

Usage Area Workshop June 21 and 22, 2010

Nokia Siemens Networks

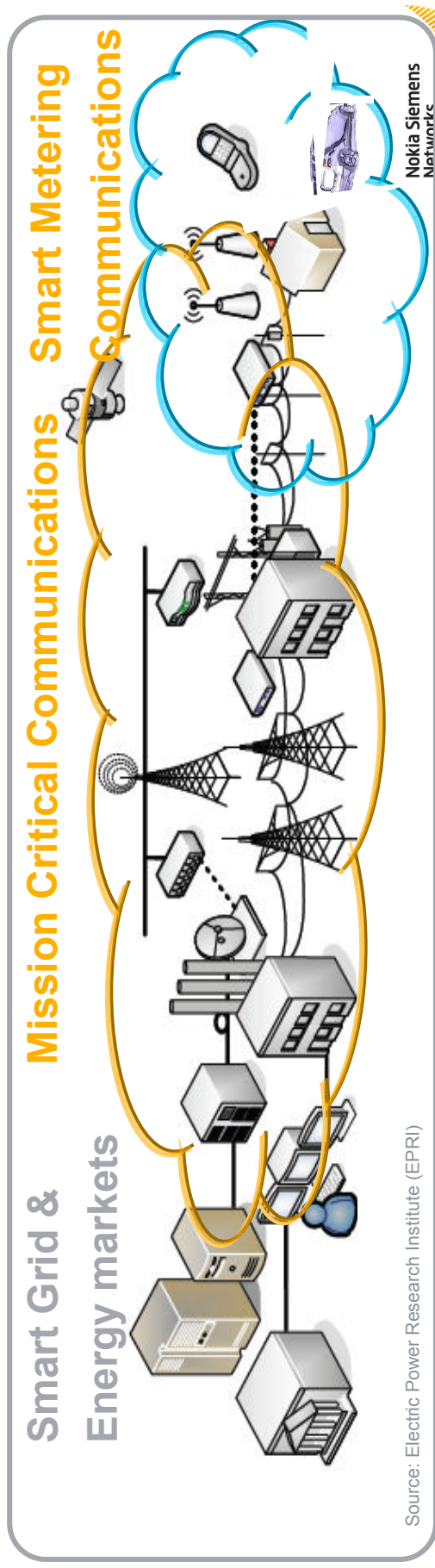
**Werner Mohr
Munich, Germany**



Smart energy grids

What use case and scenario in your area would you consider the most appropriate and representative one for large-scale experimentation with the Future Internet platform to be built starting from 2013 (please refer to the documents referred to on the above websites for inspiration)?

- Energy industry is investing both in research and deployment of components of the future **Smart Energy Grid (SEG)**.
- Making use of an advanced communication and computing infrastructure as part of the Smart Energy Grid will be one of the key success factors in this.



Source: Electric Power Research Institute (EPRI)

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What innovative **Internet functionality and technologies** would you consider important for your suggested use case and scenario (e.g. context awareness, sensor networks, advanced real time processing capabilities handling huge volume of data, ad hoc service composition and mash-up, managed broadband connectivity and services, embedded media support for interfaces easing the interpretation of processed contextual data, etc.)?

- Connectivity and communication enablers
- Mobile Broadband (LTE)
- Security architecture
- Element management platform

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Which of the identified **functionalities** would you expect the Future Internet **core technology platform** to deliver to support your and other usage area scenarios?

- Customer & Identity Management (Identity, privacy)
- Object management / Data collection solutions (Internet of Things platform, Element management system)
- Enterprise Architecture Framework (business, information, and technology integration)

What kind of **experimentation environment** would you consider necessary for broad large scale testing of the platform to be developed in your use area? What would be needed to experiment new services and applications cutting across use areas (services and application mash-up) *and building a new services and application ecosystem* around the prototype implementations of the platform?

- Experimental environment should be integral part of **Smart Eco City / district / village with multi-utility horizontal service enablement**

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How do you see **the potential role of your organisation** in the FI-PPP, in the context of Usage areas taking a prominent role in the Initiative, to ensure an appropriate application driven approach?

- **At Smart Energy Grid**

- Objectives of phase 1 should include collection of requirements for Smart Energy Grid use cases, definition of an overall ICT infrastructure, identification of ICT enablers for Technology Foundation and preparation of European SEG pilots.
- Nokia Siemens Networks is interested to actively contribute to Smart Energy Grid usage area through **driving Smart Energy Grid ICT architecture** as well as to **support the overall program management and operations**.
- Interested SEG scenarios/sub-usage area are **Distribution Automation** and eEnergy market. Deployment of sensing and control devices requires existence of secure, reliable and resilient communication infrastructure of low latency. Extending the automation into medium voltage/low voltage networks and even to prosumers brings between 100-1000 times more objects to manage (object management) and, thus, significant increase in data volumes (data management and aggregation).