News from the standardisation bodies

JRC INSPIRE Team

14th MIG meeting – November 25, 2021

News from standardisation bodies

Information provided by:

- ISO TC/211.
- OGC.
- W3C.

ISO TC/211
Geographic information/Geomatics

New initiatives / standard projects

- Several initiatives in decision and voting process before formal start.

- Highlights: Land Administration Domain Models (LADM) – Parts::

    - Part 1 - Land Administration Fundamentals.

    - Part 2 - Land Registration.

    - Part 3 - Marine Space Georegulation.

    - Part 4 –Valuation Information.

    - Part 5 - Spatial Plan Information.

    - Part 6 – Implementations. Separate NWIPs will be submitted for each other part.

- General need to harmonize and integrate land administration / georegulation activities for good governance - Also endorsed by the UN.

ISO TC/211
Geographic information/Geomatics

Recently published standards (approximately since May 2021)

- ISO 19170-1:2021 GI —Discrete Global Grid Systems Specifications —Part 1: Core Reference System and Operations, and Equal Area Earth Reference System (2021-05-10).
- ISO/TS 19166:2021 GI —BIM to GIS conceptual mapping (B2GM) (2021-05-14).
- ISO/TR 23262:2021 GIS (geospatial) / BIM interoperability (2021-05-20 joint work with ISO/TC 59/SC 13).
- ISO 19126:2021GI —Feature concept dictionaries and registers (2021-05-26).
- ISO19116:2019/Amd 1:2021 GI —Positioning services —Amendment 1 (2021-06-08).
- ISO/TR 19169:2021 GI —Gap-analysis: mapping and describing the differences between the current GDF and ISO/TC 211 conceptual models to suggest ways to harmonize and resolve conflicting issues (2021-06-16).
- ISO 19111:2019/Amd 1:2021 GI —Referencing by coordinates —Amendment 1 (2021-06-21).

ISO/TC 59/SC 13/JWG 14 (joint WG between ISO/TC 59/SC 13 and ISO/TC 211) has developed a TR on GIS-BIM interoperability: ISO/TR 23262 GIS (geospatial) / BIM interoperability.

Work item proposal on "Geospatial and BIM review of vocabularies" out for comments.

European Commission

OGC

- **2021 Recap** (till November)

  - 12 Standards approved.

  - 3 Best and Community Practices approved.

  - 22 Engineering Reports approved.

  - 4 Discussion or Technical Papers approved.

  - 4 new Standards Working Group (SWG).

  - 12 Innovation Program initiatives completed.

- The OGC API family of standards are being developed to make it easy for anyone to provide geospatial data to the web. OGC API Roadmap.

- OGC Standards Roadmap.

- Technical / Planning Committee Meetings.

OGC

OGC Innovation Program

- Forum for OGC members to solve the latest and hardest geospatial challenges via a collaborative and agile process.

- Ideas for future initiatives include:
  - Testbed-18
    - Machine Learning.
    - Big Data Analytics.
    - Cloud optimized data.
    - Systems at scale.
  - Federated Marine SDI Pilot.
  - Blockchain spatial objects.
  - Built Environment Interoperability.
  - UAS Command and Control.
  - HD maps and autonomous vehicles.
  - Digital Twins (urban, ocean, global).

Climate Change Service Pilot
Enabling FAIR Standards
Open Geospatial Consortium

Federated Marine SDI
Connecting land & sea across nations.
Open Geospatial Consortium

Testbed-18
Developing Location Interoperability.
Open Geospatial Consortium

European Commission

W3C

Recent work

- W3C WG on **Dataset Exchange**:

  - Released the RDF vocabulary for digital catalogues on the Web v2 (DCAT2).

  - Currently working on v3 (DCAT3 working draft).

- W3C WG and IG on **Spatial Data on the Web** (SDW) produced several recommendations in collaboration with OGC:

  - Time Ontology in OWL.

  - Semantic Sensor Network Ontology (SSN).

  - Extensions to SSN.

European Commission

W3C

Recent work

- W3C WG and IG on **Web of Things** have developed several recommendations:

  - [Thing Descriptions](#) and [Architecture](#).

  - [Security](#).

  - [Scripting API](#).

- W3C also hosting work on [extensions to schema.org to support IoT devices](#).

- W3C [Linked Building Data Community Group](#) focuses on building information modelling (BIM) and Web of Data technologies to define existing and future use cases and requirements for linked data applications.

W3C

Recent work

- W3C [Cognitive AI Community Group](#) is incubating ideas for the next generation of AI.

Latest workshops

- ['Graph data](#)' (March 2019, Berlin).

- '[Second W3C Workshop on the Web of Things'](#), (June 2019).

- '[Data Models for Transportation](#)' (September 2019).

- ['Inclusive Design for Immersive Web Standards'](#) (November 2019).

- '[Web and Machine Learning](#)' (August and September 2020).

- ['Maps for the Web'](#) (September/October 2020). Co-organised by OGC.

- ['Smart Cities'](#) (June 2021).

Thank you!

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