

SMART SURVEYORS FOR LAND AND WATER MANAGEMENT
CHALLENGES IN A NEW REALITY



eWORKING WEEK 2021
20-25 JUNE

David Martin FIG Standards Network

Standards - LADM

GA Session 4

Special thanks to Louise Friis-Hansen for the lovely photos...

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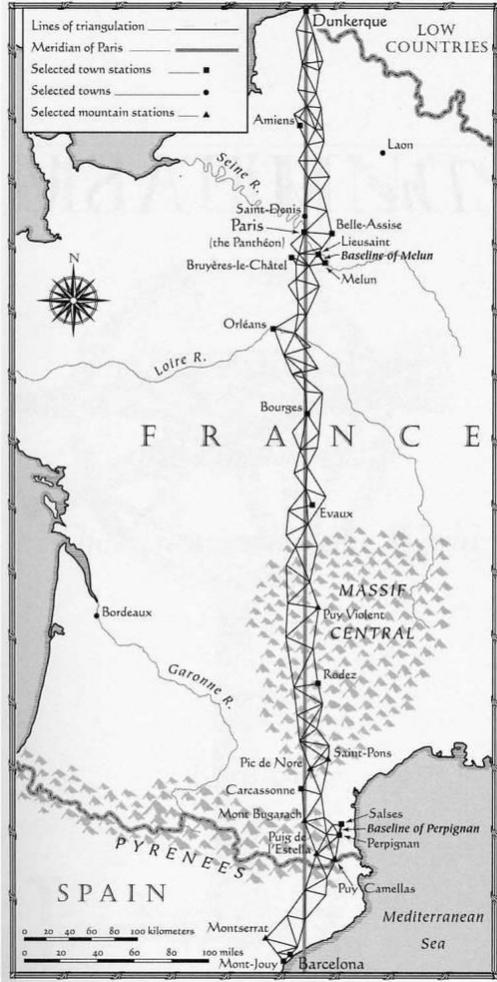
What is a standard:

“in essence, a standard is an agreed way of doing something. It could be about making a product, managing a process, delivering a service or supplying materials – standards can cover a huge range of activities undertaken by organizations and used by their customers.”

<https://www.bsigroup.com/en-GB/standards/Information-about-standards/what-is-a-standard/>



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National Prototype Metre Bar No. 27, made in 1889 by the (BIPM) and given to the United States, which served as the standard for defining all units of length in the US from 1893 to 1960

https://en.wikipedia.org/wiki/History_of_the_metre

$$1 m = \frac{9\,192\,631\,770}{299\,792\,458} \frac{c}{\Delta\nu_{Cs}}$$

The last major revision in its definition was adopted by the 26th General Conference on Weights and Measures (CGPM) in 2018.



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Functional Available
Stakeholders Durable
Traceable Standards Reliable
Integrity Supplier **FIG** Services
Reliable Quality ISO Secure
Credible Customer Needs
Requirements Competence
Responsiveness





The FIG Standards Network - standardization in FIG.

There are several standards initiatives notably ISO - International Organization for Standardization:

- ISO/TC211 - Geographic information/Geomatics dealing with geospatial matters.
- ISO/TC 172 SC6 - Survey Instrument Standards providing tests for surveying instruments and their accessories.
- ISO/TC 307 - Blockchain and electronic distributed ledger technologies.

Other equally important non-ISO standards

- International Property Measurement Standards Coalition (IPMS)
- International Land Measurement Standard (ILMS)
- International Construction Measurement Standards (ICMS)
- Standards in Hydrography as requested/required by IHO and other bodies.

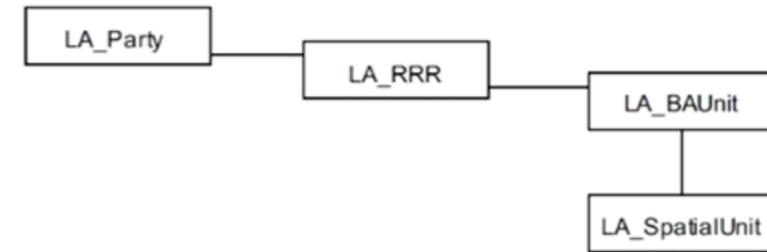
Most of the FIG commissions are involved in one way or another in these different standards activities.





The Land Administration Domain Model (LADM) ISO 19152:2012

- defines a reference LADM covering basics of land administration;
- provides an abstract, conceptual model with four packages related to
 - parties (people and organizations);
 - basic administrative units, rights, responsibilities, and restrictions (ownership rights);
 - spatial units (parcels, and the legal space of buildings and utility networks);
 - spatial sources (surveying), and spatial representations (geometry and topology);
- provides terminology for land administration that is as simple and comprehensive as possible;
- provides a basis for national and regional profiles; and
- enables combining information from different sources in a coherent manner.



It is currently being revised and updated, and this is the reason there was a workshop dedicated to LADM during this working week.





Now to Chrit...