

## Standardization in EINSTEIN II

IEE/EINSTEIN Conference and Networking

2012-05-29

Brüssels

Siglinde Kaiser

Deutsches Institut für Normung e.V.

Business Development

## Overview

- Standardization for dissemination and innovation
  - Standardization in EINSTEIN II

# Profile of DIN Deutsches Institut für Normung



- Registered non-profit association supported by the private sector
- Contract with the Federal Republic of Germany: German standards body responsible for European and international standards work, representing German interests
- DIN staff members 390
- External experts 29,000
- DIN Standards (total) 32,000
- Benefits of standardization 1% of GDP
- Directorate Innovation
  - Designed to boost DIN's presence in research and knowledge transfer and to increase the visibility of standardization as an instrument enabling the efficient realization of innovative developments

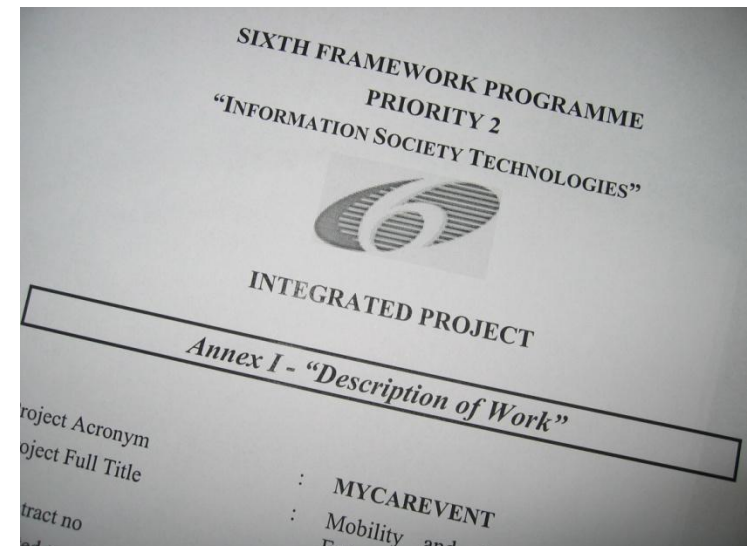
# Standardization for Dissemination

- Some general arguments
  - Standardization contributes to
    - the dissemination of knowledge in addition to scientific publications and patents, as standards represent the state of the art in science, technology, services, tools, techniques and management
    - the exploitation of funded research results, including intellectual property rights, which are integrated into standards
    - maximizing the practical application of research results



# Standardization for Research

- Arguments for researchers and research organizations
  - Standardization facilitates:
    - the transfer of knowledge and technology into marketable products and services
    - the dissemination and exploitation of research results
    - the enhancement of recognition and reputation
    - networking with other researchers, industries and stakeholders for future research and innovation



# Standardization for Investment

- Arguments for venture capitalists and financial organizations
  - Standardization facilitates
    - the assessment of new technologies;
    - investment decisions related to specific companies based on their involvement in standardization



# Standardization for Enterprises

---

- Arguments for enterprises
  - Standardization facilitates
    - shaping the framework conditions of new and emerging markets;
    - the access of new technologies to the market;
    - reduced time to market and increased market share;
    - timely access to knowledge of other stakeholders;
    - networking with competitors, suppliers, customers and regulatory bodies;
    - interoperability of own technologies with complementary technologies;
    - the management of financial risk related to innovations;
    - the acceptance of innovations among customers and public procurers;



# IEE, EINSTEIN II and Standardization


- Community Added Value (IEE requirement)
  - European dimension
    - Results of standardization derived from EINSTEIN II are developed on the European level in the environment of CEN, the European Committee for Standardization, with participation open to any party
    - DIN is one of the drivers of European Standardization
  - Geographical outreach
    - European Standards, developed by CEN, are implemented in 32 countries in Europe (including Turkey) and requested to be implemented by a large number of neighboring countries
  - Transferability
    - Results of standardization are publicly available
    - Standards are voluntary; they may be referenced by legislation



# EINSTEIN II and Standardization

- Work Package 4 – Standardization
  - Goals
    - Interact with and give support to ongoing standardization activities
    - Initiate work on standards
  - Activities
    - Develop a standardized methodology; harmonization with existing standards
    - Contribute to ongoing standardization activities
    - Prepare a specific "thermal energy audit standard"
    - Organize a stakeholder WS to assess needs for further standards and to channel interests among stakeholders.
  - Tasks
    - 4.1 Interaction with Standardization
    - 4.2 Development of thermal energy audit standard
    - 4.3 Trends Analysis Workshop

# EINSTEIN II and Standardization

- Work Package 4 – Standardization – Tasks
  - 4.1 Interaction with Standardization
    - Assessment of existing standards and standards under development
    - 
    - Collaboration with existing committees
      - Analysis of existing committees and structure in standardization related to energy audits
      - Liaison with CEN/CLC JWG 1
    - Information for partners on activities and draft standards

# European Standards related to Energy Audits

Standard	Title	Status
<b>European level</b>		
CEN-CLC/TR 16103	Energy management and energy efficiency – Glossary of terms	published
EN 15316 series	Heating systems in buildings. Method for calculation of system energy requirements and system efficiencies	published
EN 15900	Energy efficiency services – Definitions and requirements	published
prEN 16212	Energy Efficiency and Savings Calculation, Top-down and Bottom-up Methods	under approval
prEN 16231	Energy efficiency benchmarking methodology	under approval
<b>prEN 16247-1</b>	<b>Energy audits – Part 1: General requirements</b>	under approval
<b>prEN 16247-2</b>	<b>Energy audits – Part 2: Buildings</b>	under preparation
<b>prEN 16247-3</b>	<b>Energy audits – Part 3: Processes</b>	under preparation
<b>prEN 16247-4</b>	<b>Energy audits – Part 4: Transportation</b>	under preparation
prEN 16325	Guarantees of Origin related to energy – Guarantees of Origin for Electricity	under approval

# International Standards related to Energy Audits

Standard	Title	Status
<b>International level</b>		
ISO 6946:2007	Building components and building elements – Thermal resistance and thermal transmittance – Calculation method	published
ISO 9251:1987	Thermal insulation – Heat transfer conditions and properties of materials – Vocabulary	published
ISO 10077 series	Thermal performance of windows, doors and shutters – Calculation of thermal transmittance	published
ISO 15927 series	Hygrothermal performance of buildings – Calculation and presentation of climatic data	published
ISO 23045:2008	Building environment design – Guidelines to assess energy efficiency of new buildings	published
<b>ISO 50001:2011</b>	<b>Energy Management Systems</b>	<b>published</b>
ISO/CD 12655	Presentation of real energy use of buildings	under development
ISO/AWI 16343	Energy performance of buildings – Methods for expressing energy performance and for energy certification of buildings	under development

# EINSTEIN II and Standardization

---

- Work Package 4 – Standardization – Tasks
  - 4.1 Interaction with Standardization
    - Assessment of existing standards and standards under development
    - Collaboration with existing committees
      - Analysis of existing committees and structure in standardization related to energy audits
    - Liaison with CEN/CLC JWG 1
  - Information for partners on activities and draft standards



# Selected Committees at CEN/CLC and ISO/IEC

Committee	Name
CEN/TC 156	Ventilation for buildings
CEN/TC 228	Heating systems in buildings
<b>CEN-CLC/JWG 1</b> with 4 Task Groups	<b>Energy audits</b>
CEN-CLC/JWG 2	Guarantees of origin and energy certificates
CEN-CLC/JWG 3	Energy Management and related services - General requirements and qualification procedures
CEN-CLC/JWG 4	Energy efficiency and saving calculation
CEN-CLC/BT SFEM	Sector Forum Energy Management
ISO/TC 163	Thermal performance and energy use in the built environment
<b>ISO/TC 242</b>	<b>Energy Management</b>
ISO/IEC JTC 2	Energy efficiency and renewable energy sources – Common terminology
ISO/IEC JTC 2/WG 2	Inputs from existing reference documents
ISO/IEC JTC 2/WG 3	Renewable energy sources – Terms and definitions

# EINSTEIN II and Standardization

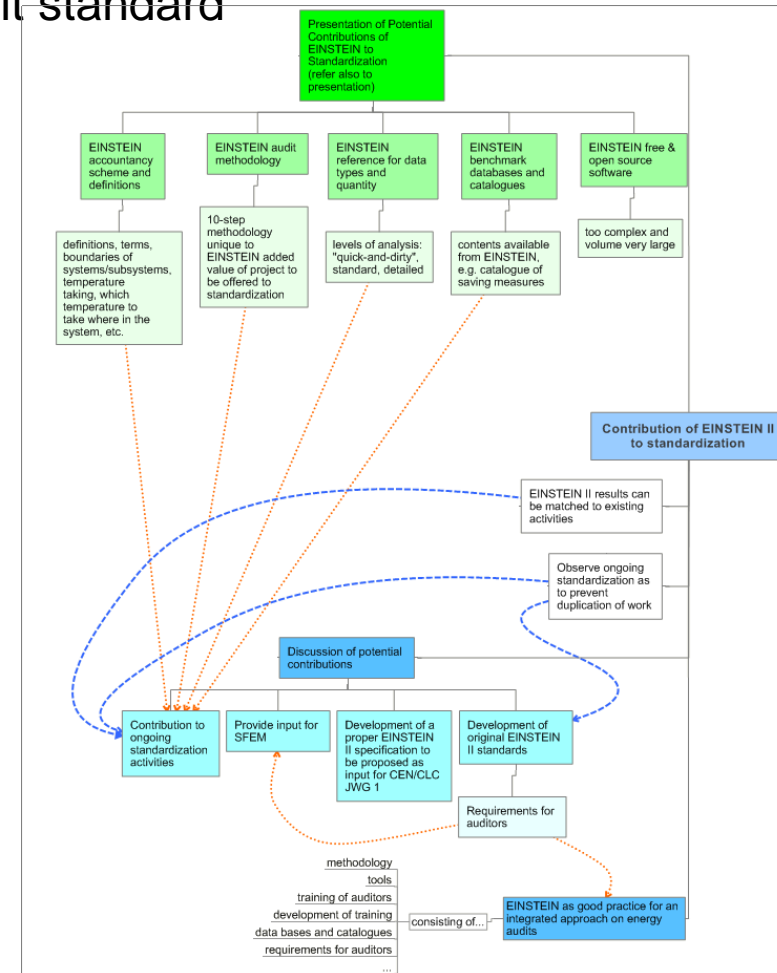
---

- Work Package 4 – Standardization – Tasks
  - 4.1 Interaction with Standardization
    - Assessment of existing standards and standards under development
    - Collaboration with existing committees
      - Analysis of existing committees and structure in standardization related to energy audits
      - Liaison with CEN/CLC JWG 1
        - Developing the EN 16247 series Energy
    - Information for partners on activities and draft standards
      - Commenting on draft standards
      - Status of development of standards



# EINSTEIN II and Standardization

- Work Package 4 – Standardization – Tasks
  - 4.2 Development of thermal energy audit standard
  - 4.3 Trends Analysis Workshop
    - Vienna in July 2011
    - Presentation of project intentions (scope/contents) for standardization
    - Overview of existing and ongoing standardization activities
    - Identify needs of industry
    - Discover gaps in existing standardization
    - Discussion and assessment of potentials for standardization originating from EINSTEIN II



# EINSTEIN II and Standardization

- Work Package 4 – Standardization – Tasks
  - 4.2 Development of thermal energy audit standard
    - Development of a CEN Workshop Agreement (CWA)
    - Elaboration of a business plan
    - Preparation for publication of a CWA
      - Current status
        - Business plan passed through procedure of approval, comments resolved in a meeting
        - Procedure lead to a delay
        - Business plan ready for publication
        - Kick-off Workshop as soon as possible
      - Participation open to any interest party
        - Registration via [www.cen.eu](http://www.cen.eu)
  - 4.3 Trends Analysis Workshop



**Siglinde Kaiser**

Dipl.-Ing.

Business Development &  
International Consultation  
Services

E-Mail [siglinde.kaiser@din.de](mailto:siglinde.kaiser@din.de)



**DIN Deutsches Institut  
für Normung e. V.**

Am DIN-Platz  
Burggrafenstr. 6  
10787 Berlin

<http://www.din.de>

Telefon: +49 (30) 2601-2047

Telefax: +49 (30) 2601-42047