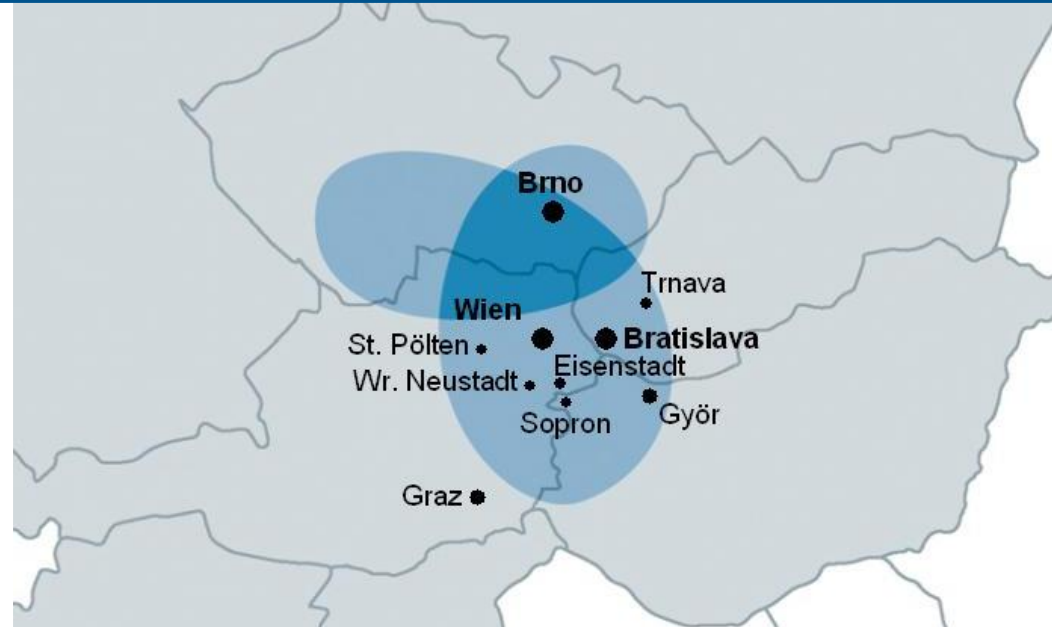


Contents

- ▶ The Centrope Region
 - CentropeMAP
 - CentropeSTATISTICS
 - Technical Implementation
 - Perspectives

CENTROPE Partner Regions

- Czech Republic
 - Region: South Moravia
 - City: Brno
 - *Interested: Olomouc*
- Slovak Republic
 - Region: Bratislava, Trnava
 - Cities: Bratislava, Trnava
- Hungary
 - Region (county): Győr-Moson-Sopron
 - Cities: Győr, Sopron
- Austria
 - Region (federal states): Burgenland, Lower Austria, Vienna
 - Cities: Eisenstadt, St. Pölten, Vienna
 - *Interested: Wiener Neustadt*



CENTROPE Region



(Source: Wikipedia)

Population

6 million
of which 3 million
in cities



Economy

3.8 million employed
55-65 % in service sector
unemployment rate between
4 and 14 %

GDP growth between
0.8 % and 3.6 %
since 2003

Infrastructure

3 international airports
(Brno, Bratislava, Vienna)

2 Danube river ports
(Vienna, Bratislava)

Pan-European corridors

Contents

- The Centrope Region
- ▶ CentropeMAP
- CentropeSTATISTICS
- Technical Implementation
- Perspectives

Challenges

Centrope MAP Challenges

- Legal planning responsibilities on different levels
- Data responsibilities on different levels
- Administrative boundaries = data boundaries
- No “common data infrastructure“ available, only “isolated applications“

Input to Centrope Map

Geodata

Land use

(Corine Land Cover 2000, Level 3, all layers separately)

about 32 categories

Administrative borders

NUTS 2, NUTS 3, LAU 2

Infrastructure (linear):

road network
railway network
conductions, pipes

Infrastructure (punctiform):

transportation (stops, P+R)
education
health/social
administration
leisure/recreation
culture
supply and disposal
other

Planning:

building land
protection areas
Natura 2000
world heritage
ground water protection
flood protection
mining

Anmerkungen:

WEBmap Service: dh.
Verknüpfung mit anderen
Servern (Geoland, SK, CZ, HU)
Karten durch user online
generierbar und als Bild (PDF
hochauflösend) downloadbar.

Statistical data

Database

NUTS 2, NUTS 3, LAU 2 (up to availability and meaning)

Area:

cadastral area, area of durable settlement, forest, water bodies,
...

Population:

Development, migration balance, balance of births
prognoses, age groups, nationalities
educational qualification
household size, secondary residences
employed, unemployed
structure of income, purchasing power
settlement structure

Occupation and Economy:

places of work, business structure
branch structure, value added
jobs, commuter structure
agriculture, forestry, tourism

Infrastructure:

(Data linked with punctiform infrastructure data)
administration, education, social, leisure, recreation, tourism,
culture, ...

Visualisation

of the data based on
administrative borders
(maps, diagrams)

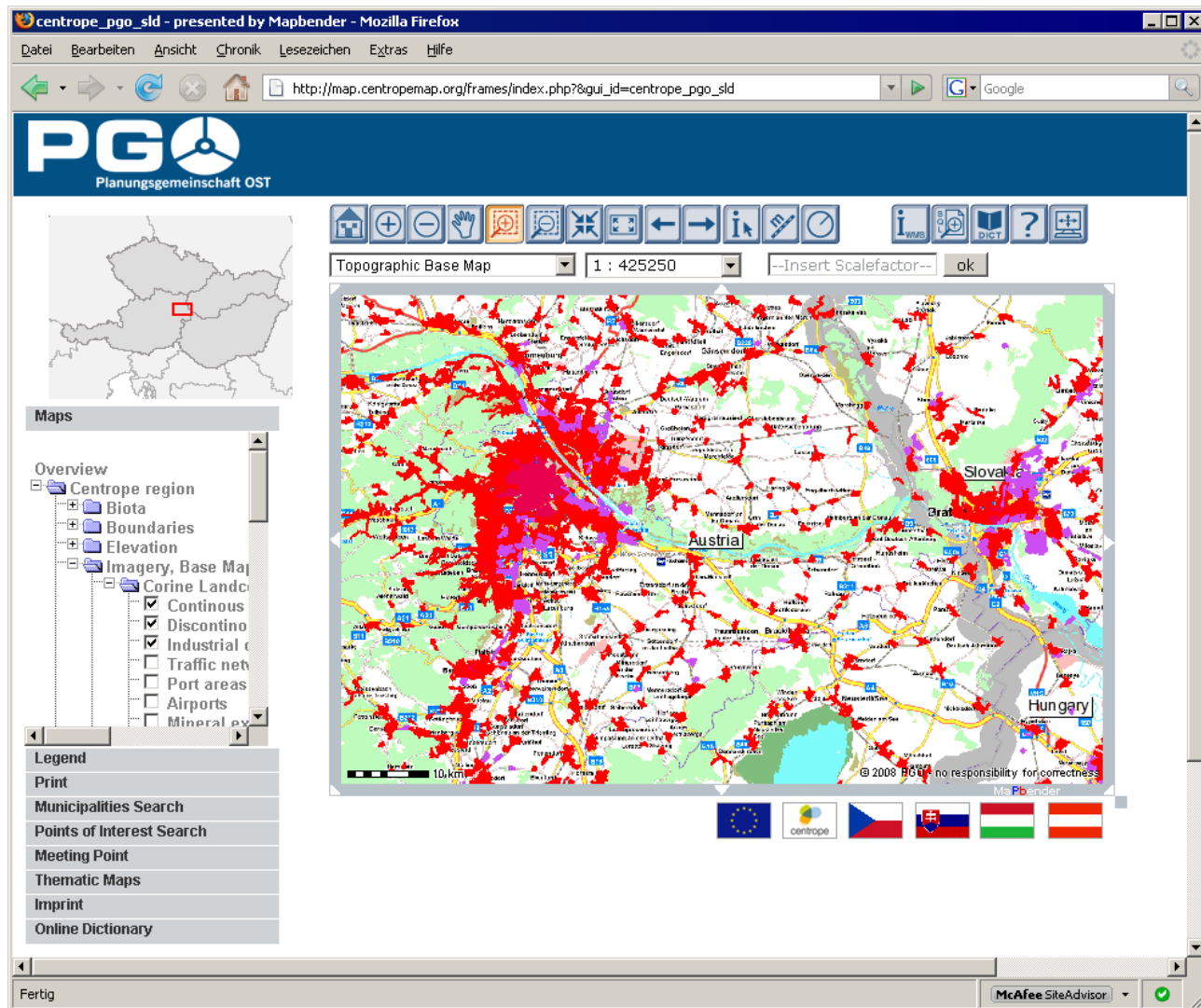
Remarks:

Phase 1:
downloadable print-
ready maps (PDF)

Phase 2:
online interactive maps

CentropeMAP Web Application

- datasets come directly from project partners
→ no redundancy, always up-to-date
- functions: Zoom, Pan, Query, Search, Tell-A-Friend, Measurement
- hundreds of layers for the whole region and sub-regions
- background maps from simplified views to high-resolution satellite images and aerial views (ortho-photos)
- map generation on the fly



Data Examples

The screenshot displays the centropemap.org web application interface. At the top left is the PGO logo (Planungsgemeinschaft OST). The main map area shows a detailed view of Trnava, Slovakia, with various data layers overlaid. The map control panel on the left includes a 'Maps' section with the following layers checked: 'Inland waters', 'Urban fabric', 'High-ranking tra', 'Road network (u', and 'Railway network'. Below the map control panel is a 'Legend' section with buttons for 'Print', 'Municipalities Search', 'Points of Interest Search', 'Meeting Point', 'Thematic Maps', 'Imprint', and 'Online Dictionary'. The map itself shows the city of Trnava in the center, surrounded by green areas representing elevation and brown lines representing the road network. A red line indicates the railway network. The map is overlaid with a grid and includes a scale bar at the bottom left. The toolbar at the top of the map area includes various navigation and tool icons. The bottom of the map area features logos for the European Union, centrope, and the national flags of the Czech Republic, Slovakia, Hungary, and Austria.

elevation, road network, railway network, urban fabric, inland waters

Data Examples

The screenshot displays the PG0 web application interface. At the top left is the PG0 logo (Planungsgemeinschaft OST). The main map area shows a high-resolution orthophoto of a residential area in Znojmo, CZ, with a green dotted line highlighting an environmental protected territory labeled 'Podvly'. The interface includes a toolbar with navigation and map controls, a scale bar (1:3756), and a legend panel on the left. The legend panel lists various map layers such as 'Name of regions', 'Economy', 'Environment', and 'Imagery, Base Maps, E', with 'Orthophoto 2003' and 'Protected territory' checked. Below the legend are buttons for 'Print', 'Municipalities Search', 'Points of Interest Search', 'Meeting Point', 'Thematic Maps', 'Imprint', and 'Online Dictionary'. At the bottom of the map area are logos for the European Union, centrope, and the flags of the Czech Republic, Slovakia, Hungary, and Austria.

high resolution orthophoto, environmental protected territory (Znojmo, CZ)

Data Examples

PGO
Planungsgemeinschaft OST

Select Background | 1 : 219713 | --Insert Scalefactor-- | ok

Maps

- ata
- ria
- und Water Maximum Level 2
- und Water Maximum Level 2
- und Water Maximum Level 4
- und Water Body
- ter Sanctuaries
- und Water Directive
- und Water Preservation Area
- und Water Sanctuary
- er Head Protection Area
- Directive (SPA)

Legend

Print

Municipalities Search

Points of Interest Search

Meeting Point

Thematic Maps

Imprint

Online Dictionary

© 2008 PGO - no responsibility for correctness

centropemap.org

urban fabric, rivers, inundation risk areas, high ground water level (<2m)
(Danube, Lower Austria)

Data Examples

PGO
Planungsgemeinschaft OST

Select Background | 1 : 410094 | --Insert Scalefactor-- | ok

Maps

- Boundaries
- Environment
- Inland Waters
- Society
- Structure
- Transportation
 - Electric railroad
 - Narrow railroad
 - Major roads
 - Major roads2
 - Minor roads
 - Minor roads2
 - Offroads
 - Minor offroads

rakia

Legend

Print

Municipalities Search

Points of Interest Search

Meeting Point

Thematic Maps

Imprint

Online Dictionary

© 2008 PGO - no responsibility for correctness

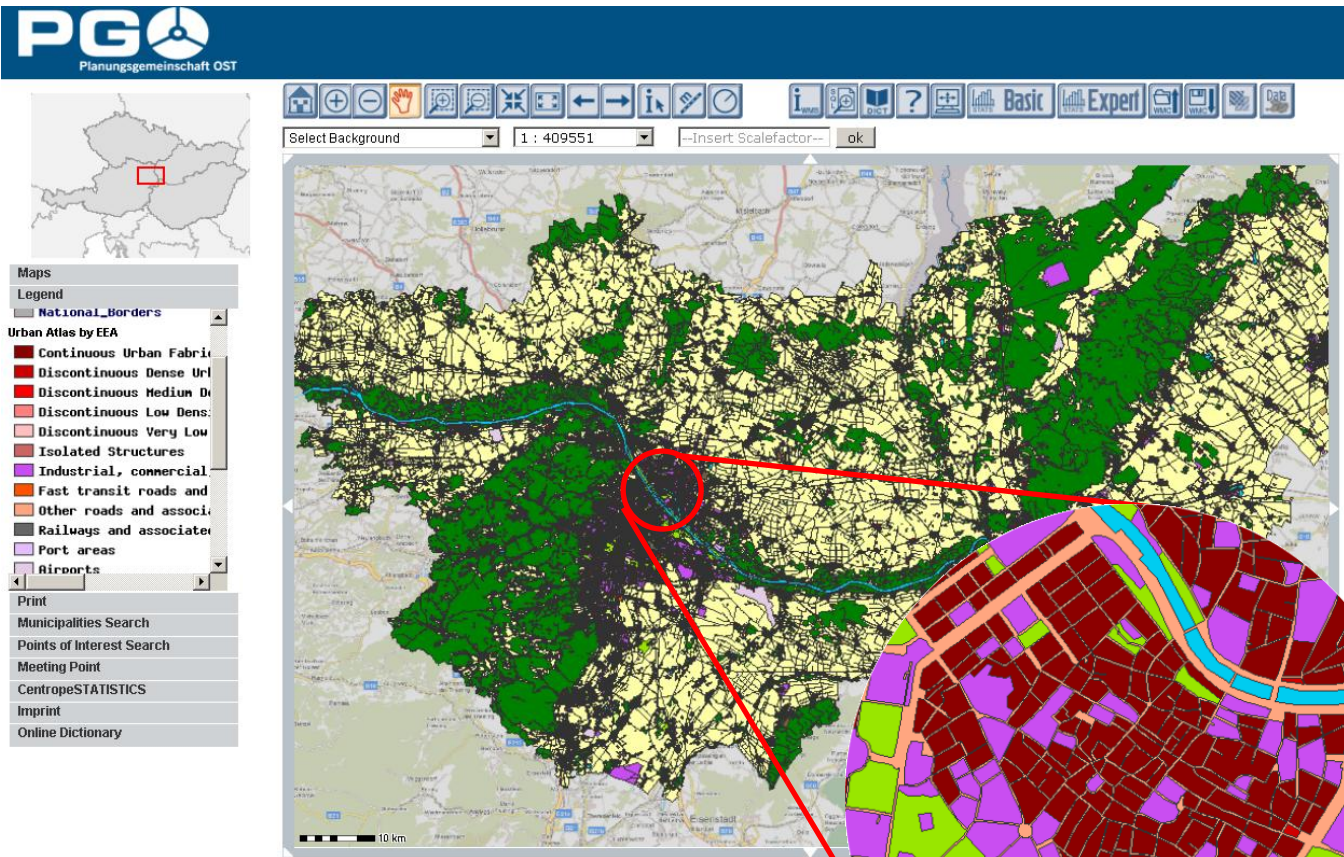
MS Pender

10 km

centropemap.org

Corine Land Cover Level 2 (Lake Neusiedl Region)

Data Examples



European Urban Atlas
(Twin City Region Vienna-Bratislava)

Data Examples

The screenshot shows the Centropemap GIS application interface. At the top left is the PGO logo (Planungsgemeinschaft OST). Below it is a small overview map of Austria. The main map area displays a detailed view of St. Pölten, Lower Austria, with building land highlighted in red and a road network in yellow and orange. The interface includes a toolbar with various navigation and analysis tools, a legend on the left side, and a scale bar at the bottom. The legend is organized into categories: 'Maps' (Planning and Cadastre, Commercial and industrial, Other building land, Objective 1 areas, Objective 2 areas, Forest development, Flood water inundation), 'Structure' (Transportation: Motorways, Main roads, Other major roads, Minor roads, Parking, Bicycle paths, Paths), 'Legend', 'Print', 'Municipalities Search', 'Points of Interest Search', 'Meeting Point', 'Centropemap STATISTICS', 'Imprint', and 'Online Dictionary'. The bottom of the interface features logos for the European Union, centrope, and several national flags.

Building Land (Residential/Commercial), Road Network (St. Pölten, Lower Austria)

Contents

- The Centrope Region
- CentropeMAP
- ▶ CentropeSTATISTICS
- Technical Implementation
- Perspectives

Project Partners

CentropeSTATISTICS is a cross-border database project of these co-operating statistics offices/departments in the Centrope Region

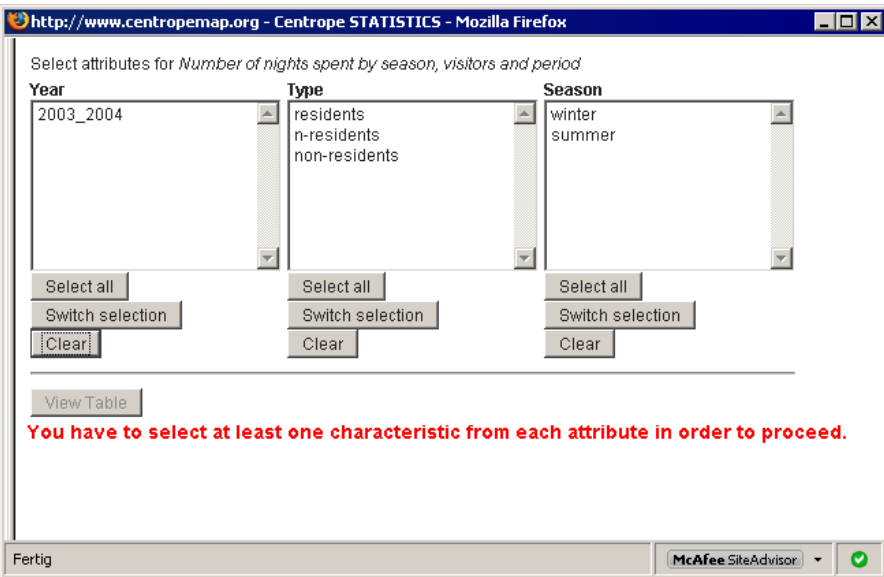
(on behalf of PGO - Planungsgemeinschaft Ost/Eastern Austrian Planning Association, and technically led by CEIT ALANOVA gemeinnützige GmbH)

- **Czech Republic:** CZSO - Czech Statistical Office – Český statistický úřad (ČSÚ)
- **Slovak Republic:** Statistical Office of the SR – Štatistický úrad Slovenskej republiky
- **Hungary:** HCSO - Hungarian Central Statistical Office – KSH - Központi Statisztikai Hivatal
- **Austria:** Statistics Departments of the three Austrian federal states
Burgenland,
Lower Austria and Vienna

Workshops:
September 2008 in
Schwechat,
March 2009 in Schwechat,
September 2009 in Brno,
2010 t. b.a.

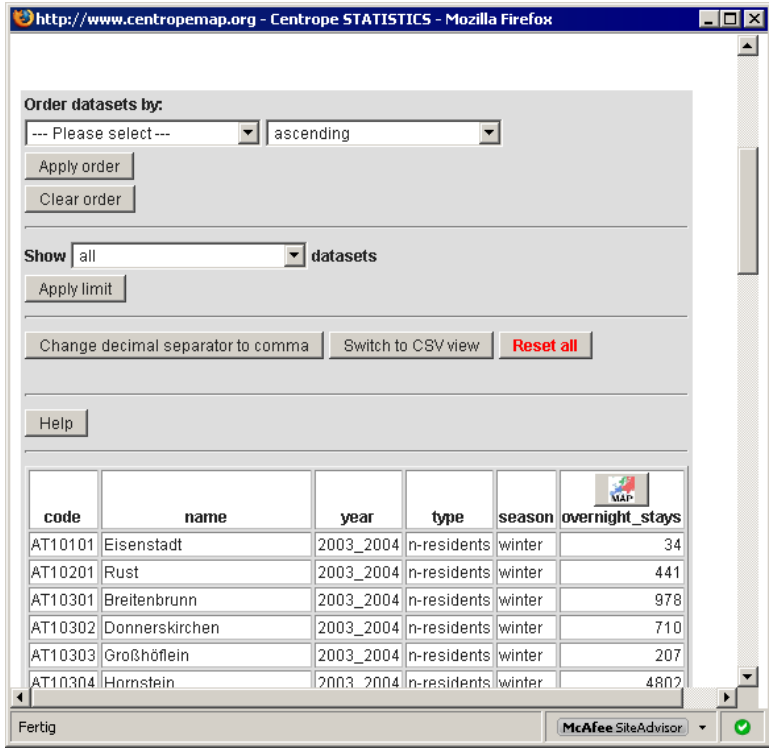


CentropESTATISTICS User Interface



- All available indicators are displayed
- Multiple choice allowed
- Results are shown as table
- Dynamic Database Live Query


- Functions:
Show – Export – Query – Sort



→ On the fly Map Generation

CentropeSTATISTICS User Interface

http://www.centropemap.org - Centrope STATISTICS - Mozilla Firefox



Planungsgemeinschaft OST

NUTS 3 Overview: Population density, dwellings, population by age groups

Statistics for persons_per_household:

Minimum:	2
Mean:	2.629
Median:	2.6
Maximum:	3.1
Variance:	0.045
Std. Dev.:	0.213

Select method
--- Please select ---

Select number of classes
--- Please select ---


Select colour ramp
Red monochromatic

Invert colour ramp

Apply
Reset all



http://www.centropemap.org - Centrope STATISTICS - Mozilla Firefox



Planungsgemeinschaft OST

NUTS 3 Overview: Population density, dwellings, population by age groups

Statistics for persons_per_household

Minimum:	2
Mean:	2.629
Median:	2.6
Maximum:	3.1
Variance:	0.045
Std. Dev.:	0.213

Select method
Quantiles

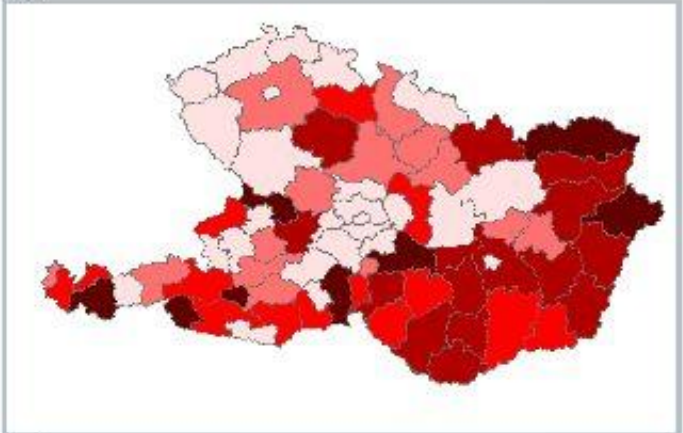
Select number of classes
5

Select colour ramp
Red monochromatic

Invert colour ramp

Apply
Reset all

Create Map



Legend

- 1 - 2.6
- 2.6 - 2.7
- 2.7 - 2.8
- 2.8 - 3.1

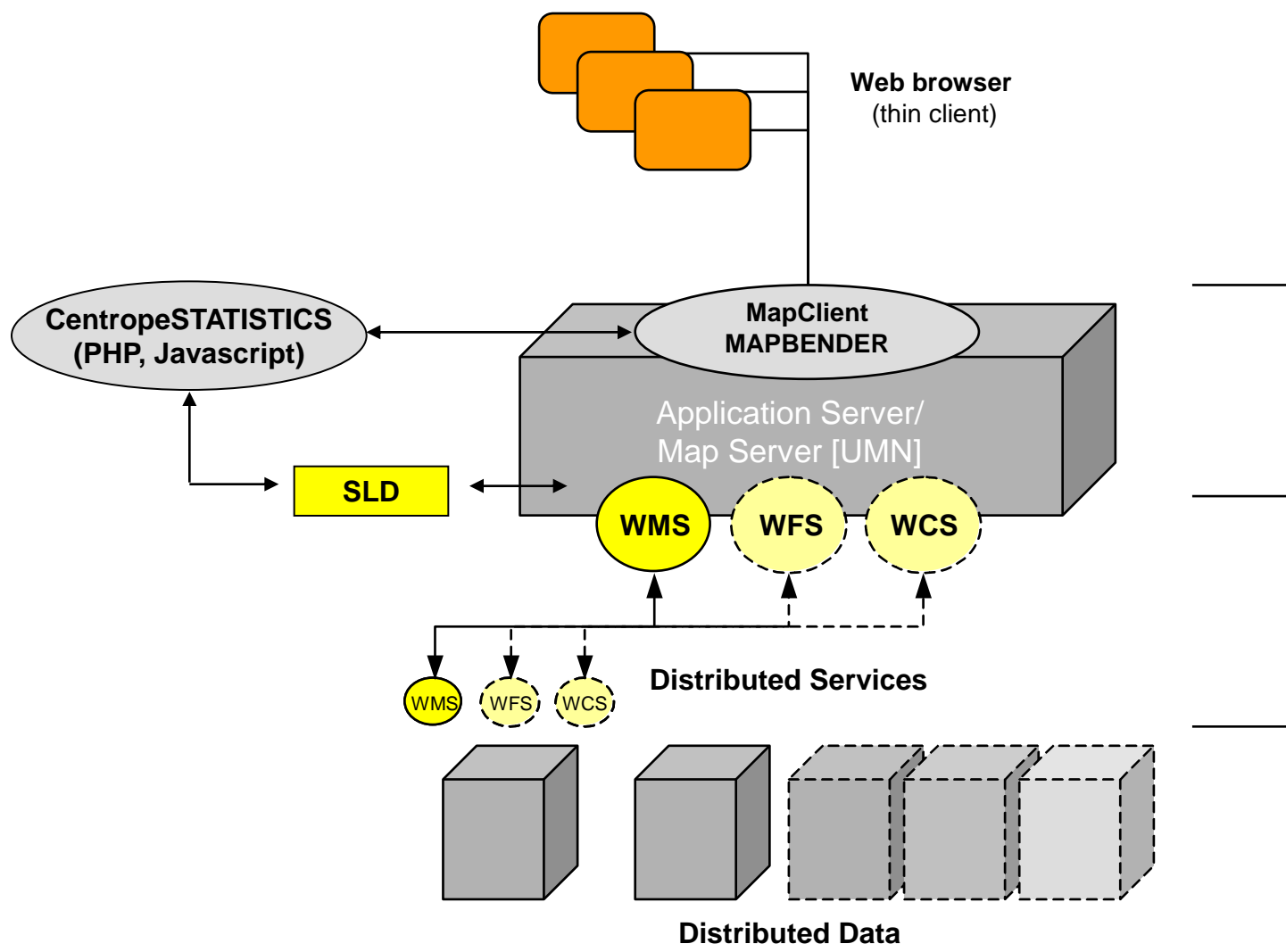


→ On the fly Map Generation

Contents

- The Centrope Region
- CentropeMAP
- CentropeSTATISTICS
- ▶ Technical Implementation
- Perspectives

System Architecture



Contents

- The Centrope Region
- CentropeMAP
- CentropeSTATISTICS
- Technical Implementation
- ▶ Perspectives

Geodata Infrastructures are a Pan-European Matter

- INSPIRE – Infrastructure for Spatial Information in the European Community**

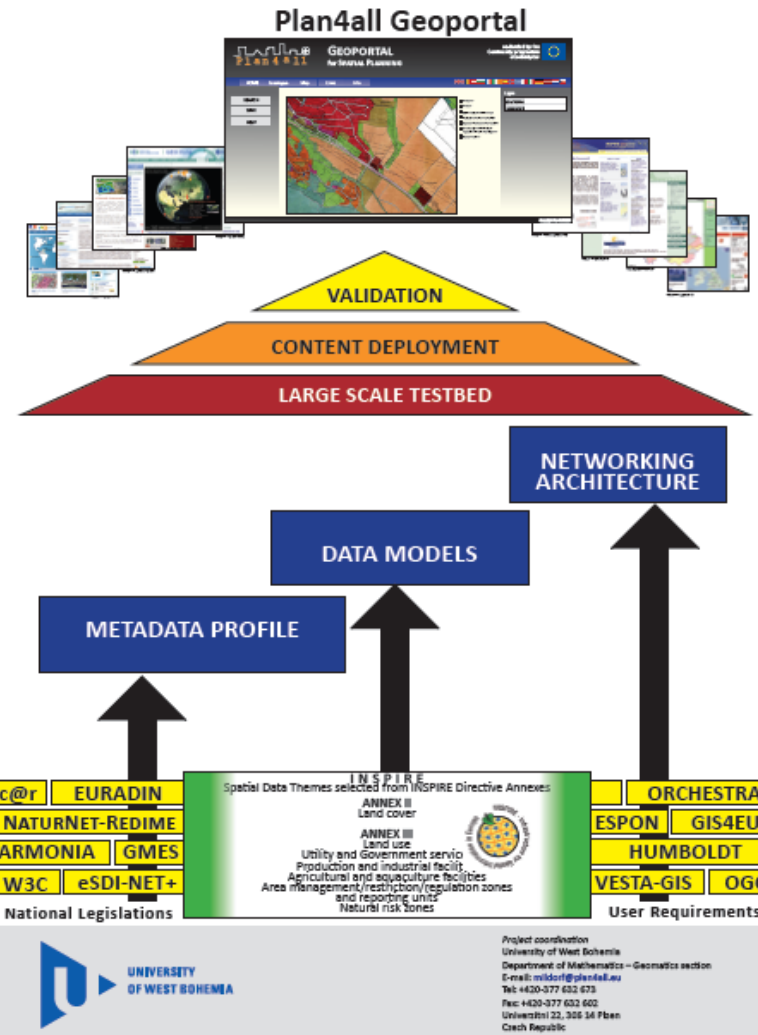
The INSPIRE directive aims to create a European Union spatial data infrastructure. This will enable the sharing of environmental spatial information among public sector organisations and better facilitate public access to spatial information across Europe.

- Example Project**

Data harmonisation and access to planning related data in Europe
<http://www.plan4all.eu/>

(European Network of Best Practises for Interoperability of Spatial Planning Information)

- User-generated content, OPEN SOURCE DATA**
 (Open Street Map, ...)

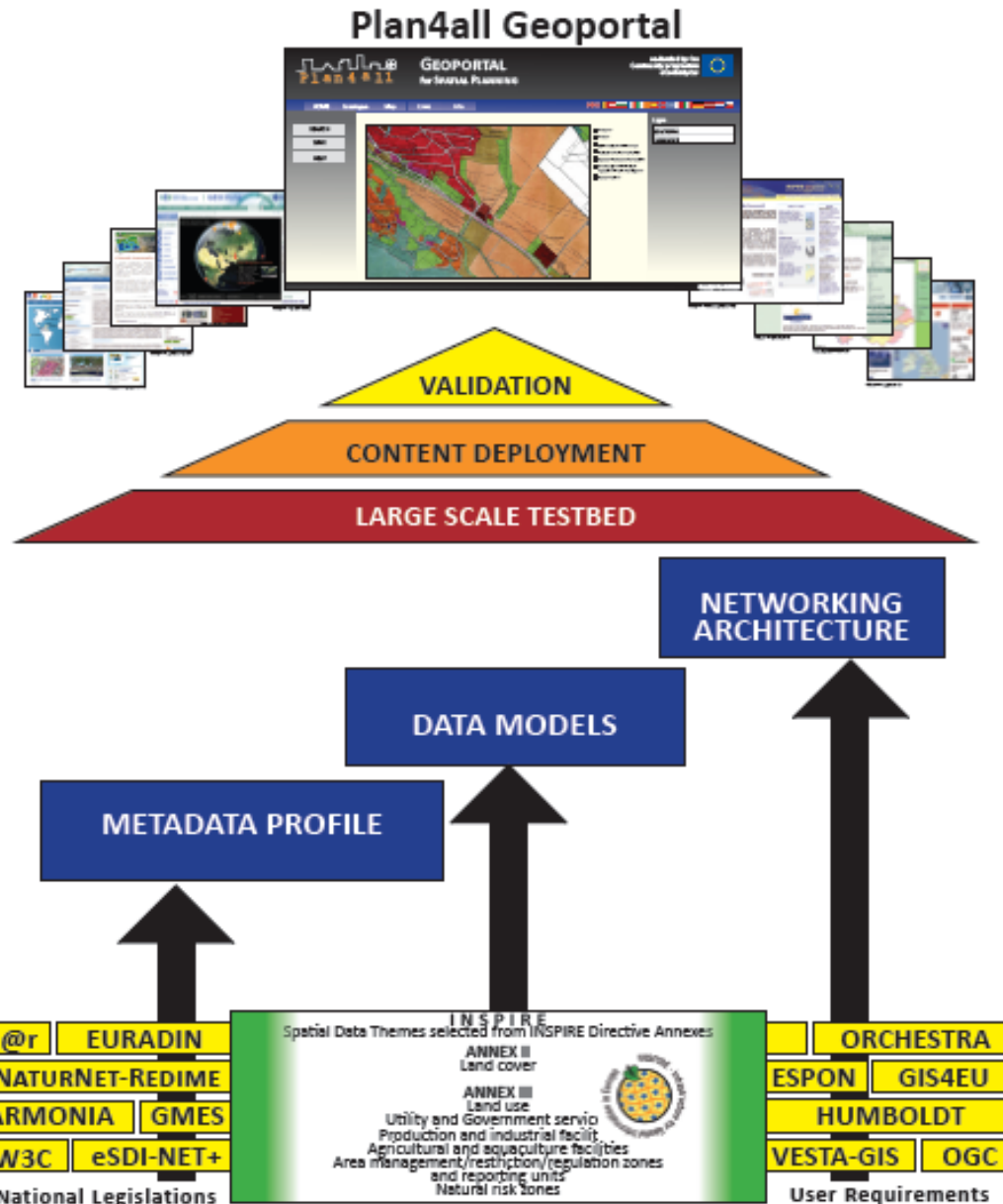


Example Project



Harmonisation of spatial planning data according to the INSPIRE directive based on the existing best practises in EU regions and municipalities and the results of current research projects

www.plan4all.eu



Example Project



Harmonisation of Land Use and Land Cover Databases for the creation of value added services

www.hlandata.eu

Common Data Sharing Infrastructure

Common Web services allowing to visualise, overlay information from different sources

PILOT 1

LU/LC data analysis system

PILOT 2

national land information system

PILOT 3

Waste dumps stratification

European Environment Agency

European Environment Agency (EEA)
provides sound, independent
information on the environment

European Environment Agency



Air pollution



Biodiversity



Climate change



Land use



Water

**cross-border &
accessible**

<http://www.eea.europa.eu>

THANK YOU for your attention!

22 May 2013

Manfred Schrenk (m.schrenk@ceit.at)

Clemens Beyer (c.beyer@ceit.at)

Walter Pozarek (walter.pozarek@noel.gv.at)



Concorde Technology Center Schwechat
Concorde Business Park 2/F
A-2320 Schwechat/Austria

Tel. +43 1 90360 1202
Fax +43 1 90360 1299

alanova@ceit.at
www.ceit.at/ceit-alanova