

# Global Grid Forum

Leading the pervasive adoption of grid computing  
for research and industry

GGF101

GridWorld/GGF15  
October 3, 2005

Steve Crumb

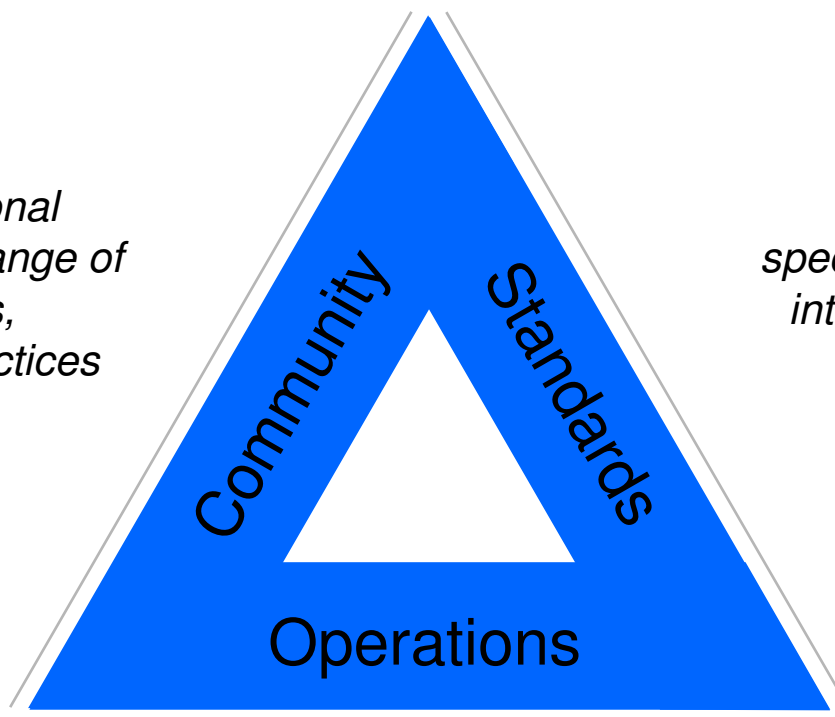


## The Global Grid Forum (GGF)

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Leading the pervasive adoption of grid computing  
for research and industry

*Building an international  
community for the exchange of  
ideas, experiences,  
requirements, best practices*

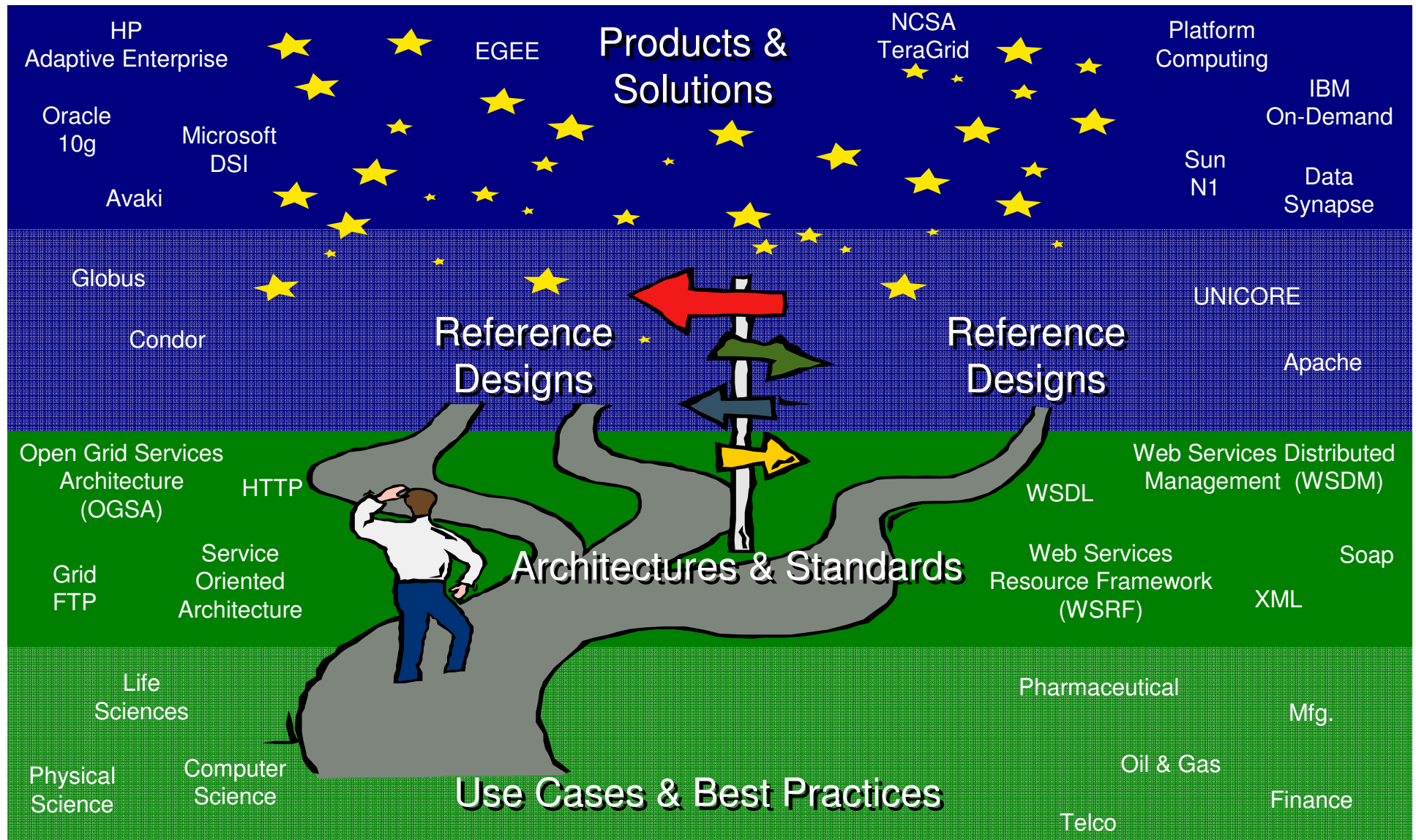


*Defining grid  
specifications that lead to  
interoperable software  
standards*

*Ensuring ongoing support of our mission and  
communication of our progress*



# The path toward pervasive adoption





# What Does GGF Do?

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- A Forum for Information Exchange and Collaboration
  - Comparing notes on experiences, approaches
  - Developing use cases, best practices, requirements
  - Spanning vertical layers, including people who are
    - Doing Grid Research
    - Designing and Building Grid software
    - Deploying Grids
    - Using Grids
- An Open Process for Development of Agreements and Specifications
  - Grid “Recommendations” process (GFD.1)
    - modeled after Internet Standards Process (IETF, RFC 2026)
  - Persistent, Reviewed Document Series
    - similar to RFC series; initiated October 2002
  - Intellectual Property policies (RAND) modeled after IETF policies
  - Spanning technology areas- from architecture to scheduling to data handling to security to collaboration environments to...



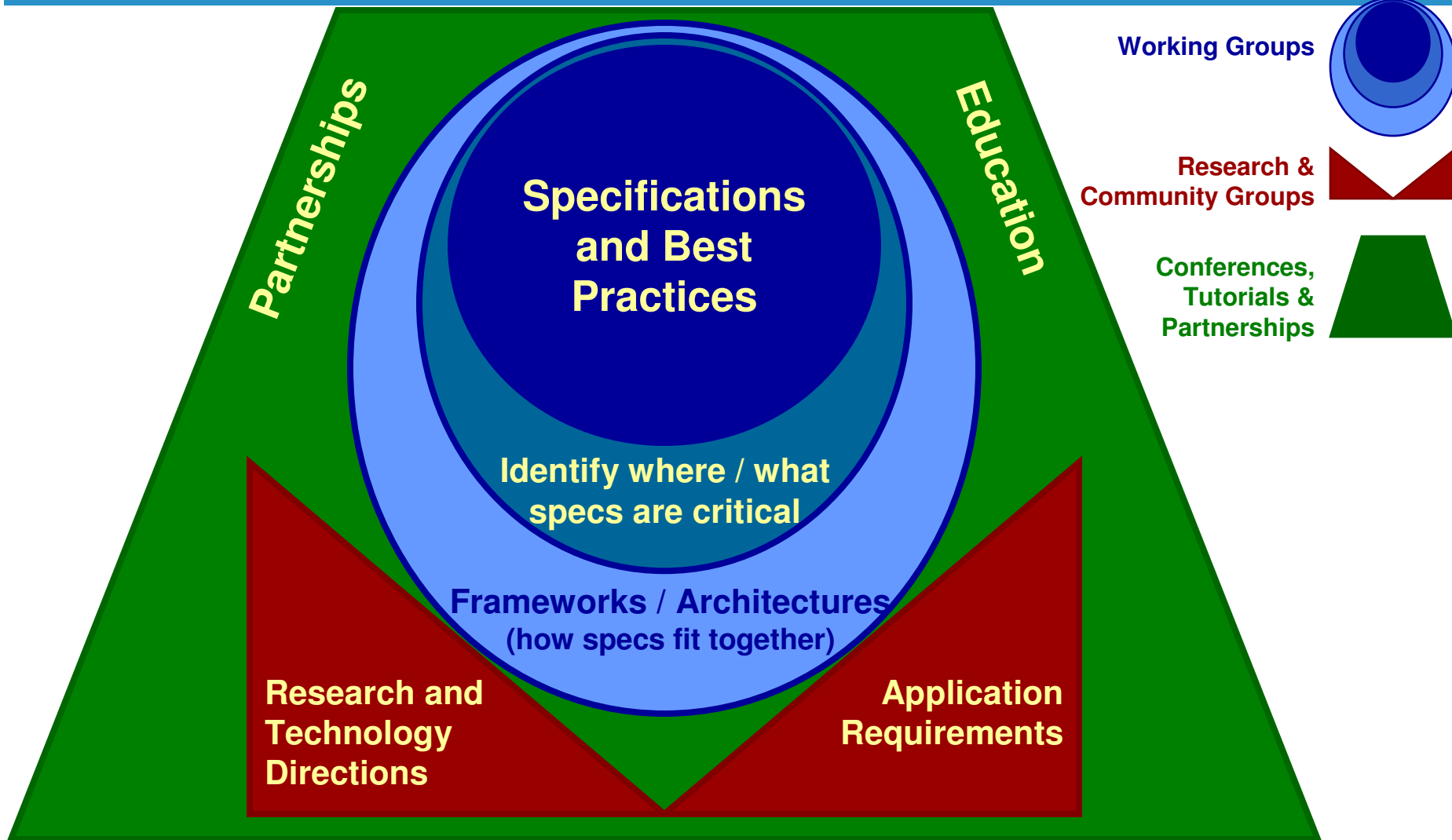
# Key GGF Strategies

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- Groups
- Management
- Advice
- Events
- Open Process



# GGF Groups





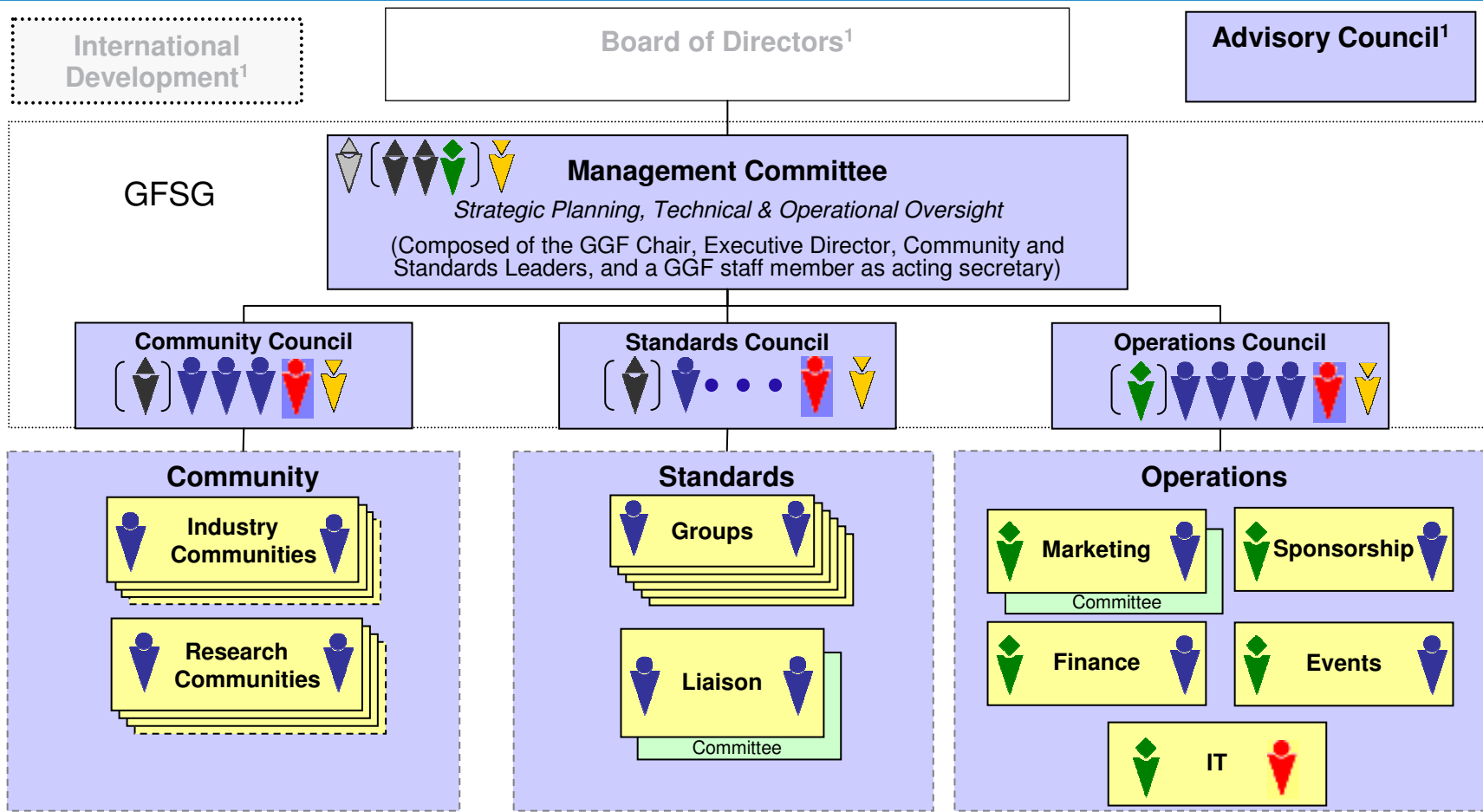
# Key GGF Strategies: Groups

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- Working Groups (WG)
  - Crisp focus on development of a specification, guideline, etc.
  - Clear milestones based on delivery of drafts
- Research Groups (RG)
  - Focus can be broader than WG, but must be clear
  - Milestones based on delivery of drafts, organization of workshops, and workshop reports
  - Technology exploration (e.g., Semantic Grid-RG)
- Community Groups (CG)
  - Explore grid usage and requirement in a particular vertical (e.g., Telco-CG)



# The organization is evolving to enable more focused leadership and accountability



**Key:**

	= Area Director (NOMCOM)		= GGF Staff Representative (Employee)		= GGF Chair		= Editor
	= Full-time community volunteer		= GGF Staff Admin Support (Employee)	[ ]	= Indicates Vice Chairs		

1. Future structure and role TBD      2. Area Directors = 2x number of areas





# Key GGF Strategies: Management

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- Individual Groups
  - Group Chairs work with Area Directors to track progress based on [charter](#).
- Area Directors (Part of GFSG)
  - Responsible for assisting chairs
  - Review drafts prior to submission to Editor
  - Promote communication
  - As a group, AD's approve charters and advance documents
- Vice-Chairs
  - Oversees functional leadership (Area Directors)
  - Provide continuity across all functions
- GGF Chair



# Key GGF Strategies: Advice

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- GGF Advisory Committee (GFAC)
  - Advises GGF Chair and GFSG on long-term institutional strategies
  - Evaluates performance of GGF overall and of GGF Chair
  - Singular governing role: approves nomination, by GFSG, of GGF Chair
- Being defined:
  - Board of Directors (Currently directs the Non-profit only)
  - International Development (Regionalization project in-progress)



# Key GGF Strategies: Events

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- 3 Events a year: Spring, Summer, Fall
  - Historically Summer meeting group sessions & Community Program
  - Fall meeting multiple programs & group sessions (GridWorld™)
- Several types of sessions:
  - Enterprise Program: end-user deployment-focused sessions
  - Community Program: in-depth sessions on grid technology innovations and grid best practices
  - Tutorials: hands-on sessions; educational
  - Group Sessions: Group collaboration over chartered work
- Try to spread roughly equally by region (US, Europe, AP)
  - Driven by attendance and host offers
- GridWorld is a joint-production of GGF & IDG World Expo



# Key GGF Strategies: Process

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- Open Standards Process
  - All participants have an equal voice
  - All meetings announced
  - Major document revisions and decisions announced to mailing list
  - Meeting minutes available
- Meetings
  - Frequency
    - Phone: Frequency is Decision of Chairs
    - Interim: Frequency is Decision of Chairs
    - GGF Meetings: 3x/yr, working groups strongly urged to meet
  - Openness
    - All meetings must be announced to mailing list and in GridForge
    - Interim meetings should be announced with adequate time to arrange travel (suggested 4 weeks, *minimum* 2 weeks)
    - Phone dial-in must be allowed for interim meetings



# How to participate in GGF

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- Attend Events (We all start as tourists)
- Join Group
  - Mail Lists
    - Join list off group webpage
      - Full listing: [http://www.ggf.org/ggf\\_areasgrps\\_overview.htm](http://www.ggf.org/ggf_areasgrps_overview.htm)
  - GridForge (<http://forge.ggf.org>) – Group Web Presence
- Write/Edit Documents
  - Drafts can be submitted by anyone
- Volunteer
  - Sponsor
  - Program Committee
  - Operational Opportunities (Marketing, Finance, IT, Events)
- Lead (GFSG)
  - Group Chair
  - Area Director



# Tourist's guide to GGF Meetings

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- Tourists come to visit and to learn
- Some activities specifically for tourists
  - Presentation or “outreach” group sessions
  - Enterprise/Community Programs, Workshops, Tutorials
  - Sponsored Receptions
- Approach some activities with caution
  - Working Group sessions focused on specification documents in progress
  - Expected to have read draft documents
  - Reserve first seats and first comments for group members
- Group sessions are open to all
  - Chairs run the meeting
    - Balance agenda items and speaking time
- No votes
  - “rough consensus and working code”
  - Individuals not companies



# How to Join a Group

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- Joining a Group is free to all
  - Join Mail Lists
    - Send message “subscribe <name-wg>” to majordomo@ggf.org
    - All official decisions made on the mailing list
      - Allows for absences
      - Allows for non-English speakers
- GridForge (<http://forge.ggf.org>)
  - Tool to help group operations
  - Public forum for processes (public comment, document submission, editorial pipeline status, etc.)
  - Obtain login on front page



## Key GGF Strategies: Documents

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- Four Types of Documents
  - Informational
  - Experimental
  - Community Practice
  - Recommendations (2-state process)
- Document Process and Editor/Publisher
  - Open, Public Review Process for GGF Drafts
  - GGF Editor (Greg Newby) manages the “document pipeline”
  - Editor & GFSG reviews recommendations and community practice drafts as first stage of pipeline
  - Informational and Experimental drafts reviewed by editor, optionally by GFSG





## Key GGF Strategies: Documents

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- GWD (Grid Working Draft)
  - Stable document for general community review
  - Any IP issues are noted
  - Consistent format and naming
- GFD (Global Grid Forum Document)
  - Passed through the relevant (to document type) process including public comment and Editor review
  - Assigned a document number (GFD.1)



## Document Types

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- **Informational**
  - Informs the community of an interesting and useful Grid-related technology, architecture, framework, or concept
  - Specifies requirements related to a particular vertical application
- **Experimental**
  - Informs the community of the results of Grid-related experiments, implementations, operational experience, or to propose an experimental specification



## Document Types

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- **Community Practice**
  - inform and influence the community regarding an approach or process that is considered to be widely accepted by consensus and practice in the Grid community
- **Recommendations (2 stage)**
  - Documents a particular technical specification or a particular set of guidelines for the application of a technical specification. The recommendations documents are intended to guide interoperability and promote standard approaches.



## Documents (Other)

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- Process defined by:
  - **GFD.1.pdf**
    - Global Grid Forum Documents and Recommendations: Process and Requirements  
<http://www.ggf.org/documents/GFD-C.1.pdf>
- **Public Comment**
  - [http://www.ggf.org/ggf\\_docs\\_public.htm](http://www.ggf.org/ggf_docs_public.htm)
  - Documents for download and forums for comments.



# Key GGF Processes

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- Proposing a new group
- Submitting drafts



# Proposing a New Group

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- Identify a concise area of interest (check of existing overlaps)
- Identify potential leadership (multiple organizations)
- Identify consumers
- Identify (draft) purpose and deliverables (documented via a draft Charter)
- Request BOF from Area Directors (draft charter encouraged)
- As a first step, may consider a “ad-hoc” meeting to gauge interest in community



# Approval Process

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- BOF organizers must gain consensus on a draft charter
  - Purpose & Scope of proposed group
  - Proposed Chairs
  - Intended deliverables and milestones
- Submit the draft charter to an Area Director (AD)
- AD will request review and approval from GFSG
- Upon approval, group will receive a mail list and GridForge project

# Submitting a Grid Working Draft (GWD) to the GGF Editor

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- GWD Requirements (see GFD.1)
  - Appropriate name
  - Appropriate format (editable)
  - Author name(s), institution(s), and contact information
  - Date (original and, where applicable, latest revision date)
  - Title, table of contents, clearly numbered sections
  - Security Considerations section
  - GGF Copyright Statement
  - GGF Intellectual Property Statement





## Submitting a Draft to the Editor

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- Submit via “Submit GGF Draft” tracker in the Editor project of GridForge
- Enters the “editor pipeline”
- Editor, AD’s, and GGF staff manage the process
- Check status at:

<https://forge.gridforum.org/projects/ggf-editor/>



# GGF Governance

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- Initial Establishment of GGF
  - GGF Chair, initial GFSG appointed by plenary vote
    - October 1999
  - GFAC members appointed by GFSG
  - Expansions of GFSG and GFAC in 2000, 2001, 2002, 2004
    - New members selected by general consensus of existing GFAC, GFSG
  - Nomcom process initiated 2003 for GFSG
  - Working Group and Research Group Chairs
    - Appointed by GFSG in conjunction with proposed group charter
- Current GGF Governance Process
  - GGF Chair
    - Three year term, renewable, nominated by GFSG
  - GFSG: ADs and Executive Committee
    - Three year term, renewable, nominated by (RFC3777) Nominating Committee
  - GFAC Nominated by GFSG, GFAC and invited by Board of Directors, GGF, Inc.
  - STATUS
    - Nominating committee formed in March 2005 to select “Class of 2005” GFSG members. Chair Dietmar Erwin (FZ Juelich).



# GGF Chair & GGF Editor

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- GGF Chair (Mark Linesch)
  - Overall Structure and effectiveness of GGF
    - Governance Role: GFSG evaluation
      - Regular evaluation of effectiveness of GFSG
    - Governance Role: Area Formation and Operation
      - Work with GFSG to evaluate need for changes in area structure (create, merge, etc.)
    - Chairs GFSG, serves as liaison between GFSG and GFAC
  - Represents GGF to external entities
  - Ensures that GGF meeting schedule, structure, logistics support the GGF mission
- GGF Editor (Greg Newby)
  - Manages document process flow for all GGF Documents
  - Facilitates GFSG review of documents (CP and REC)



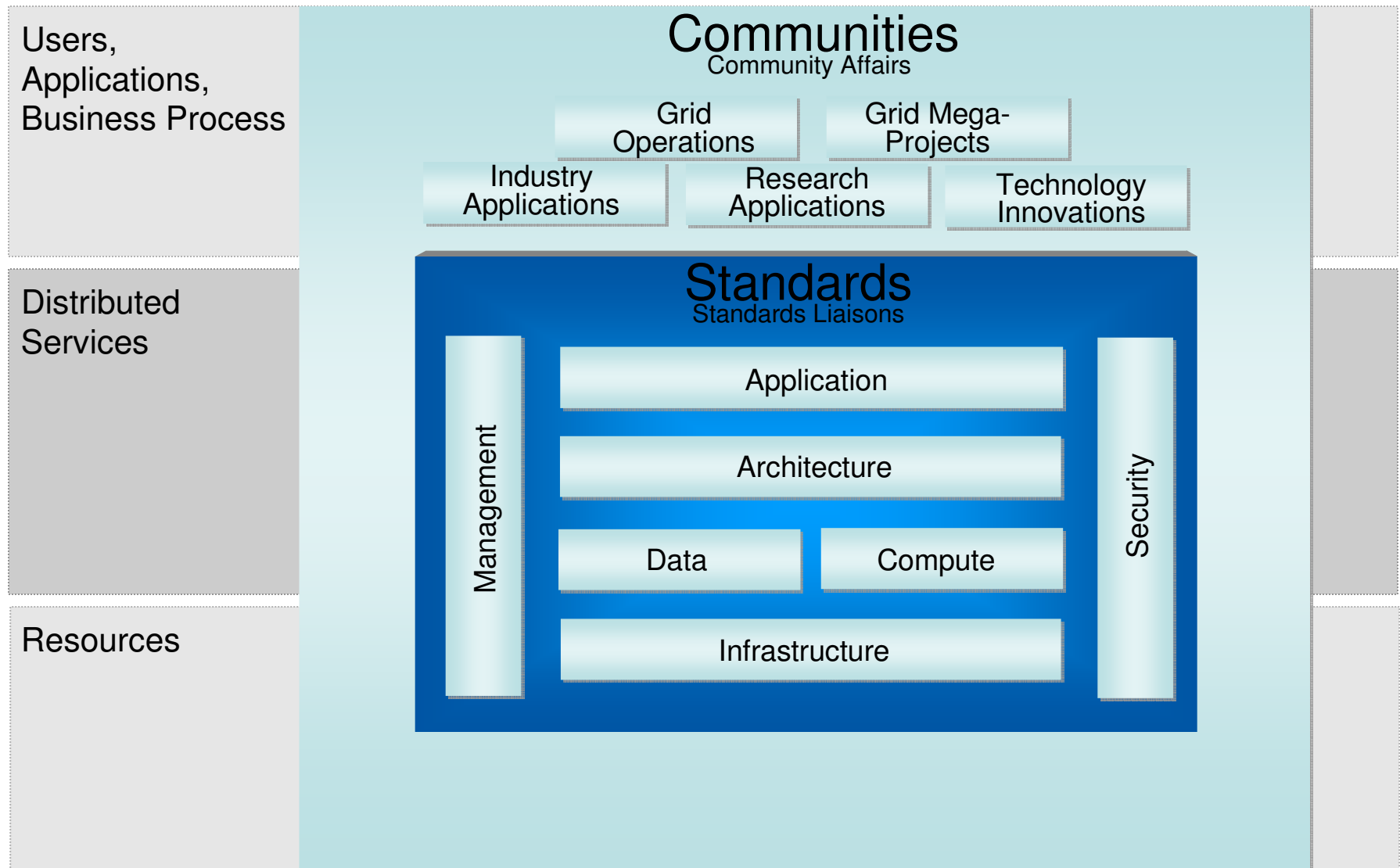
# GGF Steering Group (GFSG)

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- Management Committee
  - Mark Linesch (HP) [Chair]
  - Dave Snelling (Fujitsu) – Vice Chair, Standards
  - Robert Fogel (Intel) – Vice Chair, Community
  - Steve Crumb (GGF) – Vice Chair, Operations
- Full listing of GFSG at: [http://www.ggf.org/ggf\\_contact\\_steering.htm](http://www.ggf.org/ggf_contact_steering.htm)
- Roles
  - Operational management and policy
  - Document series review
  - Chartering of new groups
  - Group oversight and review
- GFSG Election
  - Individuals, not company representatives
  - Selected by a community-driven Nominations Committee (NOMCOM)
  - Confirmed by existing GFSG



# GGF Area Structure (as of GGF14)





# Standards Function Areas

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## David Snelling (Vice-Chair of Standards)

- Applications
  - Dennis Gannon ([gannon@cs.indiana.edu](mailto:gannon@cs.indiana.edu))
  - Dieter Kranzmueller ([dk@gup.jku.at](mailto:dk@gup.jku.at))
- Architecture
  - Andrew Grimshaw ([grimshaw@uvirginia.edu](mailto:grimshaw@uvirginia.edu))
- Compute
  - Ramin Yahyapour ([ramin.yahyapour@udo.edu](mailto:ramin.yahyapour@udo.edu))
  - Stephen Pickles ([stephen.pickles@manchester.ac.uk](mailto:stephen.pickles@manchester.ac.uk))
- Data
  - David Martin ([demartin@us.ibm.com](mailto:demartin@us.ibm.com))
  - Malcolm Atkinson ([mpa@nesc.ac.uk](mailto:mpa@nesc.ac.uk))
- Infrastructure
  - Cees de Laat ([delaat@science.uva.nl](mailto:delaat@science.uva.nl))
- Management
  - John Tollefsrud ([john.tollefsud@sun.com](mailto:john.tollefsud@sun.com))
  - Hiro Kishimoto ([hiro.kishimoto@fle.fujitsu.com](mailto:hiro.kishimoto@fle.fujitsu.com))
- Security
  - Dane Skow ([dane@fnal.gov](mailto:dane@fnal.gov))
  - Olle Mulmo ([mulmo@pdc.kth.se](mailto:mulmo@pdc.kth.se))
- Liaison
  - Jay Unger ([unger@us.ibm.com](mailto:unger@us.ibm.com))
  - Matthew Dovey ([matthew.dovey@oucs.ox.ac.uk](mailto:matthew.dovey@oucs.ox.ac.uk))



# Community Function Areas

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## **Robert Fogel (robert.fogel@intel.com) (Vice-Chair of Community)**

### Research Applications

- Satoshi Matsuoka ([matsu@is.titech.ac.jp](mailto:matsu@is.titech.ac.jp))
- Thilo Kielmann ([kielmann@cs.vu.nl](mailto:kielmann@cs.vu.nl))

### • Industry Applications

- Craig Lee ([craig@rush.aero.org](mailto:craig@rush.aero.org))
- Robert Cohen ([bcohen@bway.net](mailto:bcohen@bway.net))

### • Grid Operations

- Ken Klingenstein ([ken@ucolorado.edu](mailto:ken@ucolorado.edu))
- Charlie Catlett ([catlett@mcs.anl.gov](mailto:catlett@mcs.anl.gov))

### • Technology Innovators

- David De Roure ([dder@ecs.soton.ac.uk](mailto:dder@ecs.soton.ac.uk))
- Dennis Gannon ([gannon@cs.indiana.edu](mailto:gannon@cs.indiana.edu))

### • Major Grid Projects

- Victor Alessandrini, ([va@idris.fr](mailto:va@idris.fr))
- Wolfgang Gentsch ([wgentsch@mcnc.org](mailto:wgentsch@mcnc.org))
- Hai Jin (China) ([hjin@hust.edu.cn](mailto:hjin@hust.edu.cn))

### • Community Affairs

- Geoffrey Fox ([gcf@grids.indiana.edu](mailto:gcf@grids.indiana.edu))



# Operation Function Areas

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## **Steve Crumb (scrumb@ggf.org) (Vice-Chair of Operations)**

- Events
  - Ann Collins (collins@ggf.org)
  - open
- Sponsorship
  - Beth Plale (plale@cs.indiana.edu)
- Marketing
  - Miriam Vializ-Briggs (mvbriggs@us.ibm.com)
- Information Technology
  - Andre Merzky (andre@merzky.net)
- Finance
  - open





## GGF External Advisory Committee (GFAC)

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- **GFAC Members**

- Ian Baird (EMC)
- Kyriakos Baxevanidis (EU/CEC)
- Walter Brooks (NASA)
- Frederica Darema (US NSF)
- Bill Feiereisen (LANL) [Chair]
- Robert Fogel (Intel)
- Ian Foster (ANL, UChicago)
- Fabrizio Gagliardi (CERN)
- Tony Hey (UK)
- John S. Hurley (Boeing)
- Lennart Johnsson (U. of Houston)
- Jysoo Lee (KISTI)
- Yoichi Muraoka (Waseda Univ)
- Simon Nicholson (Sun)
- Alexander Reinefeld (ZIB)
- Mary Anne Scott (US DOE)
- Satoshi Sekiguichi (AIST)
- Rick Stevens (ANL)
- Martin Walker (HP)
- Ken King (IBM)
- Wolfgang Boch (EU)

- **GFAC Role**

- External long-range advice
- Strategies for partnerships, governance, liaisons
- Global perspective
  - Representatives from multiple regions

- **GFAC Status**

- Emphasis on increasing industry participation in GFAC

- **GFAC Participants**

- Invited as individuals to give wise advice.
- Not “representatives”



# GGF Corporation

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- Not-for-Profit Corporation in the State of Illinois (USA)
- Legal entity to manage GGF operations
  - Financial management (via 3<sup>rd</sup> party public accounting firm)
    - Three annual meetings, 500-600 participants per meeting
    - Sponsorship program
      - Corporate and laboratory/university sponsors
      - Government grants
  - Legal support for GGF activities (via external legal counsel)
    - Develop and manage intellectual property policies and procedures
    - Advise on open/fair process and practice
    - Carry insurance and provide indemnification for GGF volunteers
  - Operational Support (via internal staffing and commercial partners)
    - Information technology
      - Websites, mailing lists, document repository
    - Staffing
- GGF Corp Board of Directors
  - Linesch (GGF Chair), Feiereisen (GFAC Chair), Nitzberg,
  - Directors receive no financial compensation



# Next Steps

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- Being here is a great first step!!
- Consider attending a BOF (new group formation)
- Group Participation
  - Attend and Listen (don't expect to be brought up to speed)
  - Read current draft documents
  - Join mail list (catch up by reading archives)
  - Sidebar meetings with members/chairs
- No Match? Propose a Birds-of-a-Feather (BOF)
  - Meeting to propose an idea and gather interest within community
  - Charter Discussion BOF (group formation; draft charter; proposed leadership; specific guidelines for group approval)
  - Ad-hoc Meetings (any subject of interest to the community, draft charter not required, IP policy may not be enforced, scheduled at registration table)
- Organizations should consider sponsorship opportunities
  - 70 organizational sponsors
  - Sponsorship ranges from \$3000/yr to \$50,000/yr



# Valuable Contacts

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- Questions about Working Groups/Research Groups
  - Area Directors  
([http://www.ggf.org/ggf\\_contact\\_steering.htm](http://www.ggf.org/ggf_contact_steering.htm))
  - Joel Replogle, [replogle@ggf.org](mailto:replogle@ggf.org)
- Questions about Process, Sponsorship, Finance
  - Steve Crumb, [scrumb@ggf.org](mailto:scrumb@ggf.org)
- Questions about this event or future events
  - Ann Collins, [collins@ggf.org](mailto:collins@ggf.org)
- All other questions
  - [office@ggf.org](mailto:office@ggf.org)



# QUESTIONS?

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- THANK YOU FOR ATTENDING!
- ENJOY YOUR FIRST GGF/GRIDWORLD!



# GGF Copyright

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- This document and translations of it may be
  - copied and furnished to others, and
  - derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published and distributed, in whole or in part,
- without restriction of any kind, provided that the above copyright notice and this paragraph are included on all such copies and derivative works.
- However, this document itself may not be modified in any way,
  - such as by removing the copyright notice or references to the GGF or other organizations,
- except as needed for the purpose of developing Grid Recommendations
  - in which case the procedures for copyrights defined in the GGF Document process must be followed,
- or as required to translate it into languages other than English.



# GGF IP Policy: Note Well

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- Contributions
  - All statements related to the activities of the GGF and addressed to the GGF are subject to all provisions of Section 17 of GFD.1 which grants to the GGF and its participants certain licenses and rights in such statements. Such statements include verbal statements in GGF meetings, as well as written and electronic communications made at any time or place, which are addressed to:
    - the GGF plenary session,
    - any GGF working group, research group, or portion thereof,
    - the GFSG, or any member thereof on behalf of the GFSG,
    - the GFAC, or any member thereof on behalf of the GFAC,
    - any GGF mailing list, including any working group or research group list, or any other list functioning under GGF auspices,
    - the GFD Editor or the GWD process
  - Statements made outside of a GGF meeting, mailing list or other function, that are clearly not intended to be input to an GGF activity, group or function, are not subject to these provisions.



# GGF IP Policy: Notices

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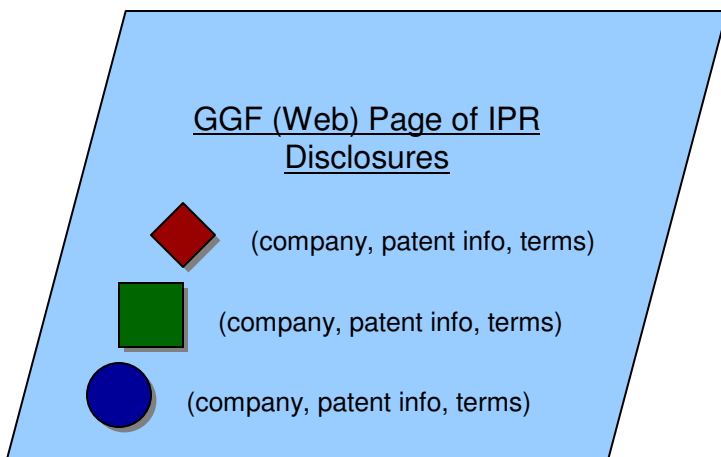
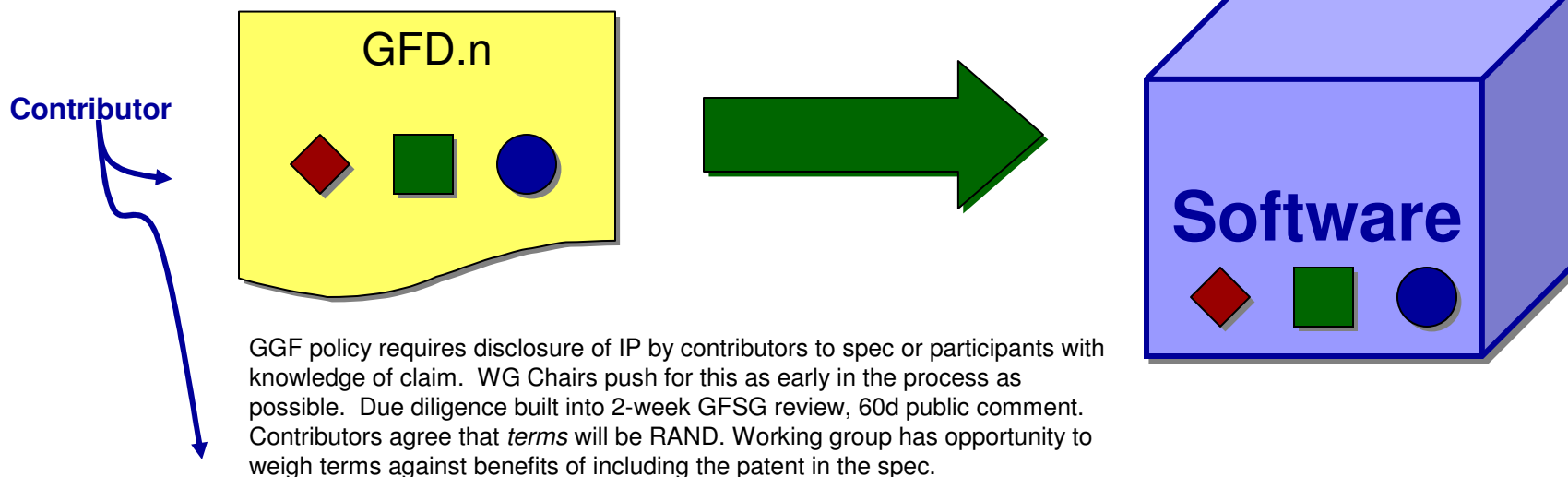
- *Where the GFSG knows of rights, or claimed rights,*
  - *the GGF secretariat shall attempt to obtain from the claimant of such rights, a written assurance that*
    - *upon approval by the GFSG of the relevant GGF document(s),*
    - *any party will be able to obtain the right to implement, use and distribute the technology or works when implementing, using or distributing technology based upon the specific specification(s)*
    - *under openly specified, reasonable, non-discriminatory terms.*
  - *The working group or research group proposing the use of the technology with respect to which the proprietary rights are claimed may assist the GGF secretariat in this effort.*
  - *The results of this procedure shall not affect advancement of document, except that the GFSG may defer approval where a delay may facilitate the obtaining of such assurances.*
  - *The results will, however, be recorded by the GGF Secretariat, and made available.*
  - *The GFSG may also direct that a summary of the results be included in any GFD published containing the specification.*



# Intellectual Property Scenario

GFD.n technical spec using 3 patented ideas

Implementation of GFD.n 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)