

Global Grid Forum: Standards for Grid Computing

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Access Grid Retreat
Argonne National Laboratory

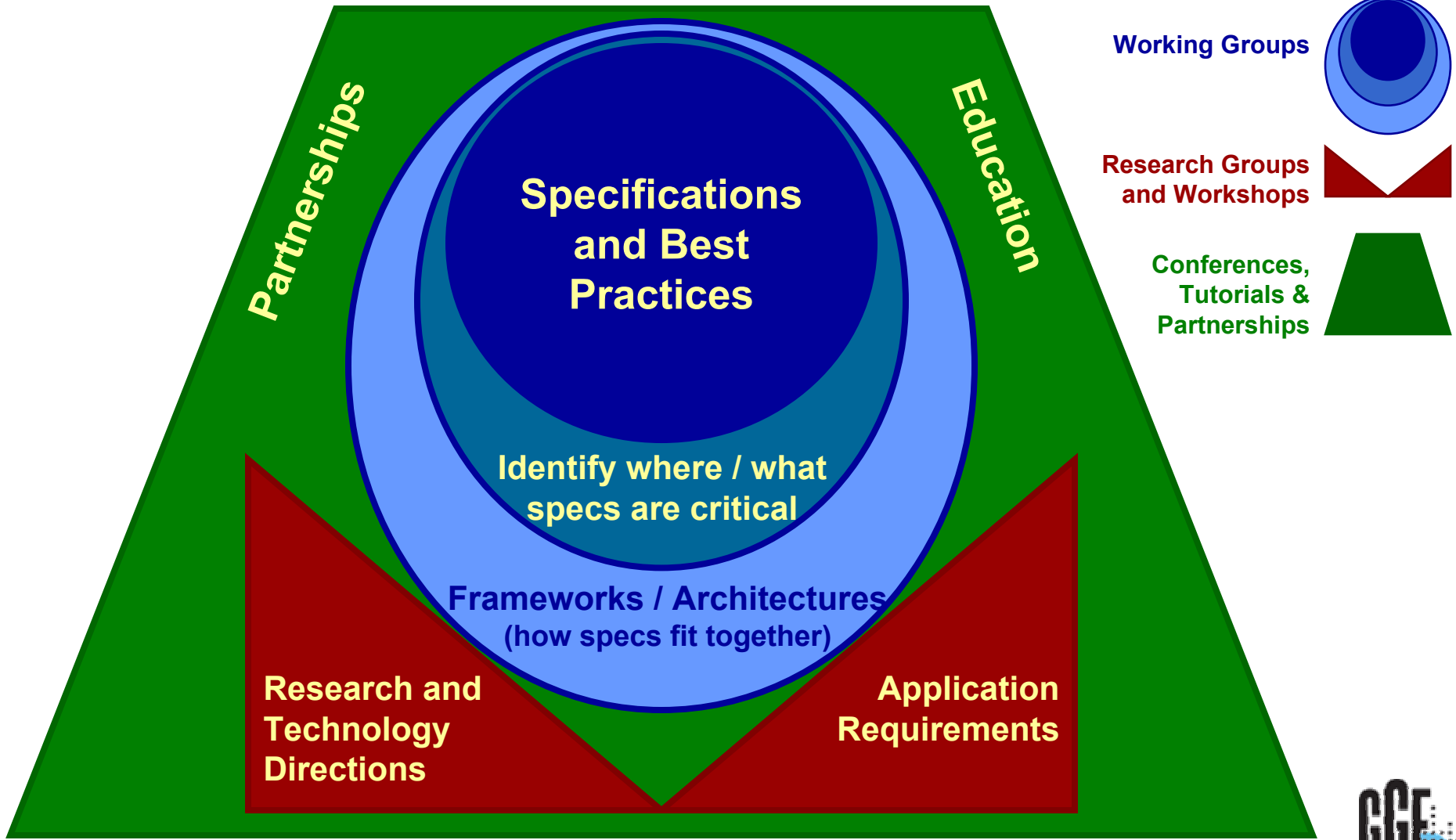


Why Global Grid Forum?

- **An Open Process for Development of Agreements and Specifications**
 - Grid “Recommendations” process
 - modeled after Internet Standards Process (IETF, RFC 2026)
 - Persistent, Reviewed Document Series
 - similar to RFC series; initiated October 2001
 - Intellectual Property policies (RAND) modeled after IETF policies
- **A Forum for Information Exchange and Collaboration**
 - Comparing notes on experiences, approaches
 - Spanning vertical layers, including people who are
 - Doing Grid Research
 - Designing and Building Grid software
 - Deploying Grids
 - Using Grids
 - Spanning technology areas- from directory services to scheduling to data handling to security to collaboration environments to...



What is GGF?



42 GGF Groups as of January 2003

Applications and Programming Environments

Grid Checkpoint/Recovery
Advanced Programming Models (APM-RG)
Grid Computing Environments (GCE-RG)
Life Sciences Grid RG

Advanced Collaborative Environments (ACE-RG)
Applications and Test Beds (APPS-RG)
Grid User Services (GUS-RG)

Architecture

Open Grid Services Infrastructure (OGSI-WG)
New Productivity Initiative (NPI-WG)
Accounting Models (ACCT-RG)
Service Management Frameworks (JINI-RG)

Open Source Software (OSS-WG)
Open Grid Services Architecture (OGSA-WG)
Grid Protocol Architecture (GPA-RG)
Production Grid Management RG

Data

GridFTP-WG
Data Replication (REPL-RG)
Grid High-Performance Networking (GHPN-RG)

Data Access and Integration Services (DAIS-WG)
Persistent Archives (PA-RG)
Data Transport (DT-WG)

Information Systems and Performance

Discovery and Monitoring Event Description (DAMED-WG)
Grid Information Retrieval (GIR-WG)
Relational Grid Information Services (RGIS-RG)
Semantic Grid RG

Network Measurement (NM-WG)
CIM based Grid Schema (CGS-WG)
Grid Benchmarking (GB-RG)

Peer-to-Peer

Appliance Aggregation

OGSA-P2P-Security

Scheduling and Resource Management

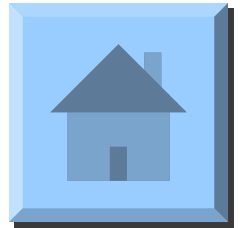
Scheduling Attributes (SA-WG)
Distributed Resource Management Application API (DRMAA-WG)
OGSA Resource Usage Service (RUS-WG)
Usage Record (UR-WG)

Scheduling Dictionary (SD-WG)
Grid Resource Allocation Agreement Protocol (GRAAP-WG)
Grid Economic Services Architecture (GESAWG)

Security

Grid Security Infrastructure (GSI-WG)
Open Grid Service Architecture Security (OGSA-SEC-RG)
Large Site AAA (AAA-WG)

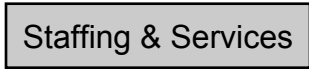
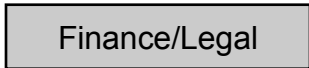
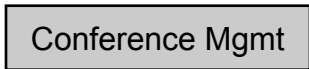
Grid Certificate Policy (GCP-WG)
CA Ops (CAO-WG)



GGF Structure

GGF, Inc.

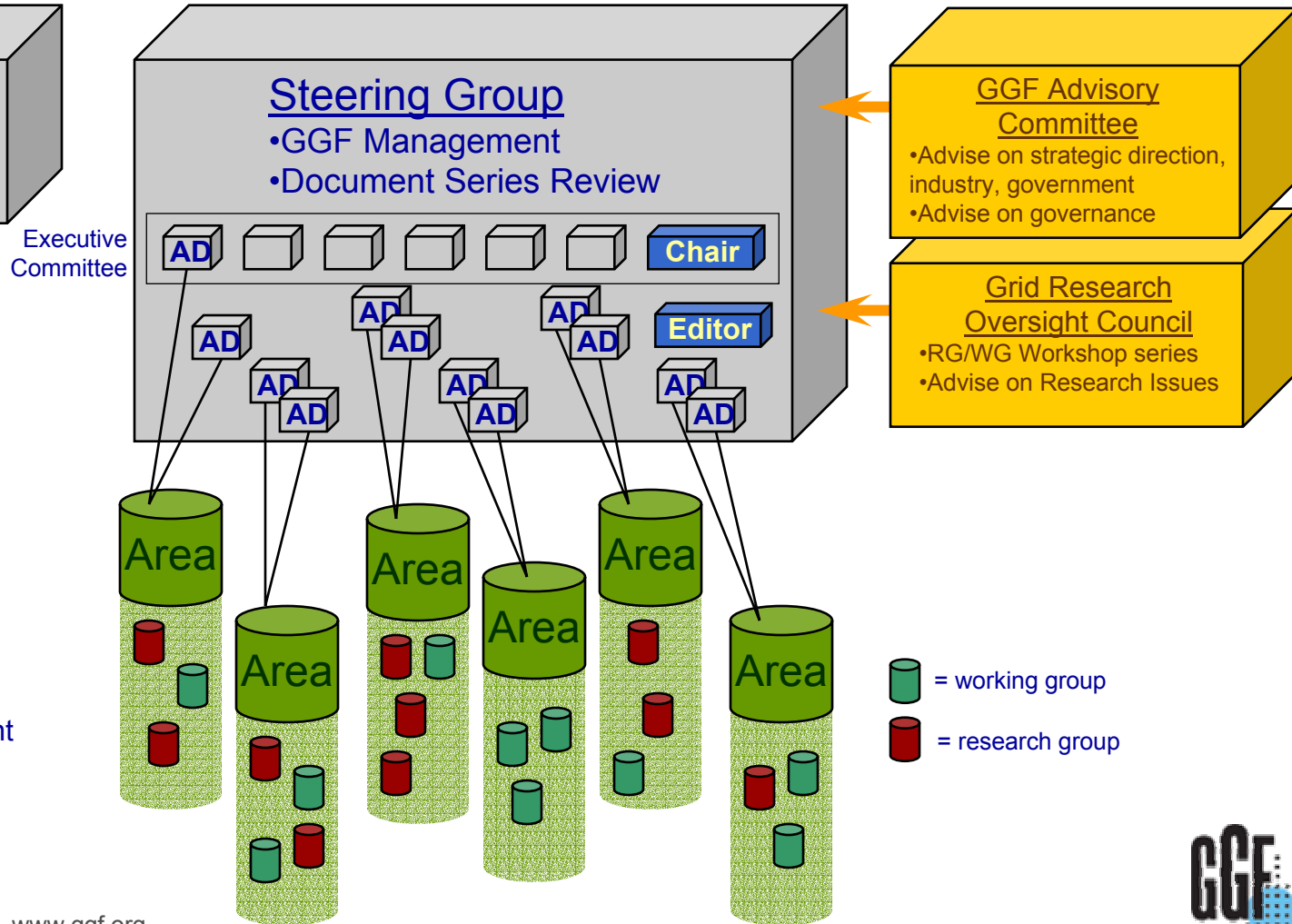
Secretariat: Operations



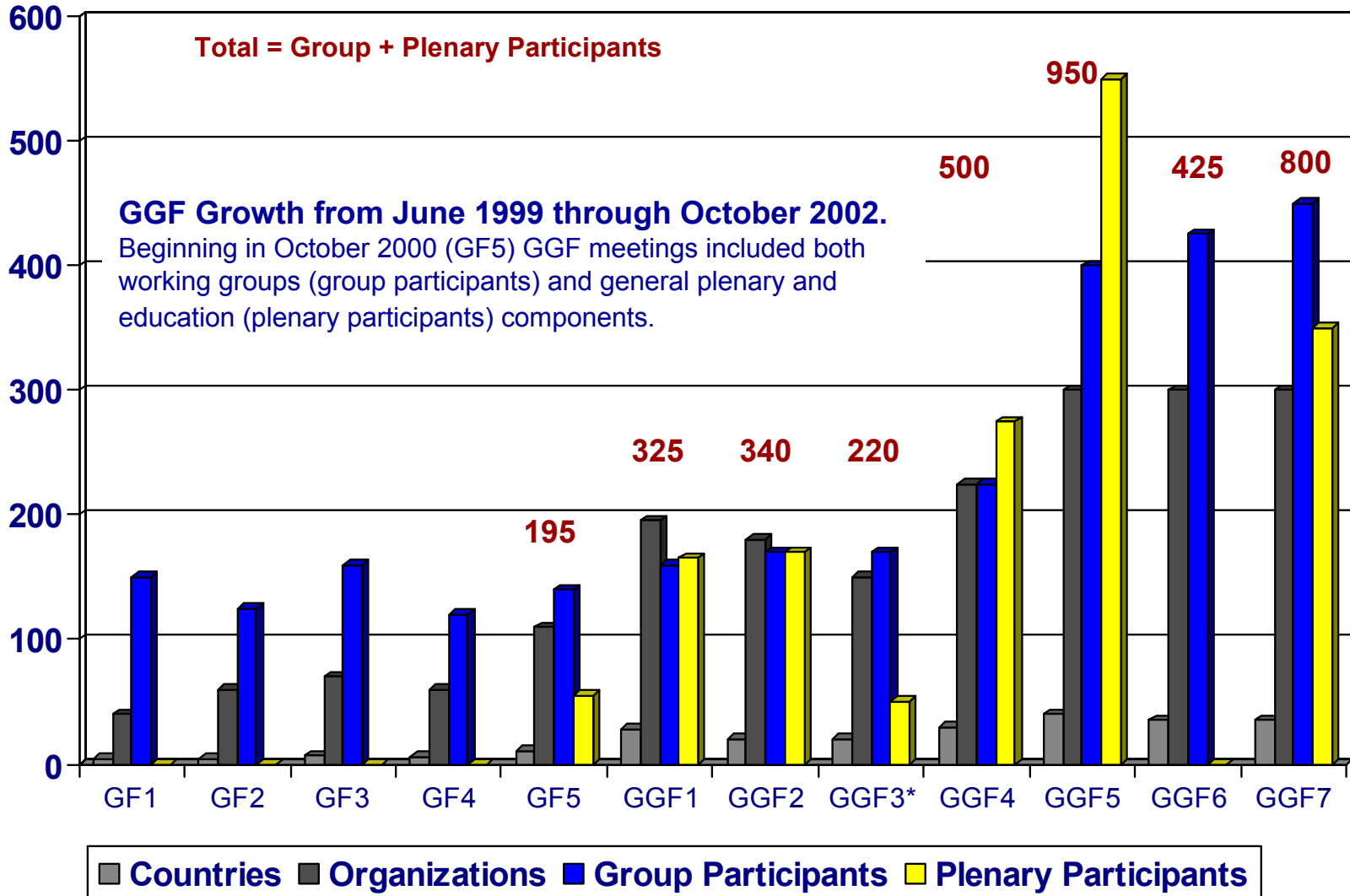
Holds *non-exclusive* copyright for document series

GGF

Document and Standards Work



GGF Participation



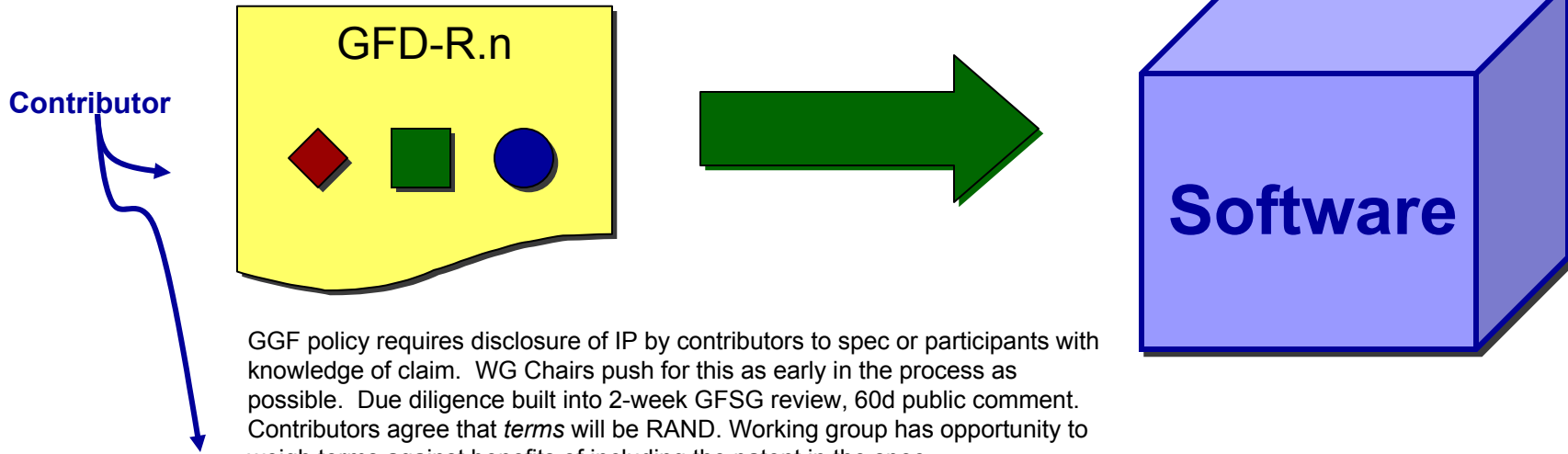
*GGF3 shows impact of 9-11



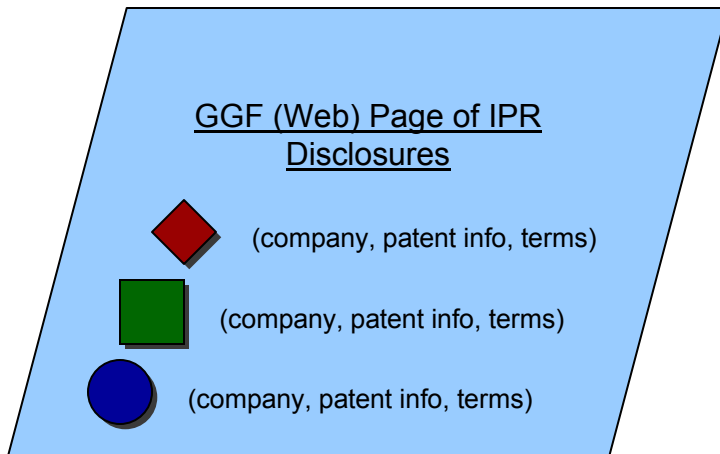
Intellectual Property Scenario

GFD-R.n technical spec using 3 patented ideas

Implementation of GFD-R.n spec



GGF policy requires disclosure of IP by contributors to spec or participants with knowledge of claim. WG Chairs push for this as early in the process as possible. Due diligence built into 2-week GFSG review, 60d public comment. Contributors agree that *terms* will be RAND. Working group has opportunity to weigh terms against benefits of including the patent in the spec.



Concepts

Copyright – Documents

(e.g. describing specifications)

Patent – Ideas/Concepts

(e.g. an algorithm or idea used in a specification)

License – Implementations

(e.g. software implementing a specification)