

# Information Delivery Specifications

Wat en waarom

00



Table with columns: Parameter, Handleiding, Bijlage, Omschrijving. Rows include: Eenvoudige, Vlakke, Daken, Spouwmuur, Plafond, Muur, and Overgang.

13.1\*



Table with columns: Parameter, Handleiding, Bijlage, Omschrijving. Rows include: Gevels, Muur, Daken, and Overgang.

21.1\* - Buitenvanthen, niet constructief

Beschrijving: ...

Table with columns: Parameter, Handleiding, Bijlage, Omschrijving. Rows include: Eenvoudige, Vlakke, Daken, Spouwmuur, Plafond, Muur, and Overgang.

21.1\*



22.1\*



22.1\* - Binnenwanden, niet constructief

Beschrijving: ...

Table with columns: Parameter, Handleiding, Bijlage, Omschrijving. Rows include: Gevels, Muur, Daken, and Overgang.

**Computer Interpretable Exchange Requirements**

IFC version: IFC 5.0

File type: SPFF

Conformance Level: ☆ One star

Information Delivery Specification: Client doc QTO v4.2

Only export object in view       Only export objects with mapping  
 Validate IDS during export       Split objects by level  
 Use IDS as Level of Information Need (LOIN)

**Export**      **Send to online API**

# Deze presentatie

- ILS = Informatie Leveringspecificatie
  - Nederlandse PDFs en XLS
- IDS = Information Delivery Specification
  - Standaard om een ILS vast te leggen voor computer interpretatie

Deze presentatie is een mix van:

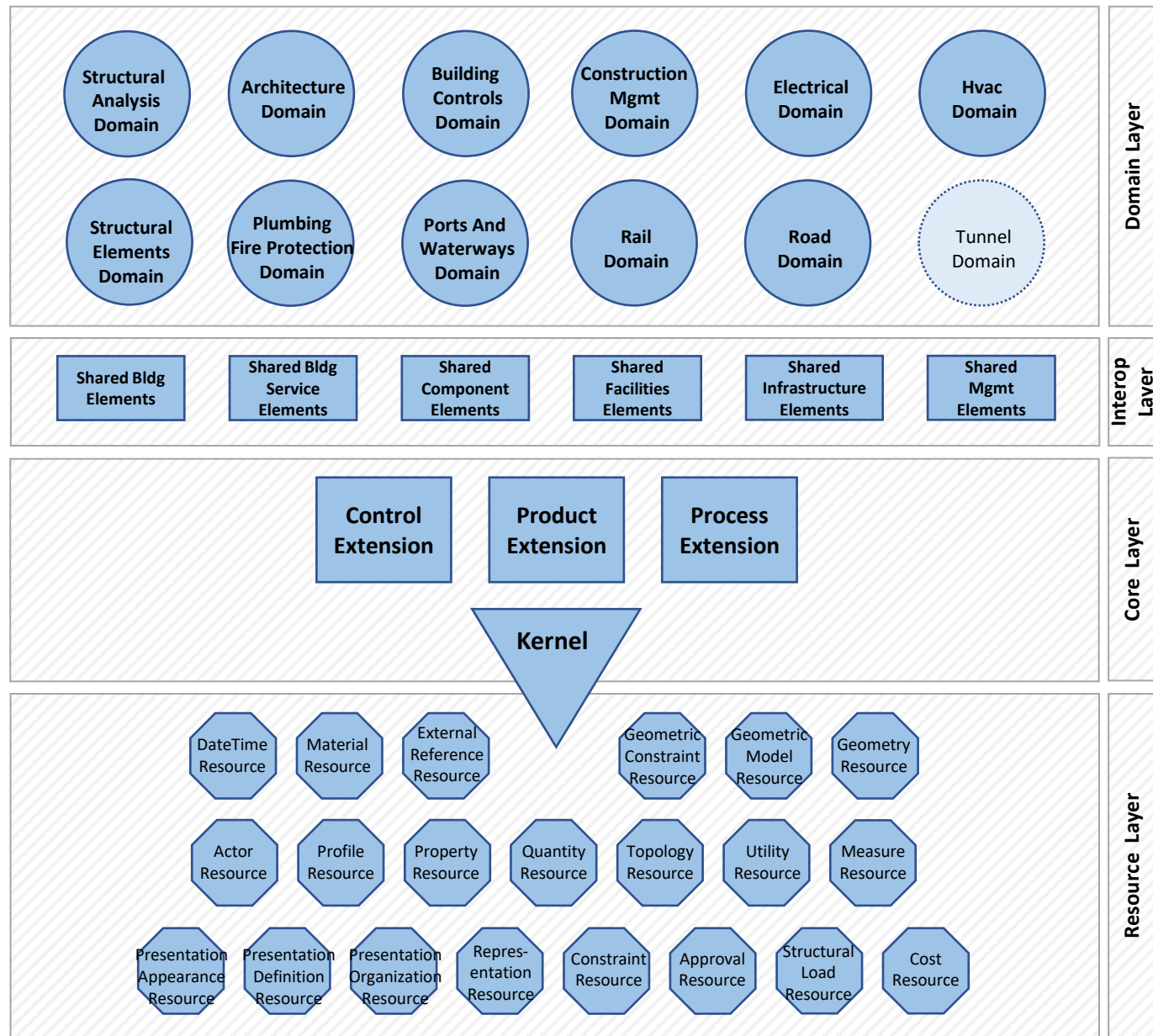
- “dit is waarom IDS zo cool is”
- “dit is hoe de toekomst van IFC eruit ziet”

# Safe harbour statement

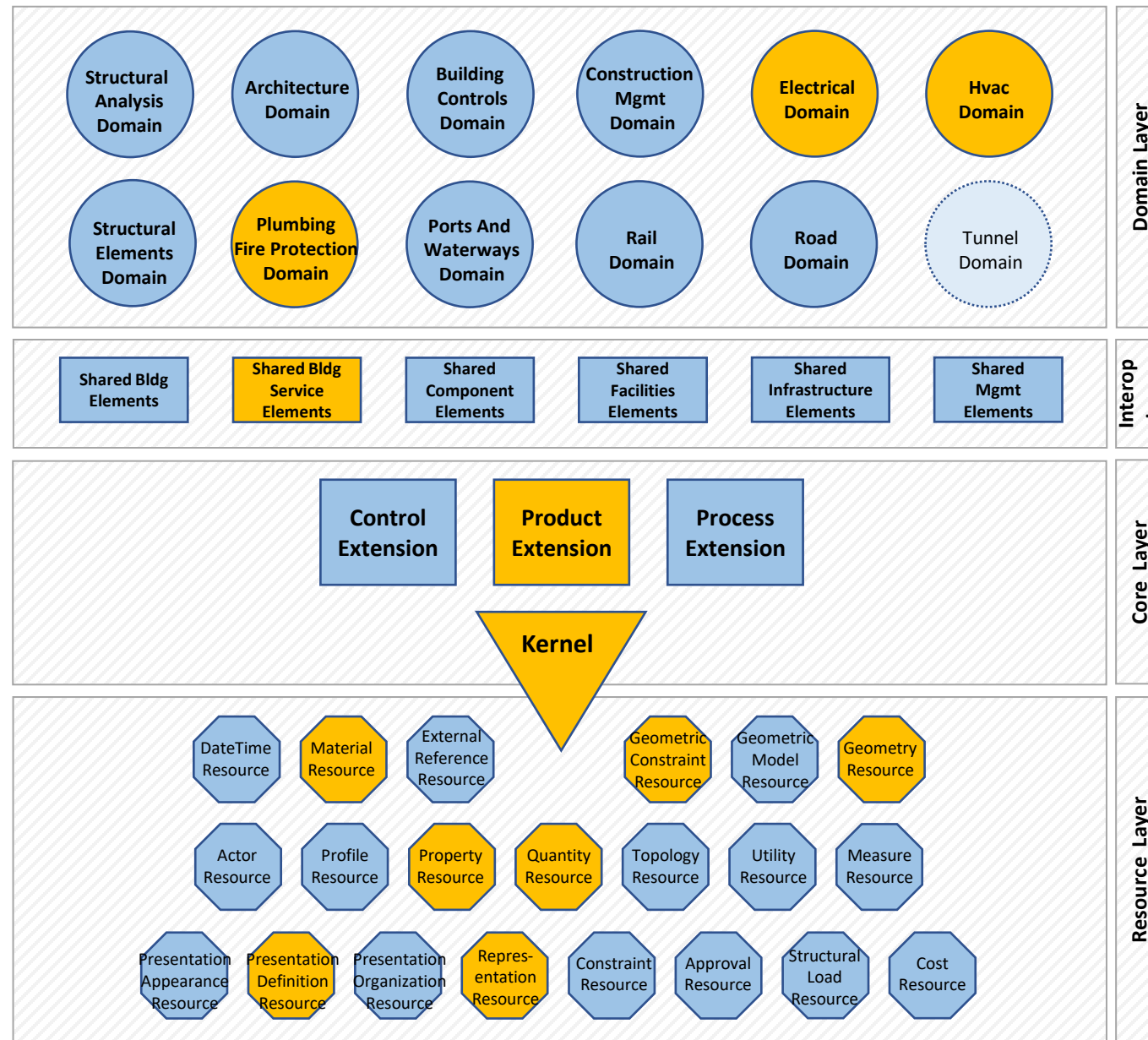
Our discussion may include predictions, estimates or other information that might be considered forward-looking. While these forward-looking statements represent our current judgement on what the future holds, they are subject to risks and uncertainties that could cause actual results to differ materially. You are cautioned not to place undue reliance on these forward-looking statements, which reflect our opinions only as of the date of this presentation. Please keep in mind that we are not obligating ourselves to revise or publicly release the results of any revision to these forward-looking statements in light of new information or future events. Throughout today's discussion, we will attempt to present some important factors relating to our business that may affect our predictions.

# Wat zijn MVDs?

# IFC4.3 overview

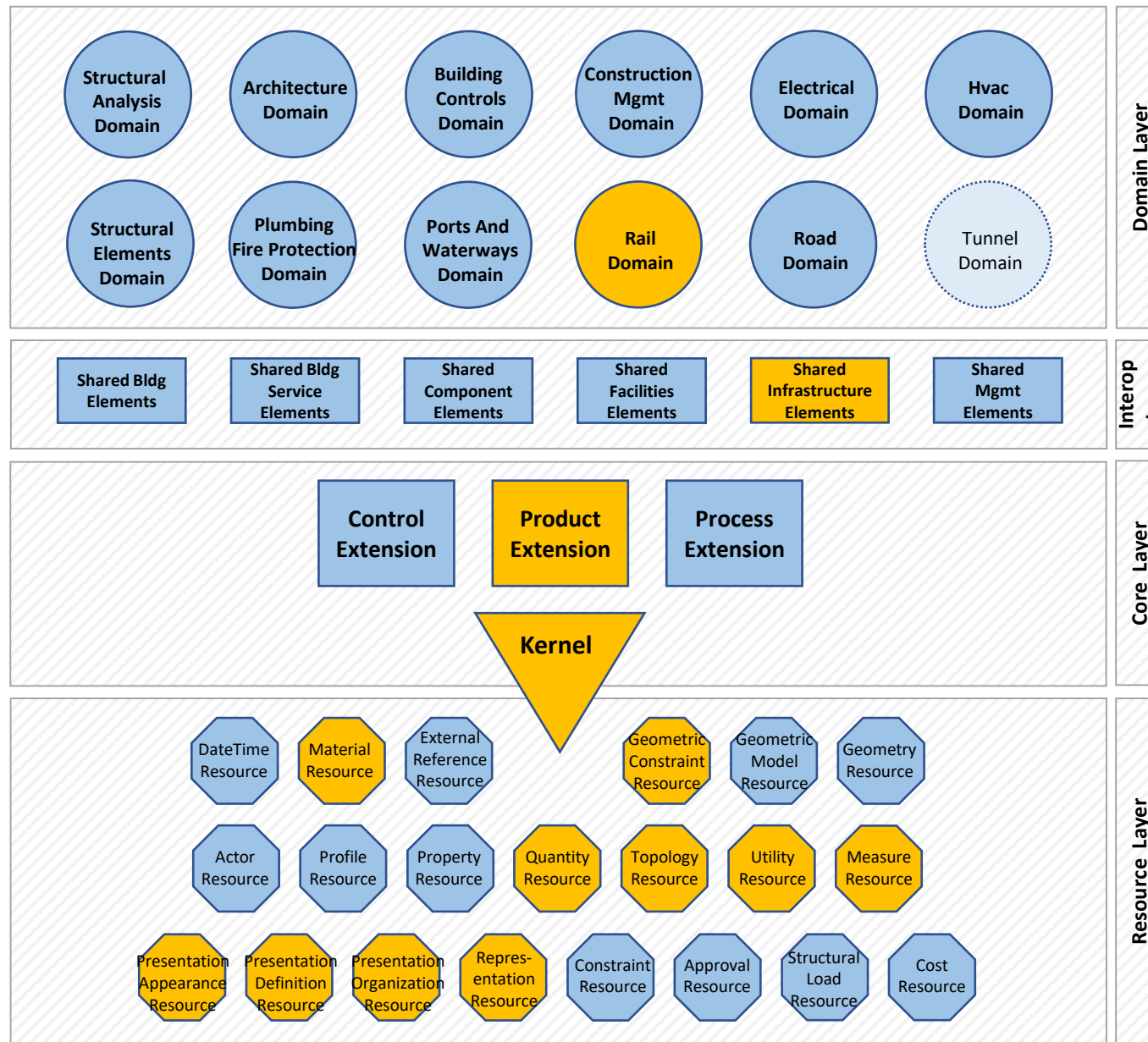


# MVD A

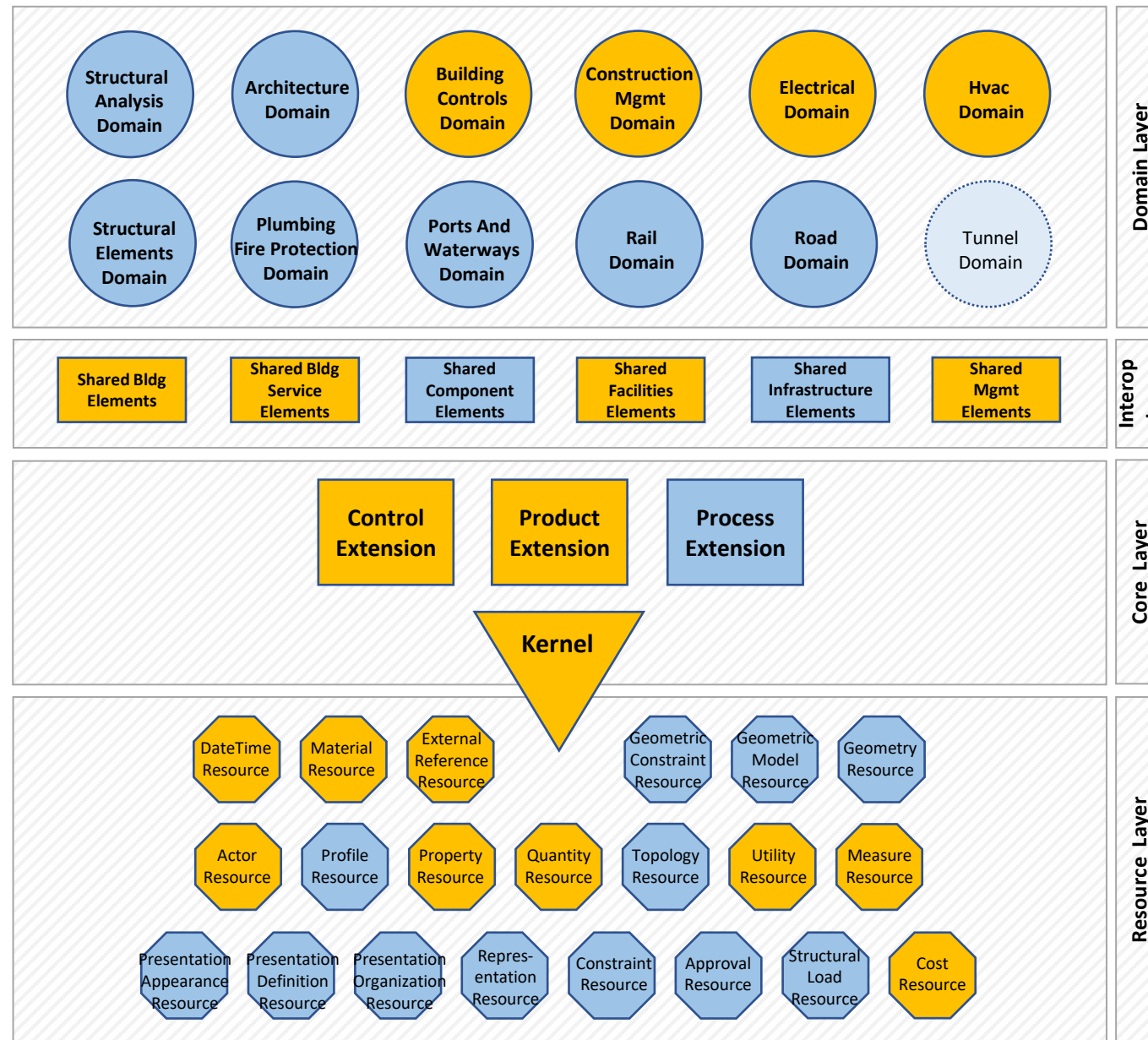




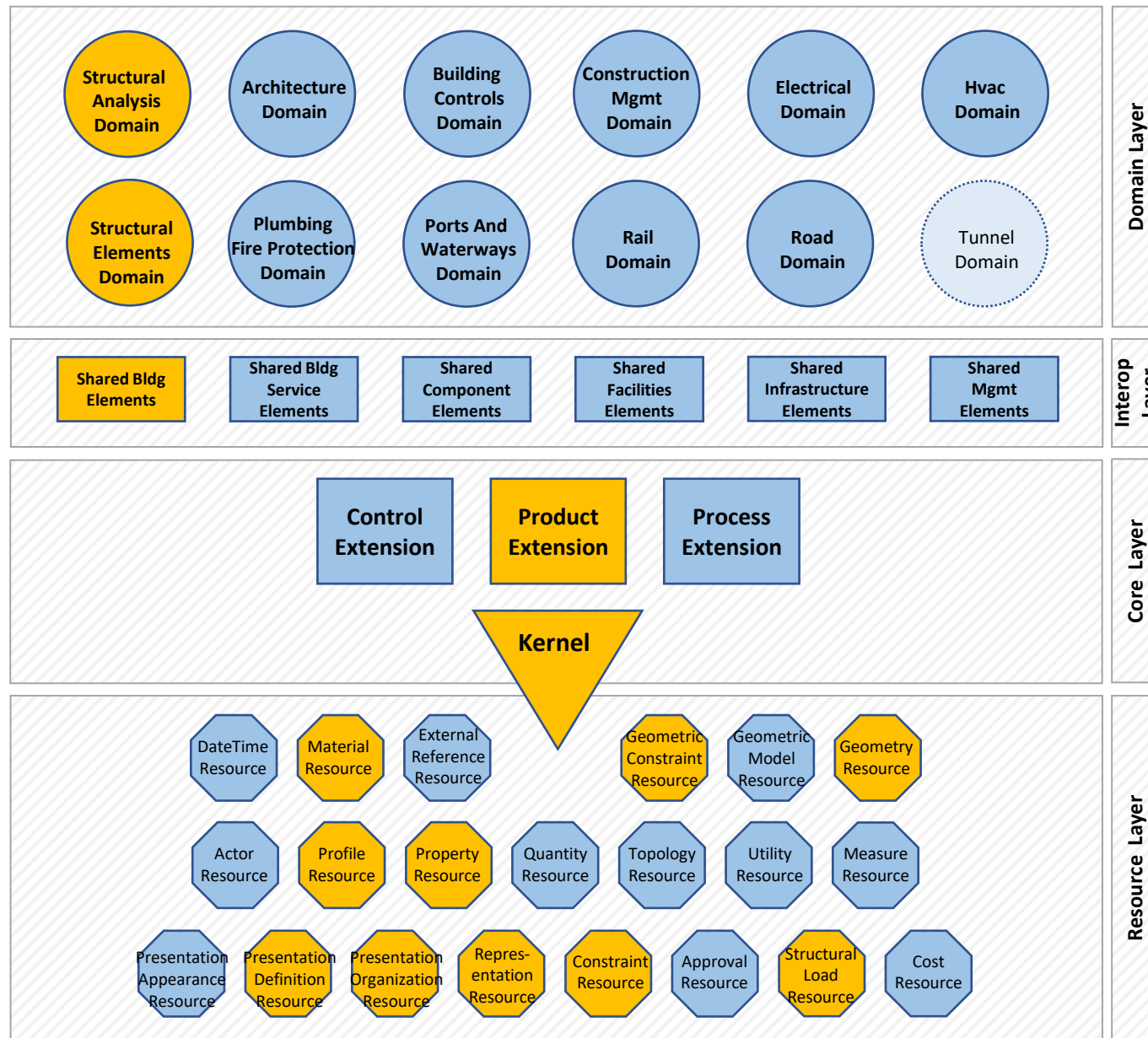
# MVD B



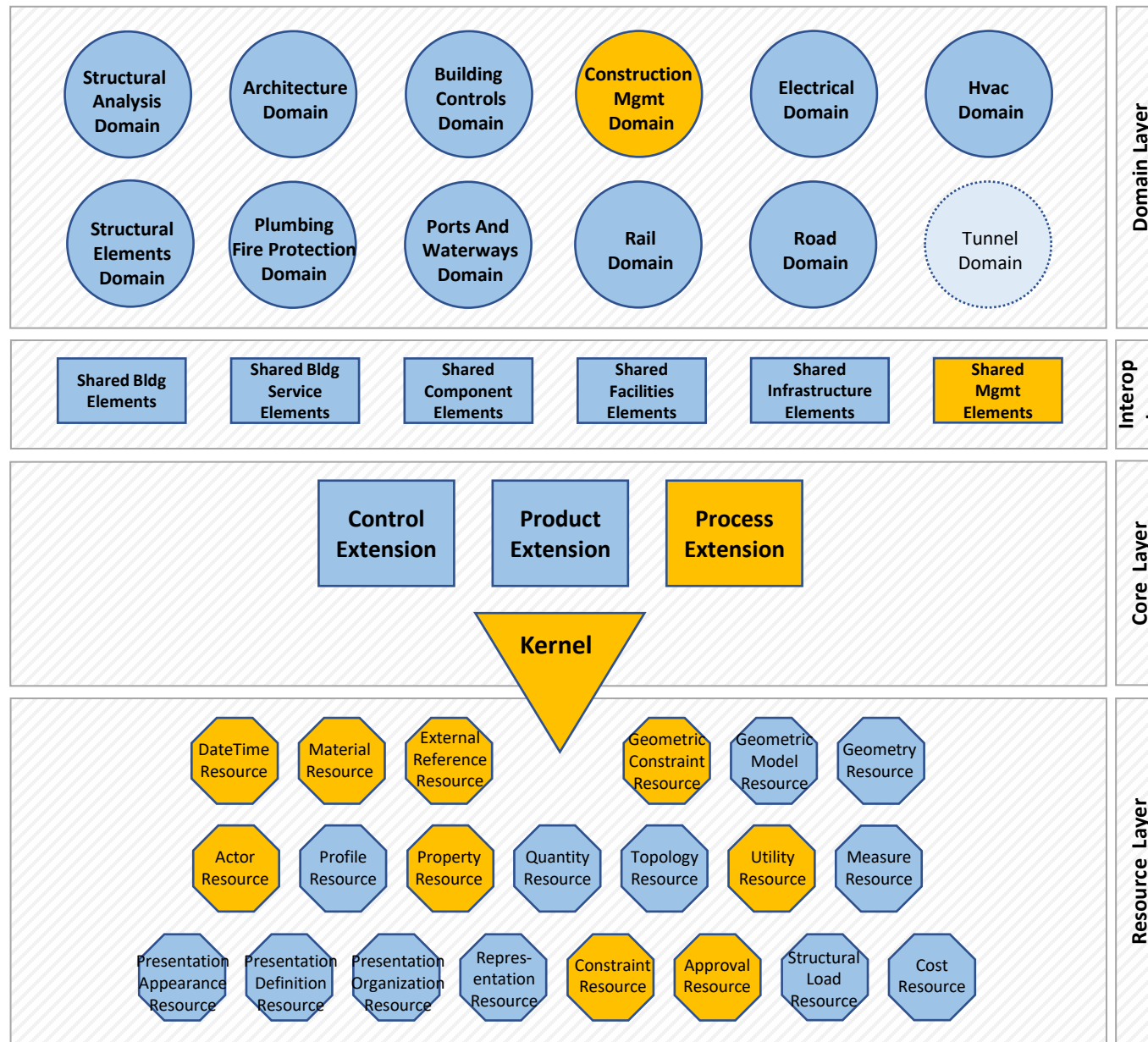
# MVD C



# MVD D



# MVD x

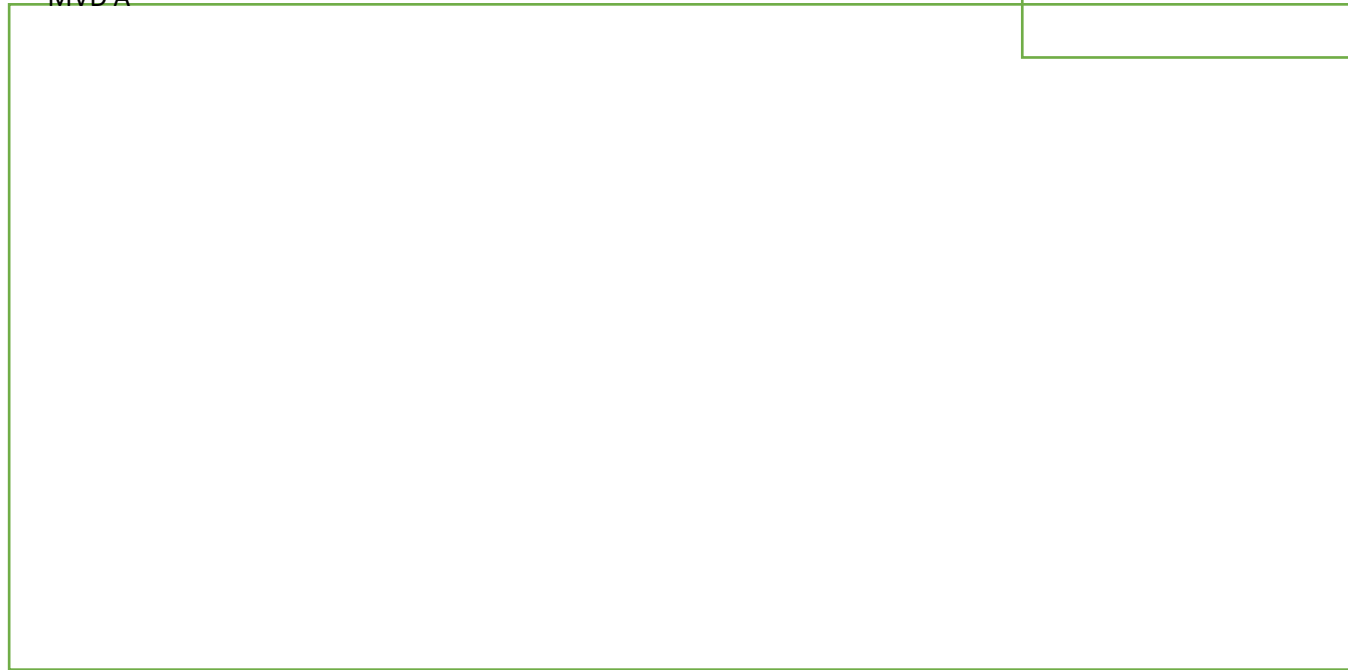


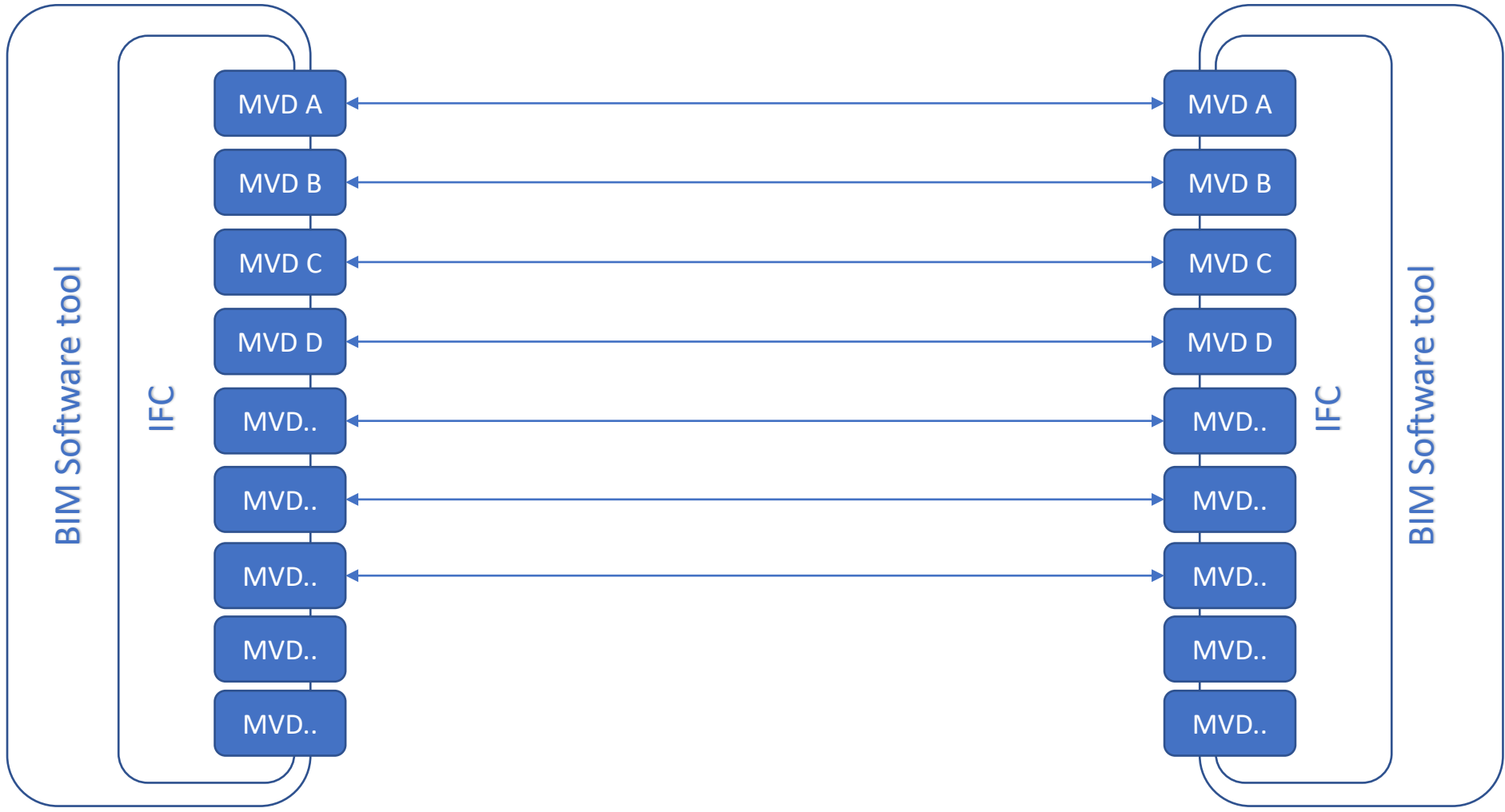
IFC

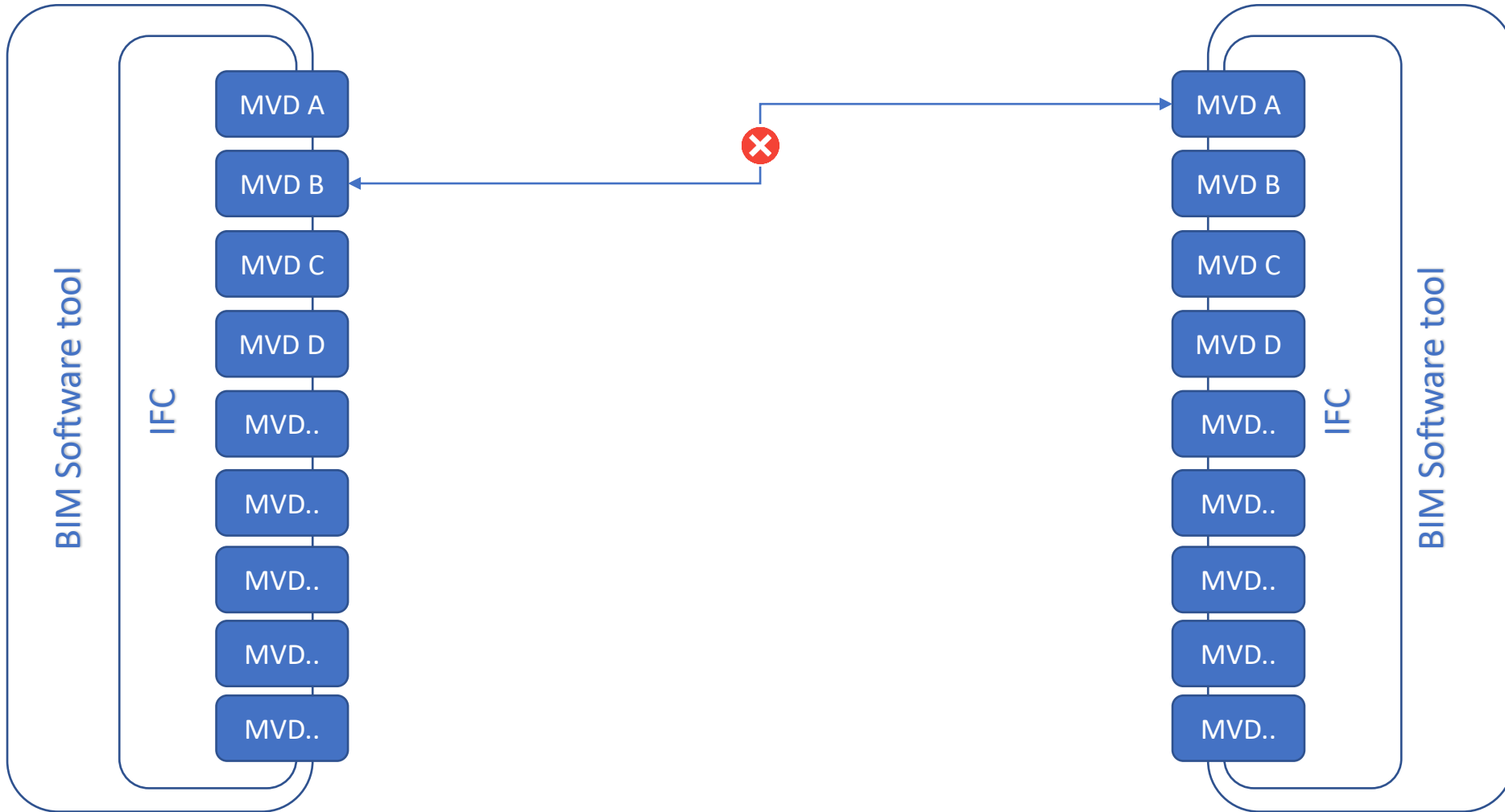
MVD C

MVD B

MVD A







# “Curious case of the MVD”

<https://blog.buildingsmart.org/blog/the-curious-case-of-the-mvd>

- IFC is NIET de uitwissel standard; dat zijn de MVDs
- Geen garantie op interoperabiliteit tussen MVDs
- Software moet elke MVD individueel ondersteunen
- Alles eindigd op .ifc



# MVD theorie versus praktijk

ILS kun je dus zien als een MVD

Maar in werkelijkheid zijn die gebouwd bovenop IFC2x3 coordination view.

# MVD theorie versus praktijk

Basis ILS (en alle andere ILSen) kun je dus zien als een MVD

Theorie: MVD is 'standaard voor een use-case'

Praktijk: MVD is aardige start waar nog een ILS overheen gaat

# MVD theorie versus praktijk

Basis ILS (en alle andere ILSen) kun je dus zien als een MVD

Theorie: MVD is 'standaard voor een use-case'

Praktijk: MVD is aardige start waar nog een ILS overheen gaat

Theorie: iedereen doet het hetzelfde

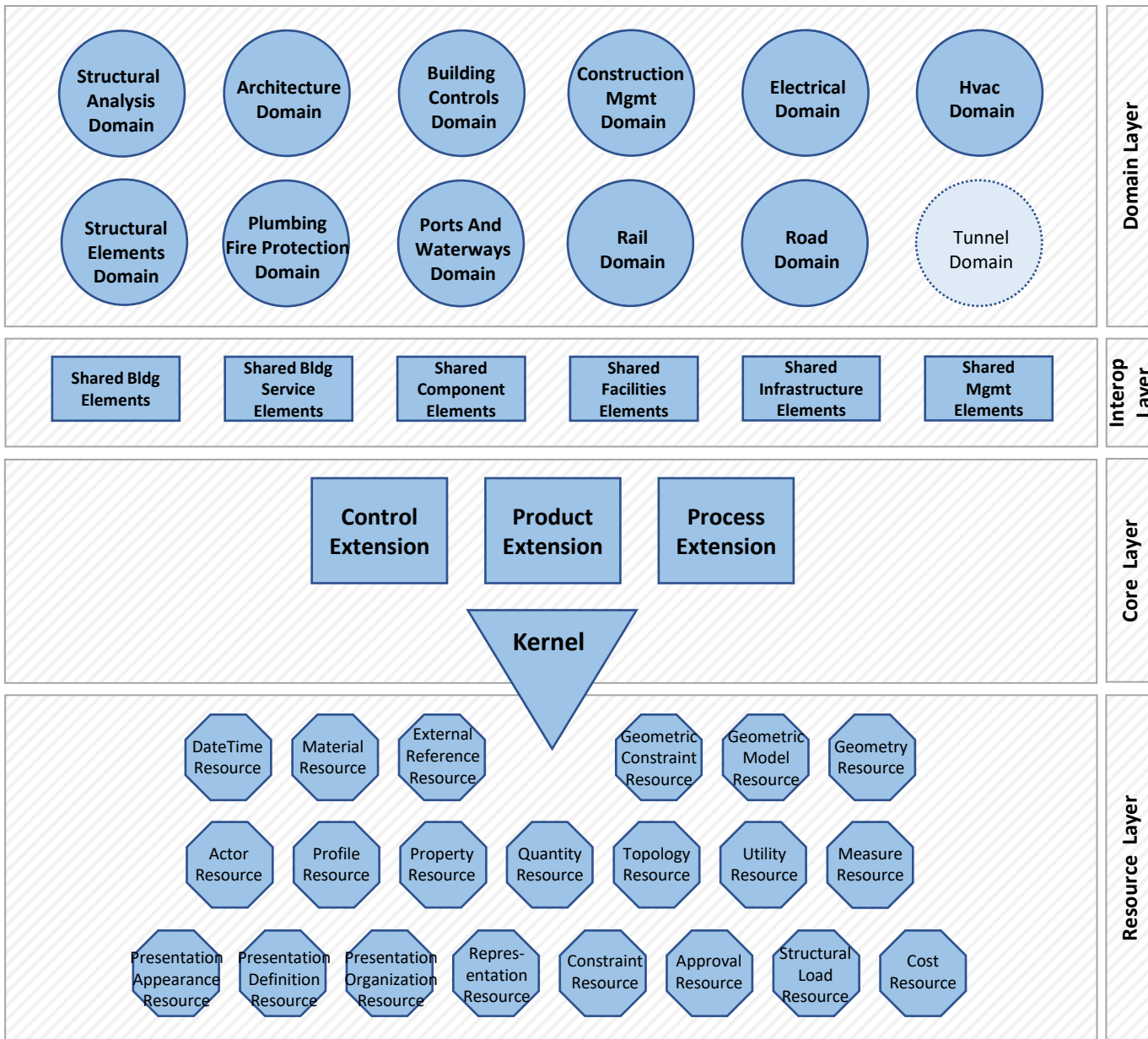
Praktijk: heel veel ILSen (die niet allemaal dezelfde basis hebben)

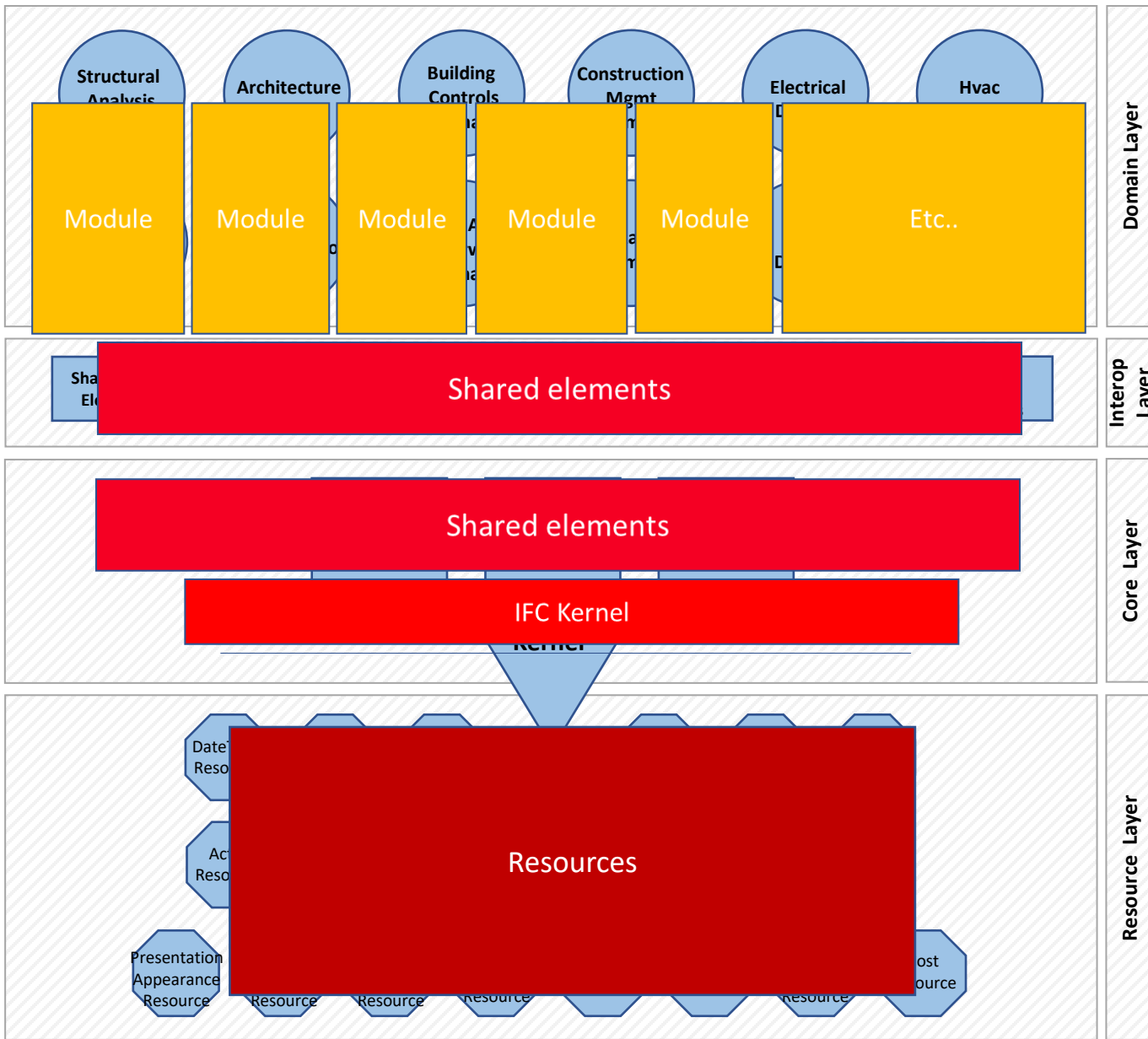
# ILS problemen zijn MVD problemen

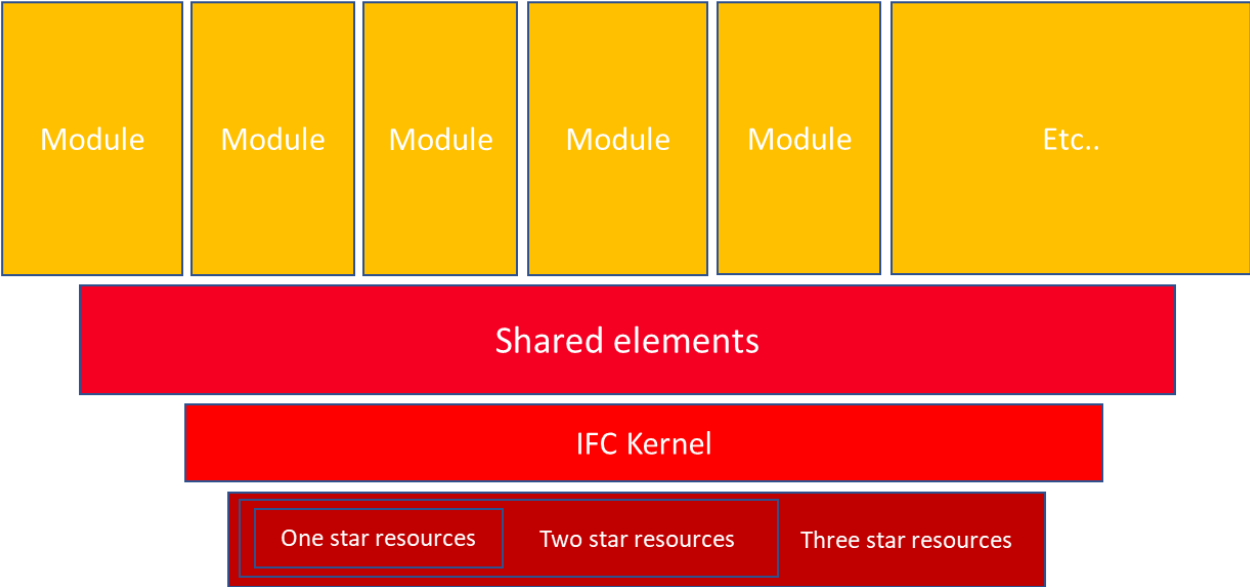
- Elke ILS is een soort 'standaard use-case' die in de praktijk slechts beperkt wordt nageleefd
- Elke export volgens een ILS vereist veel handmatige acties omdat het niet in de software is ingebouwd
- Controle of een IFC geëxporteerd is volgens een ILS is handwerk (of niet uitwisselbare rule-sets)

# Toekomst van IFC

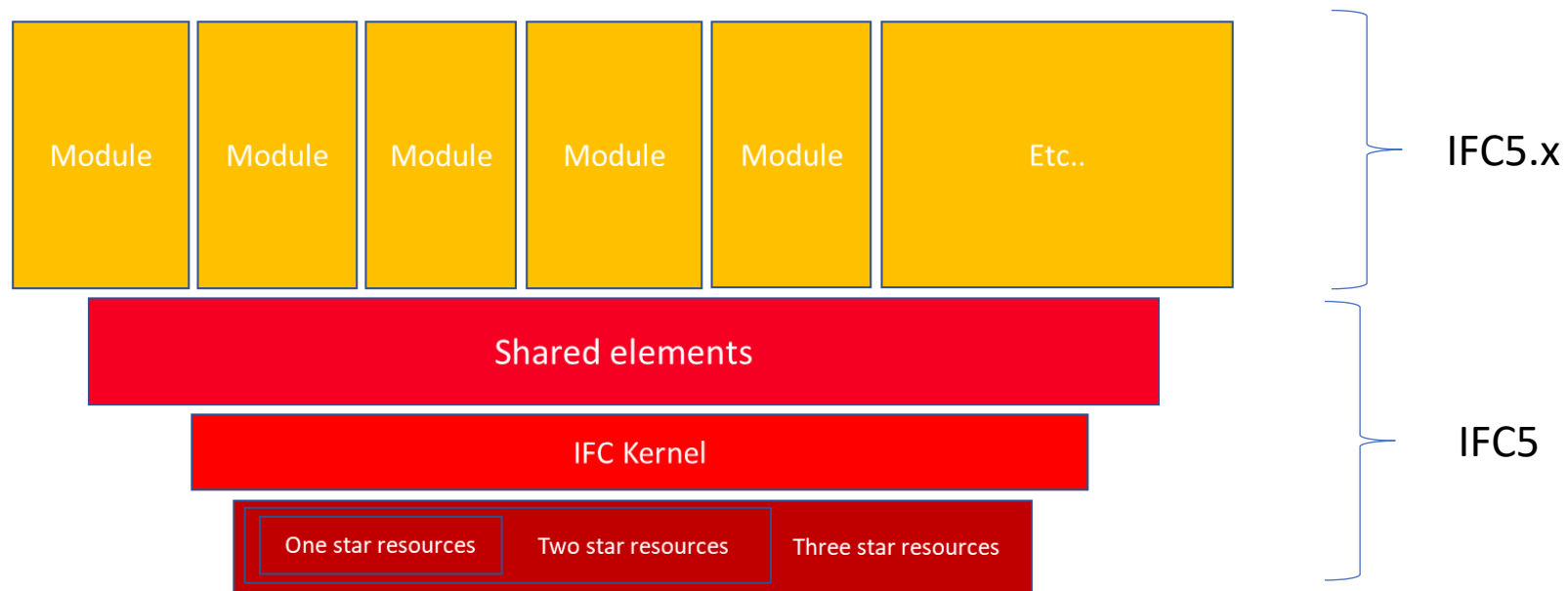
- Eén IFC basis
- Nieuwe “*Information Delivery Specification*” standaard
- Kern: lange termijn
- Modules: kortere update cyclus → extensies van IFC basis

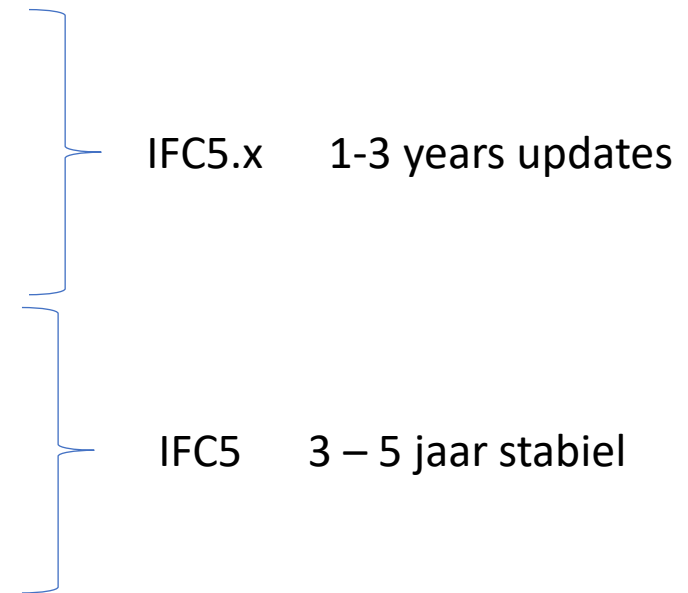
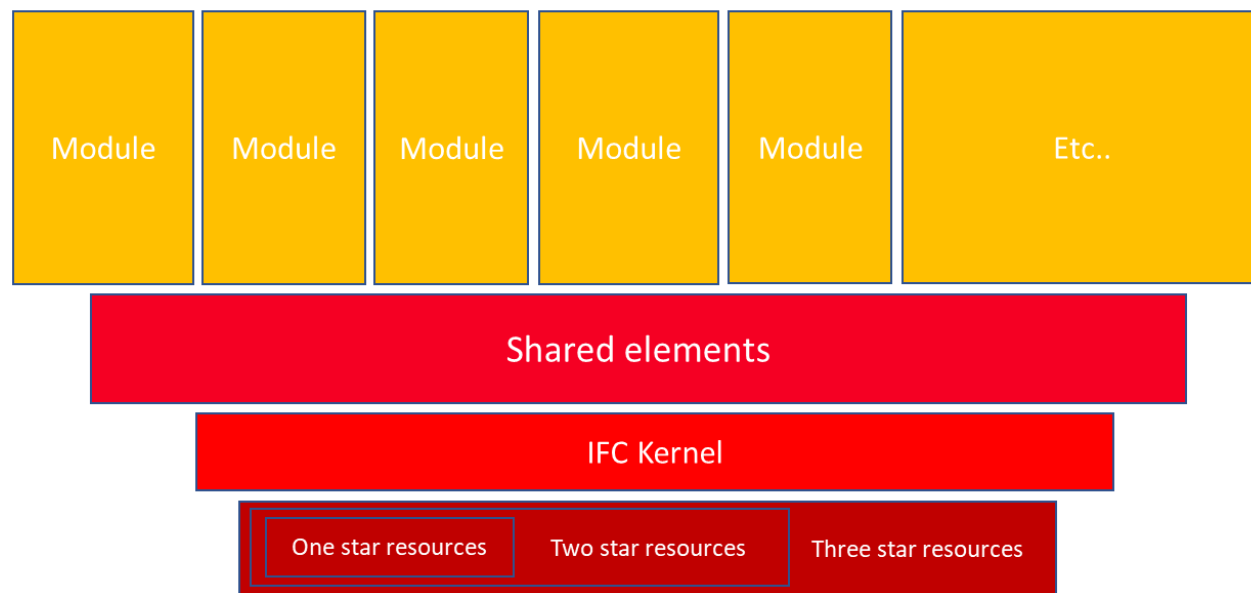


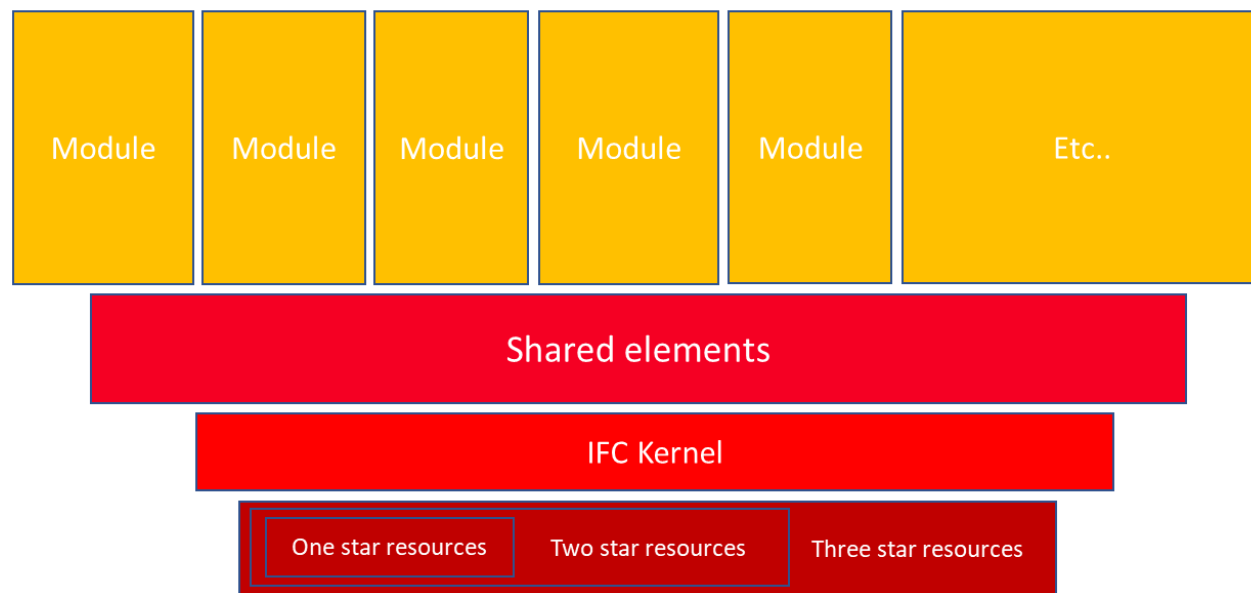






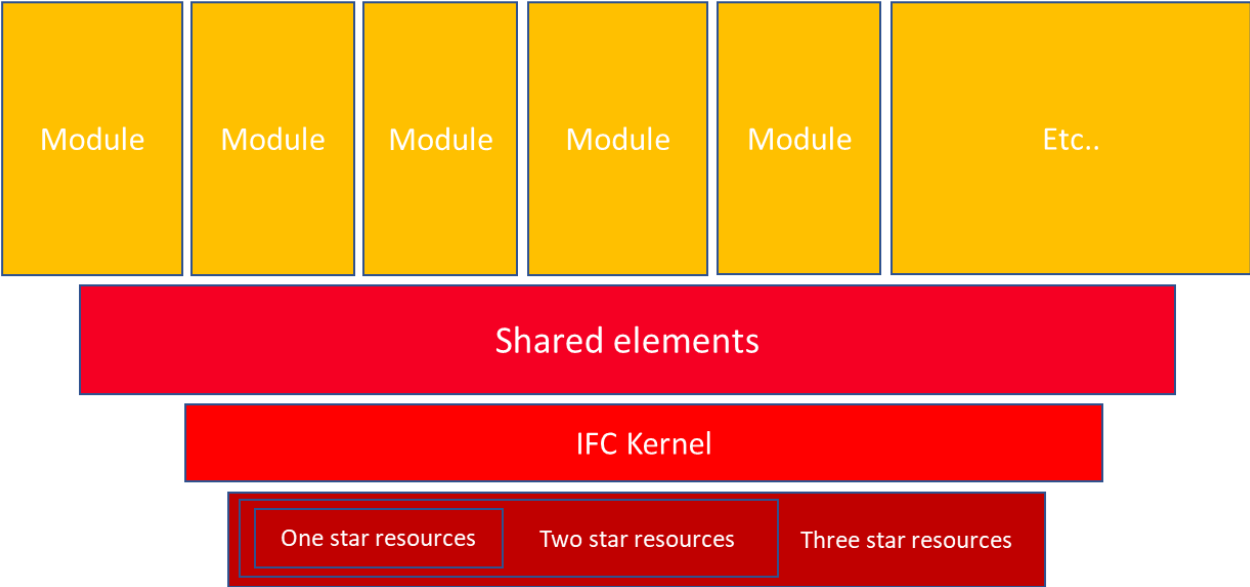




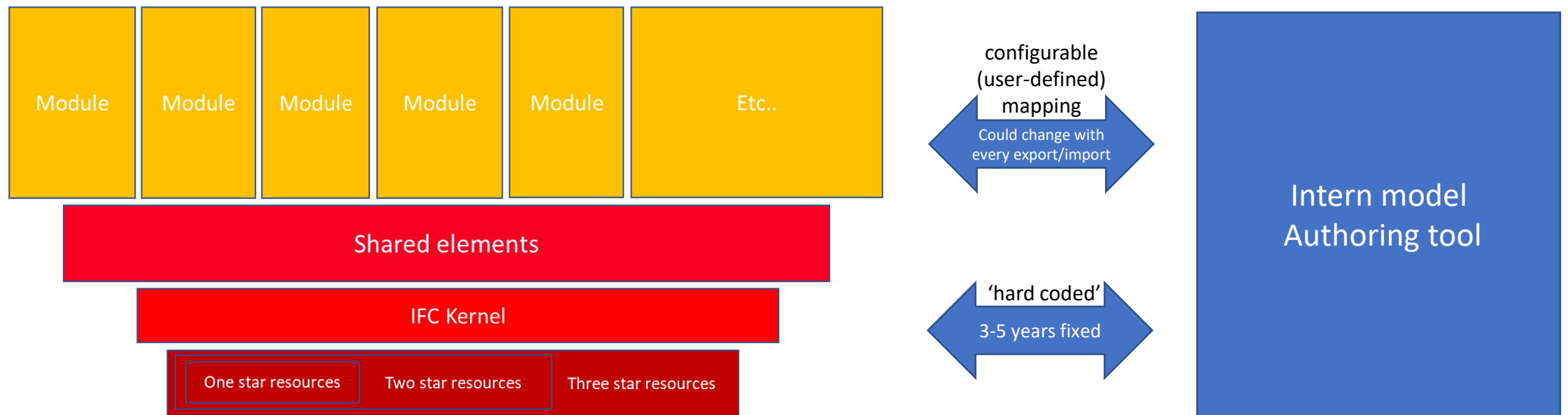


Entities (classifications), PSets, etc

Root, spatial structure, recourses, etc



Intern model  
Authoring tool



<In-Session Setup>  
<IFC2x3 Coordination View 2.0 Setup>  
<IFC2x3 Coordination View Setup>  
<IFC2x3 GSA Concept Design BIM 2010 Setup>  
<IFC2x3 Basic FM Handover View Setup>  
<IFC2x2 Coordination View Setup>  
<IFC2x2 Singapore BCA e-Plan Check Setup>  
<IFC2x3 Extended FM Handover View Setup>  
<IFC4 Reference View Setup>  
<IFC4 Design Transfer View Setup>  
IFC (2x3)

General Additional Content **Property Sets** Level of Detail Advanced

Export Revit property sets  
 Export IFC common property sets  
 Export base quantities  
 Export schedules as property sets  
 Export only schedules containing IFC, Pset, or Common in the title

Export user defined property sets  
Z:\96000 bim\05-bureaustandaard\04-revit\01-instellingen\voorbeeld\User defined Browse ...

Export parameter mapping table  
Z:\96000 bim\05-bureaustandaard\04-revit\01-instellingen\voorbeeld\ParameterM Browse ...

Classification Settings...

OK Cancel

- <In-Session Setup>
- <IFC2x3 Coordination View 2.0 Setup>
- <IFC2x3 Coordination View Setup>
- <IFC2x3 GSA Concept Design BIM 2010 Setup>
- <IFC2x3 Basic FM Handover View Setup>
- <IFC2x2 Coordination View Setup>
- <IFC2x2 Singapore BCA e-Plan Check Setup>
- <IFC2x3 Extended FM Handover View Setup>
- <IFC4 Reference View Setup>
- <IFC4 Design Transfer View Setup>
- IFC (2x3)

General Additional Content Property Sets Level of Detail Advanced

Export Revit property sets  
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Export user defined property sets  
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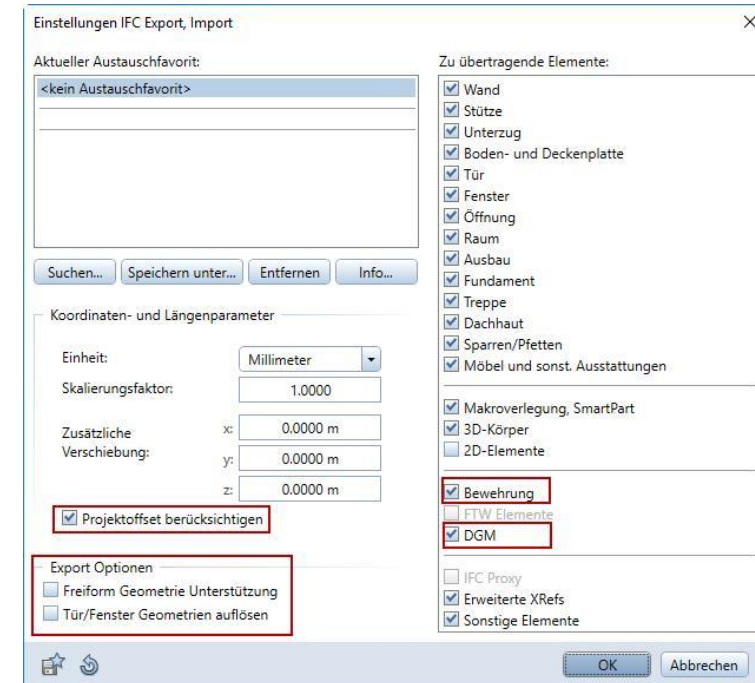
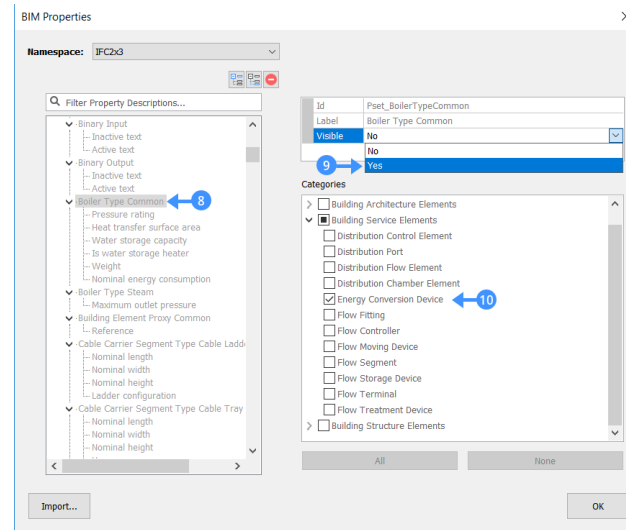
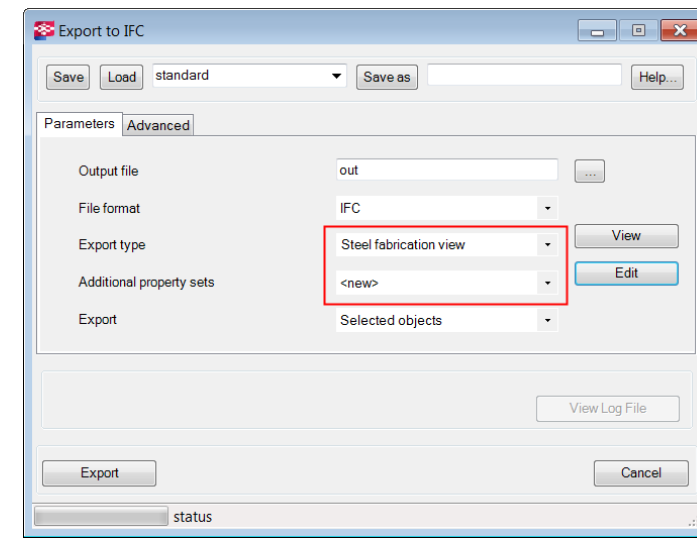
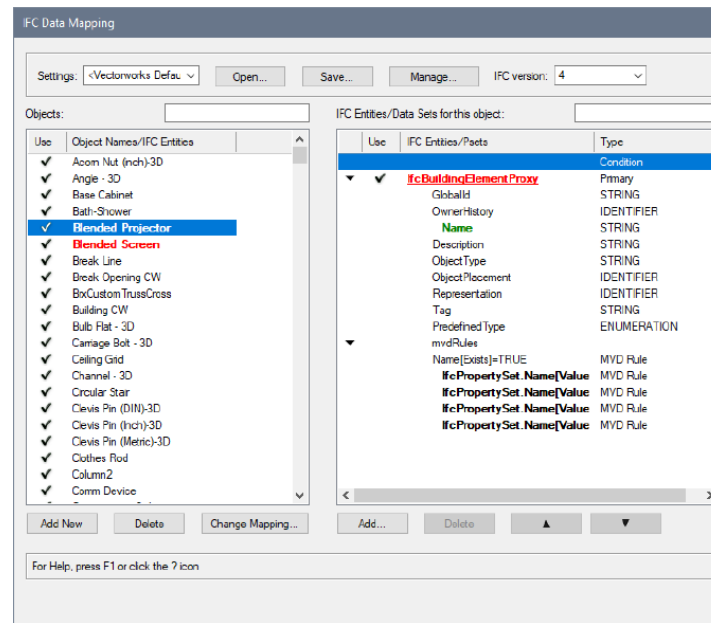
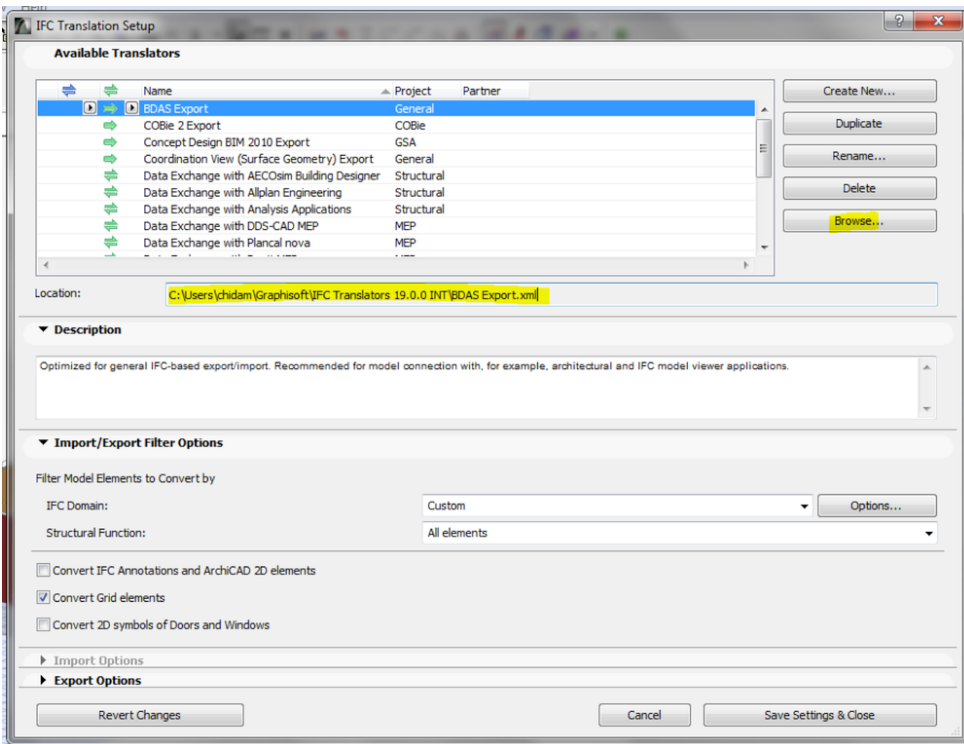
Export parameter mapping table  
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Classification Settings...

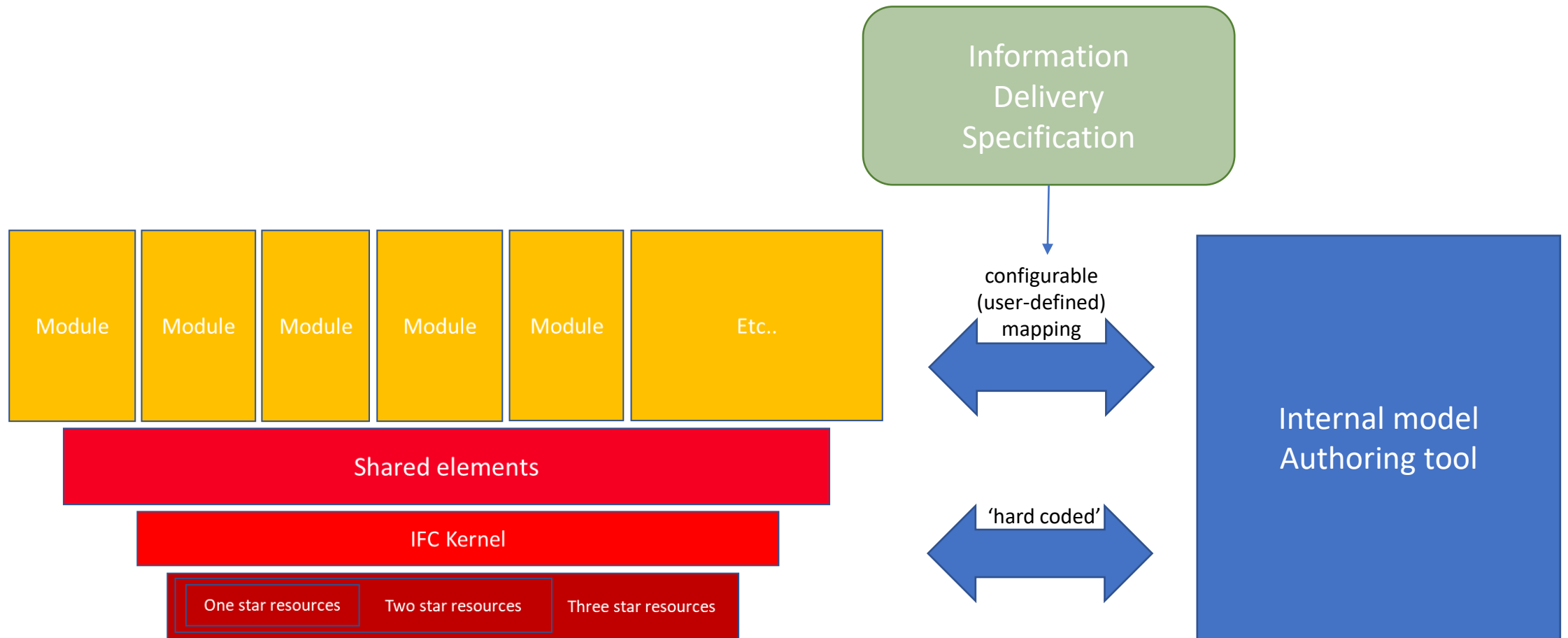
IFC Export Classes: C:\ProgramData\Autodesk\RAC 2013\rooms.txt

Category	IFC Class Name	Type
Roof Soffits	IfcRoof	
Structure [1]	{ IfcRoof }	
Substrate [2]	{ IfcRoof }	
Surface Pattern	IfcRoof	
Thermal/Air Layer [3]	{ IfcRoof }	
<b>Room Polylines</b>	Not Exported	
<b>Room Tags</b>	Not Exported	
<b>Rooms</b>	IfcSpace	
Color Fill	{ IfcSpace }	
Interior Fill	{ IfcSpace }	
Reference	{ IfcSpace }	
<b>Ruled Curtain System</b>	IfcCurtainWall	
<b>Schedule Graphics</b>	Not Exported	
<b>Scope Boxes</b>	Not Exported	
<b>Sections</b>	Not Exported	
<b>Security Devices</b>	IfcBuildingElementProxy	
<b>Shaft Openings</b>	Not Exported	
Hidden Lines	Not Exported	
<b>Site</b>	IfcSite	
0	{ IfcSite }	
annotatie	{ IfcSite }	
Rinc	{ IfcSite }	

Buttons: Load..., Standard, Save As..., OK, Cancel, Help







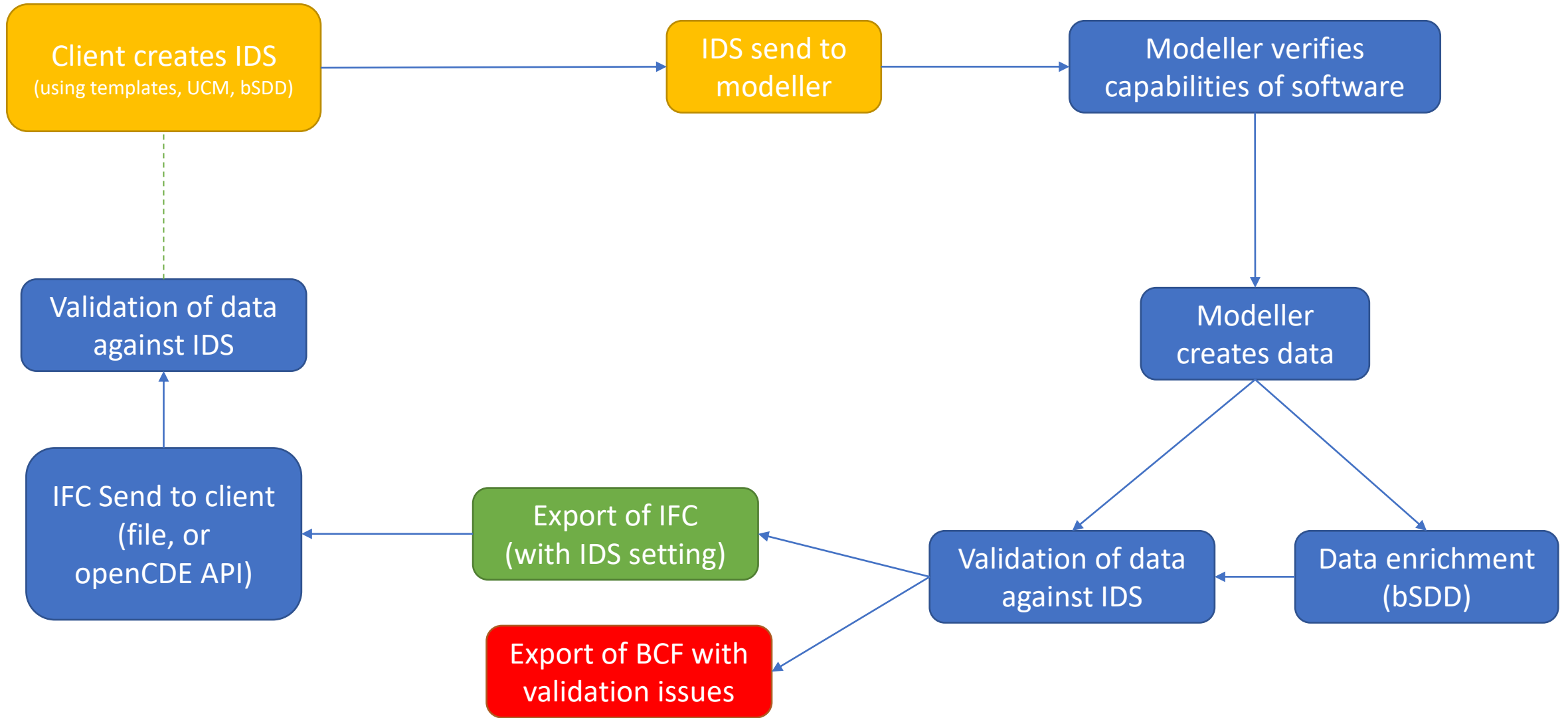
```
{
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      ],
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            },
            {
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            {
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            }
          ]
        }
      ]
    }
  ]
}
```

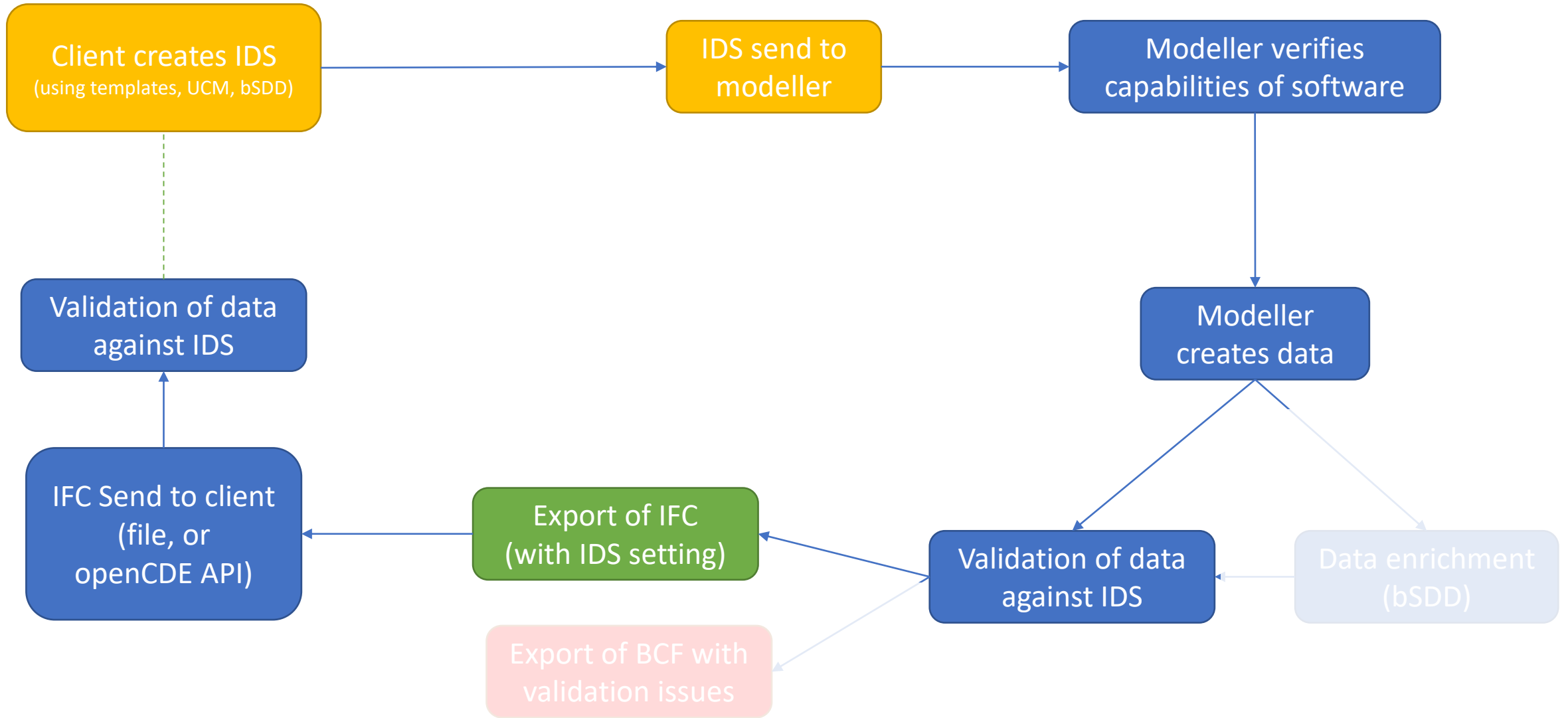
```

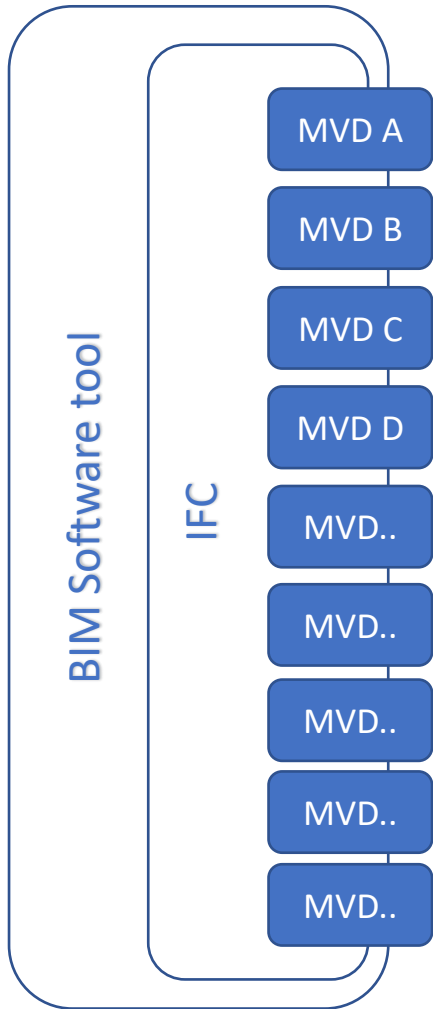
{
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      "for": [
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        }
      ],
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              "type": "string",
              "required": true
            },
            {
              "name": "Description",
              "type": "string",
              "required": true
            },
            {
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              "type": "string",
              "required": true
            },
            {
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            {
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            },
            {
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            {
              "name": "MapUnit"
            }
          ]
        }
      ]
    }
  ]
}

```

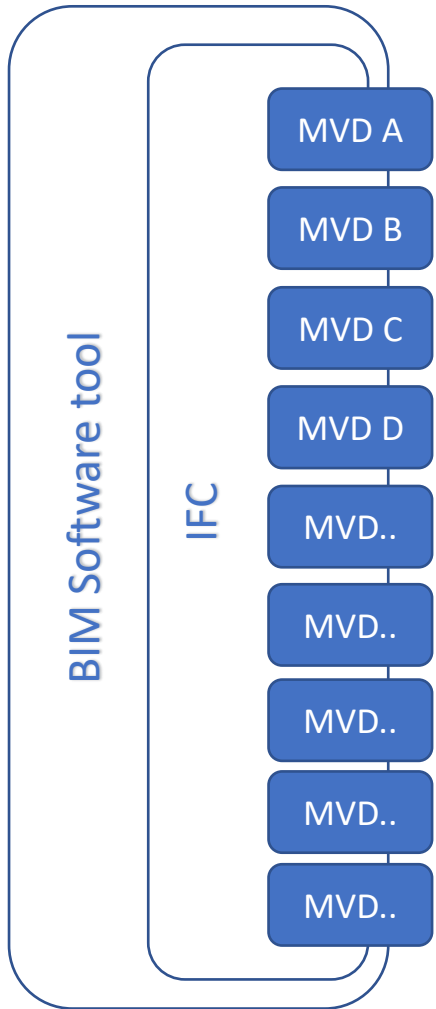
⊖	EPset_ProjectedExceptions	Name	<input type="text"/>
⊖	EPset_ProjectedExceptions	Description	<input type="text"/>
⊖	EPset_ProjectedExceptions	GeodeticDatum	<input type="text"/>
⊖	EPset_ProjectedExceptions	VerticalDatum	<input type="text"/>
⊖	EPset_ProjectedExceptions	MapProjection	<input type="text"/>
⊖	EPset_ProjectedExceptions	MapZone	<input type="text"/>
⊖	EPset_ProjectedExceptions	MapUnit	<input type="text"/>
⊖	EPset_MapConversion	Eastings	<input type="text"/>
⊖	EPset_MapConversion	Northings	<input type="text"/>
⊖	EPset_MapConversion	OrthogonalHeight	<input type="text"/>
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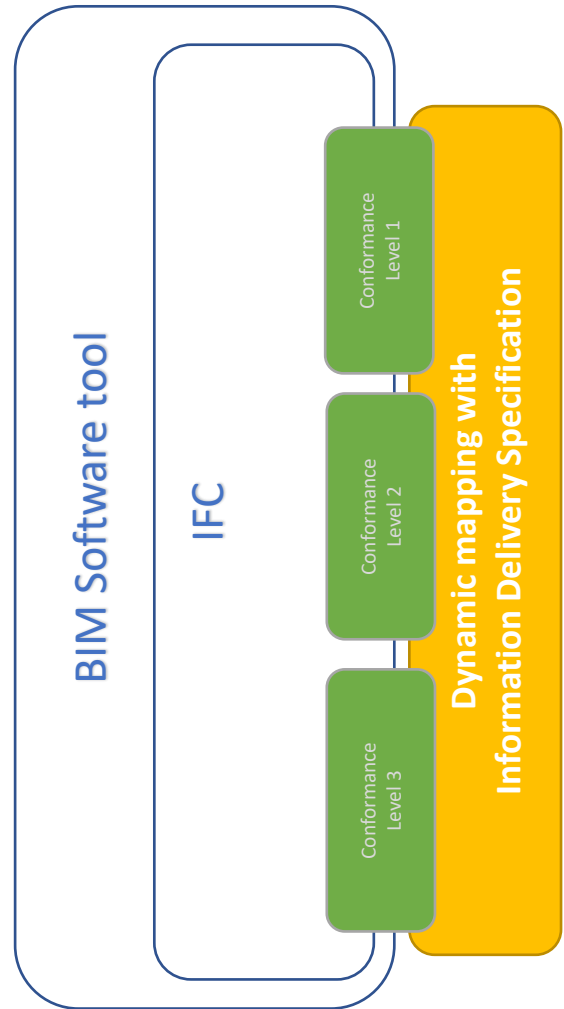
From multiple  
exchange standards;  
whit bespoke  
implementations  
every time;  
that are not  
interoperable



From multiple exchange standards; whit bespoke implementations every time; that are not interoperable



to predictable, scalable interoperability; IDS support that works out of the box



# Overig

- Information Delivery Specification
  - IDS is taal om je eigen ILS vast te leggen (die je dan kan gebruiken bij export/import van IFC)
  - Heeft de ambitie om te werken op IFC2x3, IFC4, IFC5
  - Onlangs gestart met verzamelen van use-cases
  - Vendors zijn enthousiast!
  - Nederlandse projectleider



Cyrille Pennavaire



# Overig

- Software Certificering zal hiermee ook veranderen
  - Was nu altijd op basis van MVD → wordt straks op basis van IFC
  - Gebruiker kan zelf zorgen dat import/export goed gaat (IFC5)
  - Elke IDS wordt 'automatisch' ondersteund door software die IFC heeft geïmplementeerd

# Doe mee!

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IDS

