Introducing Mazovia to the „THE ISSUE” project

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Kick Off Conference
Leicester, 18 January 2012
The Mazovia Cluster consists of:

- Institute of Geodesy and Cartography – research unit


- Intergraph Poland – industrial entity
Dr Andrzej Brzeziński, Transport Expert
Experience in design, research and teaching in the area of transportation engineering with concentration on transport planning, traffic studies, and traffic engineering. Advisory and consulting services to local, national and international institutions. International experiences including World Bank and UE projects.

Dr Andrzej Kassenberg, Environmental Expert
Experience: project director of Regional Master Plan for Eco-region „Green Lungs of Poland”, Initiator and first chairman of the Environmental Impact Assessment Commission at Ministry of Environment, Moderator of Warsaw Transportation Round Table, Currently involves in few project with focus on climate change energy and transport.
Institute of Geodesy and Cartography (IGiK) was established in 1945, as a state research and development centre; it is supervised by the Ministry of Public Administration.

The main task of the IGiK is to do research in the field of geodesy and related disciplines for the needs of science, survey and cartographic service, public life, administration and state security.

The IGiK has long-standing experience in collaborating with many institutions in Poland and abroad.
IGiK’s structure

The Institute comprises six departments:
- Geodesy and geodynamics
- Applied geodesy
- Remote sensing
- Cartography
- Photogrammetry
- Geomatics and Spatial Data Infrastructure

The staff of the Institute of Geodesy and Cartography consists of over 80 employees, including 40 research/engineering specialists

IGiK participates in NEREUS and GMES Programmes
Mazovia voivodeship

OFFICE OF THE MARSHAL OF THE MAZOWIECKIE VOIVODESHIP IN WARSAW

- Established in 1999 as a regional self-government authority
- Provides services to the citizens: public education, health security, environmental protection, roads and transport, water management, geodesy and cartography, culture and protection of cultural heritage, sport and tourism.
- Over 1100 employees in 15 departments and 5 field representation offices
- Head – Marshal of Mazovia – Adam Struzik (from 1999 up till now)

consists of 15 departments responsible for:

- Transport: Department of Real Estate and Infrastructure
- Health: Department of Health
- Environment: Department of Environment, Department of Agriculture and Rural Areas
DEPARTMENT OF GEODESY AND CARTOGRAPHY

- As a member of NEREUS is coordinating actions within NEREUS Network in the region
- Providing topographical maps, aerial photographs, DTM, numerical databases (TBD) of voivodeship
- MSIP – metadata about thematic databases ie. environment, culture, economy, road network, cartographic service, population statistics
- Implementation INSPIRE Directive into actual laws and legal regulation
Leading global provider of engineering and geospatial software that enables our customers to build and operate more efficient plants and ships, create intelligent maps, and protect critical infrastructure.

Technology innovator since 1969; more than 4,000 employees worldwide.

Businesses and governments in 80 percent of the world’s largest countries rely on our industry-specific software.
Intergraph Polska was established in 1991 as a subsidiary of Intergraph Corporation.

In 2010 it is 150-employees company with more than 2 million USD initial capital, and over 11 million US$ revenues.

Intergraph SG&I focuses on providing software and services to enable our clients to make the right decisions at the right time using the right information.

Intergraph Poland SG&I serves a broad range of clients, including: local, regional, and national governments; businesses; and security and public safety organizations.
Mazovia district

Location of Mazovia in Poland

Panorama of Warsaw

Aerial photograph of Mazovia landscape
MAZOVIA REGION – BASIC DATA 2010/2011

**Area:** 35 600 km\(^2\) –
The largest region in Poland.

**Population:** 5,24 mln
including 3,4 mln in Mazovia cities (65%).

**Population density:** 145,9
people/km\(^2\) - more then domestic average (122 people / km\(^2\)).

**Number of companies registered:** 674 696

**Number of work places:** 1,3 mln

**Unemployment:** 9,5%
domestic average: 11,8%;
EU average: 9.7% person/km\(^2\).
GDP:
Mazovia Region:
275 billion PLN - 21.5% of domestic GDP (approx. 61 billion Euro)

Warsaw – 2/3 of Mazovia GDP!

GDP per capita
Mazovia: 59 519 PLN
(161% of domestic GDP per capita)

Unemployment:
Warsaw: 3.6%
Metropolitan Area: 6.1-6.8%

Radom – 28.9%
Szydłowiec – 35.6%
The largest cities:

Warsaw: 1,7 mln
Warsaw Metropolitan Area: 2,5 mln

Radom: 227 thousand
Płock: 127 thousand
Siedlce: 77 000
Ostrołęka: 54 000
Ciechanów: 46 000

Warsaw significantly dominates over the rest of the cities!
Mazovia Region is crossed by three European transport corridors I, II i VI.

**Corridor I: Bałtyk-Adriatyk**

**Corridor II:**
(Belarus border) – Warsaw – Berlin – Hannover – Amsterdam/Rotterdam – Manchester – Liverpool

**Corridor VI:**
Gdynia/Gdansk – Warsaw – Katowice – Žyлина (Czech Republic)
National (main) road network in Mazovia Region has **2186 km** (12% of national roads in Poland) including **134 km** of expressway roads.

**Main corridors:**
- **S7:** Gdańsk – Warsaw – Kraków – Rabka (Slovakia).
- **S8:** Wrocław – Łódź - Warsaw – S19 (Białystok/Baltic Countries)
- **S17:** Warsaw - Lublin - Zamość (Lviev).

National road system is supported by **2930 km** of regional roads.
Traffic volume is systematically increasing

2000-2005
15% increase of traffic (country average 18%)

2005-2010
17% increase of traffic (country average 22%)
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15% increase of traffic (country average 18%)

2005-2010
17% increase of traffic (country average 22%).

The highest traffic volumes 50 000 – 60 000 AADT are observed in main corridors near Warsaw.
Traffic safety is one of the extreme problem in Mazovia transport system

**In 2010:**
- 5190 accidents
- 655 fatal
- 6339 injured

**In Warsaw:**
- 45% of Mazovia accidents
- 36% of fatals
- 44% injured

Main accident reasons:
- Speeding (32.2%),
- Right of way enforcement (26.2%)
Length of Mazovia rail system:
1600 km, including 1110,5 km lanes of national importance (electrified and two rail) in frame of AGC and AGTC agreements.

The key elements of the rail system are:

Line E-20 (East-West):
Berlin – Poznan – Warsaw - Terespol - Moscow

Line E-65 (North – South):
Gdańsk – Warsaw- Katowice/Krakow – Budapest/Wien

and radial rail system serving Warsaw metropolitan area
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Warsaw is the largest rail junction in Poland!
Warsaw Airport (Fryderyk Chopin) 
central, international airport located 10 km from the city centre

**Airport capacity:** 155 000 operations/year and 15 mln passengers.

**Passenger volumes:**
- 2.6 mln in 1990
- 4.0 mln in 2000
- 8.7 mln in 2010

**Second airport** in Modlin is under construction - will be opened for Euro 2012,
location 40 km to the North of Warsaw
1. Location in the junction of main TEN transport corridors
2. National plans of motorway, expressway and rail infrastructure development
3. Location of central international airport in Warsaw
4. Dense network of roads
5. Advantage of regional transport corridors served by PT
6. Substantial share of PT serving trips in Warsaw metropolitan area and local trips in Warsaw
7. Public opinion supporting and interested in improvements and further development of the transport system
Concept of National Spatial Development Up To The Year 2030 – 13 of December 2011.

Regulation defining Plan of Motorway and Express Roads in Poland

Program of Rail Development Up to The Year 2015
STRATEGIC DOCUMENTS – REGIONAL AND LOCAL

Mazovia Development Plan – 2004 (currently under updating)

Spatial Development Masterplan for Warsaw (2006)

Development Strategy of Mazovia Region up to 2020

1. Improvement of main road corridors (motorway and expressway roads) and rail connections
2. Ensuring efficient road connections between Mazovia cities and main road corridors
3. Radical improvement of Warsaw road and rail system
4. Elimination of transport barriers
5. Improvement of roads and rails technical condition
6. Improvement of traffic safety.
7. Improvement of roads management
8. Further increase of rail system importance
9. Improvement of regional bus services.
10. Improvement of the capacity of air transport
IMPROVEMENT OF REGIONAL AND LOCAL PT

Modernisation of rolling stock, rail station and stops
IDENTIFIED TRANSPORT POLICY INSTRUMENTS - EXAMPLES

INFRASTRUCTURAL INVESTMENTS

Rail connection to Warsaw airport

New main road system and bridges over Vistula river
IDENTIFIED TRANSPORT POLICY INSTRUMENTS - EXAMPLES

CYCLISTS - PEDESTRIANS - EDUCATION
Planned extension from 37 to 152 signalised junctions
<table>
<thead>
<tr>
<th>No</th>
<th>DIFFICULTIES</th>
<th>SOLUTION ATTEMPT</th>
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<tbody>
<tr>
<td>1</td>
<td>Lack of financial resources</td>
<td>Application for EU funds. Bank loans User pay systems (on motorways)</td>
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<td>2</td>
<td>Integration of actions at regional and local level</td>
<td>Unified PT traffic within a part of Warsaw Metropolitan Area Cooperation in arranging timetables of regional and local trains and local PT</td>
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<td>3</td>
<td>Efficient information addresed to public opinion</td>
<td>Public consultation during strategies creation and investment processes</td>
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<td>4</td>
<td>Lack of support from the government level and constructive cooperation with regions</td>
<td>Pointing the problem in reports, during conferences and seminars</td>
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<td>5</td>
<td>Not adjusted low and technical regulations to the regional and local needs</td>
<td>Local and regional legal initiatives</td>
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<td>6</td>
<td>Increase of individual traffic</td>
<td>Investments and organisational improvements in PT</td>
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<td>7</td>
<td>Not sufficient knowledge and skills</td>
<td>Participation in training programs</td>
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