



Collaborative GEO|Design+BIM: Standards & Interoperability

OGC Update

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Topics



- BIM / Geospatial
 - Integrated Digital Built Environment (IDBE)
- Future City Pilot Phase 1, Phase 2
- ESPRESSO
- OGC / W3C

GEO | Design+BIM



- CAD – GIS
- BIM – Geospatial
- Design – Manage
- IDBE?



Bloomberg Businessweek



Bentley Systems, Inc, ArcGIS Online en Open Geospatial: OGC



Integrated Digital Built Environment (Subcommittee)

From the charter:

..increase interoperability between the geospatial and built environment domains, specifically through coordination of standards development activities of the OGC and buildingSMART International (bSI).

White paper: Joint OGC/bSI Whitepaper Agreed Framework for Cooperation [OGC 17-055]

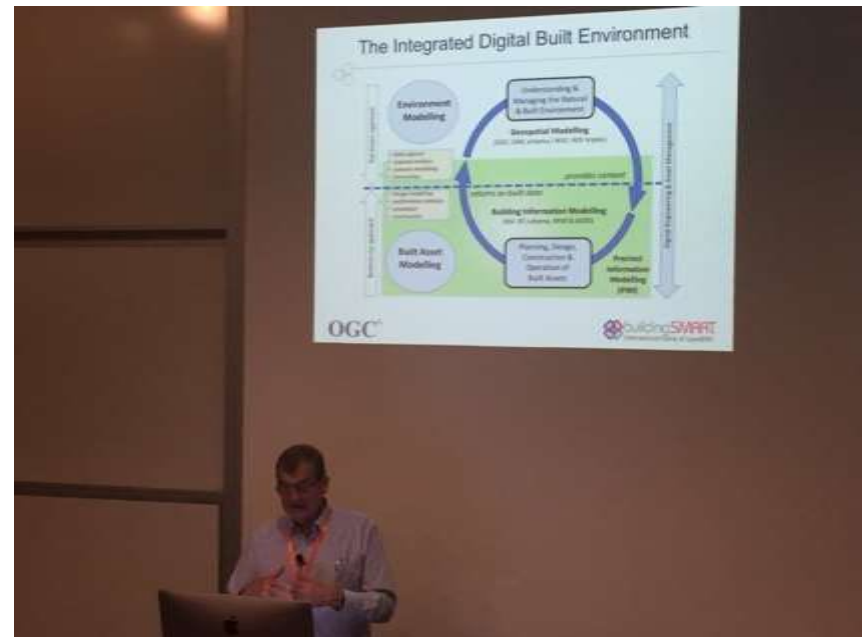
IDBE



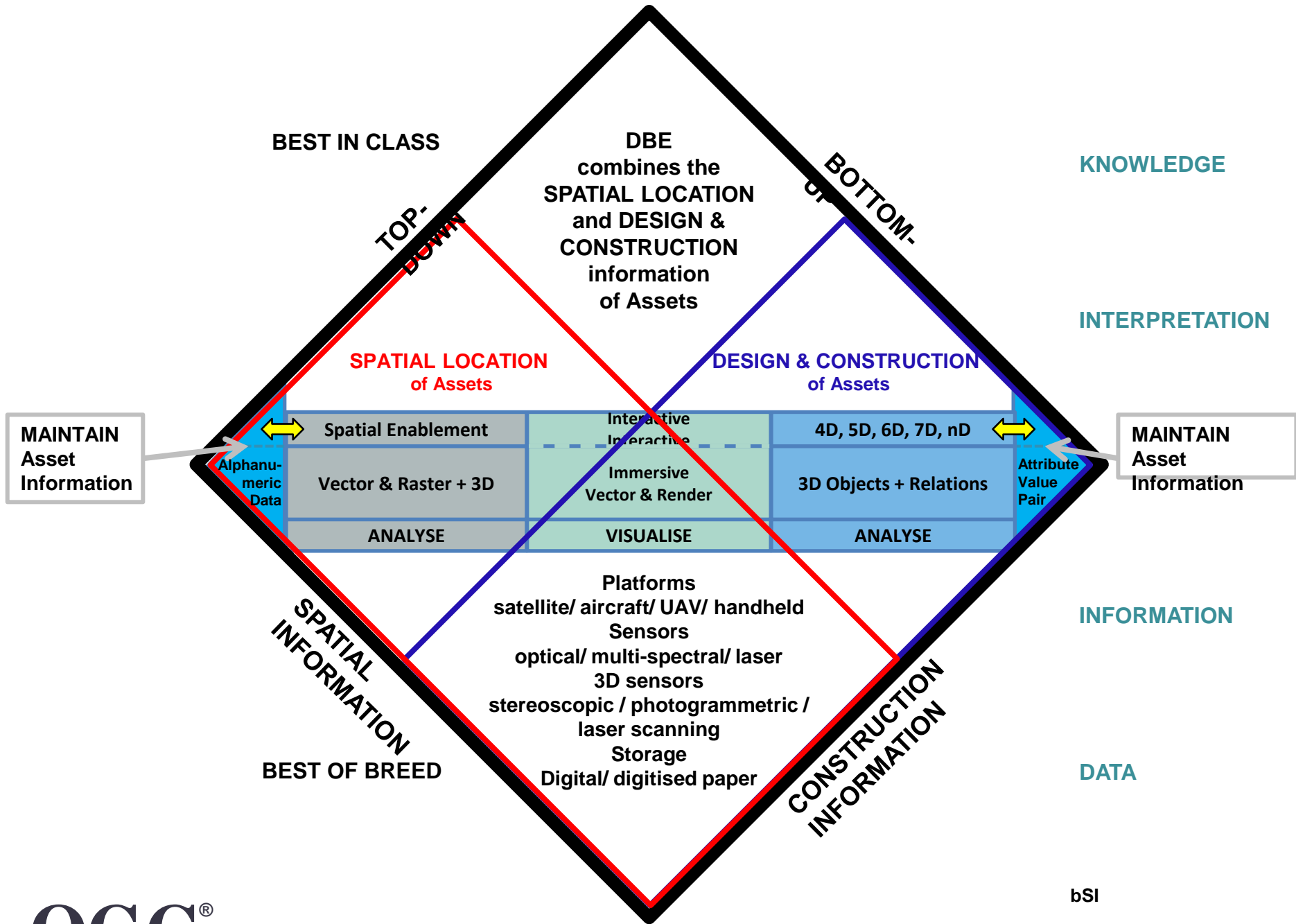
Products of the IDBE SC will advance in each OGC and bSI per the policies and procedures of each organization. The IDBE SC will not develop standards, but will provide requirements and supporting information to OGC Standards Working Groups (SWGs) and bSI Rooms.

IDBE SC: 1st result: Alignment
Abstract + Encoding

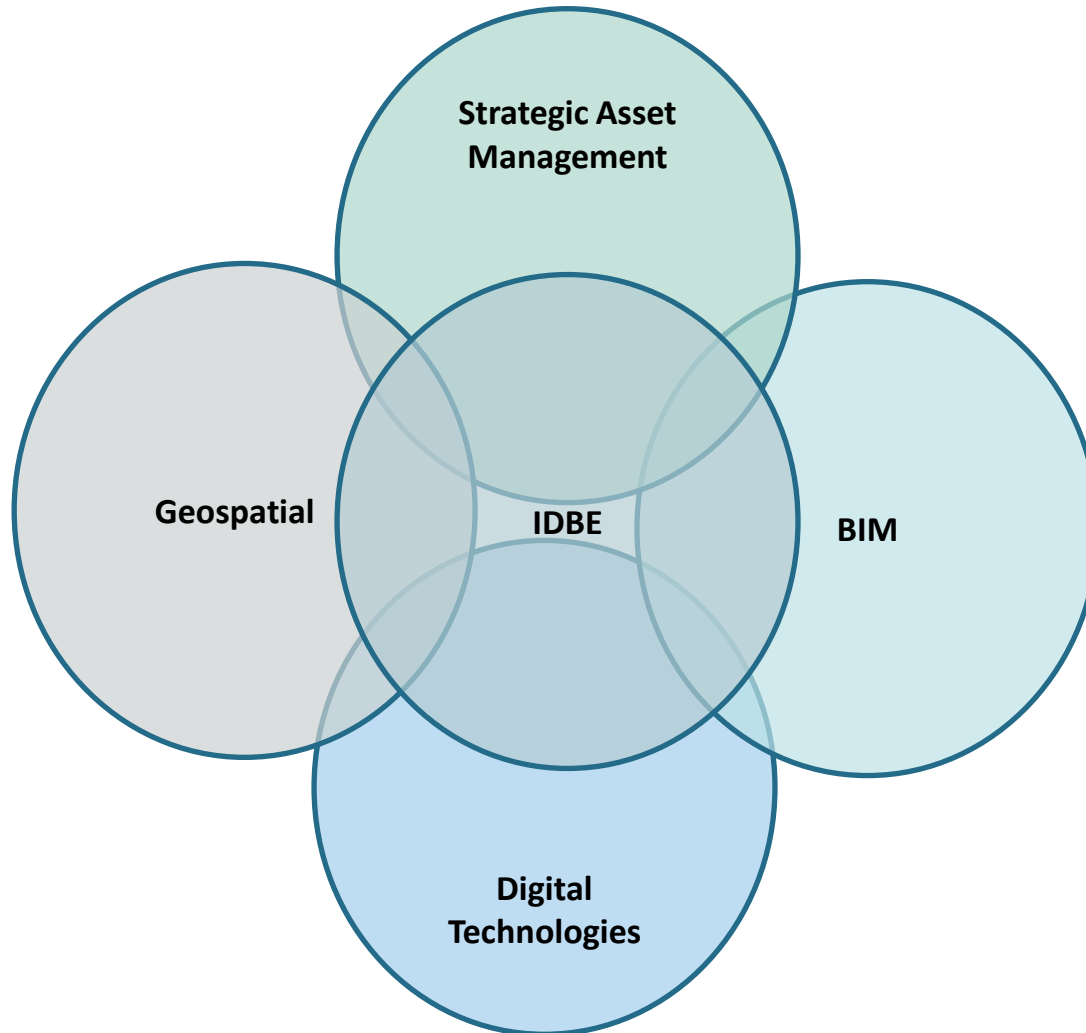
in OGC: InfraGML,
In bSI in IFC



Twitter: Jim Plume



IDBE 'in the center'



Future City Pilots, Phase 1



- OGC & bSI initiative to pilot the GIS BIM interoperability
 - [Video link](#)
 - ER's available
 - IFC, CityGML interoperability
 - OGC Web service to access BIM data and OpenBIM to access Geo data
 - WPS to convert IGC into CityGML
- Results presented at Geo-BIM 2016
- Sponsors:
 - OS, IGN, Sant Cugat and VCS



Future City Pilots, Phase 2



Phase 2, Ideas (still in the context of GIS/BIM):

- Comparing data conversion with data linking approaches
- Looking at tools that consume both CityGML/geospatial data and BIM
- Data structures that support the seamless integration of geospatial and BIM data
- Indoor space, indoor navigation and using both CityGML and IFC data for navigation in IndoorGML (I'd leave this out but it could be included)
- linking (real-time) sensor information with 3D City Models in CityGML
- security models to protect the sensor readings, including Single-Sign On (SSO) methodologies to protect parts of the city model
- understanding where and how we must capture location and time information: the ability to correlate location in different coordinate reference systems (CRS) such as local, regional, global and understand if, and how, the integrity of the location data has changed through that process (Survey4BIM use case)
- Data linking to facilitate asset management over dispersed geographies

Future City Pilots, Phase 2



- Running 2018
- Requirements still open
- Looking for sponsors

- Interested?
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Underground Infrastructure Pilot



- **Scope** of the underground pilot will include demonstration of a **common architecture and data model in multiple cities**. The number of cities will depend upon the Sponsors.

The Sponsors will identify scenarios with an initial focus on:

- Street excavations
- Large-scale construction
- Disaster planning and response

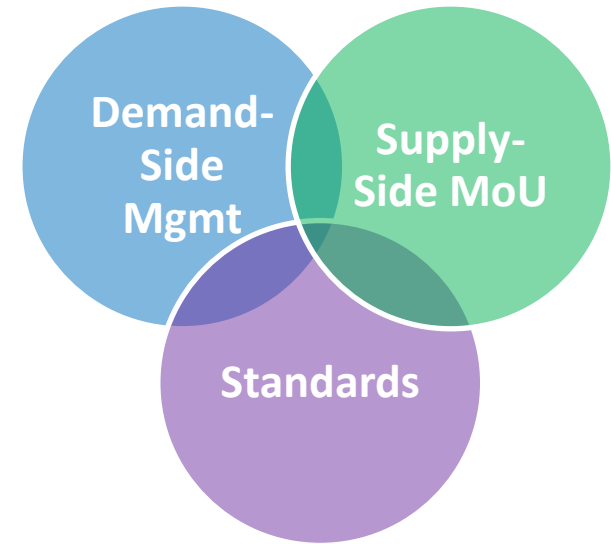


The ESPRESSO project



A H2020 support action for the EIP SCC Urban Platforms

- Promote the use of standards to achieve interoperability *in Smart Cities*
- Status quo of current standards and Platforms
- Understand business and societal impacts
- Promote the Urban Platform as the enabler for Smart City solutions
- 16 Partners, 4 SDOs, 4 system integrators, 2 cities
 - Rotterdam, Tartu
- <http://espresso-project.eu>





The Semantic Web!

W3C and OGC Spatial Data on the Web Working Group publishes First Public Working Draft of its Best Practices

- [Link](#)
- Geo Data on the Web
- *BIM Data on the Web*
- *GeoBIM Data on the Web*



Thank you!



Questions?

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