

ESTABLISHING WORKING RELATIONS WITH ICA/ SDI ORGANIZATIONS

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International Cartographic Association

www.icaci.org

Commissions of ICA

- Commission on Cartography and Children
- Commission on Education and Training
- Commission on Gender and Cartography
- Commission on Generalisation and Multiple Representation
- Commission on the History of Cartography
- Commission on Incremental Updating and Versioning

- Commission on Management and Economics of Map Production
- Commission on Mapping from Satellite Imagery
- Commission on Map Projections
- Commission on Maps and Graphics for the Blind and the Partially Sighted
- Commission on Maps and the Internet
- Commission on Marine Cartography
- Commission on Mountain Cartography

- Commission on National and Regional Atlases
- Commission on Planetary Cartography
- Commission on Spatial Data Standards
- Commission on Theoretical Cartography
- Commission on Ubiquitous Mapping
- Commission on Visualization and Virtual Environments

- Working Group on Mapping Africa for Africa
- Working Group on Spatial Data Uncertainty and Map Quality
- Working Group on Early Warning and Risk Management Mapping
- Publications Committee

Strategic Plan

ICA truly recognised as the World
authoritative body for Cartography and GI

Main objectives:

1. To contribute to the understanding and solution world-wide..... (SD, Early Warning,.....).
2. To foster the international and national of envi., economic and social information in a geospatial context. Forum for discussion

3. To facilitate the transfer of new Cartographic and GI technology and knowledge between nations...developing countries (Africa, Latin America).
4. To carry out and promote multi-national cartographic and GI research in order to solve scientific and applied problems.
5. To support education in cartography/ GI
6. To promote professional and technical standards in cartography and GI Sciences

OPERATING Environments

Science and technology

Education

Professional Practice (Nature, January 04)

Society (social and organisational)

*Joint Board with sister organizations to
create representative GI BODY*



Prehistoric Map,
Pavlov Hills, South
Moravia, 24 000 B.C.



Deblin

Casbim

Ratzen

Habrowa

Korzum

Posortz

Bytschka

Räczkowitz

aschowitz

Reickan

Lischna

Eickborn
B. Wewersj

Spilberg

Kralitz

Rositz

Sip

Brinn
B. Brno

Schla:
panitz

Sokolnitz

Oslowany

Strutz
B. Traubsko

Modritz

Teln

Gihlawitz flu.

Schelschitz

Ragran
B. Reybrad

Mabelno

Ewancitz

Btschitz

Dog:
Kowitz

Laut
B. Blac

Ruchowan

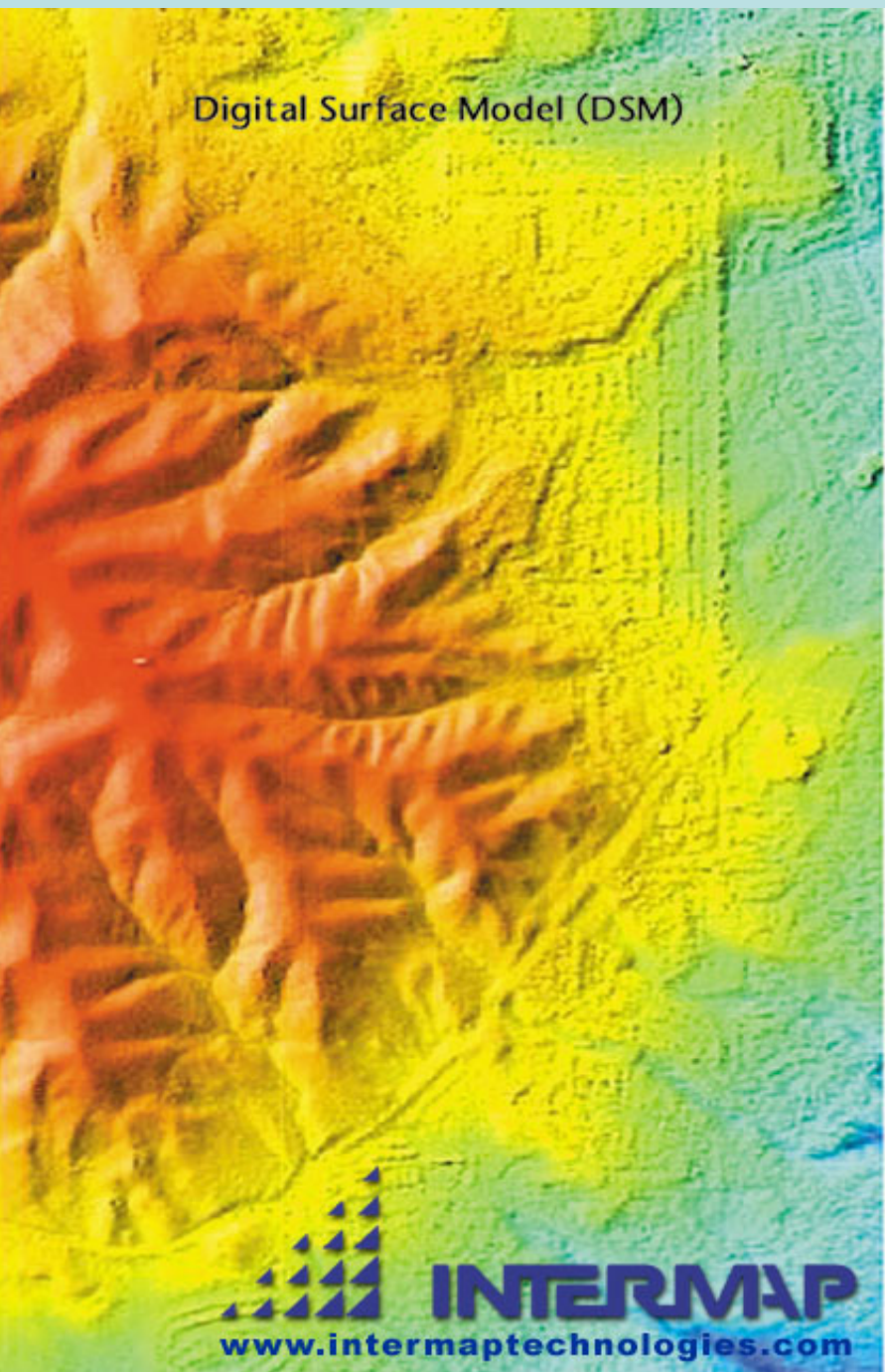
Preles
B. Prawlow

Kaunitz

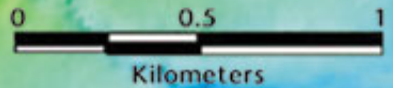
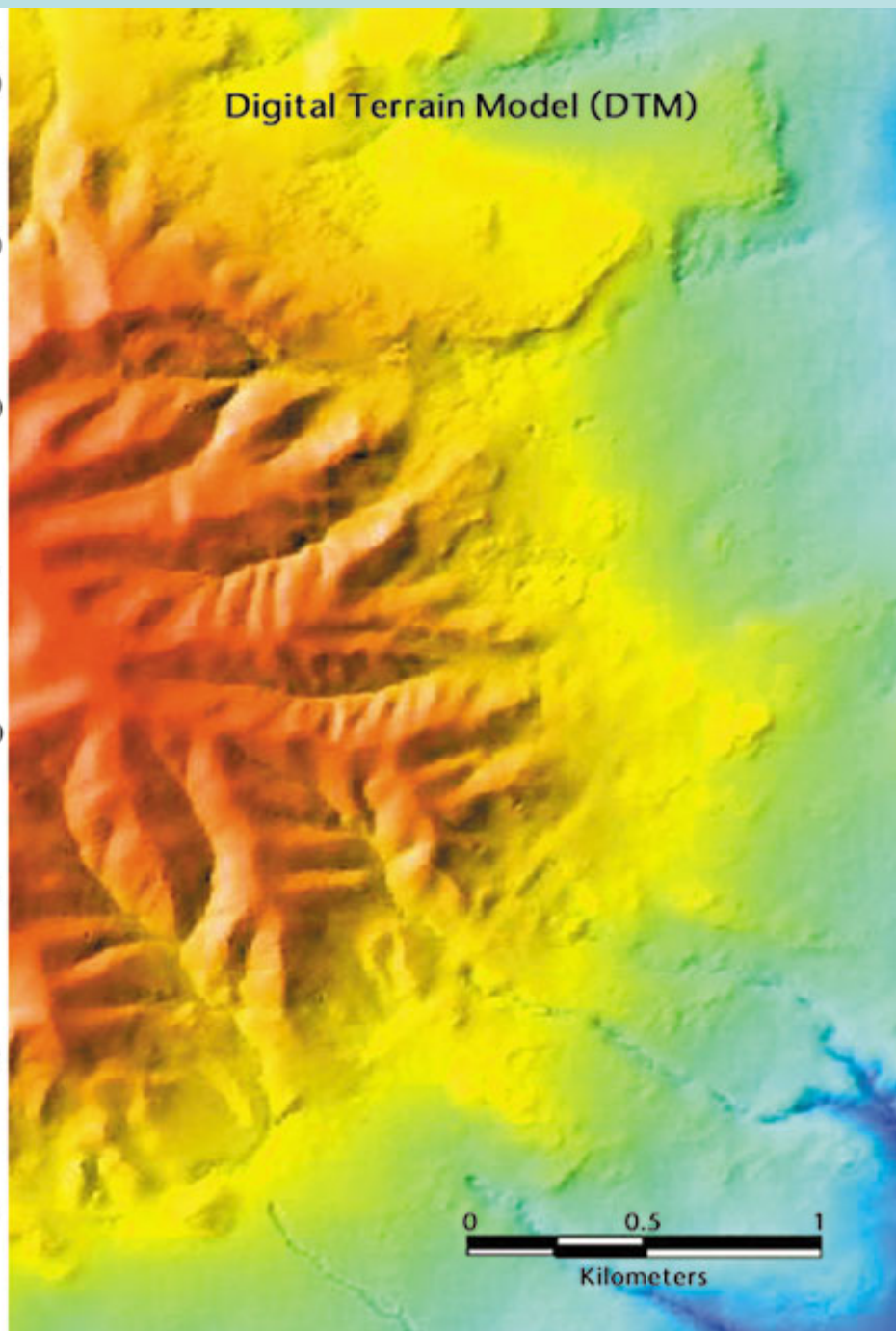
Selowitz
B. Židlochov

Krumlow

Digital Surface Model (DSM)



Digital Terrain Model (DTM)





• Opus nunc tertio ab ipso Auctore recognitum, multisque locis castigatum, & quamplurimis
nouis Tabulis atque Commentarijs auctum.



*Spectandum dedit Ortelius mortalib. orbem,
Orbi spectandum Gallus Ortelium. Papius*

Infrastructure for Spatial Information in Europe

Different Policies and standards



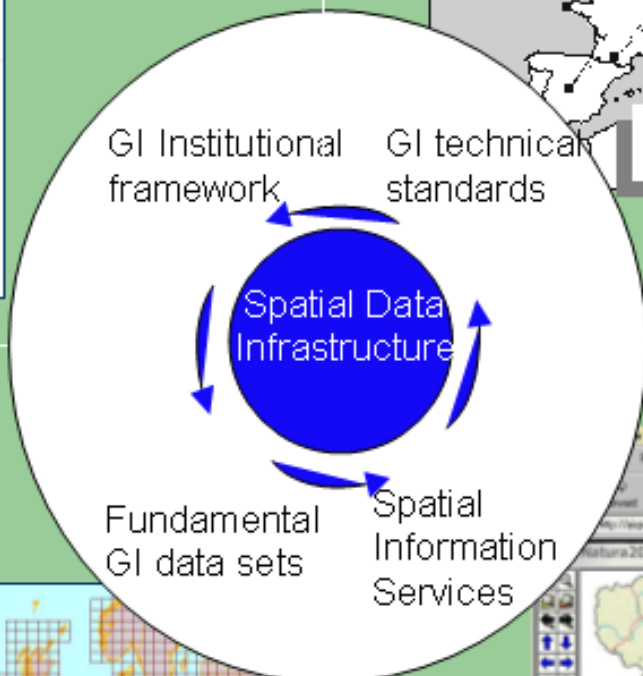
Technical Support to GI policy development



Europe is moving 3cm/year

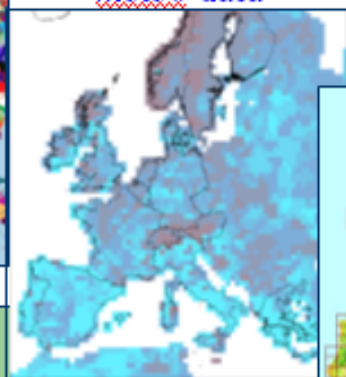
Standards implementation

Different sea level in Europe



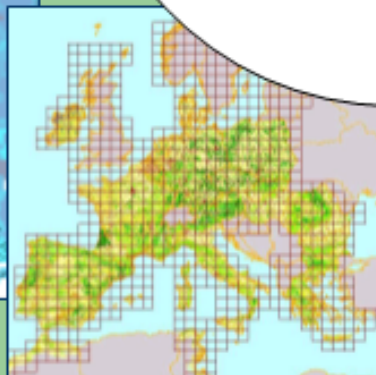
Technical Support To data set creation

Meteo data



Catchments

Needs to create European spatial data sets



Land Cover

GIS for Natura 2000



GIS to manage Natura2000 sites

eEurope : eGovernment on line

Towards an Infrastructure for Spatial Information

From discovery

to Full Interoperability

Standardisation

- Metadata
- Discovery Service
- Data Policies
- Licensing Framework
- Coordinating structures
- ...

Harmonisation

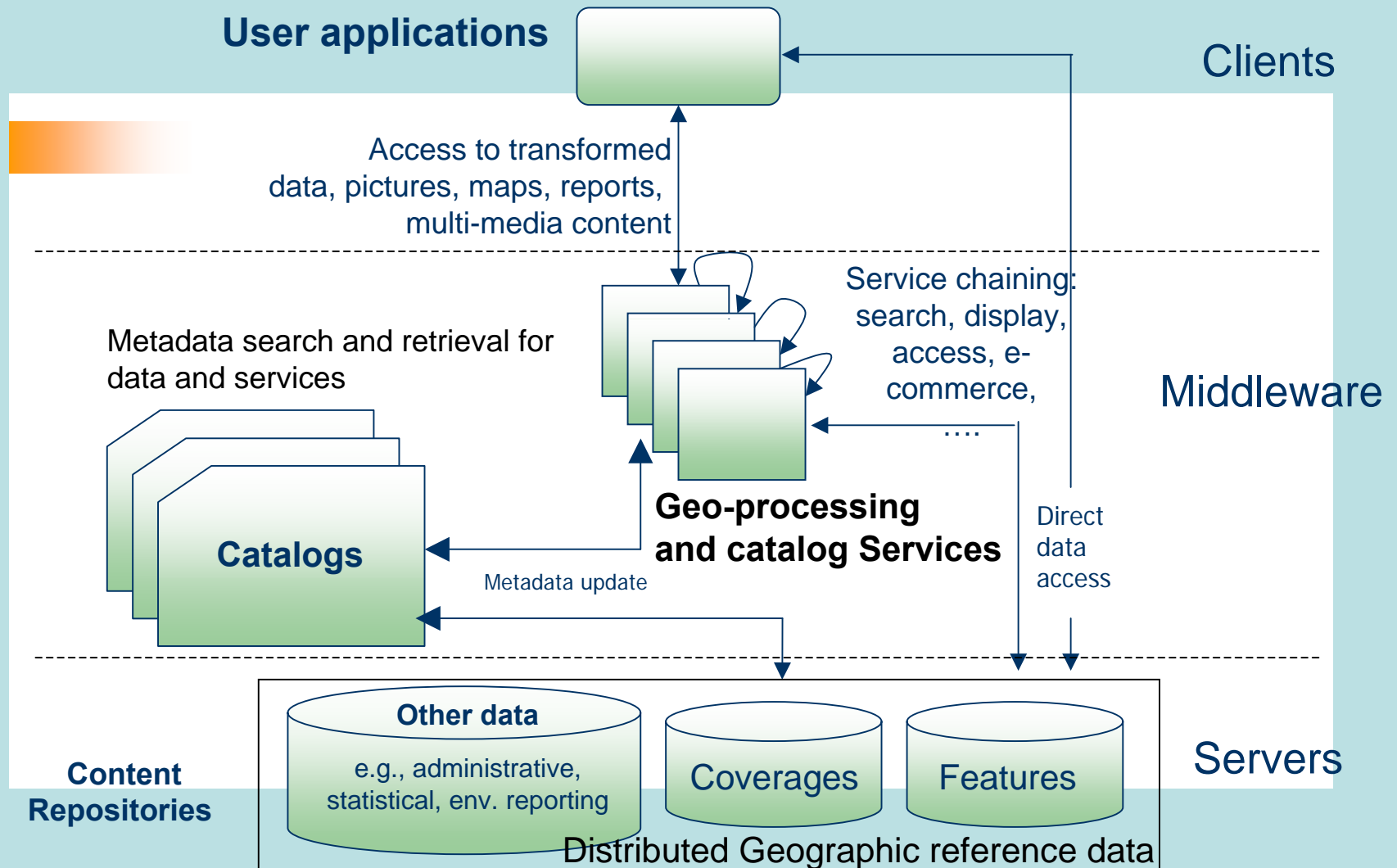
- Geodetic Framework
- Seamless data
- Quality insurance
- Certification
- Updating
- Data model
- ...

Integration

- Catalog Services
- View Service
- Query Service
- Object Access Service
- Generalisation Services
- Geo-Processing services
- ...

Current status

Architecture model



After the Digital Earth Reference Model

SIX Principles of INSPIRE – I

1) Data should be collected once and maintained at the level where this can be done most effectively.

2) It should be possible to combine seamlessly spatial information from different sources across Europe

SIX Principles of INSPIRE – II

3) It should be possible for information collected at one level to be shared between all the different levels, in detail for detailed investigations, general for strategic purposes.

4) Geographic information needed for good governance at all levels should be abundant under conditions that do not refrain its extensive use.

SIX Principles of INSPIRE – III

5) It should be easy to discover which information is available, fits the needs for a particular use and under which conditions it can be acquired and used.

6) Geographic data should become easy to understand and interpret because it can be visualised within the appropriate context selected in a user-friendly way.

Cartography begins where SDI ends.

National Atlases: provided the most detailed *available* geospatial information on a specific country, allowed integration of physical and socio-economic data...visualised at a comparable level of detail or generalisation

Atlas de Finlande, Finnish Geographical Society in Helsingfors, 1899)

Planning atlases, environmental atlases

Chinese National Atlases – 4 volumes

Web atlases: to provide highest possible resolution withing the smallest possible loading time

New medium, constantly updated spatial information, possible to use GIS functions, queries

Marginal information available on demand, as pop-up features

Latest step:

Production of customized and personalized atlases that would provide better possibilities for communication...

Based on either active personal choices, or on selection made by the computer on the basis of user behaviour.

Actual visualised geospatial information contents

NSDI: umbrella of policies, standards, and procedures that are intended to boost interaction and efficient use of geospatial data. (Europe: metadata, America: data)

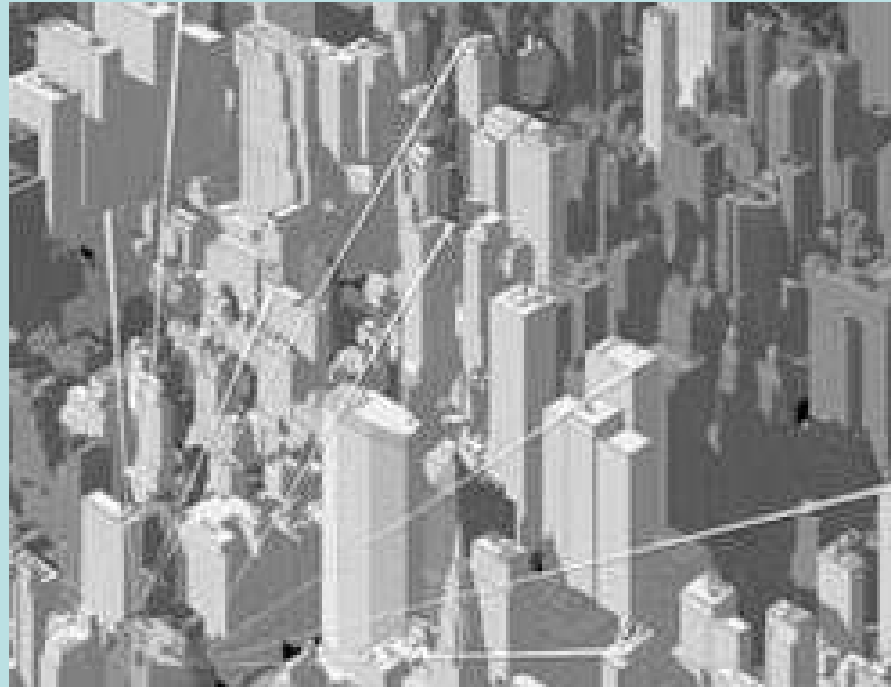
But: what is client's ability to access (physically) and relate to the geospatial information??? To reach client's mind and as well as her/his eyes, and actually understood...no part of the concern.

Clearinghouses would develop into *WEB Portals* (not only online services)

ICA offers *unique solutions* for the creation of SDI and mainly using them by right way by users.

The tasks of ICA lie in the *cartographic visualization* of data and information stored in the relevant databases, and also..

in *individualization*, i.e. customization of spatial data sets for specific types of users.



Vizualisation of 3D model for telecommunication.



Vizualisation of 3D cartographic model for various users.

GNSS

Variable information

Respecting geographical hierarchy

Multi-sources (Galileo, Glonas, Navstar,....)

ICA

(dynamic) cartographic (geo) visualization,
cognition, mobile maps

sustainability development (Global
Mapping)

SDI

Access, availability, interoperability multi
sources, lingual, cultural, ethical?

GSDI, GISD, Digital Earth,.....

Several dimensions of cooperation:

- 1) Technological development, integrative usage of GIS, GPS, digital cartography, ...
- 2) User oriented approach: user profiles, user communities, services, user friendly products
- 3) Implementation and implantation analyses
- 4) Education: fundamental schools, etc.

ICC

International Cartographic Congress

A Coruna, Galicia, Spain

July 9 – 16, 2005



THANK YOU

VERY

MUCH !!!!!

Aligator

Xie, Xie

DEKUJI (in Czech)



