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ICAN Governance Plan

This document defines the governance for the International Coastal Atlas Network (ICAN). It defines the structure of the organization, the roles and responsibilities of component working groups and the functions of those groups.

Recommendation

ICAN should begin with the IETF approach and evolve to the Open Geospatial Consortium governance structure as a business model evolves. The pace of evolution will be largely dependent on revenue generation and membership participation in interoperability efforts.

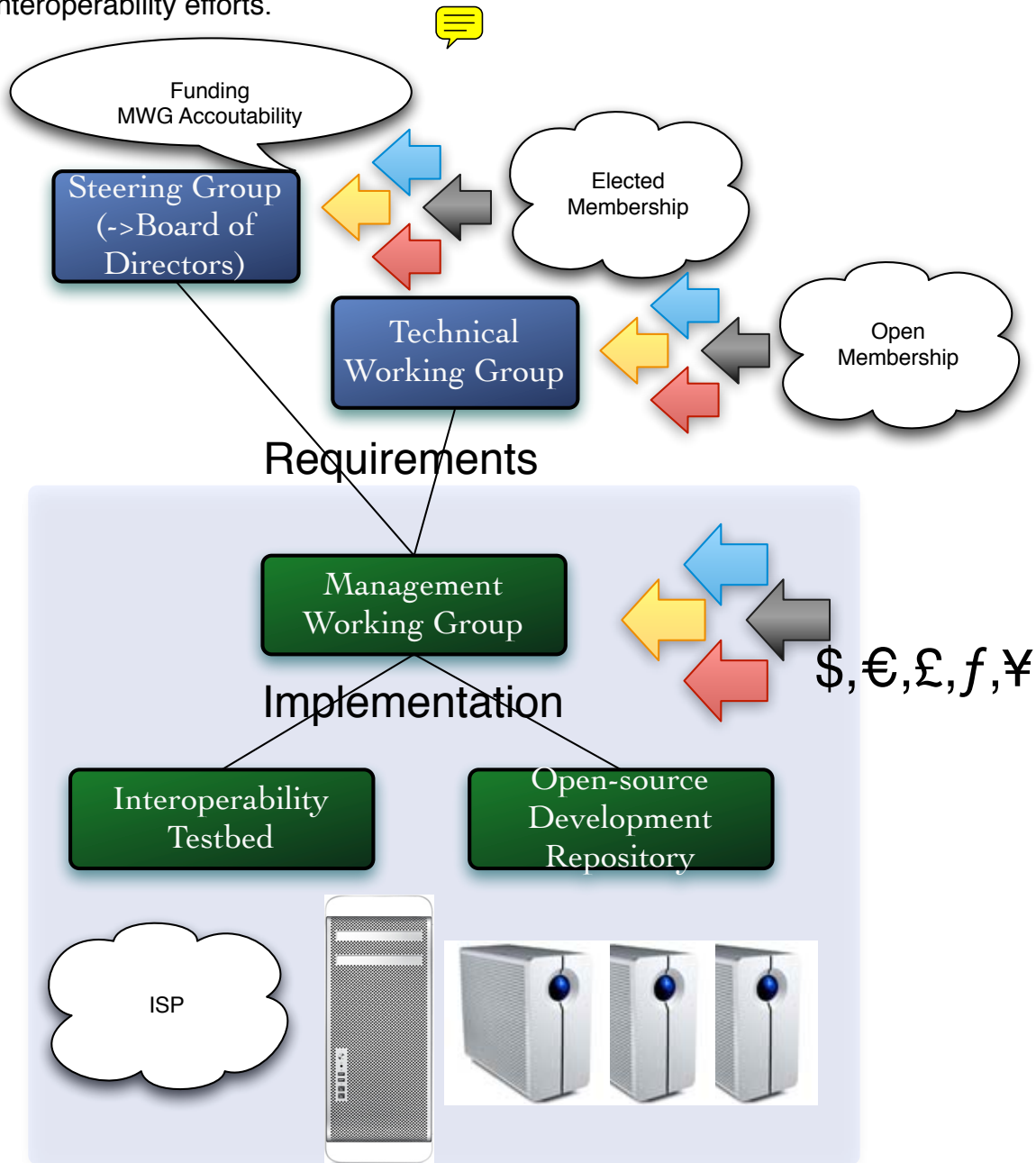


Figure 1. Organization and Functional Responsibilities

Membership Categories: Roles, Responsibilities and Participation

Table 1. Comparison of Reference Governance Examples			
Governance Type	Pros	Cons	Examples
<ul style="list-style-type: none"> • De-centralized • Voluntary • Loosely-hierarchical 	<ul style="list-style-type: none"> • Low cost • Flexible, • Motivated • Community-based • Reputation-building 	<ul style="list-style-type: none"> • Unreliable funding • Unreliable progress • Peer-pressure accountability 	<ul style="list-style-type: none"> • IETF
<ul style="list-style-type: none"> • Centralized • Paid and voluntary • Strongly-hierarchical 	<ul style="list-style-type: none"> • Funded • Many levels of membership • Early access to interoperability • Well-understood SOPs • Project management principles 	<ul style="list-style-type: none"> • Costly • In-the-club or not • Tends to mature and become organizationally protective 	<ul style="list-style-type: none"> • Open Geospatial Consortium, Inc. (non-profit) • Consortium for Ocean Leadership (non-profit)

1. Steering Group (SG)

Membership in the SG should be based on the unique contributions a member would make from a political, technical or financial aspect to the advancement of ICAN goals.

- 1.1. **Composition** The SG will be comprised of individuals who will be difficult to schedule and with little time to devote to this enterprise. Their role is to articulate the vested interests of the organizations they represent and to interpret and negotiate with the Management Working Group (MWG).
- 1.2. **Founding** The initial membership of the SG should be established by a vote of the membership of the MWG and TWG.
- 1.3. **Roles and Responsibilities** The role and responsibility of SG members is to review and comment on the published policies of the ICAN, contribute to the agenda for meetings, and participate in any ICAN event.
- 1.4. **Continuing Membership** Membership will be occasionally reviewed by the working groups and pruned on the basis of active participation and contributions to the goals of ICAN.
- 1.5. **New Members** Membership beyond the initial complement will awarded by a process of open nomination from any member of the ICAN working groups and accepted or rejected by a vote of the working group membership.

2. Management Working Group (MWG)

The Management Working Group (MWG) has the responsibility for the functions listed in Table 1 and defined in Appendix A. In summary, the MWG is the public-facing aspect of the ICAN and is responsible for all funding, operations, external relations and documentation.

- 2.1. **Composition** The MWG will be comprised of individuals who provide active leadership to the activities of the ICAN, contributing time and labor to the established strategic objectives and priorities.
- 2.2. **Founding** The initial membership of the MWG will be the existing membership of the ICAN project executive committee.
- 2.3. **Roles and Responsibilities** The role and responsibility of MWG members is to carry out the functions listed in Table 1 and defined in Appendix A.
- 2.4. **Continuing Membership** Membership will be occasionally reviewed by the working groups and pruned on the basis of active participation and contributions to the goals of ICAN.
- 2.5. **New Members** Membership beyond the initial complement will be extended to include a single representative of coastal atlases added to ICAN.

3. Technical Working Groups (TWGs)

The Technical Working Groups (TWGs) have the responsibility for the functions listed in Table 1 and defined in Appendix A. In summary, the TWGs are the teams of individuals that define, implement and deploy the cyberinfrastructure for the ICAN.

- 3.1. **Composition** The TWG will be comprised of individuals who contribute their technical expertise through voluntary efforts organized into domain-specific or discipline-specific working groups (WGs) with published charters. Membership in any of these WGs is open to any interested participant.
- 3.2. **Founding** The initial membership of the TWG will be founded from individuals from the ICAN coastal atlases and existing activities. WG chairs should be established by volunteers who agree to define their area of technical effort and its relevance to ICAN strategic goals and to draft an initial charter and technical documents appropriate to the activity.
- 3.3. **Roles and Responsibilities** The role and responsibility of TWG members is to carry out the functions listed in Table 1 and defined in Appendix A.
- 3.4. **Continuing Membership** Membership will be occasionally reviewed by the working groups and pruned on the basis of active participation and contributions to the goals of ICAN.

Reference Governance Examples

Internet Engineering Task Force (IETF)

The Internet Engineering Task Force ([IETF](#)) is a large open international community of network designers, operators, vendors, and researchers concerned with the evolution of the Internet architecture and the smooth operation of the Internet. It is open to any interested individual. The IETF Mission Statement is documented in [RFC 3935](#).

The actual technical work of the IETF is done in its working groups, which are organized by topic into several areas (e.g., routing, transport, security, etc.). Much of the work is handled via [mailing lists](#). The IETF holds meetings three times per year.

The IETF working groups are grouped into areas, and managed by Area Directors, or ADs. The ADs are members of the Internet Engineering Steering Group ([IESG](#)). Providing architectural oversight is the Internet Architecture Board, ([IAB](#)). The IAB also adjudicates appeals when someone complains that the IESG has failed. The IAB and IESG are chartered by the Internet Society ([ISOC](#)) for these purposes. The General Area Director also serves as the chair of the IESG and of the IETF, and is an ex-officio member of the IAB.

The Internet Assigned Numbers Authority ([IANA](#)) is the central coordinator for the assignment of unique parameter values for Internet protocols. The IANA is chartered by the Internet Society ([ISOC](#)) to act as the clearinghouse to assign and coordinate the use of numerous Internet protocol parameters.

First-time attendees might find it helpful to read [The Tao of the IETF](#), also available as [RFC 4677](#). First-time attendees may also want to visit the [Education \(EDU\) Team](#) Web site where information and presentations on IETF roles and

The mission of the IETF is make the Internet work better by producing high quality, relevant technical documents that influence the way people design, use, and manage the Internet. The IETF will pursue this mission in adherence to the following cardinal principles:

- **Open process** - any interested person can participate in the work, know what is being decided, and make his or her voice heard on the issue. Part of this principle is our commitment to making our documents, our WG mailing lists, our attendance lists, and our meeting minutes publicly available on the Internet.

¹<http://www.ietf.org/about/mission.html>

² <http://www.ietf.org/dyn/wg/charter.html>

- **Technical competence** - the issues on which the IETF produces its documents are issues where the IETF has the competence needed to speak to them, and that the IETF is willing to listen to technically competent input from any source. Technical competence also means that we expect IETF output to be designed to sound network engineering principles - this is also often referred to as "engineering quality".
- **Volunteer Core** - our participants and our leadership are people who come to the IETF because they want to do work that furthers the IETF's mission of "making the Internet work better".
- **Rough consensus and running code** - We make standards based on the combined engineering judgement of our participants and our real-world experience in implementing and deploying our specifications.
- **Protocol ownership** - when the IETF takes ownership of a protocol or function, it accepts the responsibility for all aspects of the protocol, even though some aspects may rarely or never be seen on the Internet. Conversely, when the IETF is not responsible for a protocol or function, it does not attempt to exert control over it, even though it may at times touch or affect the Internet.

Open Geospatial Consortium Model

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Membership Level	As of 1 January 2006
Strategic Member	Contact OGC for Process & Terms
Principal-Plus Member	Contact OGC for Process & Terms
Principal Member	US\$ 55,000
Technical Committee Member	US\$ 11,000
Associate Member: Commercial / National Government Organization 1	US\$ 4,400
Associate Member: Small Company (<US\$2,000,000 annual revenue 2)	US\$ 2,200
Associate Member: Government-Sub national (e.g., province, state 3)	US\$ 1,100
Associate Member: Research Institute / Not for Profit Institute 4	US\$ 1,100
Associate Member: Government-Local (e.g., county, municipality 5)	US\$ 500
Associate Member: University / Research Center 6	US\$ 500
Individual Member	US\$ 500

Consortium for Ocean Leadership

JOI and CORE legally merged to form the Consortium for Ocean Leadership in 2007. This alliance represents a critical move toward a unified voice in the nation's capital for oceanographic research. Ocean Leadership is a Washington, DC-based nonprofit organization that represents 94 of the leading public and private ocean research education institutions, aquaria and industry with the mission to advance research, education and sound ocean policy. The organization also manages ocean research and education programs in areas of scientific ocean drilling, ocean observing, ocean exploration, and ocean partnerships.

Incorporated Research Institutions for Seismology (IRIS)

Founded in 1984 with support from the National Science Foundation, IRIS is a consortium of over 100 US universities dedicated to the operation of science facilities for the acquisition, management, and distribution of seismological data. IRIS programs contribute to scholarly research, education, earthquake hazard mitigation, and the verification of a Comprehensive Test Ban Treaty. IRIS is a 501 (c) (3) nonprofit organization incorporated in the state of Delaware with its primary headquarters office located in Washington, DC.

Unidata

Mission: To provide the data services, tools, and cyberinfrastructure leadership that advance Earth system science, enhance educational opportunities, and broaden participation.

Unidata, funded primarily by the National Science Foundation, is one of eight programs in the University Corporation for Atmospheric Research (UCAR) Office of Programs (UOP). UOP units create, conduct, and coordinate projects that strengthen education and research in the atmospheric, oceanic and earth sciences.

Unidata is a diverse community of over 160 institutions vested in the common goal of sharing data, and tools to access and visualize that data. For 20 years Unidata has been providing data, tools, and support to enhance Earth-system education and research. In an era of increasing data complexity, accessibility, and multidisciplinary integration, Unidata provides a rich set of services and tools.

The Unidata Program Center, as the leader of a broad community:

- Explores new technologies
- Evaluates and implements technological standards and tools
- Advocates for the community
- Provides leadership in solving community problems in new and creative ways
- Negotiates for new and valuable data sources
- Facilitates data discovery and use of digital libraries
- Enables student-centered learning in the Earth system sciences by promoting use of data and tools in education
- Values open standards, interoperability, and open-source approaches
- Develops innovative solutions and new capabilities to solve community needs
- Stays abreast of computing trends as they pertain to advancing research and education
- Under our current plans, we are:
 - Broadening the scope and range of communities served
 - Facilitating multidisciplinary synthesis and societal impact studies through GIS integration
 - Improving delivery of real-time data
 - Developing visualization and analysis software
 - Enhancing community collaboration

Twenty of the 26 Unidata staff members have a technical background and most of them hold software engineering or system administrator positions. Six staff members have Ph.D.s in either a physical or computer science discipline.

Southern California Earthquake Center (SCEC)

The Southern California Earthquake Center (SCEC) is a community of over 600 scientists, students, and others at over 60 institutions worldwide, headquartered at the University of Southern California. SCEC is funded by the National Science Foundation and the U.S. Geological Survey to develop a comprehensive understanding of earthquakes in Southern California and elsewhere, and to communicate useful knowledge for reducing earthquake risk.

Appendix: Background from ICAN Discussions of Governance

Requirements:

- Consortia / Partnership Agreement
- Terms of Reference

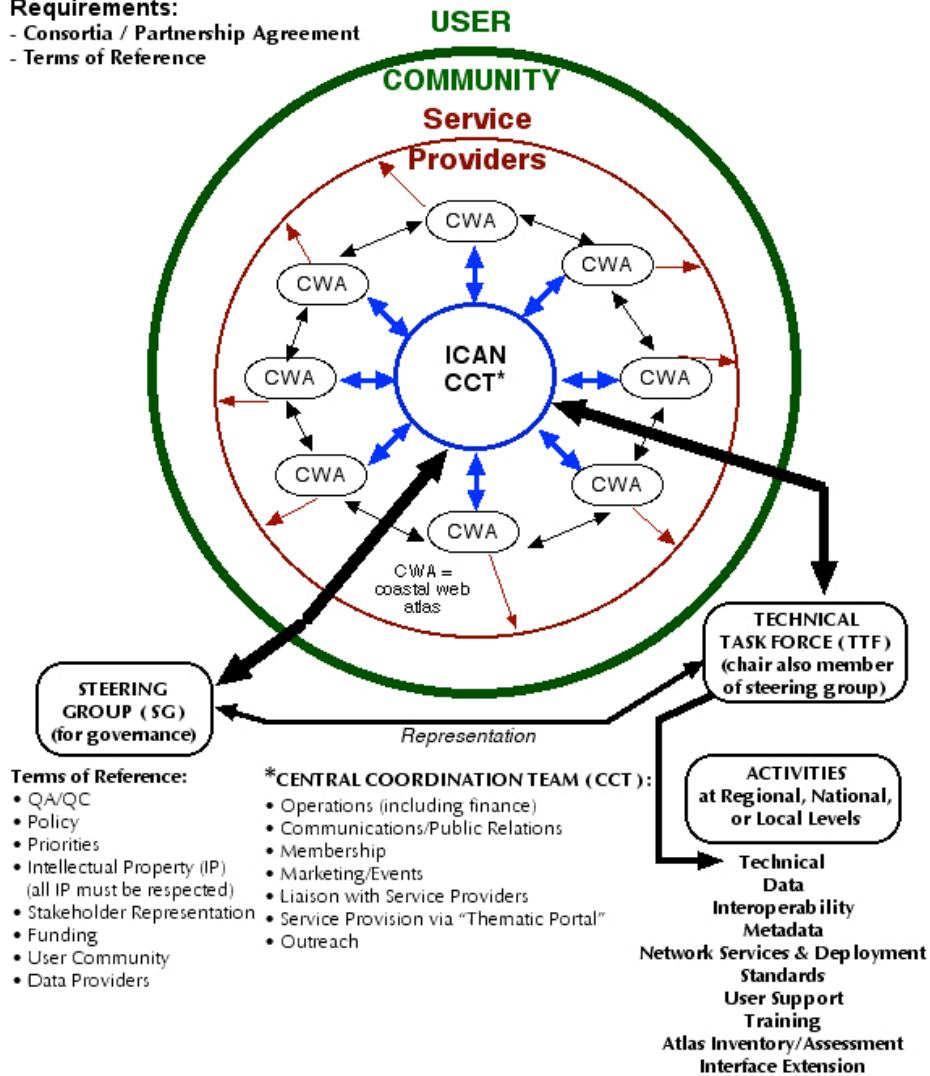


Table1. ICAN Organizational Roles and Responsibilities			
Function	Steering Group	Central Coordination Committee	Technical Task Force
QA/QC	X		
Policy	X		
Priorities`	X		
Intellectual Proprety	X		
Stakeholder Representation	X		
Funding	X		
User Community	X		
Data Providers	X		
Operations (w/Finance)		X	
Communications & Public Relations		X	
Membership		X	
Marketing & Events		X	
Membership		X	
Liasion with Service Providers		X	
Outreach		X	
Technical			X
Data			X
Interoperability			X
Metadata			X
Network Services & Deployment			X
Standards			X
User Support			X
Training			X
Atlas Inventory & Assessment			X

Table1. ICAN Organizational Roles and Responsibilities			
Function	Steering Group	Central Coordination Committee	Technical Task Force
Interface Extension			X

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