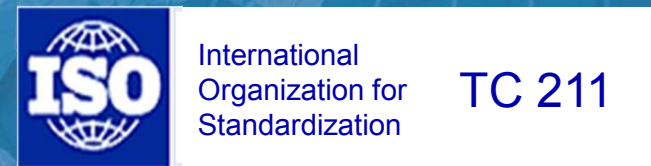


The SDGs Connectivity Dilemma: Urban Settlements, Resilience & Sustainability

- Side Event -

Chris Body



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Topics

- Who we are
- Standards we are doing in support of SDGs
- Other International initiatives



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Open Geospatial Consortium

- Industry consortium of around 500 members
- 2000+ implementations of standards and specifications, some certified to be compliant
- Focus
 - to define, document and test implementation standards for use with geospatial content and services
 - integration of geospatial content and services into applications for the benefit of mankind

www.opengeospatial.org



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International Organization for Standardization (ISO)

- World's largest developer of standards
 - Network of national standards institutes from 163 countries
 - 19 500 standards published
- Established in 1946-1947
- Recognized by the UN
- Principal activity is developing technical standards
- Technical Committees (TCs)
 - From *From food safety to computers, and agriculture to healthcare*, ISO International Standards impact all our lives
 - ISO/TC 211, *Geographic information/geomatics*
 - Lawrence D. Eicher Leadership Award in 2010

www.iso.org

<https://committee.iso.org/home/tc211>



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International Hydrographic Organization (IHO)

- Intergovernmental consultative and technical organization
- Established in 1921
- To support safety of navigation and the protection of the marine environment
- One of the IHO objectives
 - to bring about the greatest possible uniformity in nautical charts and documents (i.e. standardization)

www.iho.int



International Hydrographic Organization
Organisation Hydrographique Internationale



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Co-operation

ISO/TC 211, OGC and IHO have been formally – and practically - co-operating since 1994.

They also benefit from a range of people working actively in across organizations.



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OGC

- Statistical Domain Working Group – (new group) supporting the integration of geospatial information into the statistical system and for the purposes of broad discovery, analysis and use.



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OGC

- Land Administration Domain Working Group is looking at the interoperability and efficiency issues, in particular the land administration process from the land survey organisations to jurisdictional levels and with partner organisations across industry, development agencies and others.
 - To assist OGC produced a White Paper on Land Administration earlier in the year



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OGC

- Smart Cities Domain Working Group and CityGML have been looking at the data management for a Smart City, along with uses cases and programs, like the ESPRESSO project (Systemic Standardisation approach to Empower Smart Cities and Communities).



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OGC

- OGC has other supporting Domains linked with Sustainable/Smart Cities:
 - System Design (Architecture & Security)
 - Infrastructure (Land, 3DIM Information, Emergency Management)
 - Data & Services (Big Data, Sensors)
- OGC in the early stages of the smart cities program developed:
 - Smart Cities Spatial Information Framework
 - Information Technology Standards for Sustainable Development



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ISO/TC 211

- Addressing Standard (ISO 19160) and its parts:
 - Part 1 – Standardise address terminology
 - Part 2 – How to assign address
 - Part 3 – How to measure quality of address data
 - Part 4 – How to write addresses on mail items
 - Part 5 – Addressing-rendering
 - Part 6 – Digital interchange models



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ISO/TC 211

- Land Administration Domain Model (ISO 19152) is being revised to meet new requirements from different domains.
- Possible topics
 - Taxation and Validation
 - 3D & 4D
 - Land Management Processes
 - Volunteered Land Administration and Crowdsourcing
 - Legal Space to Physical Objects
 - Blockchain Technology



ISO/TC 211

- Inputs from FIG, OGC, IHO, UN-DOALOS, World Bank, FAO, UNGGIM, UN-HABITAT and Royal Institution of Chartered Surveyors (RICS)
- 12 Month gathering of use cases and submissions
- Project Managed – Chris Body



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ISO/TC 211

- Other ISO/TC 211 standards applicable to Urban and sustainable communities are:
 - Spatial referencing (coordinates, points of interest)
 - Location based services
 - Land Cover/Land Use
 - Data information (Metadata)



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ISO/TC 211

- ISO/TC 211 is collaborating with other ISO technical committees to improve geospatial interoperability:
 - ISO/TC 59/SC 13 Building Information Modelling (BIM)
 - ISO/TC 204 Intelligent Transport Systems (ITS)
 - ISO/TC 268 Sustainable Cities & Communities



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IHO

- IHO has developed a range of standards to assist our resilient/sustainable communities:
 - S-100 outlines the use and extension of ISO/TC 211 standards for hydrographic, maritime and related issues for IHO. S-100 provides the data framework for current and developing IHO products
 - S-121 primary purpose is to allow States to communicate official digital representations of their maritime limits and boundaries to public and international community. The United Nations Division for Ocean Affairs and the Law of the Sea is contributing to this work and the new version of ISO 19152 LADM.



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Other Standard Organisations

- International Organization for Standardization (ISO), together with the other standard organisations of IEC, ITU and IEEE have and are developing standards to meet the needs of our urban and sustainable societies.
 - Recent publication by ISO “Contributing to UNSDGs with ISO Standards”, identifying all 17 goals and its associations to ISO Standards.
 - ISO/TC 268 – Sustainable cities and communities, whose principal standard ISO 3701 helps communities define their sustainable development objectives and implement strategies to achieve them.



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Conclusion

- Standards for Urban Settlements, Resilience & Sustainability have and are being developed by OGC, ISO/TC 211 & IHO
- ISO, IEC, ITU & IEEE have standard programs for Smart Cities
- Your input is required to ensure they meet current and future needs



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Thank you



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