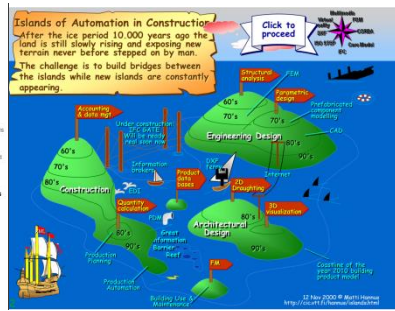
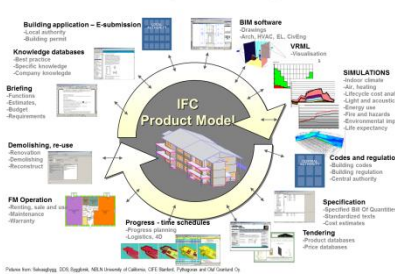
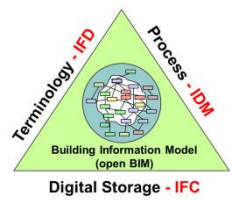


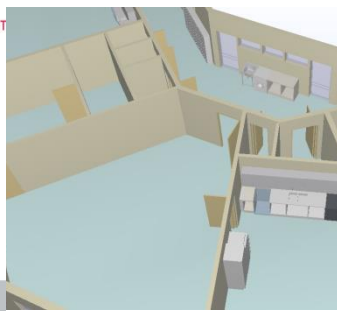
IFC is about exchange and sharing of information



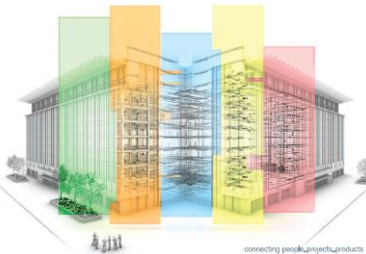
IFD LIBRARY for buildingSMART Interoperability through standards buildingSMART



Source: buildingSMART, <http://www.ifc-library.org>



THE BUSINESS VALUE OF BIM Getting Building Information Modeling to the Bottom Line



Aktuellt arbete inom buildingSMART och praktisk användning idag

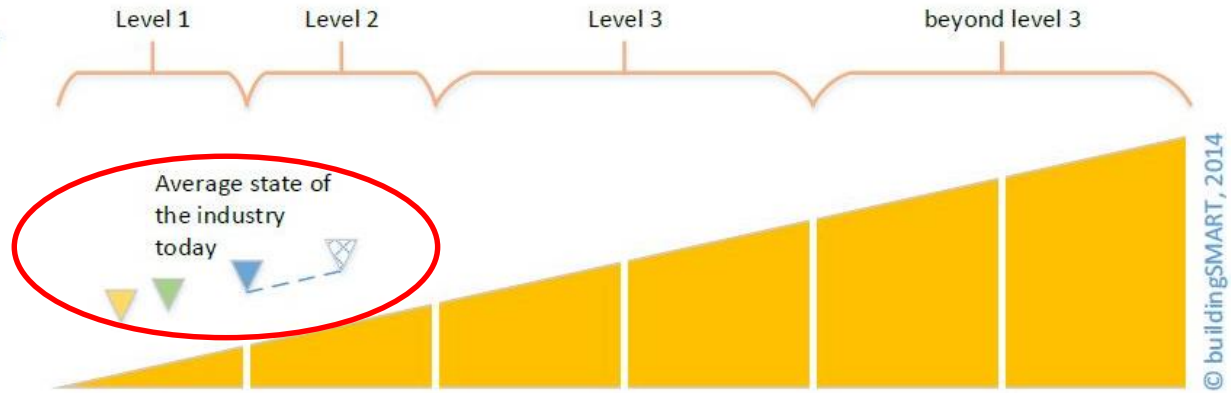
- Standardutveckling, Trafikverkets arbete & dRofus praktiska arbete

Professor Väino Tarandi
Stockholm, 2016-11-24

Broadened Technical Vision

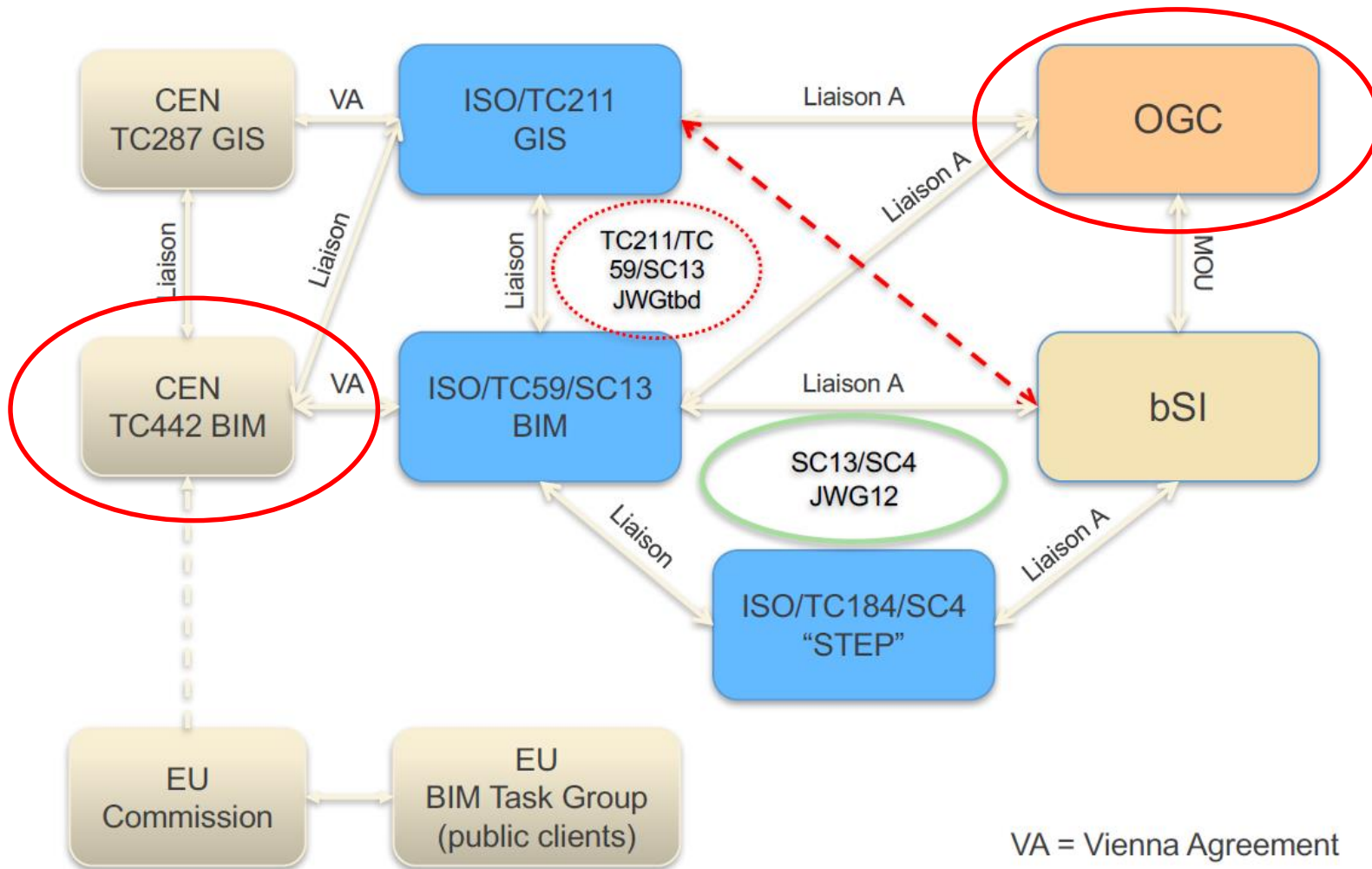
Technical roadmap for process support

- ▼ Building
- ▼ Infrastructure
- ▼ Portfolio Mgmt

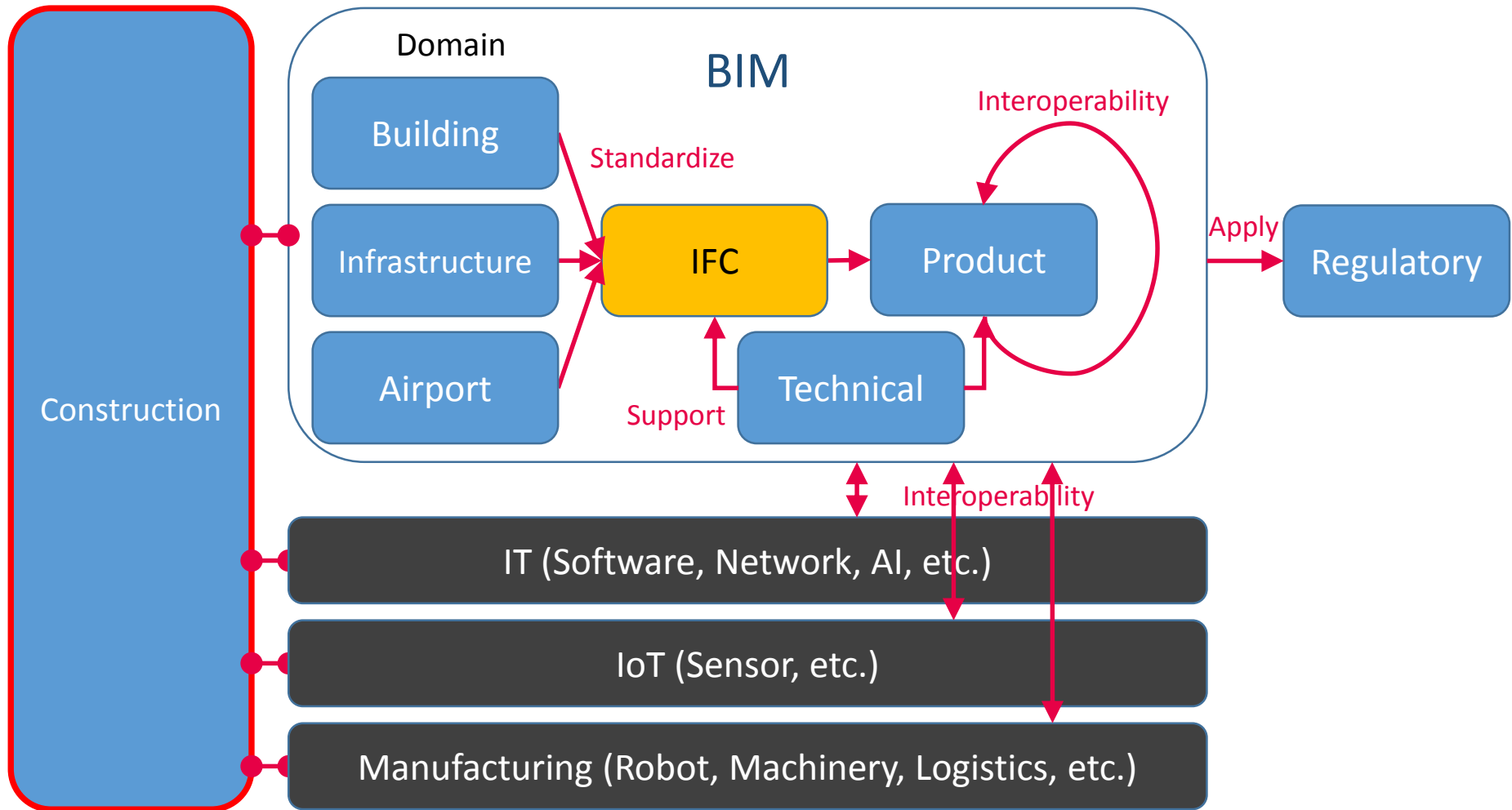


Main theme	documents	bulk BIM	purpose BIM and data drops	workflow BIM	cloud BIM	...
Working means	2D / 3D drawings	3D BIM Discipline specific files			BIM data proliferated over the web	
Standards, formats	dxg, dwg, pdf	ifc (CV, COBie)	ifc's mvdXML	ifc's BCF		
Way of communication	document based working	bulk model exchange	purpose driven model exchange	work flow driven model updating		
Technology means		file server, reference whole models	BIM hubs, reference partial models	web services, reference objects		
To-do list		start IFC for Infra, define LoD's (IDM 5+)	purpose MVD's (25+), deliver first IFC Infra	modularize IFC, web linking, exchange req.		
Future developments			enhance on operational	prepare for portfolio mgmt		

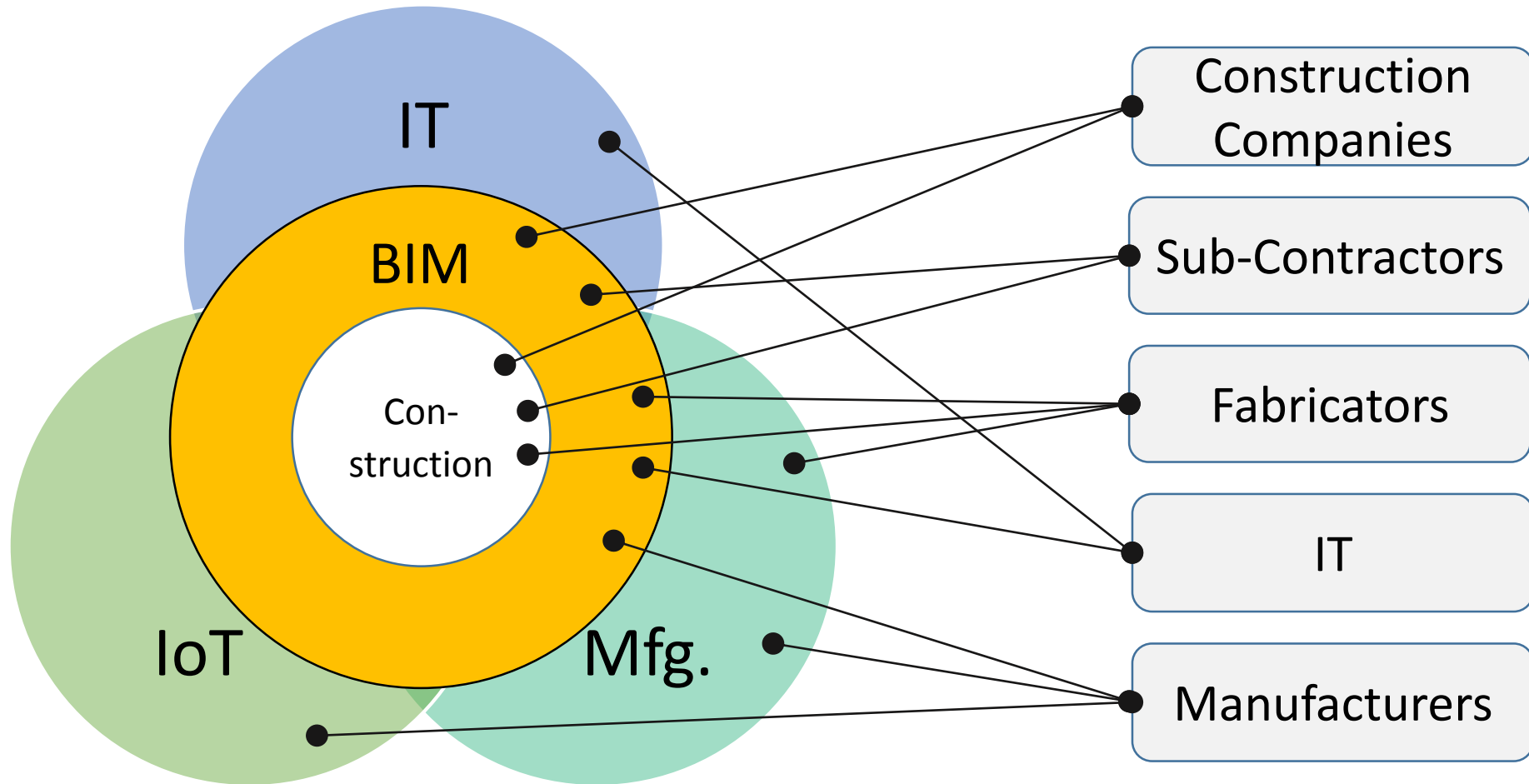
BIM Standardization collaboration



Roles of Rooms under Standards program



Players of “Construction Room”



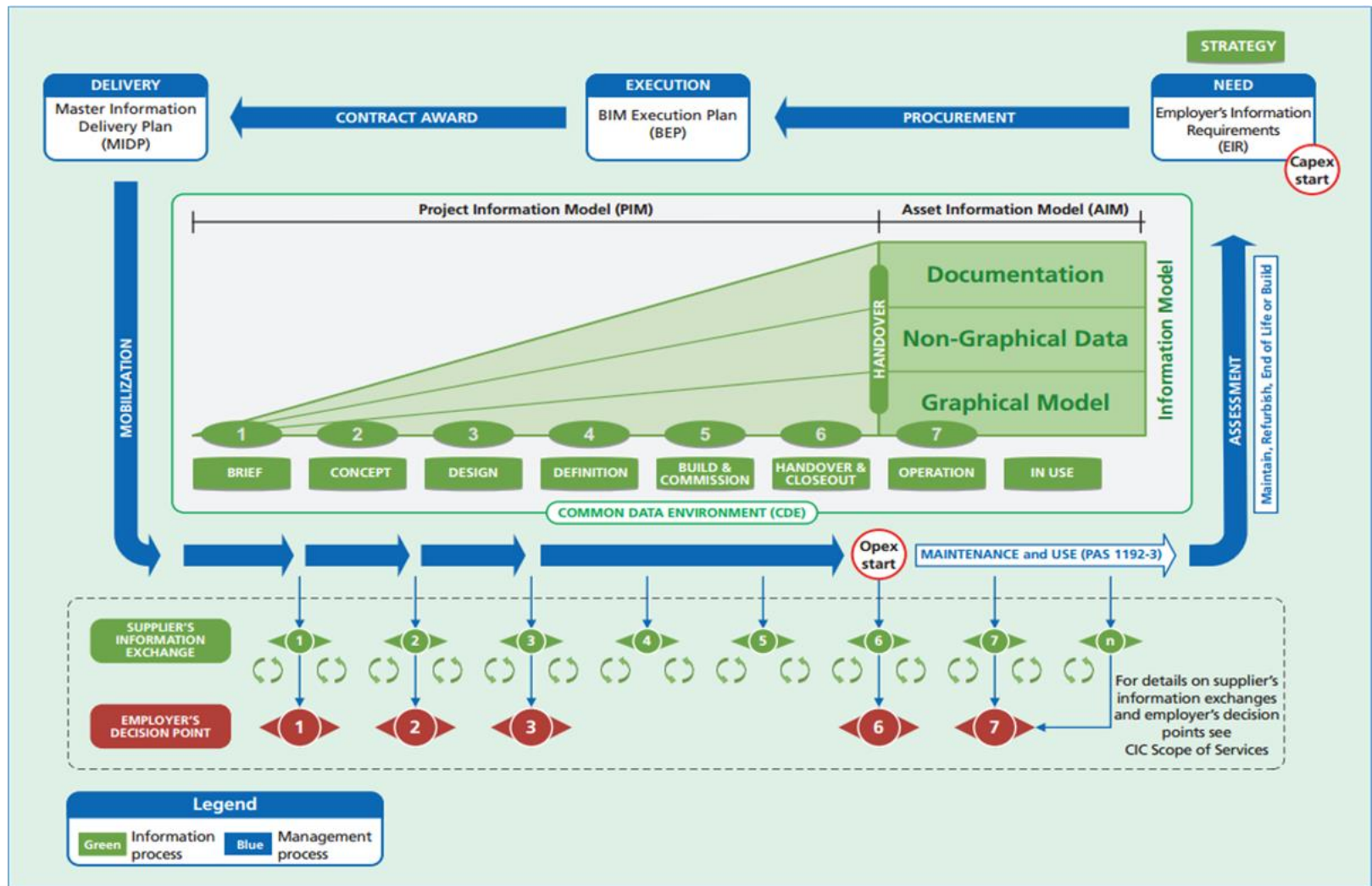
Involving new members from other industries!

Virtual Reality in Construction Planning



Photo by Sebastian Stabinger, Oculus Rift - Developer Version

Airport Room: Data in the entire life cycle



Pre-initiation phase

Building	Infrastructure	Product	Technical	Regulatory
ISO IDM Standard	IFC4 Infra alignment 1.0 (Deployment)	IFC mapping into bSDD	Linked building data ifcOWL	E-submission common guidelines
IDM for building programming	IFC Alignment next phase 1.1	Data dictionary enabler	mvdXML Trust in BIM deliverables	Automated code checking
Global BIM guide wiki	IFC Road & Rail	Product templates and BIM objects	IDM Model Setup	
MVD FM Handover	IFC Asset Management	IFC Primer. Real life object mapping		
MVD Energy simulation	IFC Bridge			
MVD Scheduling	Integrated Digital Built Environment			
MVD Quantity take off	Infra overall architecture			
MVD Annotation				
IDM Curtain walling				
IDM Configurator				

Initiation, Working Group phase


Building	Infrastructure	Product	Technical	Regulatory
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IDM for building programming	IFC Alignment next phase 1.1	Data dictionary enabler	mvdXML Trust in BIM deliverables	Automated code checking
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MVD Energy simulation	IFC Bridge			
MVD Scheduling	Integrated Digital Built Environment			
MVD Quantity take off	Infra overall architecture			
MVD Annotation				
IDM Curtain walling				
IDM Configurator				

Compliance

Individual Certification

Initiation, Standard Proposal phase

Building	Infrastructure	Product	Technical	Regulatory
ISO IDM Standard	IFC4 Infra alignment 1.0 (Deployment)	IFC mapping into bSDD	Linked building data ifcOWL	E-submission common guidelines
IDM for building programming	IFC Alignment next phase 1.1	Data dictionary enabler	mvdXML Trust in BIM deliverables	Automated code checking
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MVD Energy simulation	IFC Bridge			
MVD Scheduling	Integrated Digital Built Environment			
MVD Quantity take off	Infra overall architecture			
MVD Annotation				
IDM Curtain walling				
IDM Configurator				


[Model Setup IDM for Standards Committee vote \(12/09/2016\)](#)
[Request for Standards Committee vote more...](#)

Compliance

Individual Certification

Development phase

Building	Infrastructure	Product	Technical	Regulatory
ISO IDM Standard	IFC4 Infra alignment 1.0 (Deployment)	IFC mapping into bSDD	Linked building data ifcOWL	E-submission common guidelines
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