



Standards, Interoperability and Business Value

Third Workshop on the use of
GIS/OGC Standards in
Meteorology

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Understand, define
and communicate
the value of
OGC standards









Image from <http://www.digistan.org/>
Digital Standards Organization

Interoperability boosts competition, we need more of that. For devices or applications to be interoperable - to work together - all concerned parties must agree to a common way of doing things.

Formal standards are one way to get there.

More transparency in formal standard-setting can lead to **more efficient outcomes.**

Public and private procurers of technology should be smart and build their systems as much as possible on standards that everybody can use and implement without constraints: this is **good for the bottom-line** because it promotes competition between suppliers and prevents vendor lock-in.

Neelie Kroes, Open Forum Europe 2010:
'Openness at the heart of the EU Digital
Agenda' Brussels, 10th June 2010

Tackling Interoperability

- "We can't share maps on the Web."
- "We can't deliver data to different systems."
- "We don't have a common language to speak about our geospatial data or our services."
- "We can't find and pull together data from our automated sensors."
- "I canna push the server any faster Captain, she's gonna blow!"



Translating Interoperability

Help policy and decision makers
to address the following:

a) Is this activity for the public benefit?
(Measure and record value)

b) What is the business driver?
(Internal efficiency, customer satisfaction)

c) Does a capability already exist?
(Enable reuse, avoid duplication)

OGC = Interoperability



- Organizational
- Cultural
- Legal
- Technical

- Global agenda and membership
- Forum for global networking
- Spatial law and policy discussions
- Standards development and testing

Communities of Interest

Education & Research



Sustainable Development



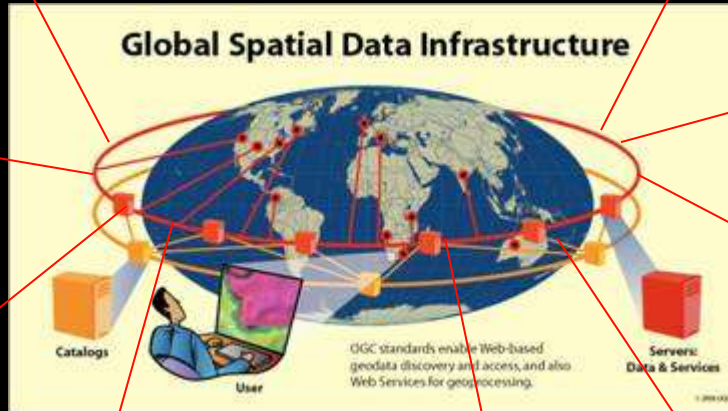
Utilities



Health



Global Spatial Data Infrastructure



eGovernment



Energy



Geosciences



Emergency Services



Consumer Services



Cross-boundary Information Sharing

Overcoming boundaries between:

- Industry, government, academia and the public
- Disciplines, professions and industries
- Levels of government, local jurisdictions
- Nations, languages and regions
- Different technologies and different vendor products
- Legacy systems and new components and solutions

Community Support

- Meteorology/Oceans, Hydrology, Earth Systems Science Domain Working Groups

- Industry, Government, Research, Academia, NGO involvement
- Multiple best practice Interoperability Experiments underway
- Key alliance partnerships established



- Emergency and Disaster Management Domain Working Group

- Established September 2010
- Mission:
 - Interface with the EM/DM community
 - Support community of practice interoperability requirements identification, good practice development
 - Conduct outreach and education



World Meteorological Organization
Working together in weather, climate and water


Knowledge and Know-how

OGC members share ideas around:

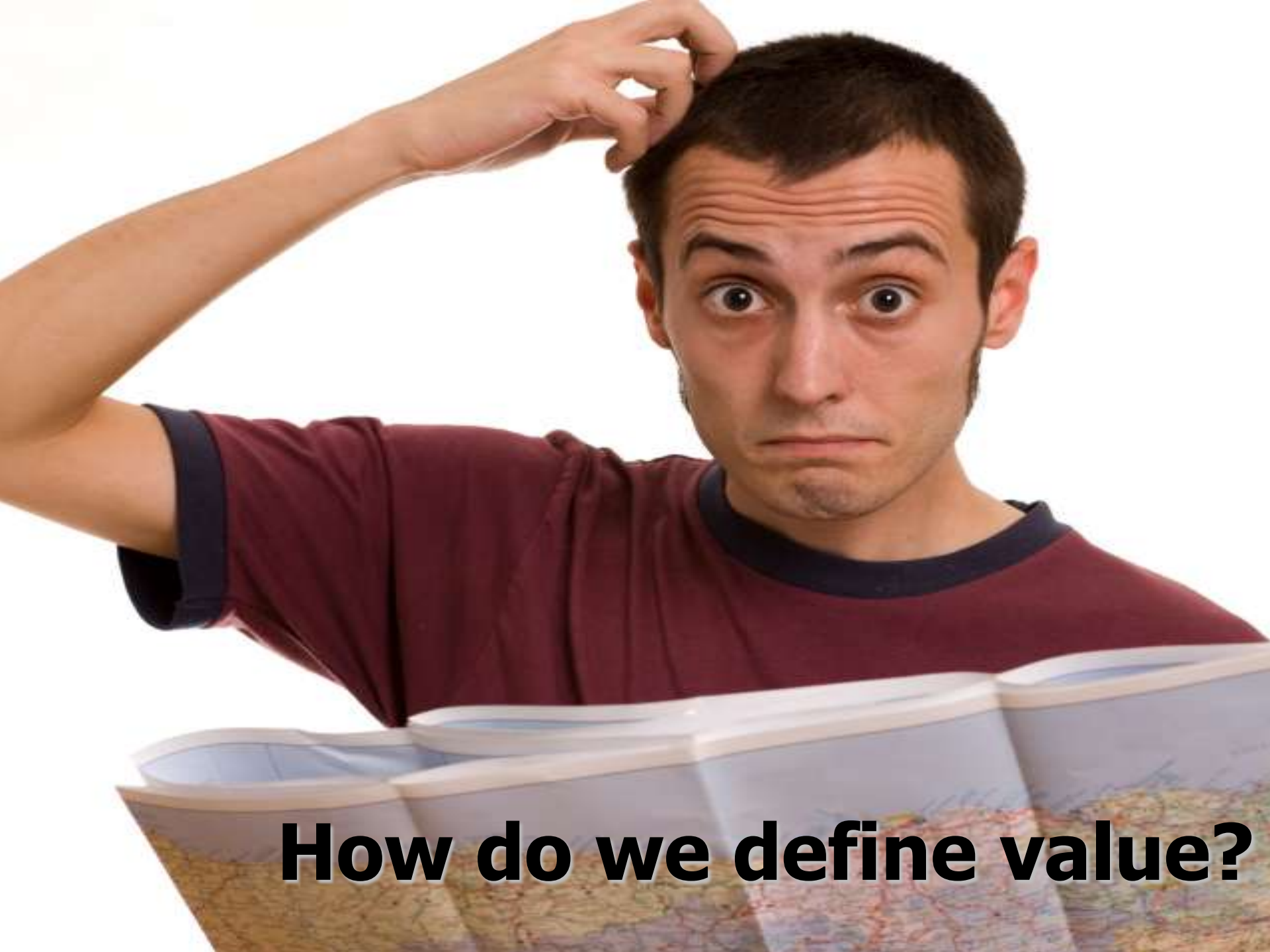
- Massive challenges due to extreme growth in urban centers and coastal areas.
- What are the legal and policy implications of a large number of users accessing and sharing spatial data?
- Can Spatial Data Infrastructures help?
- How do organisations share data seamlessly across multiple domains or countries?

So what?





locating
people and
saving lives
= value



How do we define value?

**Value must
be measured**



Standards Value Model

Example view of OGC participation:

Effort	Impact	Financial cost
Meeting attendance	Time	Membership fee (offset by reduced "Certified OGC Compliant" license fee)
Code management	Maintenance cost	
Document review	Opportunity cost	Travel costs

Standards Value Model

Additional considerations:

Benefit	Value
Company exposure	Saving the environment
Technology risk reduction	Saving lives
Knowledge gain	Human security

Standards Value Model

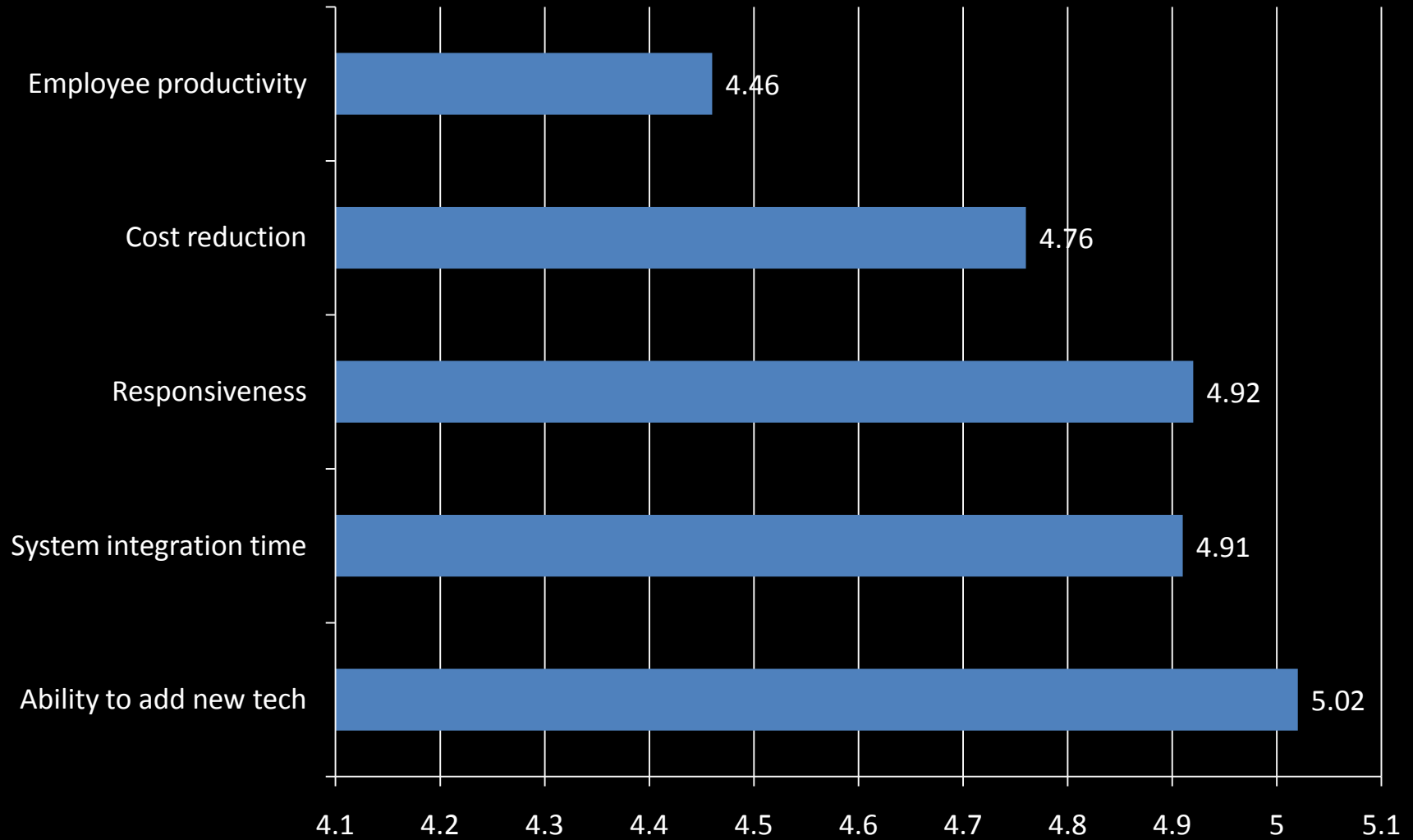
Look at the combined aspects:

Effort	Impact	Financial cost
Meeting attendance	Time	Membership fee (offset by reduced "Certified OGC Compliant" license fee)
Code management	Maintenance cost	Travel costs
Document review	Opportunity cost	

Benefit	Value
Company exposure	Saving the environment
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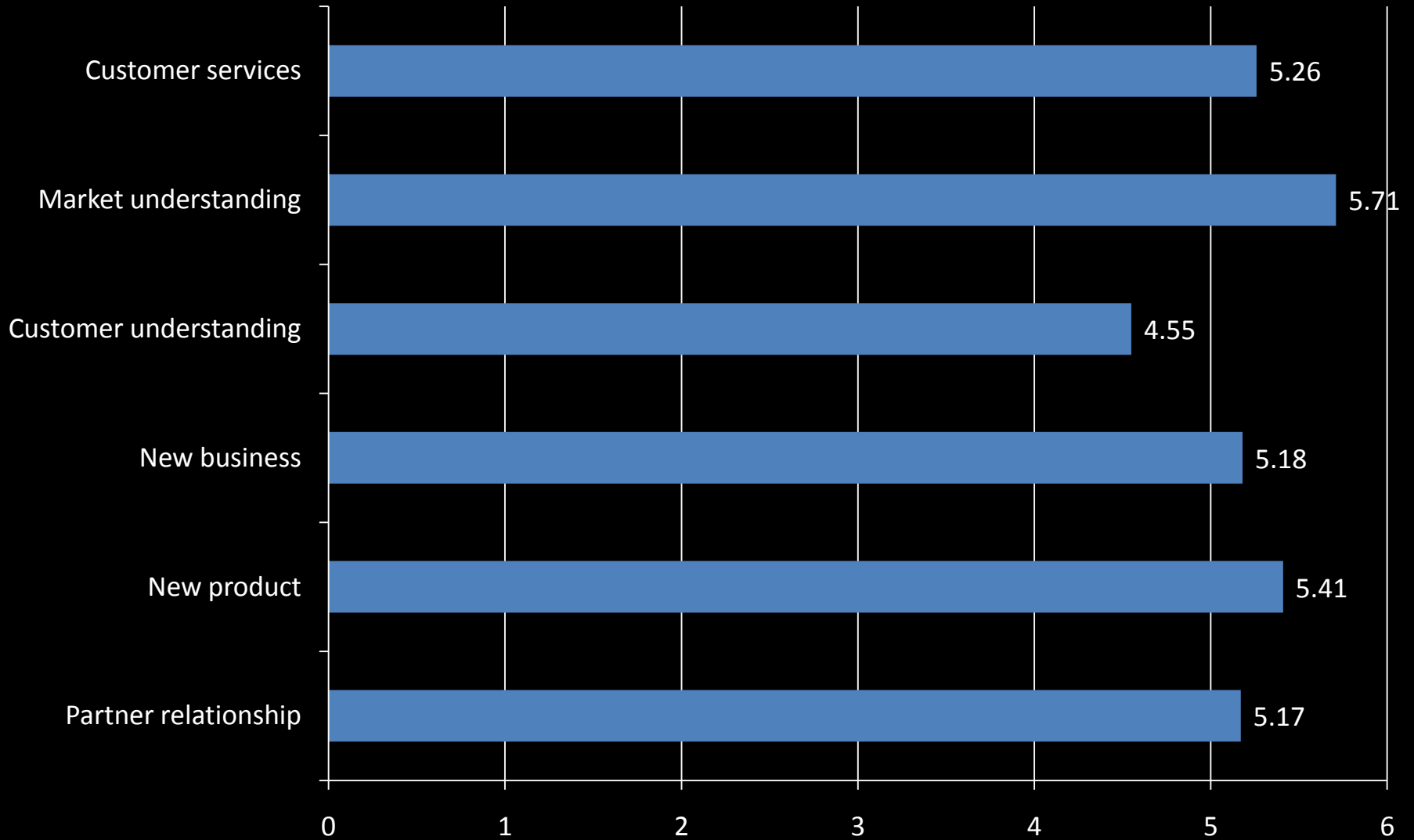


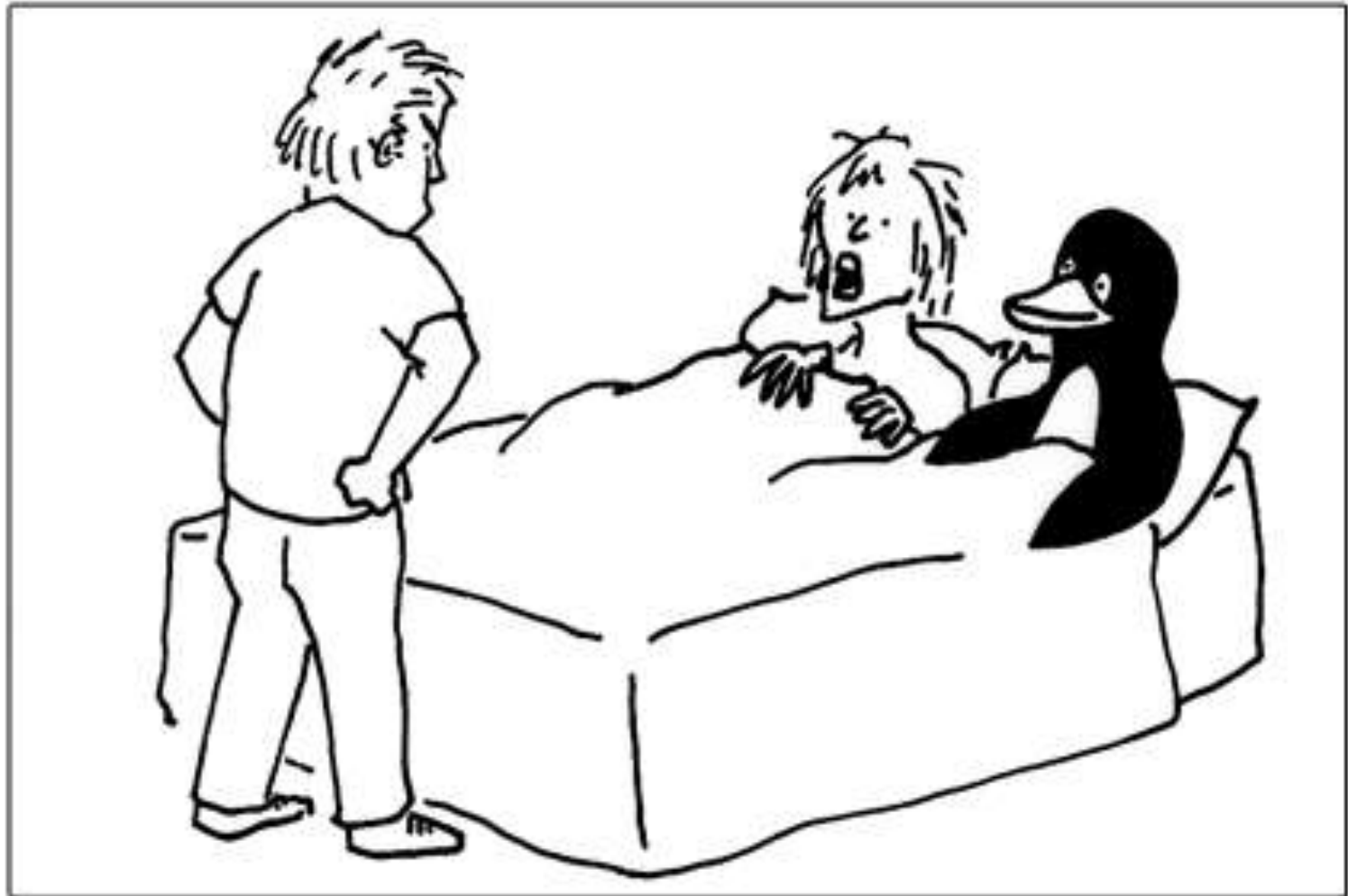
Operational Benefits





Strategic Benefits





Oh, come on. You must have suspected something when I switched to Linux.



Where's the ROI?

OGC's Interoperability Approach

- **Interoperability Program** - global, innovative, hands-on prototyping and testing program designed to accelerate interface development and validation, and bring interoperability to the market

Rapid Interface Development

Standards Setting

- **Specification Development Program**

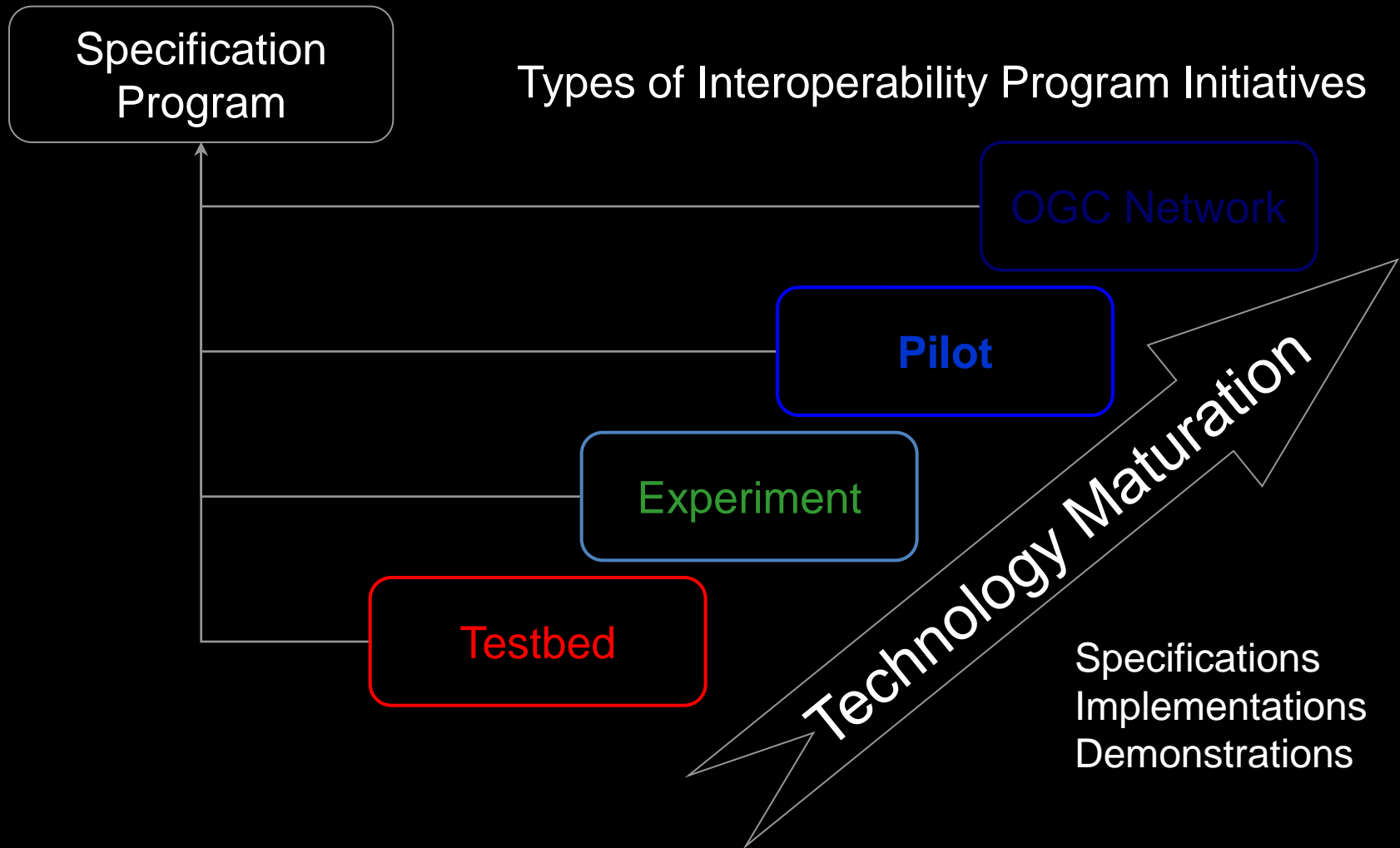
consensus processes similar to other Industry consortia (W3C, OMA, OMG, etc.)

- **Outreach and Community**

Adoption Program education and training, encourage take up of OGC specifications, business development, communications programs

Market Adoption

Interoperability Program (IP)



Types of IP Initiatives

	OGC Testbed	OGC Interoperability Experiment	OGC Pilot	OGC Network
Purpose	Develop new specs & refine existing specs	Refine & extend existing specs	Test existing specs in operational environment	Persistent, widespread infrastructure
Project Management	OGC IP Team	OGC Members	OGC IP Team	OGC Members and IP Team
Sponsorship	Yes	No	Yes	Yes and No
Participation	OGC Members	OGC Members	Members & operational partners	Members & public

IP Advantages

- Multiple sponsors = reduced share of costs
- Technology providers want to participate
- Project management done by OGC staff
- Total integration cost much lower
- Technology investments protected
- Risks reduced
- Innovation encouraged
- Openness developed

For every \$100 million spent on projects based on proprietary platforms, **the same value could have been achieved with \$75 million** if the projects had been based on open standards.

NASA study overall results, 2005

Value Factors – NASA study

- Direct user (or customer) value
- Social (or non-direct, public) value
- Government foundation/operational value
- Government financial value
- Strategic/political value

Direct User Value

- Data availability
- Ease of use
- Broad data sharing capabilities

Social Value

- Better decision making ability
- Extra-governmental coordination
- Minimal barriers
- Institutional effectiveness
- Efficient use of taxpayer resources

Operational Value

- Ease of integration
- Intragovernmental collaboration
- Public participation/accountability
- Interagency collaboration
- Reuse, adaptation and consolidation
- Mainstreaming of GIS
- IT Performance

Financial Value

- Total Cost Savings
- Total Cost Avoidance

Strategic/Political Value

- Close working relationship
- Supports improved decision making
- Supports NSDI
- eGovernment support

How can you help?

- Encourage non-technical staff to participate
- Share this presentation
- Try and engage other meteorology and oceanography organisations to participate – 32 States support ECMWF: how many OGC members?
- Wider promotion of this event
- Wider promotion of the OGC MoU with WMO
- Use less acronyms!
- Build on the cross domain modelling aspects, building on the value proposition already presented (MetOcean/Hydro - OGC TC meetings Toulouse).

Business Value Committee

The purpose of this group is to Identify, coordinate, and promote the business value of OGCs standards and programs through engaging member senior managers, commercial, sales and marketing professionals, as well as policy makers and strategic decision makers. The goal is to build a Standards Value Model supported through case studies, reference implementations, and business cases for the development and use of geospatial standards in various industry domains and across communities.

OGC Business Value Working Group

- Determine value of participation in a standards development organisation like the OGC
- Assess ROI/usefulness of implementing standards
- Promote need for certified compliant products
- Highlight technology development and risk reduction through OGC Interoperability Program
- Drive involvement of commercial and senior staff - sales, marketing, strategists and policy makers
- **Develop a Standards Value Model: per domain**

The standards decision

Plan A - Pursue standards. Commit resources.
Transition products. Work with competitors and partners.

Plan B - Continue working in isolation.
Keep proprietary control of customers.

The standards decision (alternate view)



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OGC standards



Thank you for listening

OGC[®]

Making Location Count...

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