

Smart Metering Enables Customers an Active Market Role

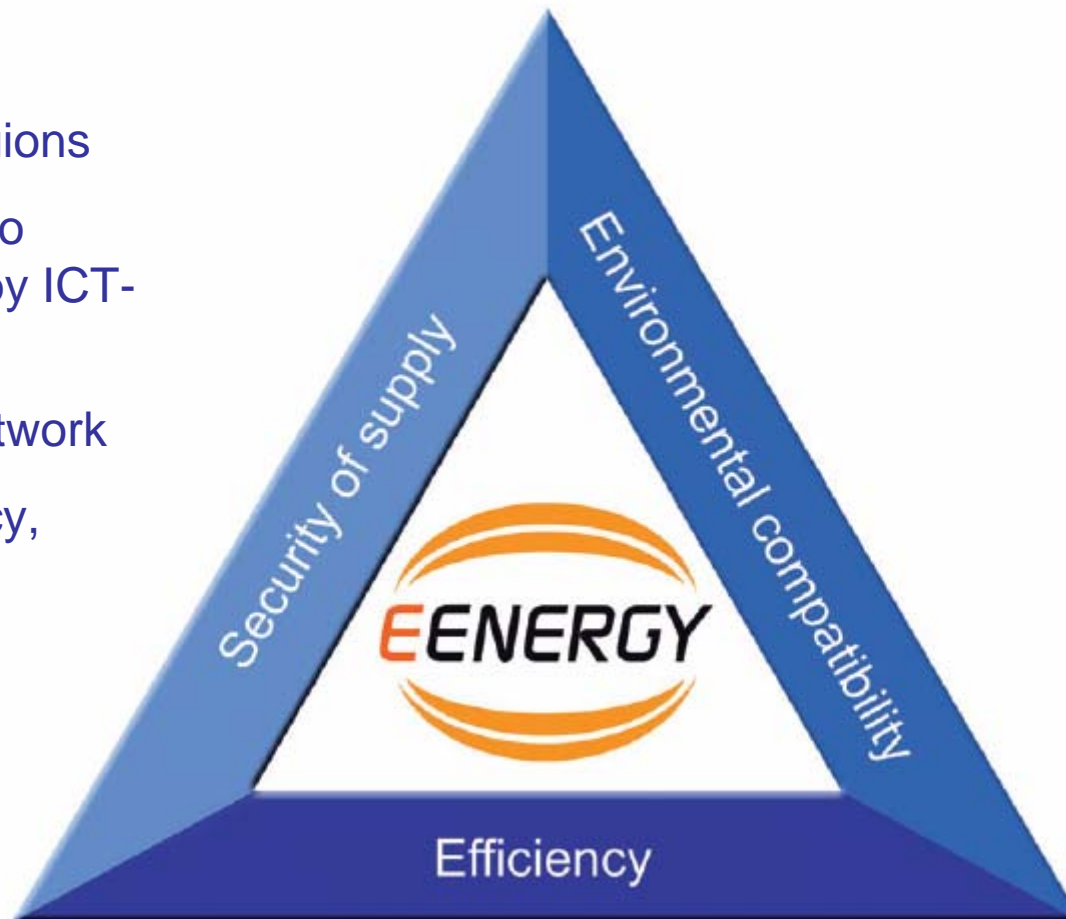
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E-Energy - ICT-based Energy System of the Future

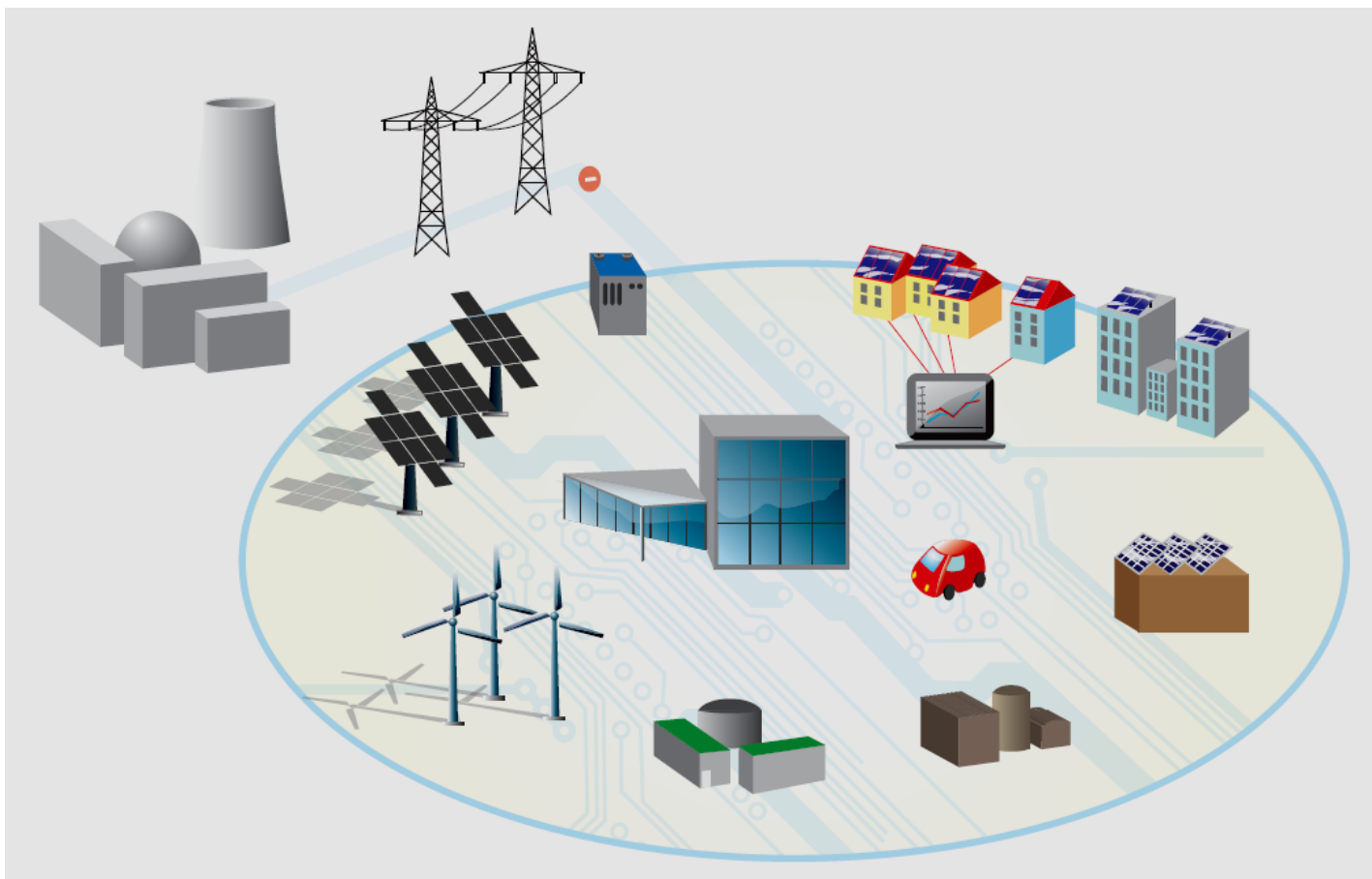
Technology Programme of the Federal Ministry of Economics and Technology (BMWi)

- E-Energy, a German government programme, will gain advantages from ICT used as catalyst for overall changes in energy markets
- Customers acquiring by the “Internet of Energy” a status of a market player
- Smart meters as an essential part of a high-tech strategy are changing architecture of technical and organisational infrastructures in energy markets

- create E-Energy model regions
- demonstrate the potential to optimize Energy systems by ICT-Technologies
- to establish a E-Energy network
- to achieve greater efficiency, supply security and environmental compatibility



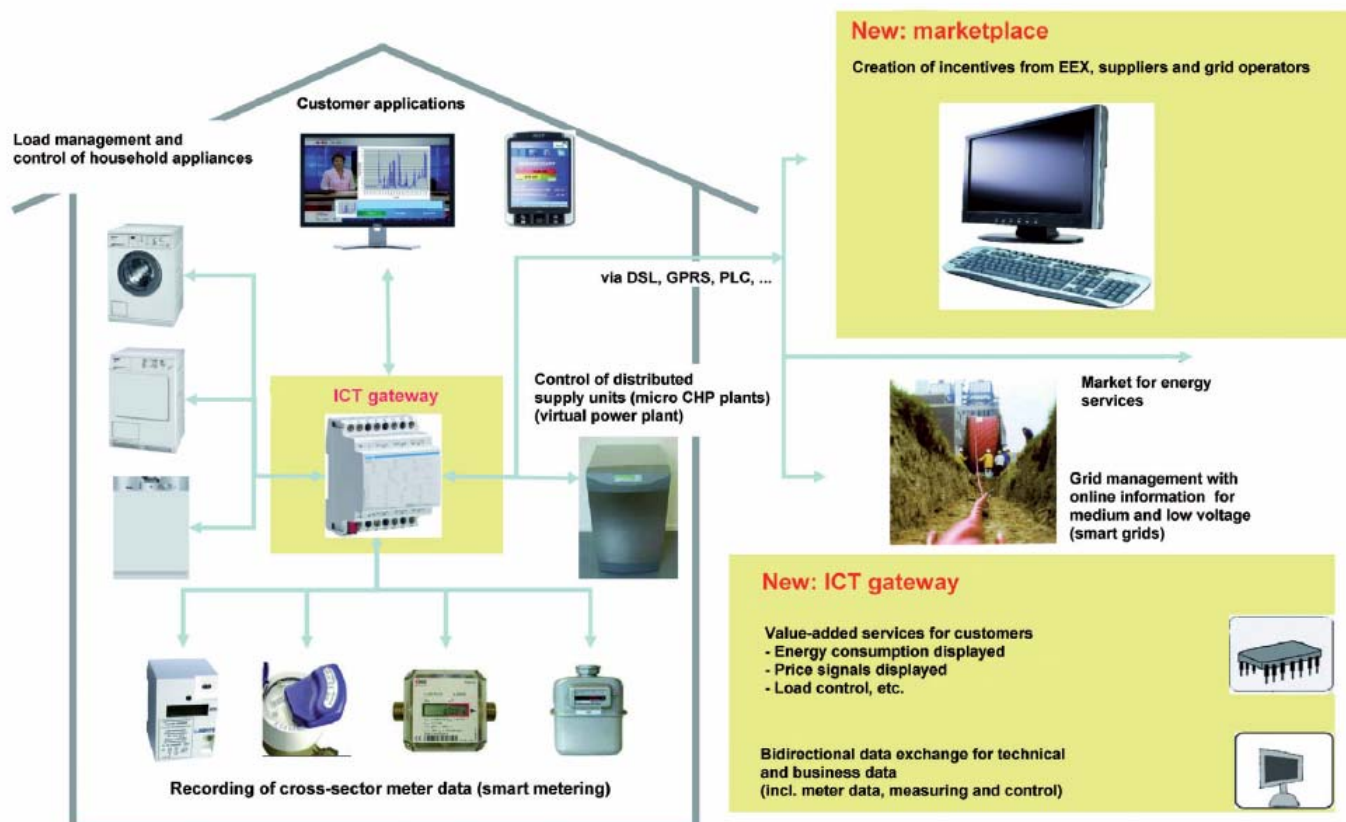
Intelligent networking of energy generation, distribution and consumption



Focus on the three aspects:

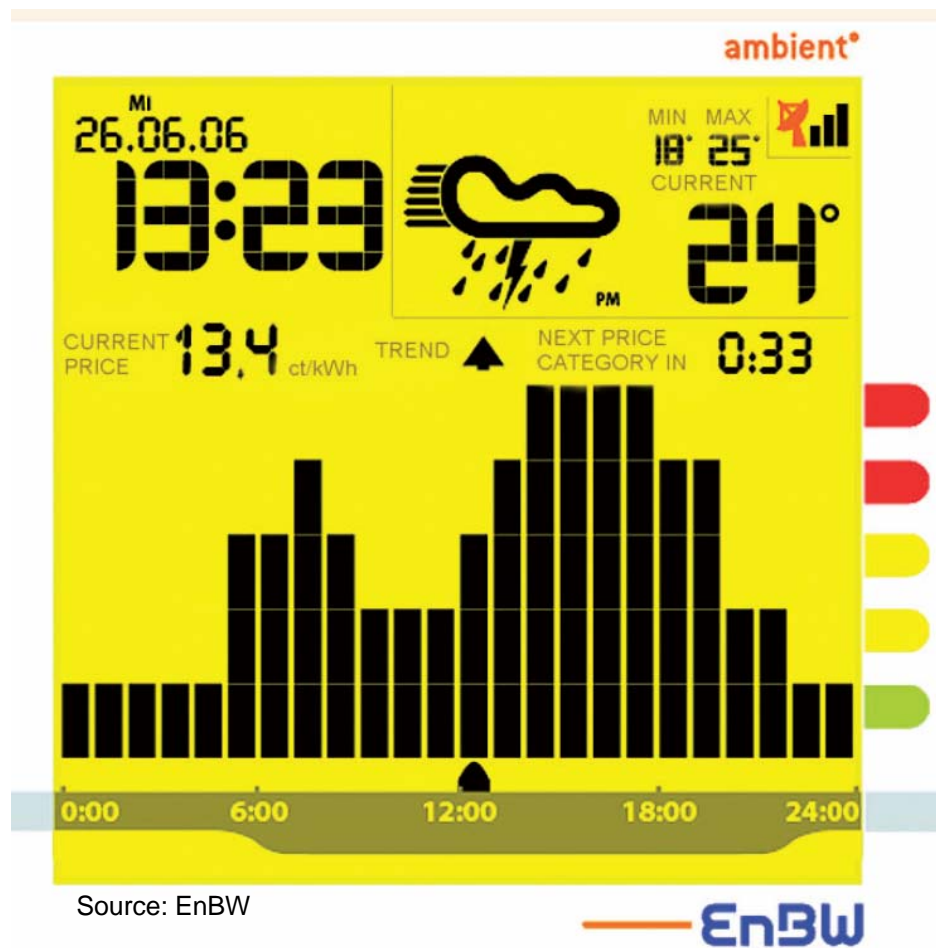
1. Creation of an E-Energy marketplace that facilitates electronic legal transactions and business dealings between all market participants.
2. Digital interconnection and computerization of the technical systems and components, and the process control and maintenance activities based on these systems and components, such that the largely independent monitoring, analysis, control and regulation of the overall technical system is ensured.
3. Online linking of the electronic energy marketplace and overall technical system so that real-time digital interaction of business and technology operations is guaranteed.

Control and regulation of consumers and generators in households takes place through a “smart” gateway on the basis of pricing signals from the E-Energy marketplace

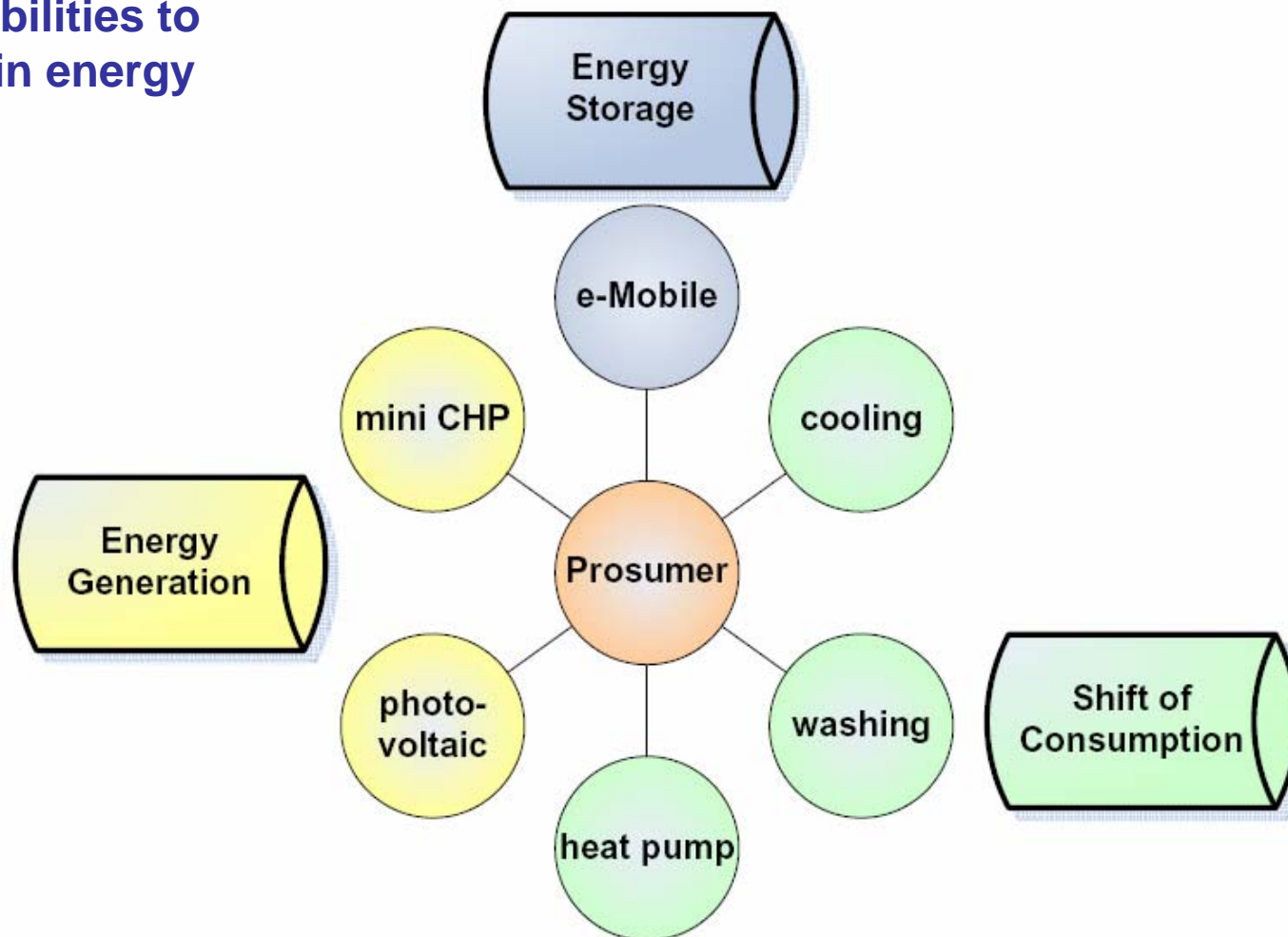


Source: E-DeMa Project Consortium

Display unit for previewing the price of electricity



Several possibilities to participating in energy markets



Features (e.g.)

- urban conurbation with a high supply density
- rural region with a low supply density
- regional network with a heterogeneous supply density



The six model regions are:

- E-DeMa, Ruhr area model region, RWE Energy AG
- eTelligence, Cuxhaven model region, EWE AG
- MEREGIO, Baden model region, EnBW AG
- Mannheim model city, Rhine-Neckar model region, MVV Energie AG
- RegModHarz, Harz model region, RK Harz GmbH & Co KG
- SmartW@TTS, Aachen model region, utilicount GmbH & Co

Ancillary research to the support of the E-Energy model regions:

- B.A.U.M. Consult GmbH, et al

Interdepartmental partnership between:

➤ Federal Ministry of Economics and Technology:

up to **€40 million** for **four** model regions

➤ Federal Ministry for Environment, Nature Conservation and Nuclear Safety:

up to **€20 million** in funding available to **two** additional model

Together with the equity capital of the participating companies, some regions **€140 million** will be mobilized for the development of six model regions.

The Roadmap for the E-Energy Programme:

- Start of R&D-Projects: October – November 2008
- Creation of the Competence - Network: End of this Year
- First Results and Conference: Second Half of 2009
- End of Programm 2010

Further Informations:

www.e-energie.info

Thank you for your attention

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