



# Working towards GIS

Latest status of implementing Open Standards

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**Maya Tryfona**

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Working with the **Information Management** team of the **Asset Management Department of Schiphol**. Aiming on the validation of the delivered information and on the integration of 3D information within the GIS and the other Stakeholders of the Airport.

**BIM/GIS Consultant at Tensing GIS Consultancy.**

MSc Geomatics for the Built Environment in TU Delft.

Diploma in Surveying Engineering in NTUA, with specialization in Photogrammetry.



**Airport Domain**

**Schiphol**

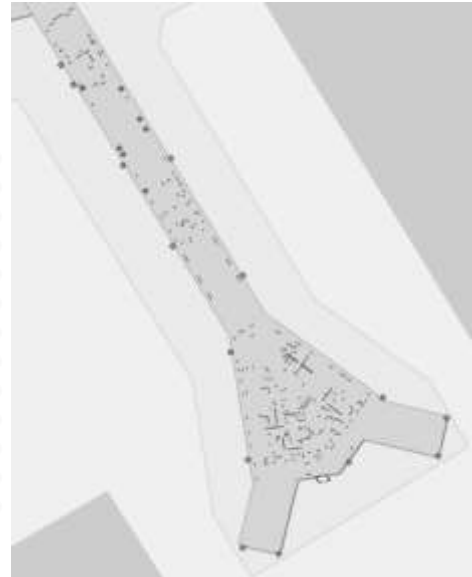
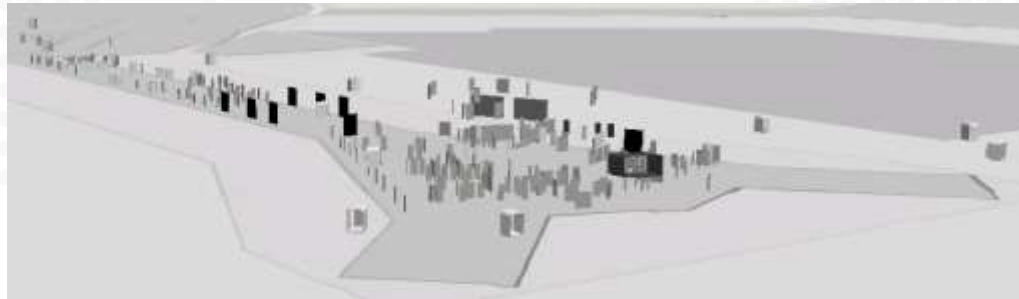
# Working towards GIS



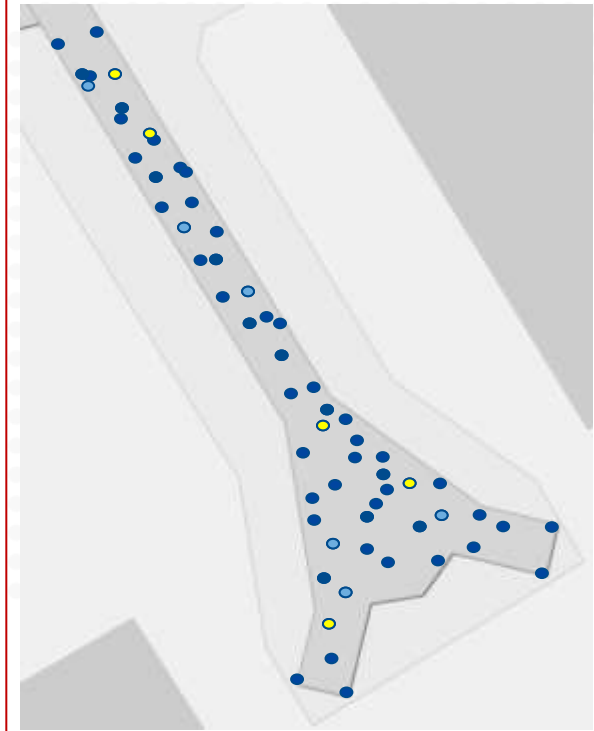
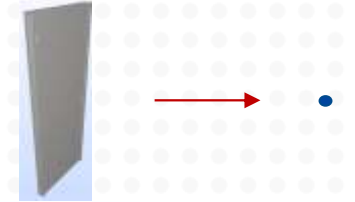
Only the doors from the model:



The doors of the model in GIS platform:



E.g. door as point:



# Geometry that is mostly needed in GIS



Point



Line



Polygon

# Why work toward GIS?

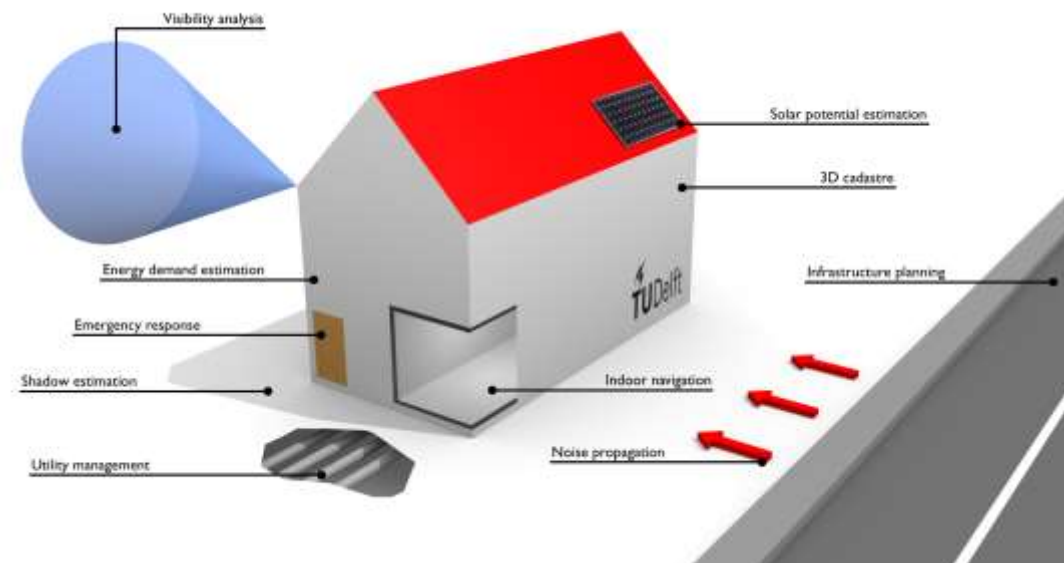
**GIS** encourages better **decision making** by **revealing deeper insights into data** (patterns, relationships, etc.).

## Visualization for:

- public participation
- stakeholder engagement
- compare different situations (old, current and several future scenario's)
- looking for the most ideal place and the effect of the shape of the design in the environment
- ...

## Spatial analyses for decision making, like:

- Shadow estimation
- Network analysis
- Life safety
- Security
- Wayfinding
- ...



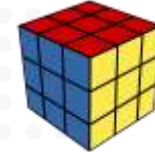
Source: Biljecki et al., 2015



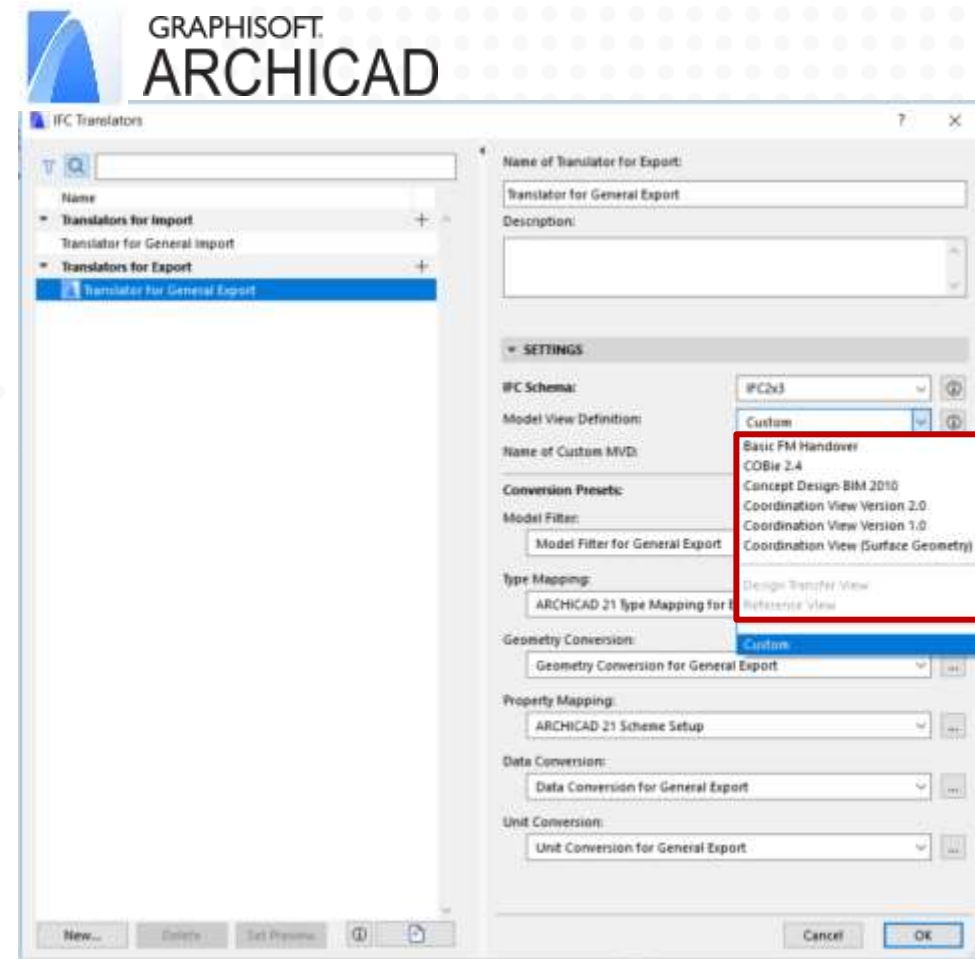
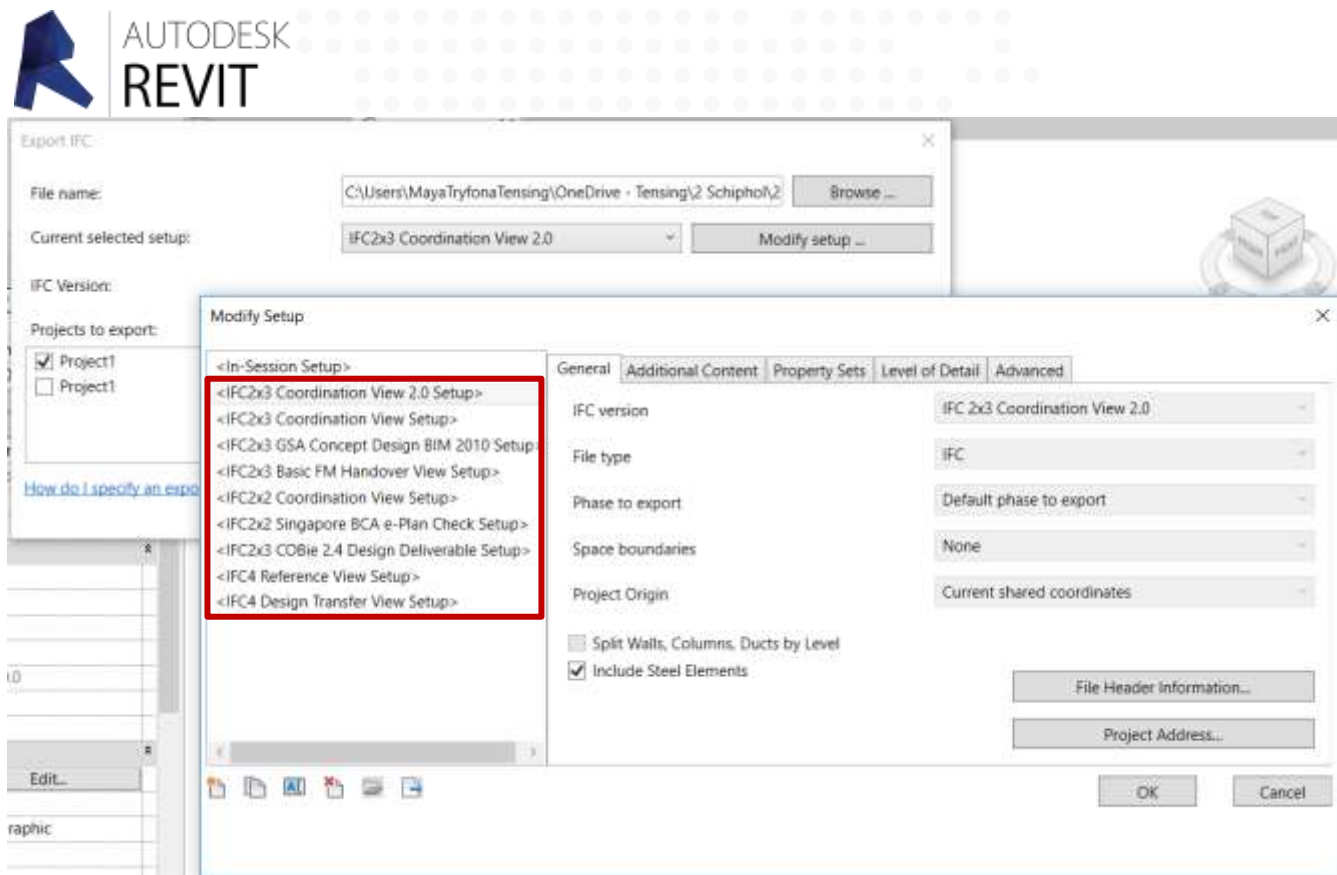
# Requirement analysis

Possible stakeholders:

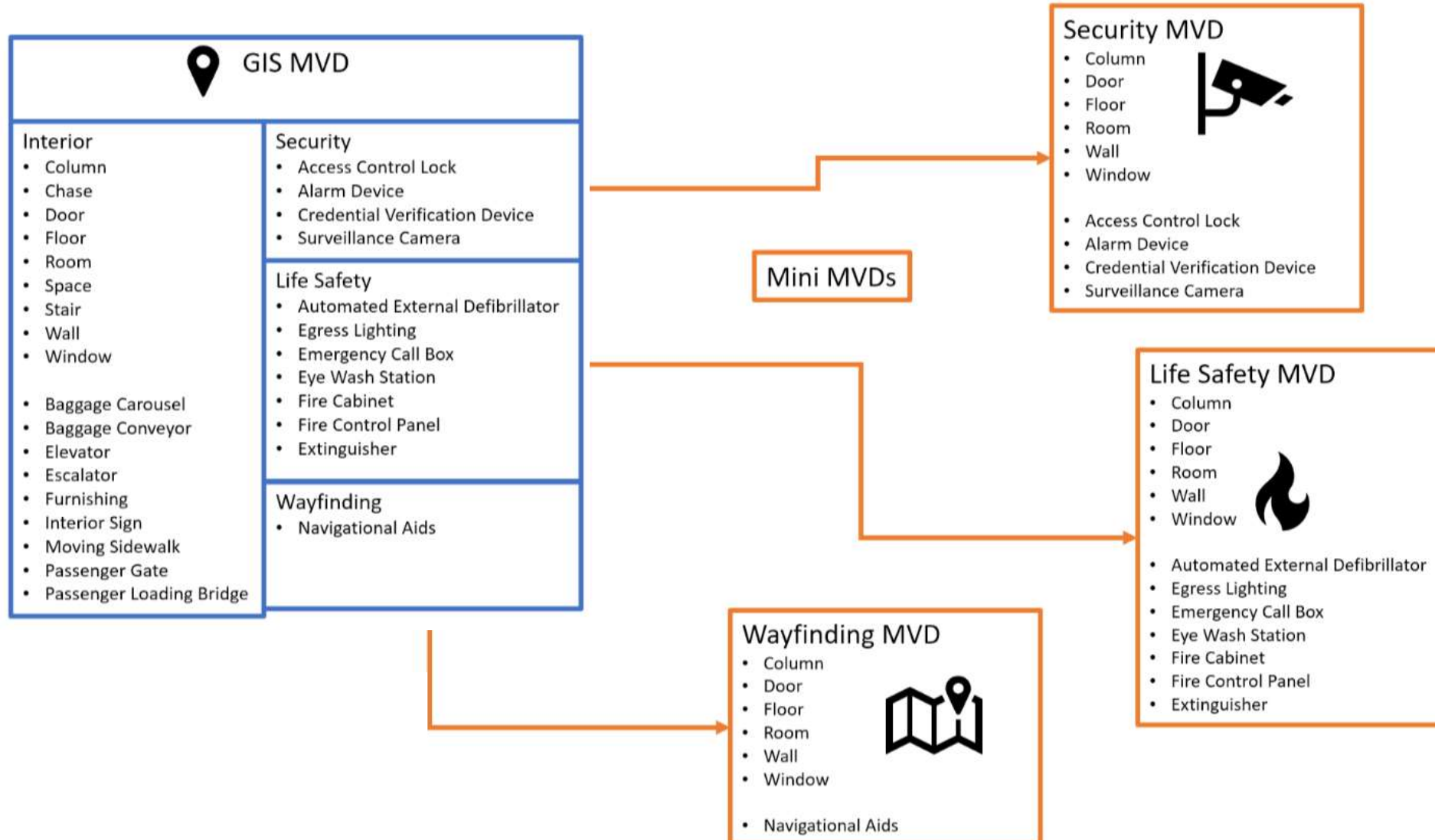
- Operations
- Safety and Security
- Fire
- Space management



# Existing Model View Definitions (MVDs)



# Examples of MVDs

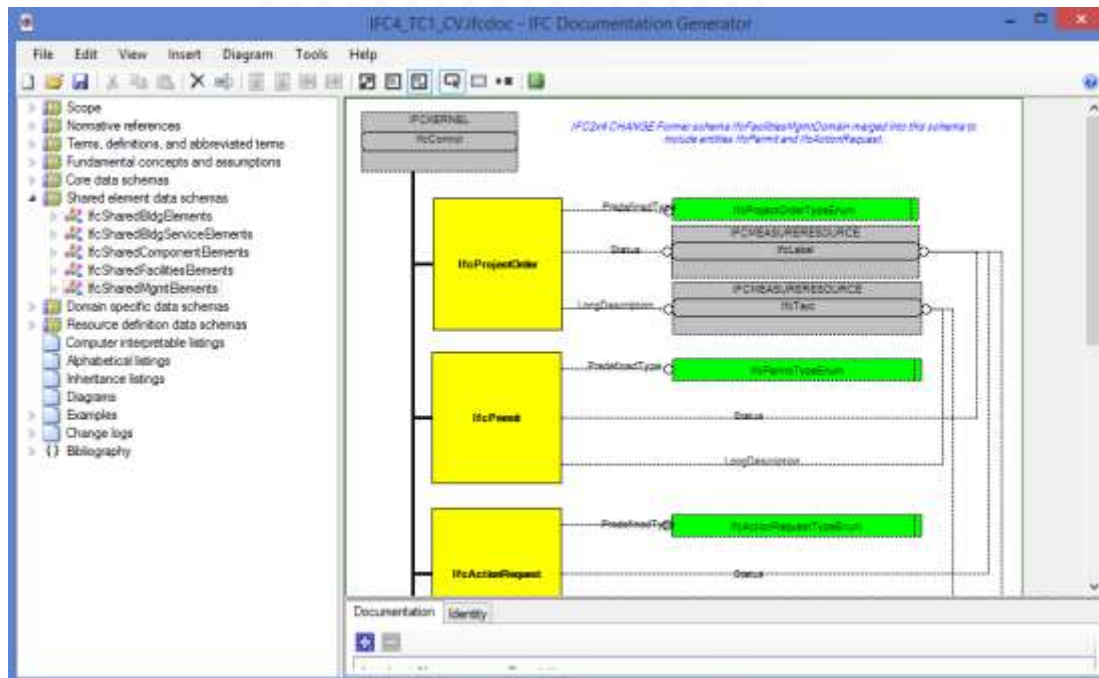




# IfcDoc software to create a MVD



Ifc Documentation Generator



# Steps towards GIS

1. Geo-referencing
2. Missing entities (IFC schema, use of IFC schema versus software limitations)
3. User defined property sets
4. User defined enumeration types
5. Export settings



# Wayfinding - Use case

1. Explore the needs from a user perspective
2. List the needed objects
3. Create a MVD for Wayfinding



San Francisco  
International  
Airport

# Future of GIS and BIM

“The future of GIS and BIM depends on the collaboration and on the awareness of the vast amount of possibilities that data can create for both worlds...”