

European Union and Lithuanian standardization activities

ELECTRA WORKSHOP

Lithuanian Exhibition and
Convention Centre - LITEXPO
Vilnius

13 May 2010



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Recommendation 1:

- Energy efficiency and CO₂ reductions as drivers of innovation: the technology is there but how do we get it into the market?

Recommendation 2:

- We must generate more growth from innovation and investment in key European electrical engineering markets

Recommendation 3:

- Opening the internal and export markets of the European electrical engineering industry: challenges in the area of regulation, trade barriers and standards

The report

- Electra report covers **3 main areas**:
 1. Energy efficiency -> **now**
 2. Lead markets / high-tech infrastructures - > **longer term**
 3. Regulation + export markets -> **now and for the longer term**

1. Energy efficiency

Energy
efficiency &
CO₂ reductions
as drivers of
innovation



1. *Energy efficiency*

- Political commitment in EU:
 - Minus 20% CO₂ in 2020
 - 20% more renewables in 2020
 - 20% more energy efficiency in 2020
- But... without the help of our industries none of these targets will be met.
- **Energy efficiency will be the key!**

1. Energy efficiency

Estimates for full energy saving potential in end-use sectors

Sector	Energy consumption (Mtoe 2005)	Energy consumption (Mtoe) 2020 (Business as usual)	Energy saving potential 2020 (Mtoe)	Full energy saving potential 2020 (%)
Households (residential)	280	338	91	27%
Commercial buildings (tertiary)	157	211	63	30%
Transport	332	405	105	26%
Manufacturing industry	297	382	95	25%

1. *Energy efficiency*

The main challenges

- Upgrading the installed base: 80% of the buildings existing in 2020 are already built.
- People are reluctant to pay up front for long term efficiency gains
- Retrofitting buildings is not ‘politically sexy’ (unlike wind mills or photovoltaic panels)

1. *Energy efficiency*

What should Europe do?

- Foster R&D, early demonstration and deployment
- Set overall energy efficiency targets
- Foster adaption of the power grid
- Develop benchmarks and good practice sharing
- Develop incentive schemes making investment attractive

1. Energy efficiency

What should Member States do?

- **Launch massive information and education campaigns**
- **Ensure leadership of public authorities**
- **Launch fiscal and financial incentives to generate change in the market.**

1. Energy efficiency

What should industry do?

- **Develop technical regulation for homes and buildings**
- **Set appropriate minimum energy efficiency requirements**
- **Work at standardising energy efficiency measurement**

***The solutions are here:
Let's show them!***



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2. Lead markets

Generating more growth from innovation and investment in key electrical engineering markets



2. Lead markets

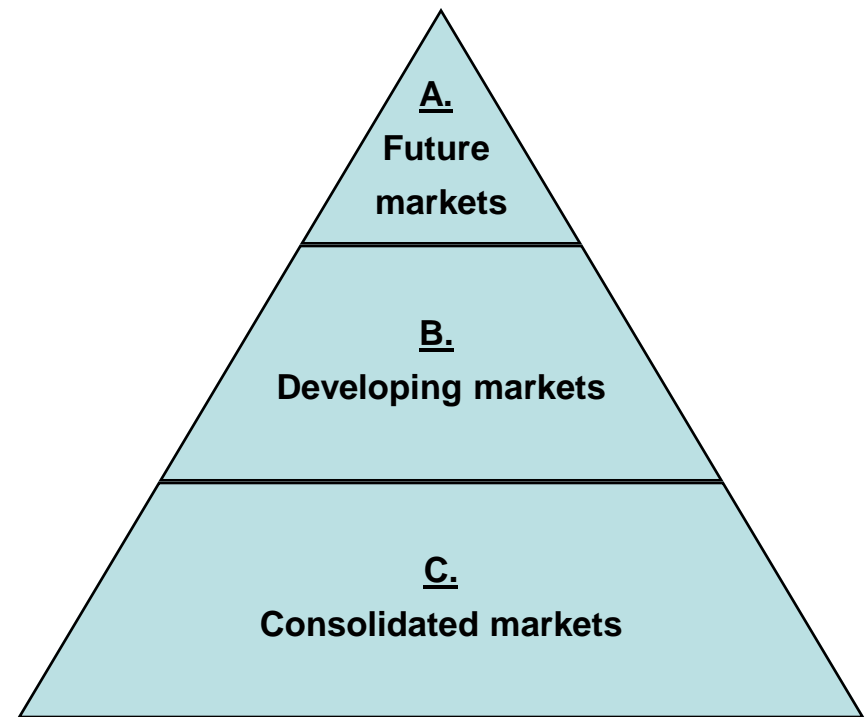
The core ideas

- **Future technology**
- **Made in Europe**
- **Applied in Europe first and**
- **Showcased to the rest of the world**

2. *Lead markets*

Potential Lead Customer Markets for the Electrical Engineering and Electronics Industry:

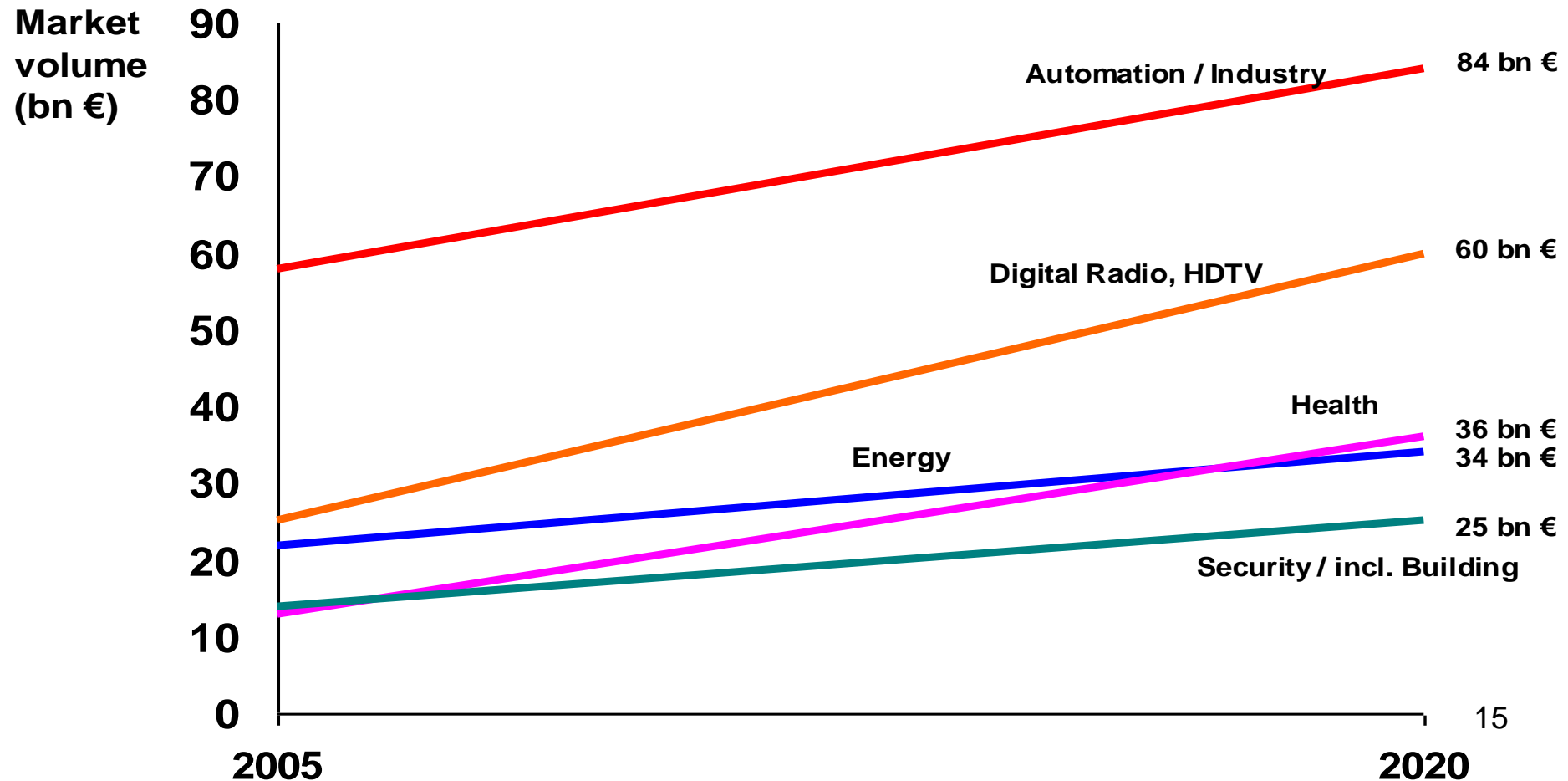
- Trans-European networks / transport infrastructures / telematics
- eHealth infrastructures
- Energy generation, transmission and distribution infrastructures
- Civil protection / Homeland security and defence
- Buildings / Intelligent Living / Ambient assisted living
- Automation / Industrial IT
- Digital radio & TV / HDTV



2. Lead markets

- Growth Potential: Estimates of growth potentials from 2005 until 2020

Source: ZVEI – German Electrical and Electronic Manufacturers' Association



2. Lead markets

Drivers

- Legislation
- Economic and fiscal incentives
- Investment conditions, access to capital
- EU Single Market, harmonization
- Standardization
- Public acceptance

3. *Standardization*

Standardization -
an important tool
that contributes to
the sustainable
use of energy



3. *Standardization*



The core ideas

- Promotes best practices
- Supports innovation
- Facilitates deployment of new technologies
- Provides authorities and companies with the tools to design sound policies, optimize installations and systems and improve energy efficiency

3. *Standardization*



The benefits of standardization:

help companies adopt sustainable practices in order to:

- gain competitive edge
- increase their market share

In the current context of economic crisis, support the creation of new markets and new employment opportunities by fostering investment in:

- energy efficiency, new clean technologies and innovative products and services

3. *Standardization*



Mission

- Prepare *voluntary* standards that help develop the European Single Market


European standards in co-regulation

- These “Harmonised Standards”, when listed in the Official Journal of the EU, give “presumption of conformity” to the essential requirements of the applicable Directive.

3. Standardization

Ongoing activities related to energy efficiency (1)

- Standards containing measurement methods that support the “Labelling Directive” (92/75/EEC) and its implementing Directives

Energy		Washing machine
Manufacturer Model		
More efficient A B C D E F G Less efficient		B
Energy consumption kWh/cycle	(based on standard test results for 60°C cotton cycle) <small>Actual energy consumption will depend on how the appliance is used.</small>	1.75
Washing performance	A: higher G: lower	A BCDEFG
Spin drying performance	A: higher G: lower <small>Spin speed (rpm)</small>	A BCDEFG 1400
Capacity (cotton) kg		5.0
Water consumption		5.5
Noise (dB(A) re 1 pW)	Washing: 5.2 Spinning: 7.5	
<small>Further information contained in product literature</small>		

- Standby and off modes power consumption measurement for energy using products (EuP – 2005/32/EC) – Commission mandate M/439



- Harmonized standards in support of the Measuring Instruments Directive (2004/22/EC)



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3. Standardization

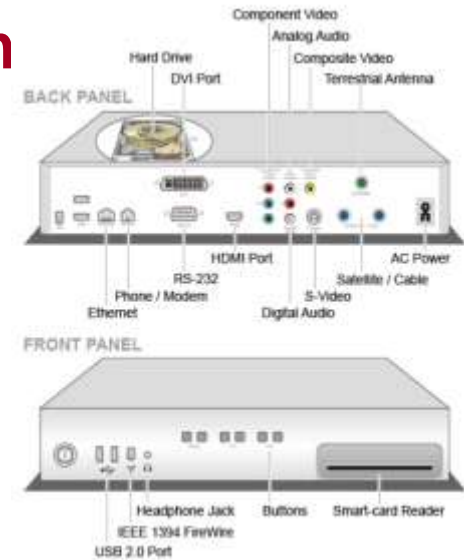
Ongoing activities related to energy efficiency

- Measurement procedure for establishing the power consumption of simple set-top boxes in 'active' and 'standby' modes – Commission mandate M/451 – EuP context



- Measurement procedure for establishing the no-load electric power consumption and the average active efficiency of external power supplies (Commission mandate M/450– EuP context)

- Several other mandates for a measurement procedure of power consumption of electrical equipment under preparation at Commission level in EuP context (motors, variable speed drives, circulators,...)



3. Standardization

Ongoing activities related to energy efficiency (3/3):

Commission mandate on Common Charging Capability for Mobile Phones (M/455)



3. Standardization

- Data exchange for meter reading, tariff and load control (EN 62056 series – CLC/TC 13 “Electricity meters”)



- PLC standards (EN 61334 – CLC/SR 57)

- HBES Open Communication System (EN 50090 - CLC/TC 205) – series being taken over by ISO/IEC JTC 1



3. Standardization

- Green Data Centres – CLC/BTWG 132-3 , preparing work programme



- Bus for household appliances
CLC/TC 59X

3. *Standardization*

CEN-CENELEC Sector Forum on Energy Management



Platform aiming at facilitating the exchange of information between the different stakeholders, coordinating and identifying the standardization needs in the field of energy management.

To develop a common general strategy for the improvement of energy efficiency standardization

3. Standardization

Current Challenges – Smart Metering

- Interest from ESMIG (www.esmig.eu), an industry consortium (CENELEC Co-operating Partner)
- Complemented by Commission mandate M/441
- Interoperability of utility meters (electricity, gas, water, heat)
- Legal framework = Measuring Instruments Directive (2004/22/EC)
- Phase one of M/441 asks for (a) EN comprising software and hardware open architecture for utility meters and (b) a list of potential solutions for additional functionalities
- Joint ESO effort with participation of all stakeholders (European Commission, energy regulators, industry associations and federations, consumers,...)



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3. Standardization

- ESO Coordination Body – with major stakeholder participation – “Smart Metering Coordination Group” is developing the skeleton of the required activities and will coordinate thereafter all activities
- Principle = use as far as possible existing ESO structures (technical bodies) and deliverables
- A selection of technical bodies involved: water meters, prefabricated district heating pipe systems, heat meters, gas meters, communication systems for meters and remote reading of meters, hydrometry, system aspects of electrical energy supply, electricity meters and their communication aspects, bus for household appliances, Home and Building Electronic Systems, electrotechnical aspects of telecommunication equipment
- A selection of Co-operating Partners and Liaison Partners involved: ESMIG, OIML, ERGEG/CEER, EURELECTRIC, KNX Association, AQUA, FACOGAZ, MARCOGAZ.
- Special attention to take care of security and privacy

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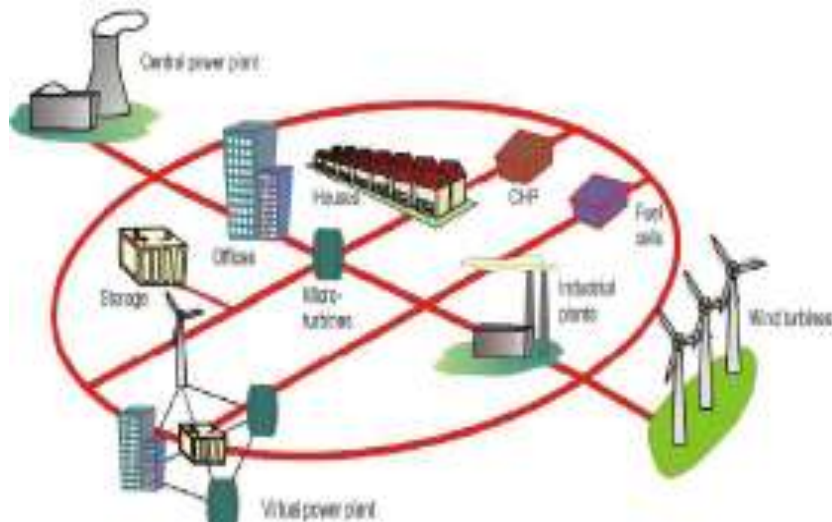
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3. Standardization

Future Challenge – Smart Grid

- Currently scope of work under examination at IEC level



- European standards expected through mechanism of IEC/CENELEC Co-operation Agreement (Dresden Agreement)

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Electra >>
we can do it



Lietuvos standartizacijos departamentas (LST) – nacionalinė standartizacijos institucija, vykdanči standartizaciją visose srityse, kuriose dirba Europos standartizacijos institucijos: CEN, CENELEC ir ETSI

LST veiklos tikslai ir principai sutampa su Europos standartizacijos tikslais ir principais

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Standartizacija vykdoma standartizacijos technikos komitetuose (LST TK), kurių veikloje gali savanoriškai ir lygiomis teisėmis dalyvauti visos suinteresuotos šalys: gamintojai, paslaugų teikėjai, valstybės institucijos, vartotojų organizacijos, mokslo ir mokymo įstaigos, asociacijos ir kitos institucijos

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LST TK narių įgaliotieji atstovai rengia Lietuvos standartų projektus, dalyvauja rengiant Europos ir tarptautinių standartų projektus, teikia pastabas Europos ir tarptautinių standartų projektams viešosios apklausos metu, balsuoja dėl standartų projektų priėmimo.

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LST TK 45 ELEKTROS ENERGETIKA ir LST TK 5 ELEKTROTECHNIKA yra svarbiausi TK elektros srityje. Jų nariais yra:

KTU Elektros sistemų katedra, Šiaulių universitetas

KTU elektros ir valdymo inžinerijos fakultetas

Ūkio ministerija, Valstybinė ne maisto produktų inspekcija

Valstybinė energetikos inspekcija, AB Lietuvos energija

AB Rytų skirstomieji tinklai, Lietuvos energetikos institutas

AB Lietkabelis, AB Snaigė, UAB Gentra, UAB Lemeras

UAB Elektrotechninių gaminių sertifikavimo centras

UAB ABB, UAB Hanning Vilnius, UAB Liregus

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LST TK yra neatskiriama Lietuvos nacionalinės standartizacijos sistemos dalis. Tai vieta suinteresuotosiems šalims susirinkti ir susitarti dėl jiems reikalingų standartų dalykinio turinio. LST administruoja šią sistemą ir sudaro visas sąlygas suinteresuotosiems šalims dalyvauti LST TK darbe bei rengti jiems reikalingus standartus.

KVIEČIAME PRISIJUNGTI !

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Lietuvos standartas LST EN 16001:2009
Energijos vadybos sistemos. Reikalavimai ir naudojimo vadovas

Standartą rengė jungtinė CEN/CENELEC darbo grupė CEN/CLC BT/TF 189 ENERGIJOS VADYBOS SISTEMOS, o nacionaliniu standartu perėmė LST

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Standarto LST EN 16001:2009 paskirtis:

Padėti organizacijoms sukurti sistemas ir procesus, būtinus siekiant padidinti energijos vartojimo efektyvumą, kartu didinat bendrą organizacijos veiklos efektyvumą.

Darniai prisidėti prie bendro aplinkosaugos efektyvumo didinimo.

Tai turėtų sumažinti išlaidas ir šiltnamio efektą sukeliančių dujų emisijas.

Standartas gali būti taikomas organizacijose, nepriklausomai nuo jų dydžio ir pobūdžio.



**THANK
YOU!**

Looking for more information?

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