

WORKING SESSION

3D CADASTRE/ MARINE CADASTRE



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REALITY CONCERNS

- Improve the support of 3D and Marine Cadastre
- Revision goals need to be realistic and achievable
 - LADM can support complex legal spaces
 - e.g. input from technical models
- BIM/IFC, CityGML, etc. are well-established with the stakeholders and the construction industry, etc.

SCOPE OF THE REVISION

- Clearly define the aim of the LADM in terms of extending its initial scope
 - management of tenure or it goes beyond?
 - For whom ?
- For the revision 2 aspects can be discussed:
 - Give clarity over the support for 3D Cadastre and Marine Cadastre and perhaps implementations
 - Ensure interoperability between LADM and dominant physical models
- LADM should support the whole life-cycle through the spatial development chain & exploitation
- Consider all the types of both 2D & 3D of spatial objects
- Clarity on enhancing 3D spatial profiles

INTEROPERABILITY

- Institutional arrangements/ SDI
- Legal framework and processes
- System sharing (Spatial Information Infrastructure)
- Support various stakeholders (construction industry, citizens, planners, etc.)



CURRENT SITUATION

- 3D Cadastre development efforts
 - LADM country profiles
 - Implementation approaches
- Marine standardization (S-121 IHO)

PROPOSALS

- POSSIBLE 3D CADASTRE EXTENSIONS/ ADJUSTMENTS:
 - Legal and Institutional framework
 - Spatial framework, 3D (+ 4D) space partition with neither gaps nor overlaps in RRRs
 - Data integrability, relations to registrations and interoperability options (BIM/IFC, CityGML, IndoorGML)
 - Spatial Profiles (3D topology, point clouds) → define **requirements**
 - Explicit semantics of code list values
 - **Annexes for implementation (Annex to LADM v2)**

- SUPPORT FOR MARINE CADASTRE:
 - Data integrability, relations to registrations and interoperability options (IHO S-121) (*Athanasiou, K.; Sutherland, M.; Kastrisios, C.; Tsoulos, L.; Griffith-Charles, C.; Davis, D.; Dimopoulou, E. Toward the Development of a Marine Administration System Based on International Standards. ISPRS Int. J. Geo-Inf. 2017, 6, 194.*) **(Annex to LADM v2)**
 - Support for coastal zones

THANK YOU!