

# BUSINESS REASONS FOR IDM/MVD AND IDM ROADMAP

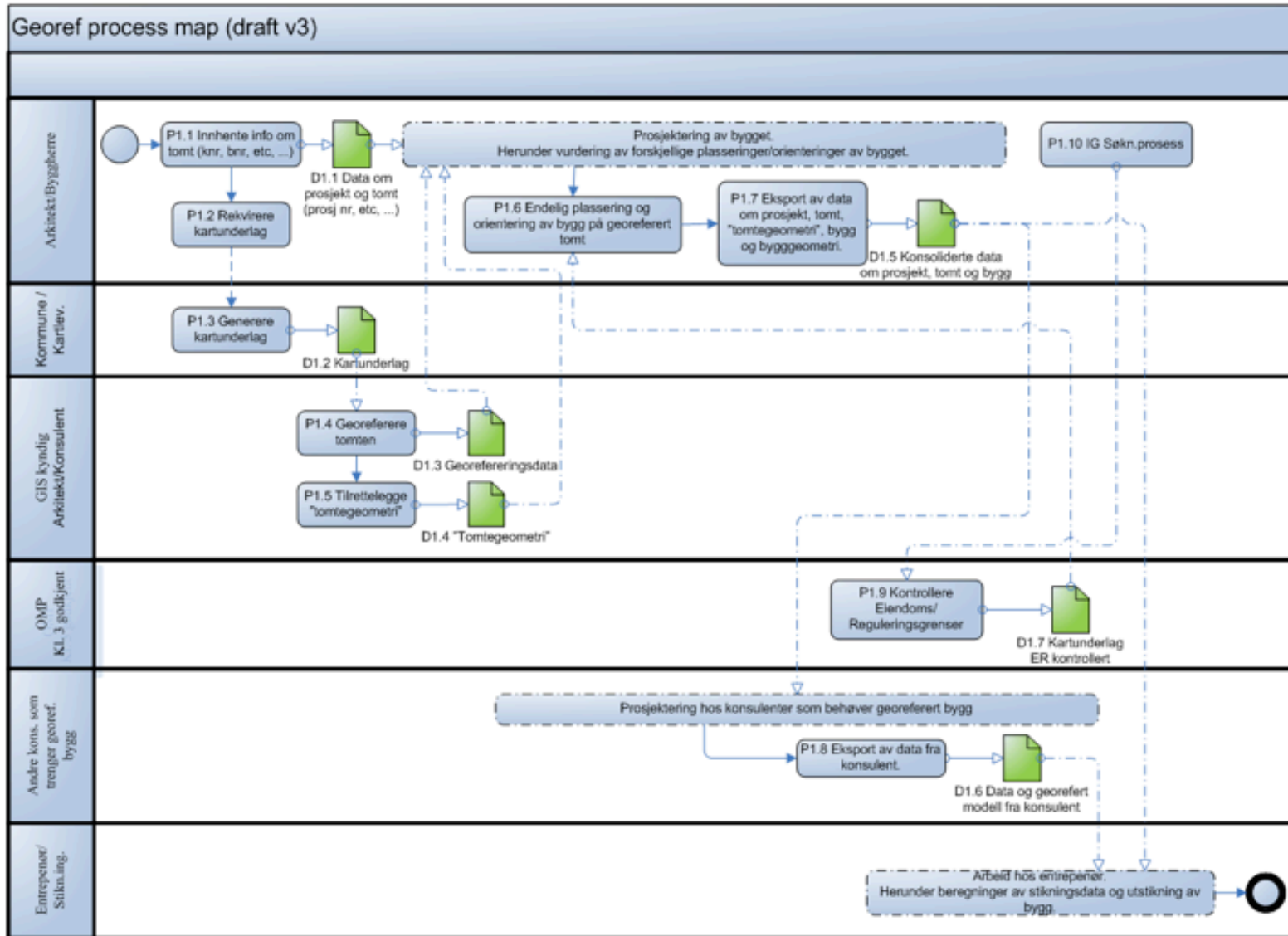
buildingSMART Nordic IDM Workshop – Copenhagen – 3 Nov. 2011 – Steen Sunesen

BUSINESS REASONS FOR IDM/MVD

IDM ROAD MAP

*IDM = buildingSMART Processes*

# EXAMPLE IDM – PROCESS MAP GEOREFERENCING



# EXAMPLE IDM – EXCHANGE REQUIREMENTS GEOREFERENCING

Object Type				Export	Import	MySupport	
Attribute Groups							(M) Export (P) Is
Property	Definitions and notes	Examples and further explanations	Comments				
<b>Meta data</b>							
<b>Exchange file</b>							
Exchange purpose	Designation of the exchange file to be "Georeferencing"	No view limitation. Mark the file to comply to ER for Georeferencing. -- system to assign the standard view definition name		M			HEADER section file_description
Author	Name of the creator of the Georeferencing data	user setting - application need to provide UI		M			file_name with field author
Company	Company name of the Author	user setting - application need to provide UI		M			file_name with field organization
Originating application	Name of the software application that created the data set	system setting by software vendor, shall be specific, i.e. including version information		M			file_name with field originating_system
Date of creation	Time stamp of the creation time	2008-04-12T15:27:46		M			file_name with field time_stamp
<b>Project</b>							
<b>Project Attributes</b>							
Software unique id	Object identifier (formatted as GUID or UUID) to uniquely identify the software object	70ce2f2b-a5f8-4ab7-bc7f-6a838a353f25, has to be maintained by the application (e.g. for re-export)		M			IfcProject.GlobalId
Number (or ID)	User assigned (short) name or number	delivery contracts may demand a certain naming convention		M			IfcProject.Name
Name	User assigned name (full name)	for informational purposes only		M			IfcProject.LongName
Description	OPTIONAL User assigned optional description	not required for export	[General]: Optional, not checked	O			
Phase	OPTIONAL Design stage	conceptual design, detailed design, ... for informational purposes only		O			IfcProject.Phase
<b>Project units</b>							
Length unit	Default length unit for all length measures in the data set	[m], [mm], [inch], [feet]		M			IfcProject.UnitsInContext (IfcUnitAssignment) with IfcSIUnit.Name = METRE
Area unit	Default area unit for all length measures in the data set	[m²], [square feet]		M			IfcProject.UnitsInContext (IfcUnitAssignment) with IfcSIUnit.Name = SQUARE_METRE
Volume unit	Default volume unit for all length measures in the data set	[m³], [cubic feet]		M			IfcProject.UnitsInContext (IfcUnitAssignment) with IfcSIUnit.Name = CUBIC_METRE
<b>Project decomposition</b>							
Site contained in Project	Link to the top-level node of the spatial structure, being a site		Must be present.	M			IfcRelAggregates
Building contained in Project	Link to the top-level node of the spatial structure, being a building		Not allowed.	-			IfcRelAggregates

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## BUSINESS REASONS FOR IDM/MVD

Standardize deliveries in projects

- Internal process delivery

- Multi-discipline process delivery

Standardize BIM manuals

Modular – process per stage - avoid stove-piping

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## BUSINESS REASONS FOR IDM/MVD

Communicate needs to software developers

Certify software from MVDs based upon IDMs

Certify

- BIM manuals

- Education

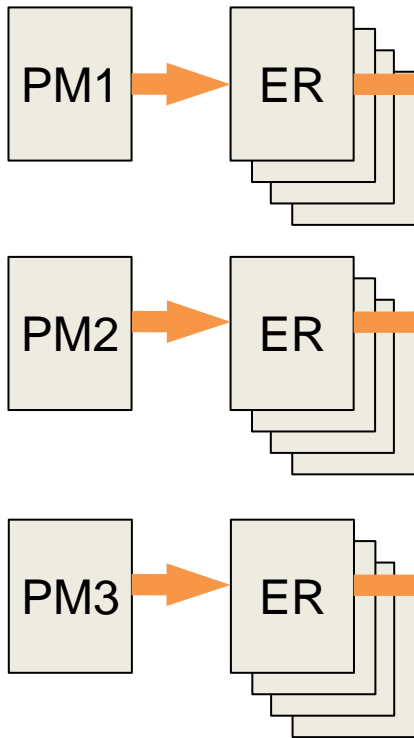
- Users

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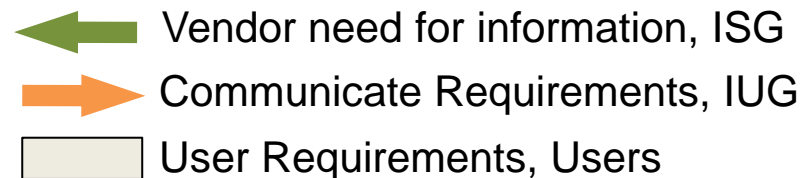
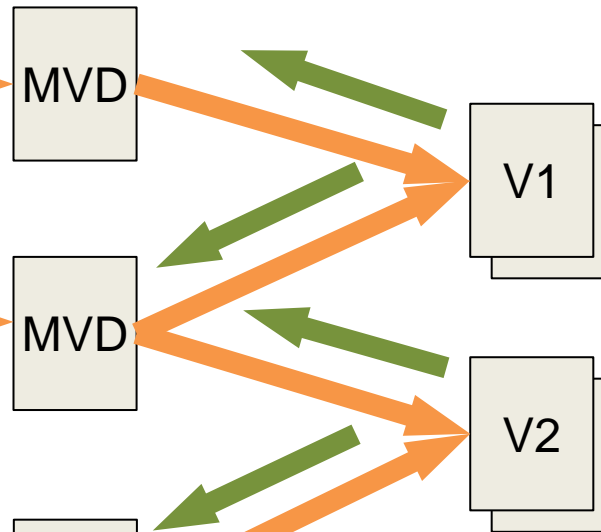
## USERS

Processes/Deliveries (IDMs)



## IMPLEMENTERS/VENDORS (V) (ISG)

Technical Specification (MVD)



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## IDM ROAD MAP

Map identified openBIM supported processes

Coordinate international IDM development

Map stage for each IDM (LOD) (ISO 22263/29481-1 and Omniclass table 31)

Map process type for each IDM (Omniclass table 32, Services)

OmniClass Table 31	Lifecycle Stages in ISO 22263				Pre-lifecycle stages			Pre-Construction stages			Construction stages		Post-construction stages	
		Inception	Brief		Design			Production		Maintenance	Demolition			
31 10 11 00 Needs Identification Phase	Portfolio requirements	Conception of need		Outline conceptual design			Production Information		Operation and maintenance					
31 10 14 00 Concept Phase	Outline feasibility	Substantive feasibility		Full conceptual design			Construction				Disposal			
31 10 45 00 Preliminary Design Phase				Coordinated design (and procurement)										
31 10 45 00 Budgeting Phase														
31 20 10 00 Preliminary Project Description Phase														
31 20 20 00 Design Development Phase														
31 25 00 00 Construction Documents Stage														
31 40 00 00 Execution Stage														
31 40 00 00 Execution Stage														
31 50 00 00 Utilization Stage														
31 60 00 00 Closure Stage														



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Service	OmniClass
Client's needs	32-41 21 00 Design Services, Programming 32-41 81 00 Design Services, Validating 32-57 81 13 Implementation Services, Assuring, Inspecting
Regulatory	32-81 61 00 Governmental Service, Regulating
Modeling	32-57 71 15 Implementation Services, Postconstructing, Commissioning 32-49 11 00 Modeling
Performance Analysis	32-35 57 13 Conceptualization Services, Information Processing, Analyzing
Cost	32-35 51 11 Conceptualization Services, Quantifying, Taking Off 32-11 00 00 Transactional Services, Estimating
Construction	32-57 61 00 Implementation Services, Constructing
Operate	32-65 21 Utilization Services, Operating 32-65 31 00 Utilization Services, Maintaining
Documentation	32-49 61 00 Documentation Services, Record Keeping
Coordination	32-35 57 19 Conceptualization Services, Information Processing, Coordinating
Presentation	32-49 51 00 Documentation Services, Recording

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## (some) IDENTIFIED IDM PER STAGE PER SERVICE

Services	ISO 22263: Pre-construction stages		
	Design		
	Outline conceptual design	Full conceptual design	Coordinated design (and procurement)
<b>Performance Analysis cont.</b>	Perform Egress analysis	Perform Egress analysis	
	Perform LCC analysis	Perform LCC analysis	
	Enhance element with Fire requirements		
	Perform security analysis	Perform security analysis	
<b>Cost</b>	Make quantity take-off	Make quantity take-off	Make quantity take-off
	Perform cost analysis	Perform cost analysis	Perform cost analysis
<b>Documentation</b>			BIM handover to contractor
			Make FM documentation
<b>Coordination</b>	Perform Consistency control	Perform Consistency control	Perform Consistency control
<b>Presentation</b>	Visualize Solution	Visualize Solution	Visualize Solution

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## IDM ROAD MAP

≈40 processes - ≈140 Processes/stages

Map prioritized IDM

Map existing/initiated IDMs

*Development of IDM (cluster, national and international)*

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## (some) PRIORITIZED IDMs

Services	ISO 22263: Pre-construction stages		
	Design		
	Outline conceptual design	Full conceptual design	Coordinated design (and procurement)
Performance Analysis cont.	Perform Egress analysis	Perform Egress analysis	
	Perform LCC analysis	Perform LCC analysis	
	Enhance element with Fire requirements		
	Perform security analysis	Perform security analysis	
Cost	Make quantity take-off	Make quantity take-off	Make quantity take-off
	Perform cost analysis	Perform cost analysis	Perform cost analysis
Documentation			BIM handover to contractor
			Make FM documentation
Coordination	Perform Consistency control	Perform Consistency control	Perform Consistency control
Presentation	Visualize Solution	Visualize Solution	Visualize Solution

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## (some) INITIATED IDM

Services	ISO 22263: Pre-construction stages		
	Design		
	Outline conceptual design	Full conceptual design	Coordinated design (and procurement)
<b>Performance Analysis cont.</b>	Perform Egress analysis	Perform Egress analysis	
	Perform LCC analysis	Perform LCC analysis	
	Enhance element with Fire requirements		
	Perform security analysis	Perform security analysis	
<b>Cost</b>	Make quantity take-off	Make quantity take-off	Make quantity take-off
	Perform cost analysis	Perform cost analysis	Perform cost analysis
<b>Documentation</b>			BIM handover to contractor
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<b>Coordination</b>	Perform Consistency control	Perform Consistency control	Perform Consistency control
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