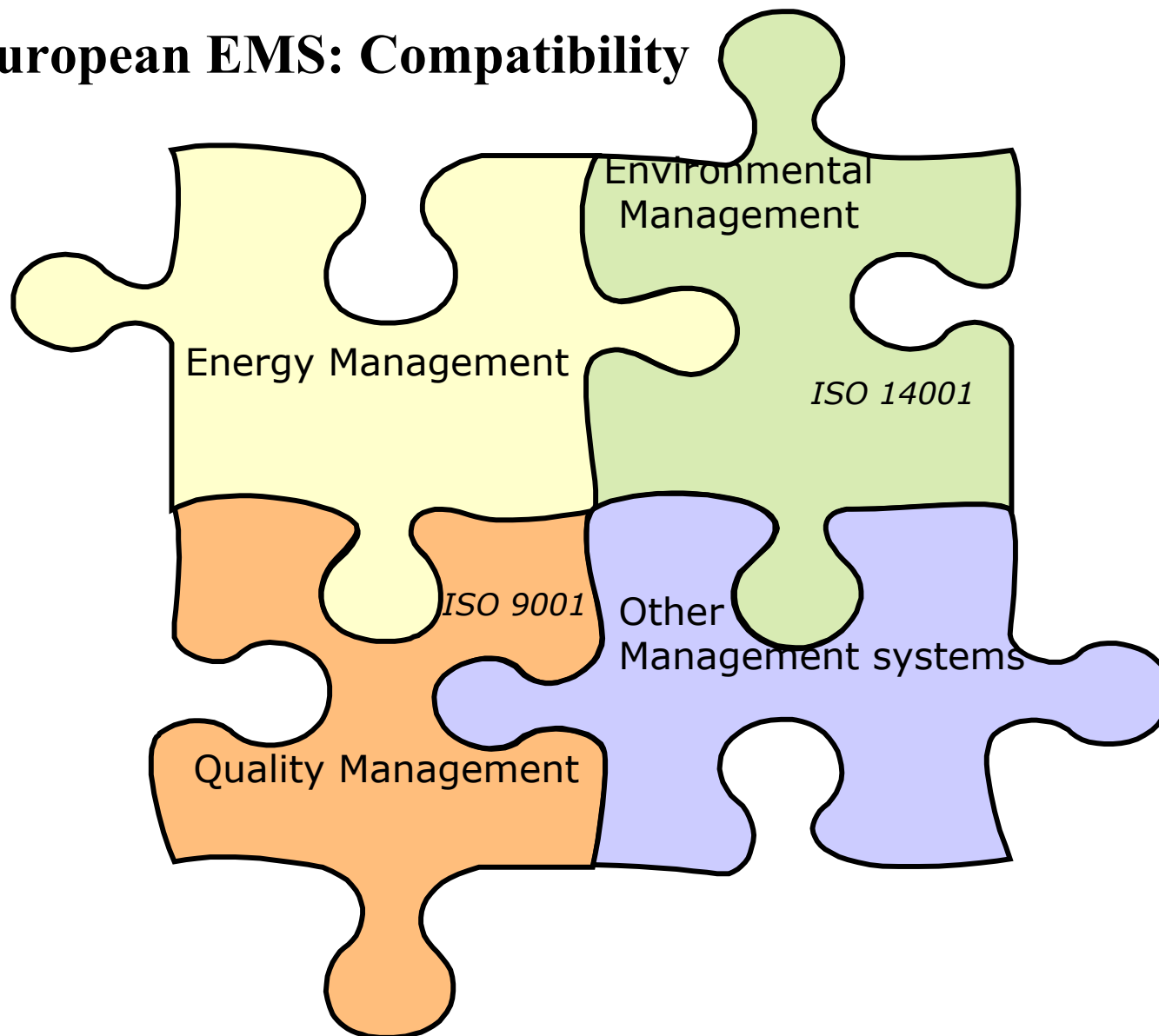
- **Kick off:**
 - TF 189/ PT-“Energy Management Systems” in Brussels on **January 25th 2007** with 20 participants from 10 countries.
- **Projectmanagement:**
 - Chairman: - Inge Pierre – Swedenergy
 - Secretary: - Lars Jonsson – Swedish Standard Institute
- **Delivery Draft:**
 - Delivery, after 4 meetings, to CEN/CENELEC **November 20th 2007** draft European Standard synthesizing existing European standards
- **Publication PrEn 16001:**
 - **February 14th 2008**

Expected publication date: November 20th 2009!

The European EMS: Specification requirements

- References: Irish, Danish, and Swedish standards, Dutch and German (VDI) specifications, German draft standard, ANSI/MSE 2000:2005
- Consistency with the ISO 14001 environmental management systems standards and practices
- The Energy Management Standard shall work as a “module” to fit into an organization's existing management system
- Concentrated normative text, accompanied by informative annex(es)
- Avoid creating unnecessary bureaucracy
- Use common “management standard’s jargon”

The European EMS: Compatibility



The European EMS (prEN 16001): Results

- Based on combination existing Standards (based on 14001 structure):
 - Danish Std. DS 2403 E + DS/INF 136 E, Swedish Std. SS 62 77 50, Irish Std. I.S. 393 and Dutch Specification.
- Includes a “**Guidance for use**” (Annex A)
 - Practical guidelines for use and implementation
- Includes a “**Checklist**” (Annex B)
 - For implementation and auditing
- Is consistent and integrateable with **ISO 9001** and **ISO 14001**
 - List of content of prEN 16001 follows the structure of ISO 14001;
 - Clauses numbering of prEn 16001 corresponds to that of ISO 14001;
 - prEn 16001 could be read side by side with ISO 14001.
 - **Cross Reference Documents** with ISO 14001, ISO 9001 and HACCP are available on www.cen.eu (for integration)

The European EMS (prEN 16001): Results

- Focus on results and minimization of procedural and documental requirements
- Is congruent with the EC **Directive 2006/32** and the related “Action Plan for Energy Efficiency”.

The European EMS (prEN 16001): Conclusions

- prEN 16001 can easily be implemented and used by companies already having an EMS standard
- prEN 16001 can easily be implemented and used by companies already having an energy management system like ISO 9001, ISO 14001 and HACCP
- prEN 16001 is intended to be easily implementable and usable for all sizes and types of companies having no (energy) management system up till now

The European EMS: Harmonization process high lights

- The original National Standards were developed in chronological order, based on the previous ones, and adapted to the specific country needs
- Therefore there were really no significant differences between the “seed documents”
- The work started by a simple comparison document based on the ISO 14001 list of content, with the existing national standards’ English texts side by side;
- In the comparison discussion some preference has been given to the Irish text, being the last one, and the one originally written in English
- The prEN 16001 Annexes:
 - Annex A "Guidance for use" has been derived from the Irish Std
 - Annex B "Checklist" comes from the Dutch Specifications

The European EMS: Harmonization process high lights

- During the process, the most detailed comments have been delivered by European countries with little or no practical experience in applying Energy Management Systems standards
- The Terms and definitions of the draft standard are still an issue for thorough discussion, in order to maintain the technical quality and credibility of the standard. The Secretariat expects constructive comments on this matter during the formal enquiry

The European EMS: The ISO connection (a chronology)

- At the **UNIDO EMS Experts meeting** in Vienna the march 21th-22nd 2007 a recommendation has been issued to start a.s.a.p. an **ISO Standard** on EMS
- In the **CEN/CLC TF 189 Energy Management** meeting in Milan the may 25th 2007 such possibility has been discussed, with the participation of the ISO Central Secretariat, and a document (CEN/CLC/TF 189 N032) has been approved to “explore the possibility of a parallel ISO/CEN process”, for a common approval by enquiries, as regulated by the **ISO/CEN Vienna Agreement**

The European EMS: The ISO connection

However

- The parallel ISO-CEN approval procedure under **Vienna Agreement** looks difficult to be adopted, as:
 - **ISO** has only recently decided to establish **ISO PC 242** in charge of developing the ISO Standard on EMS and its process follows CEN-CENELEC with 18 months delay
 - CEN-CENELEC has a urgent need to publish **pr EN 16001** as a support for European Union Energy policy, as stated in its Directive 2006/32 and the following “Action Plan”.

The European EMS: The ISO connection

Therefore

- **TF 189** in its last meeting in Brussel on february 5th 2008 has taken two formal Resolutions :
 - “In order to facilitate the cooperation between ISO and CEN on EMS Standard, to send to ISO, via CEN/CMC, the **prEN16001**, to be circulated to ISO members, in order to informally acquire useful comments (before 21.7.2008)”. *CEN/CMC sent **prEN16001** to the American Secretariat of **ISO PC 242** at the end of February.*
 - “Being aware of the need and of the usefulness of a cooperation between ISO and CEN on EMS Std, TF 189 gives to the Secretary the mandate to activate a **liaison with ISO PC 242**”. *The TF 189 Secretary is looking forward to receive the appropriate contact.*

The European EMS: The ISO connection

Considerations

- There are no doubts in TF 189 on the high importance of having a **common harmonized standard** on Energy Management Systems at international level, and every effort will be performed by TF 189 in order to ensure good cooperation with ISO on EMS.
- We are also confident that the already long experience in Europe, since 2000, on certifications, and the successful applications of EMS, will be a good reference for the developments of the Energy Management Systems.



Thanks for your attention!

Further information on prEN 16001:

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