



Standards – helping to translate innovation into market success: two topical examples...

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European Standards Organizations (ESOs)

- CEN = European Committee for Standardization
- CENELEC = European Committee for Electro-technical Standardization
- ETSI = European Telecommunication Standards Institute
- Recognised under Directive 98/34/EC
- CEN and CENELEC now have 31 national members (EU, EFTA, Croatia)
- CEN and CENELEC back offices combined on 1 January 2010
- We link to sister organizations internationally: ISO covers vehicle standards, IEC electrical standards

Standards are critical for innovation

- Commission Communication to Council, spring 2008
- Council Conclusions, autumn 2008 (29 recommendations to ESOs, Commission, Member States)
- CEN and CENELEC STAIR – Standards, Innovation and Research:
 - Promoting an “integrated approach”
 - Ready to respond to the new Commission innovation policy

Standardization contributes to:

- Global market access for innovative solutions, to increase competitiveness of European organizations
- Protection of health and the environment, ensuring safety, especially in relation to innovative technologies and services
- Economies of scale and cost savings
- Compatibility and interoperability

(source: CEN-CENELEC STAIR, April 2010)

Issue 1: Electric vehicles

- Technology developments accelerating
- Problems – not all mature - relate to standards - charging arrangements, connectors, batteries, safety
- There are also links to “smart grids” – another “fast” development
- Standardization is under way internationally – but draft standards often contain different options
- “Political” discussions of common connector standards (eg US-China, Japanese national initiatives)
- Risks of competing solutions, eg for vehicle connections
- We must avoid interoperability problems, the standards window may be small

Standards mandate

- Mandate = Commission request to the European Standards Organizations
- Endorsed by Member States, then will be sent to ESOs
- ESOs can accept or reject
- Sometimes European Standards are “harmonised” – ie they are deemed to meet legislative needs and therefore titles are published in OJEU
- We have to link the standards with the developing technology

What does the mandate ask?

- ESOs to develop European standards or to review existing standards in order to:
 - Ensure interoperability and connectivity between the electricity supply and on-board chargers of electric vehicles, so that they can be connected and be interoperable in all EU States
 - Ensure interoperability and connectivity between “off-board” chargers and the electric vehicle and removable batteries
 - Consider any smart-charging issue with respect to the charging of electric vehicles
 - Consider safety risks and electromagnetic compatibility of the charger of electric vehicles in the field of relevant Directives

What do we plan to do?

- New Joint Working Group CEN-CENELEC, participation of other standards bodies
- Representatives of technical activities, interested associations, Commission etc – and research...
- Tasks:
 - Prepare an overview of European requirements for electric vehicle standards
 - Match these against existing international standards and all relevant work in progress in standards bodies
 - Recommend how missing issues should be covered by standardization, by whom and on what timescale
 - Propose how ESOs respond to European Commission mandate

Next steps

- For standards organizations this is fast:
 - First WG meeting 18 May
 - Initial overview by end-September
 - Completed report by end-March 2011
- Hopefully existing work/small adaptations will help
- Still some complexities to address:
 - Commercial initiatives from global players > conflicts
 - Differences in regional electrical supply requirements (Japan/US/Europe) > options
 - Differences in national wiring rules in Europe > interoperability issues
 - Different needs for home charging, fast charging, types of vehicle etc. > technical detail

Issue 2 – Energy consumption and greenhouse gas emissions

- CEN TC320/WG10: “Energy consumption and GHG emissions in relation to transport services”
- A strong need to develop quantification of energy use and GHG emissions in transport and information about them:
 - To provide a baseline for emission reduction strategies
 - To measure performance over time
 - To set and to report environmental indicators
 - To set goals

Why standardize?

- More or less large differences between outcomes of different CO2 calculation tools
- GHG emissions quantifications in transportation are voluntary approaches - without specific harmonized guidelines
- Measurement methods are often not sufficiently transparent, consistent, or based on actual data

(Source: Marc Cottignies, Convenor TC320/WG10)

Scope and timeframe

- “Standardization of a common methodology (general rules) for the calculation, declaration and reporting on energy consumption and GHG emissions of transport services to provide coherent measurement rules for energy consumption and GHG emissions declarations for goods or passengers transport operations carried out by companies on behalf of another”
- The standard(s) will include :
 - Terminology and definitions
 - Guidelines
 - Calculation methods
 - Parameters and data (data quality, data sources)
- TC320/WG10 – started December 2008; three year programme

Conclusions

- Two different examples amongst many
- Europe needs clean and efficient transport technologies for our economic and societal well-being
- For these technologies to be fully adopted by the market, standards are a pre-requisite
- For European industry to be competitive globally, the standards need to be projected globally also
- But standards programmes will not succeed without reference to research (both results and ongoing)
- Therefore:
 - Standards and innovation are intimately linked
 - The synergies between them need to be still further developed > **dialogue...**



Thank you

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