

INTERNATIONAL WORKSHOP

DIGITAL INTEGRATED
STRATEGIES
TO SAFEGUARD HERITAGE
CONSTRUCTION
TECHNOLOGIES

September 30 - October 5, 2024
Poggioreale, Trapani

**Heritage City Information Modeling for the Preservation and Enhancement of Historic
Oasis Contexts: A Case Study of the Oasis City of Figuig**
Hamza Ennaki | UIH LAB, International University of Rabat

Workshop: Figuig Climate Change

PARTNERS



UNIVERSITÀ
DEGLI STUDI
FIRENZE



UNIVERSITY OF
WESTMINSTER



Figuig as a prospect

Data

Area

Area: 200 km²

Population

10872 hab

Density

2.5 hab/Km²

(Haut Commissariat au Plan, Royaume du Maroc)



Figuig as a prospect

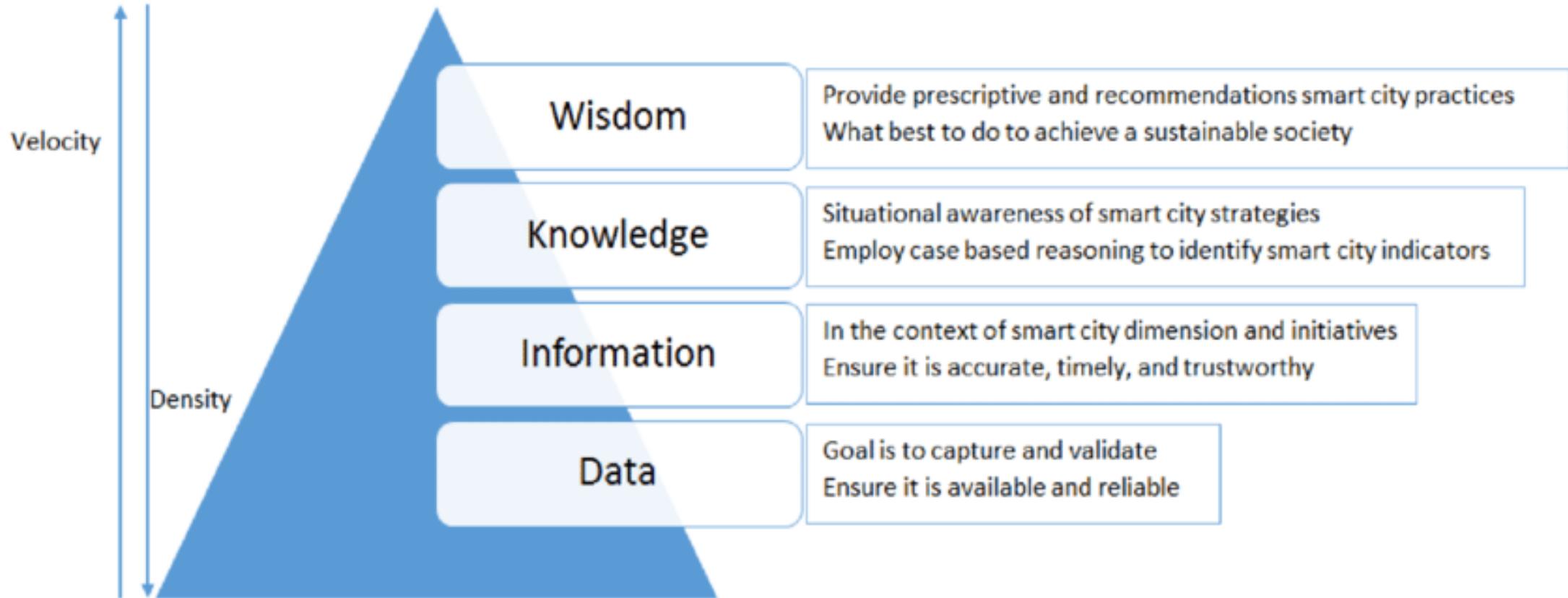


Figuig as a prospect

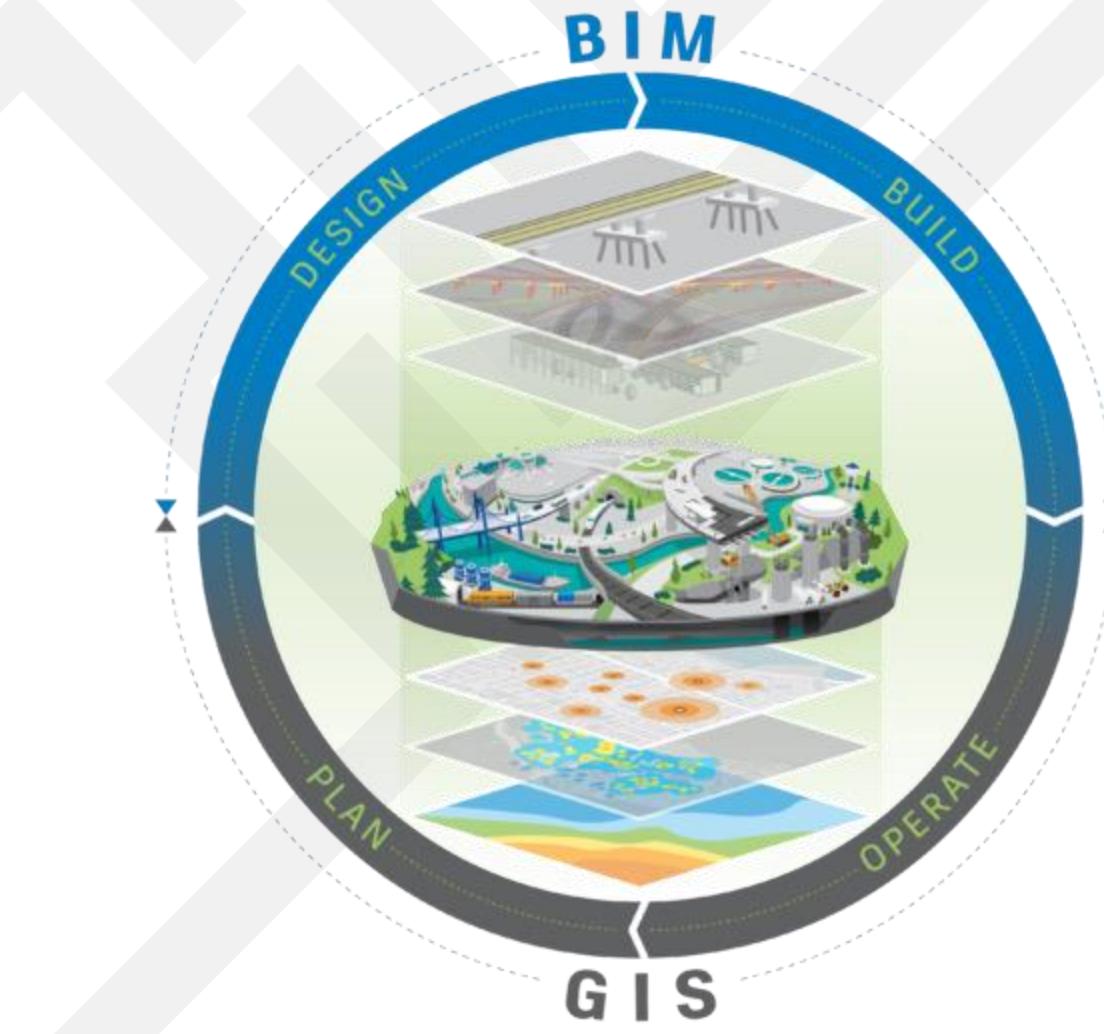
Criticalities : Heritage



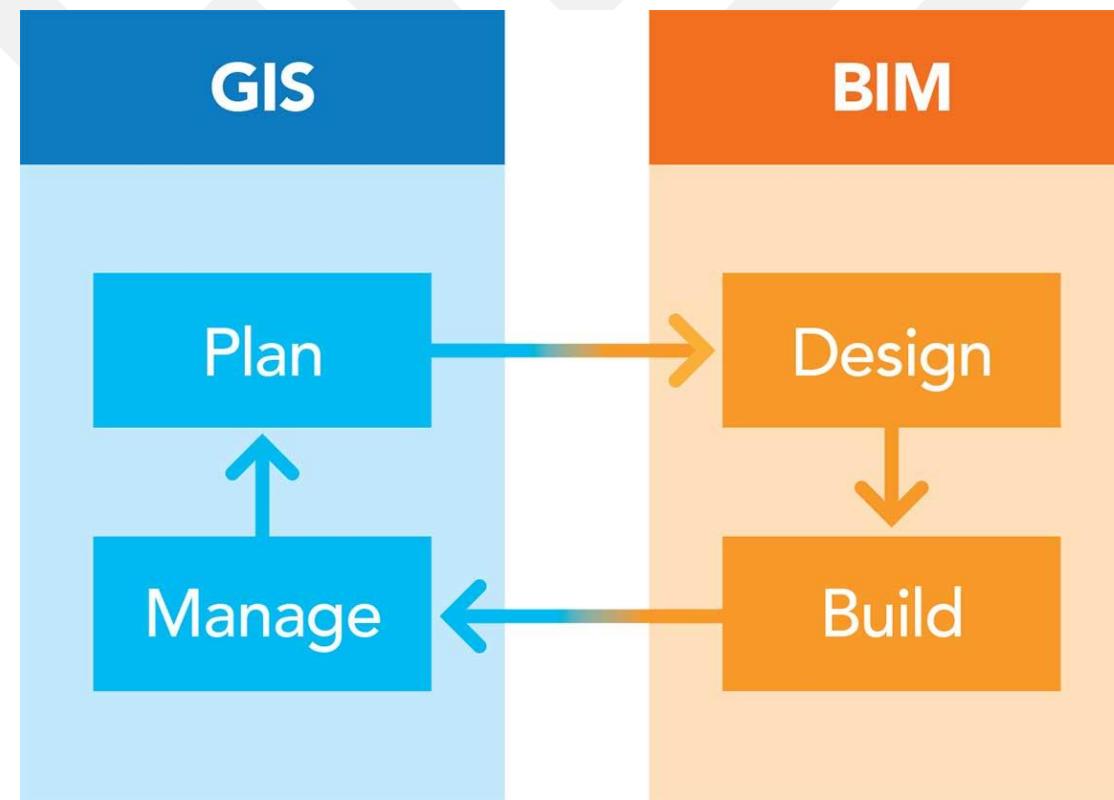
Data and Smart City



City Information Modeling



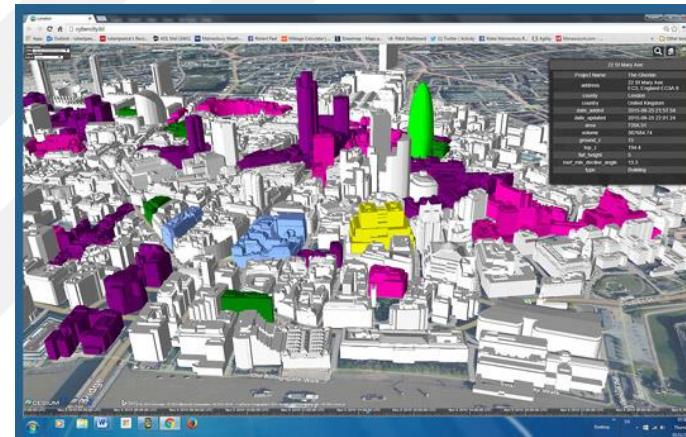
BIM & GIS Interoperability



City Information Modeling

CIM - City Information Modeling

L'idée de base de CIM est d'avoir un modèle de ville intelligent , similaire à la manière dont nous avons des modèles intelligents pour les bâtiments et les infrastructures, qui contiennent des informations détaillées sur les entités du modèle et leurs relations. Lachmi Khemlani



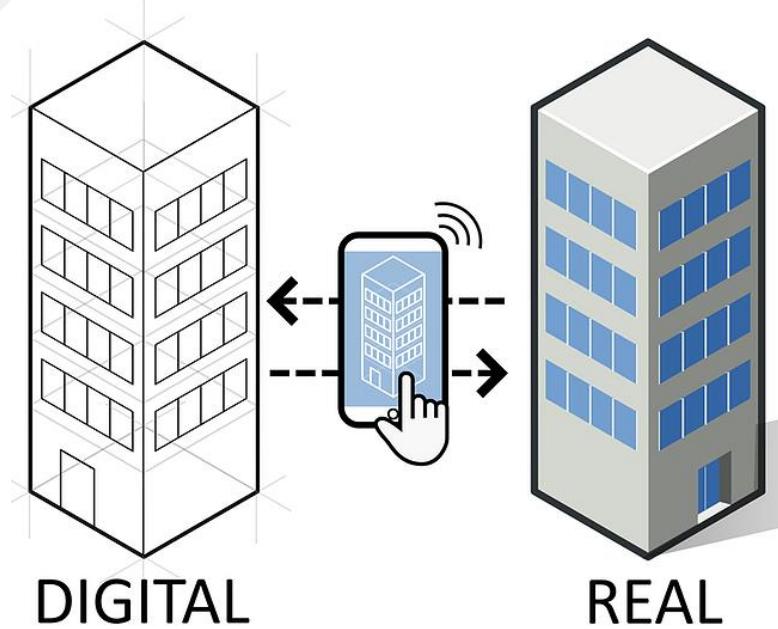
Modèle 3D de Londres sur la plateforme 3D CyberCity.

[https://www.snap4city.org/dashboardSmartCity/management/dashboards.php?pageTitle=Dashboards+\(Public+by+\(ORG\)\)&linkId=dashboardsLink&fromSubMenu=false&sorts\[title_header\]=1](https://www.snap4city.org/dashboardSmartCity/management/dashboards.php?pageTitle=Dashboards+(Public+by+(ORG))&linkId=dashboardsLink&fromSubMenu=false&sorts[title_header]=1)

BIM - Building Information Modeling

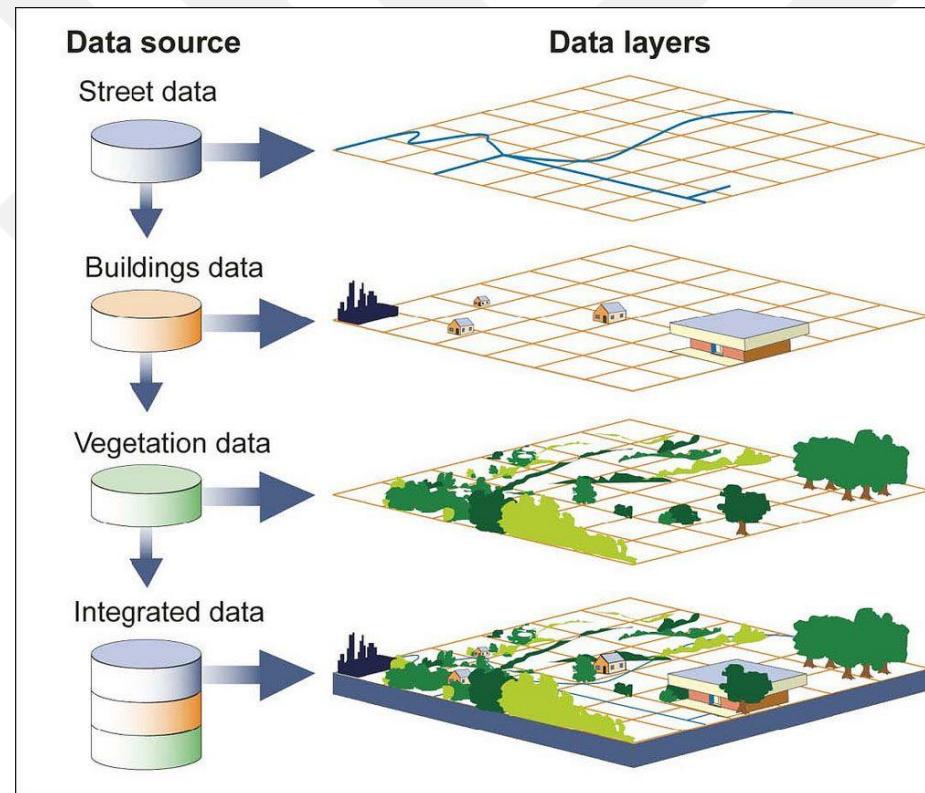
Le BIM est un processus intelligent basé sur un modèle 3D qui fournit aux professionnels de l'architecture, de l'ingénierie et de la construction (AEC) les informations et les outils nécessaires pour planifier, concevoir, construire et gérer plus efficacement des bâtiments et des infrastructures.

Autodesk

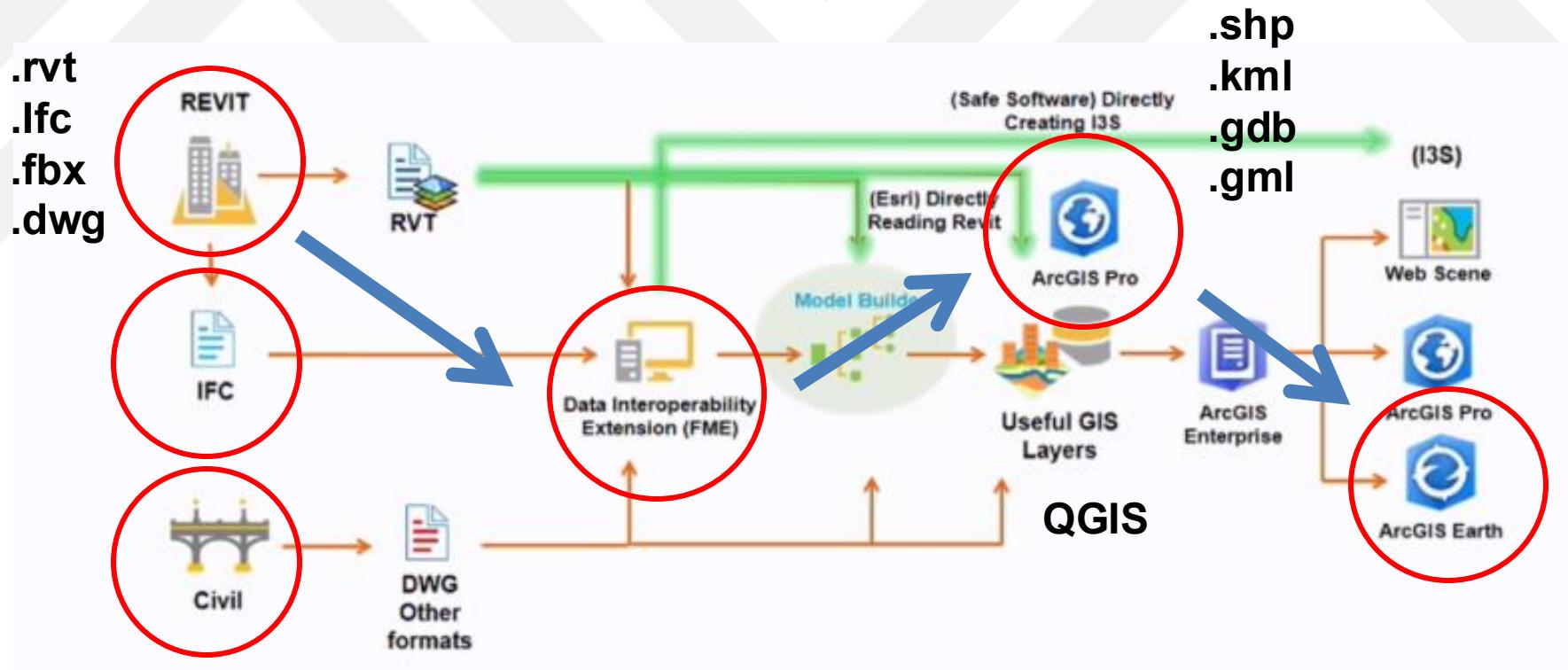


GIS - Geographic Information System

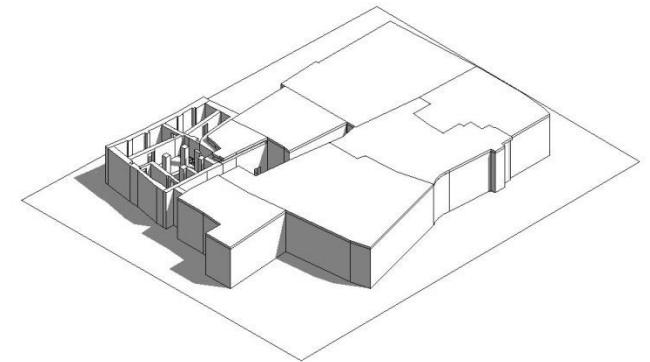
Le SIG est un système conçu pour capturer, stocker, manipuler, analyser, gérer et présenter tous les types de données géographiques. Le mot clé de cette technologie est Géographie - cela signifie qu'une partie des données est spatiale. En d'autres termes, des données qui sont en quelque sorte référencées à des emplacements sur la Terre. [researchguides](#)



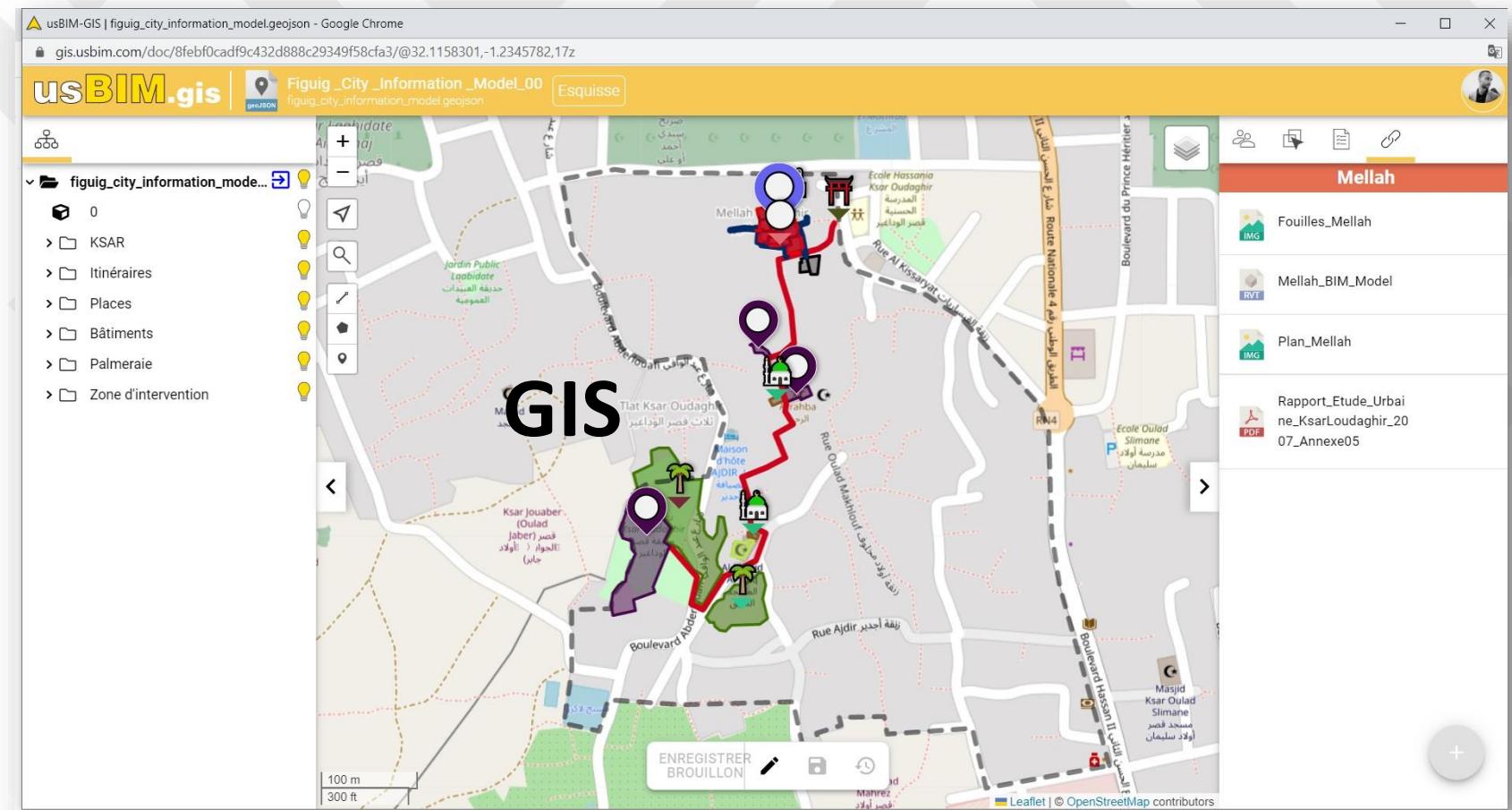
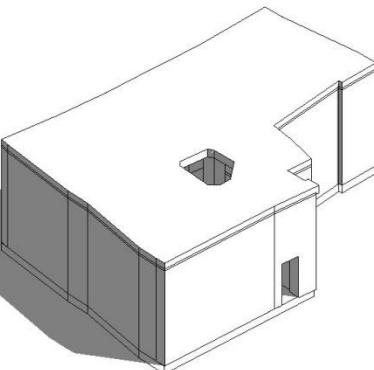
CIM Interoperability



CIM case study



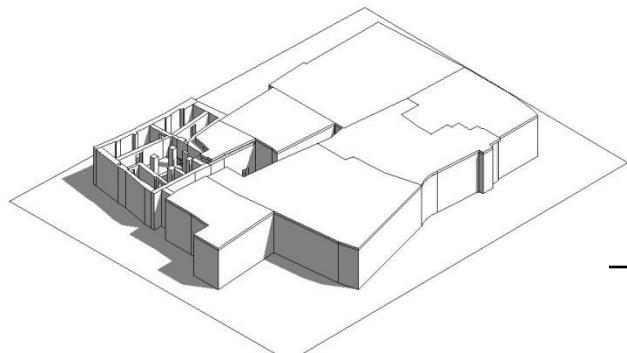
BIM S CO



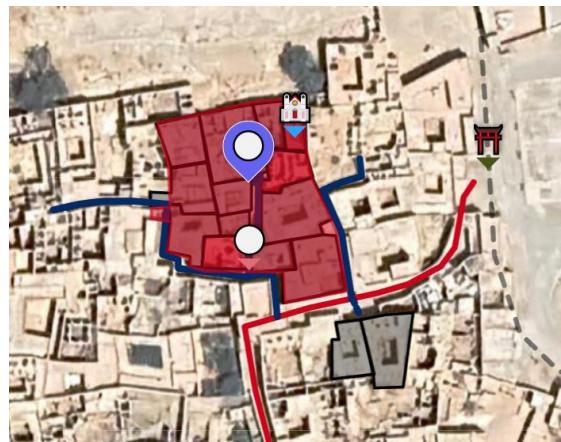
CIM case study

BIM & GIS Interoperability (Case Study)

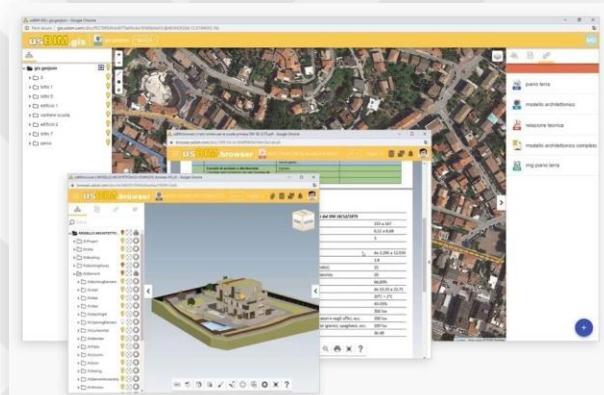
Revit
(IFC)



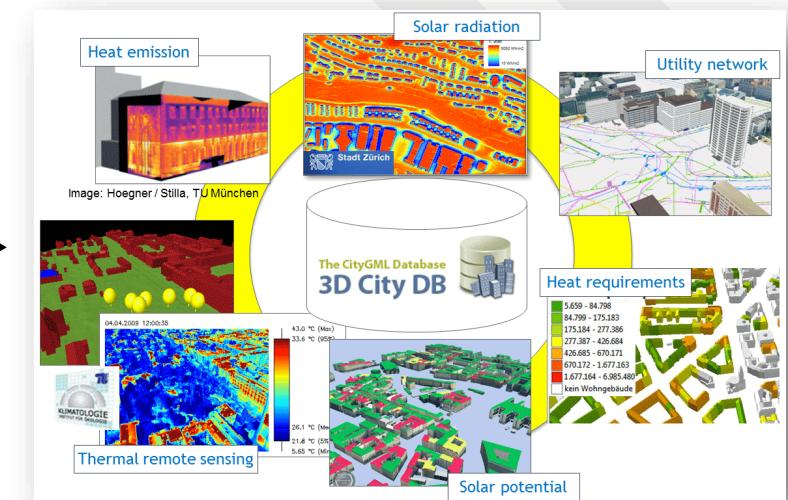
*OpenStreet Map
ou Google Map
(.OSM)

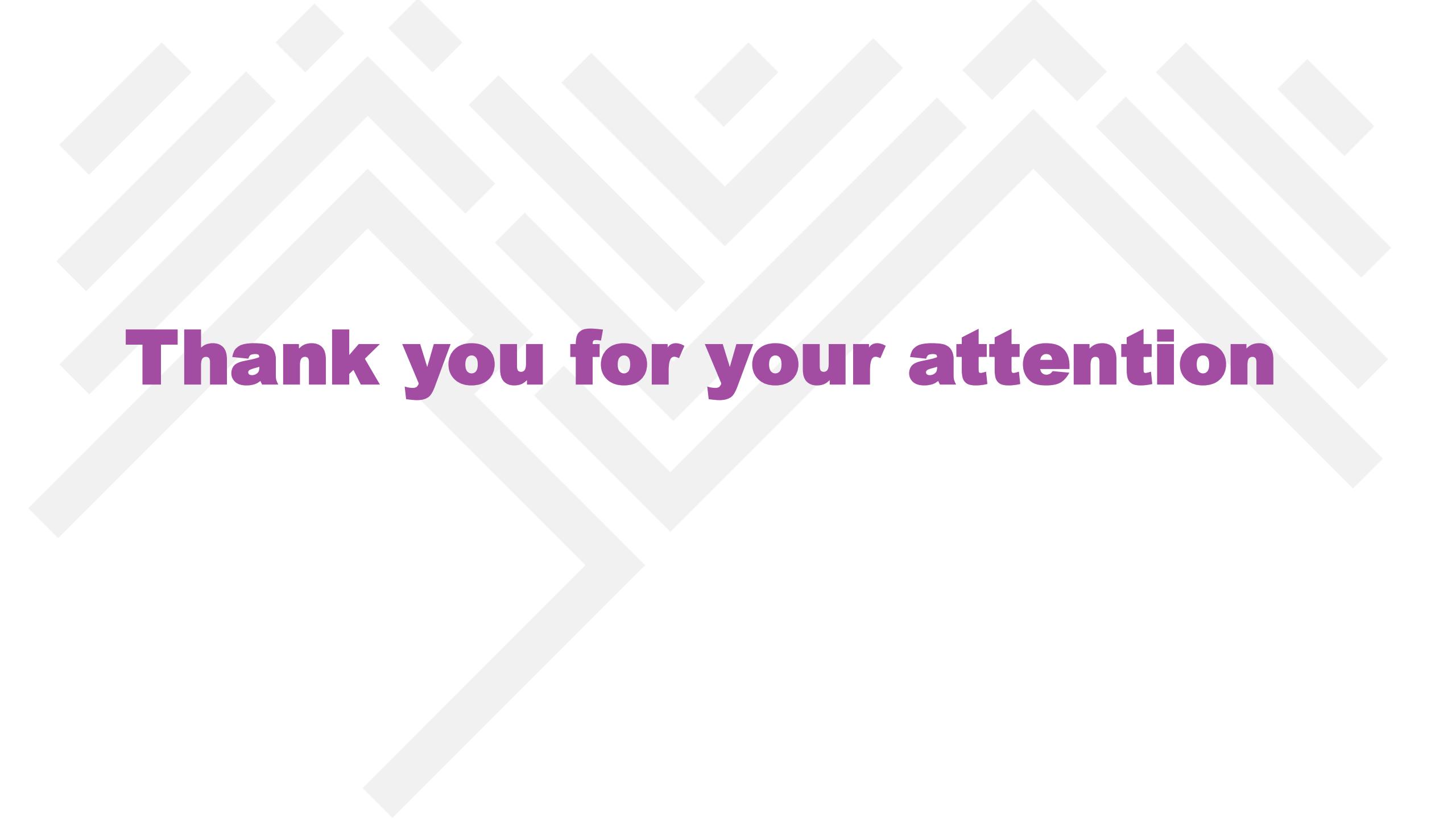


CIM (usBIM)



tools and applications (IoT)





Thank you for your attention