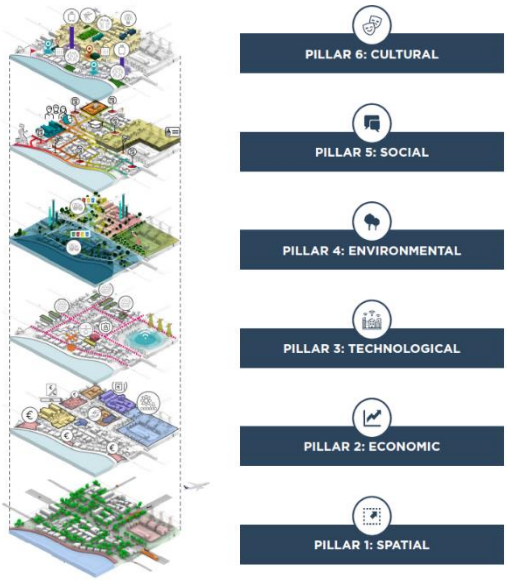

SMART CITIES

23.02.2023 o 9.10

Aula Volkswagen Slovakia

by Prof. Jason Edward James Pomeroy

A NATIONAL PARADIGM SHIFT | A COMMON NATIONAL FRAMEWORK

PROOF OF CONCEPTS & SCENARIO PLANNING

POC 1: DENDROLOGY
3D tree models constructed by LiDAR, RBG, and spectral imaging

A management and monitoring tool to execute real-time precision forestry through tree inventory and analysis, as well as tree condition monitoring and risk detection, in order to improve decision making for tree management

POC 2: SMART ZONE PLAN
3D territorial model built based on LiDAR, photogrammetry, and geophysical scanning

An automated tool to scan zoning plans and construction objectives within the territory, examining whether they are compatible with the proposed regulation of the functional and spatial arrangement of the territory

POC 3: CONSTRUCTION NOTICE
BIM models of buildings (under construction)

A monitoring tool to supervise construction status of buildings, giving real-time updates on the projects' status, as well as reporting on stopping conditions based on automated detection should any construction conflicts occur

POC 4: BUILDING AN APARTMENT
3D models of proposed project(s)

An automated tool to perform real-time scanning of construction submissions, reporting status of construction permit process and stopping conditions should any construction conflicts occur

POC 5: MONITORING OF WATER PIPE LEAKS
3D models of underground infrastructure constructed with LiDAR and geophysical scanning (BIM, CIM, and GIS data standard)

An examining and predictive tool to detect whether the infrastructure is compatible with the proposed regulation of the functional and spatial arrangement of the territory, as well as to inform predictive maintenance

POC 6: ROAD CONSTRUCTION PROJECT
BIM models of road construction project(s)

A monitoring tool to supervise construction status and report on stopping conditions should any construction conflicts occur