Global Geospatial Information Management

Responsible Governance and Sustainable Development

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"Positioning geospatial information to address global challenges"

UN-GGIM | United Nations Initiative on Global Geospatial Information Management

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Discussion Topics
In the context of geospatial information

1. UN-GGIM: Responsible global governance and architecture
2. The evolving global geospatial paradigm
3. Sustainable Development – Rio+20, Post-2015 Development Agenda
4. Small Island Developing States
5. Summary

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Responsible Global Governance

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UN-GGIM: A global initiative

Formal inter-governmental Committee of Experts to:

- Discuss, enhance and coordinate Global Geospatial Information Management activities by **involving Member States** at the highest level as key participants
- Make joint decisions and set directions on the use of geospatial information within national and global policy frameworks
- Work with Governments to improve policy, institutional arrangements, and legal frameworks
- Address global issues and contribute collective knowledge as a community with shared interests and concerns
- Develop effective strategies to build geospatial capacity in developing countries

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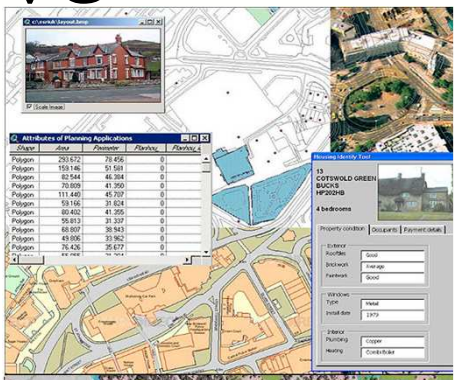
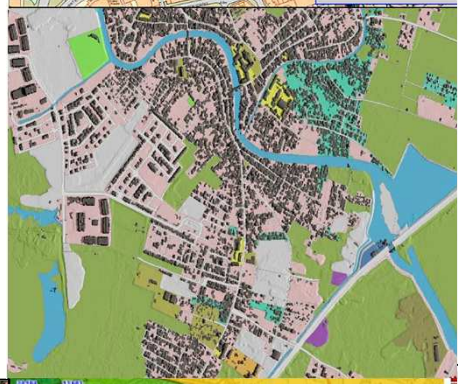
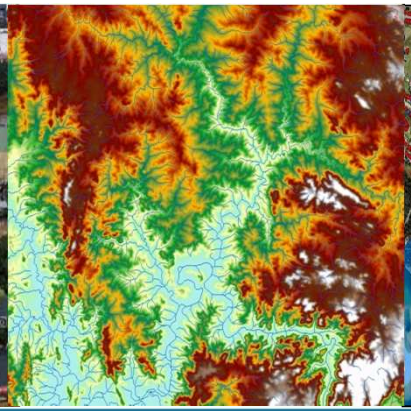
UN-GGIM: A global initiative

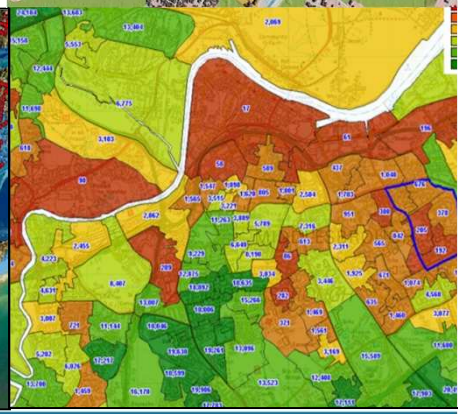
Program of activities include:

- Develop baselines - policy and legal, institutional arrangements, governance, principles, methodologies
- Sustaining the global geodetic reference frame
- Implement and adopt international standards and interoperability
- Global reference/framework datasets/data themes
- Establishing a global geospatial information platform for sustainable development: Post-2015 agenda
- Integration – land, marine, environment, urban hazards, statistics
- Data->tools->map->measure->monitor->model



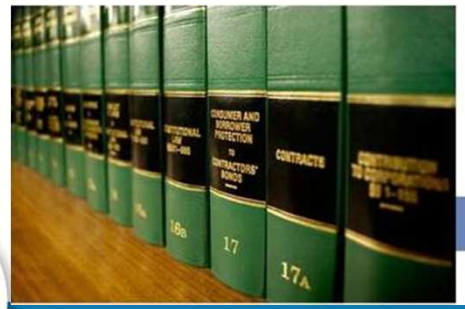






UN-GGIM: Why a global mechanism?

- Significant gap in the recognition and management of geospatial information globally
- Lack of a global consultative and decision-making mechanism among Member States in:
  - setting global norms on geospatial information;
  - developing common tools; and
  - bringing geospatial information to bear on global policy issues
- This gap is increasingly being filled by the private sector, reducing the role and influence of Governments
- Governments, not the private sector, have the mandate and accountability to maintain and deliver the national geospatial information base and related policy



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Regional - Global Architecture

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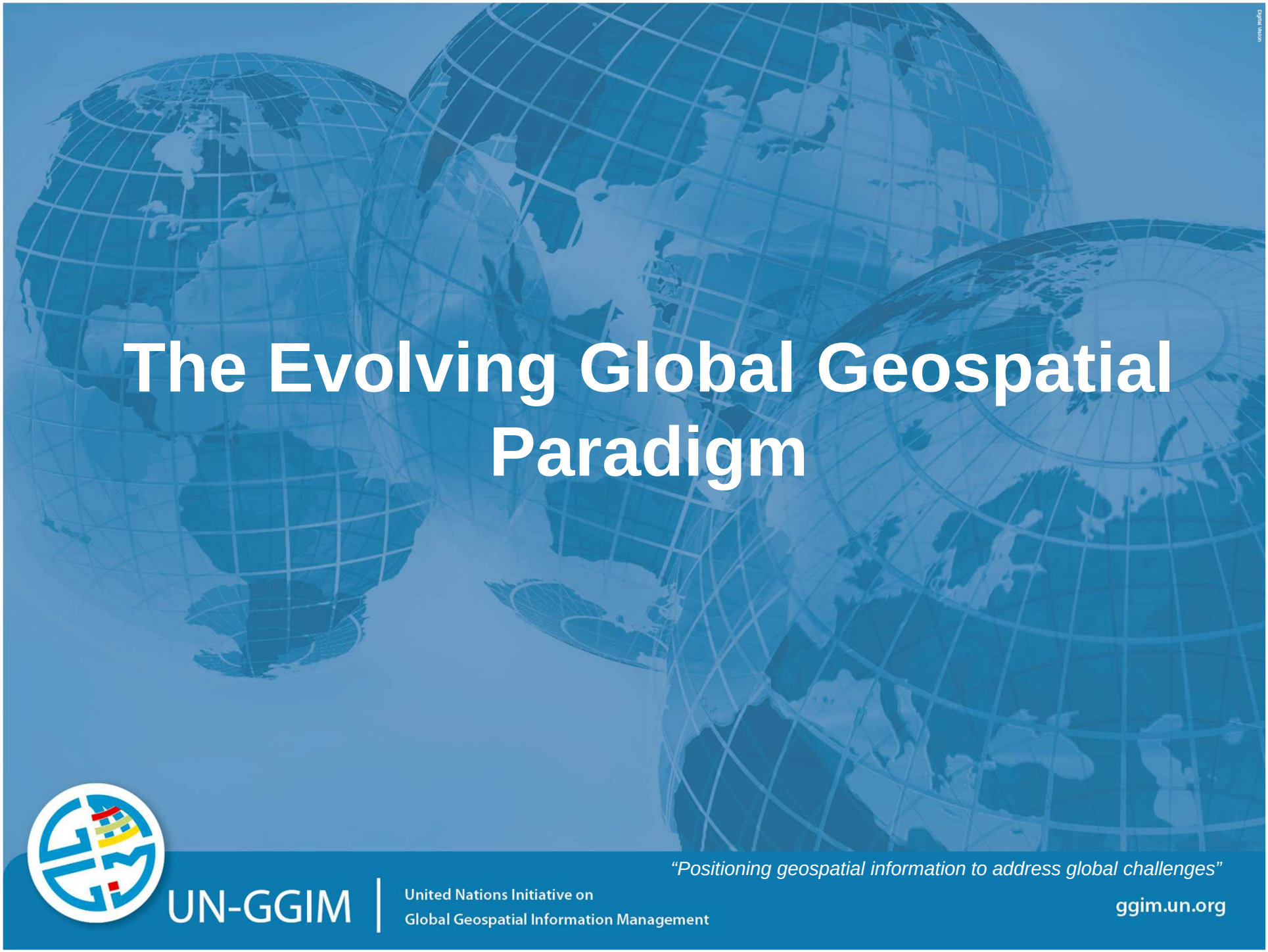
Creation of a Regional-Global architecture for UN-GGIM

- Regional Committee of UN-GGIM for Asia-Pacific (formerly PCGIAP) created November 2012
- UN-GGIM for the Americas (formerly PC-IDEA) created August 2013
- UN-GGIM for Arab States initiated February 2013
- UN-GGIM for Europe has had a number of preparatory meetings and will be formally established in August 2014
- Committee on Development Information, Science & Technology Sub-committee on Geo-information (CODIST-Geo), UNECA – UN-GGIM for Africa (2014 ?)
- JB-GIS – major voice for relevant international GI organizations

The Evolving Global Geospatial Paradigm



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Our world is in continuous change

More than ever before, there is a need for timely, fit-for-purpose geospatial information on the state of our world

- Climate Change
- Population
- Political & Social Conflict
- Loss of Biodiversity
- Land Tenure
- Energy & Water Security
- Natural Resources

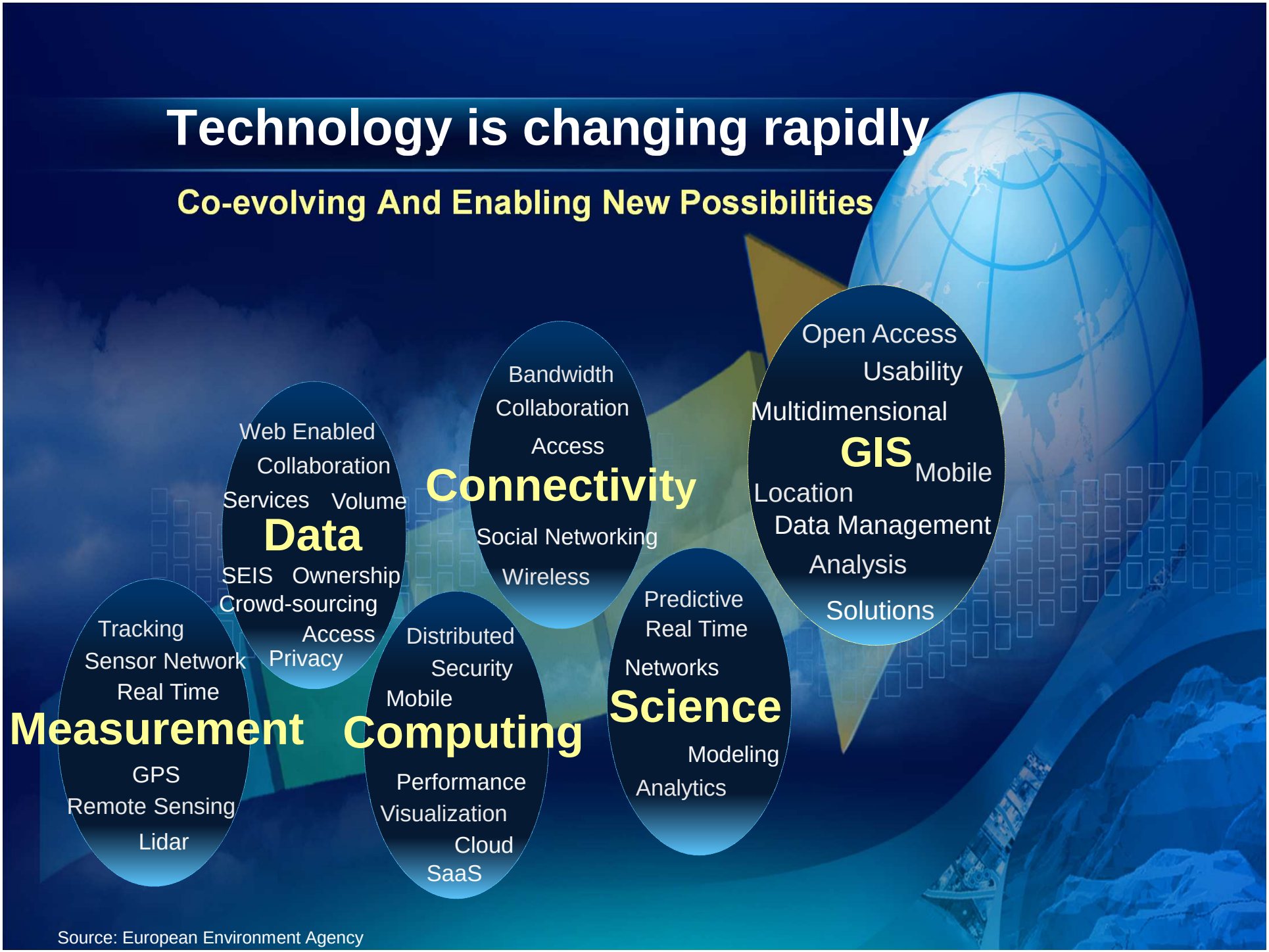
- Economic Uncertainty
- Urbanization and Land Use
- Human Health
- Security
- Technology Advancements
- Poverty & Inequality
- Globalization

. . . data, information, knowledge, understanding….decisions

Source: European Environment Agency

Technology is changing rapidly

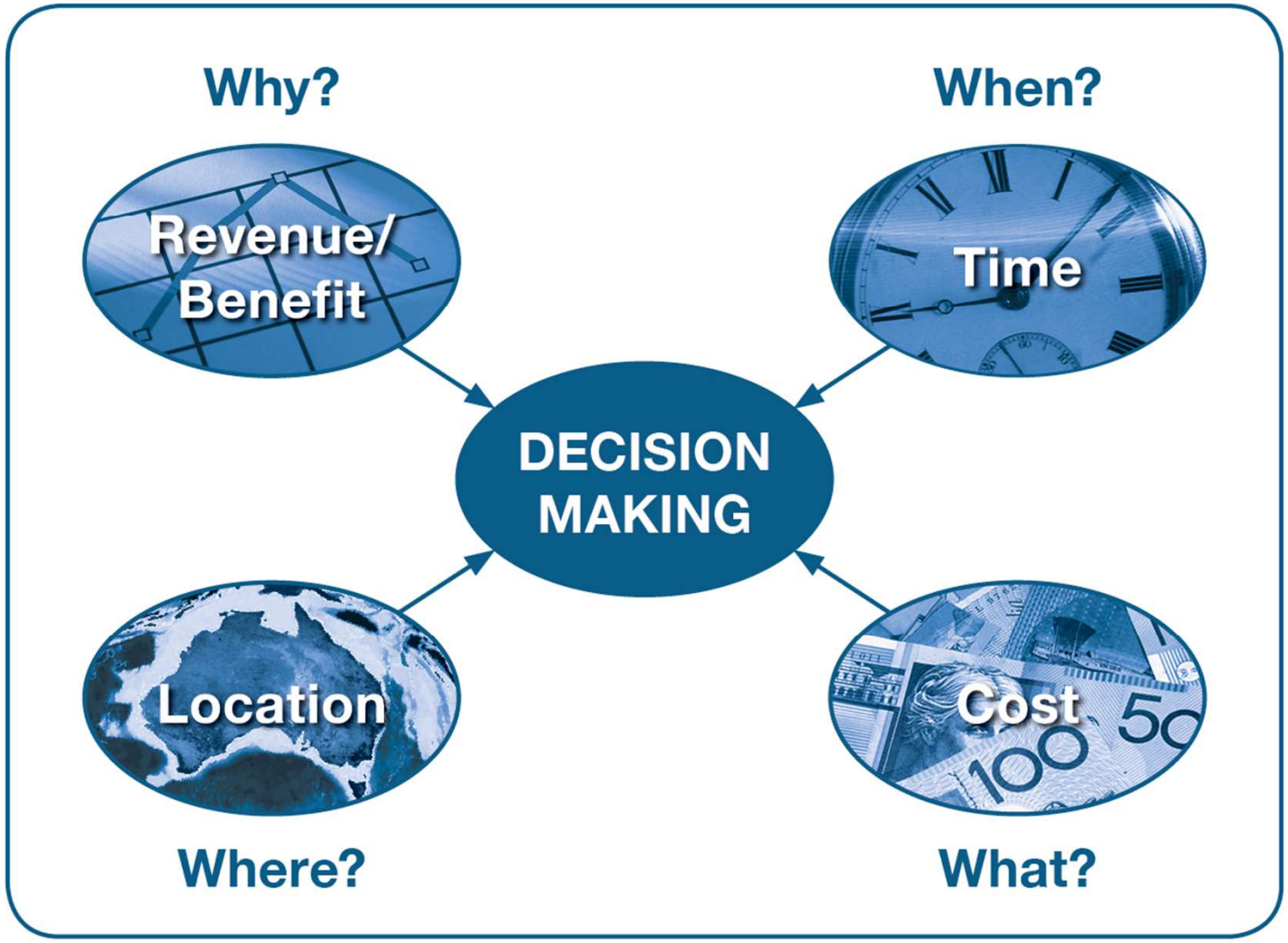
Co-evolving And Enabling New Possibilities



Source: European Environment Agency


Sep 11 2003
We are being inundated with data and information
SVALBARD
Source: European Environment Agency

Location is the new dimension for decision making

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Sustainable Development
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RIO+20
United Nations Conference
on Sustainable Development

Monitoring Sustainable Development: Why Location Matters?

June 2012

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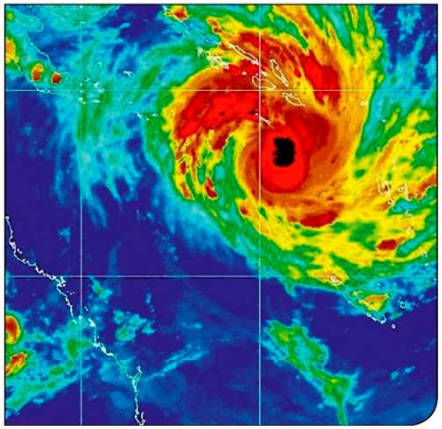
HM Government

Sustainable development: location matters





The importance of geospatial information

"I am also pleased to see that the importance of reliable, trusted geospatial information is now recognised. The United Nations has now established a Committee of Experts of Member States, which the UK co-chairs, to move this agenda forward"

Rt Hon Nick Clegg MP,
Deputy Prime Minister,
United Kingdom Government,
Rio+20 June 2012

The Future We Want: 19th June 2012

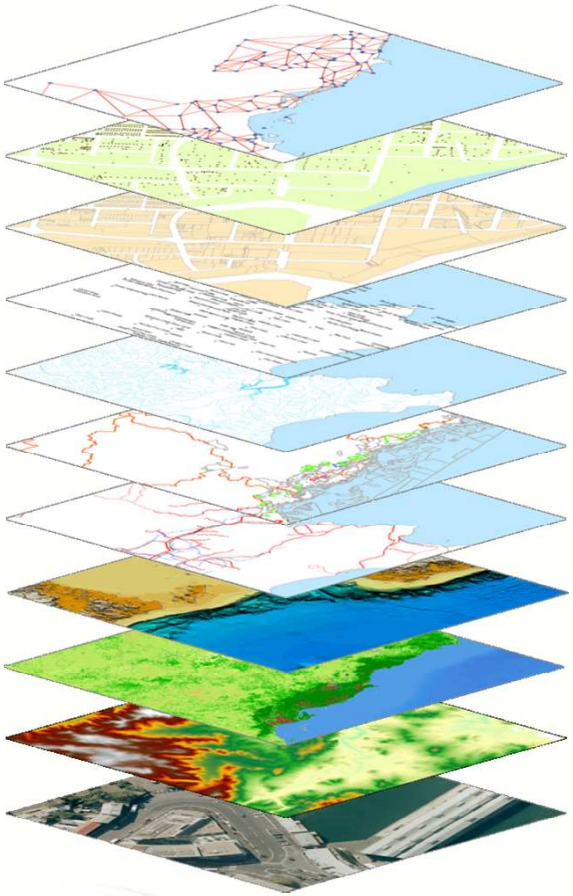
187. We recognize the importance of early warning systems as part of effective disaster risk reduction at all levels in order to reduce economic and social damages including the loss of human life, and in this regard encourage States to integrate such systems into their national disaster risk reduction strategies and plans. We encourage donors and the international community to enhance international cooperation in support of disaster risk reduction in developing countries as appropriate through technical assistance, technology transfer as mutually agreed, capacity building and training programmes. We further recognize the importance of comprehensive hazard and risk assessments, and knowledge and information sharing, including reliable geospatial information. We commit to undertake and strengthen in a timely manner risk assessment and disaster risk reduction instruments.

274. We recognize the importance of space-technology-based data, in situ monitoring, and reliable geospatial information for sustainable development policy-making, programming and project operations. In this context, we note the relevance of global mapping and recognize the efforts in developing global environmental observing systems, including by the Eye on Earth network and through the Global Earth Observation System of Systems. We recognize the need to support developing countries in their efforts to collect environmental data.

Post-2015 Development Agenda

- SDGs are evolving. Actors don't yet know what should be measured or how
- Many references to GI and geography, but little discussion on its application and data requirements/sources
- High Level Panel – 'data revolution' – take advantage of new technology, crowd sourcing, and improved connectivity. Foster a local geographic approach
- Open Working Group - 8 Sessions from 3/2013 to 2/2014. Session 7 (1/2014) 'sustainable cities & human settlements' and 'climate change & disaster risk reduction'. Session 6 will include UNSD side event on 'monitoring and measuring'
- Will depend on human and physical geography data and geospatial information to measure and monitor change and progress
- Will require creating a network of global data and information that is supported by the tools/technology to create maps and detect change over time in a consistent and standardized manner
- Addressing the special needs of SIDS will be integral to the post-2015 agenda
- What is the understanding at the policy level? What is OUR understanding???

Data: National to global framework datasets



Positioning (Geodetic)

Address (Buildings)

Cadastre (Tenure)

Names (Gazetteer)

Water (Hydrology)

Administrative Boundaries

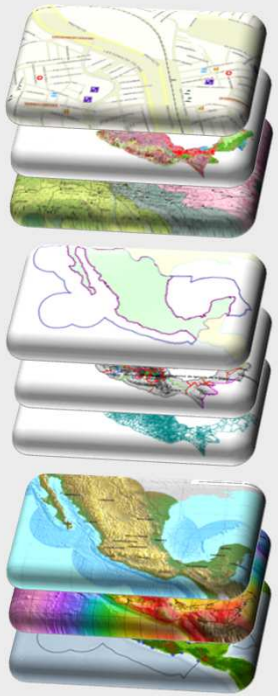
Transport

Bathymetry (Hydrography)

Land cover (Vegetation)

Elevation

Imagery (Satellite & Photo)



Geographical names

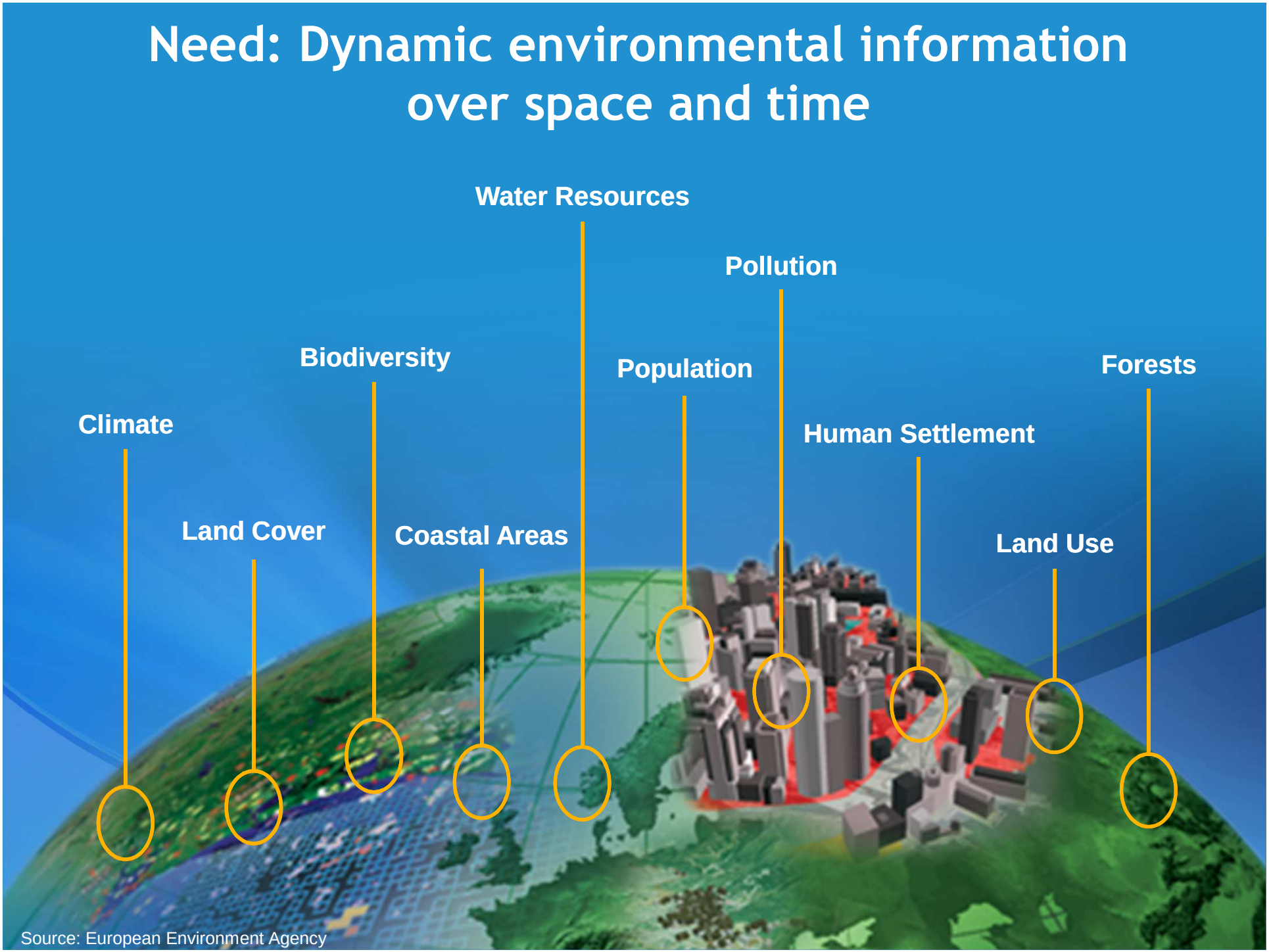
Cadastre, Topographic, Natural Resources and Climate Data

Land, Island and Submarine Relief

Coastal, International, State and Municipal Limits

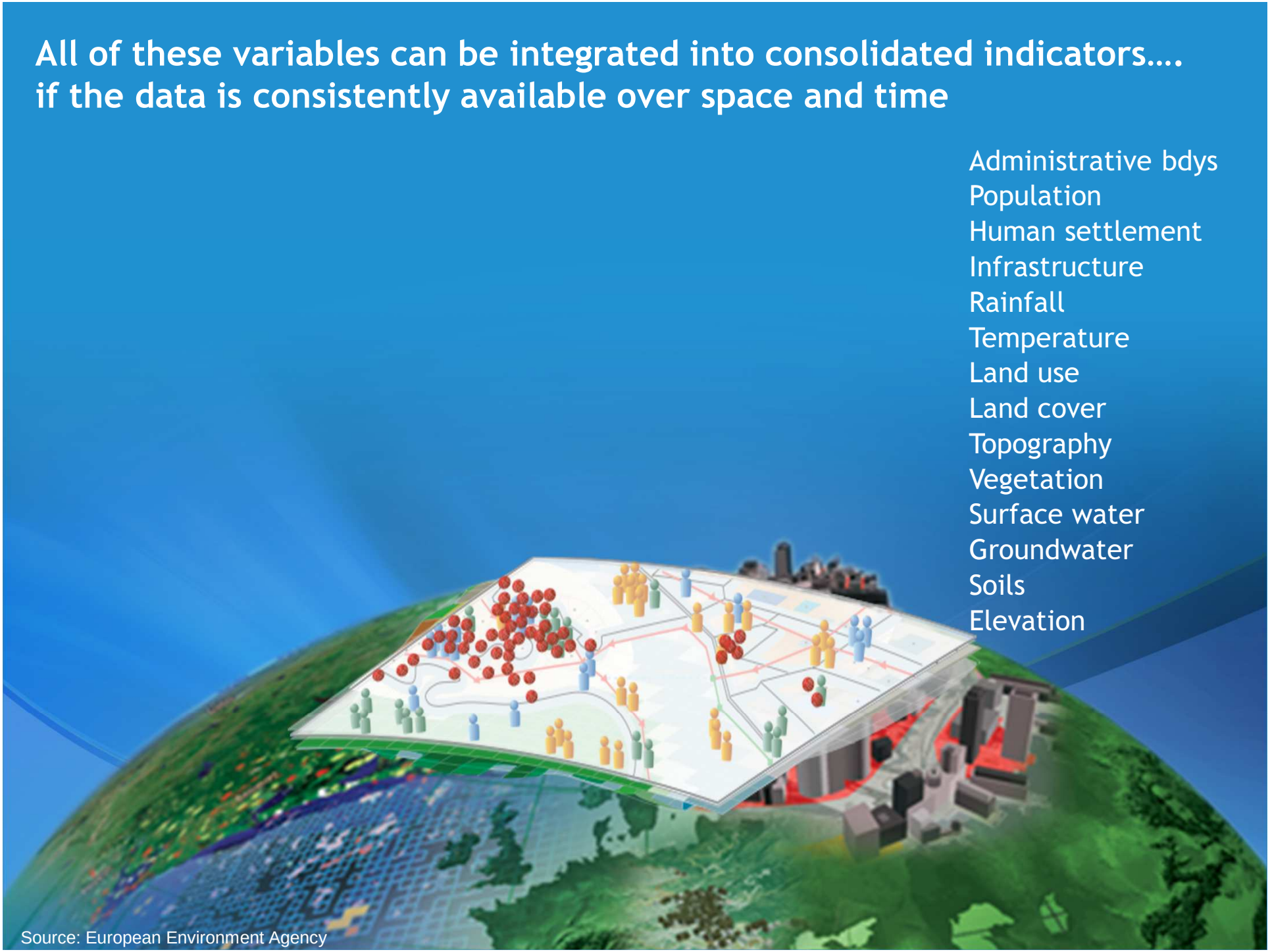
Geodetic Reference Frame

Need: Dynamic environmental information over space and time



All of these variables can be integrated into consolidated indicators…. if the data is consistently available over space and time

Administrative bdys
Population
Human settlement
Infrastructure
Rainfall
Temperature
Land use
Land cover
Topography
Vegetation
Surface water
Groundwater
Soils
Elevation



Source: European Environment Agency

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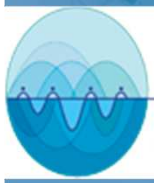
Small Island Developing States



UN Conference on
Small Island Developing States Apia, Samoa | 2014

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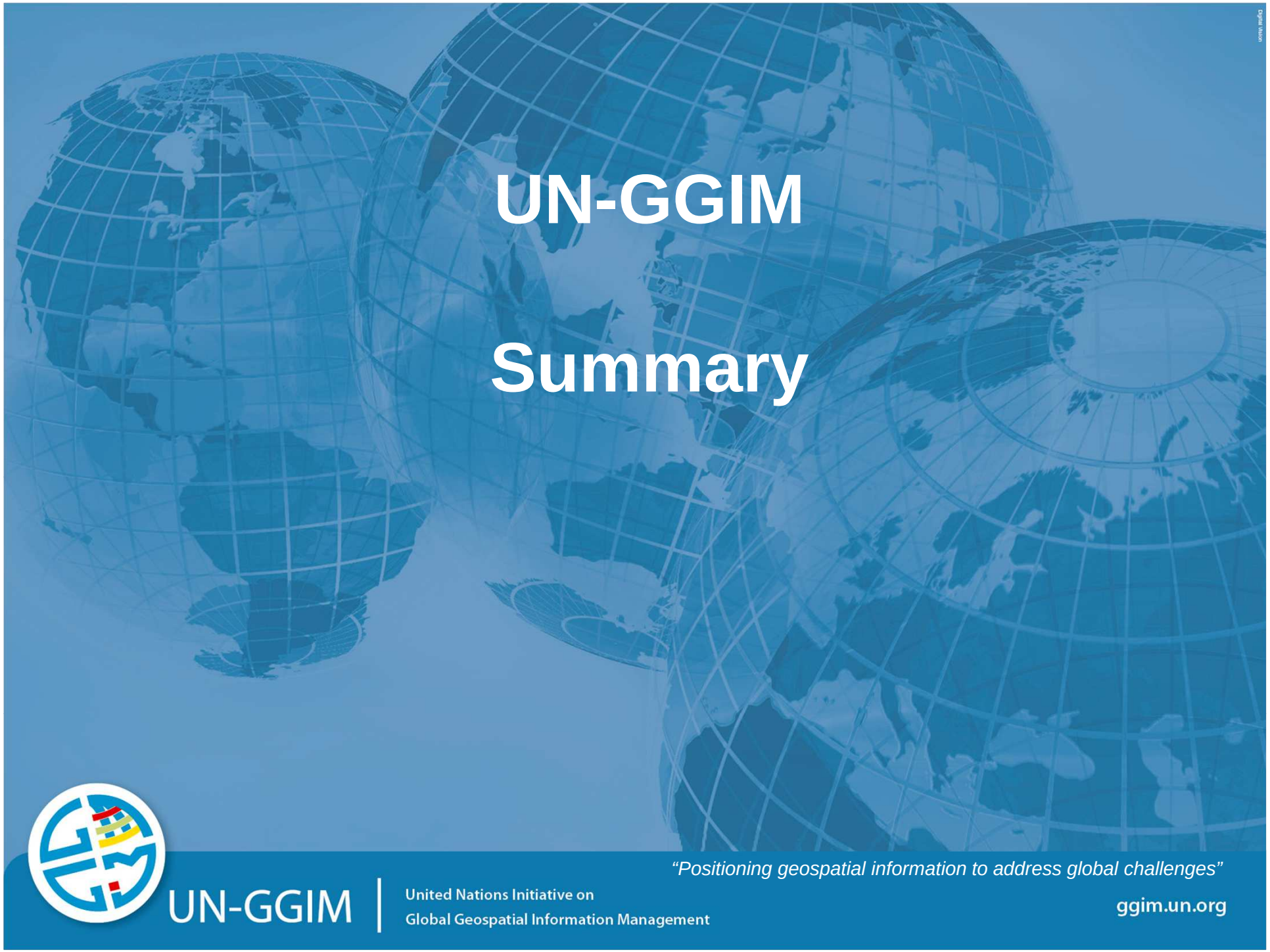
UN-GGIM, Sustainable Development, SIDS

- Despite much progress towards the MDGs, SIDS remain a special case for sustainable development due to unique vulnerabilities
- UN-GGIM addressing specific SIDS related geospatial issues
  - Global Geodetic Reference Frame
  - Global Map for Sustainable Development
  - Global framework datasets
  - Integration of land and marine environments
  - Linking geospatial information to statistics
- Need to engage SIDS Member States more in UN-GGIM process
- UN Conference on SIDS will be a key input into post-2015 development agenda
- **What will be the role of geospatial information?**

UN-GGIM, Sustainable Development, SIDS

What will be the role of geospatial information?

- Sustainable Development Goals – 2016 to 2030??
- Targets – How do you measure progress?
- Indicators – What are the values and variables?
- Effective monitoring and evaluation
- Means of implementation – What are the enablers?
- How to integrate and translate into planning, policy & behaviour
- SIDS challenges – climate change, sea level rise, disasters, tourism, sustainable energy, etc.
- Data requirements, input resolution/scale, modelling, analysis, visualisation, standardisation, interoperability, etc.



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Summary

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UN-GGIM: Summary

- UN-GGIM is the peak global inter-governmental entity for the geography requirements of the post-2015 development agenda
- What will be the contribution of geospatial information to sustainable development, the post-2015 development agenda, and the SIDS agenda?
- The SDG's and targets will be determined and 'locked in' over the coming 18 months. Member States will then have the next 15 years to implement, integrate, evaluate and monitor. Every SDG will have a geospatial context. The window of opportunity is open, but not for long
- The SIDS are a special case. GI is not. GI needs to be brought to the table at the UN Conference on SIDS in September 2014. The global GI community can assist

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Vinaka vakalevu

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