GIS OPEN 2010

BLOM

# BlomURBEX

## the largest geo-database in Europe

Gabor Kakonyi, Jan Sirotek

# Content

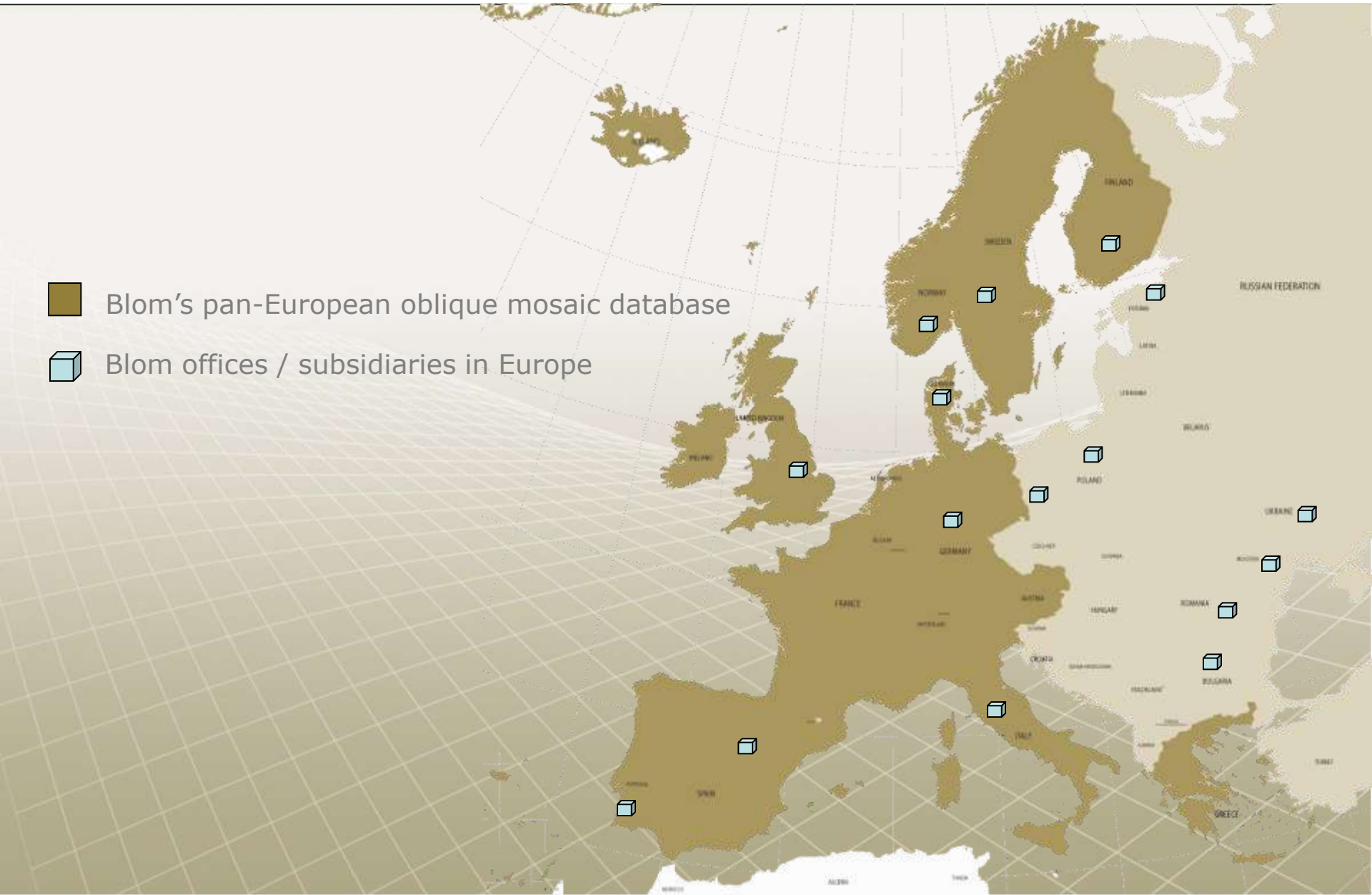
- Company introduction
- Pictometry ® - oblique images
- Changing of the concept of data delivery
- Blom URBEX

# Company introduction

# Blom Group Introduction

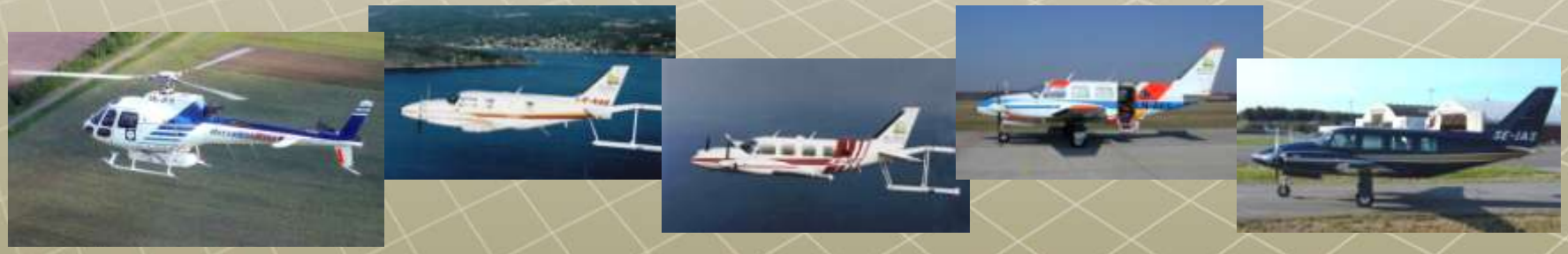
- One of Europe's largest airborne survey companies
- Offices in 12 European countries
- Head Office located in Oslo
- Business concept:
  - Aerial Photography & Laser Scanning
  - Mapping & Modeling – creating & maintaning in databases
  - Navigation systems & Location Based Services
- Market Cap: App. 275 million Euro (May 5 2008)
- Guidance revenues 2008: exceeding Euro 135 million
- Listed on Oslo Stock Exchange (ticker BLO)
- Access to Capital Markets
- Customers: Government, private and public businesses, consumers

# Blom Group Offices in Europe



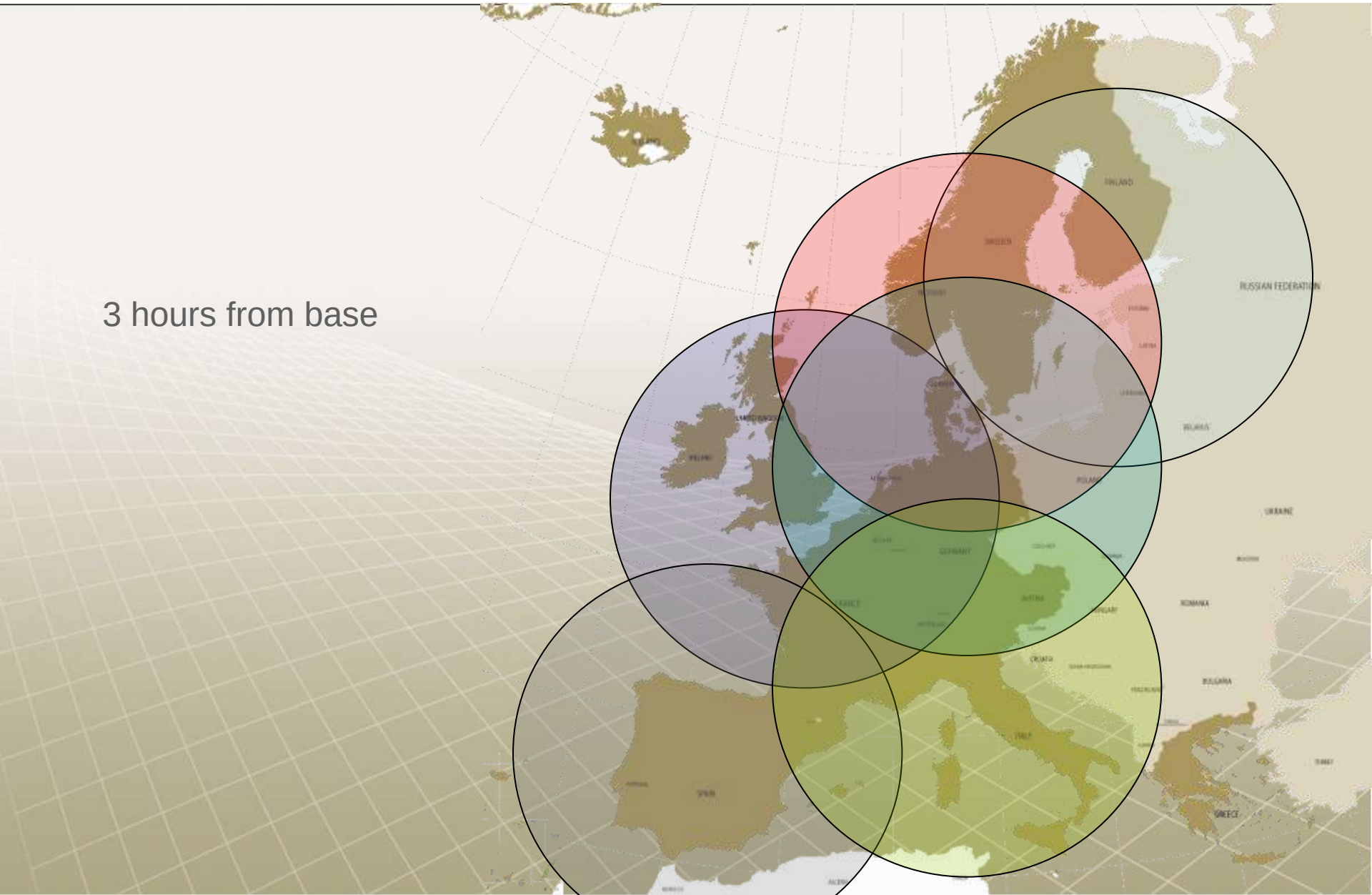
# Blom Group Resources

- Blom operates
  - 33 planes and 4 helicopters
  - 9 high-tech lasers, 1 multispectral scanner
  - 20 orthophoto cameras & 55 oblique imagery cameras
  - Software applications and storage capabilities
- More than 1,200 highly qualified employees
- Volume & cost-effective production facilities in Romania & Indonesia
- Exclusive distribution agreement for patented oblique imagery technology for 23 countries in Western Europe through 2015
  - Microsoft MSN first customer (5-year contract)
  - Expanding into Eastern Europe since 2008



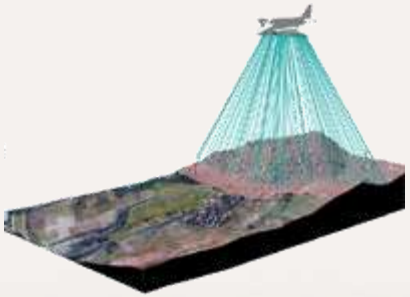
# European aircraft coverage

3 hours from base



# Blom Group Business Areas

Aerial photo



Laser scanning

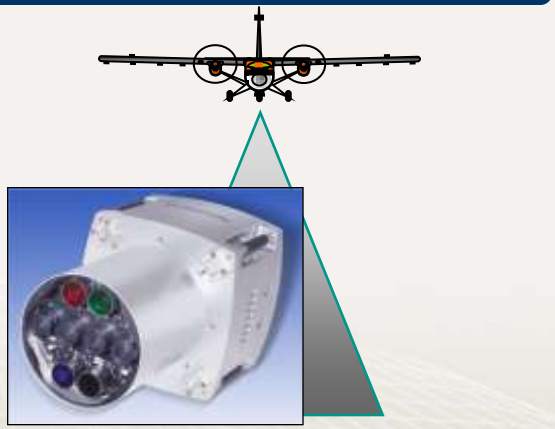
Mapping & modelling

Databases

Navigation &
Location Services

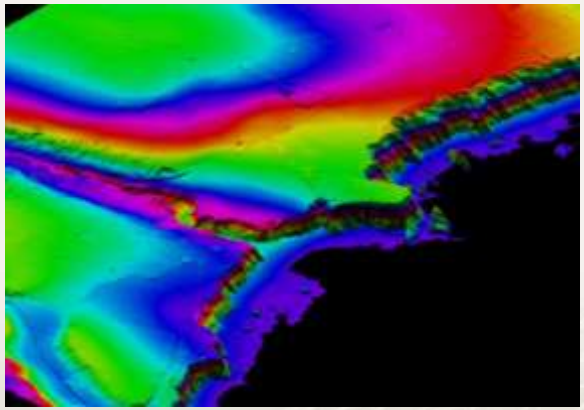
# Line of products and services

## Aerial photo



## Vector Maps

## Digital Terrain and Surface Mapping



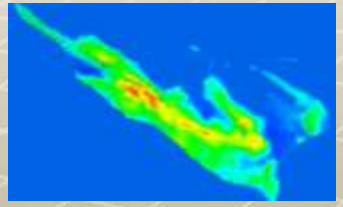
## Ortho Image

## Oblique Images

## 3D Models

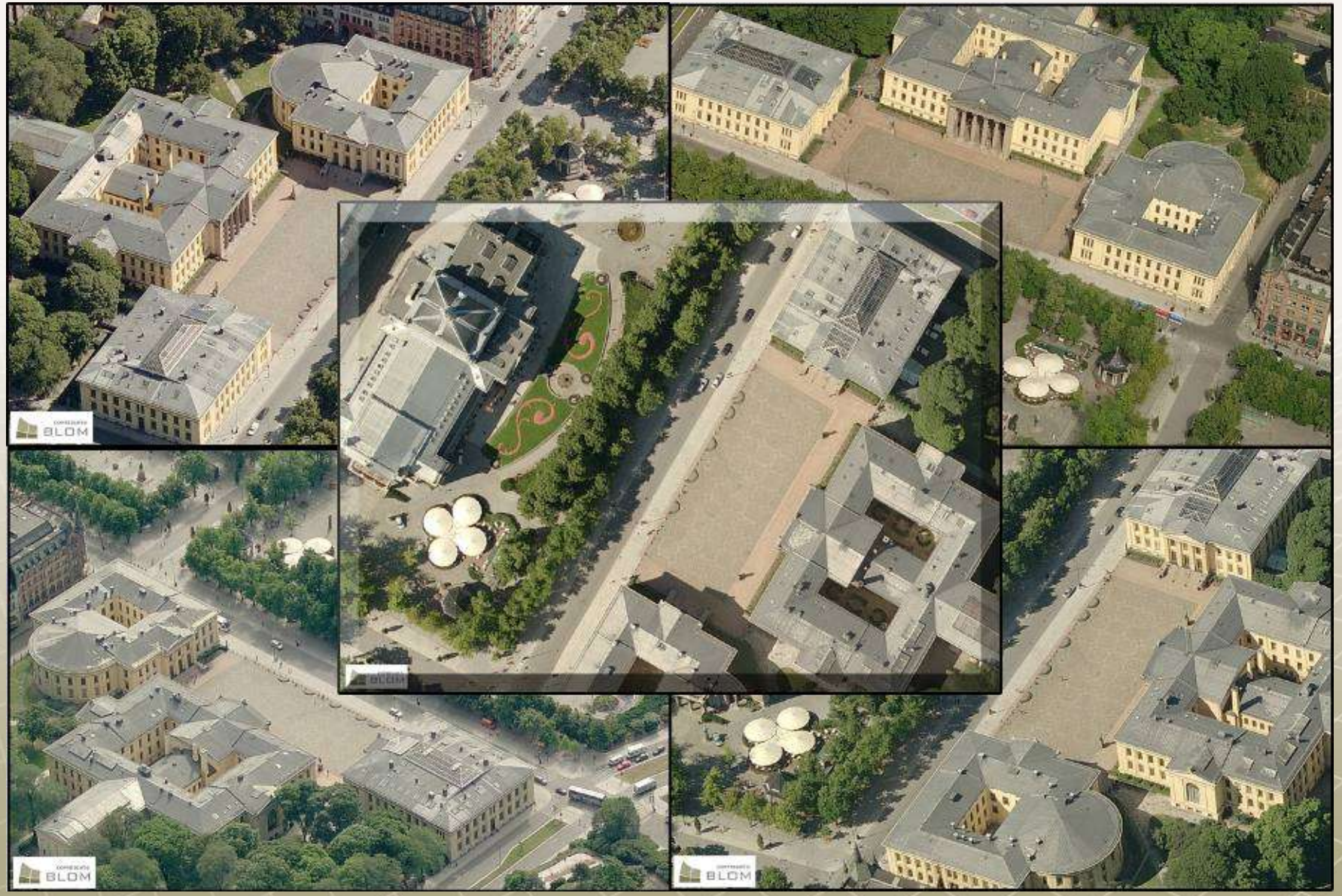
# Data Bases

- Libraries captured and owned by Blom to be sold on a licensing basis
- Oblique imagery database
- TerraItaly
  - Seamless digital colour orthophoto covering all of Italy
  - 50 cm resolution
  - Captured with digital camera Leica ADS40 and analogue Leica-Wild RC30
  - Homogenius coverage from 1999-2000
  - Regions updated every year from 2003
- DTM Denmark
  - DTM/DSM Denmark, produced from LIDAR
  - 1,5 m grid
  - 10-15cm accuracy
- Strategy is to increase focus on building own libraries, especially within oblique images and Orthophoto
  - Libraries under development
    - Digital aerial images and digital orthophoto from many cities throughout Europe
    - DTM/DSM covering different cities and regions in Europe



# Pictometry® - Oblique images

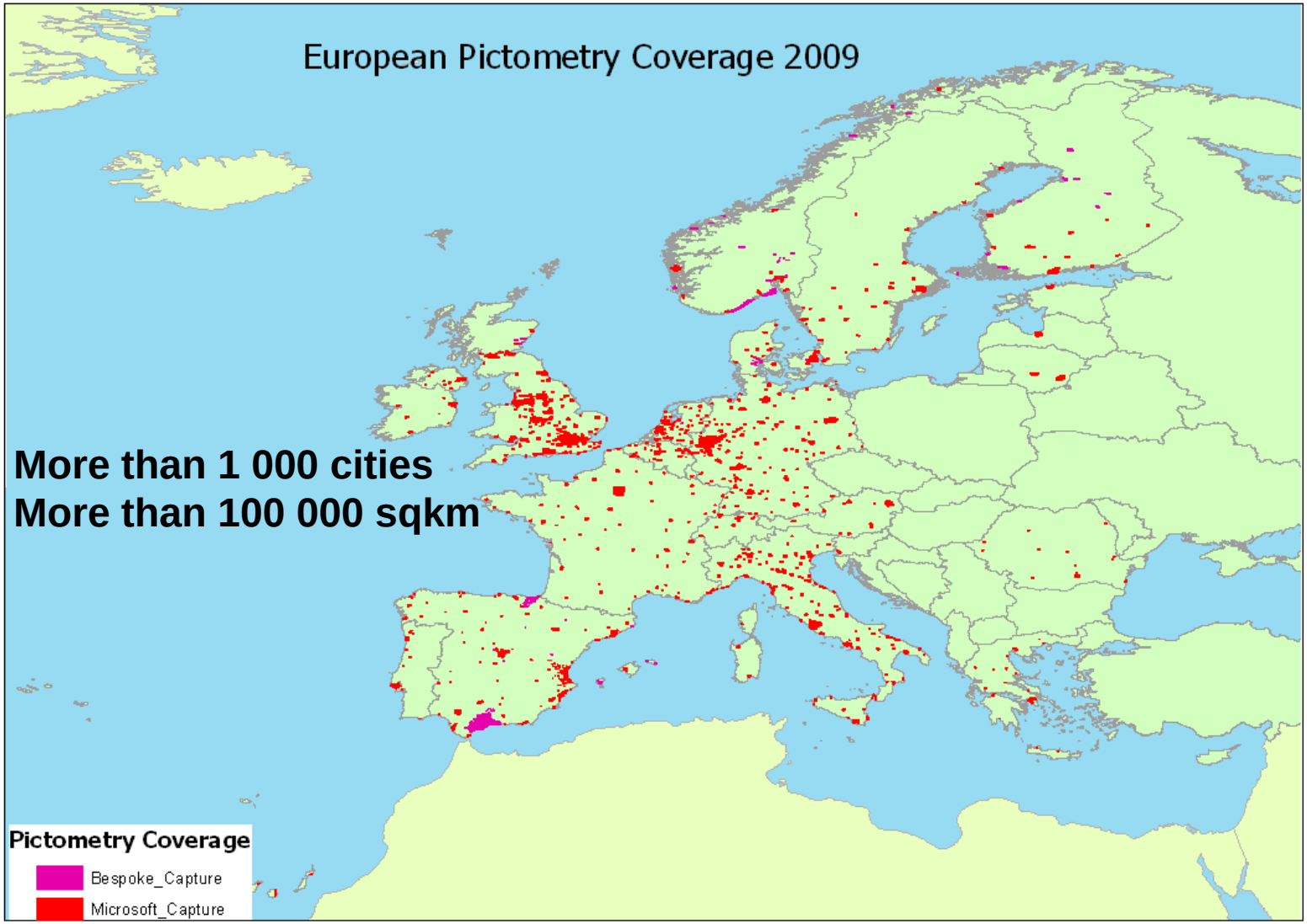
# Oblique Imagery



# Pictometry

- Images normally captured with 10 cm resolution (3 000 feet flying height)
- Overlap between vertical images normally 60%
- Corner coordinates, exterior and interior orientation parameters available for all images
- DTM included in images
  - DTM from external sources
  - Accuracy of measurements in obliques will vary with quality of DTM
- Orthophoto in library rectified using existing DTM

# Blom : Oblique coverage



# Oblique Imagery Database

- Exclusive distribution agreement for 23 countries in Western Europe through 2015
  - Covering app. 1,000 largest cities in Western Europe, total of 100 000 sqkm
  - Oblique (4 angles) and orthophoto images
  - Expand into Eastern Europe in 2008
  - Database updated every 2nd year

- Ortho and oblique mosaic
  - Seamless layers for the above mentioned cities
  - Resolution 0,15m
  - Accuracy ~1-2 m

- Microsoft MSN first customer

- Significant potential for applications and services, eg:
  - City planning
  - ”Blue lights”
  - Web based mapping services
  - Car navigation
  - Telecommunication
  - 3D visualization

# Products

- Images are available through

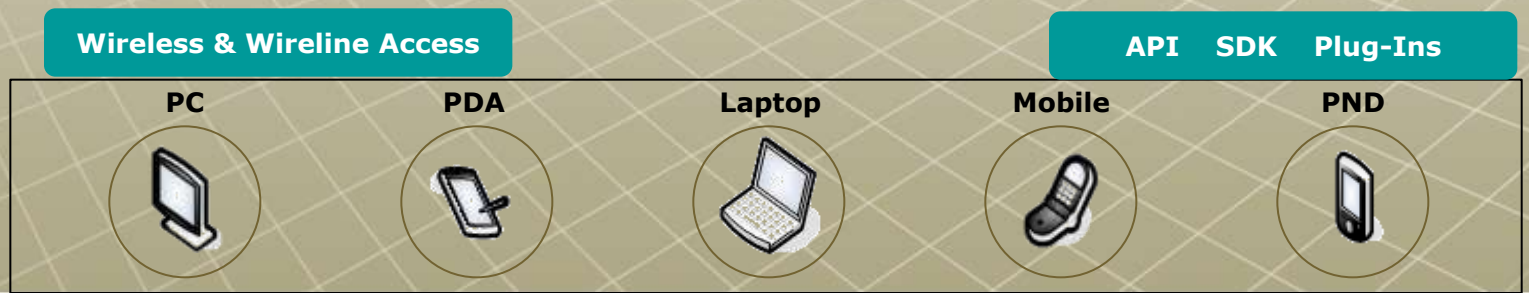
Libraries + EFS (Pictometry sw)
Libraries +plugin for GIS

or

Industry format Images + metadata

or

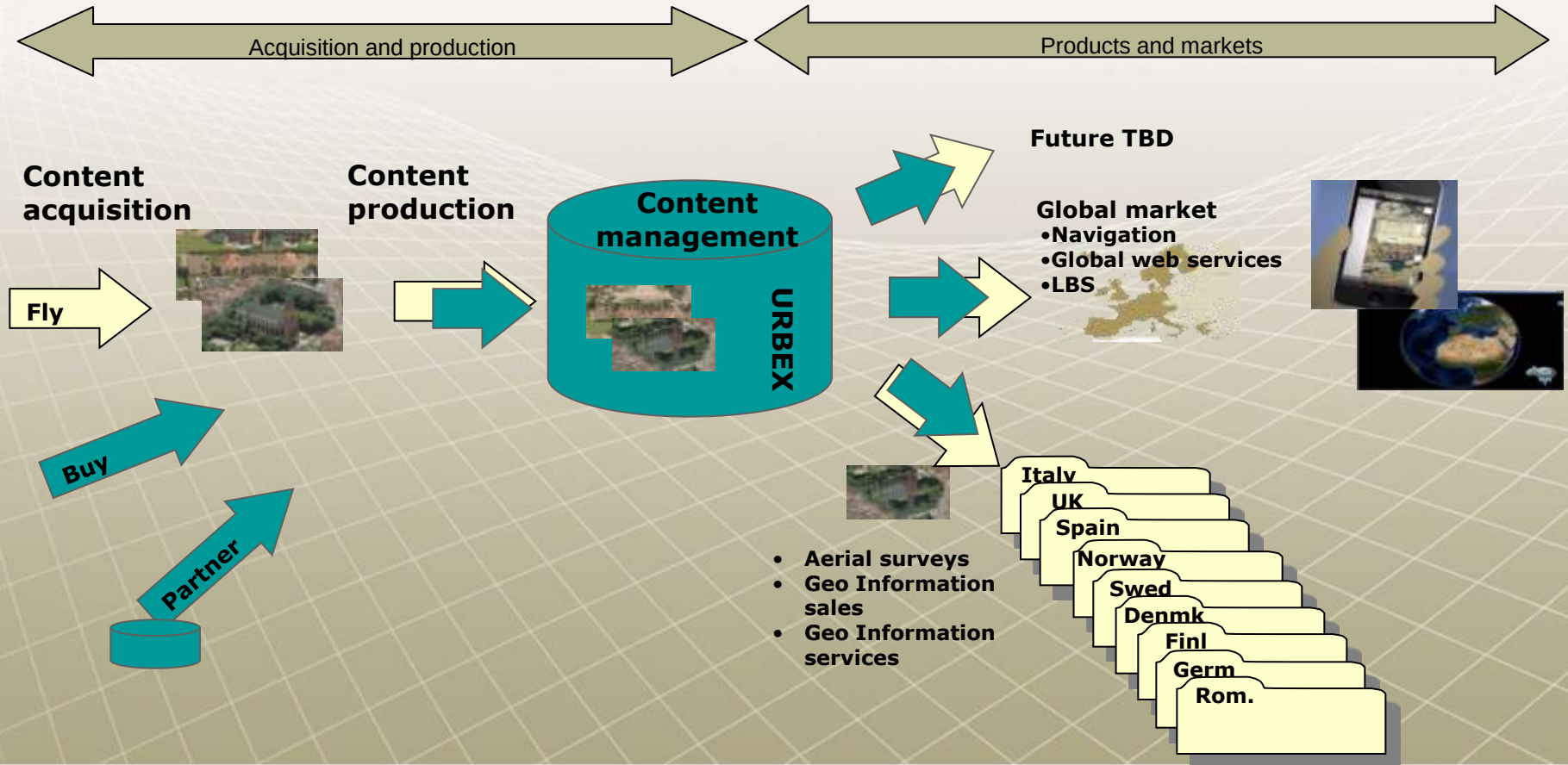
BlomURBEX



# Changing of the concept of data delivery

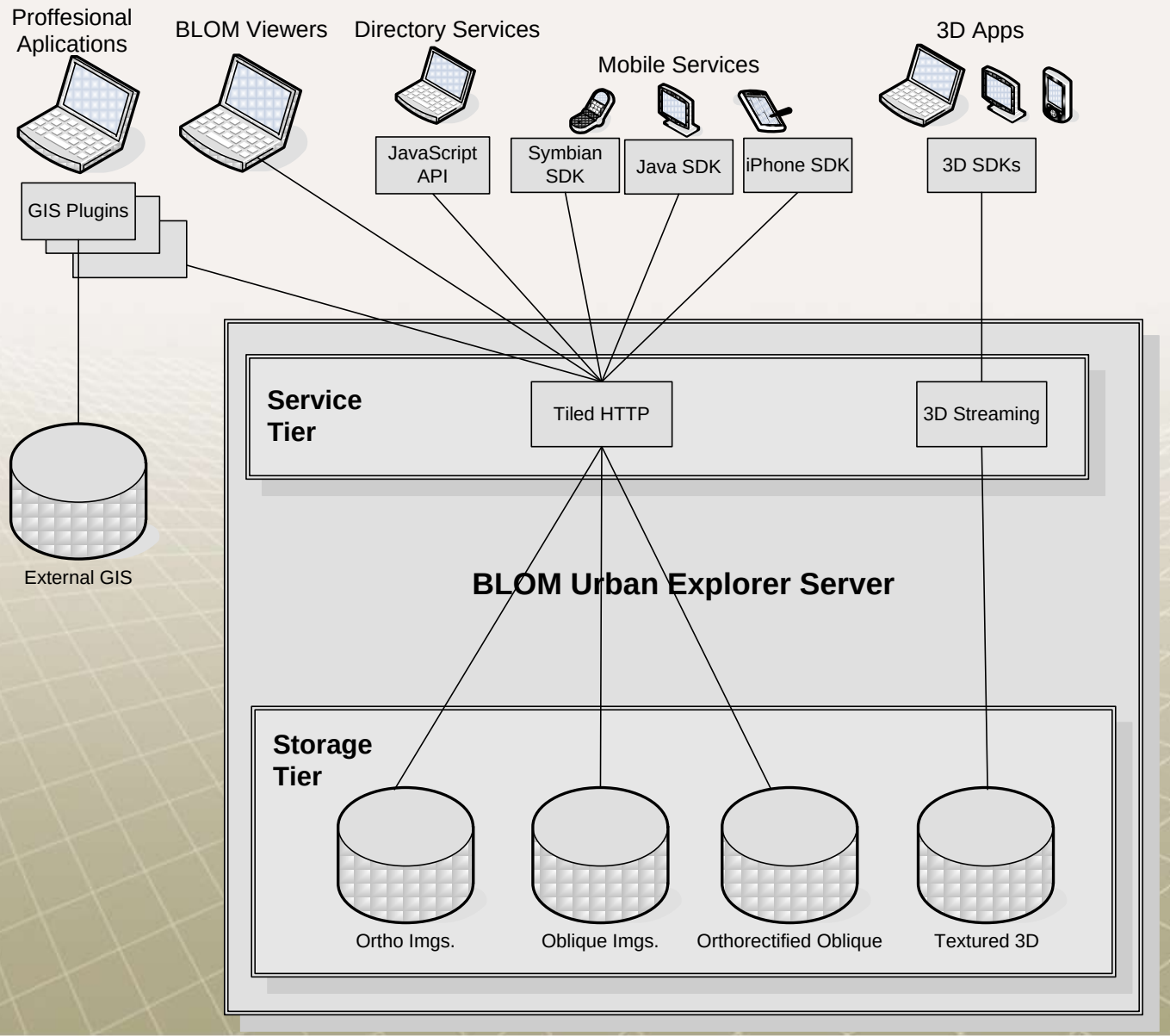
# Expanding value chain and market reach

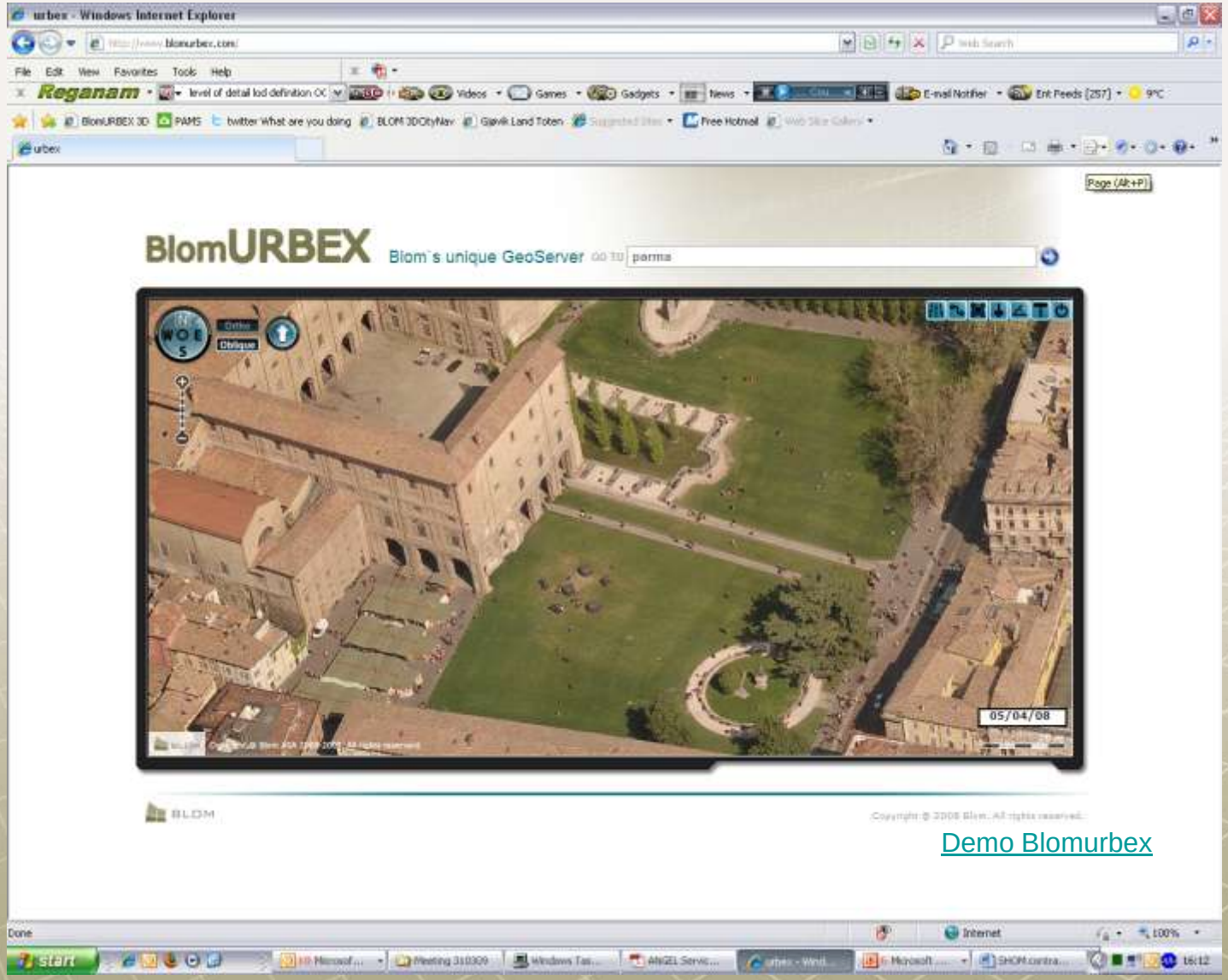
- Increase shareholder values through profitable growth
- Leading supplier of services for capturing and processing geographical information



# Blom URBEX

BLOM


Proffesional Aplications
BLOM Viewers
Directory Services
Mobile Services
3D Apps
JavaScript API
Symbian SDK
Java SDK
iPhone SDK
3D SDKs
GIS Plugins
External GIS
Service Tier
Tiled HTTP
3D Streaming
BLOM Urban Explorer Server
Storage Tier
Ortho Imgs.
Oblique Imgs.
Orthorectified Oblique
Textured 3D




Demo Blomurbex

# Measurement Tools

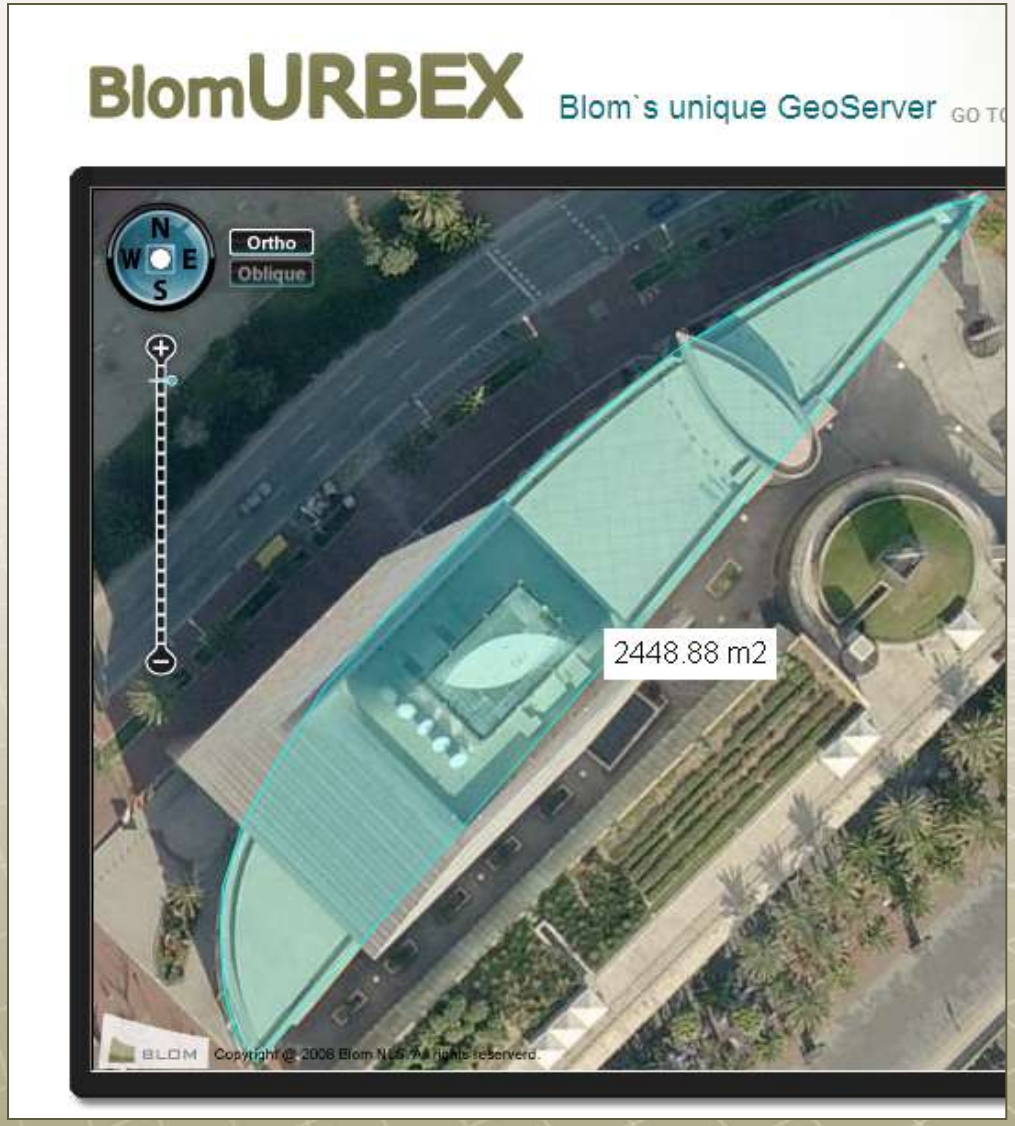
- Height measurement

*BlomURBEX image, March 2009*

# Distances

*BlomURBEX image, March 2009*

# Areas


BlomURBEX
Blom`s unique GeoServer
Ortho
Oblique
2448.88 m2
BLOM
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BlomURBEX
Ortho
Oblique
7037.85 m2
BLOM

# Computer Platforms

PC:
Local / Internet

A.P.I.

Mobile phones:
Local / Internet

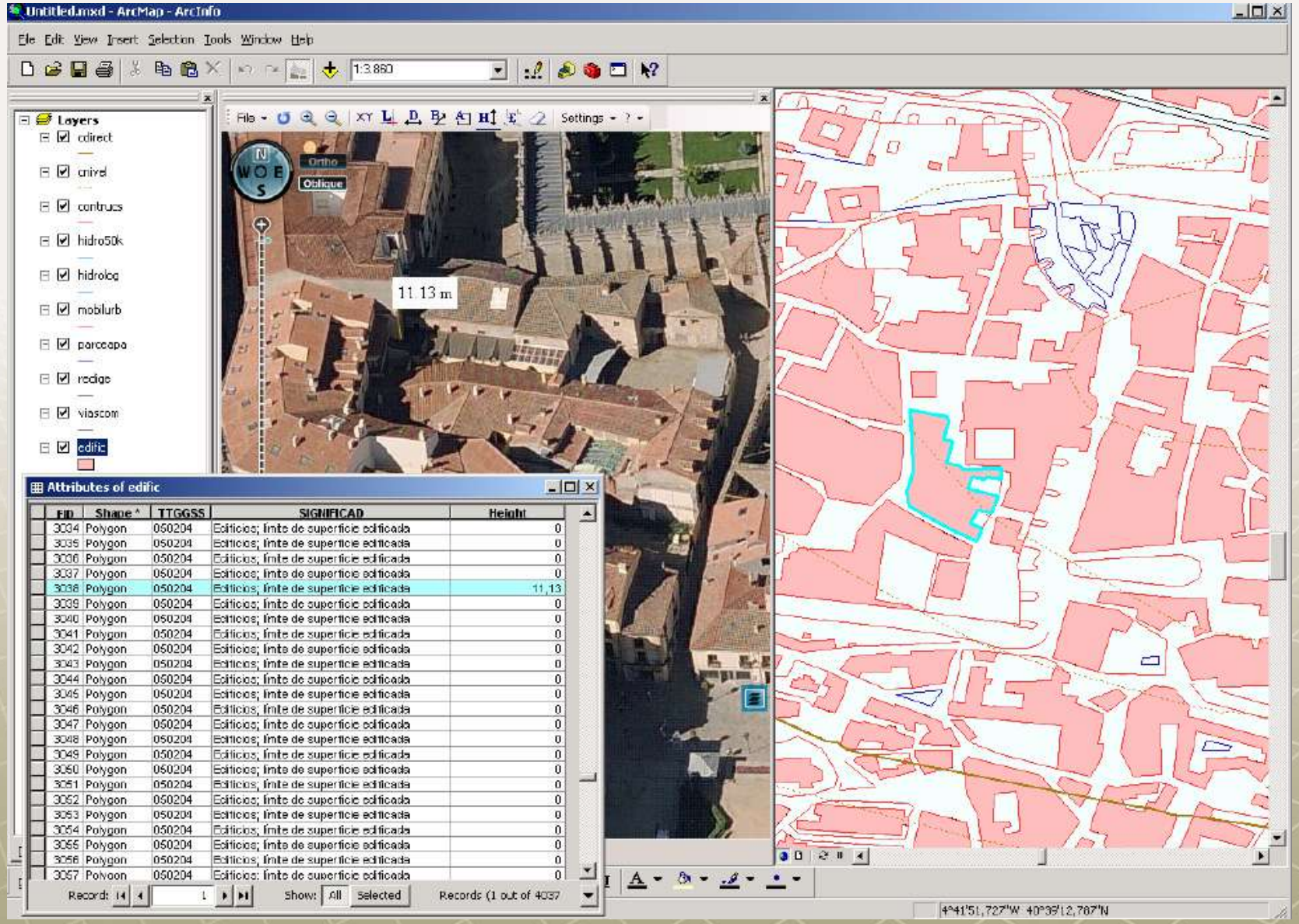
S.D.K.

G.I.S.:
Local / Internet

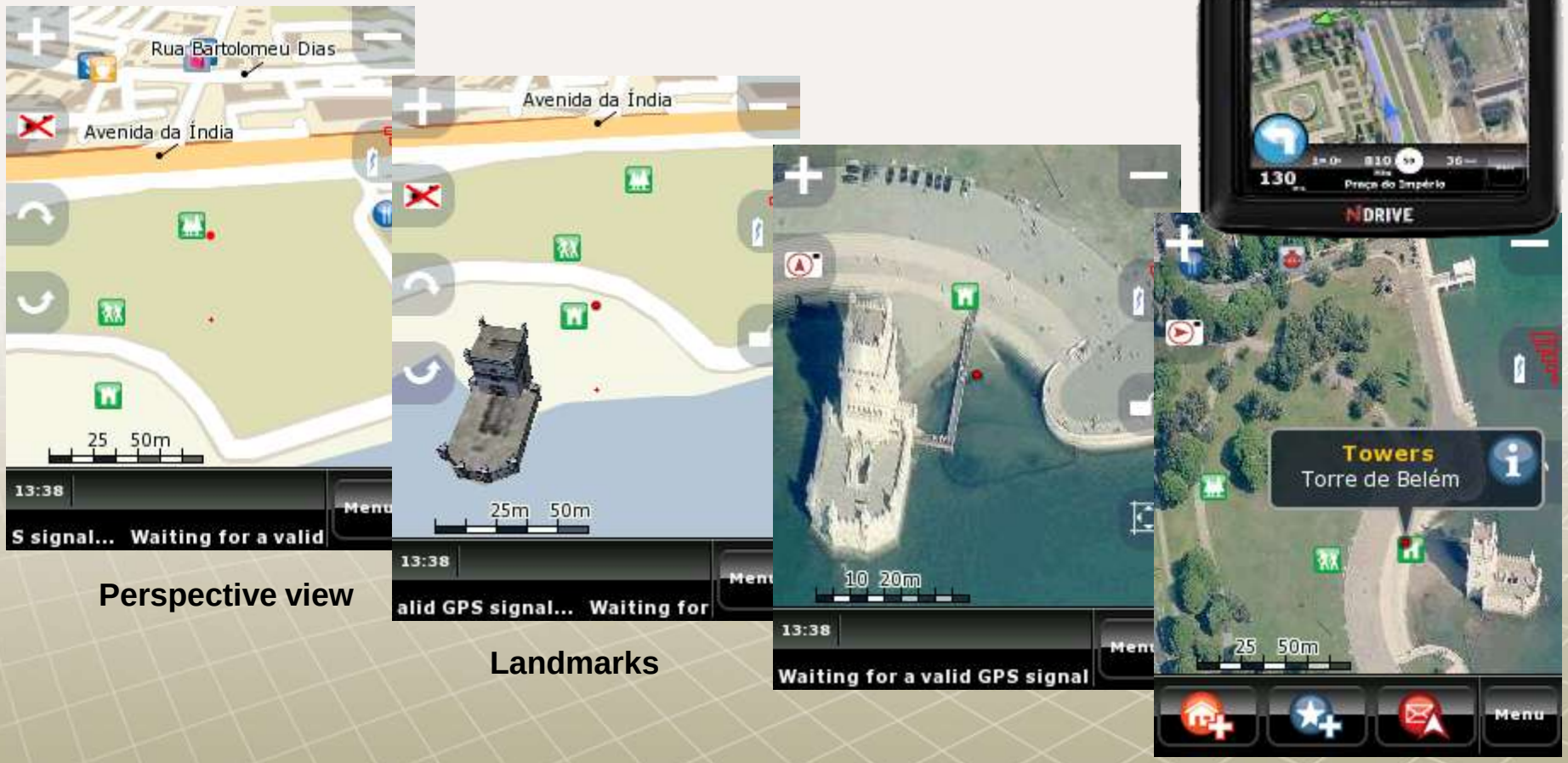
Plug-ins

# Urbex – Plug-ins

# Urbex - plugins



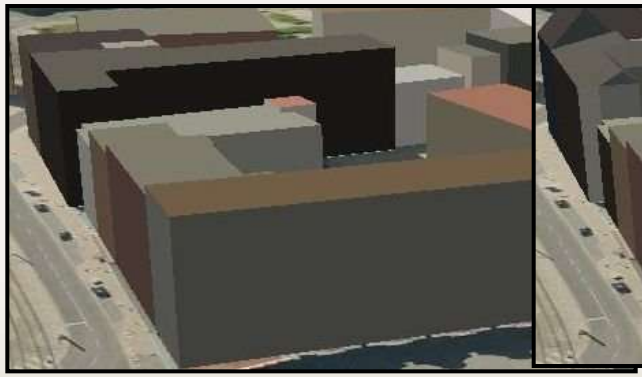
# Navigation – 3DPhotoNav



# Urbex 3D

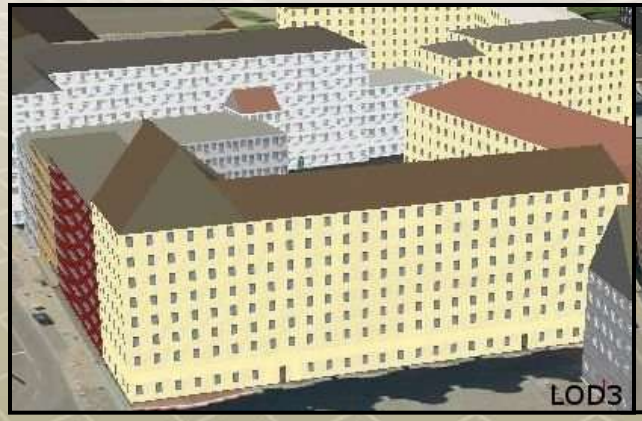
# Urbex 3D

- Agreement with Tele Atlas to create the largest high-quality 3D collection in the world (?)
- Online access on BlomUrbex
- 200 cities worldwide in 2009
- Complete set of 3D map components (BLOD1, BLOD2, BLOD3, BLOD4)



BLOD1

BLOD2

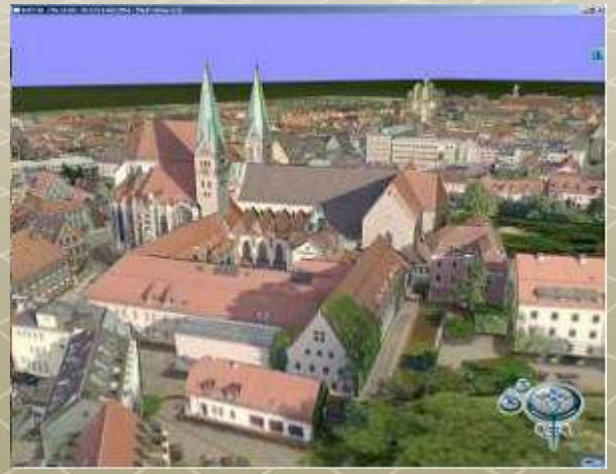



BLOD3

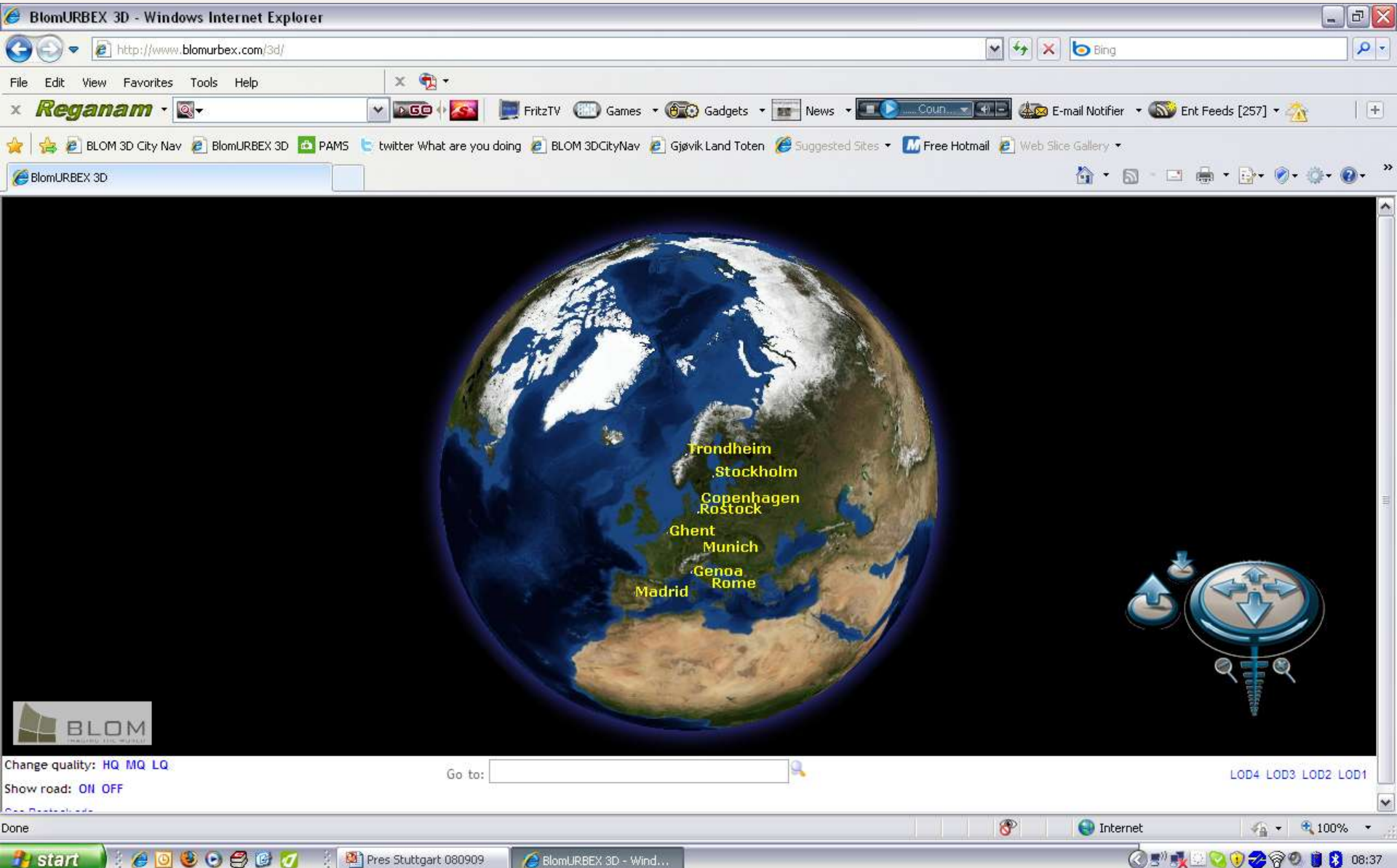
BLOD4

# Urbex 3D

- Blom provides technology to integrate 3D into desktop, web, mobile and navigation applications and devices
- Real picture facade stick to the 3D polygons



# 3D City Models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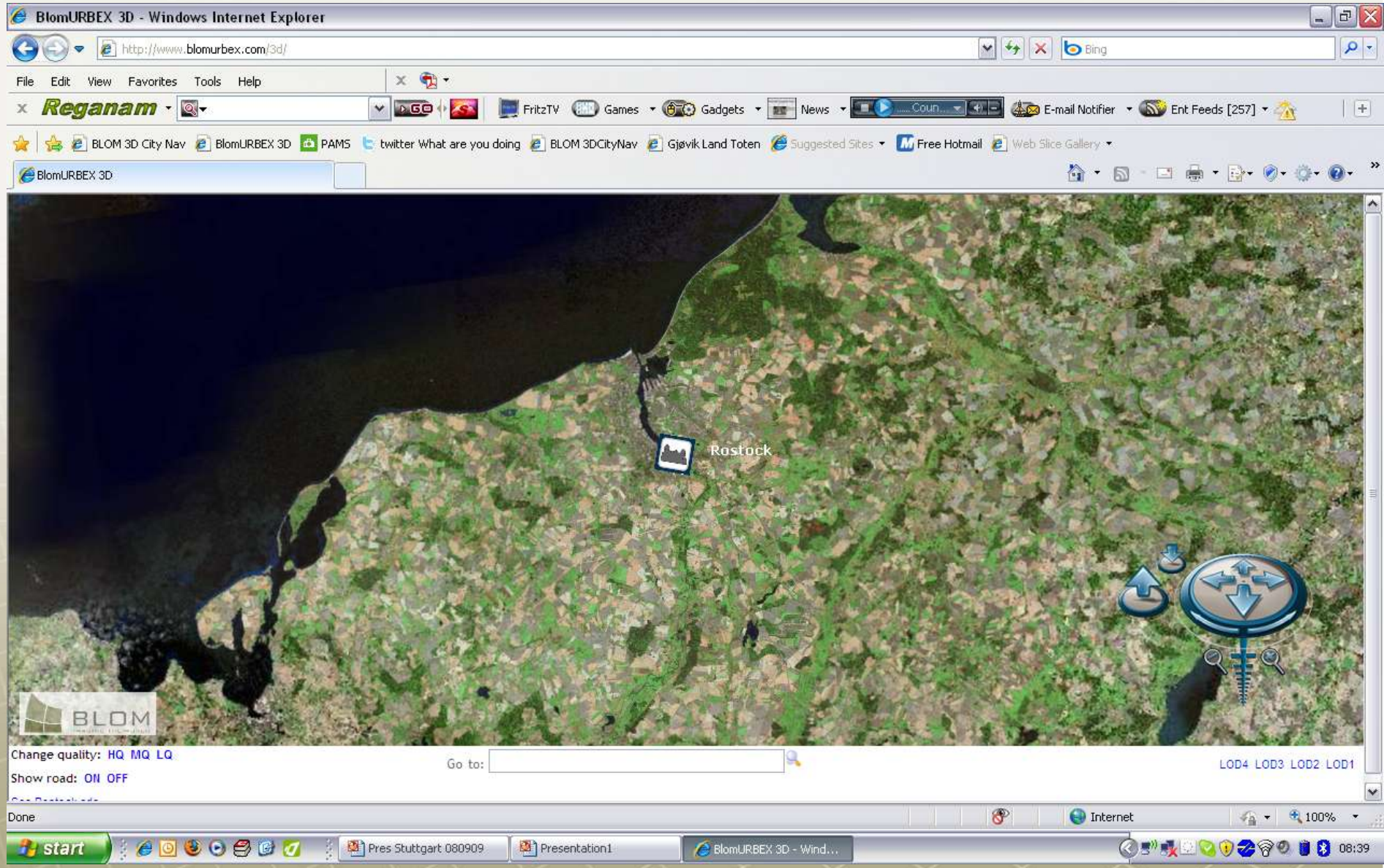
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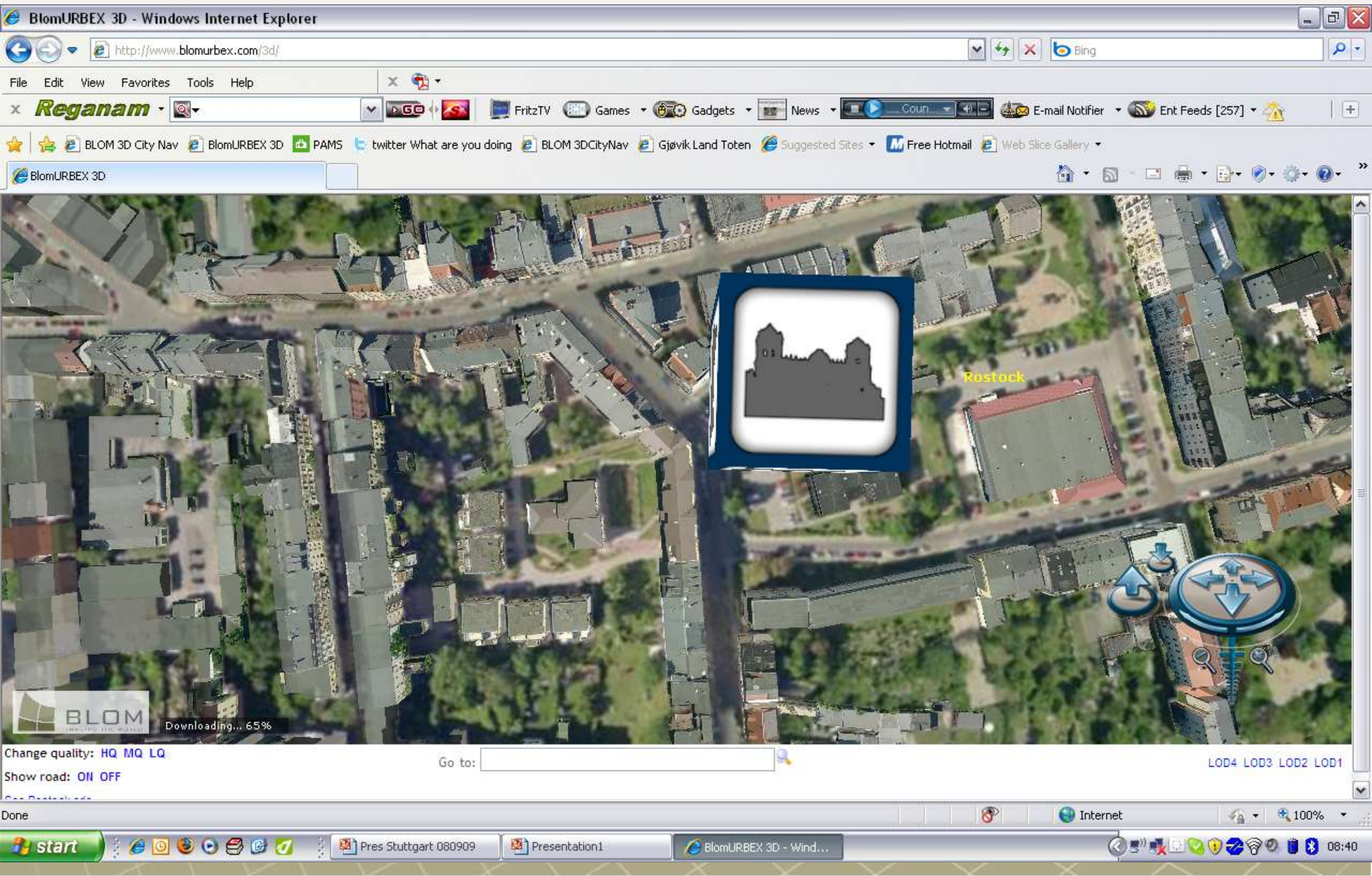
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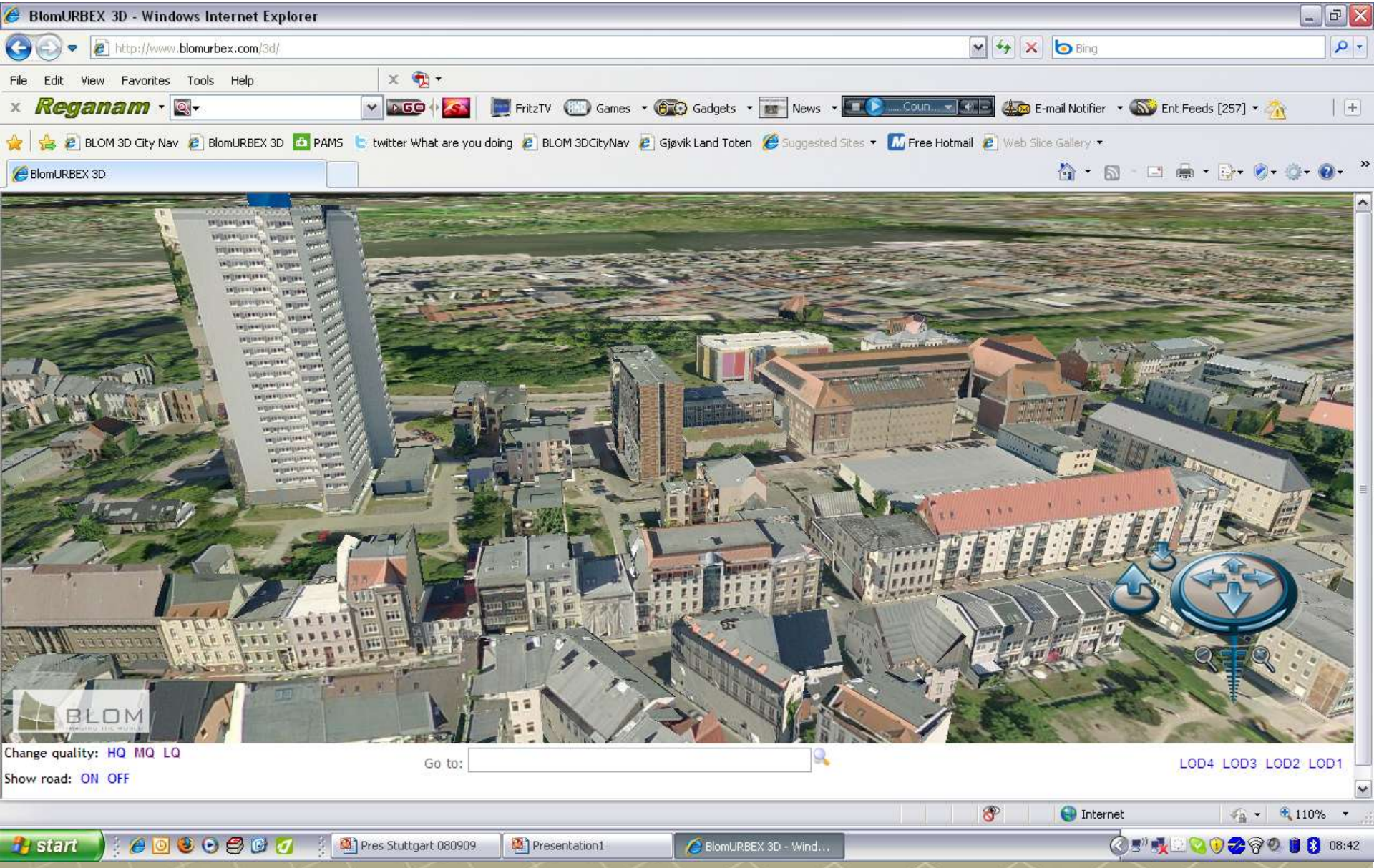
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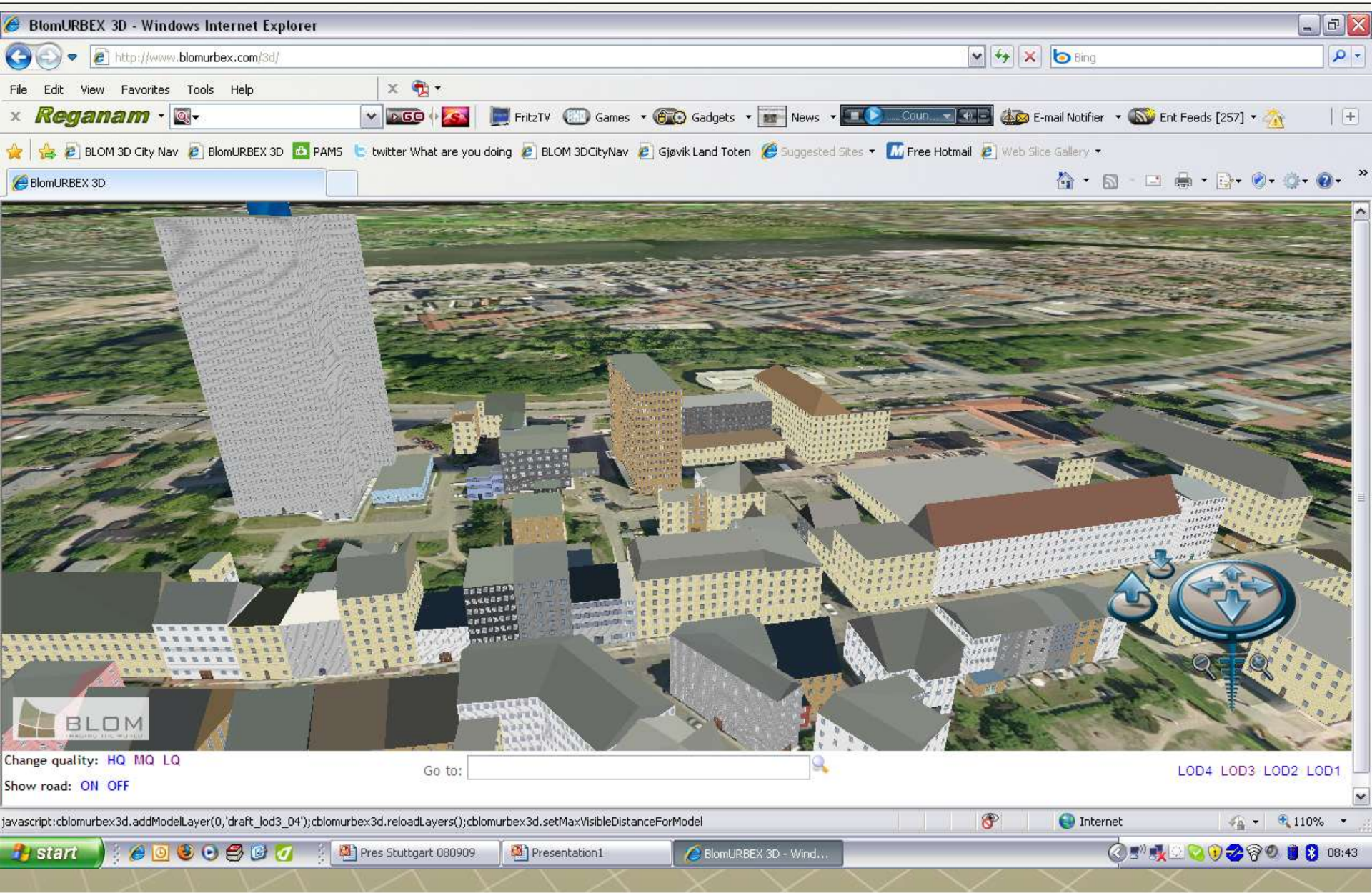
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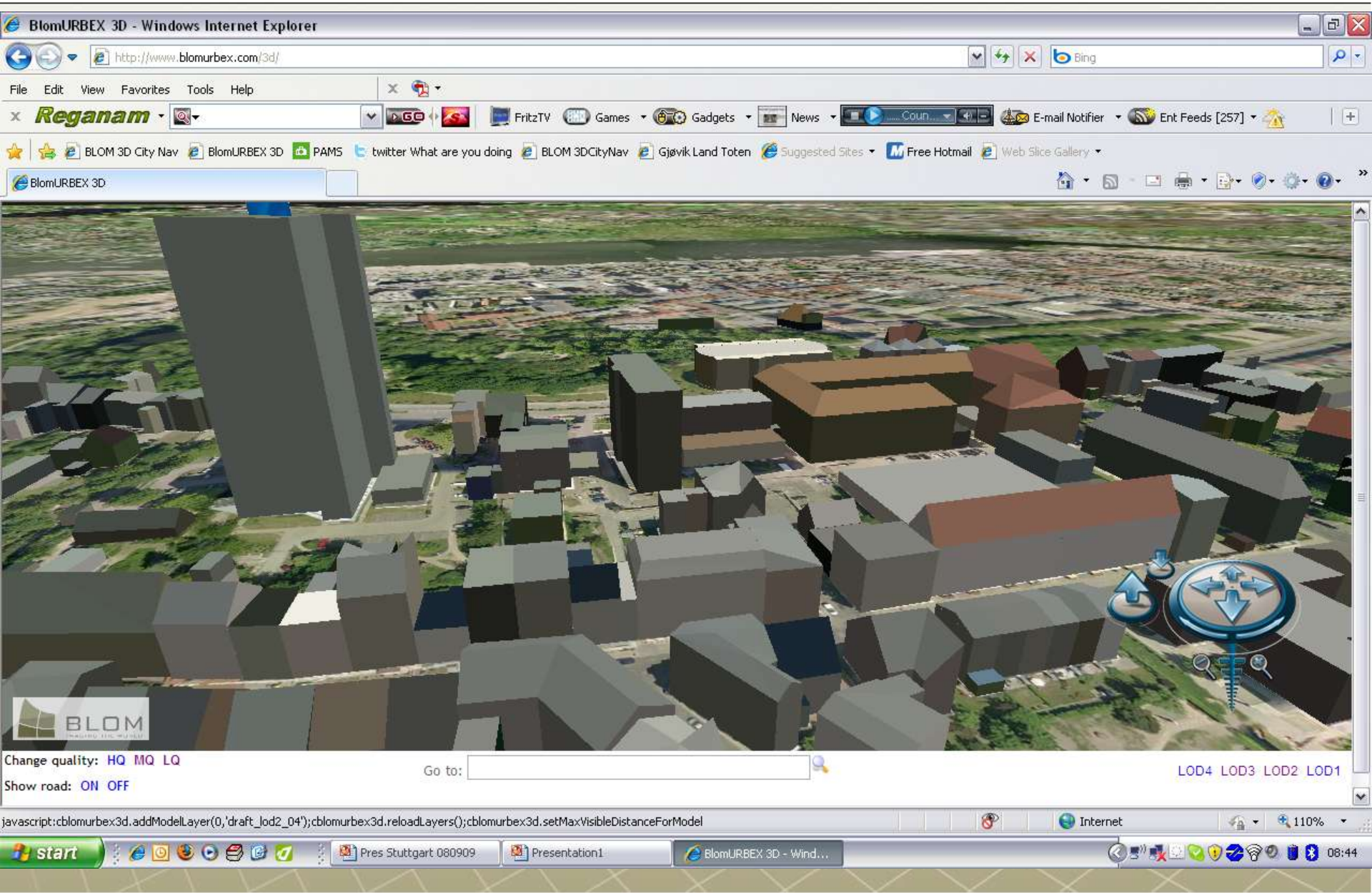
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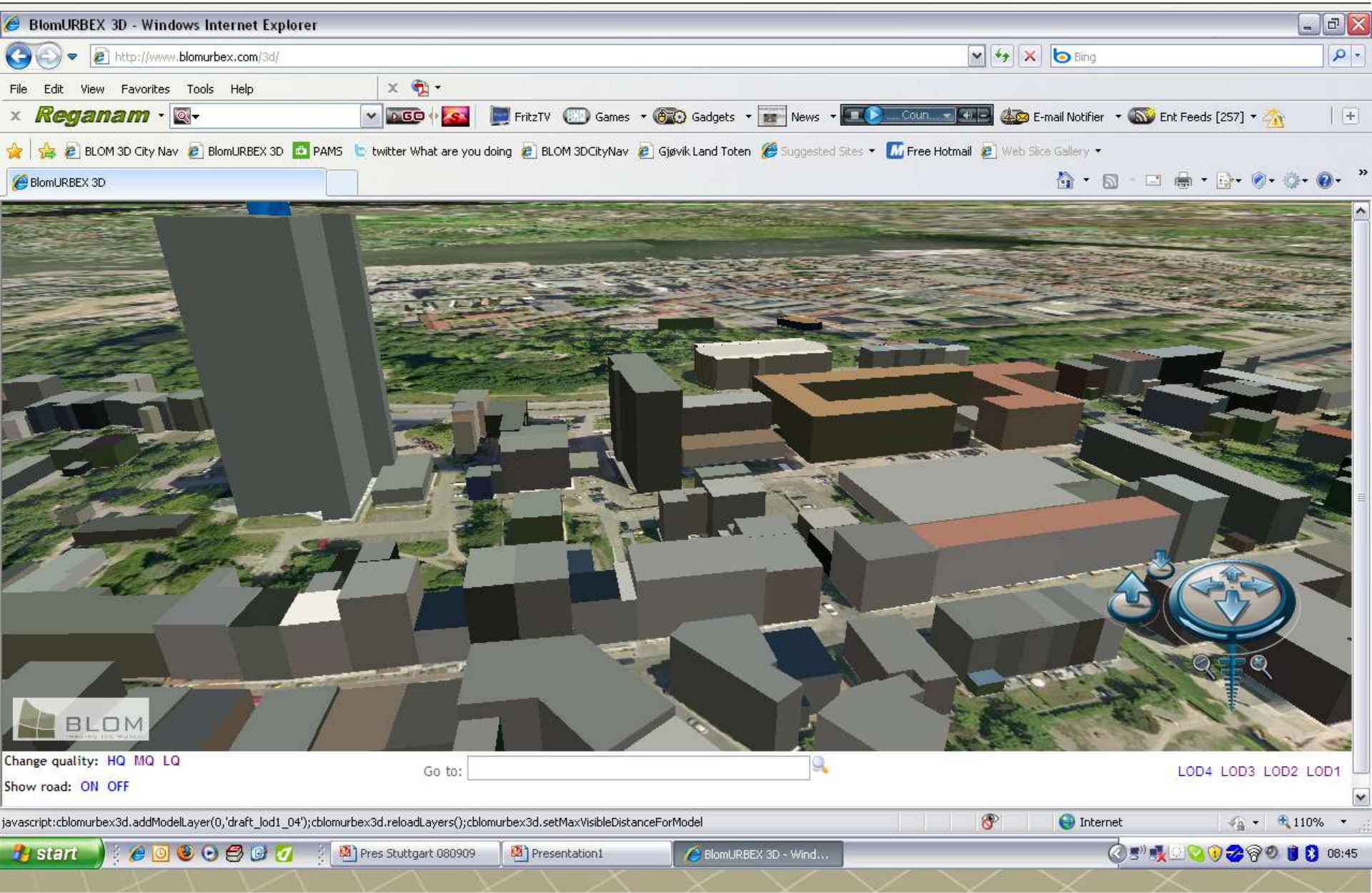
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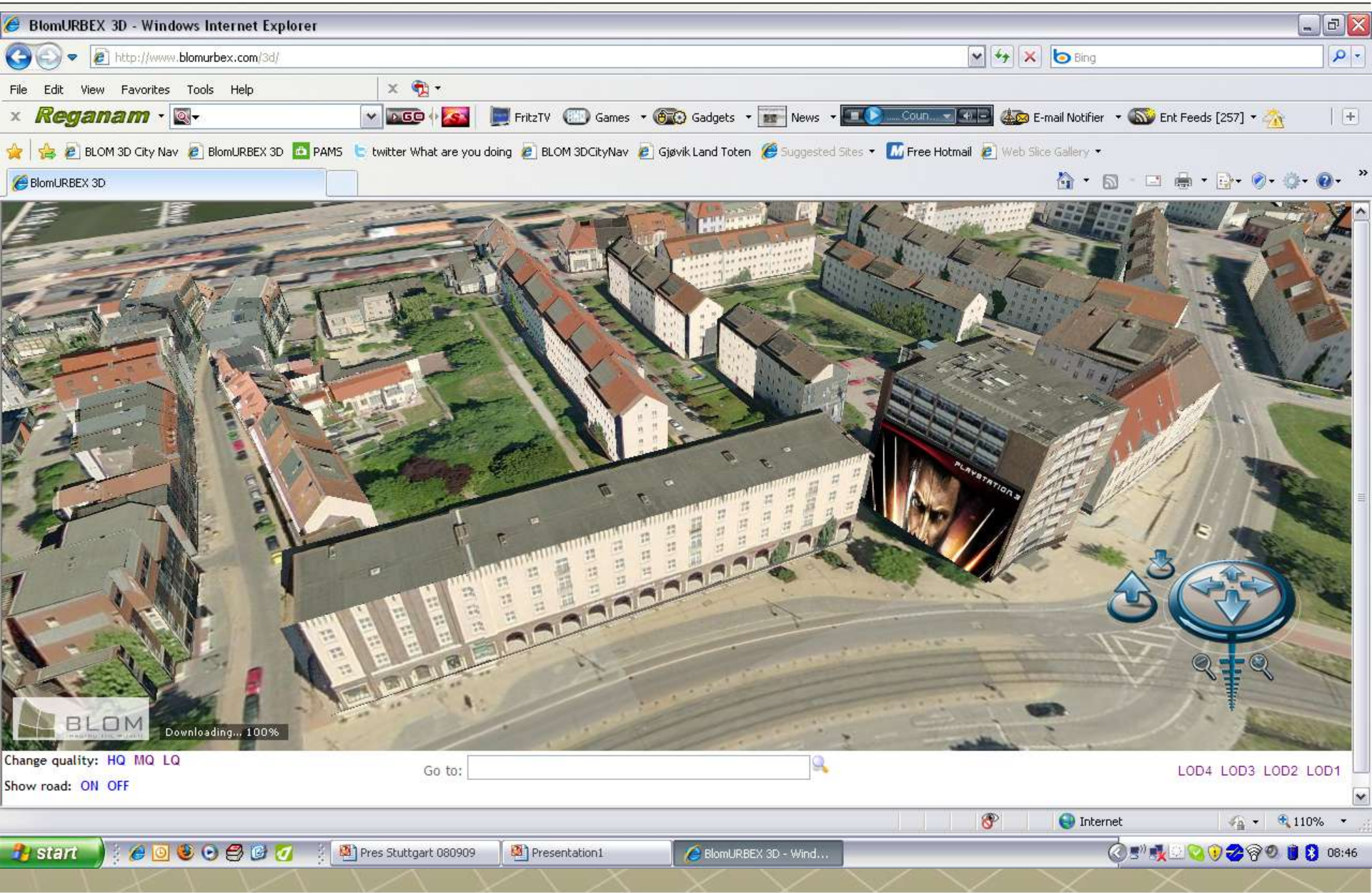
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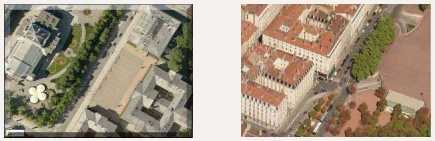
# NLS

- 3D Photonav® - Break-through navigation solution using oblique images
- 3D Photonav® for sale in Spain and Portugal
  - Will be launched in UK in near future
- Blom signed contracts for commercial launch
  - Blu:Sens (Spain)
  - I-Joy (Spain)
  - N-Drive (Spain / Portugal/ UK)
- Significant and widespread acceptance for Blom's 3DPhotoNav® from navigation market leaders
- Location Based Services
  - Online
  - Can be combined with 3D Photonav® solution
  - Find a friend
  - Online advertising
- Multimedia Platforms / Communities

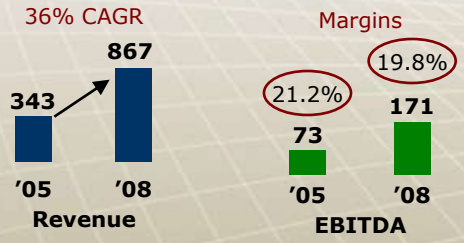
# In Conclusion

## Significant Growth Opportunities

## The Leading Database



## Growth and Profitability Track Record



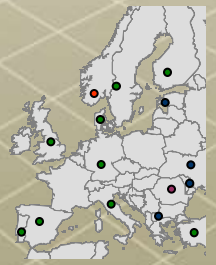

BLOM
IMAGING THE WORLD

## Full Value Chain Capabilities

## Blue Chip Customers and Partners

Microsoft
Tele Atlas
THALES
TOMTOM
THE WORLD BANK
US Army Corps of Engineers

## Pan-European Footprint



# Thank you

## Q & A

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