

Infrastructure Intelligence

Getting Cities Smarter in 14 Steps

Visit us at:

www.intusmartcities.com

www.about-smartpolis.com

Smartpolis

A Global Smart City
Platform



Municipal Challenges – Solutions

Infrastructure Intelligence

Helping Cities Get Smarter & Safer

List of Challenges that Municipalities Face

- Damaged infrastructure – water loss and risk of epidemics
- Damaged roads due to ongoing utility excavation
- Lack of digital infrastructure maps and no planned installation of new infrastructure
- Lack of Coordinated Excavation among stakeholders
- Numerous damaged utilities and labor accidents
- Lack of designs and planning on FTTH due to lack of maps and existing utilities
- Ineffective permit process and municipal participation in new designs
- Complete or limited utility damage prevention
- Limited ROI for the local economies from installed FTTH & 5G

Solutions

- Globalized e-commerce engines for local businesses
- Enhanced map oriented tourism and economic development
- Electronic infrastructure procurement of municipal projects for international contractors and investments

What is Smartpolis?

Smartpolis' principal objective is to provide municipalities with know-how, systems and technologies to ensure proper functionality of existing infrastructure, low-cost city maintenance, and efficient design & planning for the future. Smartpolis brings modern solutions to cities around the world. Until recently there have been serious discrepancies with the way information and services are accessed by citizens, businesses, and municipalities. Municipalities need an easier and more holistic way to electronically manage their assets and data. Citizens need the ability to access emergency services and voice their opinions. Business needs visibility. Based on our core infrastructure expertise, Smartpolis is able to provide a variety of features for all facets of life – to benefits citizens, businesses, and municipalities.



Efficiency



Transparency



Safety



Involvement



Benefits

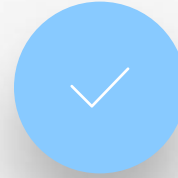
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Smartpolis

The Global Smart City Platform



Municipal Government & Citizen Participation



Infrastructure GIS Management Capabilities for the City



Smart City Management Modules



City Administration - Cross Departmental Collaboration

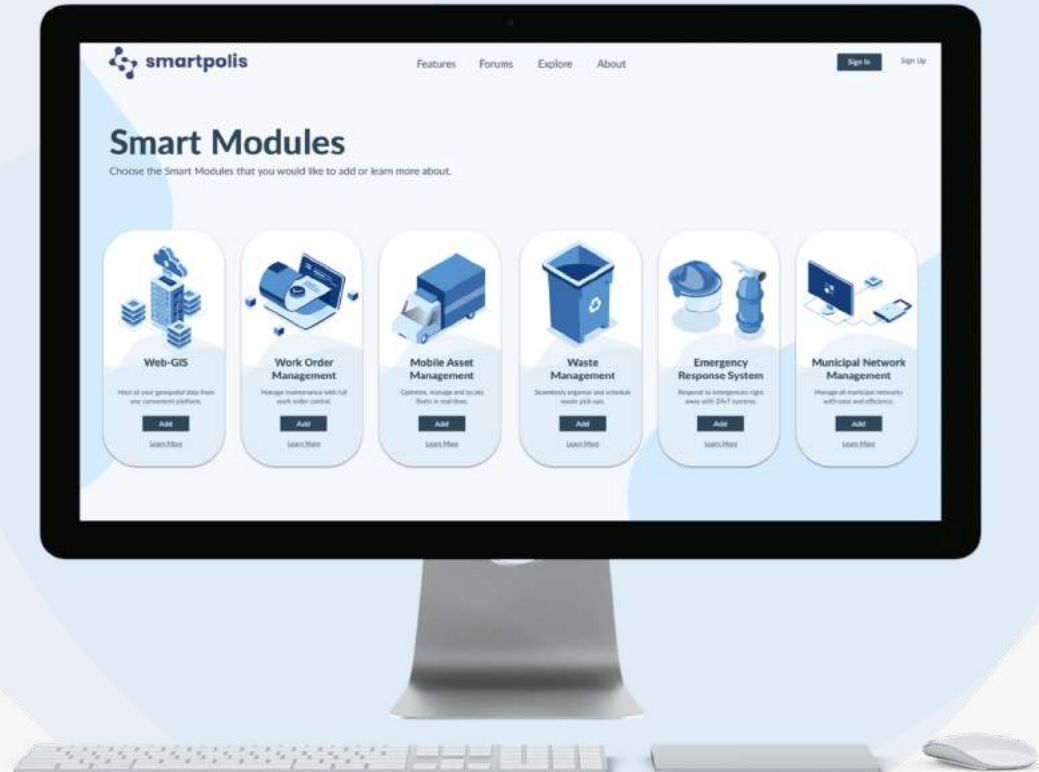


Smart City Application for Residents

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Level 1

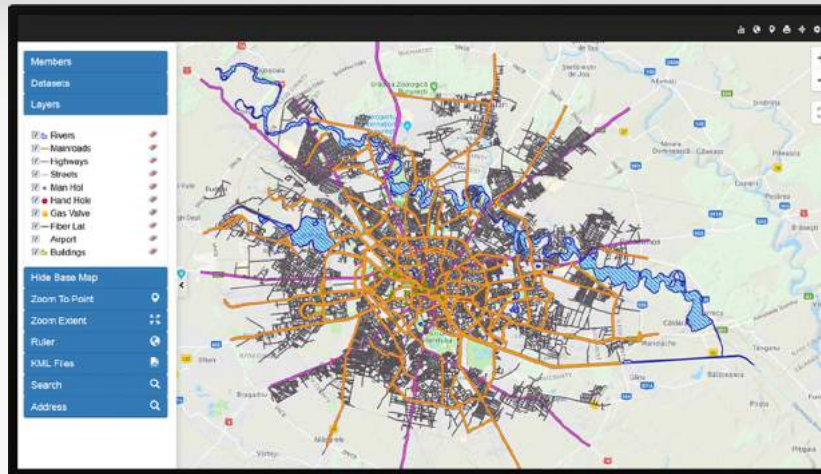
Integration of Clients into Smartpolis membership, and Set-Up of Dashboard & Smart Modules



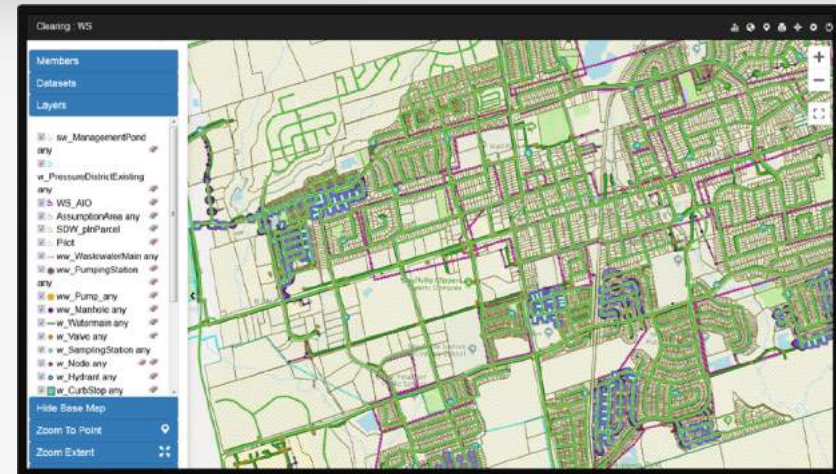
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Level 2

Electronic and Legacy Data Integration into existing GIS (Optional Web-GIS is available to be provided).
 This level will initially be provided by INTUS employees abroad, however our intention is to produce local employees and create a local Geospatial Data Integration Center (GDIC) through the establishment of an Academic Program through the IEK Programs (JV with Diablos-Platon).

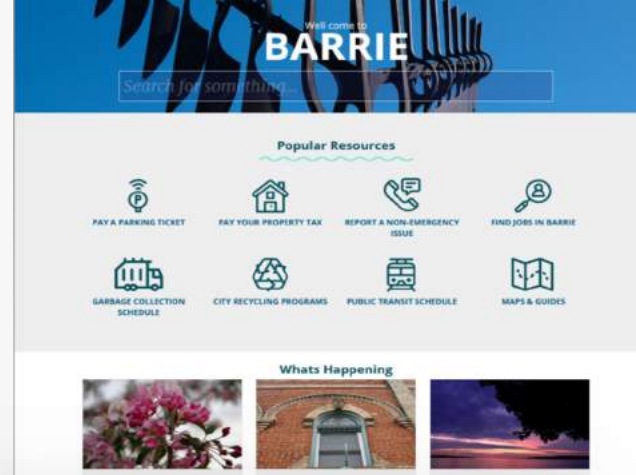


The City of Bucharest, Romania

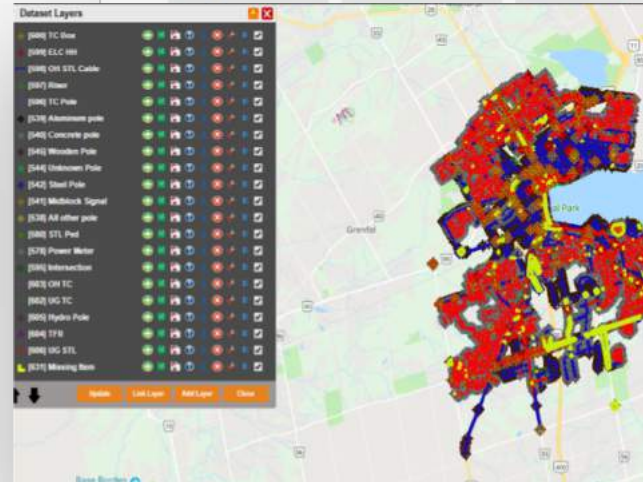


Town of Stouffville, Ontario, Canada

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Smart City Website

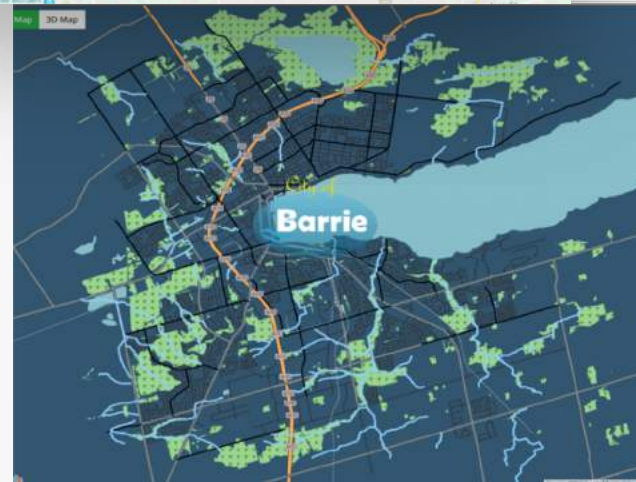


City Infrastructure on GIS

Level 3

Web-GIS Hosting of integrated Geospatial Data to be used for various "Smartpolis" applications

City of Barrie, Ontario, Canada



Publicly Accessible Web-GIS

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Level 4

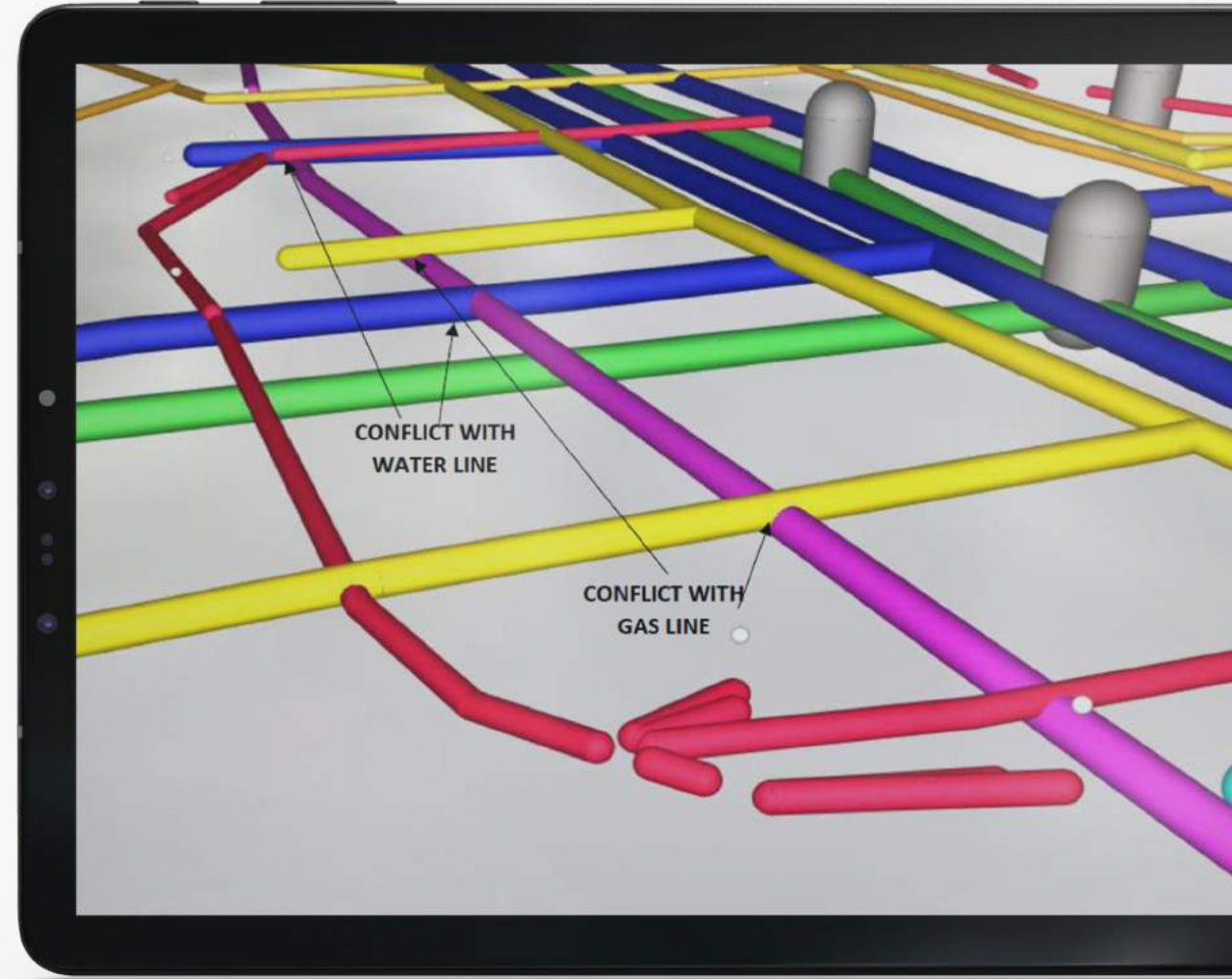
Electronic Permitting for Municipal and Public Works

The screenshot displays the Smartpolis web application interface for electronic permitting. The main view is a map showing a permit drawing for 'Alden RD 461'. A 'Revisions' panel is open, listing two items: 'Fence Line' (Addressed) and 'NID' (Pending to be addressed). A blue arrow points from the 'Fence Line' revision to a detailed 'Revisions for Fence Line' window. This window shows a list of revision history, including a note from 'Muni User' dated July 19 at 8:46am MDT, and a note from 'Theo Grammatikopoulos' dated July 19 at 8:49am MDT. A 'Send' button is visible at the bottom of this window. To the right, an 'Available Layers' panel lists various map layers such as 'Geo Text Box (Text)', 'Culvert Line (Polyline)', 'Tower (Point)', 'NID (Point)', 'Fence Line (Polyline)', and 'Power Pole (Point)', each with a 'toggle' button. On the far right, a 'ROAD OCCUPANCY PERMIT APPLICATION' form is visible, containing sections for applicant information, permit details, and drawing information. The form includes fields for project name, applicant name, address, and various checkboxes for permit requirements.

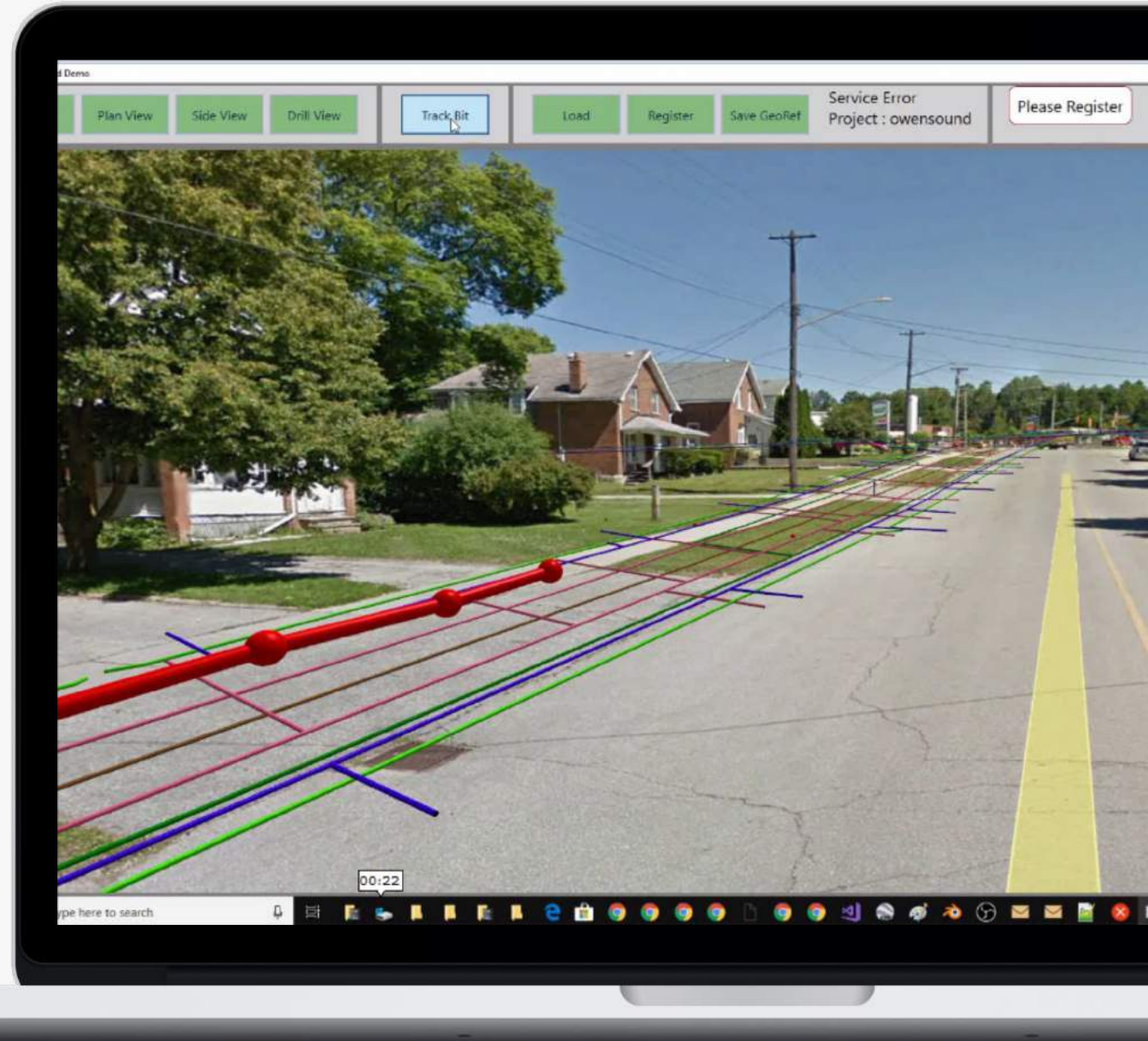
Mandatory Pre Engineering & 3D View Conflict Point With Proposed Utilities (FTTH, 5G)



Kamel *(Patent Pending)*



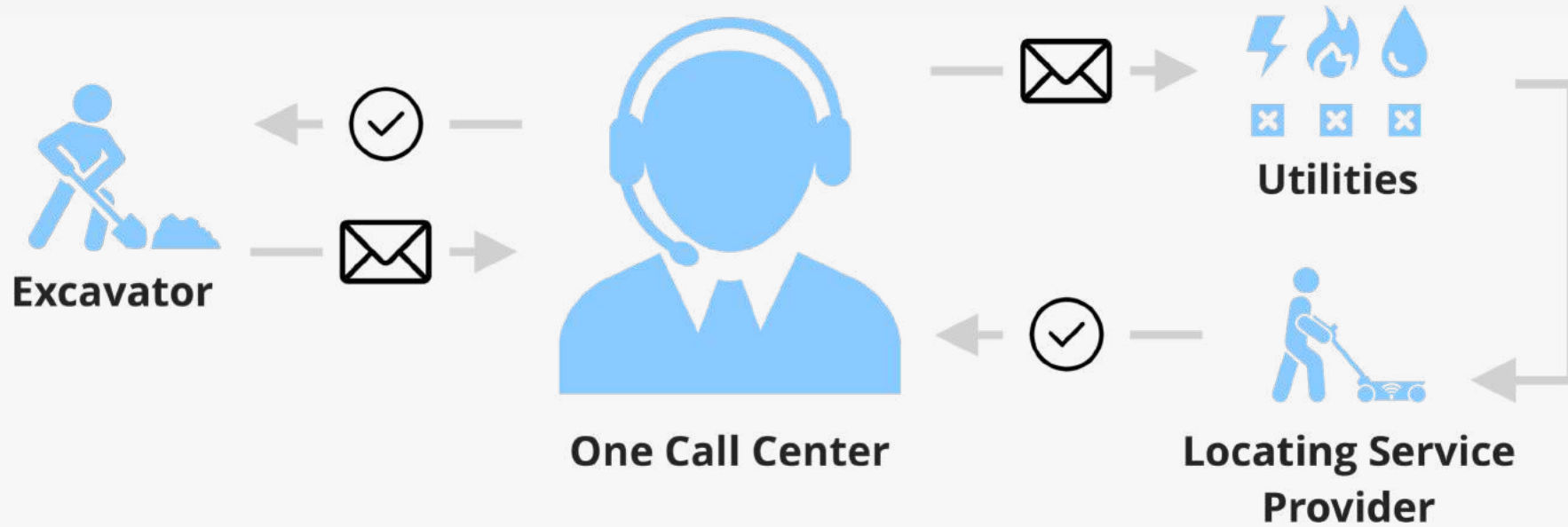
Automatic Data Collection & Red Lining Integration in Web-GIS During New Infrastructure Installation

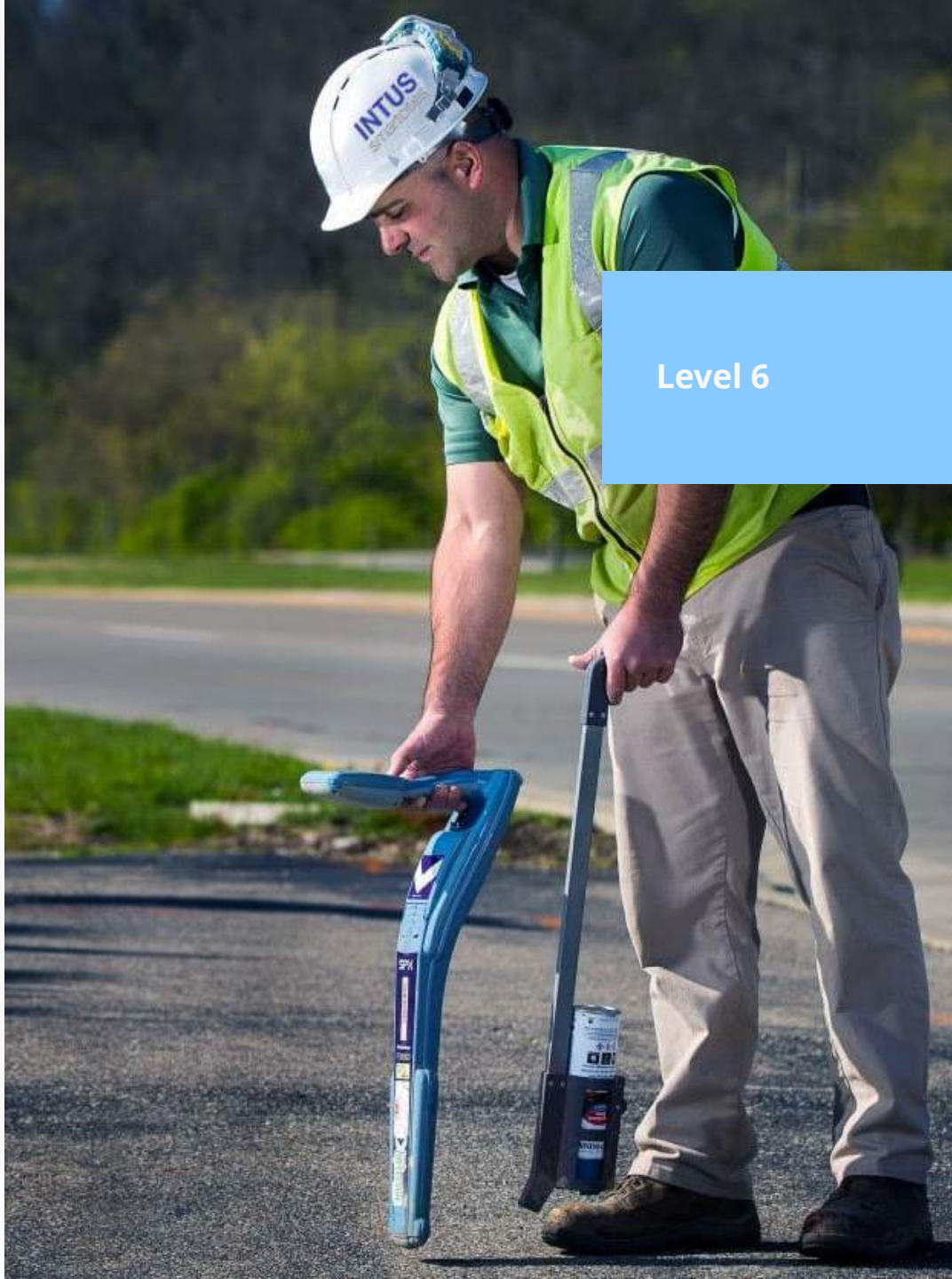


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Level 5

Establishment of "Call Before You Dig" Center for all excavation on a municipal level





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Level 6

Establishment of Damage Prevention of Underground Utilities to protect utilities from private excavators



Water



Electric



Sewer



Phone & Cable



Gas

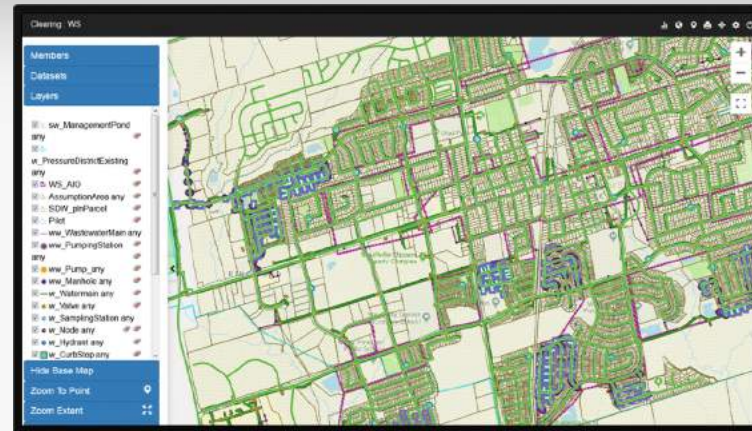
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Level 7

Further GPS Mapping of new infrastructure data and Data integration into Web-GIS (ongoing increase of data).



The City of Markham, Ontario, Canada (Web-GIS of Streetlights)

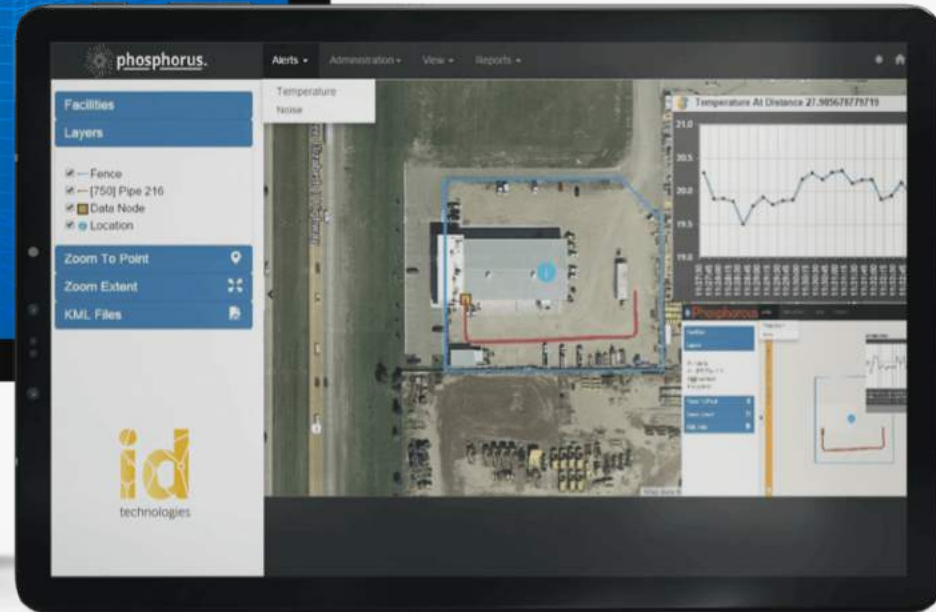


Town of Stouffville, Ontario, Canada (Web-GIS all Utilities)

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Level 8

Emergency Response Center for utility infrastructure and implementation of "Phosphorus" Utility Integrity System ie. Fires, storm water, sewer maintenance, and clean up services).



AMSER, AR-Enabled Technologies

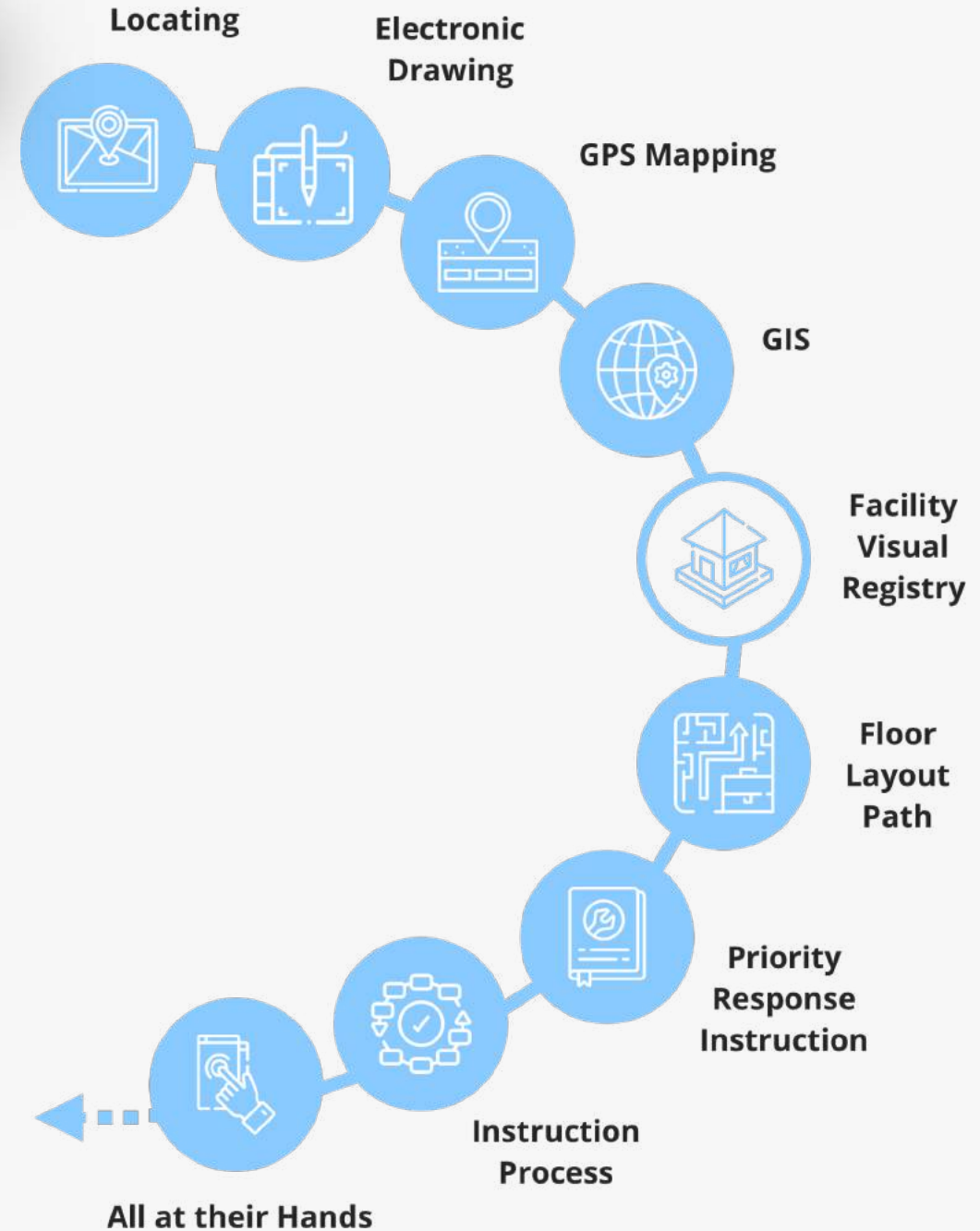
INTUS Emergency Response System is based on a cluster of **Local/State Response Centers Operating** as a network of **Shared Data Repository (SDR)** during **natural disasters or terrorist attacks**. At all other times these Centers will provide **wireless business management services & technologies** contributing to local **economic growth**.

Process-Data-Augmented Reality:

- GPS Mapping via locating of underground and surface utility installations
- Mapping of all other vital infrastructure in the region
- Integration of GPS information into comprehensive mapping system which is web-enabled, wirelessly accessible and dynamically modified
- As built system for utility network – Real time modifications
- Inventory Systems for all major installations
- Wireless GPS field mapping technology
- Multi-Layered base-maps for data usage for Asset Management Systems
- Augmented Reality information environment

Center Infrastructure Requirements:

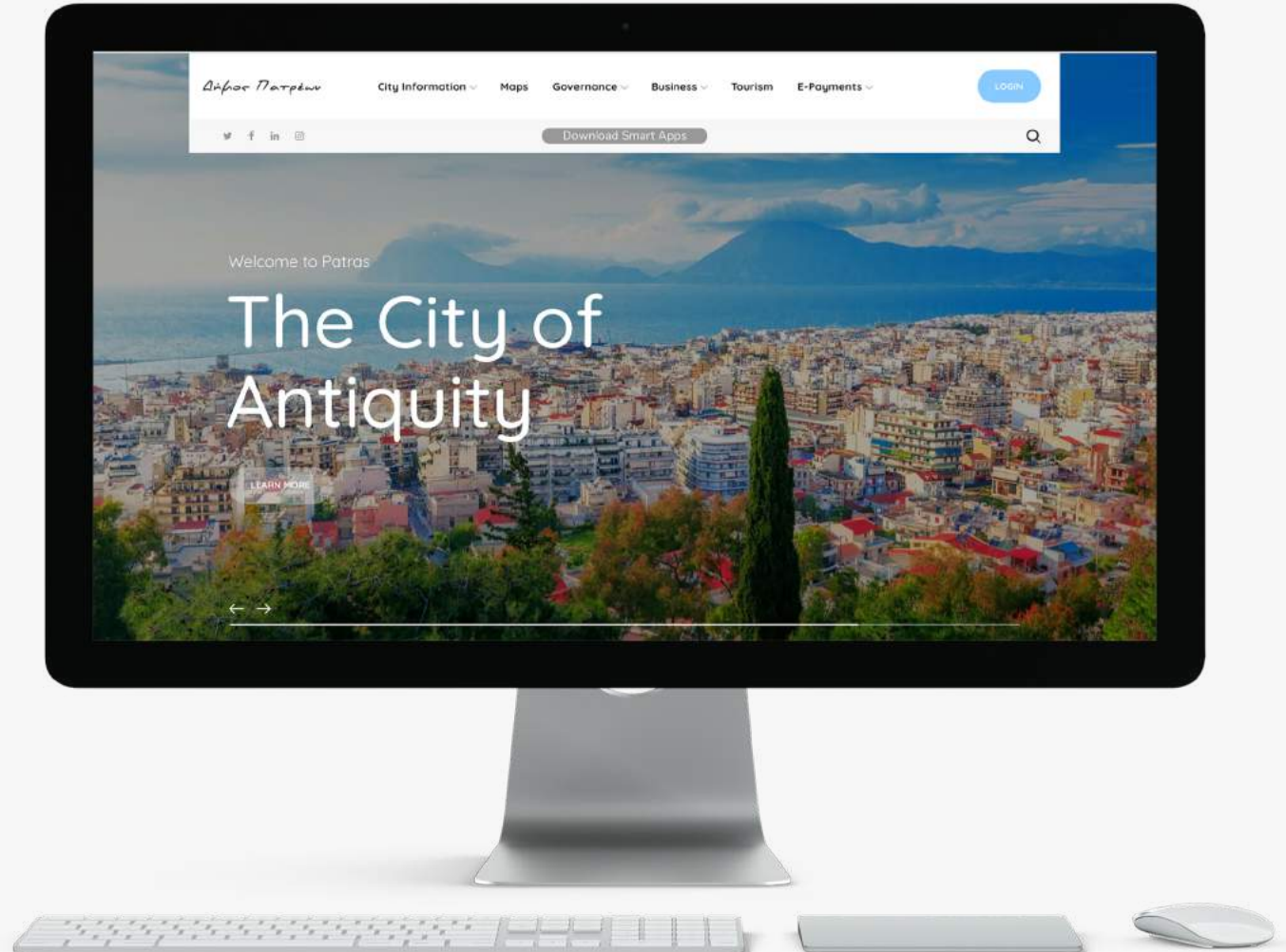
- Maps & digital mapping ability
- Online web map viewers
- Multi-layered GIS viewers
- As built electronic map generating and reporting
- Wireless GPS field mapping technology
- Wireless 2-way dispatching & reporting systems for mobile fleets



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Level 9

Integration of Municipal Services
(Transportation etc.), Municipal Profile,
Tourism and Economic Development.



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Level 10

Implementation of Smart Phone Apps for Citizen participation and Communication on various municipal attributes (Crime Prevention, Utility Damage Reporting, Emergency Alerts), E-Government etc.



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Level 11

Implementation of Full scale SaaS software modules for Management of Municipal Works and EU Compliance of H&S Standards.

Inventory Management

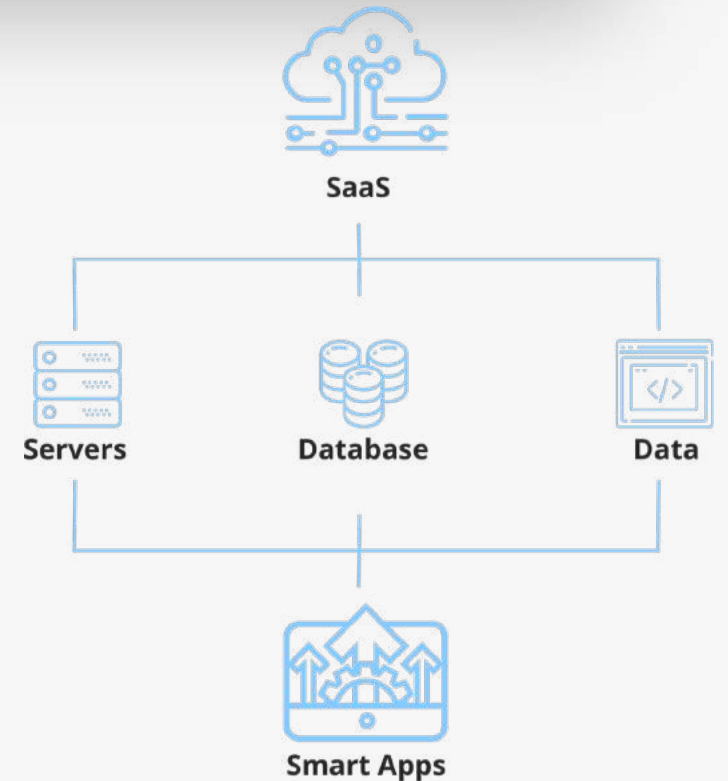
Human Resources Management

Municipal Work Order Management

Mobile/Fleet Asset Management

Infrastructure Asset Management

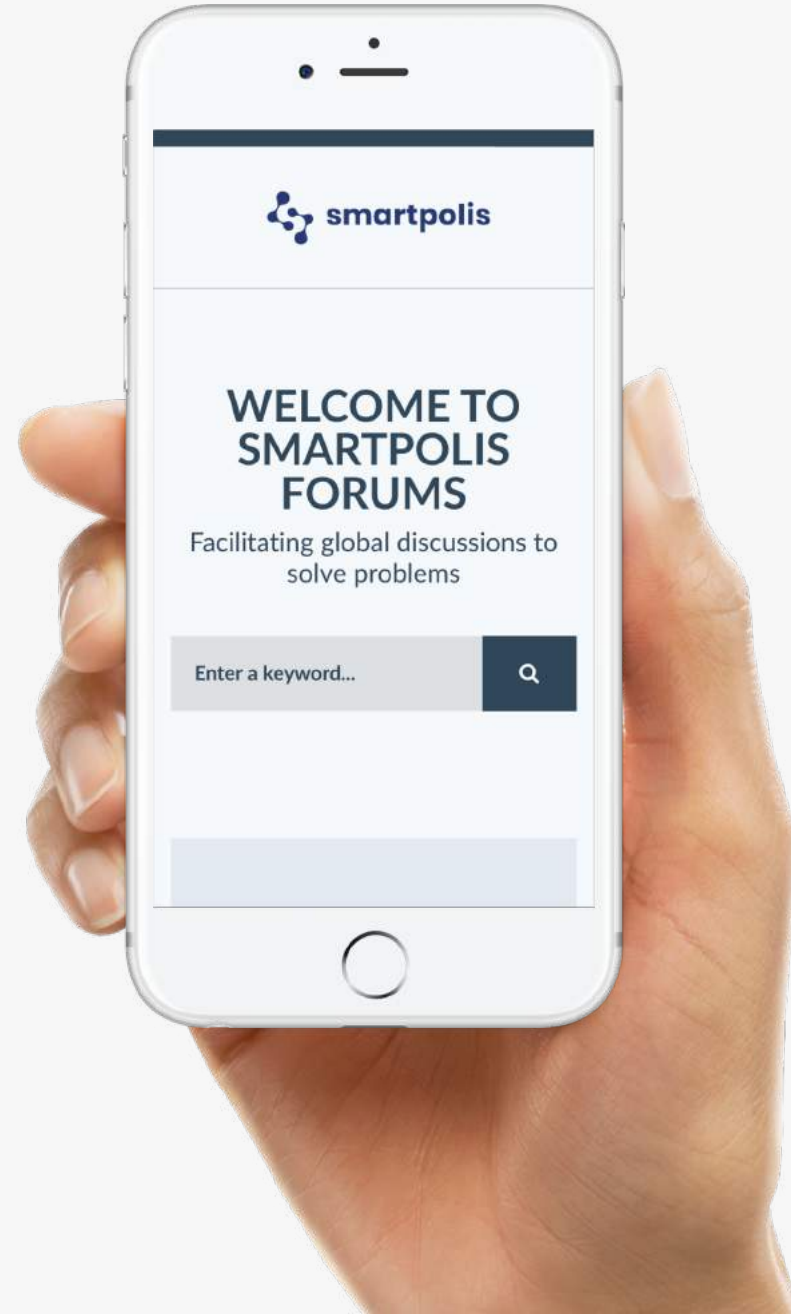
Waste Management



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Level 12

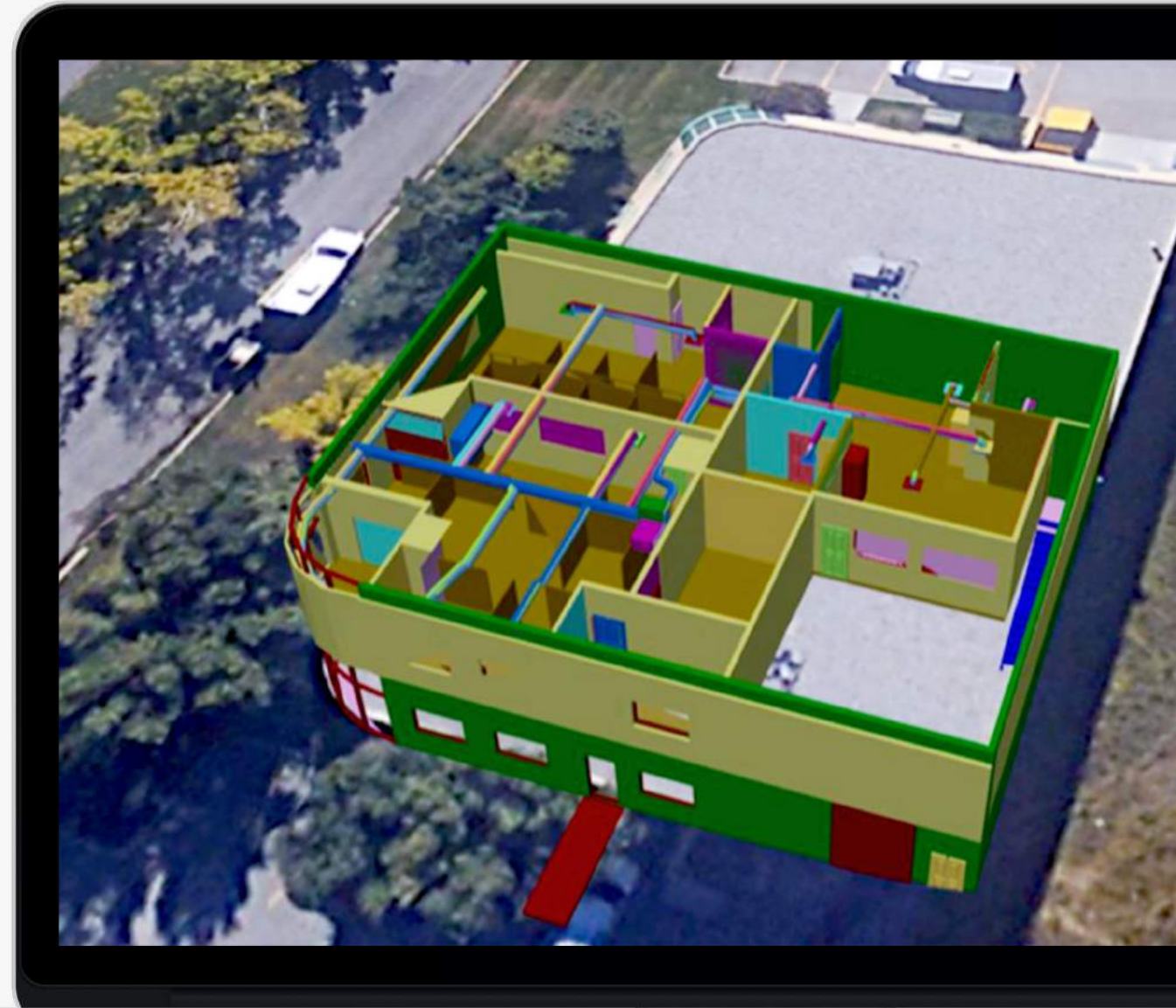
Full connectivity and participation of the "Smartpolis" Global Forum of Municipal Solutions.



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Level 13

Use of Augmented Reality for Security and Emergency Response in Buildings, Airport and Government Installations.



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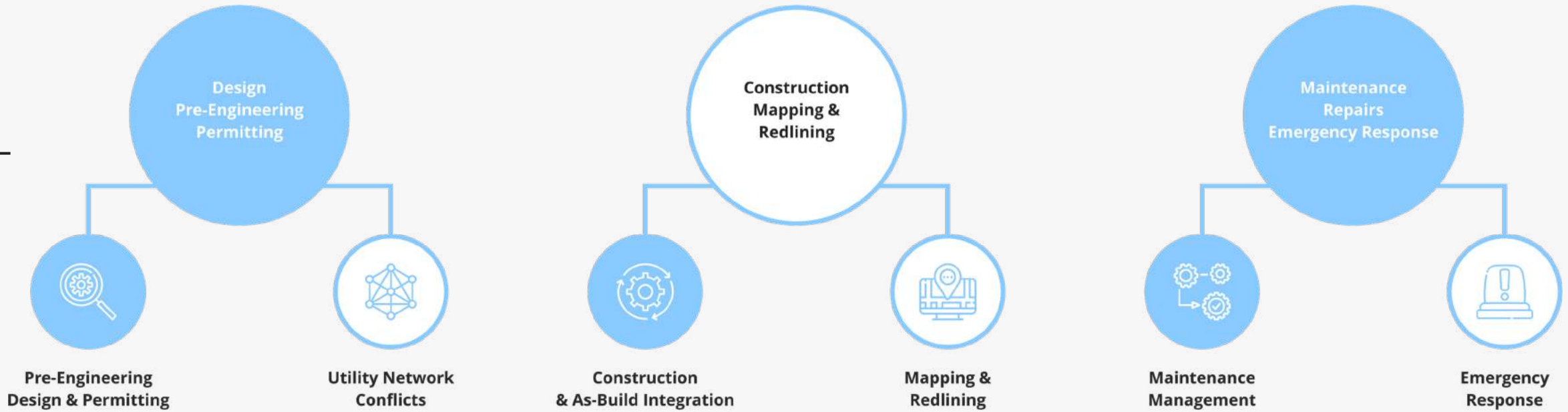


Level 14

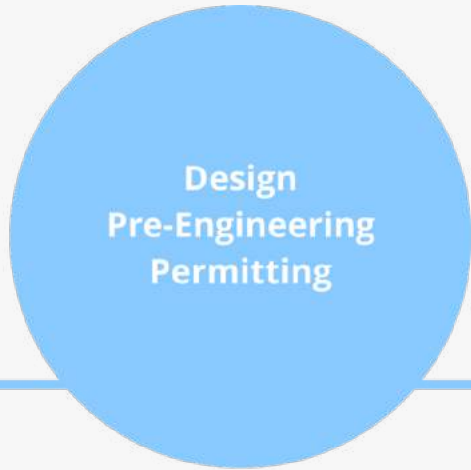
Use of Augmented Reality for reducing maintenance costs for infrastructure



Streamlining of processes for improved **Utility Construction**, reducing maintenance cost and efficient **Emergency Response**



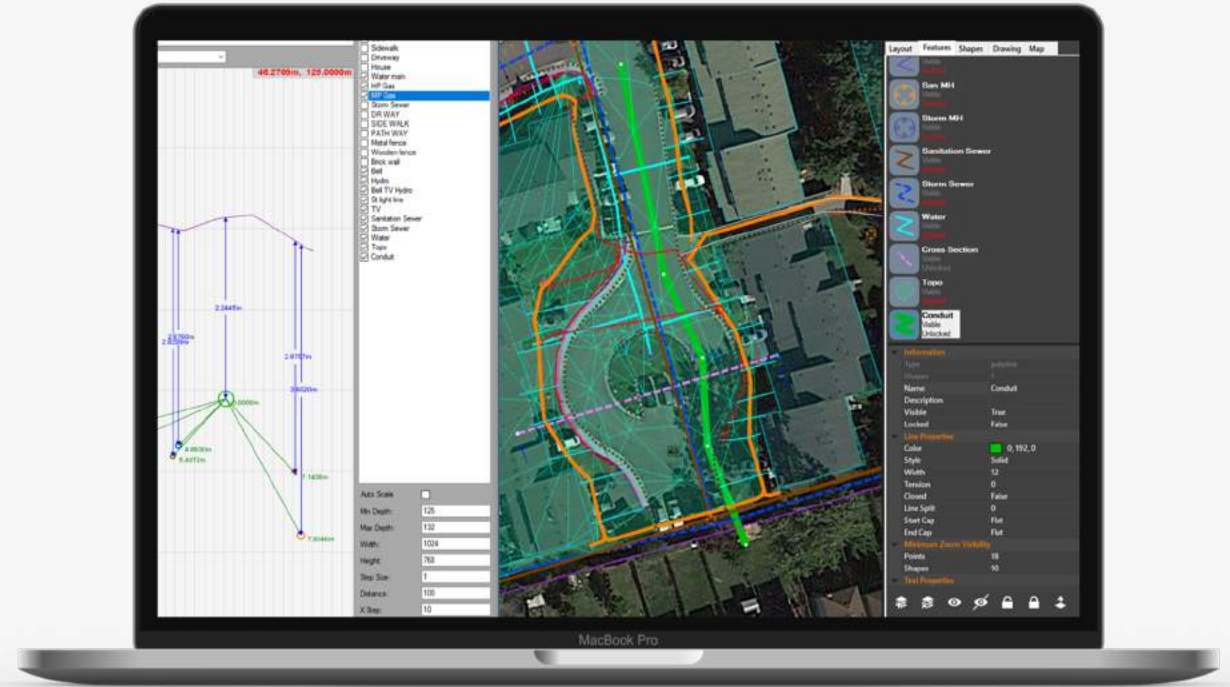
GIS & Augmented Reality in Utility Construction, Maintenance and Emergency Response



Pre-Engineering Design & Permitting

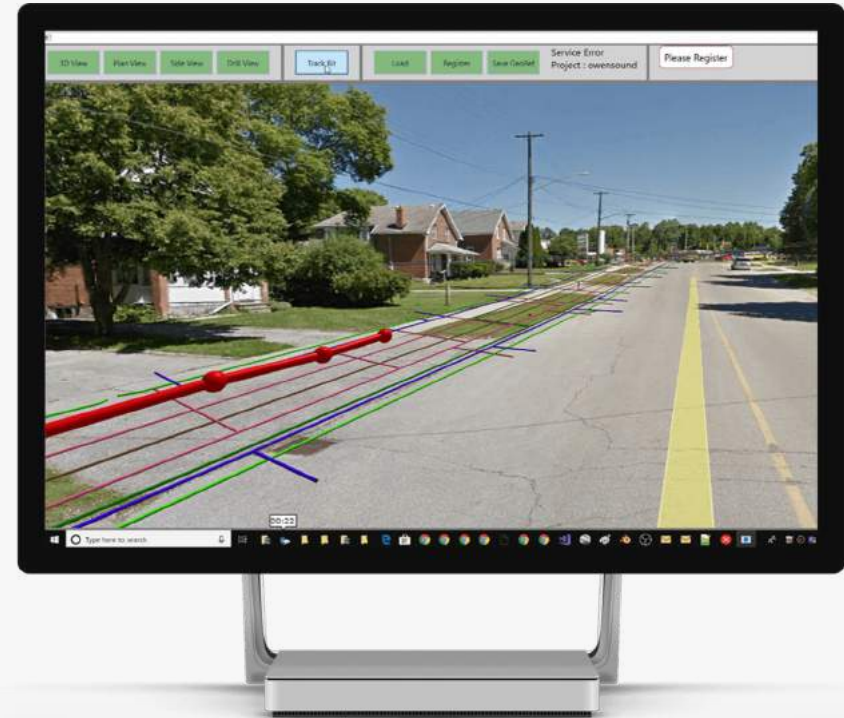
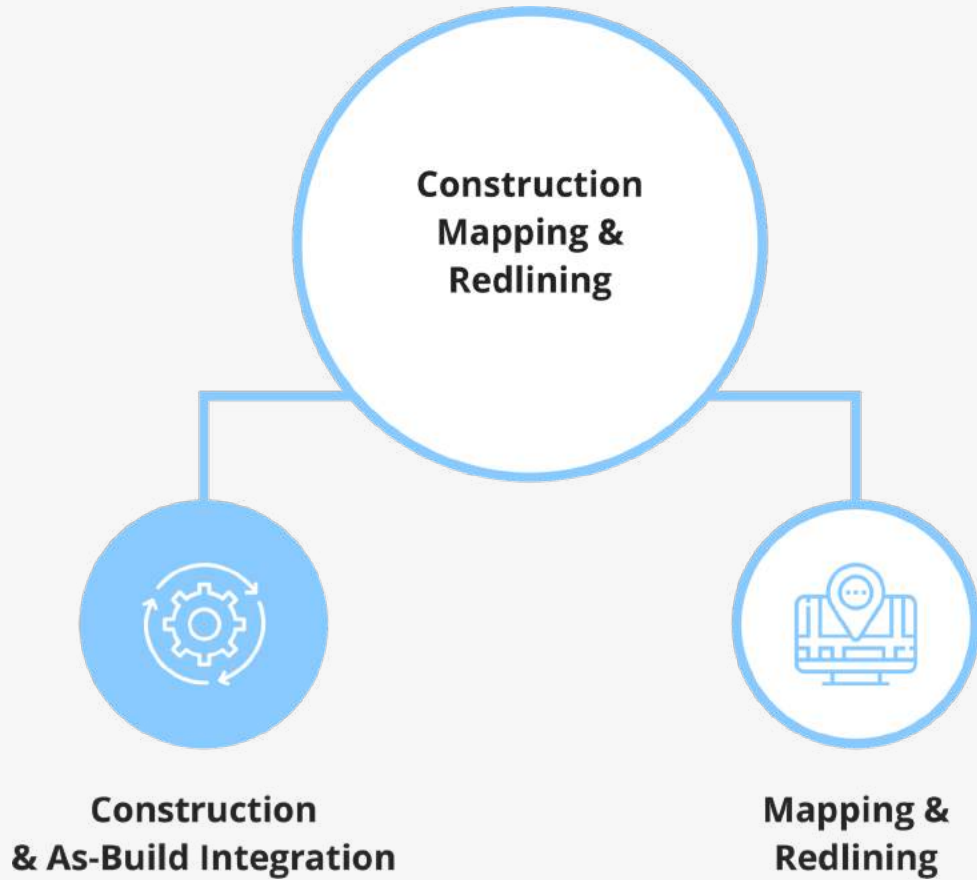


Utility Network Conflicts



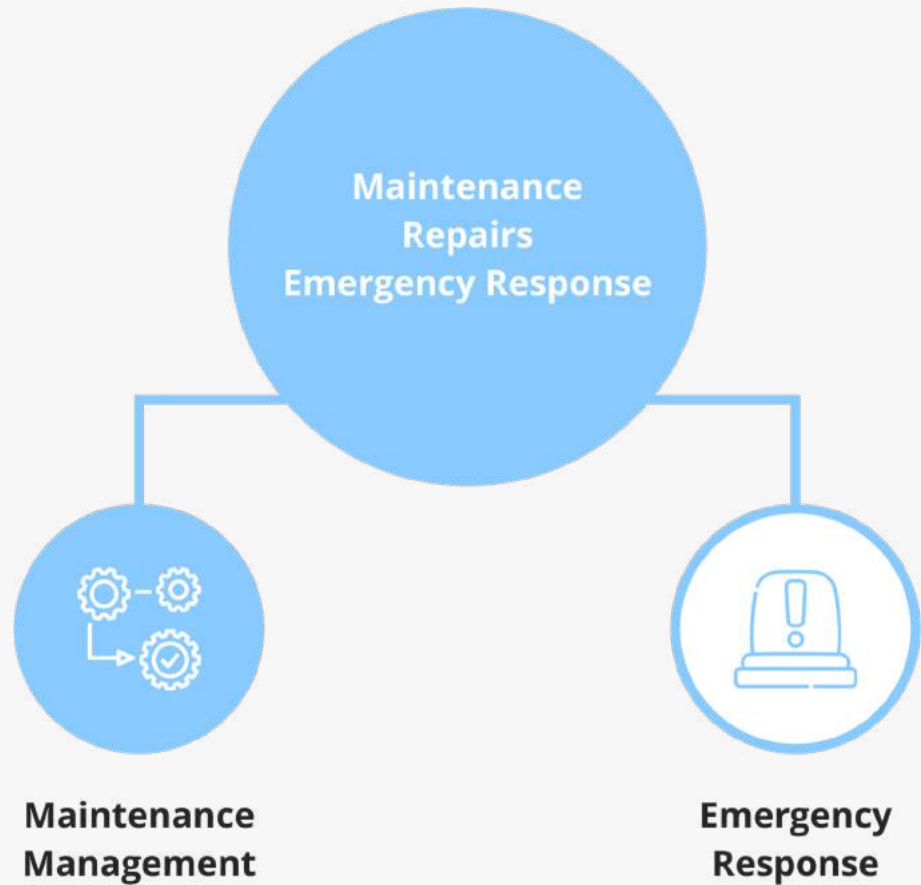
ESDN Kamel Data

GIS & Augmented Reality in Utility Construction, Maintenance and Emergency Response



ESDN Kamel Data

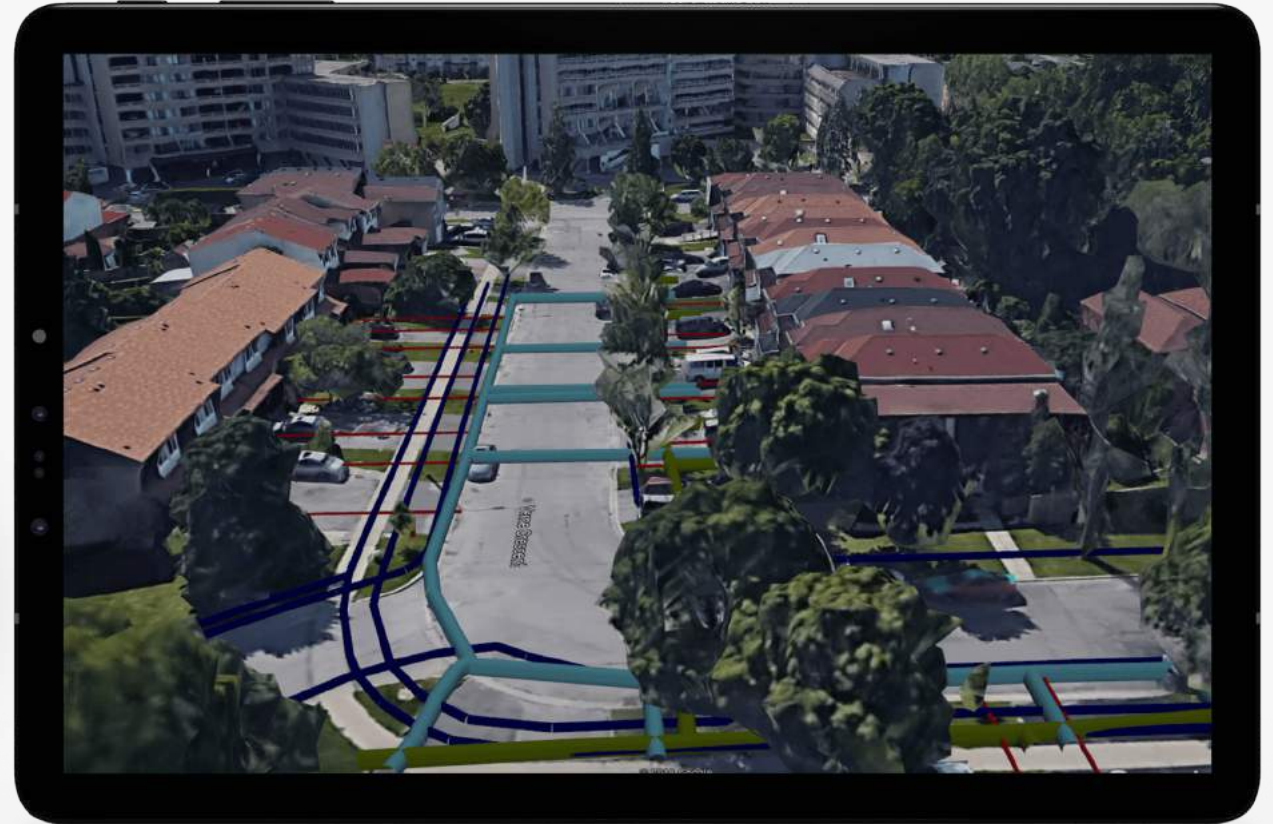
GIS & Augmented Reality in Utility Construction, Maintenance and Emergency Response



Emergency Response Apps

Web-GIS Enabled Maintenance for lower costs

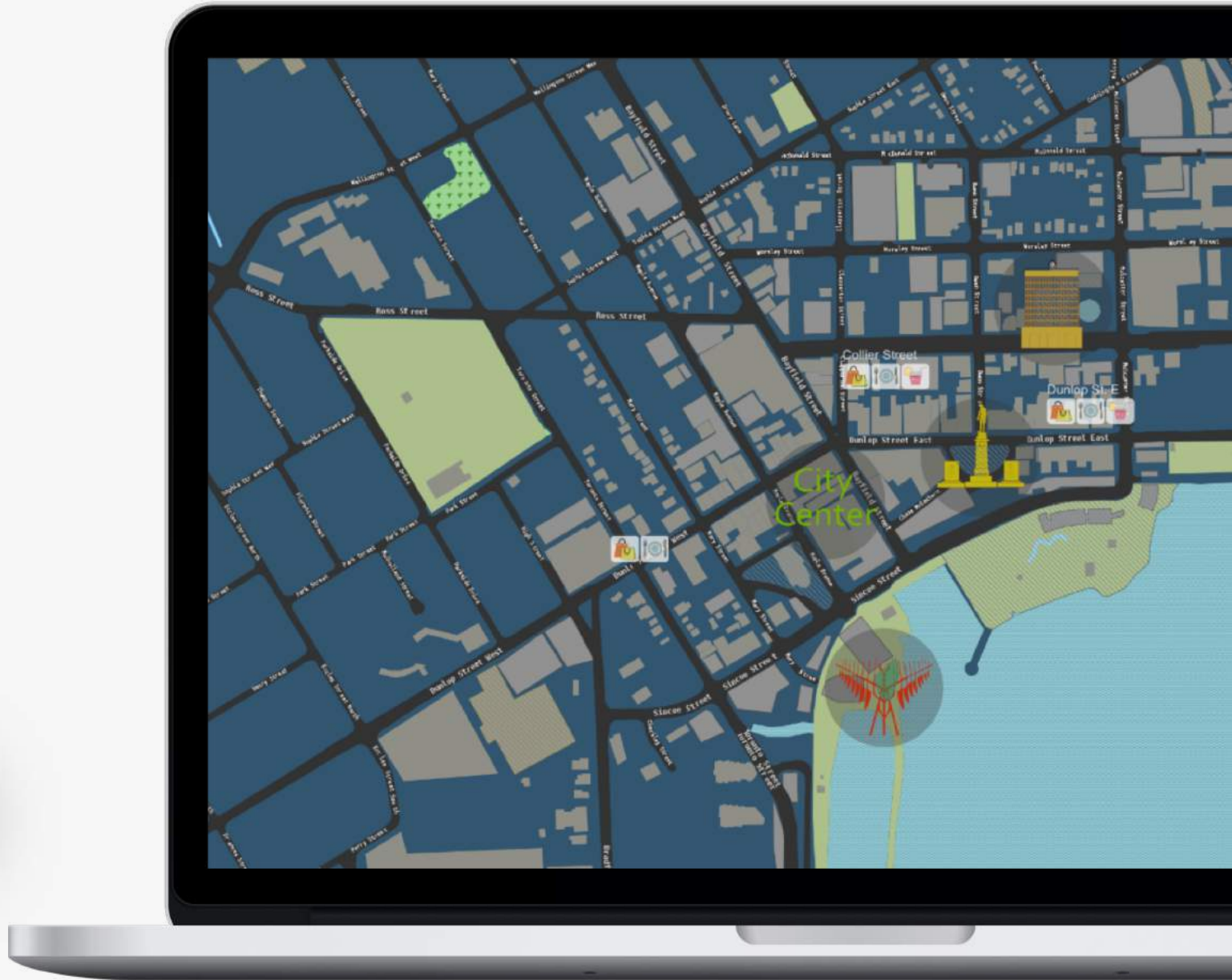
Cutting Edge GIS



Smartpolis 2D web viewers with e-commerce engines for all municipal businesses.

Web-GIS - Public Access

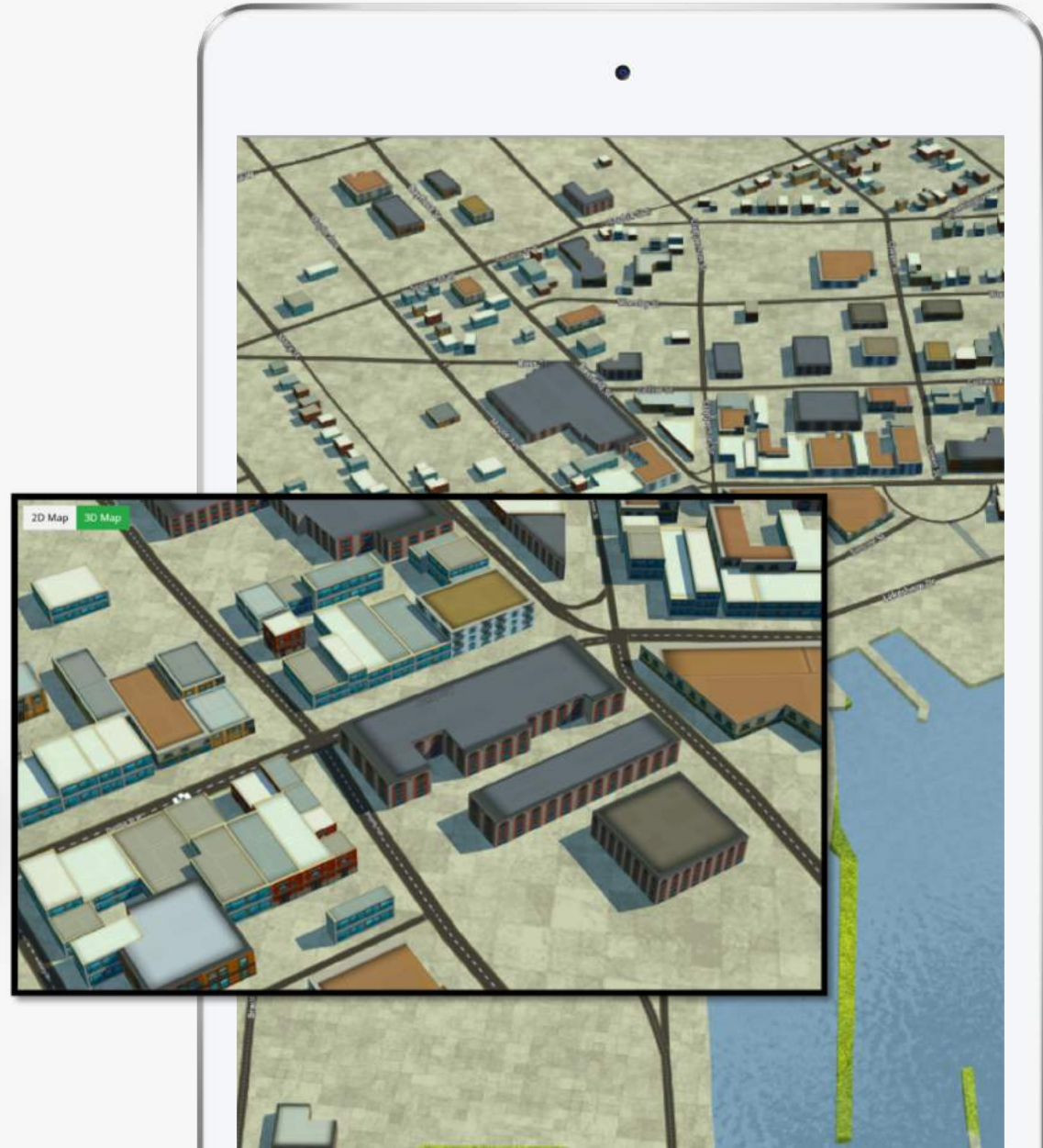
City of Barrie, Ontario,
Canada



Smartpolis 3D web viewers with e-commerce engines for all municipal businesses.

Web-GIS - Public Access (3D)

City of Barrie, Ontario,
Canada



INTUS

smartcities

Thank You



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