



Electronics Enabling Efficient Energy Usage Final E4U Presentation

January 13, 2010 - Brussels

Erich Prem


eutema Technology Management GmbH

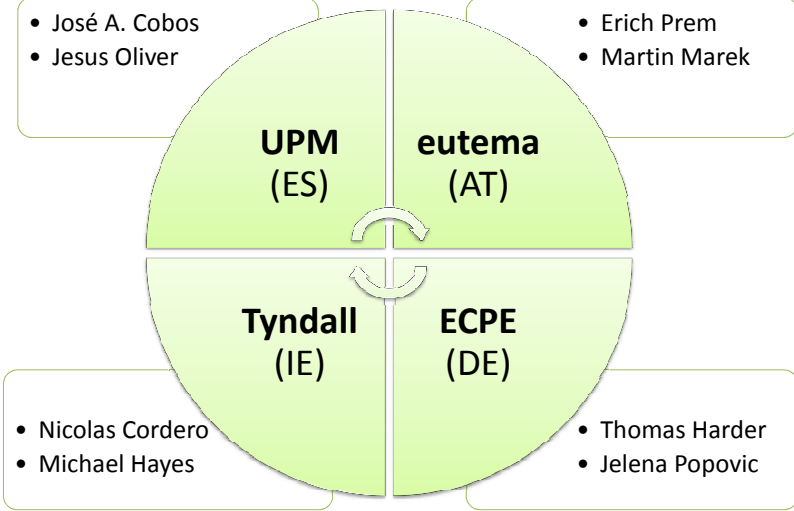


electronics enabling efficient energy usage

Overview

- Introduction of participants
- Nature and objectives of E4U
- Work packages
- Project status and major achievements
- Agenda

 **Project team**




- José A. Cobos
- Jesus Oliver

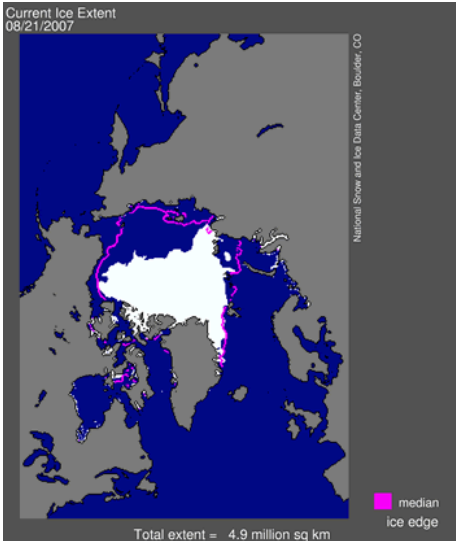

- Erich Prem
- Martin Marek

- Nicolas Cordero
- Michael Hayes

- Thomas Harder
- Jelena Popovic

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 **The Challenge**




Current Ice Extent
08/21/2007

Total extent = 4.9 million sq km

median ice edge

National Snow and Ice Data Center, Boulder, CO


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Harvesting the potential


“The recent crisis has clearly shown the importance of energy efficiency and consequently of power electronics. It is an area of key importance and it is vital for our business that Europe remains a leader in this field.”

Monika Kircher-Kohl
CEO, Infineon Technologies
Austria AG



- Motors**
 - Highly efficient, intelligent control, VSD
- Transport**
 - Recovery of braking
 - hybrid vehicles
- Buildings**
 - Smart appliances
 - Intelligent HVAC, & light
- Smart Grid**
 - Integrated renewables
 - Stabilizing grids

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Objectives

- Develop a **vision for the future of power electronics** in energy efficiency
- Provide an analysis of **technical research challenges** to develop energy efficient systems
- Identify **strategic RTD priorities** in interaction with experts in the field
- Analyze **scenarios** of future energy efficient electrical and electronical systems
- Analyze existing **RTD policies** at a national, European, and international level
- Identify the main **non-RTD policy aspects** such as standards and regulations
- Involve RTD experts and policy makers in the EU for an **action plan**
- **Advertise results** such as the strategic roadmap and action plan

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Nature of E4U

- Policy**
 - Support and contribute to RTD policy in Europe
- Facts**
 - Delivery of arguments, overviews
 - Foundations for decisions
- Debate**
 - Discussion
 - Exchange of views
- PR**
 - Interaction
 - Dissemination

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E4U Process Workflow

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    graph LR
      A[Analysis] --> V[Vision]
      V --> S[Strategies]
  
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- Analysis**
 - RTD gaps
 - Policies
 - Framework
 - SWOT
- Vision**
 - Strategic Goals
 - Success Stories
- Strategies**
 - Roadmaps
 - Actions
 - Awareness Raising


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Work Packages

Strategy	Policies	Information
<ul style="list-style-type: none"> create strategy foundations develop a clear vision for pE contributions to energy efficiency analyse RTD needs and define priority areas and list key constituencies develop scenarios in expert group discussions estimate potential impact using examples 	<ul style="list-style-type: none"> collect RTD policies and non-RTD boundary conditions perform a SWOT for power electronics in energy efficiency research. organize policy workshops to involve stake holders 	<ul style="list-style-type: none"> disseminate project results inform about events, workshops, the conference sessions, and intermediary results. support project with web tool issue brochures

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Results

- Analyses
 - Potential contributions of power electronics to energy efficiency
 - EU RTD policy analysis
 - Scenarios and impact assessment case studies
 - non-RTD boundary conditions
 - SWOT analysis
- Strategies
 - E4U Vision
 - Action plan
 - Research roadmaps

- Policy contributions
 - National and EC
 - Expert rounds (research & ind.)
- Brochures
 - E4U project, Success stories
 - E4U Results book
- Conference & exhibition
 - Brussels, Barcelona
- E4U web site
 - Downloadable docs
 - Presentations

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Agenda for Today

- 9:00 Welcome & introduction
- 9:20 Introduction to electronics for energy efficiency
- 9:40 Success stories
- 10:00 Q&A
- 10:10 RTD and non-RTD policies
- 10:30 SWOT and Strategic Roadmap
- 11:00 Action plan and ETP EEESy
- 11:30 Discussion
- 12:00 – 13:00 Lunch break*
- (13:00 Project review)*

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