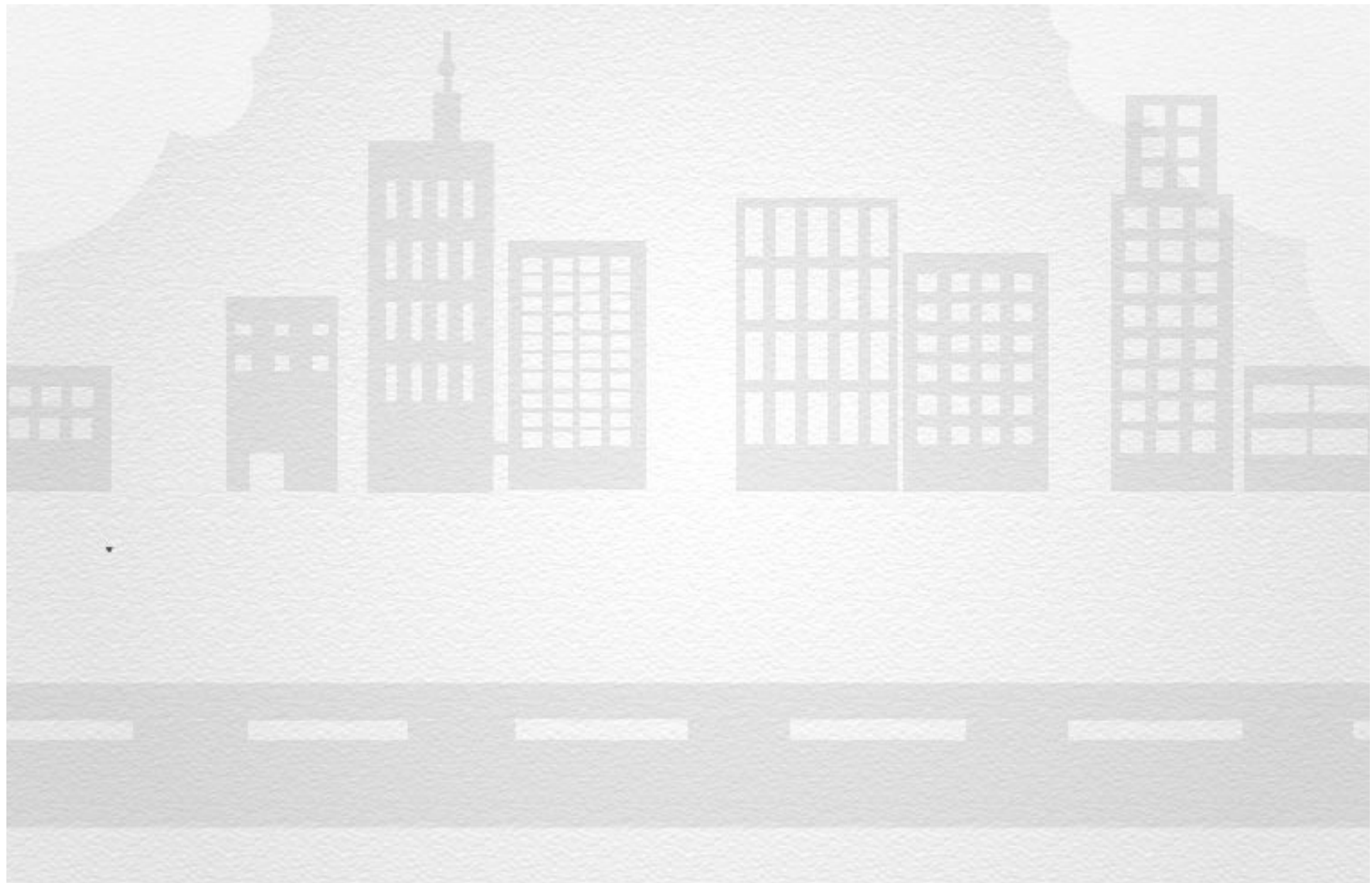


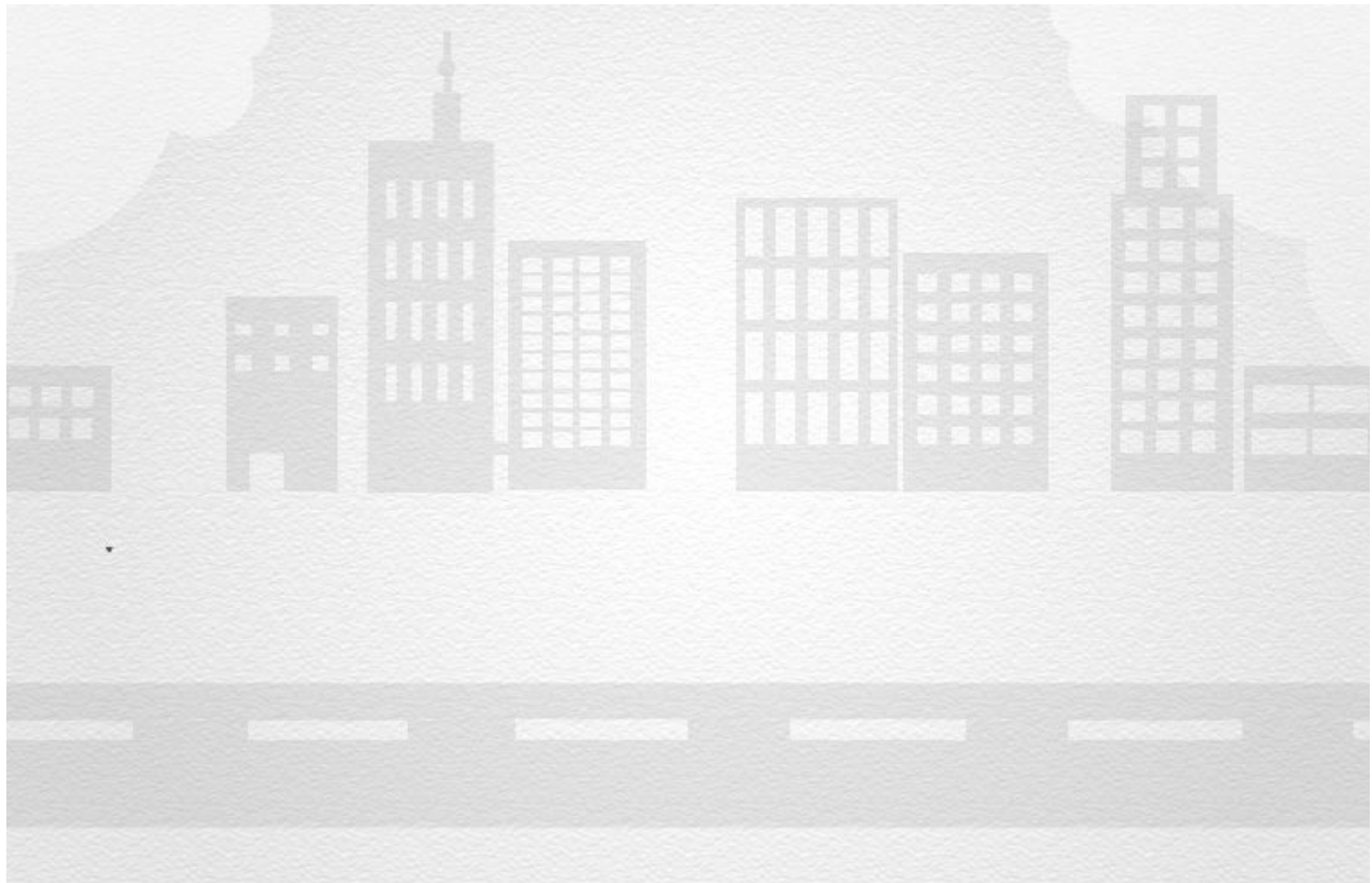
A Smart City (*in the CLOUD*)

7th February 2014

Julian Kardos

Global Project Services Director, Intergraph Corporation







- ★ Existing eco cities
- ★ Existing eco megacities

SMART CITY

1

BETTER
governance

2

COMPETITIVE
advantage

3

GO
green

4

CREATIVITY &
innovation

GOAL



BETTER governance

Process optimization

More for less

Public Information

Social engagement

....

GOAL

2

COMPETITIVE
advantage

Quality of life

Driving business development

City infrastructure

Education, health & culture

....

GOAL

3

GO
green

Managing Environment

Less Energy Consumption

Water & Waste Water Management

ECO City

....

GOAL

4

CREATIVITY &
innovation

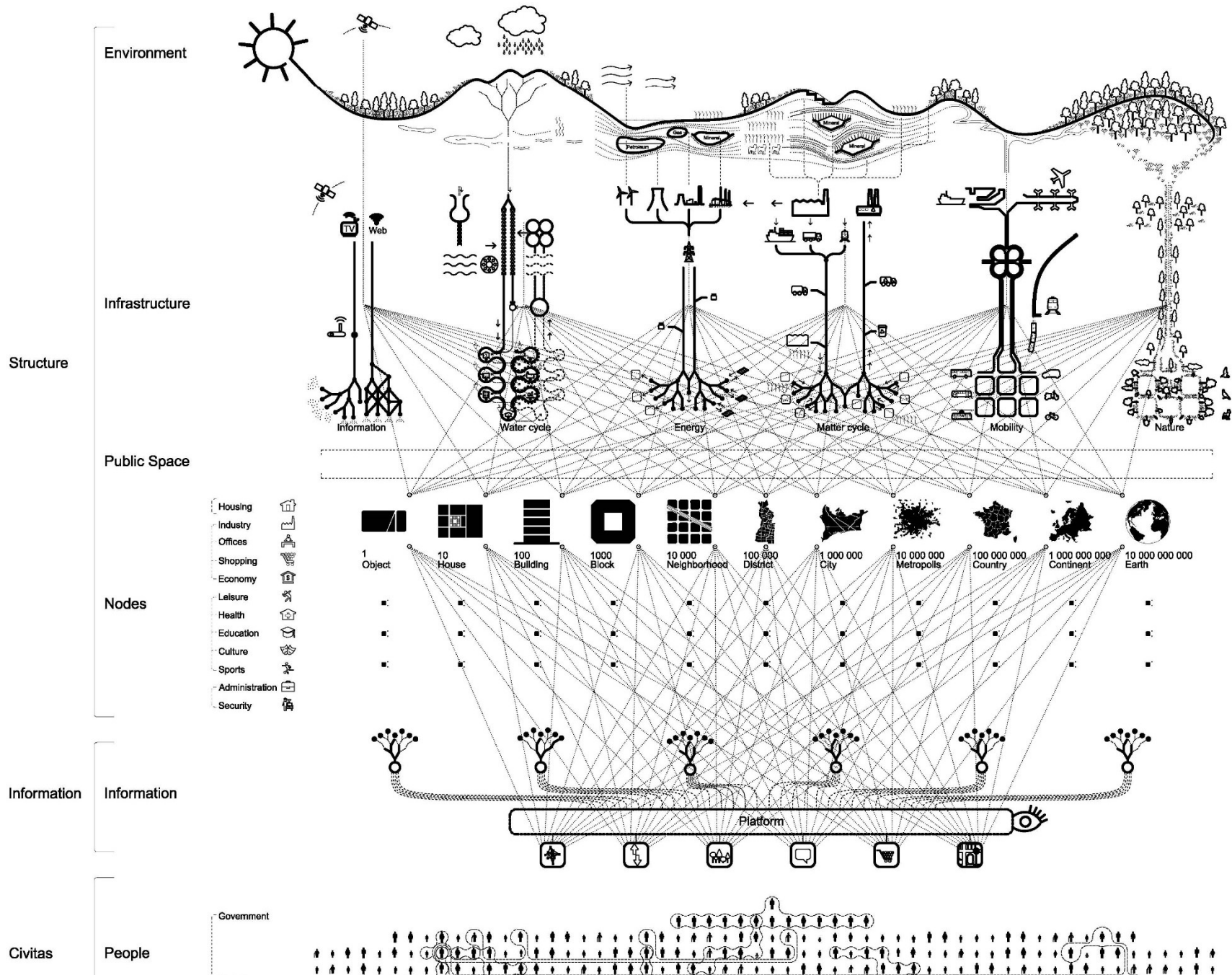
New Technologies

Portals & Social Media

City Infrastructure (ex. Public Transport)

Sensors & Geospatial

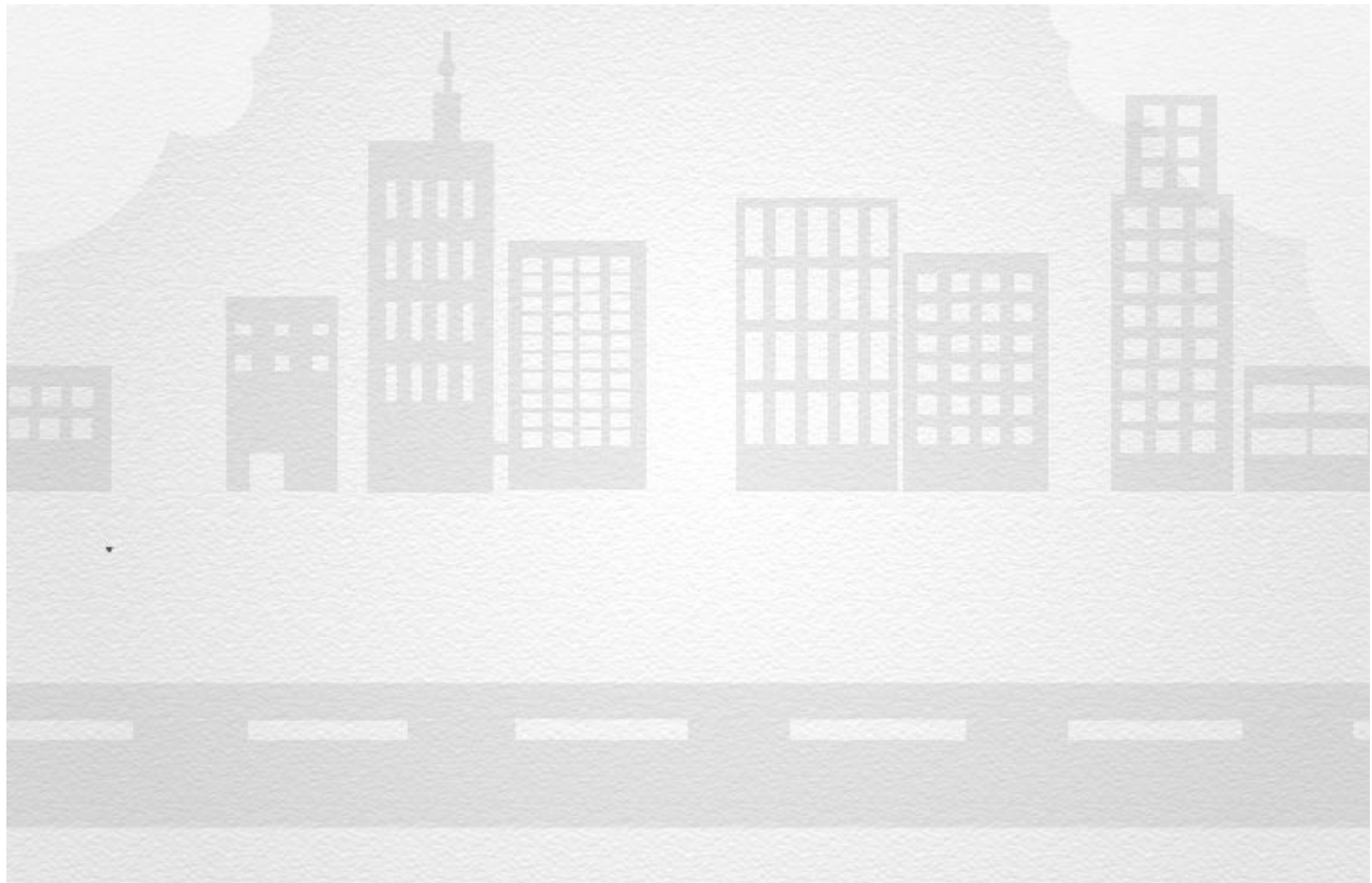
....



interconnect & interact

hardware & software

people, business,
government, nature





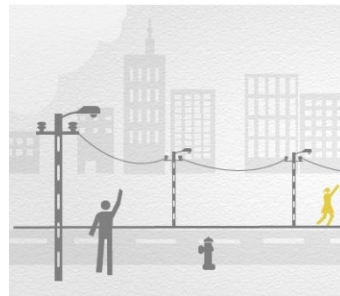
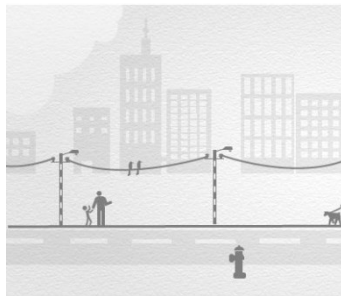
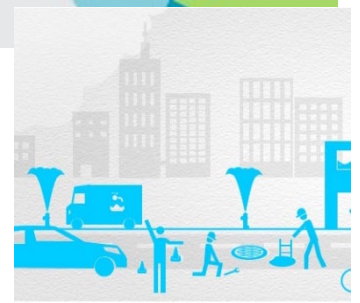
common operational picture

integration & business intelligence

vertical domain business applications

sensors

geospatial



SMARTMOBILITY



ENVIRONM ENT



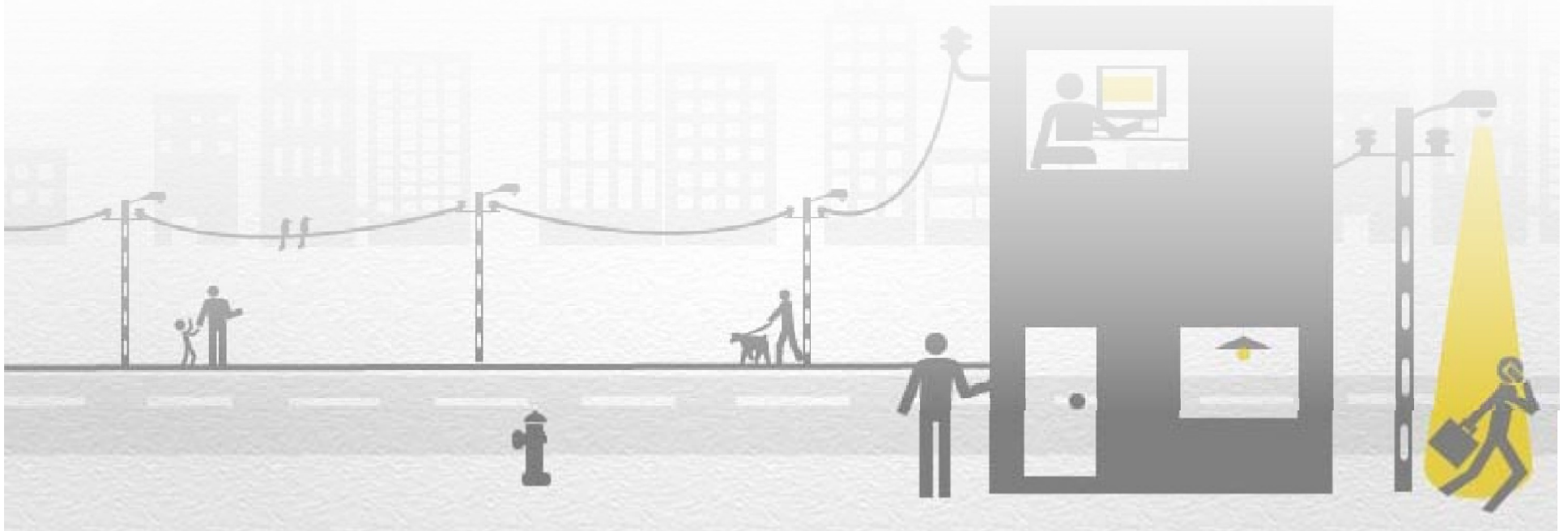
WATER



INFRASTRUCTURE



SMARTENERGY



PUBLICINFORMA TION



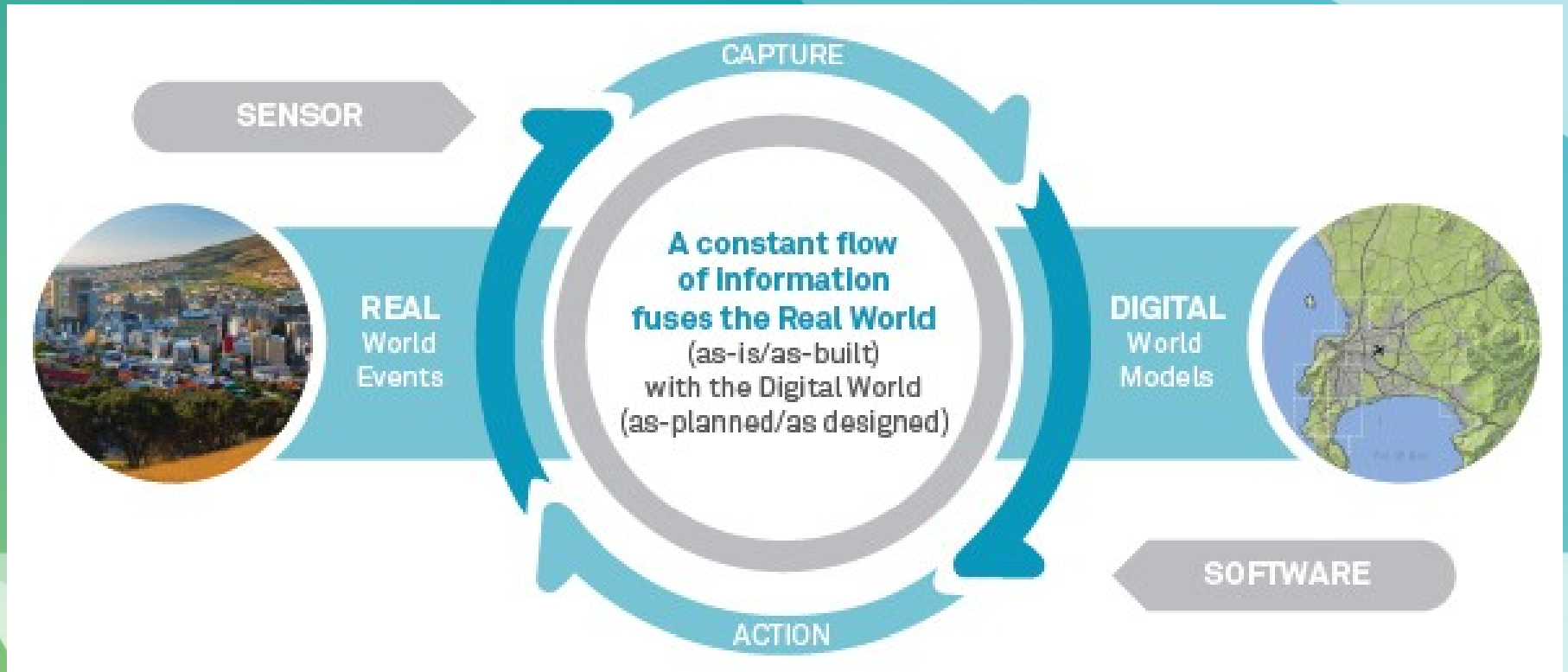
SAFEEMERGE NCY



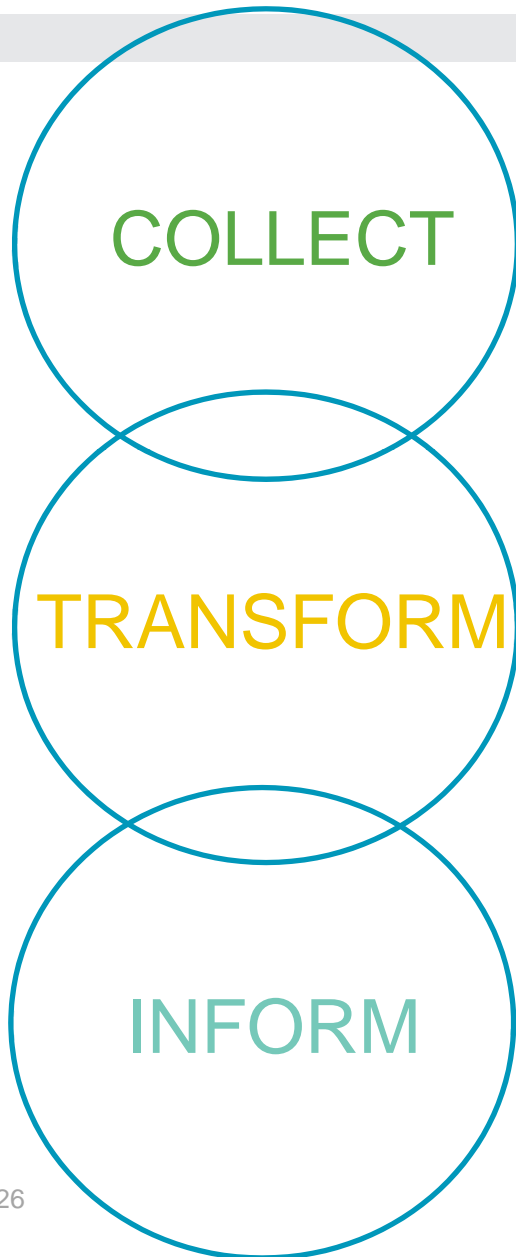




HEXAGON



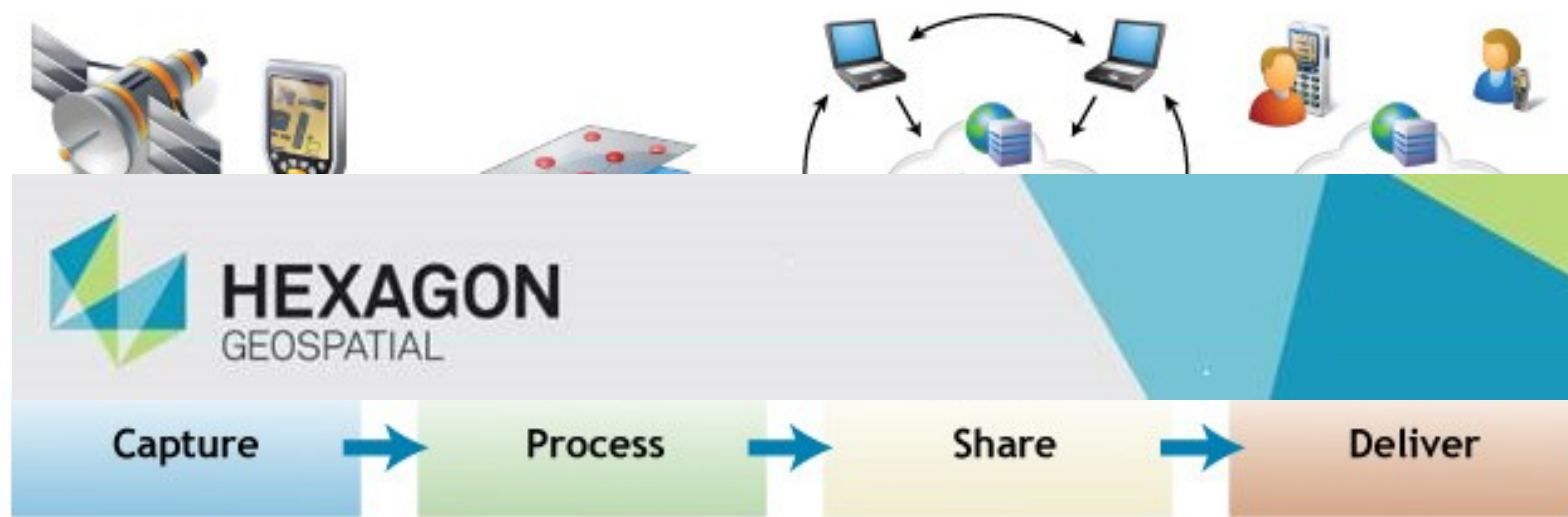


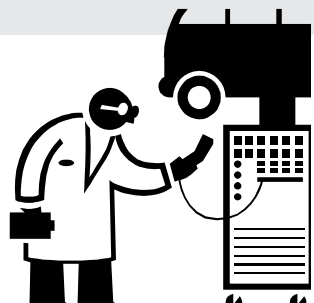


COLLECT, FUSE, ORGANIZE AND
MANAGE GEOSPATIAL DATA IN NEAR
REAL TIME

TRANSFORM DATA AND SERVICES
USING GEOSPATIAL ANALYTICS AND
PROCESSES (*I.E. TOPOLOGICAL
QUERY, ROUTING, ALERTS, DEM,
COORDINATE TRANSFORMATION,
ETC...*)

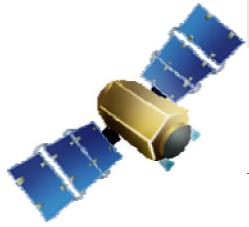
INFORM DECISION MAKERS VIA
VISUALIZATION TOOLS ENABLING
POWER TO USERS: DESKTOP, CLOUD
PORTALS, MOBILE DEVICES ALL WITH
EDITING CAPABILITY





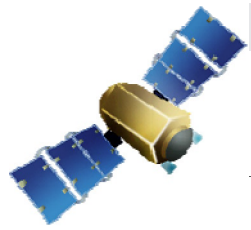
“Engine”





“GEOSPATIAL engine”

actionable
INFORMATON



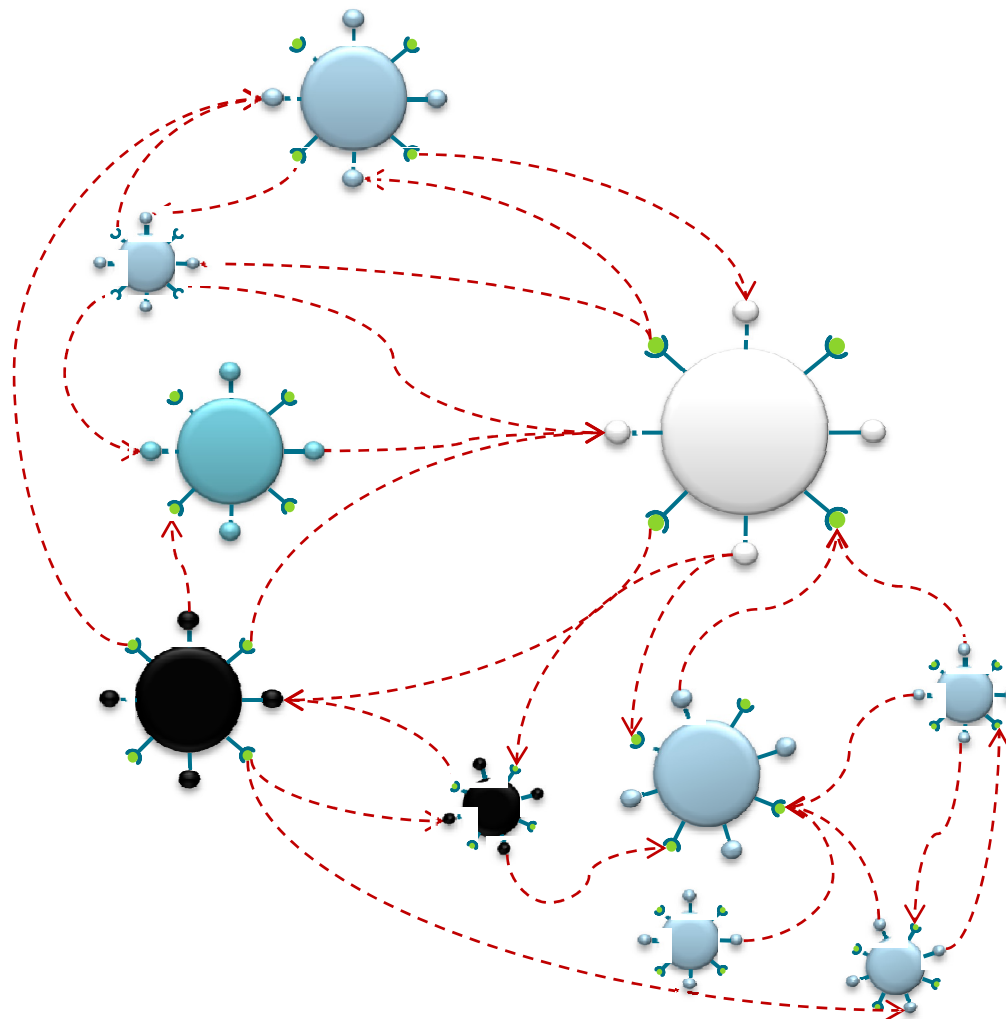
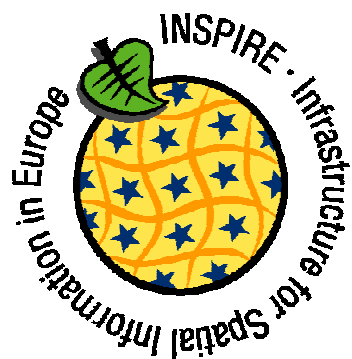
“GEOSPATIAL engine”

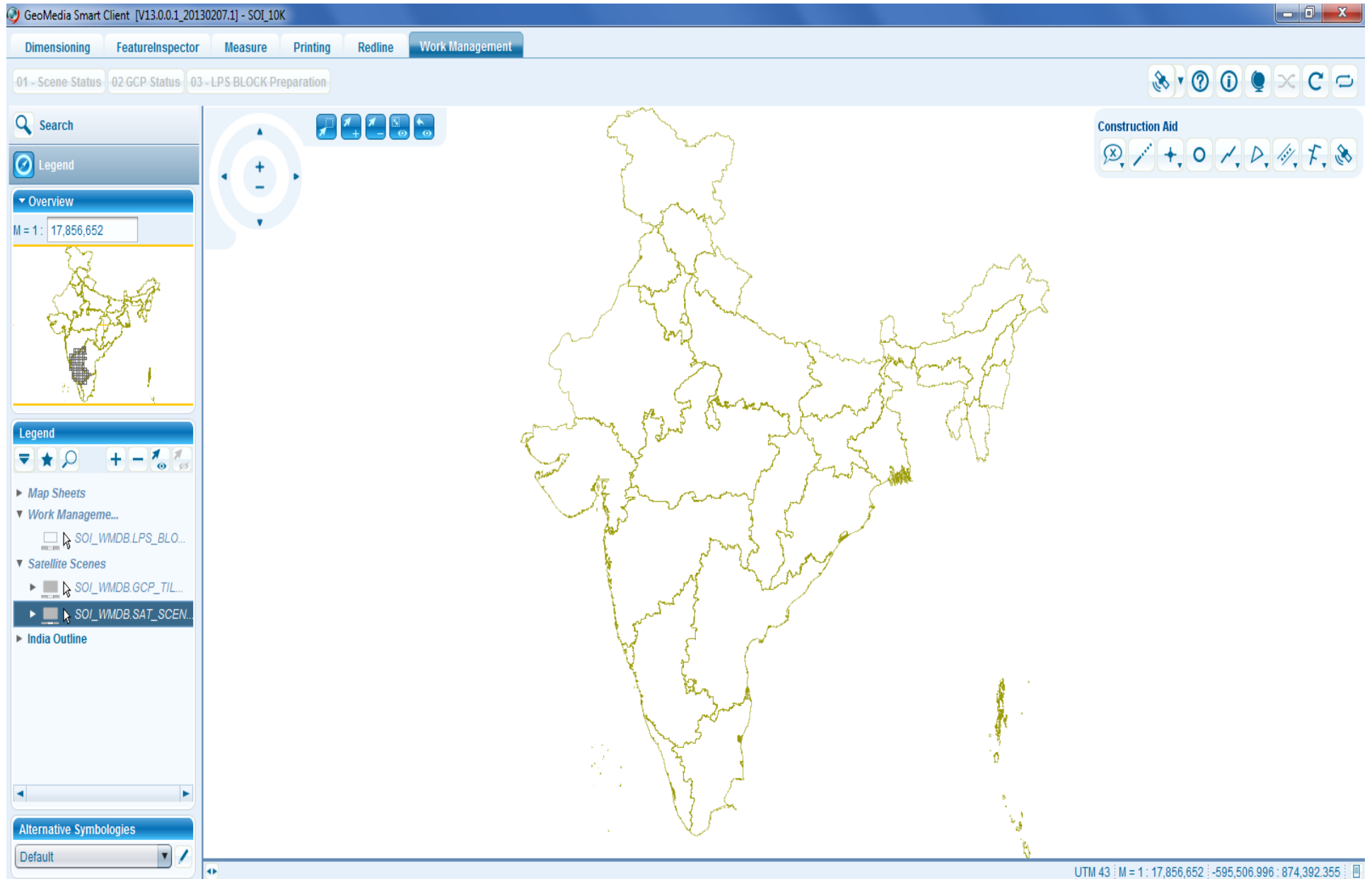


actionable
INFORMATON

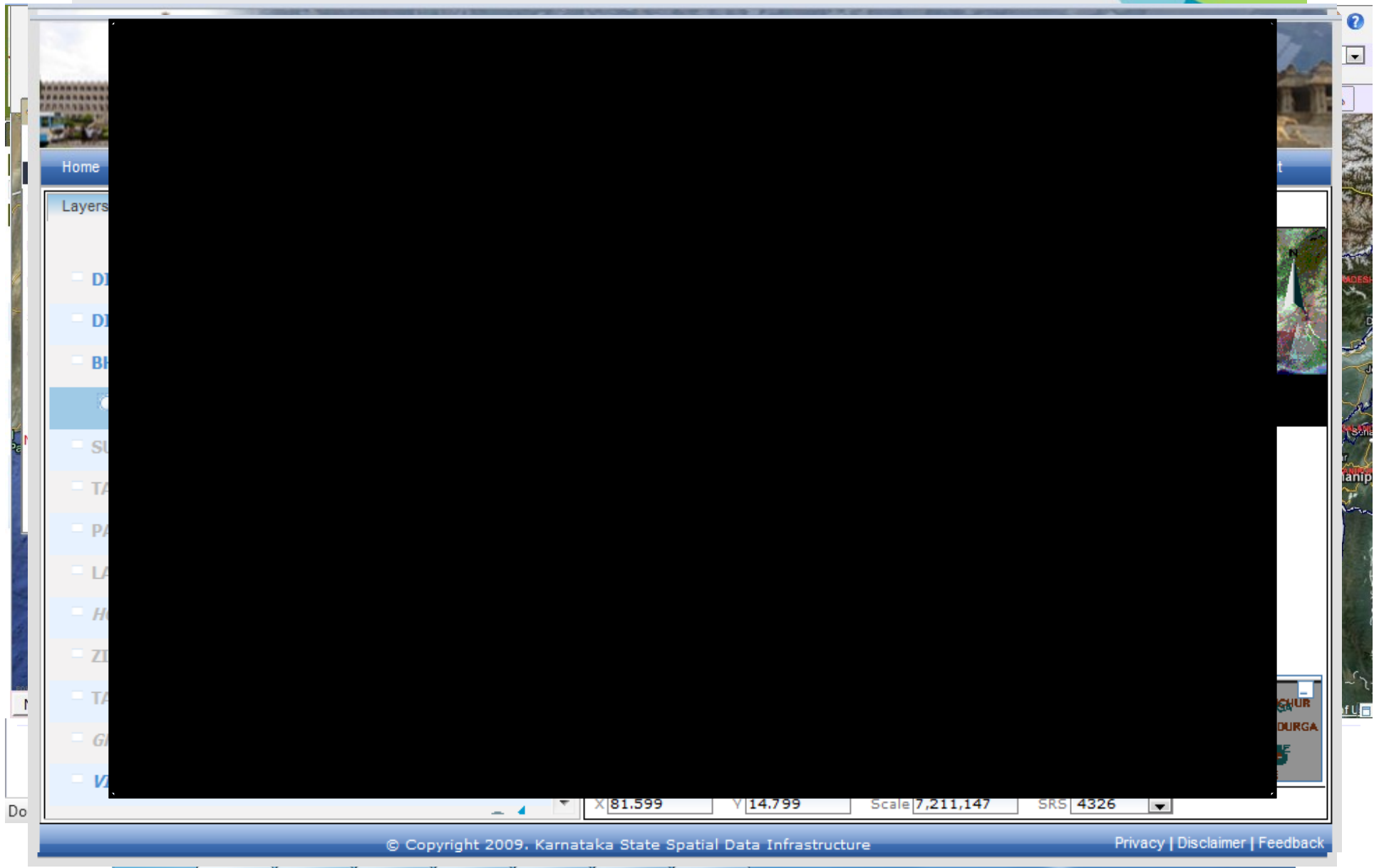
A stylized, light gray background illustration of a city skyline with various skyscrapers and a road with white dashed lines at the bottom.

OGCWO RLD





Hexagon Geospatial OGC and SDI :: India Web Portals



Hexagon Geospatial SaaS Cloud Solutions



Serving 450 municipalities in Austria with 2,500 Intranet user and additional Internet solutions for more than 10 years

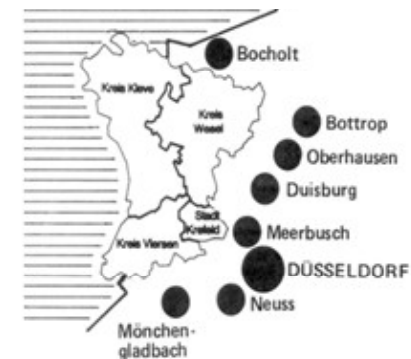
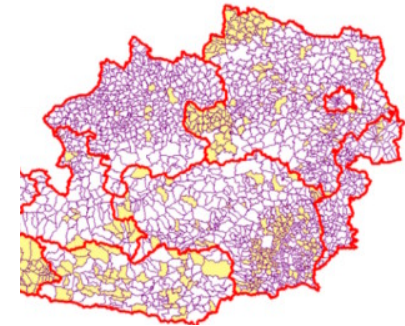


Serving 30 municipal utilities (with several different geospatial apps) and 150 municipalities in southern Germany



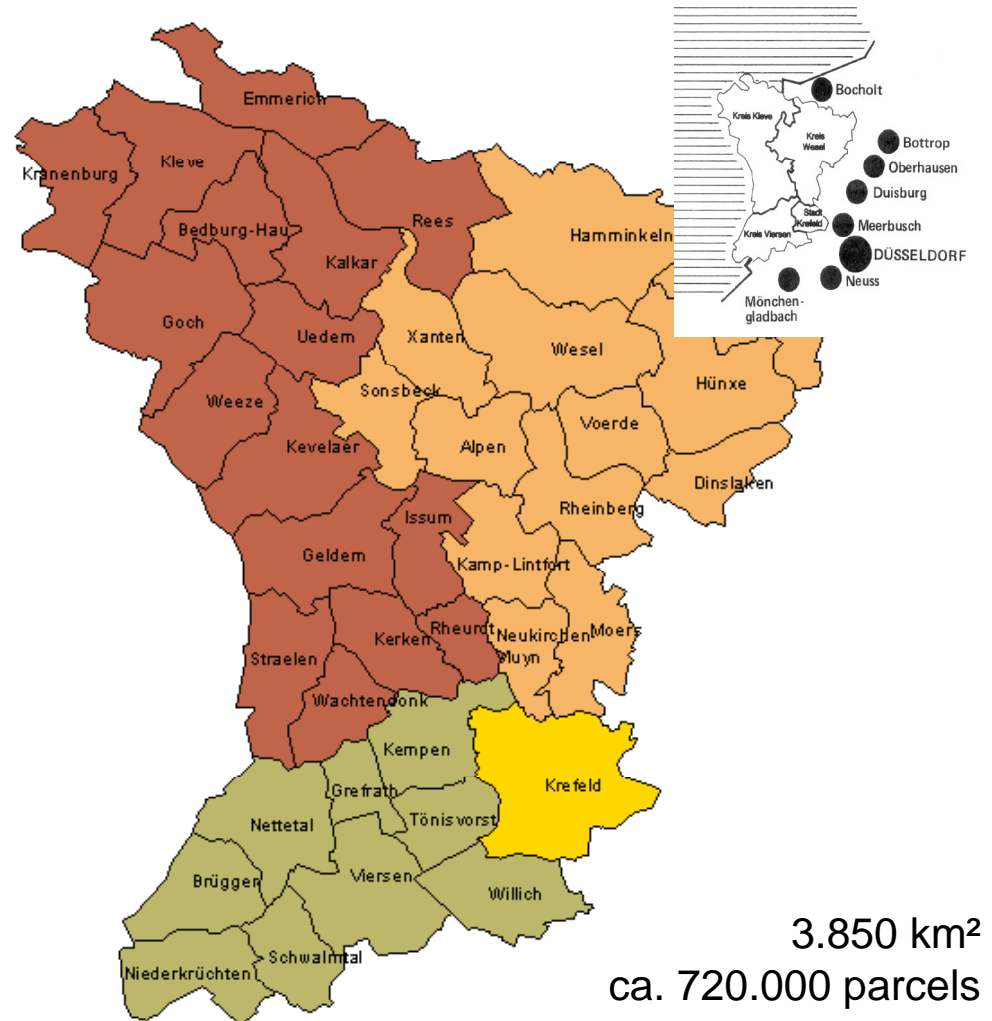
Government Computing Centre

Serving 42 government organizations with 250 Workflows for 750,000 land parcels covering 4,000km² and 1.3 million people in Northwest Germany



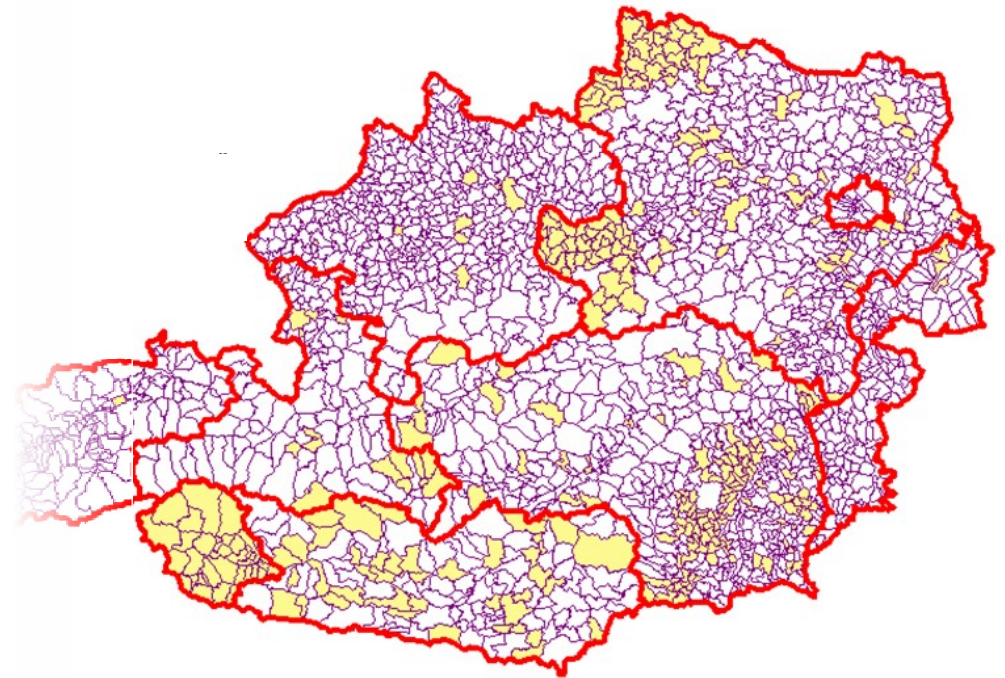
KRZN on the Cloud

- 42 Government organizations joined together.
- Large private cloud implementation.
- Fully government owned
- Over 8000 Smart Client customers.
- 300 GIS Seats



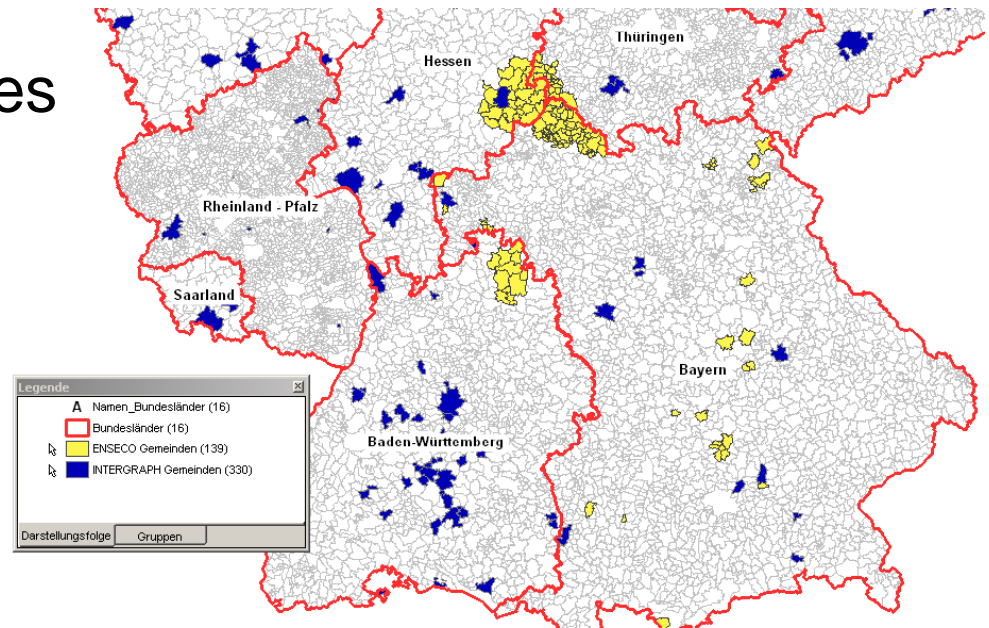
Hexagon Geospatial Cloud Partner :: GISquadrat

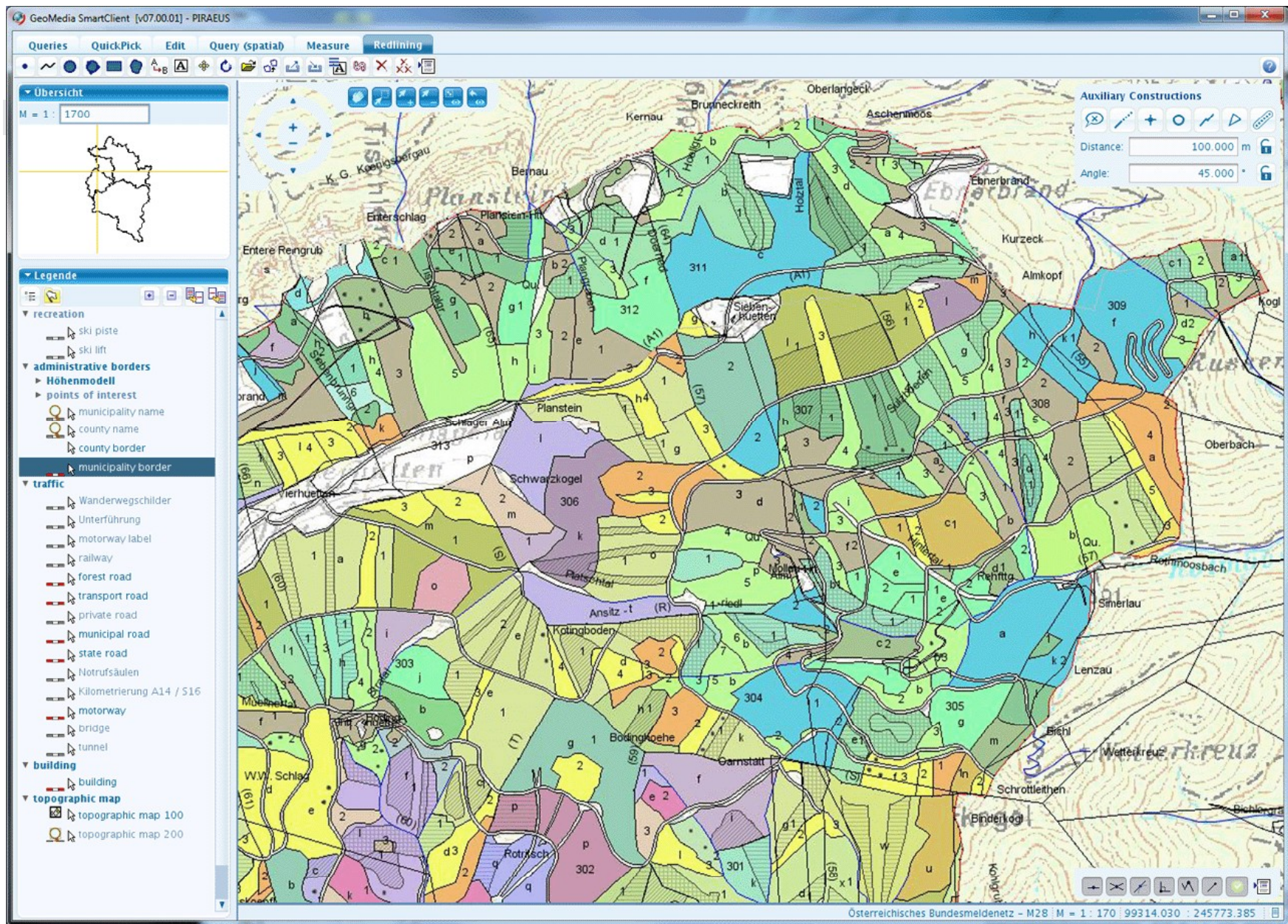
- GISquadrat provides fully integrated GIS desktop and cloud solutions in Austria
- Founded in the year 2000
- Package offering of:
 - Full data management: capture (via partners), prepare, update, ...
 - GIS SW - client support
 - SaaS incl. hosting (via Intergraph)
 - Services (consulting, training, maintenance, ...)
- Market share ~ 20% managing 480 communities (2.357 total)

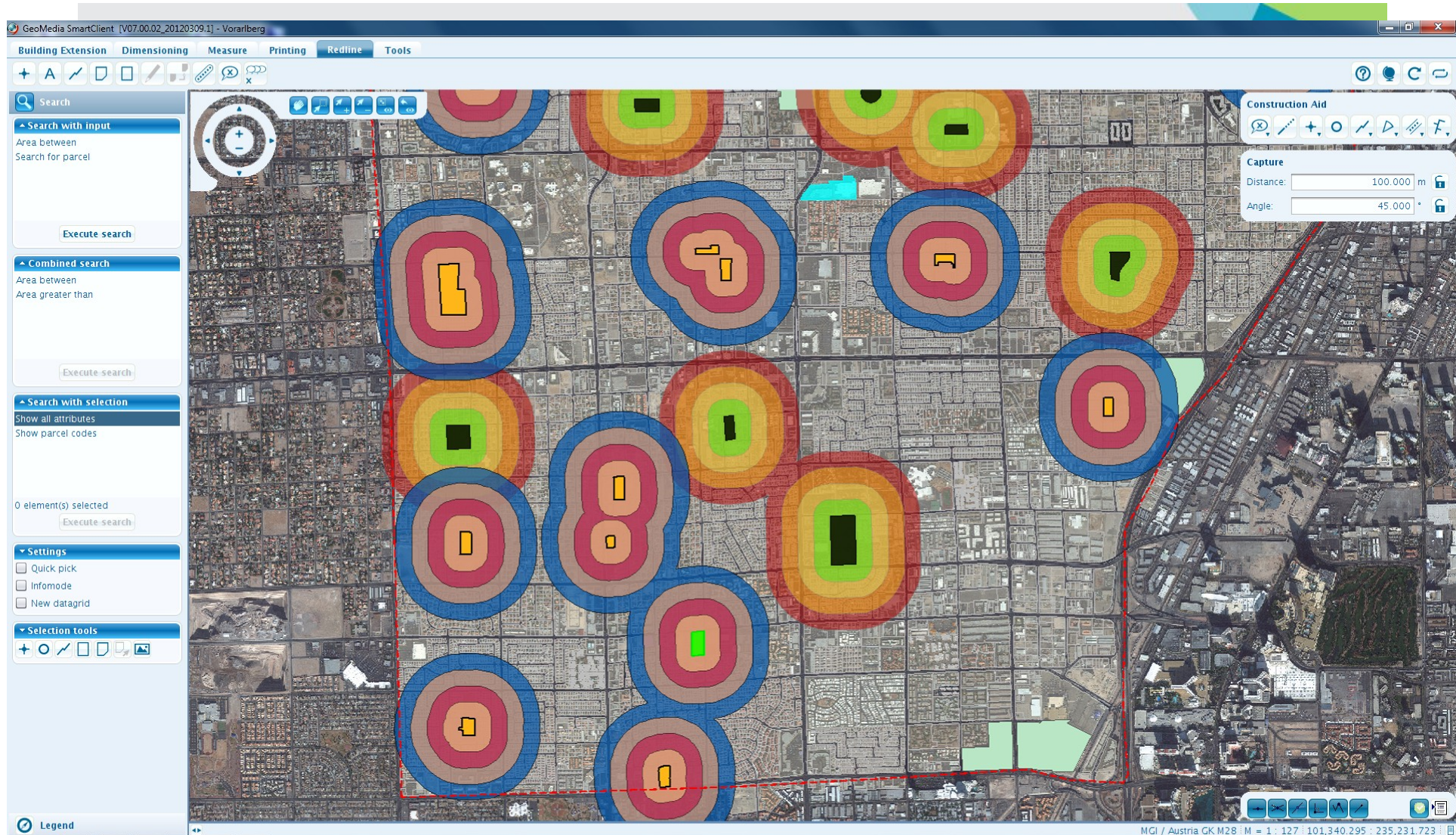


Hexagon Geospatial Cloud Partner :: r/d/e

- ~ 140 customers of municipalities or small utilities in Bavaria, Germany
- The complete SaaS Cloud solution (Intergraph GeoMedia Smart Client)



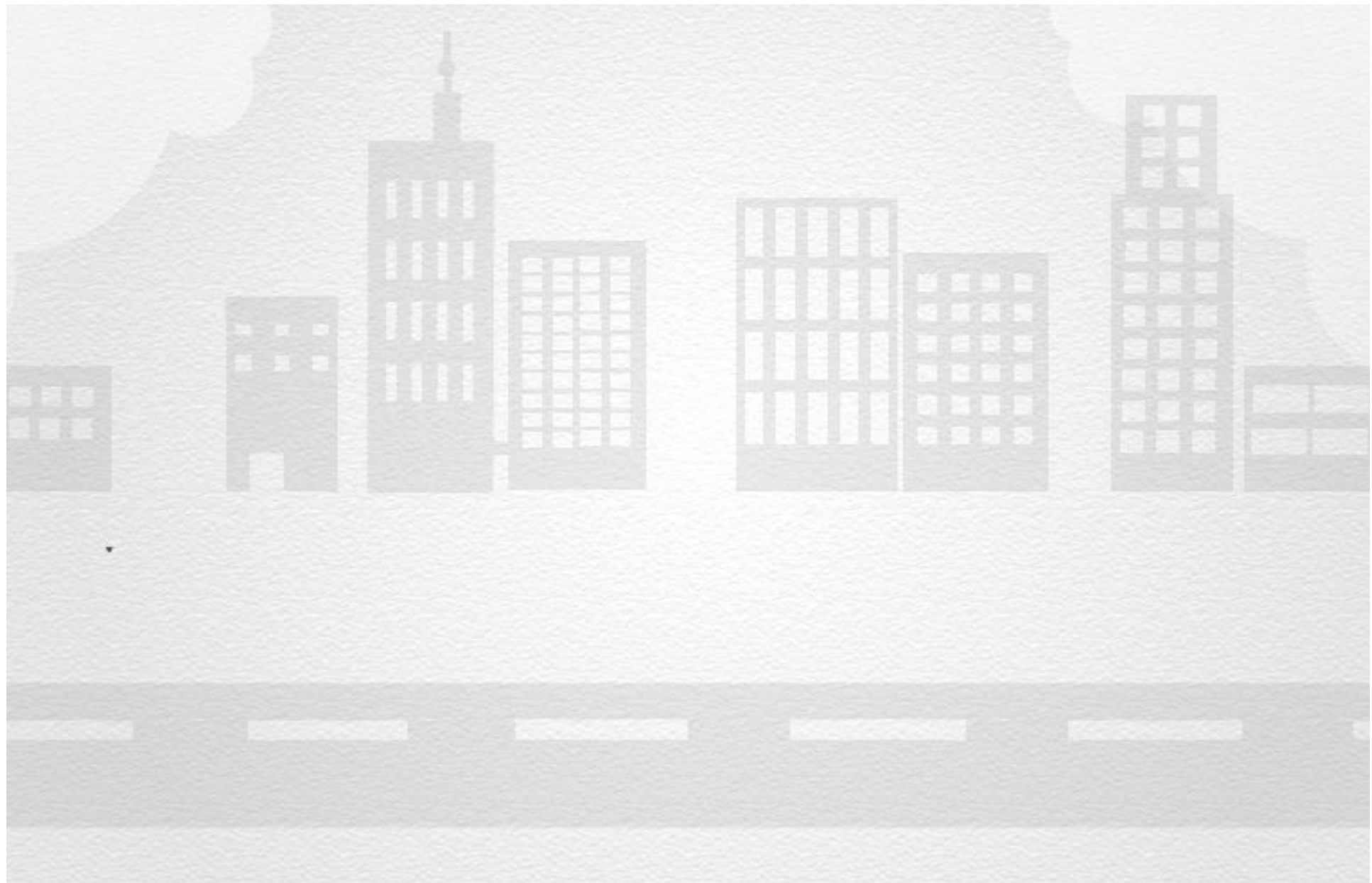


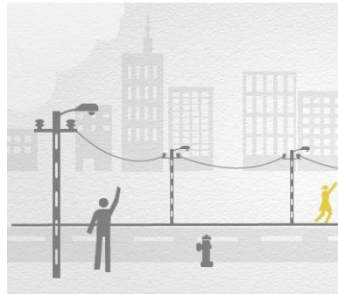
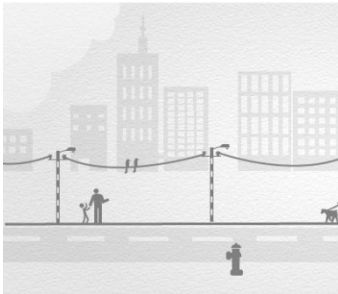


The screenshot displays the Geospatial Portal interface. At the top, there's a header with the title 'Geospatial Portal' and the 'INTERGRAPH' logo. Below the header, a sidebar on the left contains a 'Map Content' panel with a list of layers: World Map, Ocean features, Airports, Spot elevations, Settlements, Cities, Borders, and Trails. Below this list are three buttons labeled 'Search geographic names', 'Map Content', and 'Map Content'. The main area of the interface is a large map of the world, centered on the Atlantic Ocean. Above the map, there's a toolbar with icons for various functions like zooming, panning, and measuring. Below the toolbar, there's a circular navigation control with a crosshair. The map itself shows a satellite view of the world, with a white crosshair indicating the current location.

3D Data - CityGMI







MOBILITY ENVIRONMENT WATER

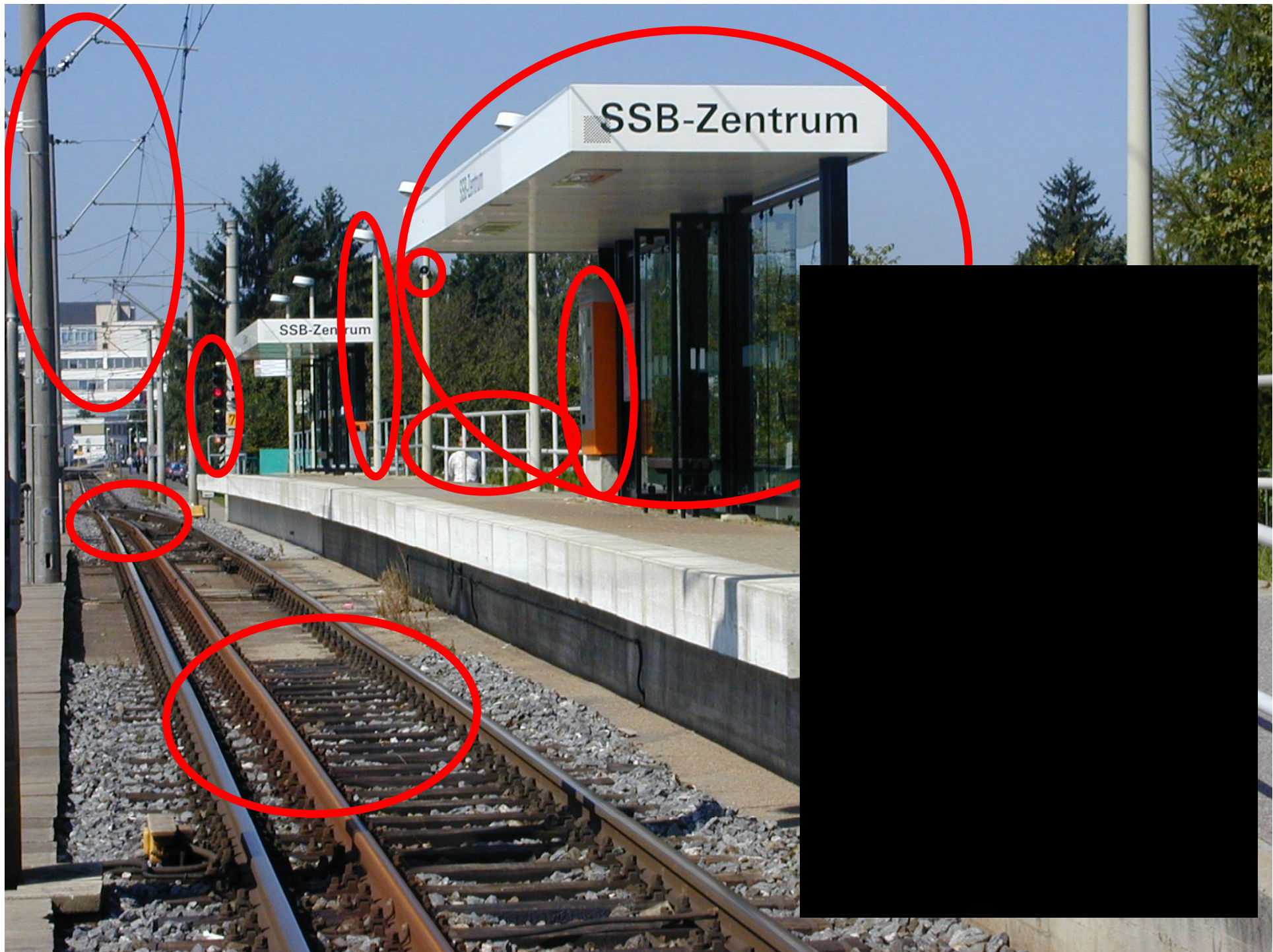
PUBLIC INFO & SOCIAL MONITORING
ENGAGEMENT RING

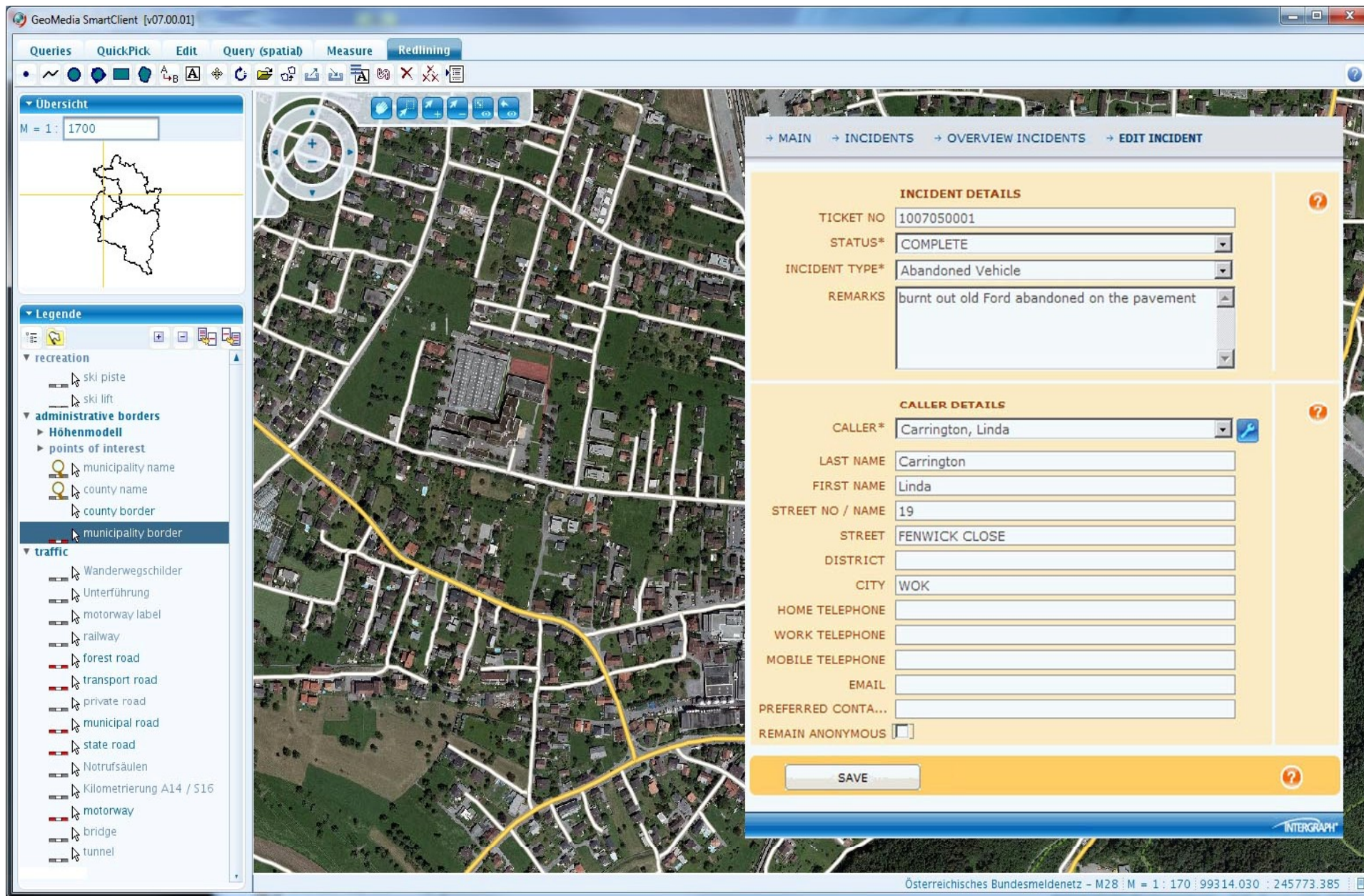
ENERGY INFRASTRUCTURE

EMERGENCY &
SECURITY

SMARTMOBILITY







CITYPORTALS



- ☒ Circulacion
- ☐ Transportation
- ☐ Parking place
- ☒ Google Maps
- ☐ Bing Maps
- ☒ Cartography_Bilbao

Plaza Museo

Watch other video cameras

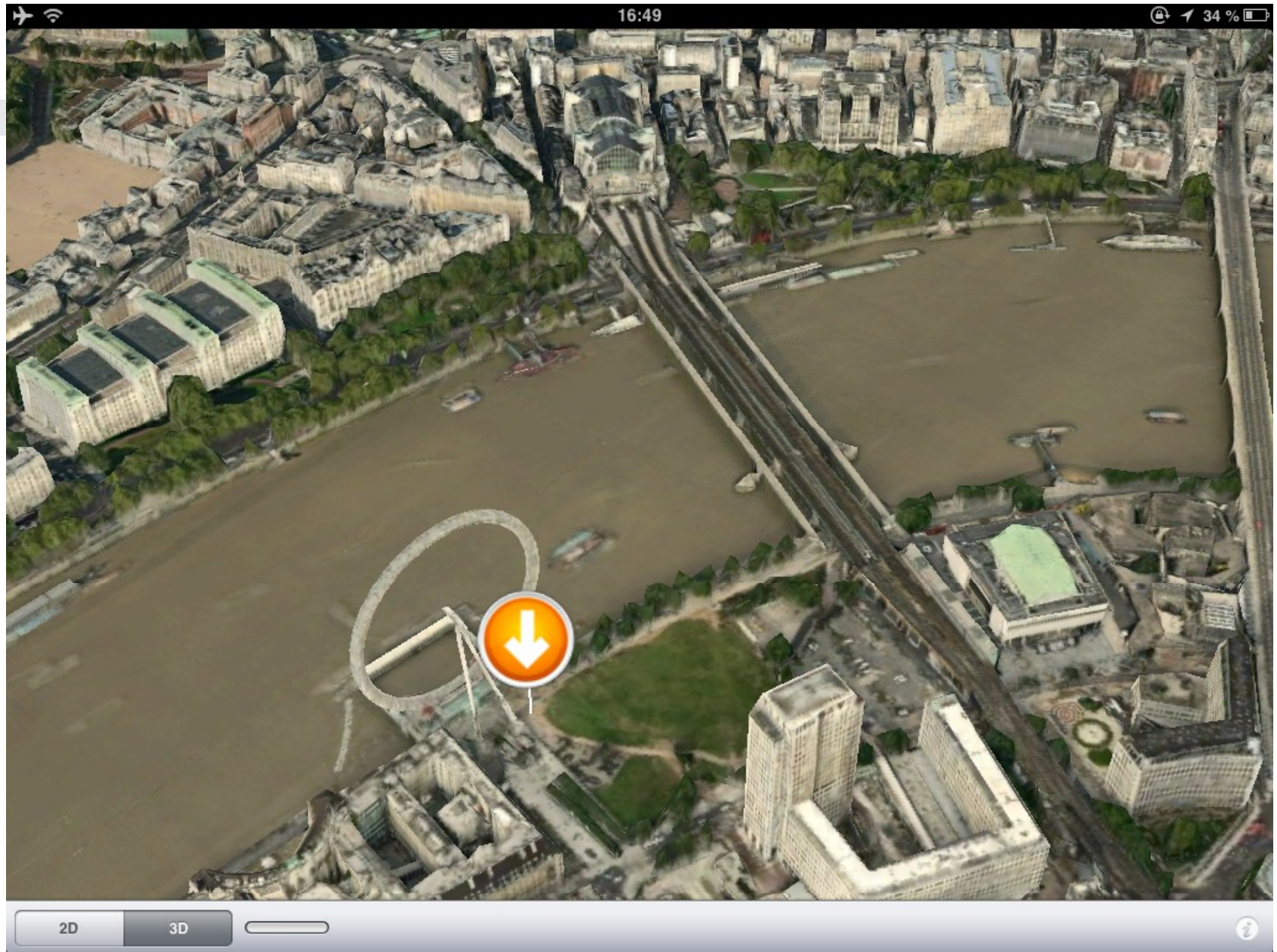


N: 43°15'54.98" E: -2°55'57.59"


Imagery ©2011 DigitalGlobe, Eusko Jaurlariza - Gobierno Vasco, GeoEye - Terms of Use

0 90 180 m

ABANDO



✈️ 📶
16:49
📍 34 % 🔋




London Eye

From Wikipedia, the free encyclopedia

The **London Eye** is a giant Ferris wheel situated on the banks of the River Thames in London, England. The entire structure is 135 metres (443 ft) tall and the wheel has a diameter of 120 metres (394 ft).

It is the tallest Ferris wheel in Europe, and the most popular paid tourist attraction in the United Kingdom, visited by over 3.5 million people annually.^[4] When erected in 1999 it was the tallest Ferris wheel in the world, until surpassed first by the 160 m (520 ft) Star of Nanchang in 2006 and then the 165 m (541 ft) Singapore Flyer in 2008. Supported by an A-frame on one side only, unlike the taller Nanchang and Singapore wheels, the Eye is described by its operators as "the world's tallest cantilevered observation wheel" [5] It

The London Eye



General information	
Status	Complete
Type	Ferris wheel
Location	South Bank of the River Thames, London Borough of Lambeth
Coordinates	51.5033°N 0.1197°W
Inaugurated	31 December 1999

2D

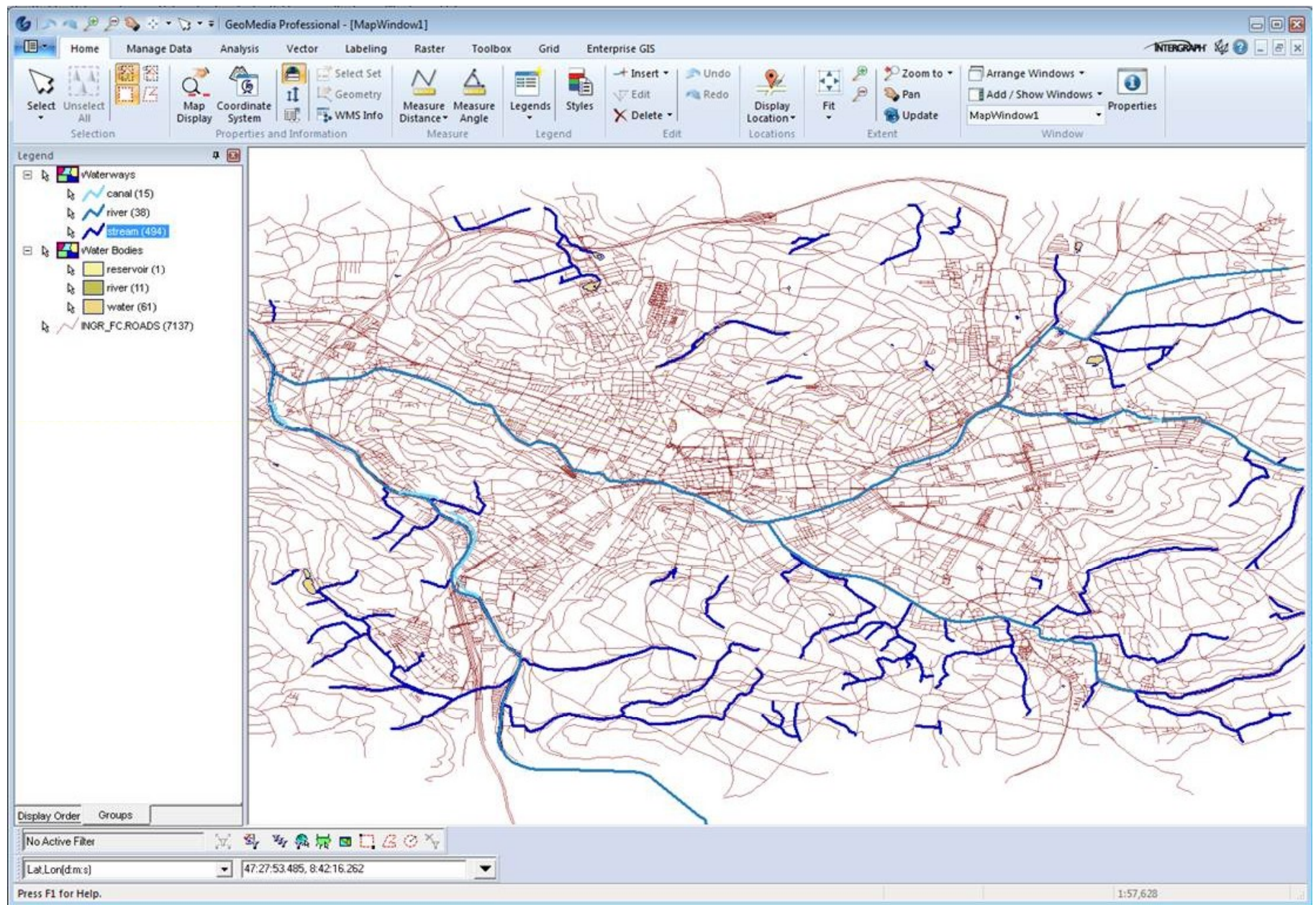
3D

📄

SMARTWATER

Water &







MANAGE ASSETS
DIRECTLY FROM
MOBILE DEVICES:
INSERT, UPDATE
AND DELETE

SMARTMONIT ORING



Hydro Electric Power Station :: Monitoring and Control



**EARLY WARNING
SYSTEMS: QUICK ACTION
IS THE BEST SAFEGUARD
AGAINST DISASTER**



Situational Awareness





CLOUD BASED CITIZEN CROWD SOURCING WITH MOBILE ALERT

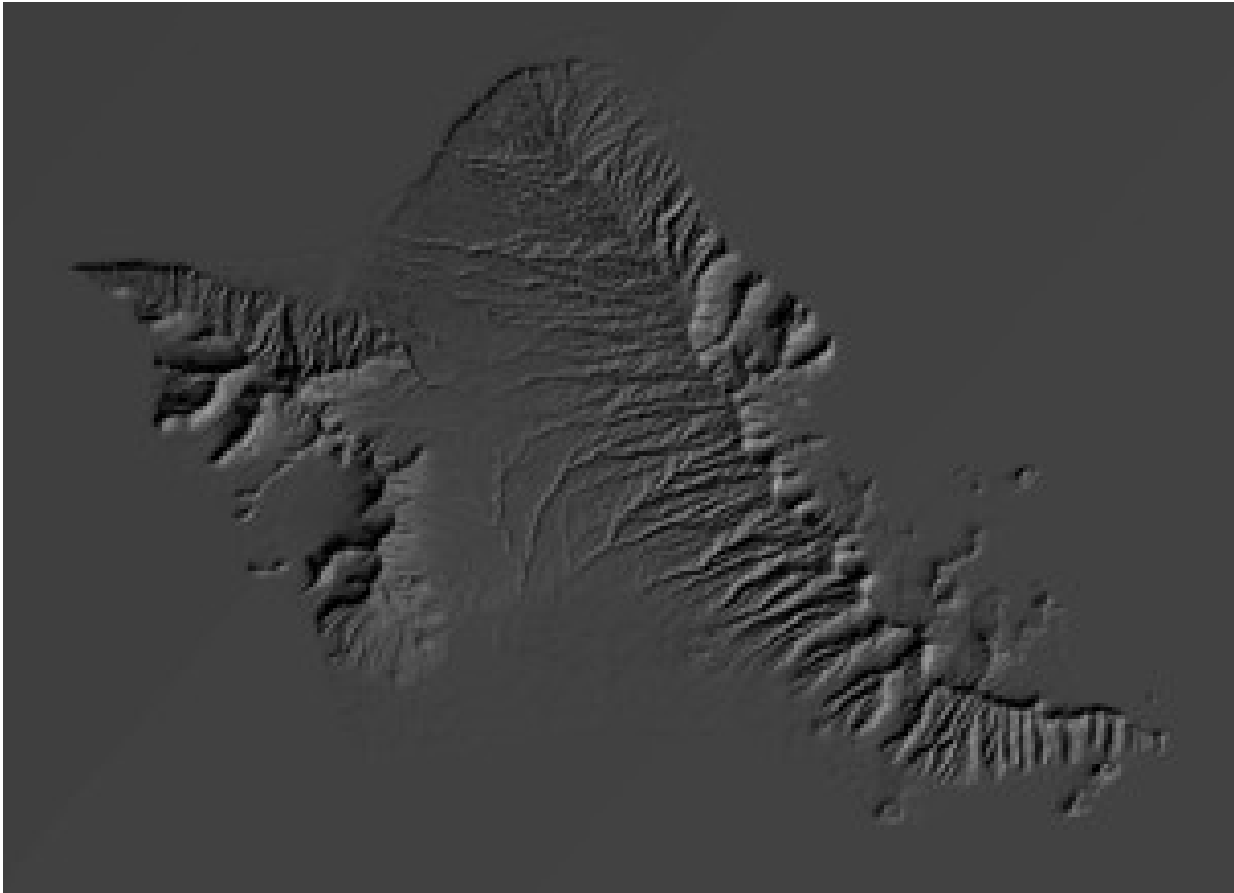
ENVIRON MENT





COLLECT

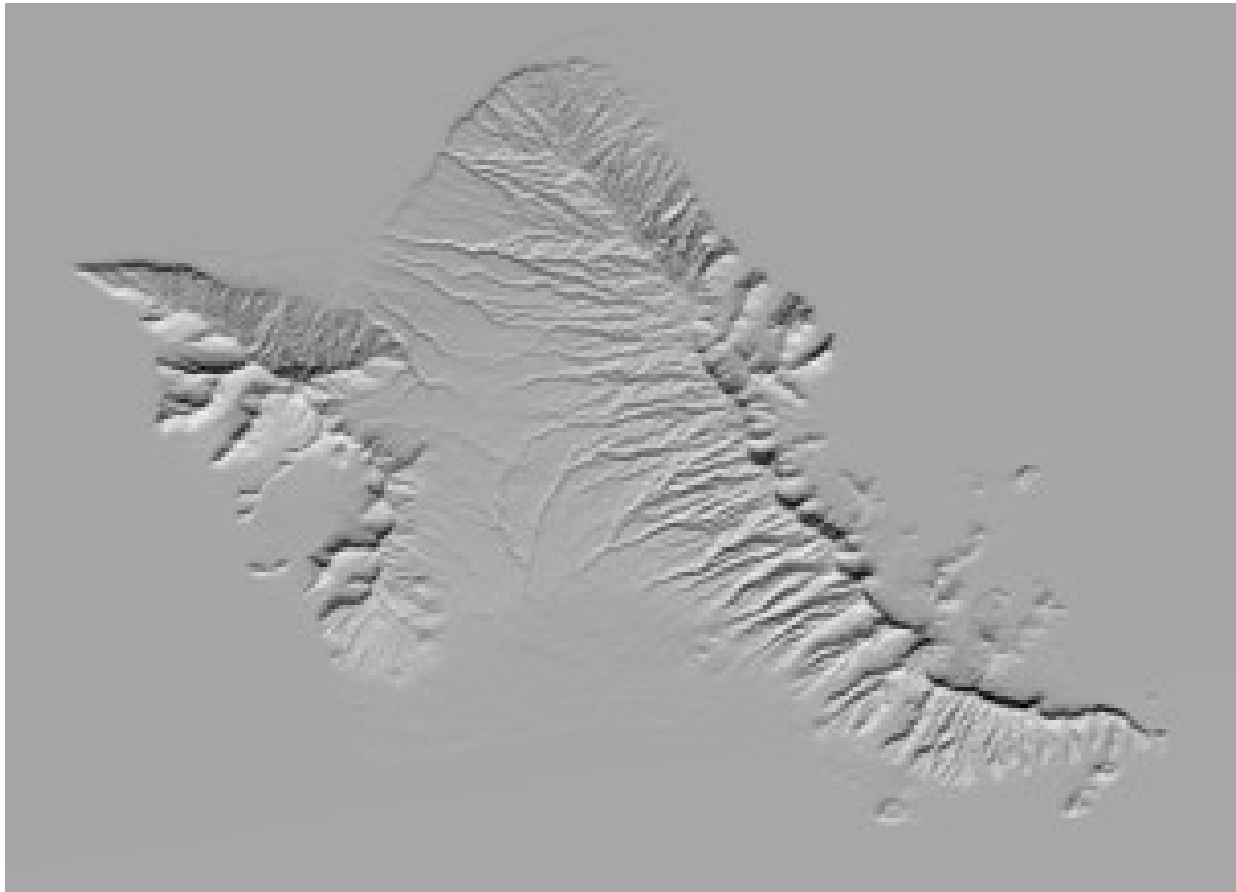
DIGITAL
ELEVATION
MODEL: SITE
FOR SOLAR
POWER
GENERATION



TRANSFORM

SHOW: WATTS
PER SQUARE
METRE DEM

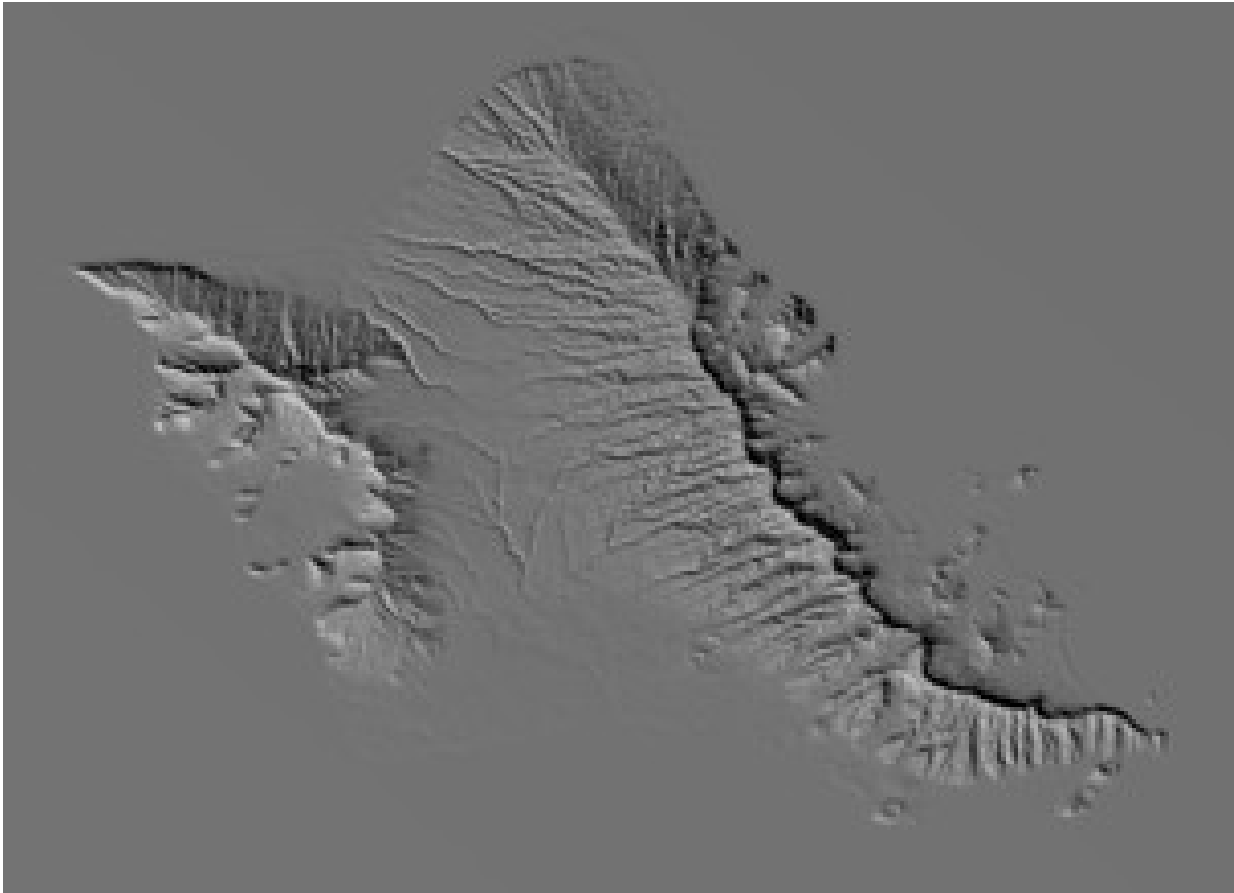
TIME:9AM



TRANSFORM

SHOW: WATTS
PER SQUARE
METRE DEM

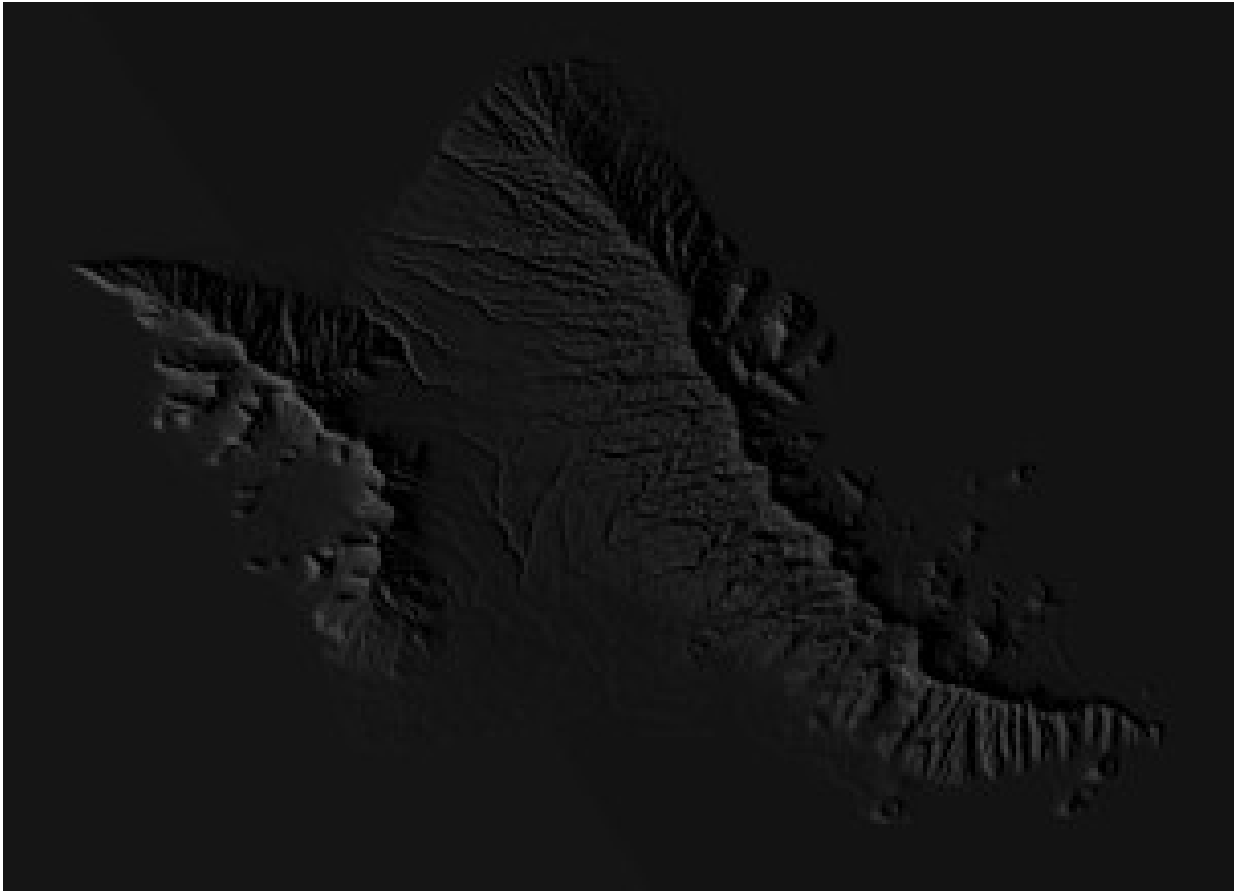
TIME:12PM



TRANSFORM

SHOW: WATTS
PER SQUARE
METRE DEM

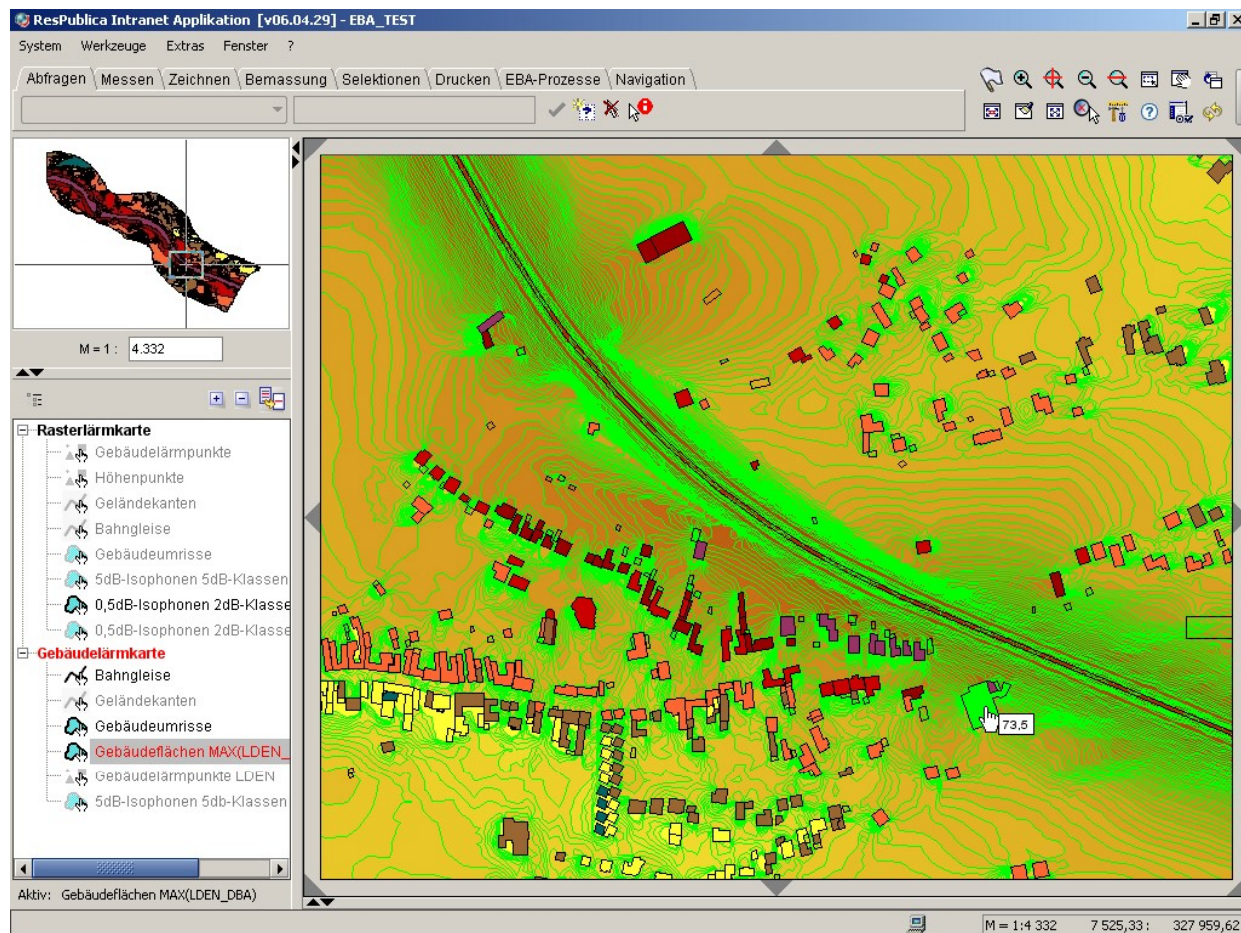
TIME:3PM



TRANSFORM

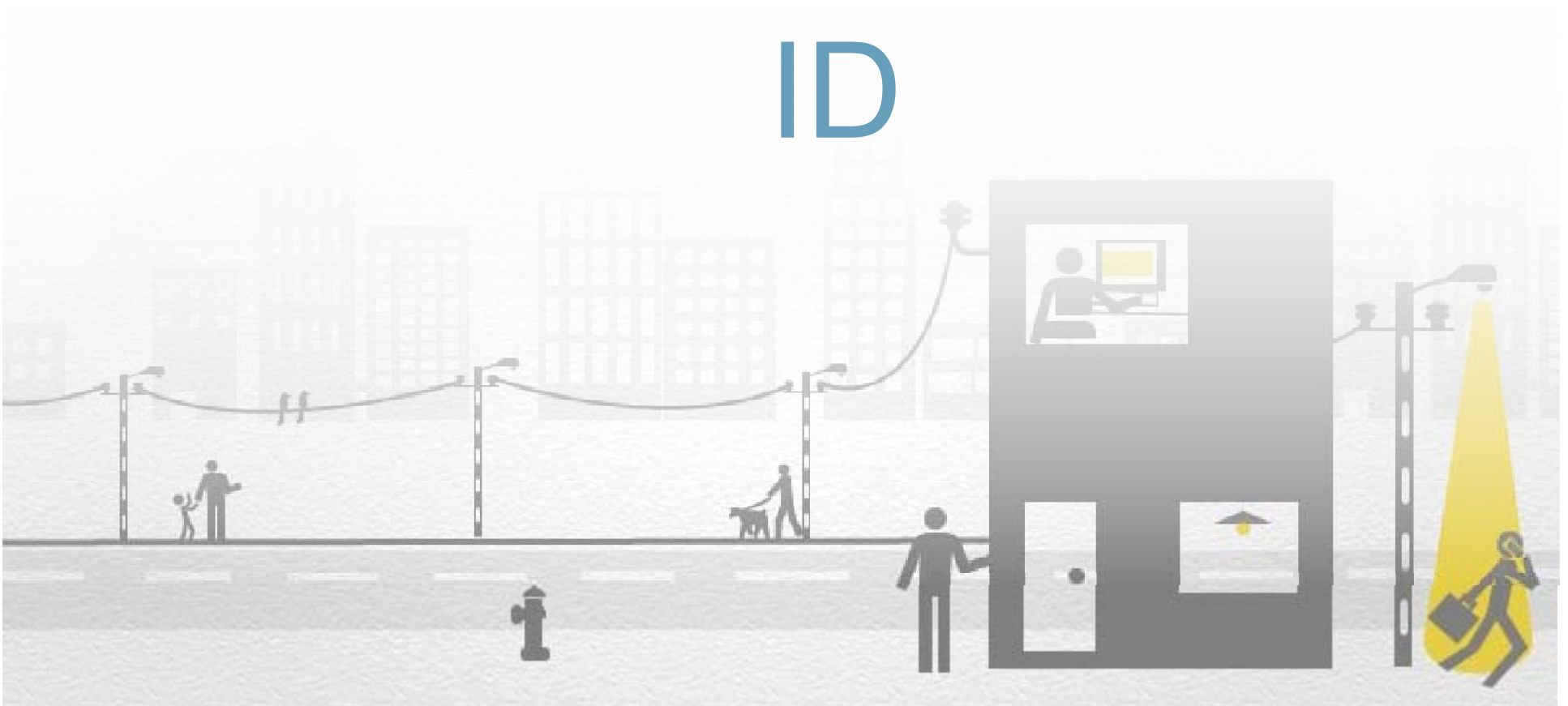
SHOW: WATTS
PER SQUARE
METRE DEM

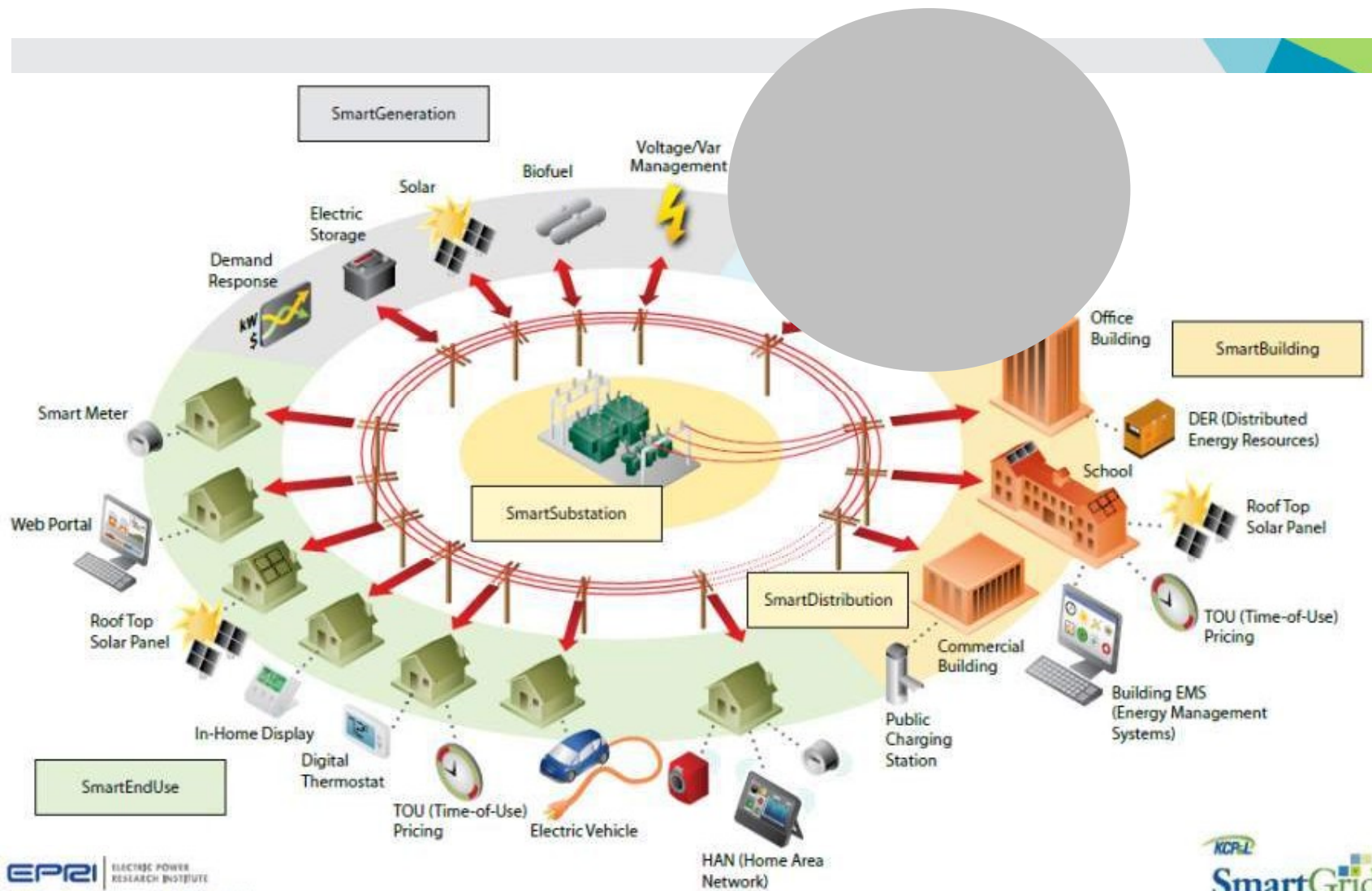
TIME:6PM



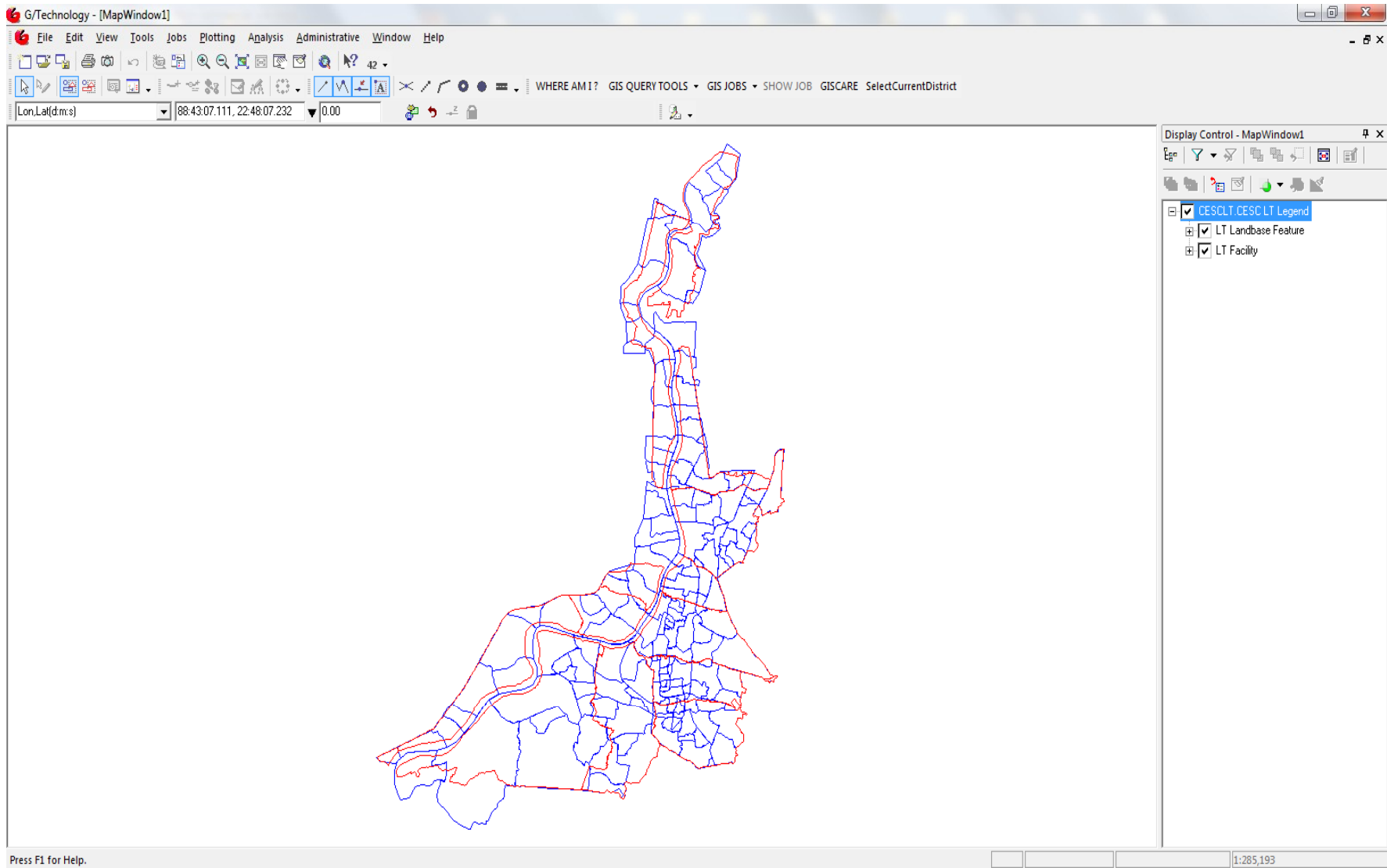
SHOW: BEST
SITES FOR
SOLAR FARM
TO DECISION
MAKER

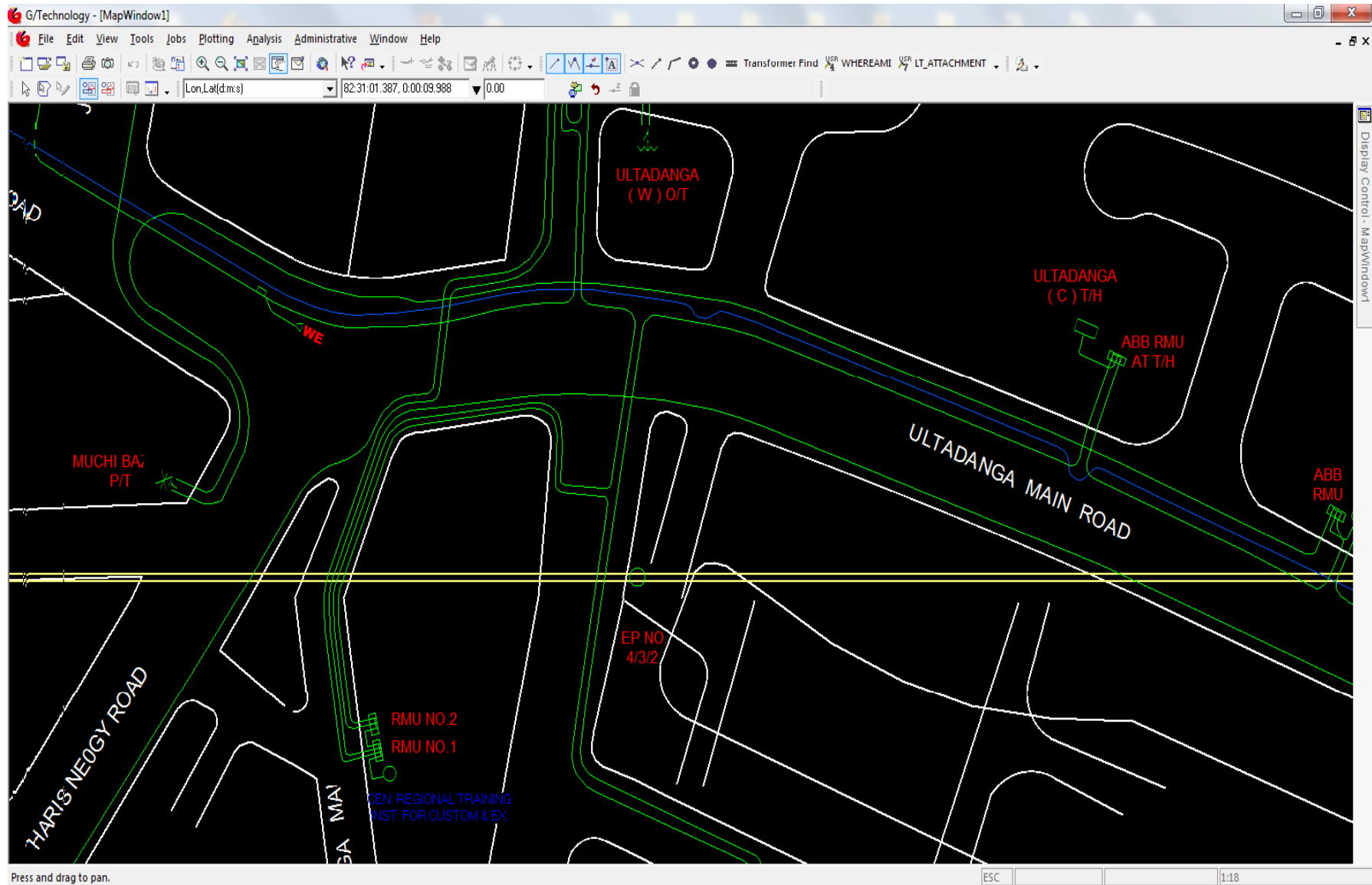
SMARTGR ID

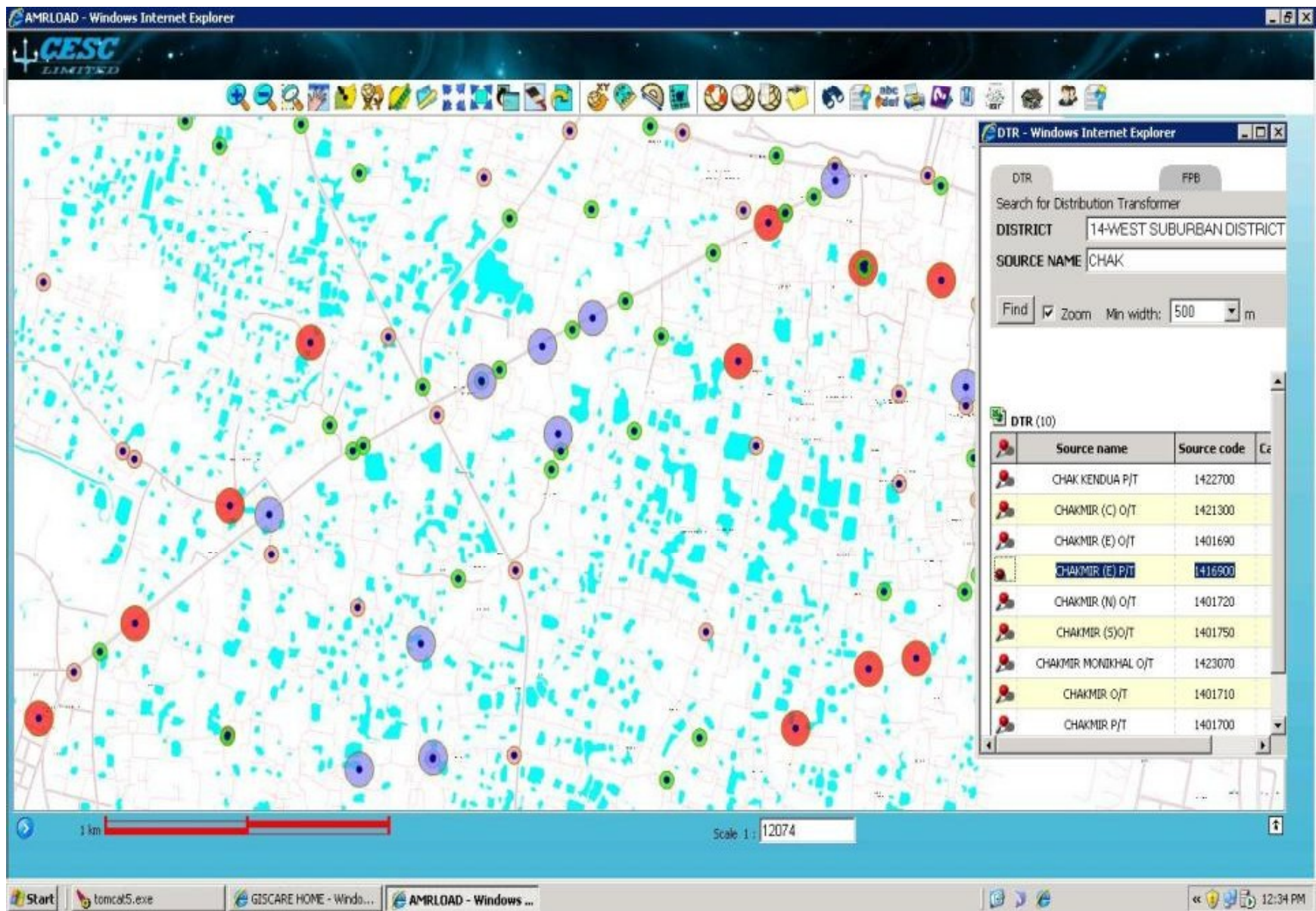




Leveraging the digital information in electric networks to improve decision making and operational efficiency

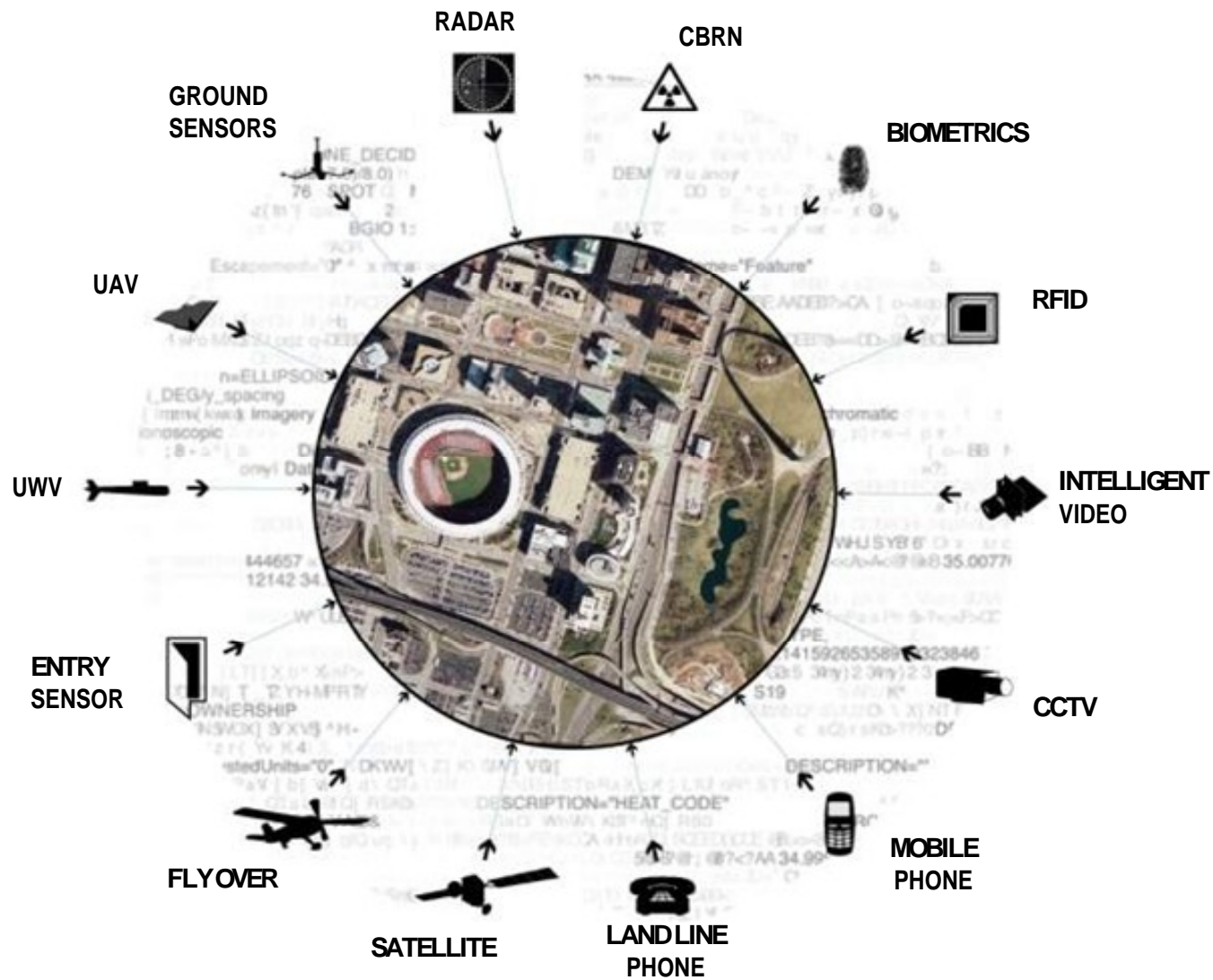




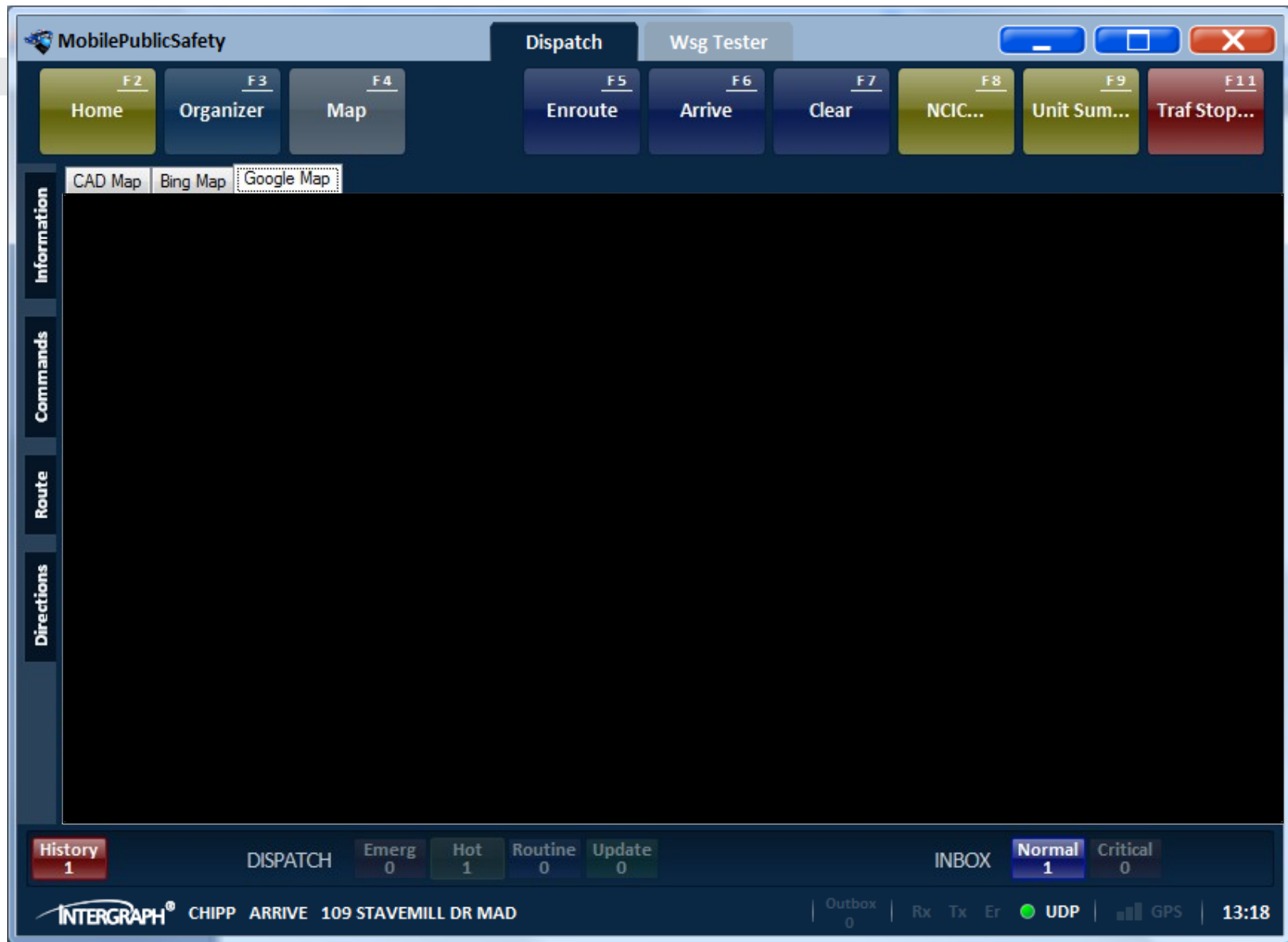


SAFECITY











Organisation

Kalender

Portal

Nachrichten

Karte

AKTUELLE INFORMATION

Aktuelle Einsätze

DATUM	BESCHREIBUNG	NUMMER	STATUS	KARTE
07.05.2010	→ Rheinhochwasser Übung	00023	→ OFFEN	
26.04.-24.05.	→ Strassensperre (Pd-CE/MW)	00023	→ OFFEN	

→ Kalender

KARTE

Einsatzgebiet



ANWENDUNGEN

Office

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint

AAO

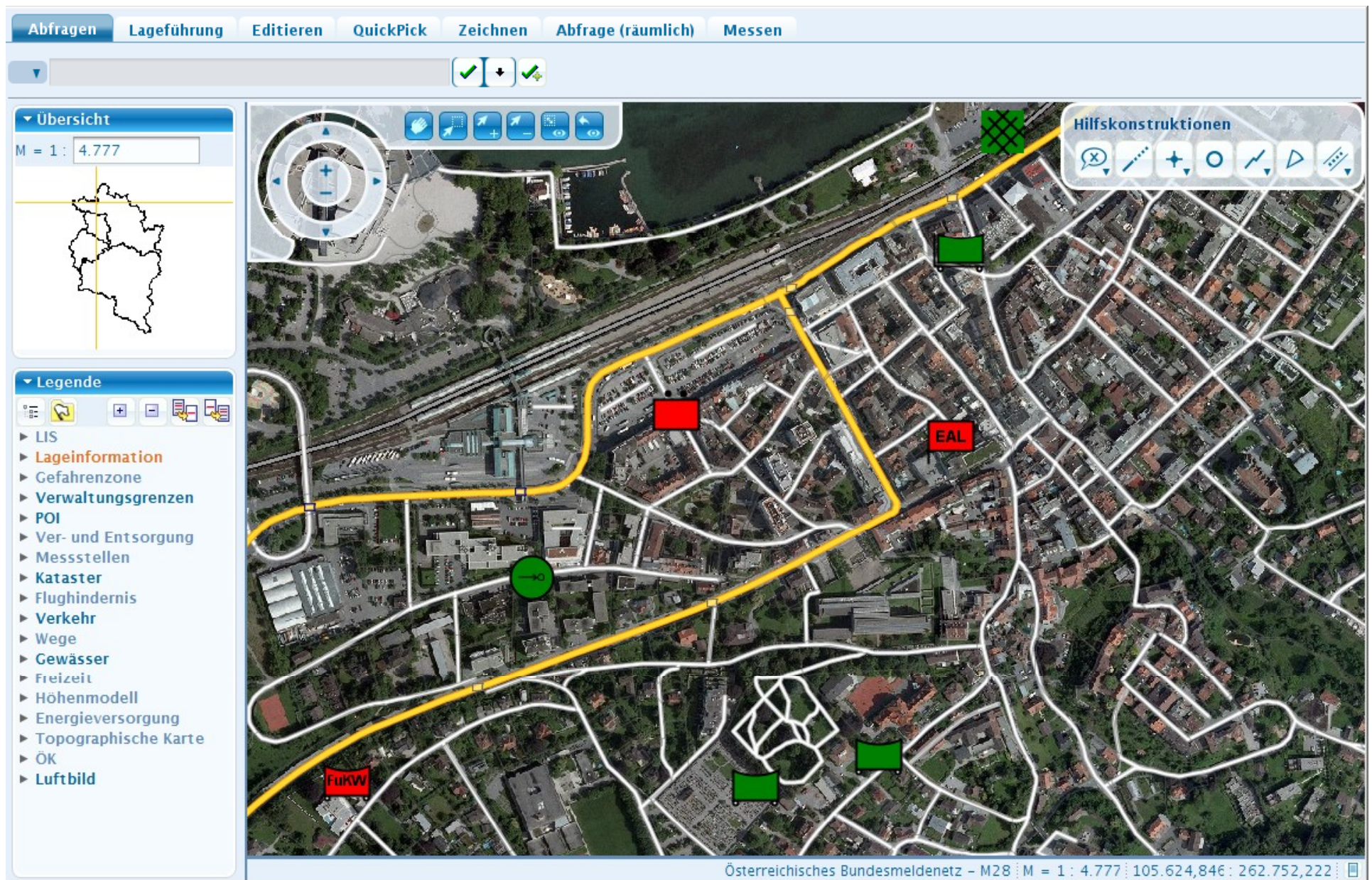
- AAO Dresden
- Einsatzliste
- Lagebericht
- Pressebericht

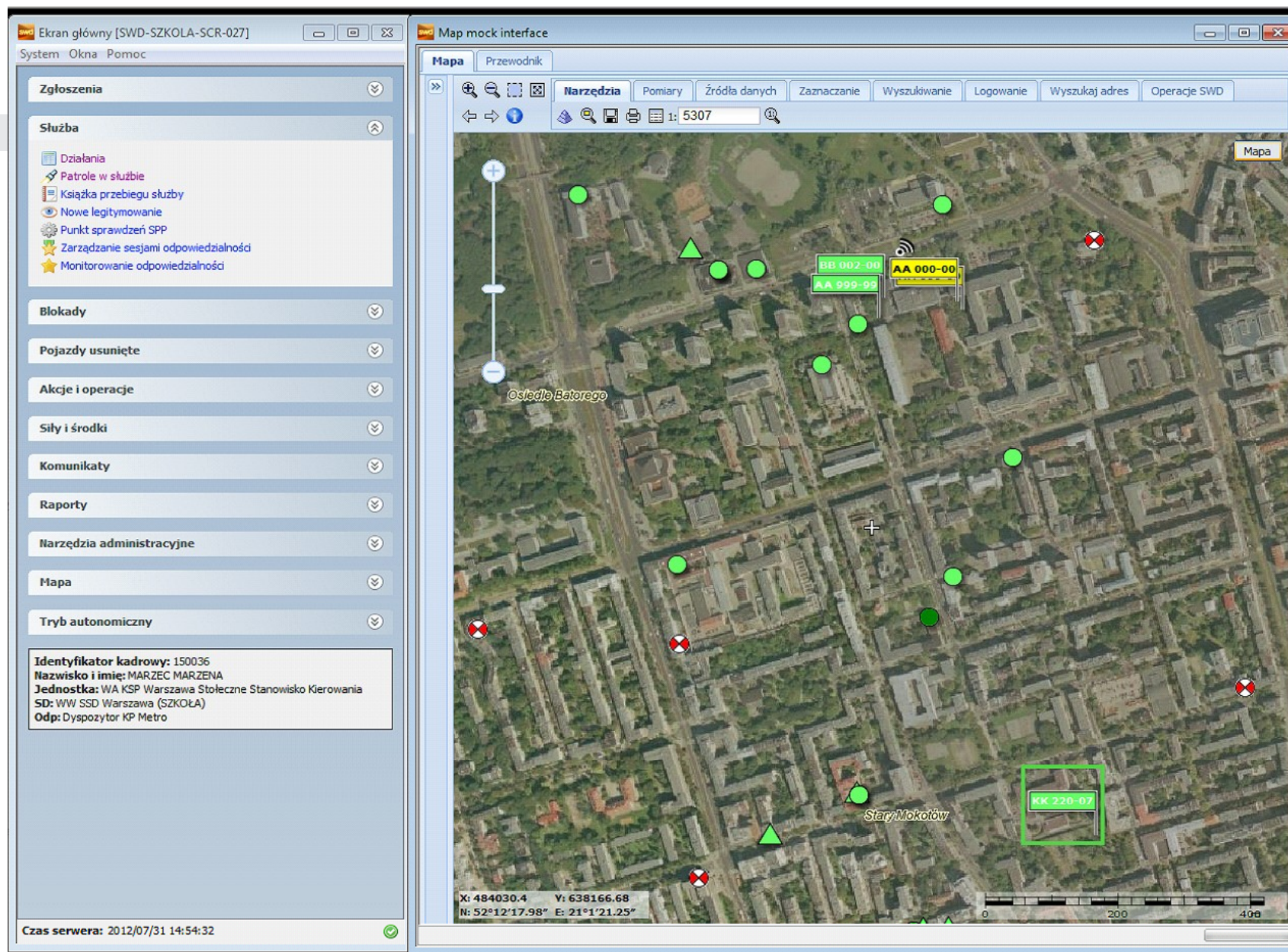
Sonstiges

- Dienstübergabe
- Gewahrsamsbuch
- Abschleppaufträge
- Bestatter
- Dolmetscher

Karten

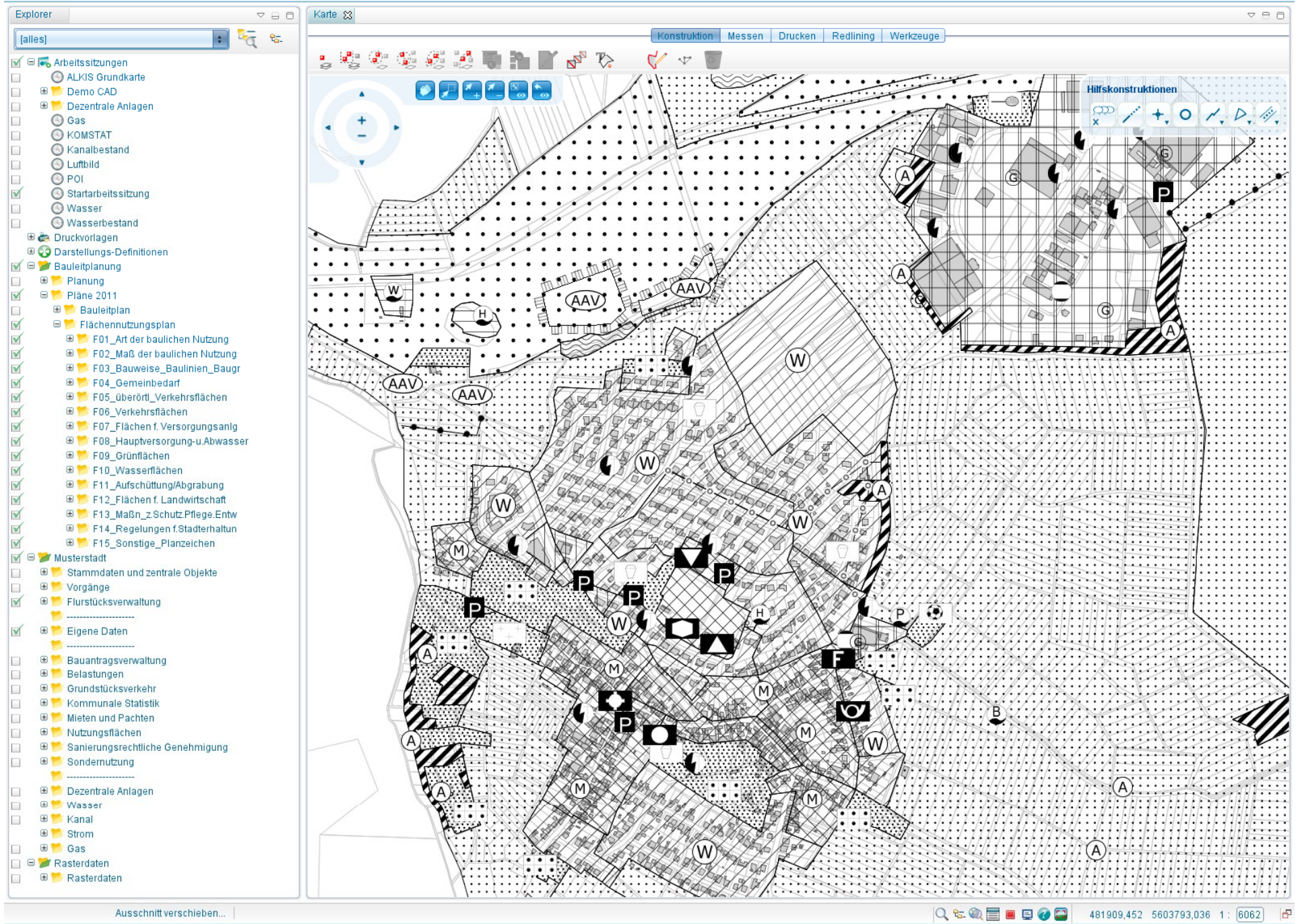
- Luftansicht
- Zeitleiste
- Lage anlegen
- Lagesystem





CITYINFRASTRUCTURE



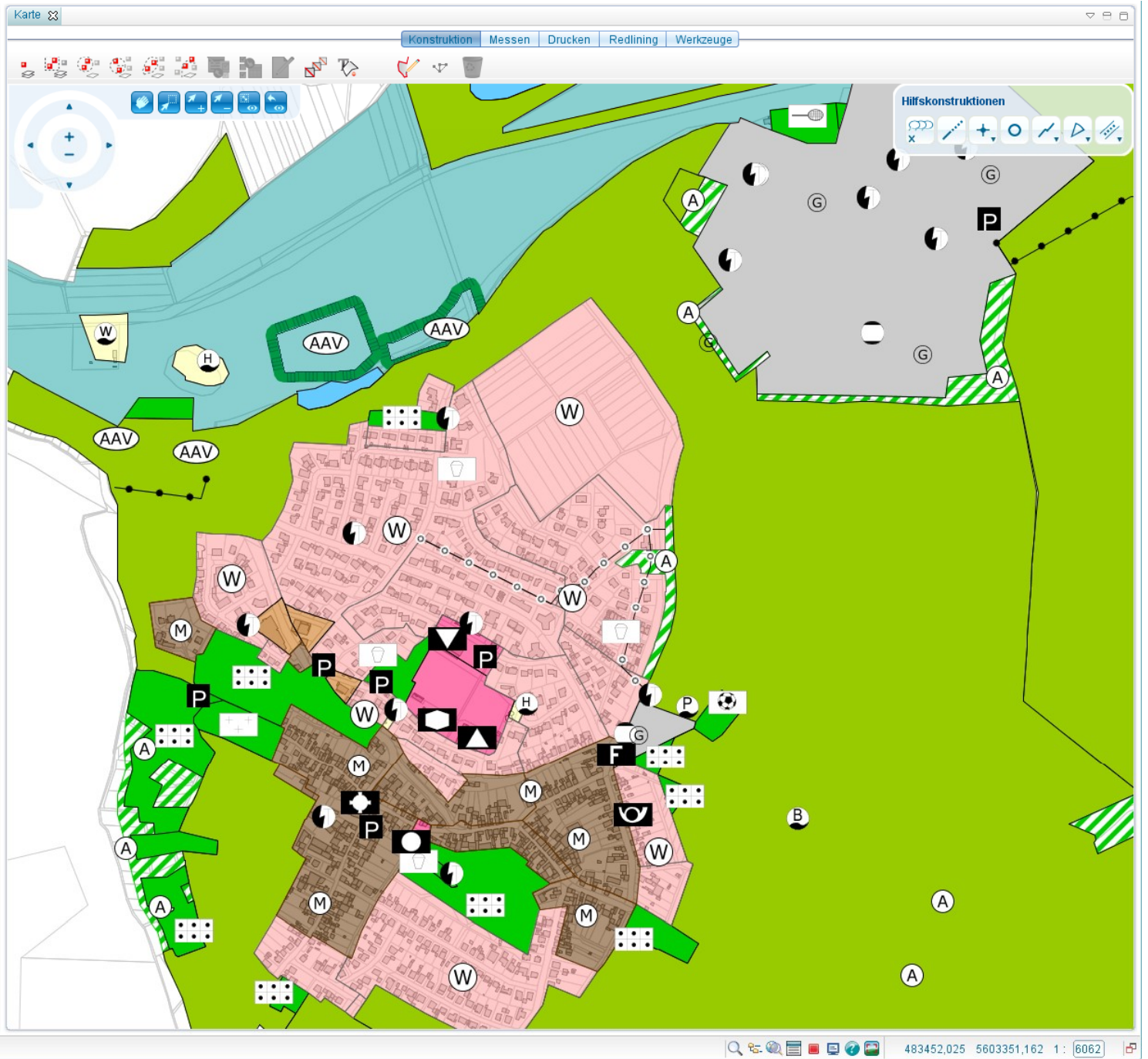


Explorer

[alles]

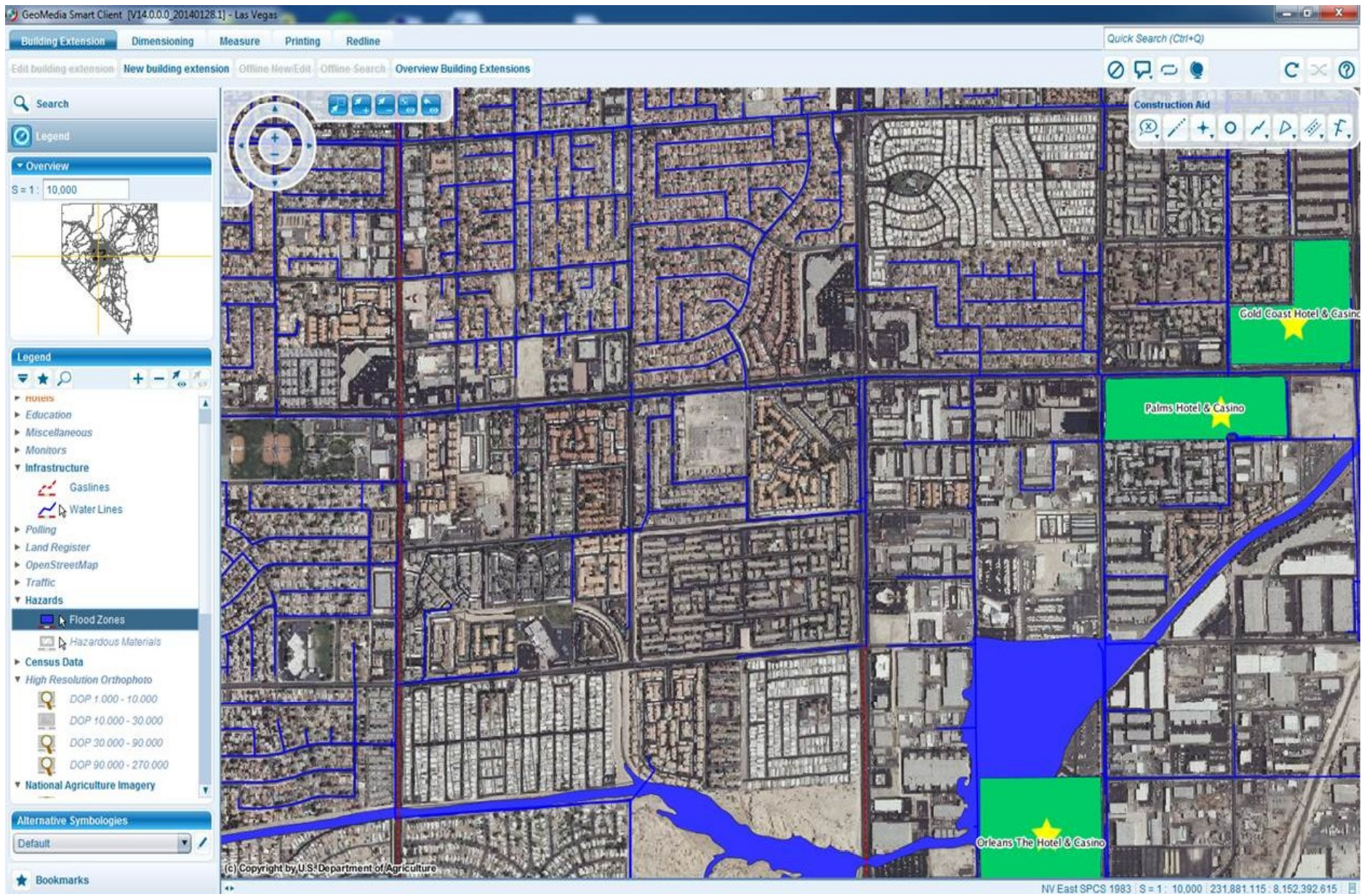
- Arbeitssitzungen
 - ALKIS Grundkarte
 - Demo CAD
 - Dezentrale Anlagen
 - Gas
 - KOMSTAT
 - Kanalbestand
 - Luftbild
 - POI
 - Startarbeitssitzung
 - Wasser
 - Wasserbestand
 - Druckvorlagen
 - Darstellungs-Definitionen
- Bauleitplanung
 - Planung
 - Pläne 2011
 - Bauleitplan
 - Flächennutzungsplan
 - F01_Art der baulichen Nutzung
 - F02_Maß der baulichen Nutzung
 - F03_Bauweise_Baulinien_Baugr
 - F04_Gemeinbedarf
 - F05_überörtl_Verkehrsflächen
 - F06_Verkehrsflächen
 - F07_Flächen f. Versorgungsanlg
 - F08_Hauptversorgung-u.Abwasser
 - F09_Grünflächen
 - F10_Wasserflächen
 - F11_Aufschüttung/Abgrabung
 - F12_Flächen f. Landwirtschaft
 - F13_Maßn_z.Schutz.Pflege.Entw
 - F14_Regelungen f.Stadterhaltung
 - F15_Sonstige_Planzeichen
- Musterstadt
 - Stammdaten und zentrale Objekte
 - Vorgänge
 - Flurstücksverwaltung
- Eigene Daten
 - Bauantragsverwaltung
 - Belastungen
 - Grundstücksverkehr
 - Kommunale Statistik
 - Mieten und Pachten
 - Nutzungsflächen
 - Sanierungsrechtliche Genehmigung
 - Sondernutzung
- Dezentrale Anlagen
 - Wasser
 - Kanal
 - Strom
 - Gas
- Rasterdaten
 - Rasterdaten

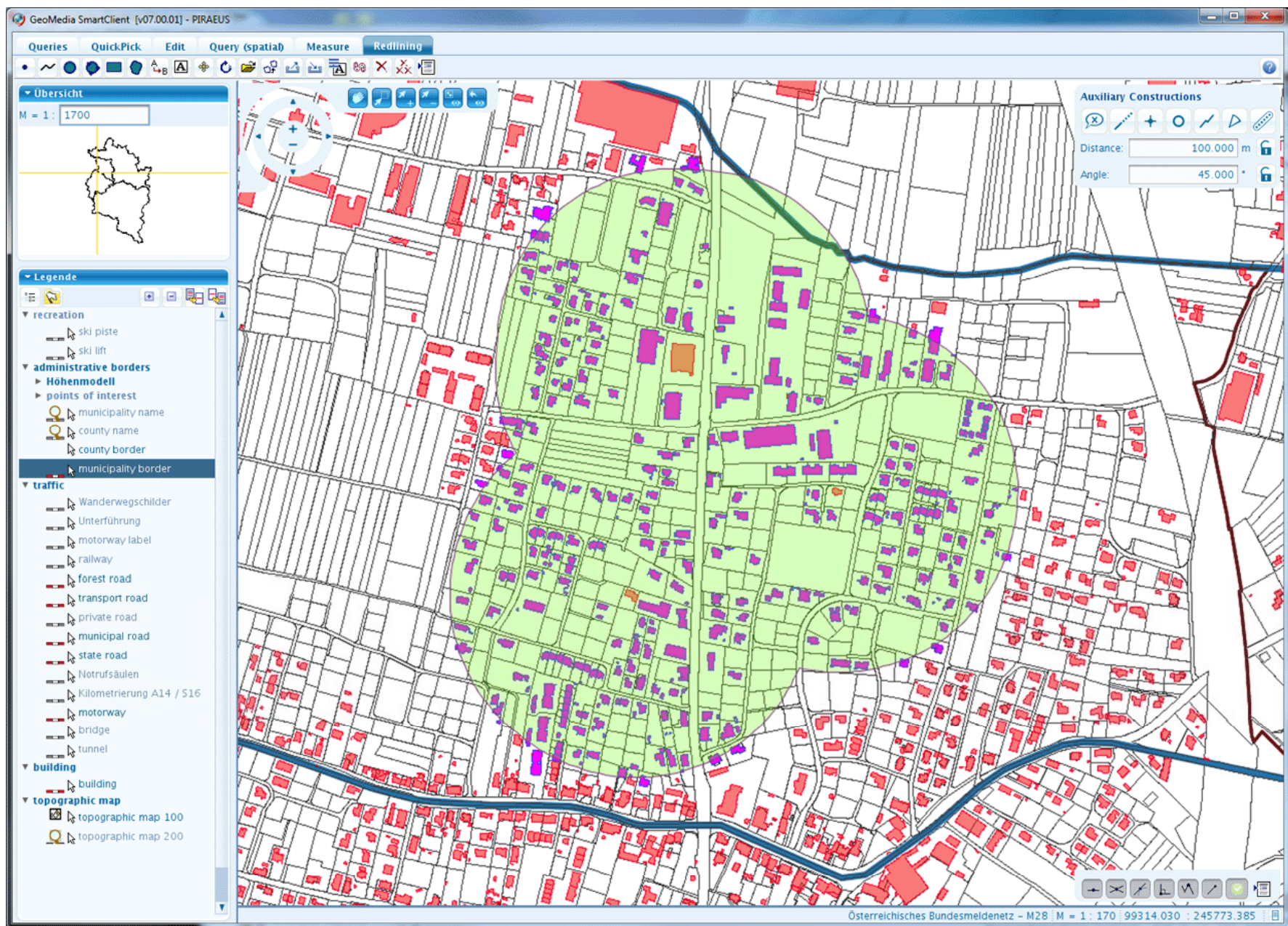
Ausschnitt verschieben...



MANAGE Infrastructure -
Tablet and phone-based
field inspection and
editing app for enterprise
cloud GIS data
management.



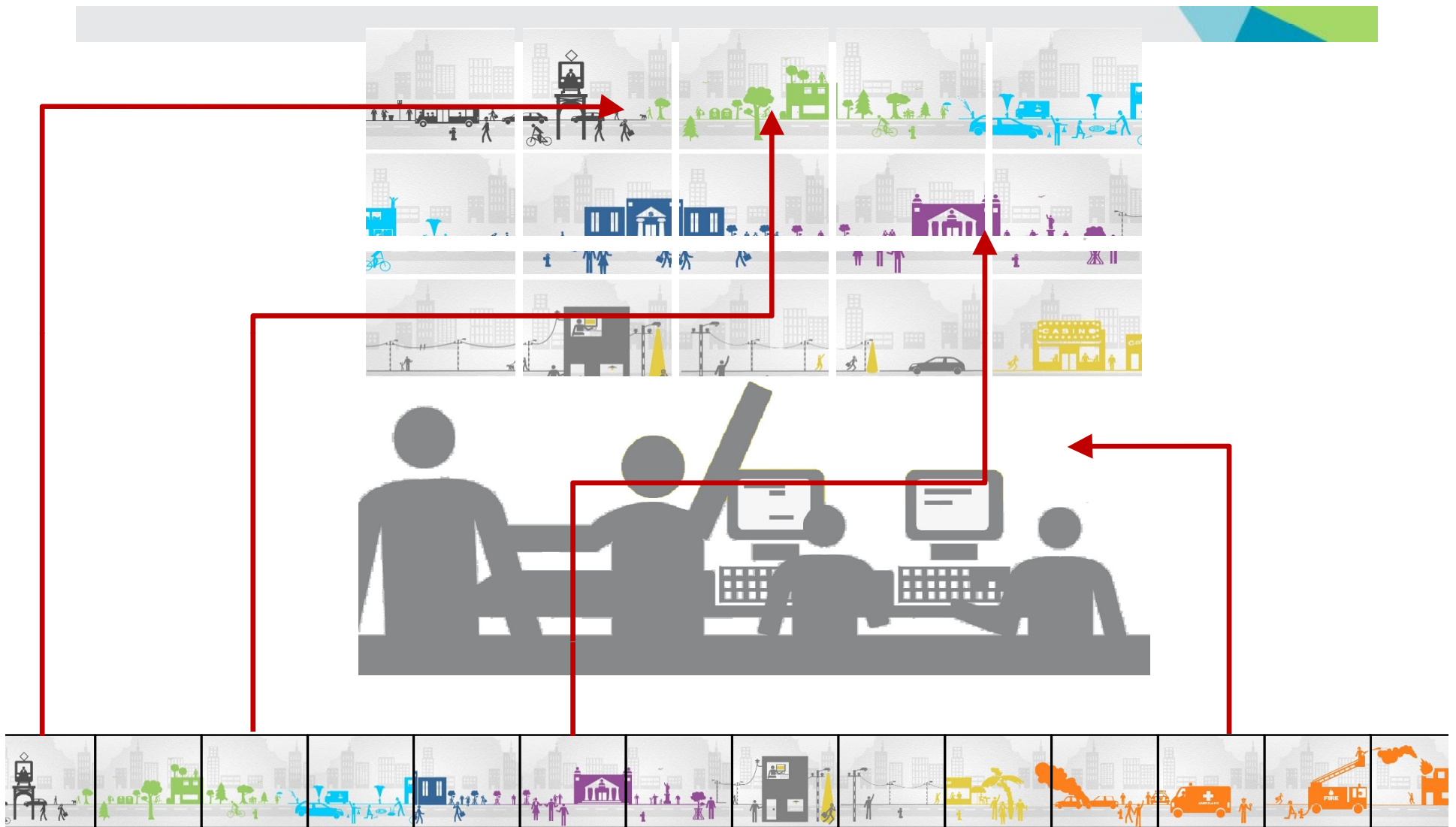




SITUATIONAL R OOM









CHRISTCHURCH CENTRAL, CHRISTCHURCH CITY: @SOUTH CITY CENTRE

EX SHOP

Priority: 2

Cross Streets: DUNDAS ST
QUILL LA

Address: 555 COLOMBO STREET, CHRISTCHURCH CENTRA

Phone: 1

APPEAR TO BE 1K

☒ Common ☐

MALE SHOPLIFTER - COOPERATIVE
PAIRS IN SECURITY
RI..... BEANIE..... DARK JACKET..... TRACKPANTS
PROX..... 6 FOOT..... MEDIUM BUILD... HAIR UK AS BEANIE ON
ANOTHER MALE AGED APPROX 14 BUT HE DID NOT TAKE ANYTHING
INVOLVED
TO TAKE CLOTHING

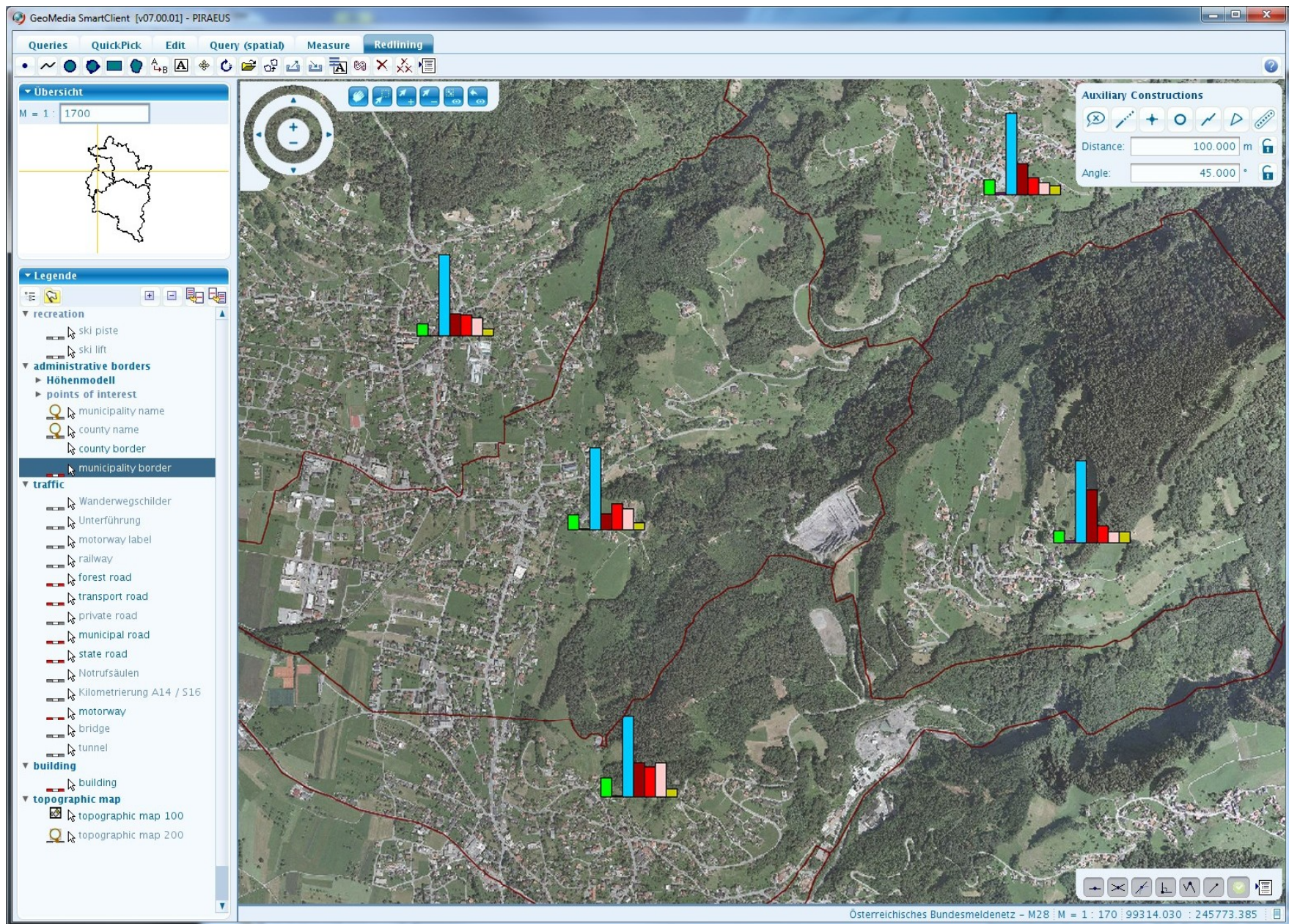






BUSINESSINTELLIGENCE





Arrests

Calls

Crimes - Per...

Drug Arrests

Juvenile

Municipal O...

Traffic

Summary

Select Arrest Type

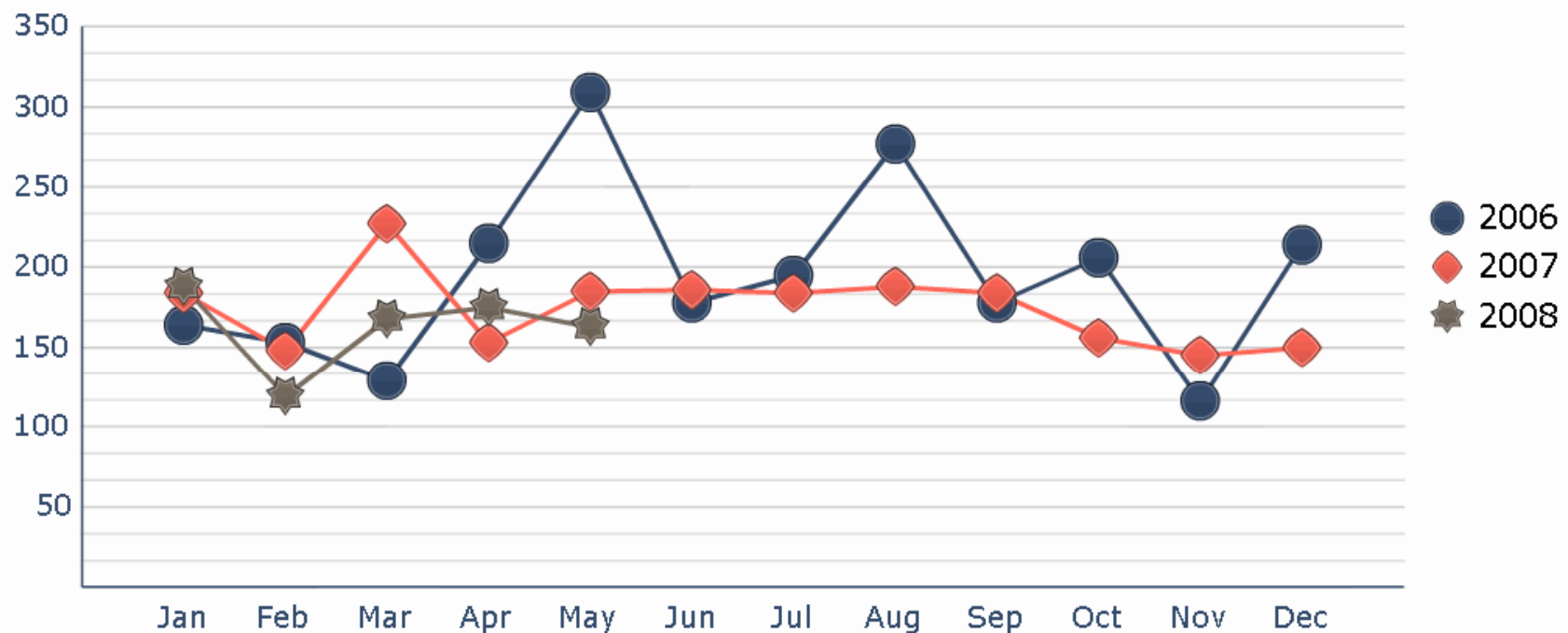
First Offender

First Offender

-10.33

Arrests

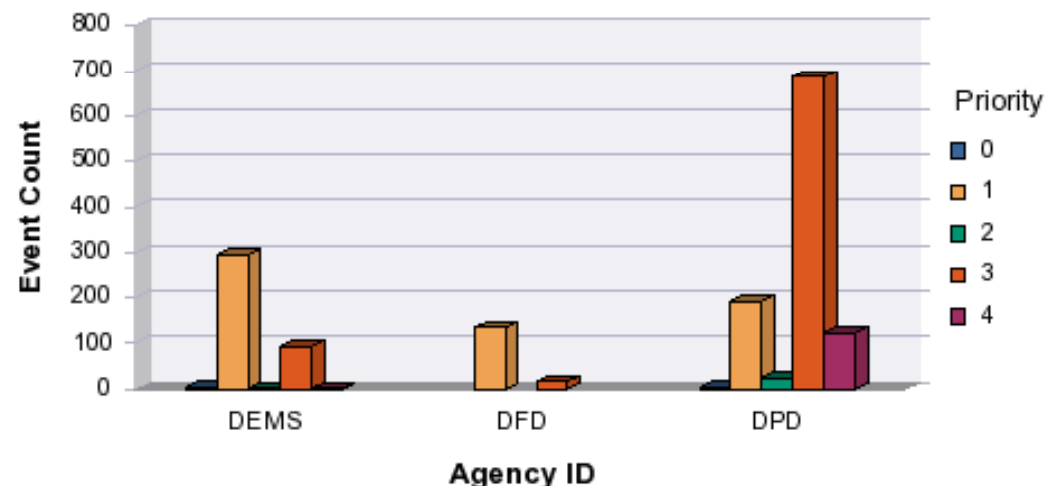
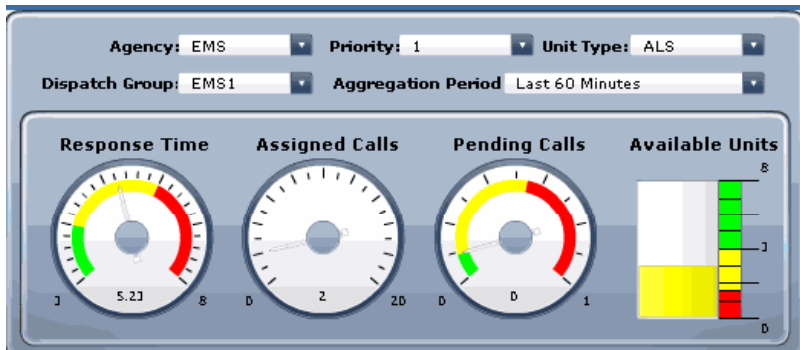
First Offender



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2007	10.87	-3.378	43.172	-40.523	-67.027	4.301	-5.978	-47.34	3.261	-32.051	20	-42.667
2008 YTD	2.128	-24.37	-35.119	12.571	-13.497							



Priority	DEMS	DFD	DPD
0		3	5
1		295	134
2		1	23
3		92	16
4		1	123



MONITORING SITUATIONAL INTELLIGENCE
BUSINESS INFRASTRUCTURE
CITY GENCO TWO SMART MOBILITY
SMARTWATER SMARTGRID
TER SMART ENVIRONMENT
SAFE CITY PORTA
V I S

KEY TO SUCCESS

1

GEOSPATIAL
advantage

2

CREATIVITY
innovation

3

GOING
smarter

4

INTEGRATION
platform



Thank you