Proposal of Business-Oriented Standardisation in the Context of Akogrimo

Open ETSI Grid Meeting

Dr. Martin Hafner

Universität Hohenheim
Wirtschaftsinformatik II

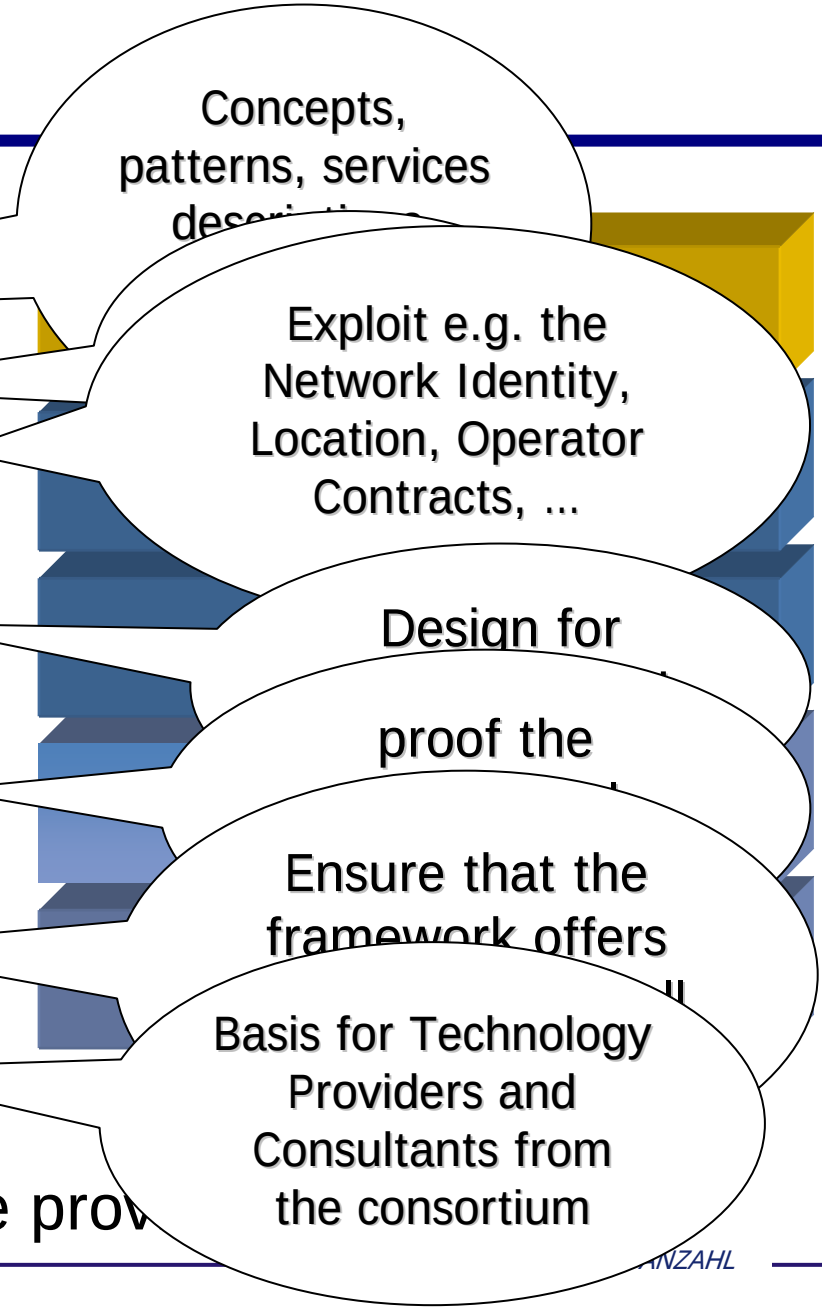
Sophia Antipolis, 24.05.2006

Agenda

1. Akogrimo
    1. Overview
    2. Standardisation Environment
    3. Current Standardisation Efforts
2. Standardisation of Business Aspects
    1. Mobile Grid Business View in Akogrimo
    2. Methodology of Value Network Standardisation
    3. The Akogrimo Consolidated Value Network
3. Lessons Learned and Business Standardisation Proposals

Akogrimo Overview

- Realize a layered Next Generation Grid middleware
  - *architecture* and
  - *reference implementation*
  - enabling *cross-layer co-operation* from network through Grid up to the application layer
  - for a *large number* of *nomadic and mobile users*
- Demonstrate the capabilities with *challenging applications* and real users
- Develop Elaborated *Business Models* for this new platform
- Provide *Supporting Tools* for developers



Make the Grid *the* service prov

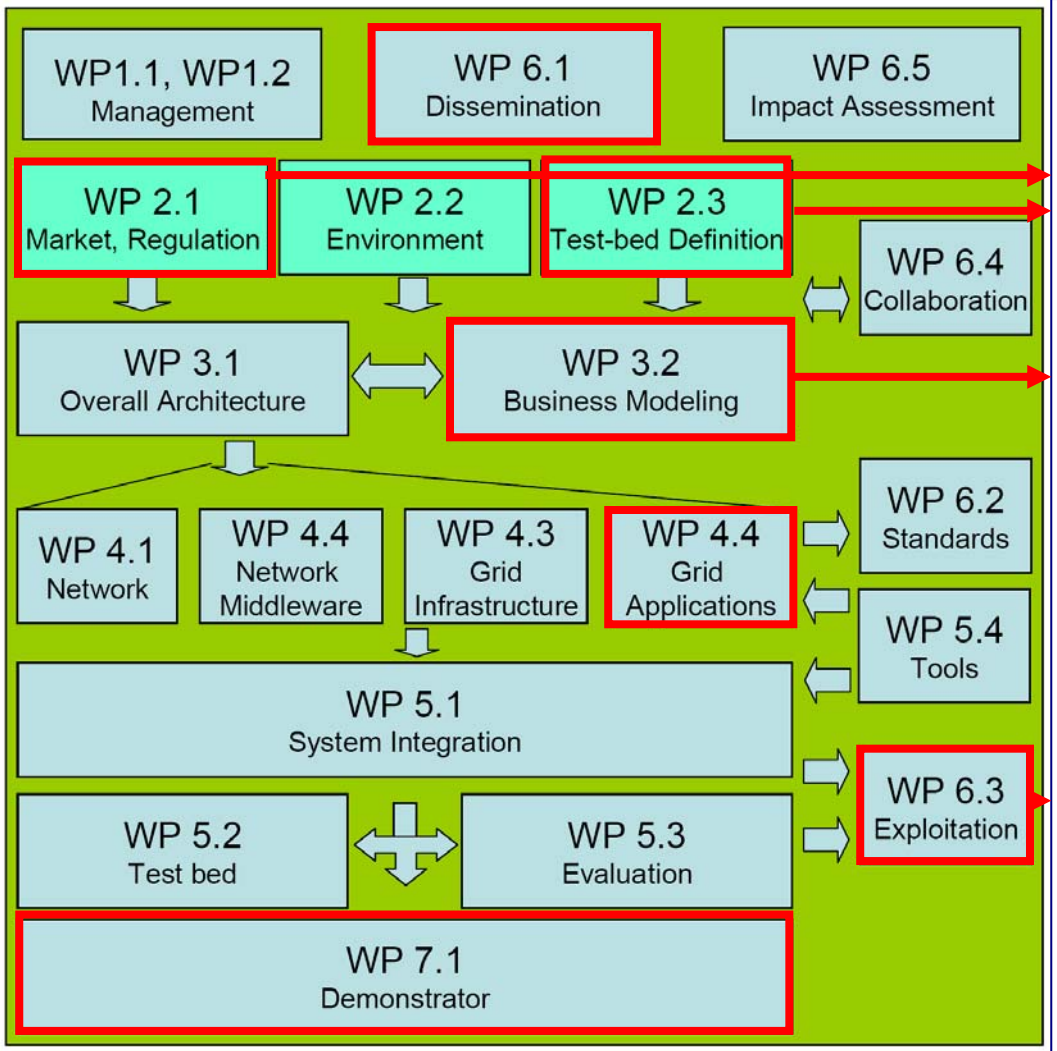
Akogrimo Standardisation Environment

- The Akogrimo standardisation environment (among others)
  - European Telecommunications Standards Institute (ETSI) → *Strategy for Grids standardisation*
  - Global Grid Forum (GGF) → *Open Grid Services Architecture (OGSA), Grid Resource Allocation Agreement Protocol (GRAAP), Grid Economic Services Architecture Group, Telecommunication Community Group (TELCO-CG)*
  - Internet Engineering Task Force (IETF) → *A4C, Policy, Session Initiation*
  - World Wide Web Consortium (W3C) → *XML, WS, OWL*
- Resources
  - *Technical work* in support of standardisation
  - *Dissemination* of potential areas of standardisation
  - *Coordination* of standardisation activities
  - *Representation* on EU Grid collaboration bodies (GCSG)

Standardisation Efforts Planned

- *Integration of network services* into a Grid framework
  → GGF+EGA
- *Mobile Grid use case* → GGF+EGA
- Extending *session initiation (SIP) presence to include context* → IETF
- Interpretation and mapping of *context* in a Grid environment → tbd
- *Accounting parameters* to support a mobile Grid → IETF
- OGSA *resource usage recording* in a mobile context → GGF+EGA
- *SLAs* for mobile Grid services → GGF+EGA
- Further involvement: *Telecommunications CG* (GGF)

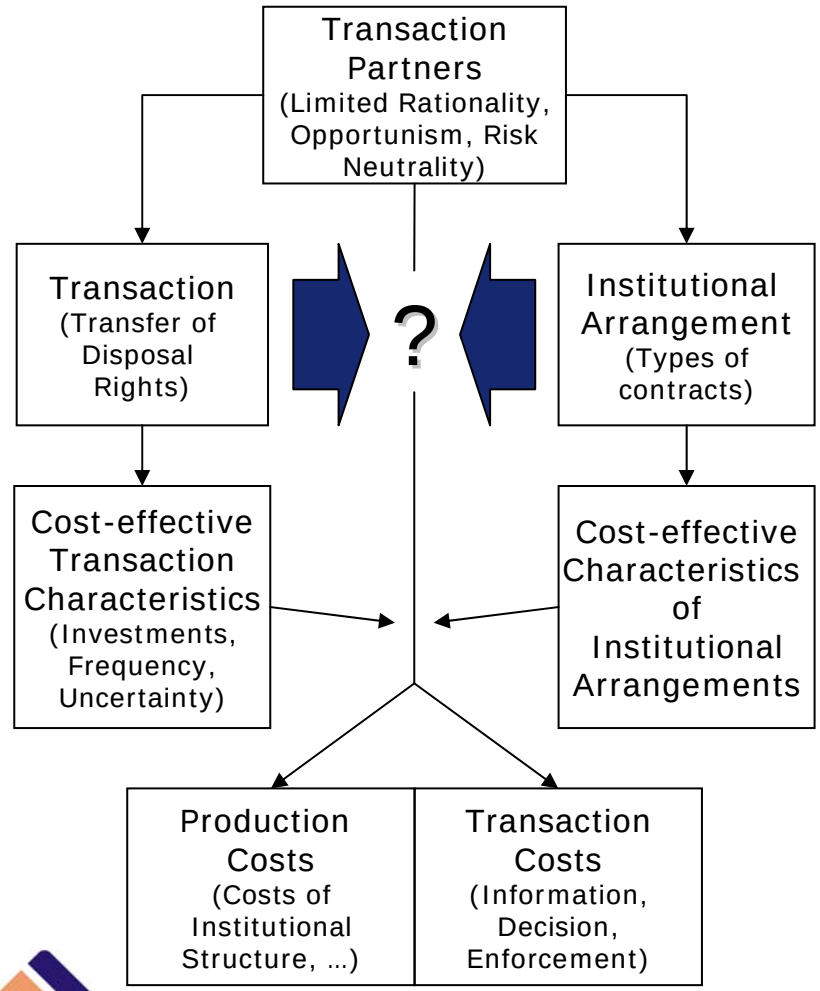
Mobile Grid Business View in Akogrimo



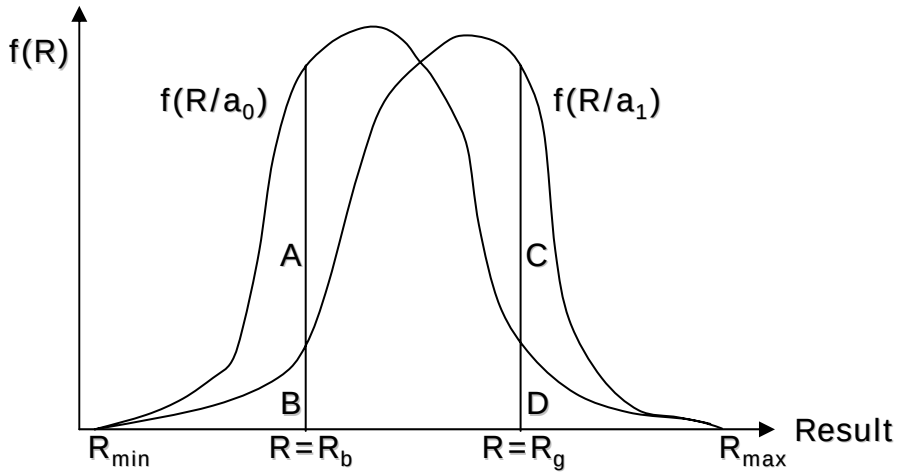
- How to succeed in Mobile Grid Business?
  - *Push away existing structures* providing accordant services
  - *Build new structures* developping new business segments
- In general competitive advantage of IT can come from *positive contribution*
  - *Efficiency* measured by productivity (doing things better);
  - *Effectiveness* (doing better things, including what could never be done before);
  - *Competitive advantage* (doing better and new things)

Methodology of Value Network Standardisation

- Transaction Cost Theory



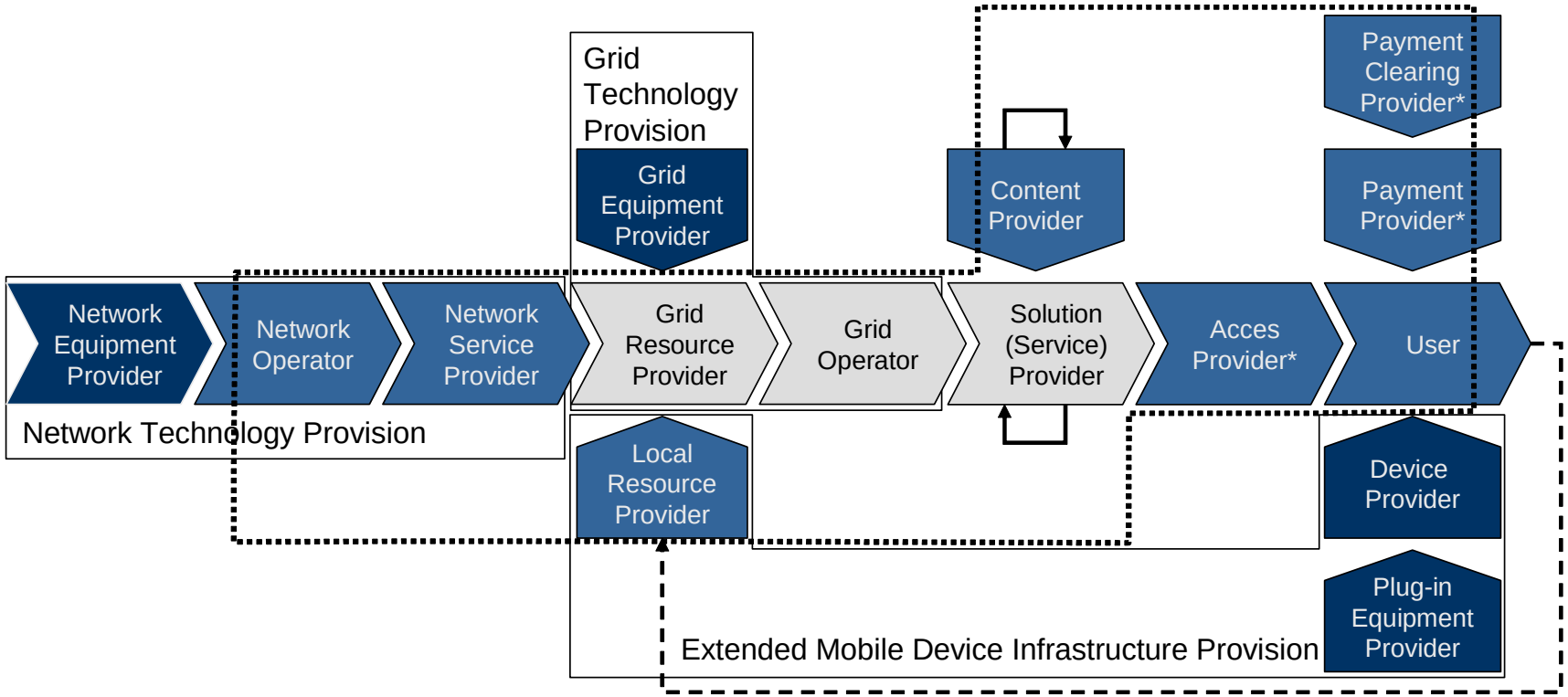
- Principal Agent Theory



R ... result; a ... assignment; f ... frequency

- Agent's *rooms of manoeuvre* because of *information asymmetries* between principals and agents
- Results vary according to the agent's efforts.

The Akogrimo Consolidated Value Network



Caption

- Business via conventional BCI and Mobile Grid
- Business via Mobile Grid
- Business via conventional BCI
- Proposal for Business Partner Integration

Participants in the Value Network

Internal Value Chain

Information Flow

* Interaction with almost every role

Border of Business Collaboration via the Mobile Grid

Lessons learned

- High effort for getting *from technical project results to market design* as they clearly need to be explained to investors, end users, ...
- Significant evidence for *standardising products, technologies* but also actor descriptions, business relationships, market processes, and business models
- Important challenge of every IST research project as its *staff usually not identical with stakeholders* (CEOs, business development)
- ... on the other hand: collaboration of UHOH in effective *networks of expertise*
  - UHOH's *Center of Entrepreneurship*
  - *Venture Capital Circle* of the metropolitan region of Stuttgart
  - UHOH's *Research Center Innovation & Service Management*

Proposal of business standardisation activities

- Standardisation for *innovative project outcome* regarding ...
  - *Technology diffusion processes*
  - Comparability of *value-added examples*
  - *Business development* and market engineering processes
- ... to achieve reduction of *investment risks*, accelerating *time-to-market*, etc.
- Further use cases for business standardisation in the area of UHOH's research interests ...
  - *Mobile and Electronic Healthcare*
  - *Telematic and traffic control*
  - Logistic, in particular *agro-food chain* based on RFID and Galileo system
- *Empirical study* planned and *further national and international research project proposals* on business standardisation in 2007