

#### eInfrastructures Concertation Event

Steve Crumb, Executive Director December 5, 2007

### **OGF Vision & Mission**



#### **Our Vision:**

The Open Grid Forum accelerates grid adoption to enable scientific discovery and business value.

#### **Our Mission:**

The Open Grid Forum accelerates grid adoption by providing an <u>open forum</u> for grid innovation and developing <u>open standards</u> for grid software interoperability.

### **OGF Value**



## Events & Forums

Bring
communities
together to
share, innovate,
workshop and
outreach

### Community Practice

Leverage expertise
& experience of the
community to
enable successful
building and
operating of grids

### Industry Standards

Align with/influence other SDOs and/or develop specifications that lead to interoperable software standards

### Starting with...the good news



- Grids and eInfrastructures have enabled increased productivity in:
  - Research & Scientific Computing (HPC)
  - Early Commercial Adopters (Finance, Pharma)
  - Broader Commercial Adoption
    - Business intelligence
    - Digital Media
    - 'Scale-out' infrastructures
    - Data consolidation
  - Shared, multi-facility infrastructures

### For example...





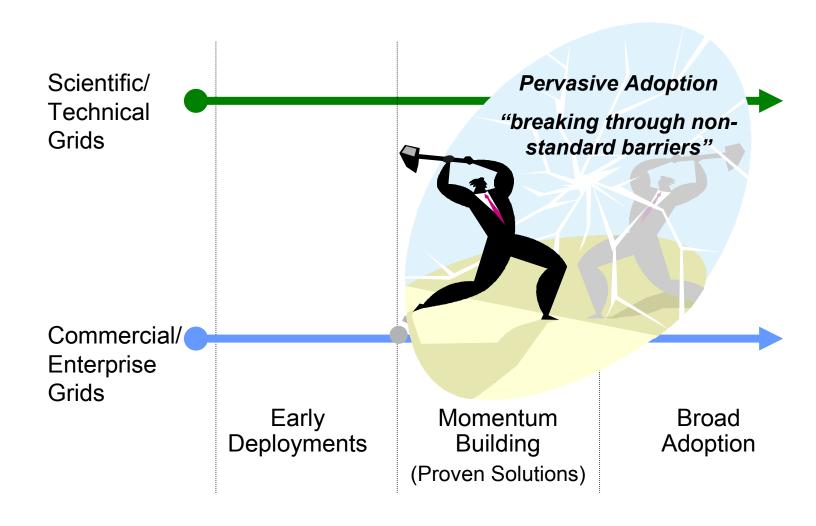
- Draft gene sequencing 6 years ahead of schedule
- Access compute power at 10% of the cost for a more traditional architecture
- 90% cost savings on hardware saving millions of dollars
- Process 20-50% more genetic data daily

### StatoilHydro

- Geographically distributed users enabled access to full set of distributed compute resources
- Simplified job submission and greater visibility to job execution (thanks to a web-based portal)
- Better utilization and sharing of compute resources
- Significant increase in number of simulations resulting in better decision making on expensive drilling, etc.

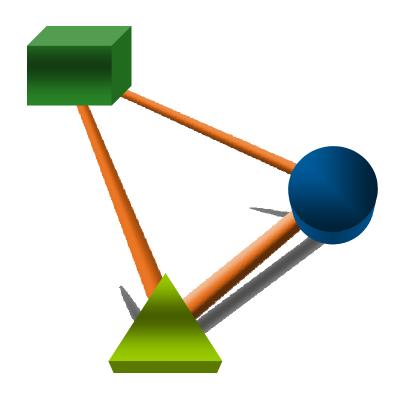
### Adoption will occur in stages





## Standards critical to pervasive adoption





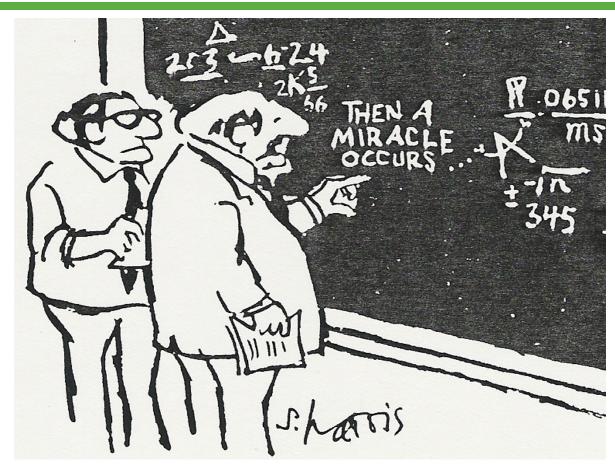
It's a heterogeneous world

#### Benefits ...

- Abstraction and Interoperability
- Investment and leverage
- Choice and diversity
- Trained, available expertise

### The problem with standards



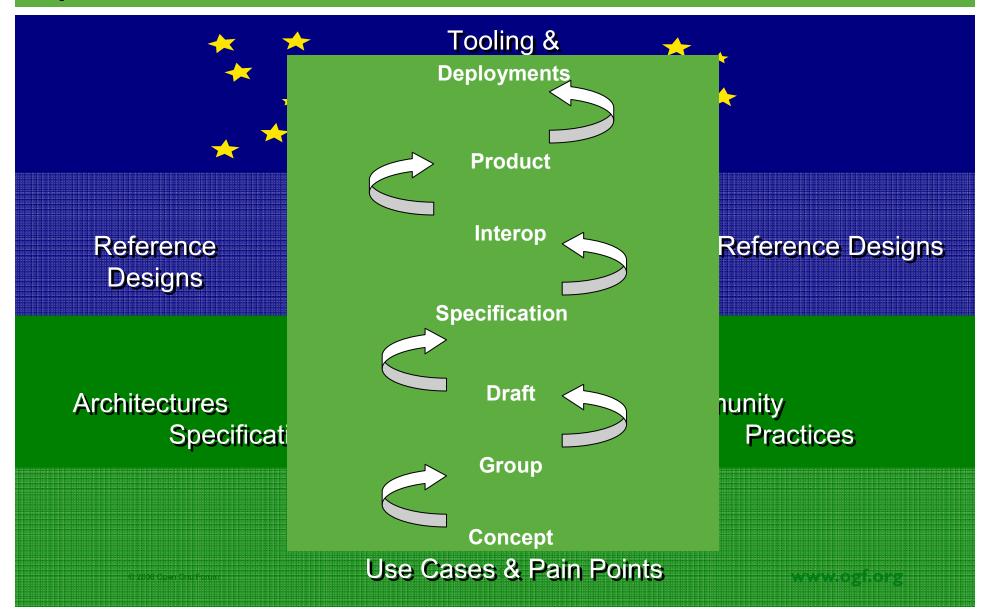


"I think you should be more explicit here in step two"

- Expectations
- Process
- Politics

## In theory — step-by-step process





## In practice – organic, somewhat chaotic process



#### **Architects**

This is how the house should be built



#### **Vendors**

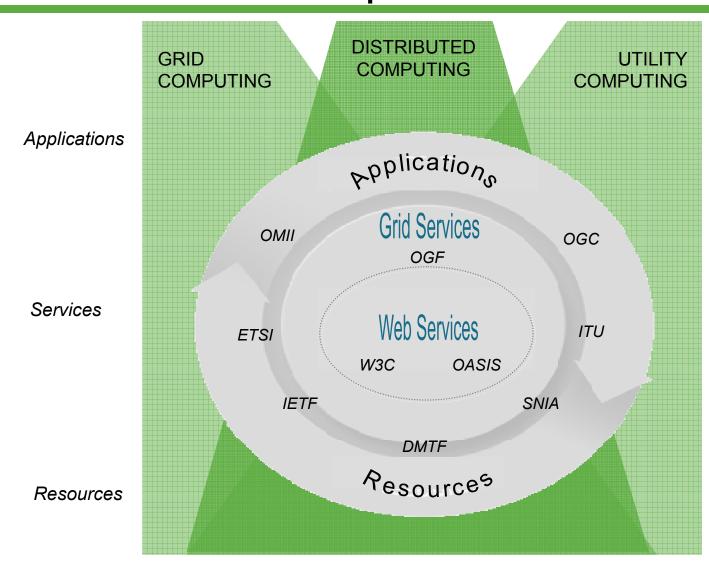
I have better tools and materials than my competitors

#### **Builders**

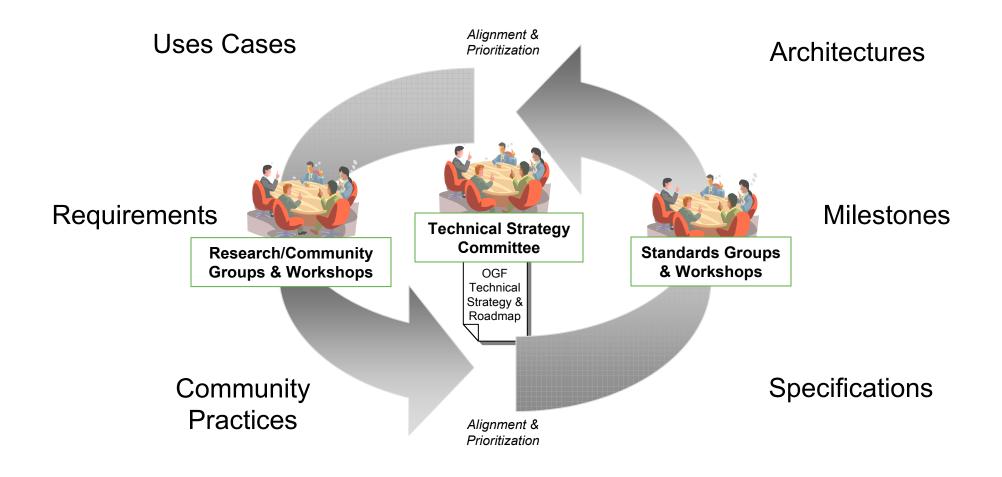
Our home owner needs a quality house built by next month

# ... that requires collaboration across the landscape



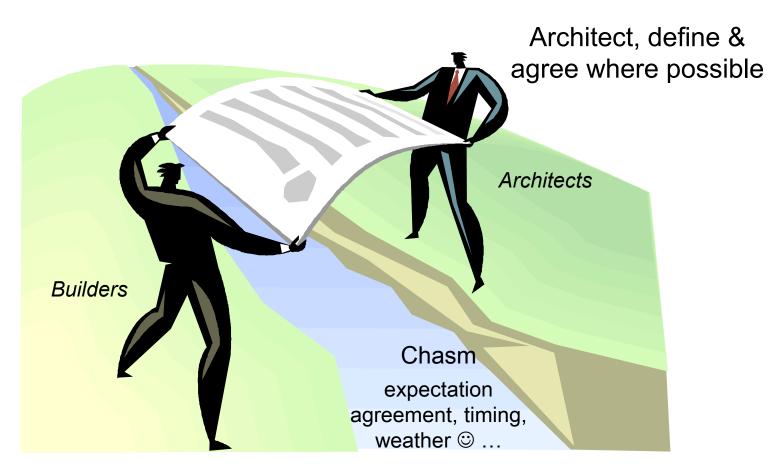


## ... extensive alignment of technical directions and requirements



## ... and must accommodate adjustments along the way





Build, improvise, & refactor where necessary

### A desirable future...



- Grids and related infrastructures become much easier to build, maintain, and secure
- Grids and related infrastructures must become transparent (utility-like)
  - to the user
  - to the application builders
- Grids and related infrastructures must simplify data access, movement, and management
- Grids and related infrastructures must facilitate collaborative delivery of services (e.g, VO's)
- The average Joe (and his SME) must receive clear benefit

### The needed resources...



- Thought Leadership (research is not done!)
- Community Practices
- Technical people committed to & funded for standards development
- Collaborative efforts with other Standards bodies
- Mature, standards-based software
- Clever yet simple applications for the masses
- Concerted outreach, training, and education
- Organizations and governments that can fund a sustainable open standards process

### OGF can be a place where...



- Computer scientists can collaborate to solve numerous challenges (data, security, etc.)
- Middleware developers agree to produce shortterm practices that pave the way for standards
- Application developers can adopt standard API's that leverage underlying dynamic infrastructures
- Vendors can collaborate to develop and then adopt specifications

THE USERS WILL COME!!!

### A word about OGF-EUROPE



- Status: In negotiations
- Two-year concerted effort to:
  - Leverage EU's past investments in grid
  - Give Europe a stronger voice in OGF strategies and deliverables
  - Ensure that OGF standards comprehend European requirements
  - Mobilize new and existing EU-based user communities through international events, outreach seminars and tutorials
  - Survey the landscape of grid adoption in research and industry
  - Build near-term interoperation practices

### OGF23



- June 2-6, 2008 in Barcelona
- First OGF-EUROPE hosted event (pending negotiations)
- Locally hosted by BSC
- Co-location with BEinGRID Industry Event
- Excellent opportunity to execute dissemination and standardization activities described in project work plans

Note also OGF22 in Cambridge, MA February 25-29

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### Questions?

# THANKS! scrumb@ogf.org