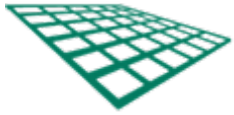


Grid – Path to Pervasive Adoption

Mark Linesch
Chairman, Global Grid Forum
Hewlett Packard Corporation



Industry is on a journey



Old World

Static

Silo

Physical

Manual

Application



New World

Dynamic

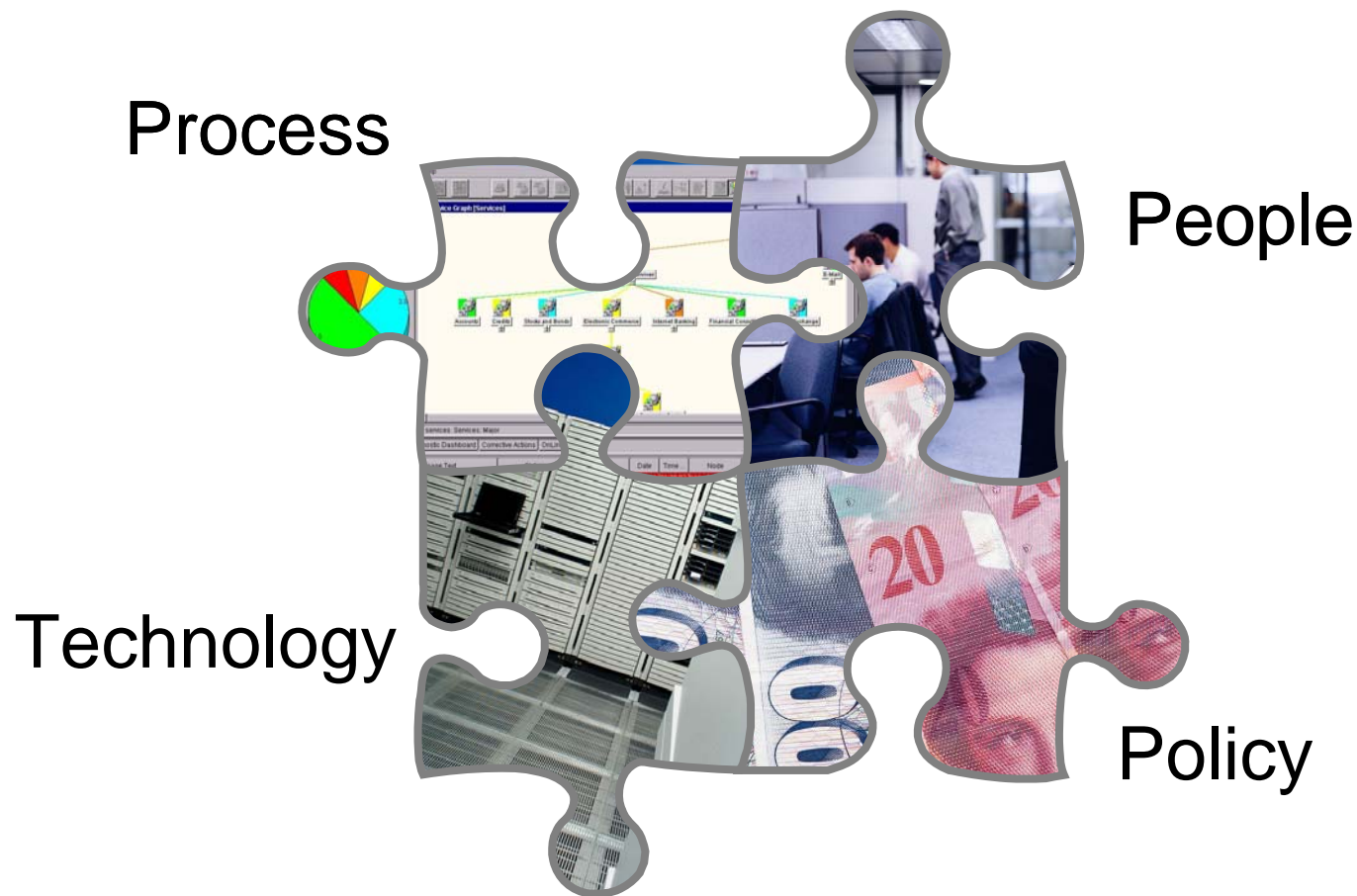
Shared

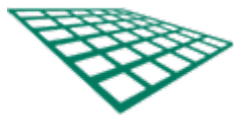
Virtual

Automated

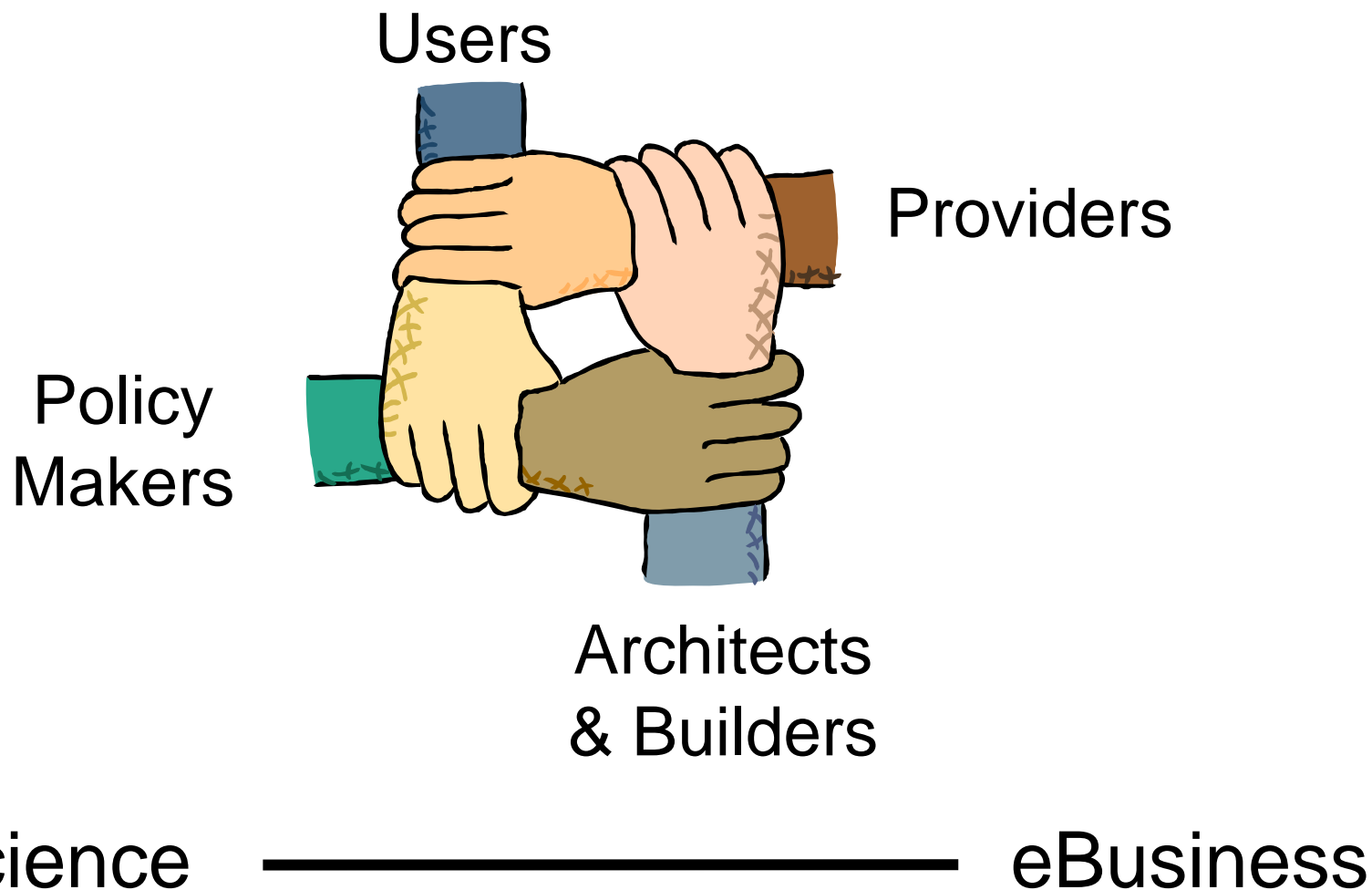
Service

Journey must comprehend a challenging set of issues

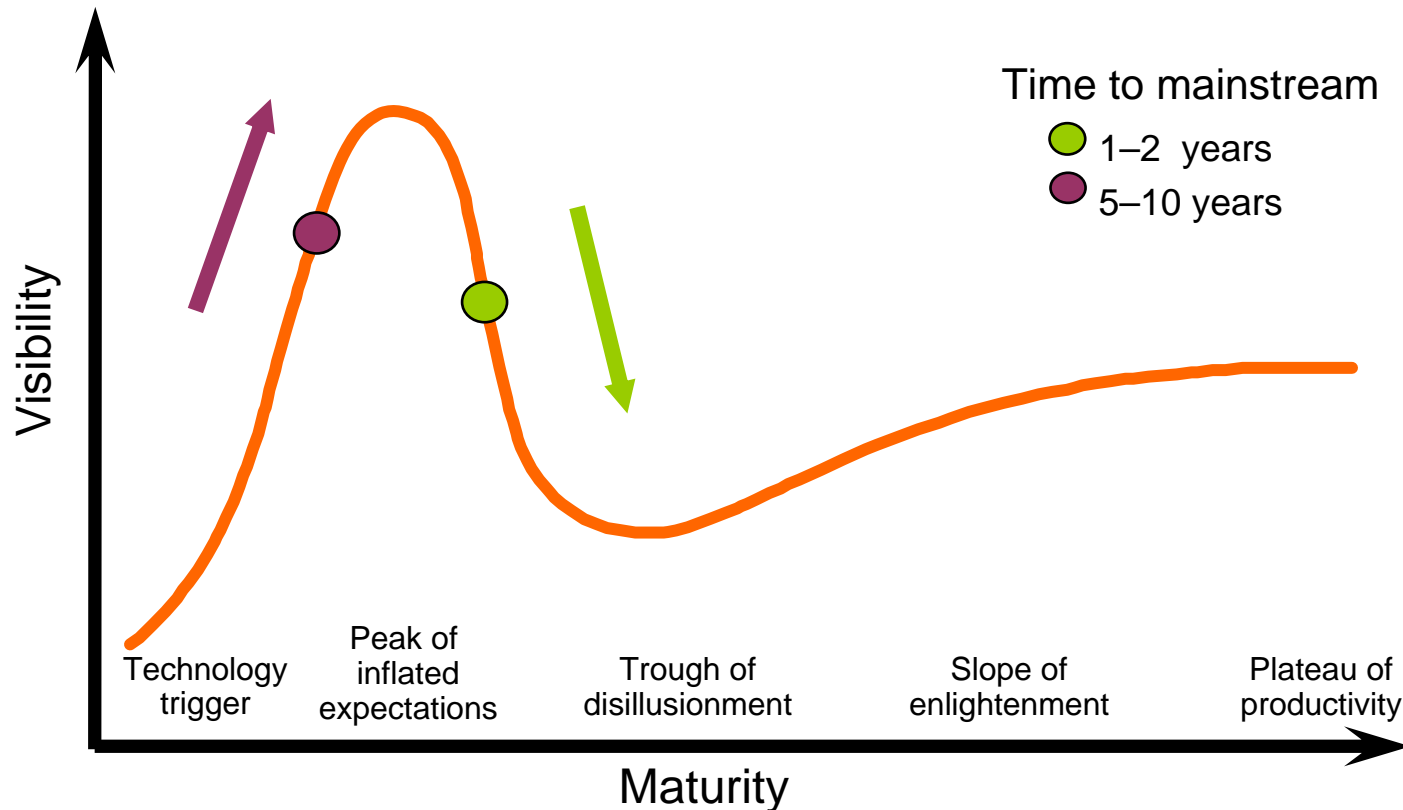


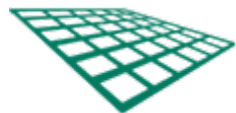


... while nurturing a vibrant ecosystem of value



... and managing expectations along the way





Grid & Related Paradigms



Distributed Computing

- Loosely coupled
- Heterogeneous

Cluster

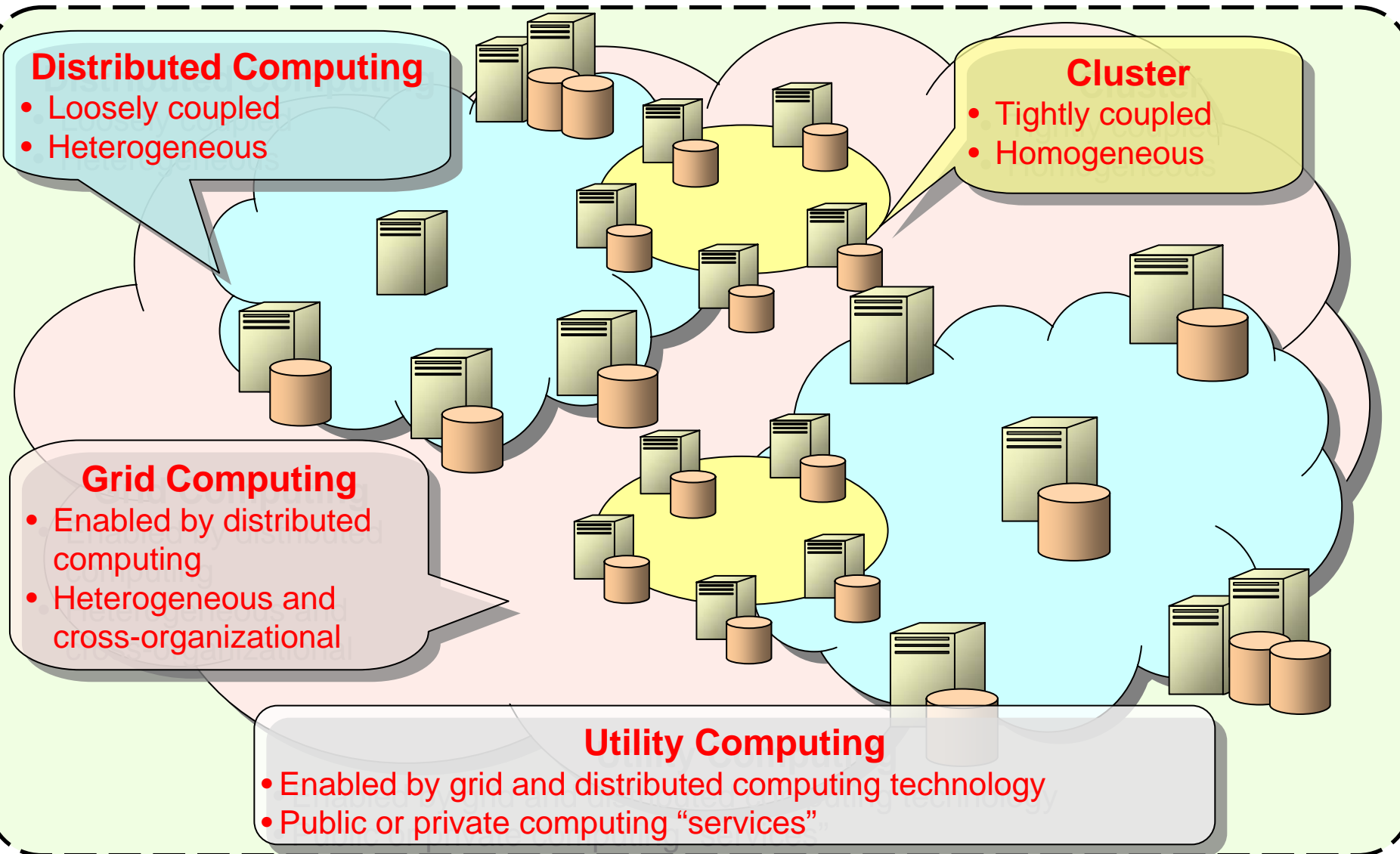
- Tightly coupled
- Homogeneous

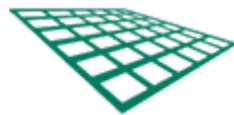
Grid Computing

- Enabled by distributed computing
- Heterogeneous and cross-organizational

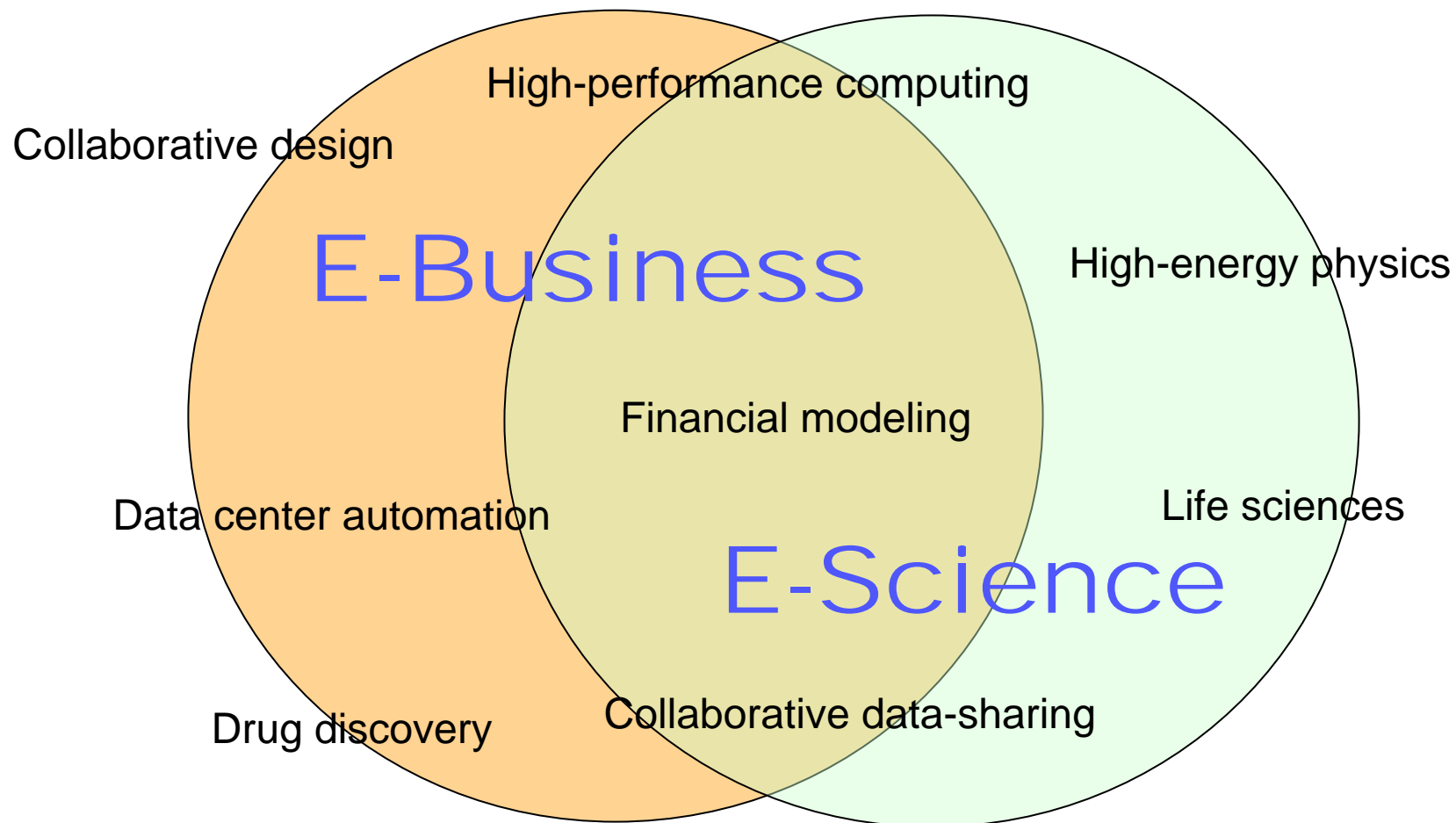
Utility Computing

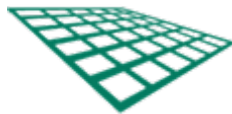
- Enabled by grid and distributed computing technology
- Public or private computing “services”





How Are Grids Used?

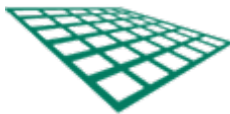




Grids

with the associated technologies
(virtualization, automation, service orientation)

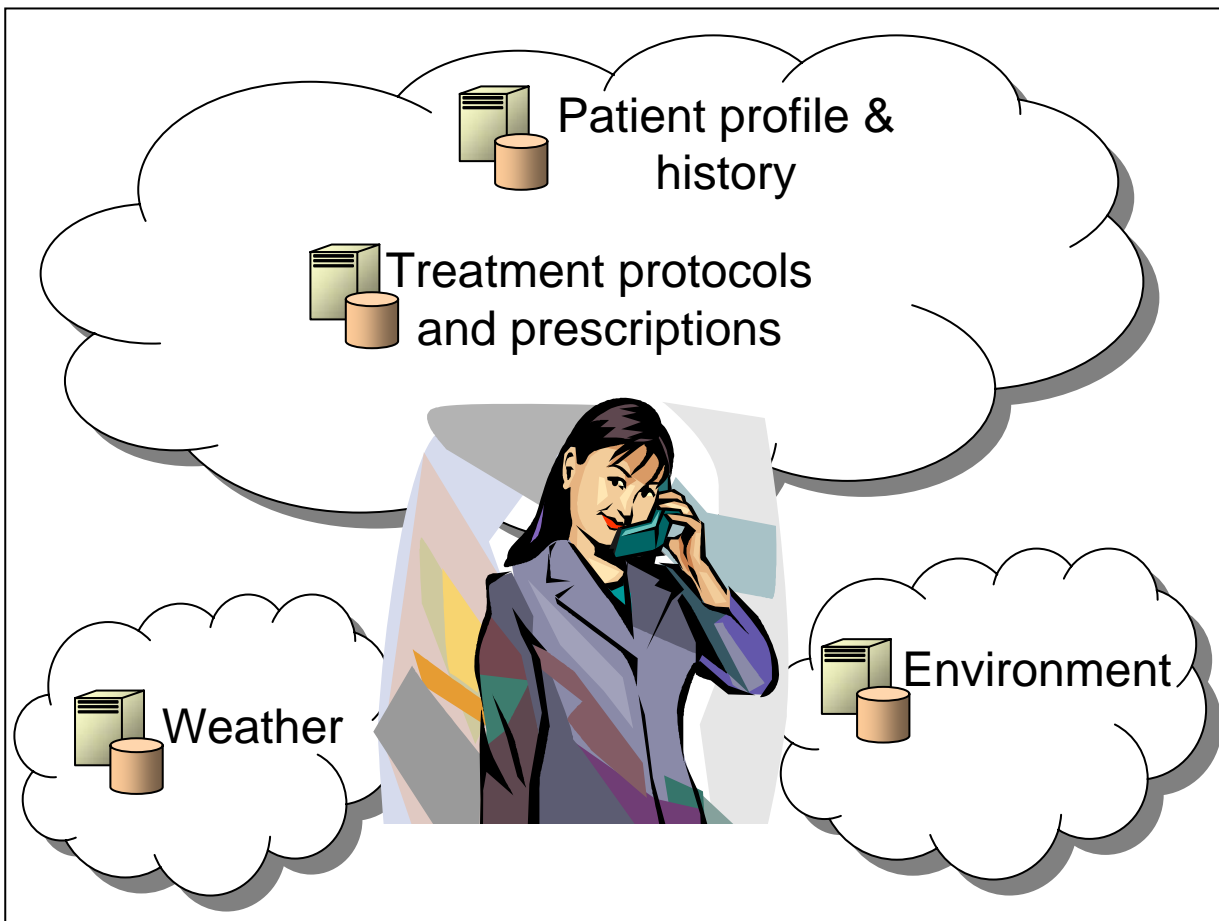
are about transforming how science,
business and IT is done



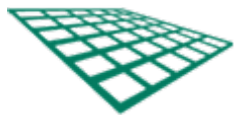
Example – Transforming Health Care



Taiwan Asthma Grid

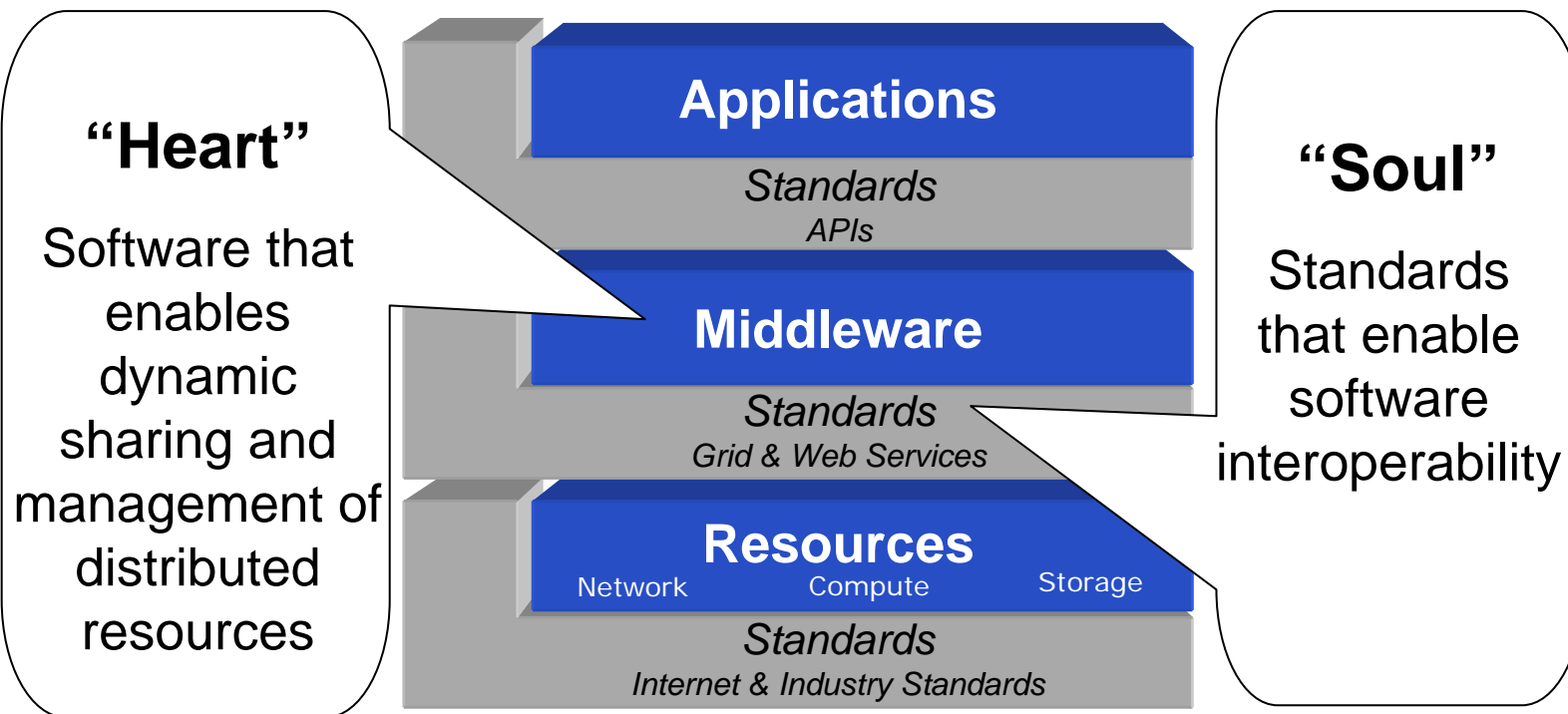


- Improved patient care
- Lower public health care costs
- More effective drugs and treatment protocols



The “heart” and “soul” of a grid solution

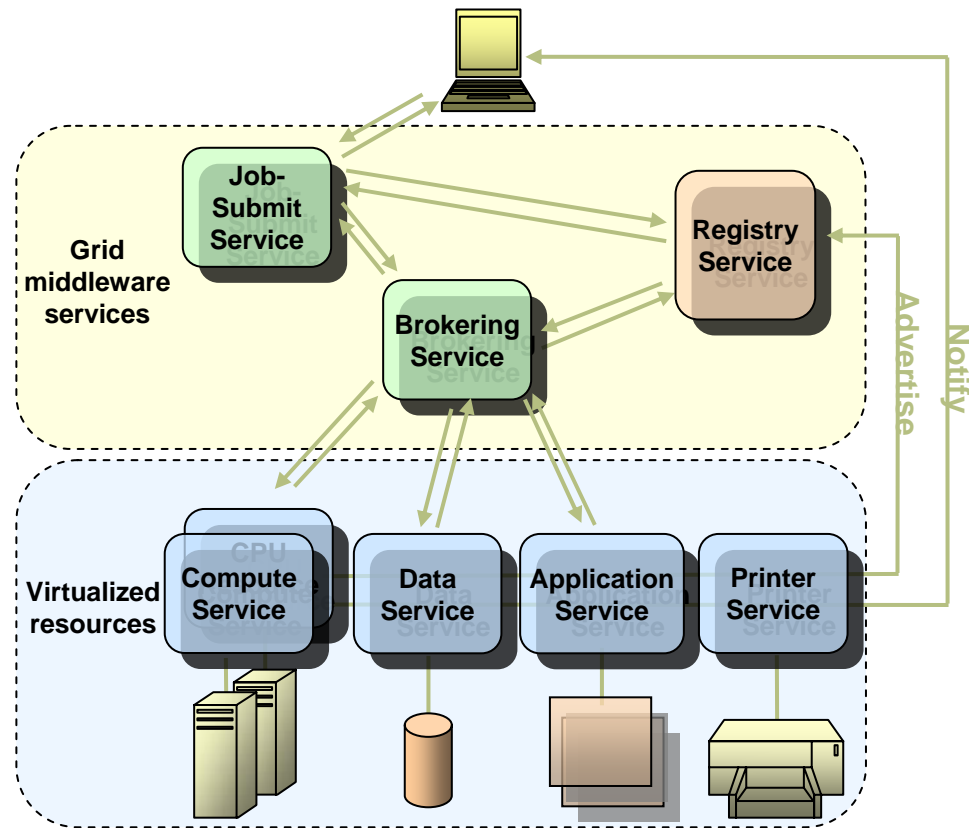
Grid Solution Stack



Key Requirements for Grid Middleware

Secure authorization, role and access privileges

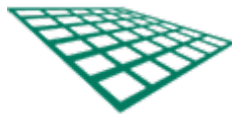
Execute
and manage
jobs/services



Data access,
transfer and
management

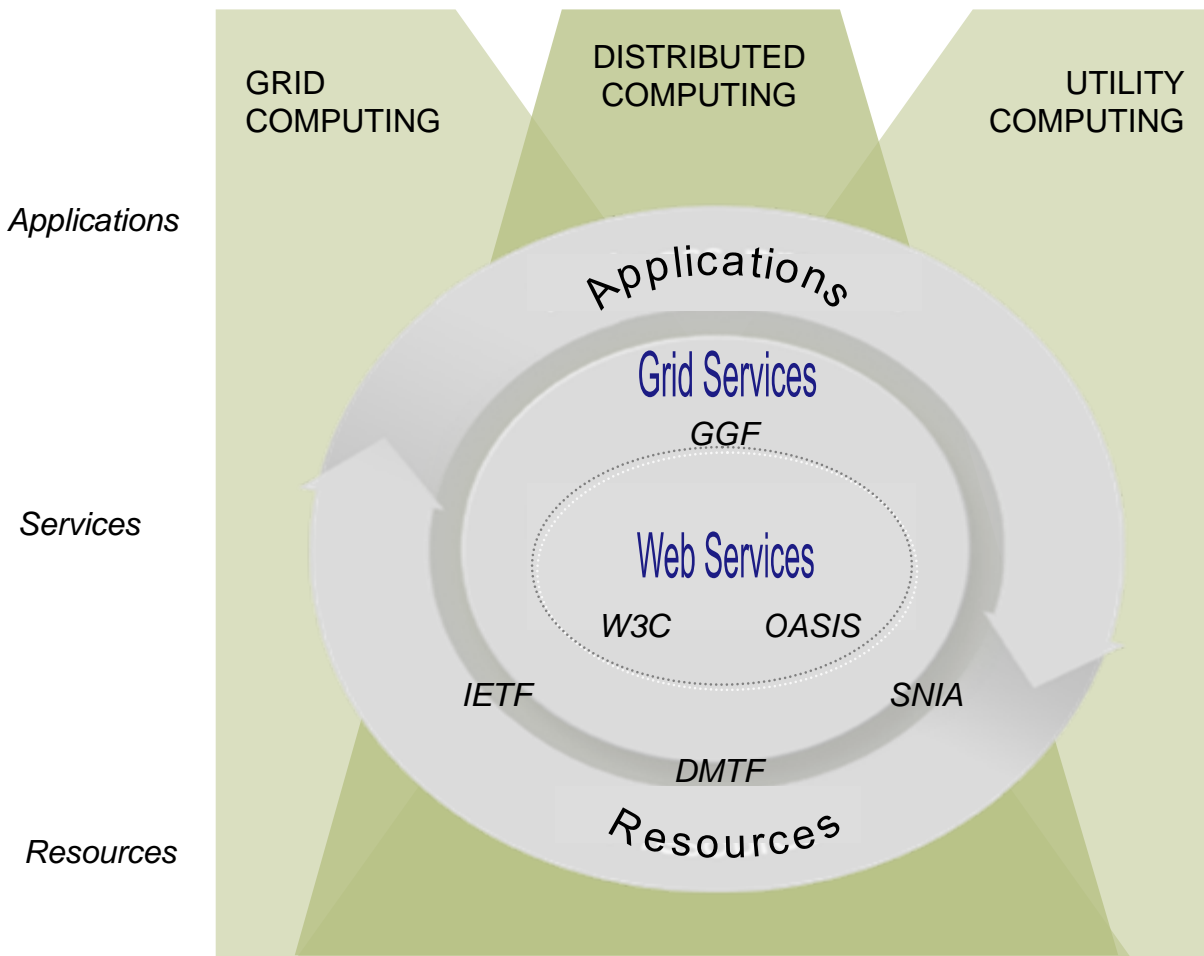
Resource
discovery,
monitoring &
control

Information
about
applications &
resources



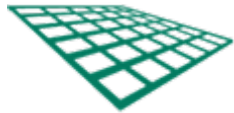
Standardization

Requires collaboration across the broader distributed computing industry

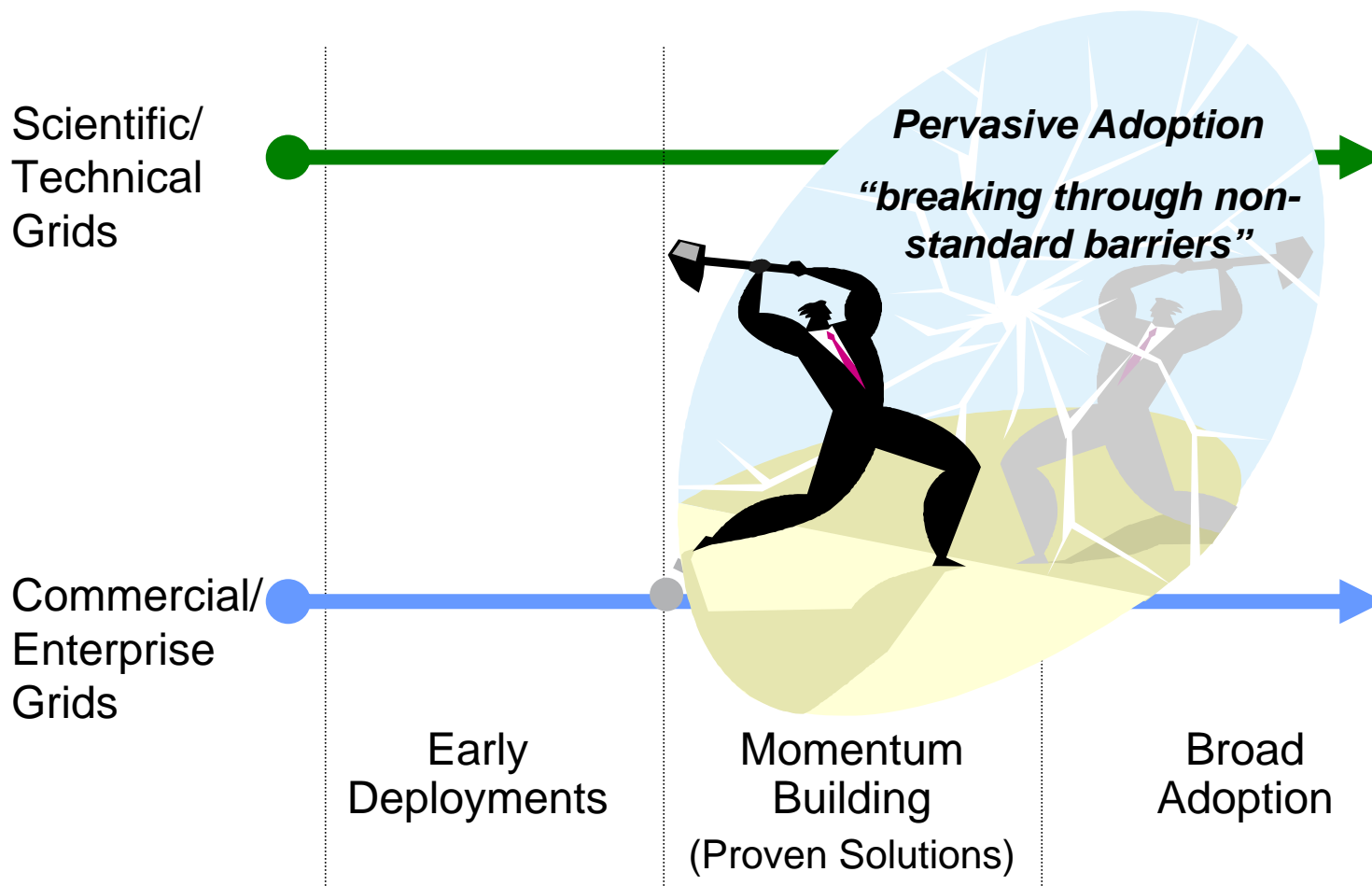


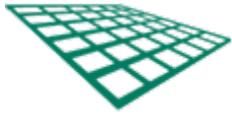
Requirements

- An open, service-oriented architecture (SOA)
- Built on a Web services infrastructure
- Resource virtualization at the core



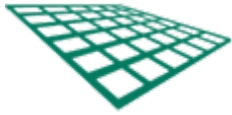
Adoption will progress in stages





The path to pervasive adoption





EGA and GGF

Accelerating grid adoption

- Standards
- Community
- Collaboration

Pervasive Adoption



*Grid & Distributed Computing
Communities*

Thank you!