

# Grid trends and future directions

Nokia Research Center

## Grid technology directions

- Convergence on Service Oriented Grids already happening
  - Consolidation in grid related standards
    - *WSRF, WSN, WSDM, Service security, Service directory incorporated into OASIS*
  - Resource abstraction instead of just storage and computing
  - Standards are very important!
    - *Avoid the “island effect”*
- Eventually Enabling
  - The “power grid view”
    - *Seamless and secure end user access to services*
  - The “System architectural view”
    - *Global scale integrated service based systems and applications*

# Grid Research directions

- Research needed on
  - “Power grid view”
    - *Service discovery, access and security*
  - “System architectural view”
    - *Manageability, adaptability and autonomy of service systems, Service Level Agreements, Quality of Service and performance*
- Different requirements by different industries
  - Consumer
    - *Sensor networks*
    - *Data-centric mobile devices*
  - Enterprise
    - *Workflow oriented applications*
  - Telco
    - *Event driven architectures, protocol oriented applications*
    - *Flow of spontaneous events from the network edge to the center*
  - Scientific applications
    - *Compute and storage applications*