GI 2008

SYMPOSIUM

INTER-REGIONAL

DRESDEN

15. / 16. Mai 2008

8. Sächsisches GIS-Forum < > 8th Saxonian GIS-Forum

PROGRAMM

**** 15 Jahre GIS-Weiterbildung < BOWGIS-ACADEMY > 15 Years GIS Education ****

PROCEEDINGS

ABSTRACTS & SUMMARIES
POSTERS & PRESSINFOS & GI-DOCUMENTS

NaturNet+Redime (NNR)
Sustainable EU-FP6-Project Results Dissemination

Organized by IGN e.V. & BOW - Dresden (DE)
In close Cooperation with CCSS & CAGI - Praha (CZ)

EU-FP6-Thematic Priority: SUSTDEV-2004-3.VIII.2.e

EU-FP6-Instrument: **SPECIFIC TARGETED RESEARCH PROJECT (STREP)**
Project no.: **# 004074**
Project duration: **01. 03. 2005 - 31. 10. 2007**
Project acronym: **NATURNET+REDIME (NNR)**

Project title: NEW EDUCATION AND DECISION SUPPORT MODEL FOR ACTIVE BEHAVIOUR IN SUSTAINABLE DEVELOPMENT BASED ON INNOVATIVE WEB SERVICES AND QUALITATIVE REASONING

Workpackage 9: **SUSTAINABLE DISSEMINATION ACTION OF NNR PROJECT RESULTS**
Assessment by Regional Stakeholders and Decision Makers

- NNR Awareness, Training & Education
- NNR Toolset for MetaData & Knowledge Management
- NNR Content-Development for E-Learning by User Groups
- NNR Interoperability of Geo-Enviro-Spatio-WebService-Tools
- NNR Sustainability of X-border-Development in Europe of Regions
- NNR Synergies with other EU-Projects and Dissemination Events
- NNR Tools and Usability Assessment for E-Learning Courses

SAXONIAN NATURNET:
Partnership: **IGN - INNOVATION. GRENZÜBERSCHREITENDES NETZWERK** # X-BORDER NETWORK Gemeinnütziger e.V. # Non-profit Association
DRESDEN / Saxony / Germany

GI2008-Symposium-PROCEEDINGS

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Chaired & Edited by: Doz. Dr. Frank HOFFMANN, CSc
IGN e.V. - Vorstandsvorsitzender

ACKNOWLEDGEMENT: **THE GI2008-SYMPOSIUM HAS BEEN SUPPORTED BY FREE STATE OF SAXONY -**
THE PRIME MINISTER OFFICE (SAXONIAN STATE CHANCELLERY)
INTER-REGIONAL COLLABORATION PROGRAM
DEPARTMENT OF EUROPEAN POLICY & REGIOGOV-DD
"2008 - THE YEAR OF INTER-CULTURAL DIALOGUE"
>>> GEFÖRDERT DURCH DEN FREISTAAT SACHSEN <<<

SUPPORTED BY: BUSINESSGEOMATICS, CAGI, CCSS, ESRI, EU-FP6-NNR-CONSORTIUM, GEOCONTENT, INTERGRAPH, INTERMAP, RPDD, TUD-AGROSYSTEMTECHNIK, UMWELTBUNDESAMT-SERVICE
>>> SEE ALSO ACKNOWLEDGEMENT AT LAST PAGE ! <<<

ERÖFFNUNG DER EUROPAWOCHE IN SACHSEN
< **02. 05. 2008** >
OPENING OF EUROPA WEEK IN SAXONY

GI2008-SYMPOSIUM
INTER-REGIONAL
15./16.05.2008
DRESDEN

PROGRAMM GI2008

Willkommen in Dresden
Welcome in Dresden

IMPRIMATUR
13.05.2008 / 24:00

EUROPÄISCHES JAHR DES INTERKULTURELLEN DIALOGES
EUROPEAN YEAR OF INTERCULTURAL DIALOGUE
8. Sächsisches GIS-Forum mit internationaler Beteiligung
8th Saxonian GIS-Forum with international Participation

NACHHALTIGKEIT DER INTER-REGIONALEN ZUSAMMENARBEIT, ENTWICKLUNG UND GRENZÜBERSCHREITENDE INTEROPERABILITÄT IM EUROPA DER REGIONEN

INNOVATIVE TECHNOLOGIEN UND WEITERBILDUNG IM KONTEXT EINER NACHHALTIGEN INFRASTRUKTURENTWICKLUNG IN DER GEO-, UMWELT- UND RAUMPLANUNGS-INFORMATIONSWIRTSCHAFT

SUSTAINABILITY OF INTER-REGIONAL COLLABORATION, DEVELOPMENT AND CROSSBORDER INTEROPERABILITY IN EUROPE OF REGIONS

INNOVATIVE TECHNOLOGIES AND POSTGRADUAL EDUCATION IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT OF X-BORDER-INFRASTRUCTURES IN THE GEO-, ENVIRO- AND SPATIAL PLANNING INFORMATION SECTORS

Logistics

Tagungsort: TUD-Agrar-CAMPUS-ZINT120 (Südhöhe), Bergstr. 120, D-01069 DRESDEN
Anfahrt - Autobahn A17: Exit DD-Südvorstadt [GI2008@GoogleEarth:51°01'15.52"N,13°43'44.78"E]
Anfahrt - Bus Nr. 72, 76: Hauptbahnhof >> Bergstrasse >> Südhöhe (TUD-ZINT)
Mobile - Hotline: +49-160-9490.2443 <HELPDESK> TEL: +49-351-403.2729 / FAX: +49-351-401426.0

PROGRAMM, 15.05.2008

Finales Programm < Status: May 14th > Final Program !

08:00 - 08:30	**Registration** for Pre-Workshop NEXTMAP-3D held by INTERMAP® München **Registration** for GI2008-Symposium **Preparation** POSTER-Exhibition
08:30 - 10:00	**ERÖFFNUNG & BEGRÜSSUNG** <> **OPENING & WELCOME by** TUD, IGN and INTERMAP **Pre-WORKSHOP (Teil 1): " NEXTMap®-3D DEUTSCHLAND & EUROPA"** by Intermap Technology (München, DE) - ***Eintritt frei ! <> Free access at no charge !*** 1) TECHNOLOGIEN für landesweite DHM <> Technologies for State-wide Digital Elevation Models 2) RADAR-GeoFernErkundung <> RADAR Sensing by SRTM (Space born) & NEXTMap® (Air borne) Primäres Ziel der Veranstaltung ist es, Interessierten neueste Entwicklungen und Möglichkeiten bei der Verwendung von 3D-Geodaten aufzuzeigen. Unter diesem Aspekt wird NEXTMap® als nationales, aber auch als länderübergreifendes, europäisches Kartierungsprogramm vorgestellt.
10:00 - 10:30	Kaffeepause / **Coffee break** & Poster-**Exhibition** *(AMI4FOR, CCSS, iEIA, IGN, KULK, KUVK, NATURNET-TOOLS, REDIME, SBS-FGIS-ONLINE, STUBA, WIRELESSINFO, EARTHLOOK..cz ...)*
10:30 - 11:50	**Pre-WORKSHOP (Teil 2): "NEXTMAP-3D - Applikationen im INSPIRE-Kontext"** by Intermap Technology (München, DE) - ***Eintritt frei ! <> Free access at no charge !*** 3) 3D-Geodaten-Mapping-Programm NEXTMap® -DEUTSCHLAND 4) Digitale Höhenmodelle - Anwendungen im UMWELT-Sektor und anderen thematischen Fachbereichen <> Digital Elevation Models - Applications in the Environmental Sector and other thematical Branches
11:50 - 13:00	**Mittagspause / Lunch break** & **REGISTRATION** GI2008-Symposium POSTER-Exhibition *(AMI4FOR, CCSS, iEIA, IGN, KULK, KUVK, NATURNET-TOOLS, REDIME, SBS-FGIS-ONLINE, STUBA, WIRELESSINFO, ...)* *12:50 = Call to FM-VideoConference via OpenUniversity (UK) >> Start: 13:00 / Stop: 15:00*
13:00 13:10 13:30 13:40 14:00 14:20 14:40	GI2008-Eröffnung <> Official Opening by IGN, VSBI, BOW (*15* Jahre GIS-Weiterbildung@BOW) CHARVAT (CZ): Invited Keynote - Uniform Resource Management in EU-FP6-Project "NATURNET" CERNOHOUS (CZ): Forestry Data Harmonisation in EU-FP6-Project "HUMBOLDT" SCHALLER (DE): Invited Keynote - ESRI-Technologieentwicklung & GIS-Weiterbildung FISLER (CH): Invited Video Lecture - Creating educational content with "eLML" BREDEWEG (NL): Invited Video Demo - Qualitative Reasoning on GARP3 - "REDIME" GÜNZKOFER (DE): Invited Keynote - NEXTMap® - EUROPA-3D
15:00 - 15:30	Kaffeepause / **Coffee break** & Poster-**Exhibition** *(AMI4FOR, CCSS, iEIA, IGN, KULK, KUVK, NATURNET-TOOLS, REDIME, SBS-FGIS-ONLINE, STUBA, WIRELESSINFO, EARTHLOOK..cz...)*
15:30 15:55 16:10 16:25 16:40 17:10	ALBERTS (LV): Computer assisted educational process as a "NATURNET" follow up MAYER (AT): Invited Keynote - ICT Solutions for a Future managed by Farmers and Foresters... MODRY (CZ): The public Awareness of local Landscapes as basis condition for Enviro protection... HERGERT (DE): F-GIS_ONLINE und GeoMIS.FORST - Schnittstellen des SBS zur GDI-Sachsen MEINEL (DE): Neue Anforderungen an die GeoInformatik-Ausbildung SCHAFFERT (DE): Lehrmodule für Hydrologie/Hydrogeographie basierend auf GEOMEDIAPRO/GRID
17:30	Ende 1. Tag >>> Interkultureller Dialog... <<<>>> RELAXING and Intercultural Dialogue...
18:00 - 20:00	Individual visiting of the International DIXIELAND Jazz Festival (City Center) and / or The DIXIELAND-Riverboat-JAZZ-Shuffle at *"ELBE / LABE" River-Steamboats* (Terassenufer)
20:00 - 22:30	Abendprogramm < "*Get together*..." > - Please, register at the registration desk if interested ! • Social Event at "*Panorama-View-Restaurant*" in the "BOWling-ARENA", Location: *Südhöhe 80* (opposite of Bergstr. 120, TUD-Agri-Campus ZINT)

PROGRAMM, 16.05.2008

Finales Programm < Status: May 14th > Final Program !

08:00 - - 08:30	REGISTRATION GI2008-Symposium & POSTER-Exhibition
08:30	BÖLITZ (DE): Aktueller Stand der grenzübergreifenden Zusammenarbeit im Programm ETZ-Ziel-3
08:50	CORBIN (UK): Invited Keynote - Review of the EU Public Sector Information Re-Use Directive
09:15	PEKAREK (CZ): Public Sector Educational Experience at Charles University Praha
09:30	MALCZEWSKI (PL): Interactive Mapping of Environmental Information in Dolnoslaskie Voivodeship
09:45	WITSCHAS (DE): Searching the Treasure - How to find Geodata throughout Europe
10:00 - - 10:30	Kaffeepause / Coffee break & Poster-Exhibition *(AMI4FOR, CCSS, iEIA, IGN, KULK, KUVK, NATURNET-TOOLS, REDIME, SBS-FGIS-ONLINE, STUBA, WIRELESSINFO, EARTHLOOK .cz...)*
10:30	GLÖCKNER (DE): Sustainable Development in the cross-border CZ<>DE<>PL Region...
10:40	MODRA (CZ): Environment, Geoinformation and GIS-Awareness in Kindergarden ?
10:50	SCHAFFERT (DE): INTERGRAPH & GIS-Ausbildung: Anforderungen & Förderungsmöglichkeiten
11:15	BRÄUER et al. (DE): EU-LLP2008-2010 & Aktuelle Weiterbildungssituation im VSBI (Sachsen)
11:25	JACHIM (CZ): Regional Learning Tools and Environment in Region VYSOCINA
11:35	PATERNO, Nino (IT): "RURIS" – RURal Information Society - Internet connectivity for rural SICILIA
11:45	KAHNWALD (DE): "RURALWINGS" - A Satellite-based Network for Learning Contents Distribution
12:00 - - 13:00	Mittagspause <> Lunch break & Poster-Exhibition *(AMI4FOR, CCSS, iEIA, IGN, KULK, KUVK, NATURNET-TOOLS, REDIME, SBS-FGIS-ONLINE, STUBA, WIRELESSINFO, EARTHLOOK..cz)*
13:00	HIESS (CZ): Inspire'd SDI building - The role of GI Literacy & the Practice of Czech GI Association
13:15	STACHON et al. (CZ): Alternative Geospatial Data Handling and Augmented Reality
13:30	CAJTHAMEL (CZ): Quality parameters as basic characteristics for QMS of State Map Series 1:5000
13:45	JANECKA (CZ): Automatic Indentification of Inconsistencies in Spatial Databases
14:00	KOSKOVA (CZ): Experiences on Flood emergency training supported by Spatial information...
14:15	HOFFMANN, F. (DE): The "NNR-Content-NAVI" - A personalized support tool for Learning/Teaching
14:35	THURSTON (CA): Invited Final Keynote - GI Awareness & Educational Challenges for the Future...
15:00 - - 15:30	DISKUSSION & DISCUSSION Abschlußsession <> Closing, wrapping up session minutes
15:30	ENDE < GI2008 > FINAL
17:30 - 18:30	CLOSING "15 Years BOWGIS-Education" with Visit privately to BOW Location address: Am Brauhaus 8, 01099 DRESDEN & Viewing the *„DRESDEN - ELBE - VALLEY"* UNESCO-Heritage
19:00 - ...	FINAL „Get together privately..." with EU-Project-Partners of IGN & BOW at "Waldschlößchen Beer Browery", Am Brauhaus 8

INTER-REGIONALE ZUSAMMENARBEIT UND GRENZÜBERSCHREITENDE KOOPERATION

SUSTAINABILITY ACTION OF EU-FP6-PROJECT-NATURNET+REDIME (NNR)

GI 2008

SYMPOSIUM

INTER-REGIONAL

AUTORENLISTE

ALPHABETISCH

Status per 14. Mai 2008

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GI 2008

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POSTER-AUSSTELLUNGS-LISTE

ALPHABETISCH

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GI2008 - POSTER - EXHIBITION

< Status per 13.05.2008 >

PROCEEDINGS

GI2008

SYMPOSIUM

INTER-REGIONAL

Abstracts & Summaries
Posters
Press Reports
The PSI & INSPIRE Directives
GeodatenZugangsGesetz

Edited by IGN e.V.

Doz. Dr. Frank HOFFMANN, CSc - IGN
Dr. Klaus-Dieter MICHAEL - VSBI
Dr. Gudrun HOFFMANN - BOW
Prof. Dr. Siegmar KLOSS - IGN
Prof. Dr. Isolde ROCH - IOER
Dr. Karl LENGFELD - IGN

DRESDEN
2008

COMPUTER ASSISTED EDUCATIONAL PROCESSES AS A FOLLOW UP OF NATURNET EDUCATIONAL PROJECT

MARIS ALBERTS*,
ANDRA MARTINSONE*, ANDRIS DZERVE*,
MAREK ŠPLÍCHAL**, KAREL CHARVAT**,
STEPAN KAFKA***

* ICMS - Institute of Mathematics and Computer Science, University of Latvia (LV)
** CCSS - Czech Center for Strategic Studies, Praha (CZ)
*** HSRS - Help Service Remote Sensing, Benesov (CZ)

ABSTRACT

Key words: *Computer-assisted, Education process, Online lecturing, eLearning, Metadata, Uniform Resource management, Video lecture.*

Abstract:

The **NaturNet-Redime-Portal** is implemented as an interoperable Internet architecture which focuses on innovative presentation of different tools and data sources for learning about sustainability. One of the portal components is a simple and flexible tool which provides ***online lecturing*** where participants are allocated remotely, using Internet browser as a tool and making use of inexpensive and widespread hardware and software components.

For **Video/audio streaming** the current implementation uses VideoLAN's ***VLC media player*** – a free cross-platform media player (see http://www.videolan.org/) which requires its installation only on lecturer's computer. The Online lecturing tool is focused on the ***content of lectures*** which contains *presentation, list of documents, keywords* etc. When an online lecture is running the lecturer shows slides on the whiteboard and students are communicating via chat.

After ending of NaturNet-Redime EU project new ***functionality*** has been added: integration with the ***open-source learning tool*** **MOODLE** and incorporating into **U**nified **R**esource **M**anagement (URM) system. **URM** as a method for data management was introduced and developed in terms of the NaturNet-Redime FP6-Project.

References

http://www.naturnet.org

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COMPUTER-ASSISTED EDUCATIONAL PROCESSES AS FOLLOW-UP OF NATURNET EDUCATIONAL PROJECT

MARIS ALBERTS*, ANDRA MARTINSONE*, ANDRIS DZERVE*, MAREK ŠPLÍCHAL**, KAREL CHARVAT**, STEPAN KAFKA***

* Institute of Mathematics and Computer Science, University of Latvia
** Czech Center for Strategic Studies
*** Help Service Remote Sensing

NaturNet-Redime portal has been developed for the NaturNet-Redime (NNR) project within the Sixth Framework Programme of the EU. One of its aims is to share knowledge and tools related to sustainable development and environmental management and protection in Europe.

Online lecturing tool is one of the NaturNet portal components which allows to give lecture to remotely allocated students.

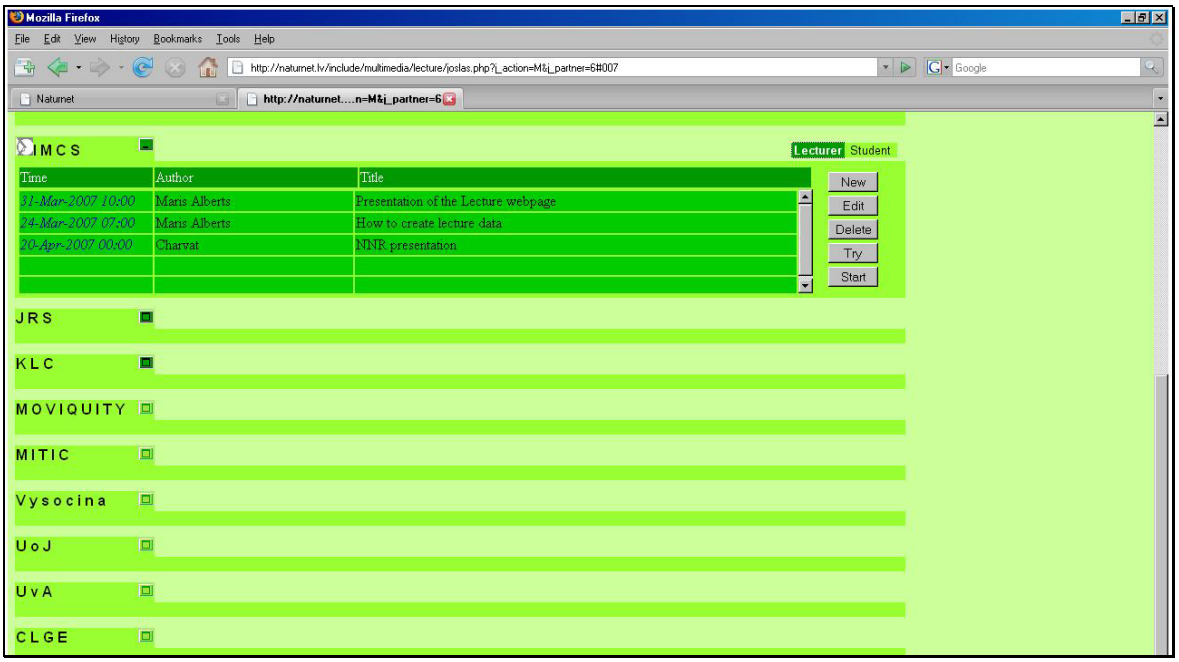

Figure 1 Lecture list

For video/audio streaming, current implementation uses VideoLAN's VLC media player – a free cross-platform media player (see http://www.videolan.org/). Lecturer uses the player to output stream from the camera to the server. The lecture webpage has an embedded VLC plug-in receiving stream from the server. And the server employs the player to retransmit the stream received from the lecturer to the students.

Lecture list has subsections for every organization which is allowed to use online lecturing tool. A lecturer represents some organization and is allowed to create a new lecture, edit lecture data, delete his/her lecture, try it before running and start to run the lecture in time when announced.

When Lecturer is creating a lecture he/she enters keywords, glossary, documents relevant to the lecture, and a presentation to be run during the lecture on the whiteboard: usually it is PPT file which must be saved as sequence of jpg images and afterwards uploaded in zipped format.

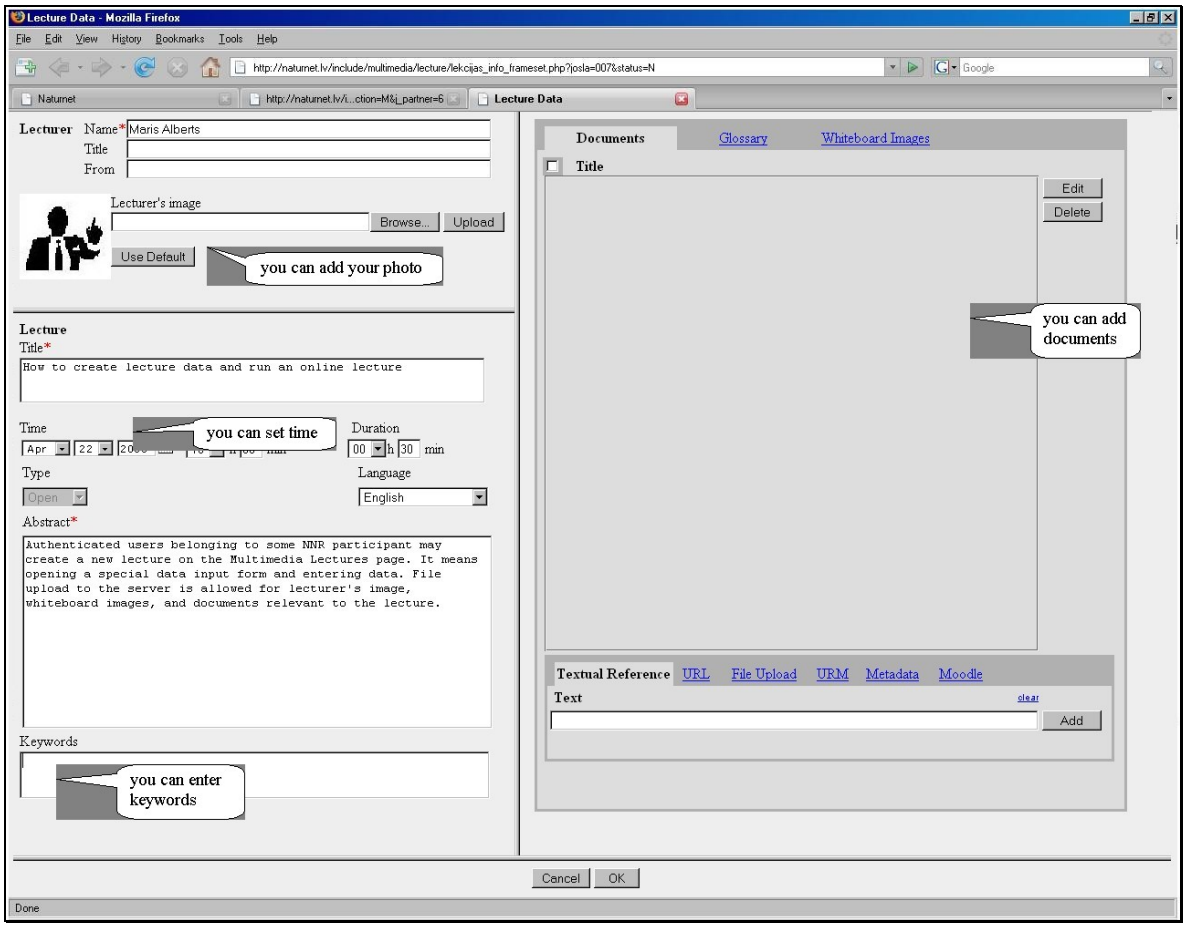

Figure 2 Lecture info input form

The additional information besides that on the whiteboard helps to get knowledge by students before/after the video lecture as well as during the lecture without asking questions via chat.

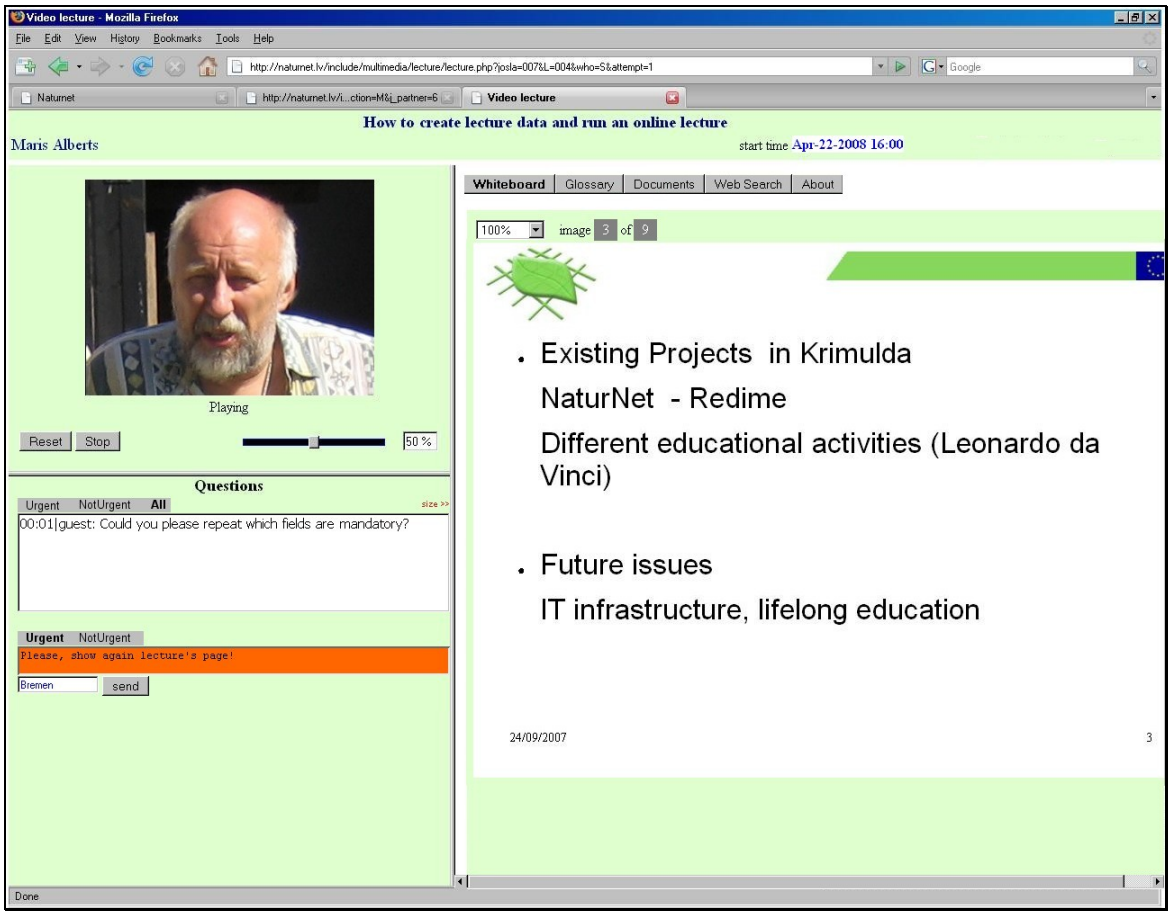

Figure 3 Student's page

Lecturer's page is quite the same as Student's page (see above Figure), except that it has a bar for selecting slides to be shown on the Whiteboard.

After ending of NaturNet-Redime project new functionality is being added: integration with the open-source learning tool MOODLE and incorporating into Uniform Resource Management (URM) system. URM as a method for data management was introduced and developed in terms of NaturNet-Redime project.

CARTOGRAPHIC PRESENTATION OF ENVIRONMENTAL INFORMATION IN THE ECO-PHYSIO-GRAPHICAL STUDY OF THE DOLNOSLASKIE VOIVODESHIP

JAN BLACHOWSKI & PRZEMYSLAW MALCZEWSKI
Regional Bureau of Spatial Planning in Wroclaw (PL)

ABSTRACT

Keywords: *Eco-Physiographical application Study, Geoprocessing, GIS, Interactive mapping, Internet, Legal acts, Region Lower Silesia, Regional planning, Webservices.*

Abstrakt:

- **Legal frames** of Eco-physiographical studies for spatial development plans in Poland
- **Model contents** of the Ecophysiographical Study for the Dolnoslaskie Voivodeship (*Lower Silesia Region*)
- **Preparation steps** of this Study
- **Internet Service** of the Ecophysiographical Study for the Dolnoslaskie Voivodeship
- **The interactive WebGIS map**
- **Examples** of practical applications and usage
- **Summary**

Authors

DR. JAN BLACHOWSKI & MGR. PRZEMYSLAW MALCZEWSKI
Regional Bureau of Spatial Planning in Wroclaw

References

[http://www.wbu.wroc.pl]
[http://eko.wbu.wroc.pl/eko]
[http://bip.wbu.dolnyslask.pl]
[http://www.wbu.wroc.pl/INFOR_OPR/infor_opr.htm]

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CARTOGRAPHIC PRESENTATION OF ENVIRONMENTAL INFORMATION IN THE ECO-PHYSIO-GRAPHICAL STUDY OF THE DOLNOSLASKIE VOIVODESHIP

SUMMARY

JAN BLACHOWSKI & PRZEMYSLAW MALCZEWSKI
Regional Bureau of Spatial Planning in Wroclaw (PL)

Ecophysiographical Study is a document characterising natural environment conditions for spatial development of an area of a plan or study. It consists of descriptive and cartographic parts. The first should contain:

- diagnosis of nature conditions and functioning,
- initial prognosis of changes happening in natural environment,
- description of environmental predispositions for shaping spatial and functional structure of an area,
- assessment of nature usefulness and identification of ecophysiographical conditions.

The cartographic part is a spatial extension of such a study. Its contents depend on subject and detail of ecophysiographical study and consist of analytical and general maps, as well as synthetic maps with resultative evaluations and valorisations.

Ecophysigraphical Study of the Dolnoslaskie Voivodeship consists of four parts. The first "*Characteristics of particular elements of nature environment*" is made up of eight chapters which describe nature and landscape of Dolnoslaskie Region.

Part two diagnoses s*tate and functioning of nature environment*, as well as identifies major threats to the environment.

The next part focuses on *land use structure.*

The last part is a *synthesis of the existing development conformity* with environmental preconditions.

Assessment of nature environment qualities and preconditions for economic development have been related to spatial locations determined according to ecophysiographical criteria. The chapter ends with conclusions concerning spatial policy and development guidelines according to the determined nature and functional units.

The Ecophysigraphical Study document was prepared in WBU in Wroclaw in 2005 with collaboration of several scientific and research institutions from the region. The publication has several dozens selected, representative ***synthetic maps*** characterising spatial distribution of analysed phenomena and conditions of nature environment and landscape within the adnministratibe boundaries of the Dolnoslaskie Voivodeship.

For example, chapter Geology in part one contains the following maps: *geological and structural units, surface geology, mineral resources, areas of prospective mineral deposits.*

These maps and other ***source thematic layers*** have been used to prepare four resultant maps. These are:

(1) Selected elements of climate and groundwaters,
(2) Main nature environment preconditions,
(3) Nature environment zones and areas against the background of physiographycial units,
(4) Ecological structure and main ecological constrains.

Furthermore, the study is ***illustrated*** with numerous: *additional maps, cartograms and diagrams inserted in the text.*

Above mentioned GIS maps are prepared in scales 1:300 000 and 1:750 000 provide generalised information regarding conditions and functioning of nature environment. The main source of ecophysiographical information is provided by **interactive GIS map.**

Internet map service is an integral part and spatial extension of the Ecophysiographical Study. Available together with electronic text of the document the service is made up of ***over 50 thematic layers*** organised in ***twelve thematic groups,*** such as:

administration, transport, hydrography, geology, mineral deposits, soils, forests, underground waters, flood hazard, nature environment protection, diagnosis of conditions and functioning of nature environment, assessment of nature environment usefulness for spatial development.

Base scale 1:50 000 is the same as the ***Spatial Development Plan*** of the Dolnoslaskie Voivoedship. Users can prepare own maps with automatically generated legends, print and save them, change extent and scale of maps, identify objects and spatial conflicts through queries and simple geoprocessing tools.

Interactive map service has been updated in 2007. Changes include among other things, improved user interface and new thematic services, *Natural resources and Nature protection.*

The publication is probably the first document containing comprehensive and **up-to-date information** on state of particular *elements of nature environment and its changes* in Dolnoslaskie Voivodeship.

The study is used as a ***source material*** for drawing up environmental and other planning documents in the region.

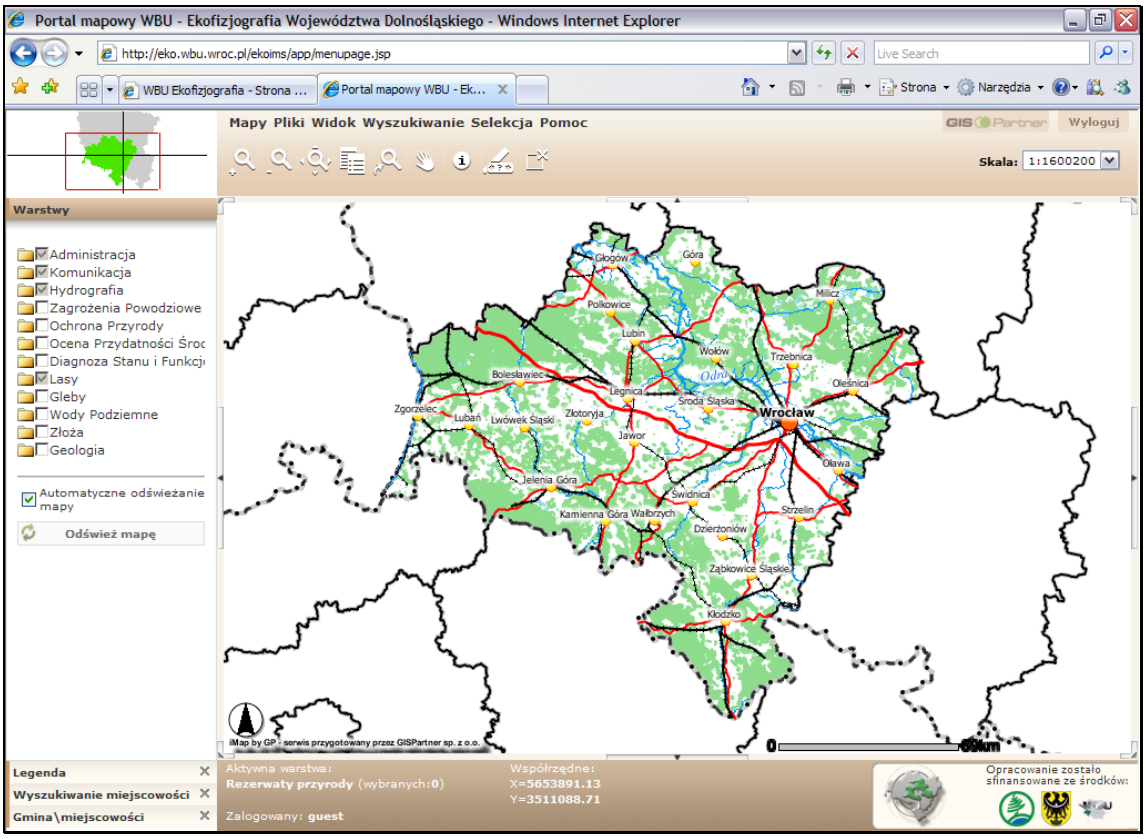

Fig.: View of the default interactive web map.

Base layers include: *administration, transport network, hydrography and forests.*

The application is managed through “Table Of Contents” on the left and Menu on top.

AKTUELLER STAND DER GRENZÜBERGREIFENDEN ZUSAMMENARBEIT IM ZIEL 3 – PROGRAMM

Dirk Bölitz
SAB Sächsische Aufbaubank - Förderbank, Gemeinsames Technisches Sekretariat

ABSTRACT

Keywords: *EU-Regionalpolitik, Gemeinsames Technisches Sekretariat, Grenzübergreifende Zusammenarbeit, Lead-Partner-Prinzip, Operationelle Programme, Sachsen-Polen, Sachsen-Tschechien, Ziel 3*

Abstract:

- Fördergegenstand der Ziel 3-Programme Sachsen-Tschechien und Sachsen-Polen ist u. a. der gemeinsame Ausbau und die Verbesserung des Zugangs zu Informations-, Kommunikations- und Datennetzwerken als Basis für Planungs- und Monitoringaufgaben.
- Dadurch kann die grenzübergreifende Zusammenarbeit insbesondere in den Bereichen Umwelt, Raumordnung und Regionalplanung, Kunst und Kultur (Denkmalschutz) und Öffentliche Sicherheit unterstützt werden.
- Der Wandel von der EU-Gemeinschaftsinitiative Interreg III A zu Ziel 3 – Grenzübergreifende Zusammenarbeit (Art. 7 Allgemeine Verordnung (EG) Nr. 1083/2006) ist mit höheren Anforderungen an die Qualität der grenzübergreifenden Kooperation verbunden, insbesondere durch das Lead-Partner-Prinzip.
- Das Gemeinsame Technische Sekretariat (GTS) der SAB Sächsische Aufbaubank übernimmt die Rolle des Dienstleisters, insbesondere hinsichtlich Aktivitäten der Beratung und Entscheidungsvorbereitung.
- Nähere Informationen sind im Internet erhältlich: www.ziel3-cil3.eu; www.sn-pl.eu.

Autor

Dipl. Ing. Dirk Bölitz

Kontakt

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Email: [kontakt@ziel3-cil3.eu] [kontakt@sn-pl.eu]
Ziel 3-Programm Sachsen-Tschechien 2007-2013 im Internet: [http://www.ziel3-cil3.eu]
Ziel 3-Programm Sachsen-Polen 2007-2013 im Internet: [http://www.sn-pl.eu]
Sächsische Aufbaubank - Förderbank - Anstalt des öffentlichen Rechts,
Sitz Dresden, Amtsgericht Dresden HRA 5353,
Ust-IdNr. DE179593934.

AKTUELLER STAND DER GRENZÜBERGREIFENDEN ZUSAMMENARBEIT IM ZIEL 3 - PROGRAMM

SUMMARY

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Auf Grundlage des Art. 3 Abs. 2 der Allgemeinen Verordnung (EG) Nr. 1083/2006 gibt es drei neue Hauptziele der Strukturmaßnahmen im Rahmen der EU-Regionalpolitik:

a) Konvergenz (Ziel 1),
b) Regionale Wettbewerbsfähigkeit und Beschäftigung (Ziel 2) und
c) Europäische Territoriale Zusammenarbeit (Ziel 3).

Das Ziel "Europäische Territoriale Zusammenarbeit" unterstützt die grenzübergreifende, transnationale und interregionale Zusammenarbeit von Regionen in der EU. Damit geht die bisherige Gemeinschaftsinitiative Interreg III A als Unterbereich im Ziel 3 der EU-Regionalpolitik auf.

Auf dieser Grundlage ist zwischen dem Freistaat Sachsen und der Republik Polen und der Tschechischen Republik jeweils ein Operationelles Programm zur Förderung der grenzübergreifenden Zusammenarbeit für die Strukturfondsperiode 2007-2013 erstellt worden. In diesen Programmen wurden u. a. Fördergebiete (siehe Abbildungen), Fördergegenstände und am Förderverfahren beteiligte Institutionen festgelegt. Insgesamt sind für den sächsisch-tschechischen Grenzraum 207 Mio. EUR und für den sächsisch-polnischen Grenzraum 105 Mio. EUR aus EU-Mitteln vorgesehen. Der Förderanteil aus EU-Mitteln beträgt bis zu 85%. Dieser kann in Sachsen und Tschechien durch Landesmittel ergänzt werden. Dadurch lässt sich der Eigenanteil der Begünstigten dort auf mindestens 10% senken.

Derzeit befinden sich noch die Umsetzungsdokumente Sachsen-Polen und Sachsen-Tschechien in der Abstimmung. Diese bilden die rechtliche Grundlage für den Fördervollzug. Hier werden nähere Festlegungen insbesondere zum Gegenstand der Förderung, zu den Begünstigten, zu den Zuwendungsvoraussetzungen, zur Art und Höhe der Förderung, zur Zuschussfähigkeit der Ausgaben und zum Förderverfahren getroffen.
Sobald der Startschuss für die Antragstellung erfolgt ist, können Projektanträge laufend eingereicht werden. Fristen, wie sie im Rahmen so genannter Calls in anderen Programmen üblich sind, bestehen in den Ziel-3-Programmen zur grenzübergreifenden Zusammenarbeit Sachsen-Polen bzw. Sachsen-Tschechien nicht.

In der aktuellen Förderperiode 2007-2013 werden grenzübergreifende Projekte in vielen Lebensbereichen unterstützt mit dem Ziel, die gemeinsamen Grenzregionen nachhaltig weiterzuentwickeln. Die Fördergegenstände sind so genannten Prioritätsachsen und Vorhabensbereichen zugeordnet worden. Von besonderer Relevanz für das Thema des GI-Symposiums ist im sächsisch-tschechischen Programm die Prioriätsachse 1 [Entwicklung der gesellschaftlichen Rahmenbedingungen] mit dem Vorhabensbereich 1 [Kooperative Verbesserung und bedarfsorientierter Auf- und Ausbau der Infrastruktur sowie Kooperation

im Bereich der Regionalplanung und -entwicklung]. Im Entwurf des Umsetzungsdokuments wird dieser Bereich durch die Aktivität "Förderung von Netzwerken für geographische Informationssysteme (GIS) als Basis für gemeinsame Planungs- und Monitoringaufgaben" mit einzelnen Fördergegenständen konkretisiert. Entsprechendes gilt für das sächsisch-polnische Programm für die Prioritätsachse 1 [Grenzübergreifende Entwicklung] mit dem Vorhabensbereich 3 [Verkehr und Kommunikation]. Im Entwurf des Umsetzungsdokuments wird dies durch Aktivitäten im Bereich "Informationsgesellschaft" konkretisiert. Querbezüge bestehen jeweils insbesondere zu den Bereichen Umwelt, Raumordnung und Regionalplanung, Tourismus, Kunst und Kultur (Denkmalschutz) sowie Öffentliche Sicherheit.

Dabei werden an die Qualität der grenzübergreifenden Zusammenarbeit und die Effekte für den Grenzraum höhere Anforderungen an das einzelne Projekt gestellt. Eine wesentliche Voraussetzung für die Gewährung von Fördermitteln für grenzübergreifende Vorhaben ist die Einhaltung folgender Kriterien:

- Mindestens ein Kooperationspartner pro Land arbeitet in einem gemeinsamen Vorhaben zusammen.
- Einer der Kooperationspartner übernimmt die Federführung und damit die Verantwortung für die Umsetzung des gemeinsamen grenzübergreifenden Projekts als so genannter **Lead-Partner** (federführender Begünstigter).
- Die Kooperationspartner erfüllen mindestens zwei der vier genannten Anforderungen:
  - gemeinsame Ausarbeitung bzw. Planung des Projekts,
  - gemeinsame Durchführung des Projekts,
  - gemeinsame Finanzierung des Projekts,
  - gemeinsames Personal für das Projekt.

Das Umsetzungsdokument enthält eine Definition dieser Kriterien. Der "Lead-Partner" ist alleiniger Ansprechpartner des GTS/SAB und der Zahlstelle bei der SAB ("Zwischengeschaltete Stelle der Bescheinigungsbehörde"). Er reicht den gemeinsamen Projektantrag ein, führt das Projektmanagement durch, koordiniert das Berichtswesen und leitet die EU-Mittel an seine Projektpartner weiter.

Die Entscheidung über sächsische, polnische bzw. tschechische Projektanträge treffen binational besetzte Begleitausschüsse. In den Gremien sind u. a. Vertreter der Ministerien der Länder, der Euroregionen sowie wichtige Partner aus Wirtschaft, Sozialem und Umweltschutz tätig. Das Gemeinsame Technische Sekretariat (GTS) bei der Sächsischen Aufbaubank – Förderbank (SAB) ist für die beiden Programme der zentrale Ansprechpartner für Interessierte und Antragsteller. Neben Beratungsleistungen bei der Antragstellung bietet es auch Seminare und Veranstaltungen an, in denen über die Inhalte, das Verfahren und Anforderungen für eine Projektförderung informiert wird. Darüber hinaus übernimmt die SAB die Funktion der zentralen Förderstelle für die beteiligten Länder. Damit liegen Information, Beratung, Antragstellung und Fördervollzug in einer Hand. Umfassende Informationen sind im Internet erhältlich: http://www.ziel3-cil3.eu [Sachsen-Tschechien] bzw. http://www.sn-pl.eu [Sachsen-Polen].

Abbildung 1: Fördergebiet im grenzübergreifenden Ziel-3-Programm Sachsen-Republik Polen

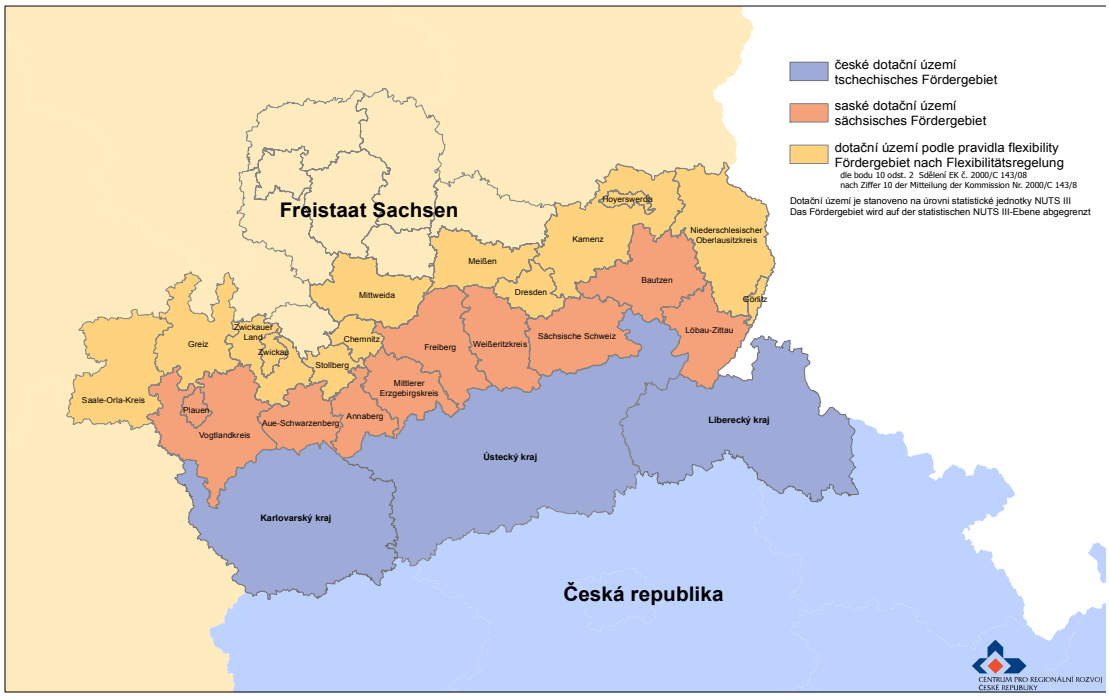

Abbildung 2: Fördergebiet im grenzübergreifenden Ziel-3-Programm Sachsen-Tschechische Republik

CURRENT STATUS OF CROSS-BORDER COOPERATION ON "OBJECTIVE 3"

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ABSTRACT

Keywords: *Cross-border cooperation, EC Regional policy, Joint Technical Secretariat, Lead partner principle, "Objective 3", Operational program, Saxony-Czech Republic, Saxony-Poland*

Abstract Thesis:

- One goal of the "Objective 3" operational programs Saxony-Czech Republic and Saxony-Poland among others is to commonly expand and improve the access to information, communication and data networks as the basis for planning and monitoring tasks.
- Thus the cross-border cooperation particularly in the fields of environment, land use planning and regional planning, arts and culture (monument conservation) and public safety can be supported.
- The change from EC Common initiative "INTERREG III A" to "Objective 3" - Cross-border cooperation (art. 7 GENERAL REGULATION (EC) No 1083/2006) is accompanied by higher demands on the quality of cross-border cooperation, in particular by means of the Lead partner principle.
- The Joint Technical Secretariat in the SAB Development Bank of Saxony provides services, particularly concerning consultancy and preparation of decision making.
- More information is available on the internet: www.ziel3-cil3.eu; www.sn-pl.eu.

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Ziel 3-Programm Sachsen-Polen 2007-2013 im Internet: [http://www.sn-pl.eu]

Sächsische Aufbaubank - Förderbank - Anstalt des öffentlichen Rechts,
Sitz Dresden, Amtsgericht Dresden HRA 5353,
Ust-IdNr. DE179593934.

DAS EU-BILDUNGSPROGRAMM (2008-20103) LEBENSLANGES LERNEN

Weiterbildungssituation im Verband (privater und gemeinnütziger) Sächsischer Bildungs-Institute (VSBI)

F. HOFFMANN, S. KLOSS [*)] **& P. BRÄUER, K.-D. MICHAEL** [**)]
VSBI e.V. & IGN e.V.

ABSTRACT

Keywords: *Life-Long-Learning, Association of Saxonian Educational Institutes, BOW, EU, VSBI,*

Abstrakt:

- **The European Life Long Learning Program (LLP)** [*)]
  - Opening Conference, Structure and Framework of LLP 2008-2013
  - Call for Proposals 2008
  - The GRUNDTVIG Sub-Program of postgradual adult education

- **The VSBI – Vision, Solidarity, Education, Innovation** [**)]
  - VSBI Tasks, Objectives, and Structures
  - Members, Networks, Partners, Working Groups
  - Project examples:
    - *Train The Trainers, Local Social Capital, JobStarter, XENOS...*
  - Conclusions from Educational Event „Karriere Start - Dresden - 2008“

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HANDLING CONCEPTUAL KNOWLEDGE WITH Garp3

A workbench for interactive cause-effect reasoning on ecological systems: a video demonstration

ABSTRACT

Keywords: *Artificial intelligence, Environment, Garp3, Knowledge transfer, Modelling, NaturNet+Redime, Qualitative Reasoning, Simulation, Sustainability, Expert systems, Information systems.*

Abstract:
This Video demonstration in Quicktime (mov) Format is a result of the **EU-FP6-Project NaturNet+Redime** (NNR, 2005-2007). The Garp3 software workbench has been developed by Redime team as a sub-project of NNR, and managed by University of Amsterdam. This video demonstrates one of the final results of the NaturNet+Redime and shows the ***modelling of expert knowledge about sustainable development,*** particularly in the context of ***river ecosystems*** in different regions of ***Europe and Brazil.***

The Redime component of the project was focusing on learning through modelling and simulation. This approach has been used to develop ***tools for the public to learn*** about sustainable development. This has been made possible by enhancing Qualitative Reasoning (QR) modelling tools to make them easy to use and interesting for the general audience. A team of ***sustainability experts*** captured the cause-effect processes into the new QR Garp3workbench, allowing this knowledge to be transferred and re-used. Thus, users can assemble these pieces of knowledge like building blocks to ***create and run simulations*** themselves. In contrast to passive learning by traditional lecture or reading formats, a deeper ***understanding of cause and effect*** will thus be facilitated.

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Quality Parameters as Basic Characteristics for Quality Management Systems of the State Map Series 1:5000

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ABSTRACT

Keywords: *Quality components, quality elements and subelements, ISO, metadata, GIS, SDI, INSPIRE, SM5.*

Abstract Thesis:

- In order to find out, how far are fulfilled the specifications, the quality components are used including elements and subelements of these that more closely specify these components.
- In the context of spatial data market development there is a need to identify differences between data sets that could become e.g. reference data sets for another data, eventually for deriving new data.
- It is a way to data sets differentiation and possibility to select data sets in accordance with available metadata (data about data) not only according to their standardized publication as described in ISO 19115.
- Isles of SDI in countries, regions, municipalities versus INSPIRE'd European SDI and interoperable GIS.

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QUALITY AS A BASIC CHARACTERISTIC OF STATE MAP 1:5000 QUALITY MANAGEMENT SYSTEM

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Abstract

In order to find out, how far the specifications are fulfilled, the quality components are used to specify these components including quality elements and subelements. In the context of spatial data market development there is a need to identify differences between data sets that could become e.g. reference data sets for another data, eventually for new data deriving. It is a way to data sets differentiation and possibility to select data sets in accordance with available metadata (data about data) not only according to their standardized publication as described in ISO 19115 [4].

Introduction

Real world object abstraction process to universe of discourse presents features modeling that are presented as ideal, understandable and representative form with its infinitely number of marks. Universe of discourse, completely or its parts, is a subject of quality testing again its abstractions.

In ordinary way data sets are produced for multiple use although one purpose is primary (cadastral data are served mainly for legal relation maintenance to real property, part of these data set could be used as a reference data, e.g. use of SMO 1:5000 for land use planning or pricing maps etc.)

In accordance with spatial data development there is a need to identify differences between particular data sets which could be a reference base for another data, eventually for data derivation. There is a data sets differentiation and many cases of access with its metadata (data about data) use not only in accordance its standardization publication in conformance of ISO 19115 [4].

Some users lay digger stress on data costs then on positional accuracy however another users demand data with more data attributes and with wide thematic content, then on positional accurately data etc. First of all quality parameters could help to evaluate and describe differences between particular data sets.

Questions about quality and its checking have old background in the field of Geoinformatics. The need of QMS (Quality Management System) is rapidly increasing with information system development. These systems are built and improved by Quality Evaluation (QE) in accordance on Quality Assurance (QA) cycle. Information flows should be described in the process approach and are taken into account in QMS system. There is quality assurance on wider platform necessarily based on QMS that could be periodically improved and checked.

The reasons for QMS systems implementation are basic principles of Quality Management (QM) applied on Geoinformatics. It is mainly:

- Productivity of labor increasing;
- Improving products and services quality;

- Improving customer's satisfaction.

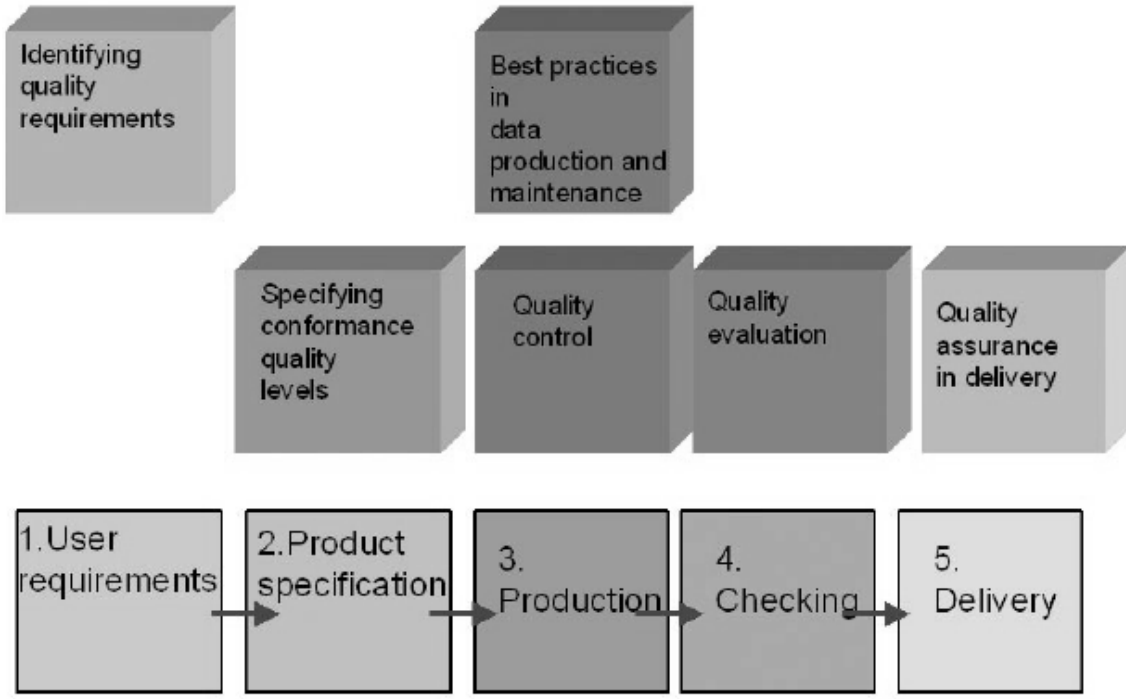
Indirect and supplemental effects of basic QM needs monitoring are advantages that implicate its inner organization structure fulfillment. The main points are:

- Increasing workers qualification;
- Better quality of process documentation and workers education;
- Creation of transparent, flexible and effectiveness management system.

In these part of text is used terminology in accordance of ISO 19100 standards [2], [3] and [4] in Czech language translation.

Quality Management System (QMS)

One point of view on QMS is as a general system that covered whole organization structure and mainly focused on production process and products quality. QMS could be defined as management structure, responsibility, procedures, processes and sources for management for quality aims accomplishment in the organization. [4].



Picture 1 Quality in general production process [7]

In this paragraph we understand that QMS is a system used for quality management that is basic information system of progressive organizations for demanded activities and quality assurance products. In accordance of these systems development there is its standardization in general way. From half of 80th of last century are established ISO 9000 standards focused on assurance of widest scope of quality management. These standards are general and applicable in any other branch.

Specific development of Geoinformatics contribute to release ISO 19100 standards [1], [3] a [4] in the aim of spatial data and relative information processing. Within the framework of these standards were introduced two spatial data quality standards ISO 19113 [1] and ISO 19114 [3].

Quite number of direct QMS contributions is presented in "Good reasons for implementing a QMS" [6]:

- improved customer satisfaction;
- improved quality of products and services;
- workers' satisfaction and more commitment to the organization;
- better management and a more effective organization;
- improve relations with suppliers;
- improved promotion of corporate image.

Besides these direct benefits, there are also several indirect benefits to identify, which give opportunities to:

- review business goals, and assess how well the organization is meeting those goals;
- identify processes that are unnecessary or inefficient, and then remove or improve them;
- review the organizational structure, clarifying managerial responsibilities;
- improve internal communication, and business and process interfaces;
- improve staff morale by identifying the importance of their output to the business, and by involving them in the review and improvement of their work.

Quality evaluation procedures

Geographic data sets should be shared, exchanged and used for another purposes more than authors primarily intend to not attend ineffectiveness duplicity in data capture. The main consideration should be mainly focused on update and to increase positional accuracy in dependence of its future use. Customer's opportunity to choose any data is still wider. The spatial data value has direct relation to quality and that is why quality information of accessible data is fundamental for this selection process.

Data customers required different spatial data quality levels. On the one hand some customers prefer extra high positional accuracy of spatial data; on the other hand other customers prefer wider thematic data content and costs. Information about spatial data quality becomes determinant factor in its use. Technology development allows capture and use spatial data based on customers demands and requirements.

The purpose of spatial data quality description is to enable geographic data selection through best suits to needs and requirements for particular use. Entire data set quality description makes easy its sharing, exchange and selection particular data files for particular purpose. We can view on geographic data as a commodity or product. Information about spatial data quality enable evaluates how much its fit production specification criteria of product and how it helps customers determine product ability to meet customers requirements and its fitness for particular use.

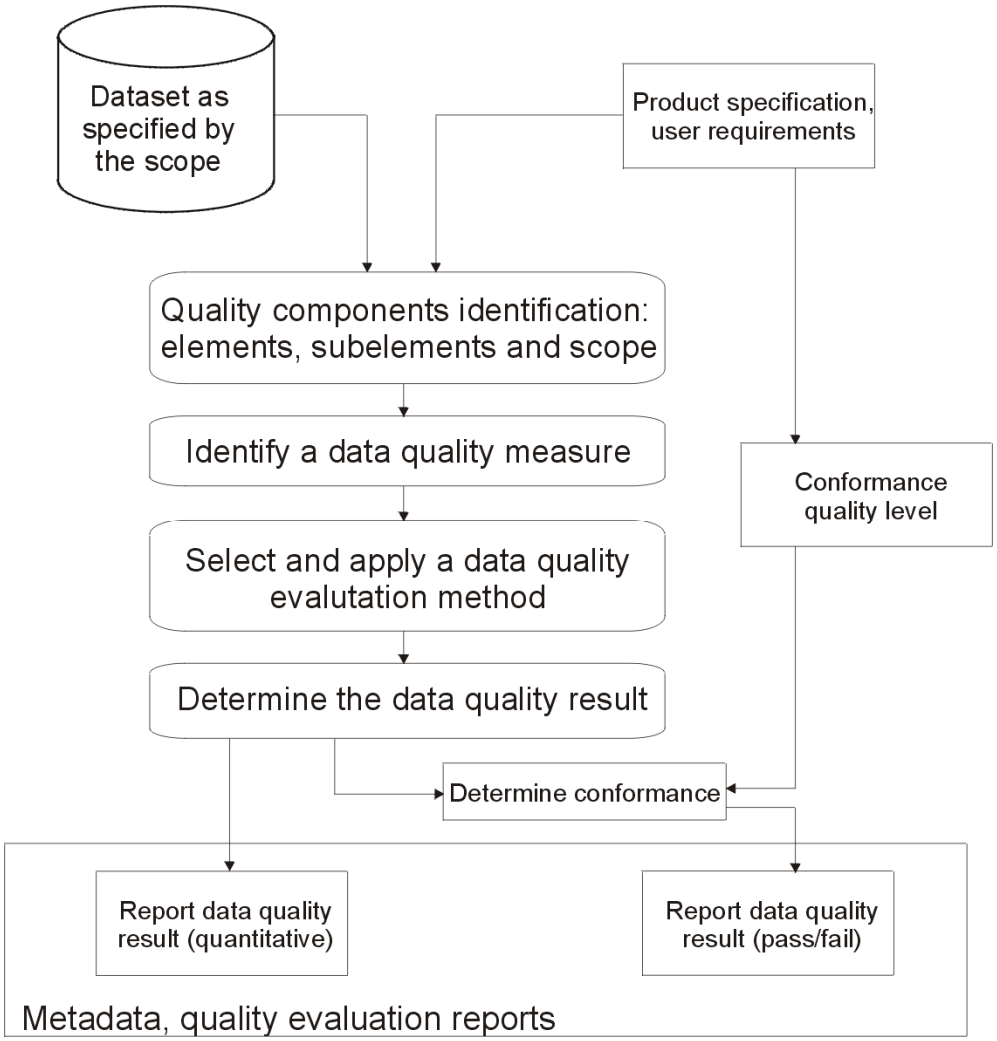
There have to be used consistently defined procedures for quality evaluation in conformance with product specification. These procedure enable customers to find out degree of conformity with requirements on desired data set (ISO 19114 [3]).

Quality elements

While quality elements allows measure how good is filled data sets criteria determined in product specification, overview quality elements allows additional data set evaluation for certain application with information about purpose, usage and lineage. From point of view stimulation and way of quality subelements manipulation, quality subelements meaning are fully in quality evaluator authority.
Data quality is evaluated and changed above all in these operations:

1. Any quantity of data is deleted from, modified or added to a dataset
2. Dataset's product specification is modified - is most likely to occur before initial dataset construction and prior to the release of quality information.
3. The real world has changed - Change may be caused by natural phenomena such as

movements in the earth's crust or erosion, but it is most often a result of human activity. Changes are often very rapid and dramatic.



Picture 2 Quality evaluation procedure – modified in accordance with [4]

Quality components evaluate difference between universe of discourse and designed data set that perfectly fit product specification. While imperfectness of these data sets harmony is described as uncertainty.

In ISO 9000 and quality management introduction, presentation and quality evaluation conformance in Geoinformatics was created big number of standards that cover particular problematic. It is mainly standard e.g. [11], [9]:

- ISO TC 211 – ISO 19115 from year 2002;
- ICA from year 1995;
- USA-SDTS from year 1992;
- Aronoff from year 1989.

With another development of needs and technology that are used for spatial data management are examined also another duality parameter, e.g. [1] that will be part of standardization process. From these elements we can mainly list:

- Definition (fro semantic interoperability);
- Language;
- Projection;
- Scale;
- Cost;
- Validity and classification.

Nowadays most important standards for spatial data quality are ISO 19113 [1], ISO 19114 [3], ISO 19115 [4] and ISO 19138. Quality is described trough quantitative and non quantitative components. Quantitative components are in accordance of ISO 19113:

- Completeness;
- Logical consistency ;
- Positional accuracy ;
- Temporal accuracy ;
- Thematic accuracy;

Non-quantitative components are for example:

- Purpose;
- Usage;
- Lineage.

Quality of State Map 1:5000

State map in scale 1:5000 is in the Czech republic in dynamic development last years that is related to data sets sharing and harmonization with INSPIRE (European directive for spatial data infrastructure realization) conformance. The quality assurance building system for this data could be seen from many points of views that depend on its purpose. It is mainly maintenance of state maps in standardize way (e.g. State map in scale 1:5000), usage as reference map in pricing maps or in land use planning etc.

Because this scale is on the edge between data set of COSMC (ISKN and ZABAGED) we can see this system as a system of quality assurance of the whole COSMC department. This system should take into consideration mentioned ISO standards to be compatible with INSPIRE implementation rules in the future. This system design is based on standardized procedures and processes how they are implemented on international level and simultaneously this system respect nowadays technologies and rules on national level. In the whole system we can define these base procedures of creation process SM5:

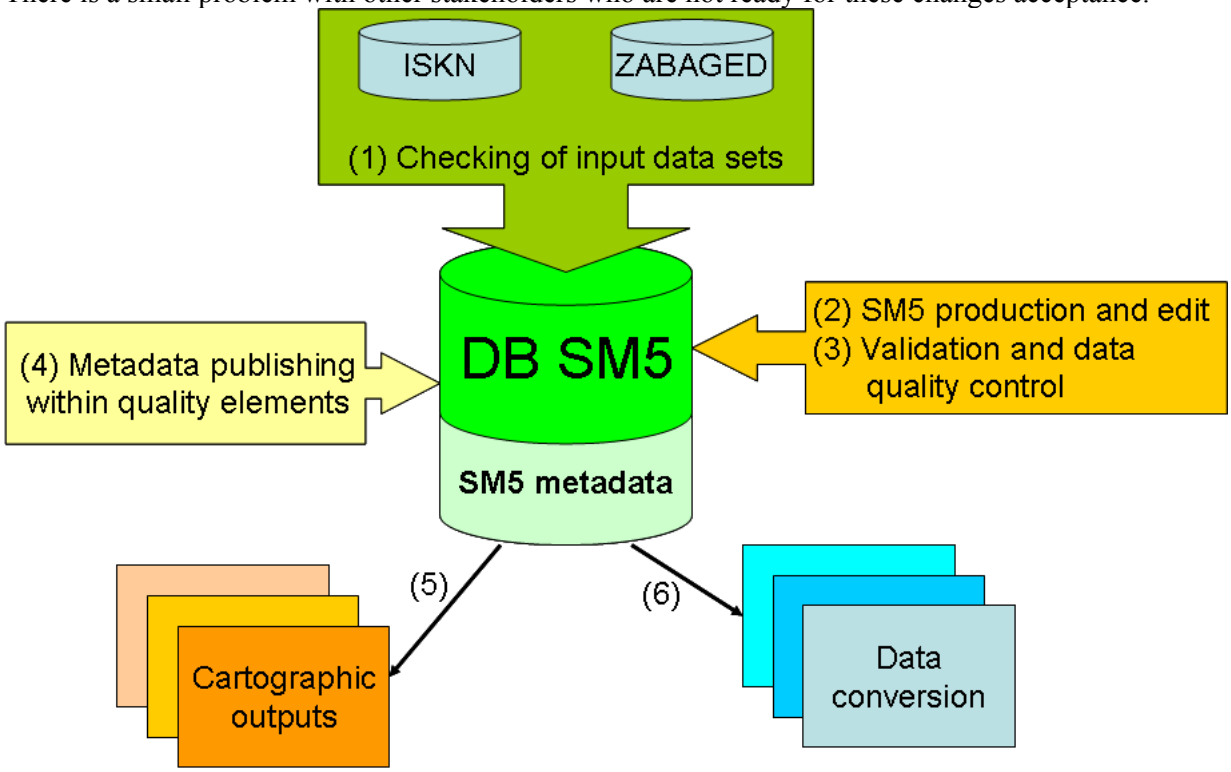
1. Checking of data sets that take over SM5 – evaluation of positional and temporal accuracy [12] of cadastral data (ISKN) and ZABAGED data (mainly positional accuracy control again orthophotomaps that are captured in three years periods)
2. SM5 production and edit – particular process SM5 derivation from data sources through MicroGEOS SM5 software; the process included generalization, data edit and addition in conformance of product specification
3. Validation and data quality control – this process contain all controls that are described in next listing
4. Metadata publication within quality elements – publishing of SM5 map sheets metadata in ISO 19115 conformance, eventually in associated report for inner needs

5. Cartographic outputs creation – raster and also vector outputs creation for SM5 geospatial database within cartographic generalization, marginal information creation from metadata that was generated in the previous step
6. Data transition and conversion to another output formats – cartographic outputs usage for next data dissemination through web services, eg. WMS, WFS etc.

Elaboration of the control system that is part of State map in scale 1:5000 quality assurance system, see step no. 3, is a system containing:

- Feature validation in layers (minimal parcel size, attributes checking – all parcels have to have nature of land usage, checking relation between way of land using and particular nature of land usage, etc.);
- Geometric consistency between rest layers checking;
- Checking relation between feature attributes – relations between way of land using and particular nature of land usage should be in ordinance no. 26/2007 [12] conformance;
- Topologic relation checking;
- Attributes homogeneity checking;
- Other controls that are based on customers requirements.

The whole SM5 quality assurance system should consist of more controls then nowadays. Because SM5 is derived map is most important to use found out errors to repair original data sets sources. There is a small problem with other stakeholders who are not ready for these changes acceptance.



Picture 3 Schema design of SM5 creation within duality assurance procedures

In the near future is important to focus on creation quality management systems of input data sets separately to dispatch mainly its deficiencies. This derived data sets creation might be very

controversy, because it depends on COSMC and other stakeholders data sets harmonization and sharing through INSPIRE, EULIS, e.g. EULIS+, and with other similar activities on higher then local levels.

Conclusion

Data sets stakeholders and customers should have maximal aim create quality assurance system that problematic is complex and long-lasting activity. From global point of view there are essential activities to create catalog and searching services for spatial data harmonization and sharing. Nowadays these activities are more important then QMS creation. In the future QMS will be more important because of quality importance increase in Europe NMCAs and also other stakeholders, see [5] and [10] and in updated form in [7] and mainly in [8].

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"HUMBOLDT" FOR FORESTRY DATA HARMONISATION

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ABSTRACT

Keywords: *Data harmonisation, ESDI, Forest planning, GMES, HUMBOLDT Scenario, INSPIRE, Metadata harmonisation.*

Abstract Thesis:

The **EU project HUMBOLDT** contributes to the implementation of ESDI that integrates the diversity of spatial data and metadata available for a multitude of European organisations. It is the aim of this project to manage and advance important parts of the implementation process of this ESDI.

The main goal of the **HUMBOLDT** project is to enable organisations to document, publish and harmonise their spatial information. The software tools and processes created will demonstrate the feasibility and advantages of an Infrastructure for Spatial Information in Europe as is planned by the **INSPIRE** initiative, meeting the goals of ***Global Monitoring for Environment and Security*** (GMES).

Finally, a ***software framework and diverse tools*** will be developed and integrated into the ESDI ***supporting spatial data and service providers*** in offering standardized spatial information. An essential element of the project is the development of HUMBOLDT ***Scenarios.*** The main goal of these scenarios is employment of the developed framework components in real world conditions, based on applications that simulate these conditions identified indifferent environment-related uses cases…

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Introduction

The increased use and awareness of the public of geospatial data has shown the fragmentation of datasets and sources, gaps in availability, lack of harmonisation between datasets at different geographical scales and duplication of information collection. The creation, interchange and use of data from different types of sources are thus very difficult. This proves to be a hindrance both to the development of existing and new markets, and to decision support for governmental and other organisations.

The main goal of the Humboldt project is to enable organizations to document, publish and harmonize their geospatial data. The software tools and processes created will demonstrate the feasibility and advantages of an Infrastructure for Spatial Information in Europe as planned by the INSPIRE initiative, meeting the goals of Global Monitoring for Environment and Security (GMES). These frameworks are developed and evaluated within 8 scenarios related to the GMES context:

- Border Security
- Urban Planning
- **Forest**
- Protected Areas
- ERiskA: Environmental Risk
- Water
- Ocean
- Galileo

On the one hand, Humboldt will address research topics like information visualization, data transfer, spatial analysis, web services, databases, data modelling, semantics for spatial data and others. On the other hand, approaches will be developed within the project and the implementation of the Humboldt framework will enable other researchers to access spatial services easier and to get benefits out of this project.

This paper is focused on using and harmonisation of geospatial data in forestry provided by the EU project Humboldt. Forest Management Institute in the Czech Republic represents one of the Humboldt project scenarios. Data harmonisation in forestry is very important for several reasons:

- Forestry represents the combination of economical subject, subject of landscape management and subject of nature preservation. Forest management is also essential in term of risk management (e.g. floods or fire protection). Therefore the forestry data have the huge utilization.
- In forestry there is a large number of different data sets originated from many sources

(e.g. internal data, data of state administration, data of private and state owners etc.). On that ground the data harmonisation is necessary, too.

- Risk management needs the very quick access to the updated forestry data (e.g. forest borders or forest roads). Just the harmonised data sets lead to better accessibility.

HS Forest – one of the Humboldt scenarios

The Humboldt Scenario Forest (HS Forest) is created in cooperation of Help service – remote sensing (HSRS) and Forest Management Institute (FMI). HS Forest focused mainly on land cover and vegetation integration with data for water resources, risk management and security. The Czech Republic, in terms of area, is one of the smaller states in Europe but it can be proud of its highly diverse natural wealth. Forests are undoubtedly one of the most valuable of its assets - their value can be expressed by purely economic indicators, but the true significance of forests far exceeds their economic importance. National Forest Programme (NFP) as the main document of Czech forestry was prepared and now is in progress in a harmony with the ongoing policy discussion on forestry issues on European level. The main chapters of the next NFP will be dedicated to the following issues:

- Integrated forest management (including forest biodiversity in general),
- functionally differentiated forest management oriented e.g. on nature protection, protection of water and soil and social function of forest,
- forest protection,
- economic viability of forest sector,
- support of domestic processing of wood, institutes and institutions

NFP follows ideas of the Forest Action Plan (FAP), which should include formulation of strategic aims particularly in following areas: biodiversity, forest protection, non-productive forest functions and benefits, usage of wood, economic viability of forest sector including non-wood goods and services. HS Forest according NFP centres on the management of forests in Czech Republic, concretely on metadata harmonisation, geometric and semantic harmonisation of multiple representations and different sources of geospatial data are the aims.

HS Forest could contain these following Use Cases:

- Forest typology – data for field survey of forest typology for Regional Plan of Forest Development (RPFD) to support higher management quality on forest area.
- EAFRD – European Agriculture Fund for Rural Development.
- Transportation network database maintenance and update.
- Interconnection between data layers in the project "Virtual Forest Authority"in cooperation of Germany and Czech Republic. This use case is not realised because of a poor cooperation with side of Saxony.

Why does FMI as the main forestry data manager need geospatial data harmonisation? There are three main general reasons:

1. Economical objectives: Support of a competitive strength of the forestry management, increasing of usage of forest products and services.
2. Ecological objectives: Support of a biological diversity and its improvement as well as a forest resistance from local and global point of view.
3. Social objectives: Increasing of life quality due to the improvement of social and cultural features of the forests.

The claim on harmonisation results from INSPIRE directive. In this case the harmonisation is concerned with metadata records. Metadata in accordance with NSPIRE must be created by two (data of Annex I. and Annex II.) or five (data of Annex III.) years from the acceptance of implementing rules.

The fundamental concrete task of harmonisation is to limit storing and managing redundant geospatial data sets. FMI offers to its clients own forestry data, but also some data (e.g. cadastral maps, contour lines form Digital Elevation Model, Geological Survey map, Soil classification map, aerial photograph, satellite image, topographic map etc.) from other providers (e.g. Agency for Nature Conservation and Landscape Protection of the Czech Republic, Information Agency for Environment of the Czech Republic, Czech Geological Survey, Czech Office for Surveying, Mapping and Cadastre etc.). These data can be bought, processed and stored in FMI, but such data will not be up-to-date at any time. The second variant is sharing data through web services, but the different data must be harmonised. The geospatial data harmonisation is very important for users of forestry data. FMI provides data to many systems of its clients. The group of target users of harmonised data contains FMI employees, forest owners, applicant for subsidies and other subjects (e.g. regional or local governments, municipalities etc.).

In terms of activities WP2 the SWOT (Strengths, Weaknesses, Opportunities, and Threats) analyse of HS Forest was processed. The main strengths of HS Forest supported harmonisation are experiences on field of digital technology in FMI (database technologies, map servers /University of Minnesota Map Server/, web services), commercial and non-commercial software experiences and detailed geospatial data description (using of metadata and catalogue system MICKA based on ISO 19XXX standards). This analyse shows also weaknesses and threats of harmonisation processes in FMI (e.g. data and platform heterogeneity and financial limits), but from our point of view they could not endanger the target of Humboldt project. SWOT analyse offers for scenario partners and for forestry in general terms many opportunities (e.g. clear origin and assurance of quality of the data, data structure standardisation, forest community support etc.), which could be very interesting for many reasons (economical, social etc.).

Use case EAFRD – European Agriculture Fund for Rural Development

One of the subsidy titles in frame of EAFRD is: Conservation of Forest Management Unit of forest stand from previous production cycle.

The subsidy title is based in frame of the NATURA 2000 for forests. On the estates situated in NATURA 2000 territory, forest owner will be accomplished various management action, based on Forest Management Plan (FMP) and will be regenerated according to any of supported type of Forest Management Unit in framework of EAFRD subsidy. Conservation of the natural sites protected according to European legislative.

Subsidy recipient: The forest area private owner or corporation of private owners of forest area with legal subjectivity (It is 24,3 % of forest area; 64 200 ha in CZ).

A forest owner needs to make a subsidy application in order to make this application he must submit a layered information map. The map is based on intersection of the EAFRD knowledge database (based on combination of the thematic layers) and area of interest. The EAFRD knowledge database is created from:

- Forest management plan - detailed description of forest stand from point of view of forest management (updated in 10 years period)
- System NATURE 2000 data – the network of protected areas designed according to the Bird Areas and the Sites of European Importance
- Target Management Unit map – aggregation layer according to forest stand description based on the Forest Typology System of the FMI
- Cadastral Map – owner identification map
- Very high-resolution satellite data or aerial photograph – underlying information layer.

There is current state, how to get layered information map as a result of the intersection. It is manual/semiautomatic process. The active element is FMI expert (surveying, geodetic work and GPS measurement). The fieldworker is focused on area determination by GPS navigation, GPS measurement of borderline. Then the area of interest is saved on supervisory server. The result of the intersection could be prepared later in office of the FMI. This way assumes that all layered data are accessible directly in the FMI and the knowledge database of EAFRD is prepared in semiautomatic process. The final result could be prepared as annex of application in case that thick client of the FMI data warehouse (FMI expert) will provide the intersection and subsidy calculation.

The result of this analysis provides the forest owner with information about the potential subsidies that could be applied for. The forest owner would then use this information in the formal subsidy request.

The future process assumes existence of the EAFRD knowledge database. The knowledge database could be accessible as a result of processing defined data sources via web services. A user (owner of forest) requests an application (WMS), which connects two data layers (Forest Management Plans /FMP/, NATURA 2000) and gets back a map with marked intersections (areas with entitlement to subsidy). FMI provided FMPs, the other layers are extracted from other organisations (Agency for Nature Conservation and Landscape Protection of the Czech Republic, Information Agency for Environment of the Czech Republic).

The service could be accessible for forest owner and for the Commercial Forestry Adviser

too. It will be possible to prepare all annexes of subsidy application in office without fieldwork. Area of interest definition, intersection of analysed layers and subsidy title calculation will be done in real time. The forest owner requests the Commercial Forestry Adviser to conduct the analysis.

The result of this analysis provides the forest owner with information about the potential subsidies that could be applied for. The forest owner would then use this information in the formal subsidy request.

From the view of this operation there are very important the forest edges. But the representations of forest edges in above-mentioned data sets are not the same. These data sets have similar scale and the coordinate. Therefore the harmonisation processes must focused on geometry of forest borders. Following data harmonisation components could be also applied for the harmonisation of the geospatial data used in forestry in terms of this use case or other use cases of HS Forest:

- INSPIRE principles
- Terminology
- Rules for application Schemas and feature catalogues
- Spatial and temporal aspects
- Portrayal model
- Metadata
- Data transformation
- Consistency between data

The harmonisation operations must be accessible from FMI information system, so the the best solution is usage of web services. These requests were addressed to Architecture team of Humboldt project (see Figure 2: Use case diagram of EAFRD Use case).

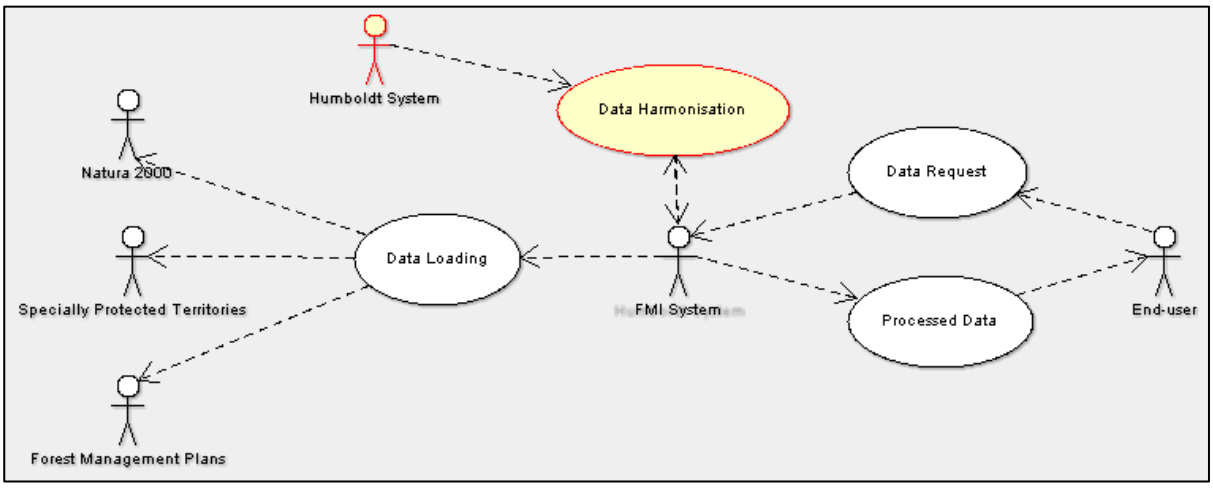

Figure 1: *Use case diagram of EAFRD Use case*

UNIFORM RESOURCE MANAGEMENT AND ITS CURRENT STATUS IN "NATURNET+REDIME" (NNR)

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ABSTRACT

Keywords: *Dublin Core, Education, GIS, INSPIRE, ISO19115/19119, Metadata, SDI, Sustainable development, Thesaurus.*

Abstract Thesis:

Uniform Resource Management (URM) provides a framework in which communities can share information and knowledge through their description, which is easy understandable inside of the community. URM is focused not on sharing of one type of information, but on heterogeneous information like ***spatial data, training lectures, reports*** etc. It support ***collaborative research, training, decision processes.***

In order to effectively share information and knowledge, there has to be a standardized scheme, which supports ***uniform description of information and knowledge*** including common vocabularies.

A schema defines the meaning, characteristics, and relationships of a set of properties, and this may include constraints on potential values and the inheritance of properties from other schemas. The ***schema specification language*** is a declarative representation language influenced by ideas from knowledge representation, as well as ***database schema*** specification languages and ***graphic data models***.

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Introduction

Uniform Resource Management (URM) provides a framework in which communities can share information and knowledge trough their description, which is easy understandable inside of the community. In order to effectively share information and knowledge, there has to be a standardized scheme, which will support uniform description of information and knowledge including common vocabularies.

The main objective of URM will be easy description, discovery and validation of relevant information sources. URM will ensure that any user can easily discover, evaluate and use relevant information. The free text engine (eg. Google) can't be used due to the fact that in many cases a user obtains thousands, if not millions, of irrelevant links. This happens because the free text engines does not fully recognise the context of researched information. The context characterises any information, knowledge and observation. Context strongly influences the way how the information will be used. There are different definitions of context in existence. The important issues for the context are:

- ***to identity of an entity;***
- ***to profile of an entity;***
- ***spatial information***
- ***temporal information***
- ***environmental information***
- ***social relation***
- ***resources that are nearby***
- ***availability of resources;***

Many context attributes characterize the environmental information or knowledge. From the point of view of context, the information or knowledge could be divided into different parties:

- Information or knowledge provider i.e. a party supplying the resource;
- Custodian, accepts accountability and responsibility for the resources and ensures appropriate care and maintenance of the resource;
- Owner of the resource;
- User, who uses the resource;
- Distributor who distributes the resource;
- Originator who created the resource;
- Point of Contact to be contacted for acquiring knowledge about or acquisition of the resource;
- Principal investigator responsible for gathering information and conducting research;
- Processor who has processed the data in a manner such that the original resource has been modified;
- Publisher, i.e. party who published the resource;
- Author, i.e. party who authored the resource.

Methodology

A possibility for solving the discovery problem within a context is to use metadata for standardised description of any information, knowledge, data sources, sensors, etc. In combination with standardised lists of terms (controlled vocabularies or thesaurus, standardised way of geometric location, gazetteers and controlled list of categories), it will increase efficiency of discovery of requested knowledge, information or data sources.
Metadata is descriptive information about an object or a resource whether it is physical or electronic. While metadata itself is relatively new, the underlying concepts behind metadata have been used for as long as collections of information have been organized. Library card catalogues represent a well-established type of metadata that has served as collection management and resource discovery tools for decades. Metadata can be generated either "by hand" or derived automatically using software.

Technology Description

The basic components, of URM could be divided into followings topics:

- Metadata scheme, which define structure, which could be used for description of information
- Thesaurus - These are well known examples of hierarchical systems for representing subject taxonomies in terms of the relationships between named concepts.
- Geospatial thesaurus - Geospatial thesaurus supported search about geospatial object (for example gazetteers, GeoParcers, Geocoders)
- Catalogue service. Service that provides discovery and management services on a store of metadata about instances. The metadata may be for dataset instances, e.g., dataset catalogue, or may contain service metadata, e.g., service catalogue. ISO 19115 is relevant to catalogue service for dataset metadata.

Metadata and catalogue for URM

Core element of implementation of URM is Metadata Catalogue service Micka. Micka is spatial metadata catalogue, which supported standards:

- Any XML based standard may be stored in the system. There is special module for standard tree maintenance.
- In current version these standards are supported:
- Spatial data metadata (ISO 19115) - full standard
- Service metadata (ISO 19119) - reasonable core
- Feature catalogue (ISO 19110) - reasonable core
- Dublin Core Metadata (ISO 15836)

There are some predefined profiles in the system:

- ISO 19115 mandatory elements
- ISO 19115 core elements
- INSPIRE profile
- MICKA (INSPIRE elements with added ones for common use.)
- ISO/DC (ISO 19115 elements covering the DC core profile)
- Full ISO 19115 standard

User interface is multilingual. English, Czech, German, French, and partially Polish are currently supported. (New language may be added by filling the corresponding database table.) User may switch language clicking corresponding flag on the top bar of the program. The Micka use AgroVoc thesaurus and supported WFS gazetteers.

Conclusions

The first existing implementation of URM was built on the base of metadata implementation for **Cenia portal,** which is part of Czech national portal. This was a **NaturNet-Redime portal** for awareness, training, presentation and sharing of knowledge and tools about European sustainability which is built as an interoperable network, with effective exchange of information, knowledge, services. Other existing implementation is Czech version of **C-Rural portal** for sharing information inside of Czech Living labs, **Czech UNSDI portal** and **BOSC Latvian portal**. All current portals are implemented using AJAX technology (WEB 2) and support on one side easy management of information inside of portal and on other side easy context awareness knowledge discovery using new concept of Uniform Research Management (URM). This URM concept is one from research results introduced by **NaturNet Redime project** and today deeply elaborated by **c@r** and support sharing of knowledge inside of community using metadata and catalogue standards for their description and discovery.

Authorisation is realised using authorisation system, which support sharing of authorisation information trough all application portals. After login into the system on portal is open list of all available tools and for every tool is also available short description. After selection of concrete tools, this tool is open in new window and user is automatically logged with his user name into this application. Every from implanted application supported automatically storing of metadata, when are published any outputs into portal metadata system.

The knowledge discovery could be provided on the base of context awareness methods and knowledge is possible discover not only on the URM server, but on all registered servers, which belongs to certain communities. Discovery of knowledge could be provided or using simple search or using methods of extended search.

The existing URM portals currently support:

- Management of knowledge related to sustainable development
- Discovery of heterogeneous knowledge in distributed environment using URM concept

Portals could be used by:

- registered users with access to knowledge management and knowledge discovery
- non registered user could only discover and access information in heterogeneous environment

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THE REVIEW OF THE EU PUBLIC SECTOR INFORMATION RE-USE DIRECTIVE: TOWARDS GLOBAL ACTION

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ABSTRACT

Keywords: *Public Sector Information (PSI), Directive 2003/98/EC, Re-use, Knowledge economy, Information Society, Lisbon Treaty, European Union, Modernising government, the value chain, Organisation for Economic Co-operation and Development (OECD).*

2008 is an important year with respect to the ***re-use of Public Sector Information*** both at the European and Global levels.

First the European Commission will review the impact of the ***European Union Directive 2003/98/EC*** (as required by the Directive) and will publish a communication in the autumn for 2008 as to the next steps the EU should take.

Second the ***Organisation for Economic Co-operation and Development*** (OECD) at the Ministerial Meeting on the Future of the Internet Economy that will be held in Seoul, Korea in June 2008 will consider and publish Policy Principles for enhanced access and more effective use of Public Sector Information.

The presentation will consider in outline:

- European Commission actions in the run up to the 2008 review.
- The OECD policy guidelines.
- The key developments within EU Member States with respect to PSI over the past 12 months.
- Future actions to further improve the exploitation of PSI.

Author's selected List of Activities & References

Position: Currently an analyst within the ePSI*plus* Thematic Network.. The ePSI*plus* is a Thematic Network, funded by the eContent*plus* programme, to support the implementation of the ***European Directive on Public Sector Information (PSI) Re-use***, in the period leading up to its review in 2008.

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THE REVIEW OF THE EU PUBLIC SECTOR INFORMATION RE-USE DIRECTIVE: TOWARDS GLOBAL ACTION

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SUMMARY

Keywords: *Public Sector Information, Directive 2003/98/EC, Re-use, Knowledge economy, Information Society, Lisbon Treaty, European Union, Modernising government, the value chain, Organisation for Economic Co-operation and Development (OECD).*

2008 is an important year with respect to the re-use of public sector information both at the European and Global levels. First the European Commission will review the impact of the European Union Directive 2003/98/EC (as required by the Directive) and will publish a communication in the autumn of 2008 as to the next steps the EU should take. Second the *Organisation for Economic Co-operation and Development* (OECD) at the Ministerial Meeting on the *Future of the Internet Economy* that will be held in Seoul, Korea in June 2008 will consider and publish Policy Principles for enhanced access and more effective use of Public sector Information. (http://www.epsiplus.net/news/oecd_ministerial_meeting)

The European Commission is required by Article 13 of the Directive 2003/98/EC to undertake a review of the application of the Directive before 1 July 2008 – the third anniversary of when the Directive came into force in all European Union Member States. (http://www.epsiplus.net/reports/european_directive_on_psi) The Commission over the past 12 months has undertaken a number of actions that support their internal review of the impact of the Directive.

Action 1:
On the 28th June 2007 the Commission published a call for tender for the assessment of the PSI Directive in three domains: (http://www.epsiplus.net/news/psi_directive_review_commences)

- Geographical (cartographic-mapping and cadastral) information;
- Meteorological information; and
- Legal information sectors

In January 2008 the Commission announced that the contract had been let to the German Company MICUS Management Consulting GmBH (http://www.epsiplus.net/news/psi_assessment_underway) to undertake the survey across Europe. At the beginning of **April 2008** MICUS invited public sector information holders within the three sectors to be surveyed to complete the online survey which includes identifying their re-users in order that they in turn may be invited to complete the **online PSI Re-user survey** – a cascade approach similar to that used in the ***MEPSIR study*** the outcome of which was published in June 2006 (http://www.epsiplus.net/reports/mepsir_measuring_european_public_sector_resources_report). In parallel with the direct invitations sent out by MICUS, all PSI re-users within the three sectors of interested have been invited to complete the online surveys. (http://www.epsiplus.net/news/european_psi_survey_changes_gear) MICUS is intending to produce their report to the Commission in the July to September 2008 time frame.

Action 2:
During March 2008 the Commission published an announcement that the Commission intended to publish a call for tender (http://www.epsiplus.net/news/european_psi_one_stop) for the provision of a

European PSI Information portal (similar to the current ePSI*plus* "one-stop-shop" for information on PSI (http://www.epsiplus.net) for a period of two years from March 2009 through to March 2011. In placing the notice in the Official Journal of the European Communities the Commission has met the commitment made at the **OECD meeting held in Paris in February 2008** when it was agreed that three ***PSI Information portals*** would be established in Europe, the Americas and Asia. (http://www.epsiplus.net/news/epsiplus_oecd_codata)

Action 3:
In the latter half **of May 2008 the Commission will announce** an invitation to the European PSI Re-use stakeholders to partake in an ***online review of the Directive*** and for individuals and bodies to submit documented reviews from their perspective on the impact of the Directive so far and what actions should be considered if any post July 2008. (http://www.epsiplus.net/news/psi_group_epsiplus)

The Commission is itself a public sector information holder and in 2006 published a Communication that set out how the Commission transposed the Directive. The Communication shows that the Commission itself adopted the full spirit of the Directive and as a result has had first hand hard evidence of significant uptakes of Commission information. (http://ec.europa.eu/information_society/policy/psi/comm_info/index_en.htm)

This experience will be taken into account in their review of the Directive. The EU Commissions' experience is likely to show that if Member States transposed and implemented the Directive in the spirit of the Directive then there would be ***significant economic gains all across Europe.*** The Commission is expect to publish a political **Communication** on the outcome of their review in the autumn of 2008.

In parallel with the European Union actions on liberating public sector information for re-use and as a result to foster innovation and economic gain the ***Organisation for Economic Co-operation and Development*** (OECD) have been developing (http://www.epsiplus.net/news/psi_policy_principles2) a series of public sector information policy principles.

The OECD during February 2008 organised and hosted a meeting in Paris to consider the draft PSI policy principles (http://www.epsiplus.net/news/epsiplus_oecd_codata) and the actions leading up to the OECD Ministerial Conference (http://www.epsiplus.net/news/psi_policy_principles2) that will be held in Seoul, Korea during June 2008.

The OECD PSI policy principles provide a framework for the wider and more effective use of public sector information and content and the generation of new uses from it. The OECD draft framework includes policy principles on:

- Openness
- Access and transparent conditions for re-use
- Asset lists
- Quality
- Integrity
- New technologies and long-term preservation
- Copyright
- Pricing
- Competition
- Redress mechanisms
- Public private partnerships
- International access and use
- Best practices.

Once the PSI policy principles have been adopted at the OECD Ministerial conference in Seoul the OECD then intends to encourage the implementation of the ***three global PSI Information portals*** in order to promote the OECD PSI policy principles.

The ePSI*plus* Thematic network since September 2006 has built up a substantial portfolio of information on the ePSI*plus* "***one-stop-shop***" to PSI information portal which will be used to support the ePSI*plus* Thematic Networks submission to the European Commission on the actions that need to be taken post July 2008. The ePSIplus Thematic Network has organised a one-day conference that will consider the ePSI*plus* Thematic Networks draft proposals. The Conference will be held in Brussels on the **13 June 2008** and there is no charge to attend. (http://www.epsiplus.net/news/news_highlights/epsiplus_conference_programme)

The PSI-Navigator-Portal funded by eCONTENT programme of the European Union

Author's selected List of Activities & References

Position: Currently an analyst within the ePSI*plus* Thematic Network. ePSI*plus* is a Thematic Network, funded by the eContent*plus* programme, to support the implementation of the European Directive on Public Sector Information (PSI) Re-use, in the period leading up to its review in 2008.

CV: An outline CV can be found at:

- [http://www.epsiplus.net/epsiplus/contacts/epsiplus_network_analysts/chris_corbin]

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- [http://www.appsi.gov.uk/members/index.htm]

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VOCATİONAL TRAİNİNG AND EMPLOYMENT -

Awareness & Skills Needs for Regional Development in Samsun Region (Turkey)

EYUP ELMAS & ÖZGÜR KARADEMIR
City Council of Samsun (TR), Black Sea Region

ABSTRACT

Keywords: *Adult education, awareness raising, capacity building, inter-regional cooperation, ICT skills, innovation, NaturNet, NGO, Samsun Region.*

Abstract Thesis:

- NEW TRENDS IN VOCATIONAL TRAINING AND INNOVATIVE APPROACHES FOR REGIONAL DEVELOPMENT AND GOVERNANCE
- CAPACITY BULDING FOR SUSTAINABLE REGIONAL DEVELOPMENT
- COOPERATION AND NETWORK CREATING BETWEEN LOCAL KEY PLAYERS IN SAMSUN REGION
- ROLE OF NGO's IN POLICY MAKING
- ARISING NEEDS IN REGIONAL MARKET PLACE
- DEVELOPMENT OFFICE: COORDINATION WITH ALL SIDES TO MEET ALL REGIONAL NEEDS TO DEVELOPE SAMSUN REGION

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References

[www.samsunozelidare.gov.tr]
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CREATING EDUCATIONAL CONTENT WITH eLML

(eLesson Markup Language)

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ABSTRACT

Keywords: *e Learning, XML, open source, sustainable content, Internet, web, SCORM, IMS, education, eLML*

Abstract Thesis:

eLML, the open source "***eLesson Markup Language***", is an XML framework allowing authors of e-Learning lessons to create structured and sustainable content. eLML is based on the *pedagogical concept ECLASS* (adapted from Gerson, 2000), standing for ***entry, clarify, look, act, self-assessment and summary.***

Each lesson is divided into units that contain a number of smaller learning objects. To allow different teaching and learning scenarios most of the structure elements are optional or can be repeated several times and different orders. Lessons written with eLML can be transformed into HTML or PDF or be imported into a learning management system (LMS) using the SCORM or IMS Content Packaging format.

The presentation presents **experiences** from the development of eLML itself, the **design** of e-Learning content based on the eLML-structure, and the **use of eLML-based content** in conjunction with a LMS. Furthermore a new ***eLML-Editor*** developed at the University of Zurich and currently in *beta-status* will be presented.

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[http://www.elml.ch] The eLML website.

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SUSTAINABLE DEVELOPMENT IN THE TRI-BORDER GERMAN-CZECH-POLISH REGION FORMERLY KNOWN AS THE "BLACK TRIANGLE"

- Examples of development by chosen indicators -

Rick Glöckner
Dresden University of Technology
student of geography

ABSTRACT

Keywords: *Black Triangle, sustainable development, indicator system, online databases*
Abstract Thesis:

- region formerly known as "*Black Triangle*" has had the highest values of air pollution in Middle Europe and is characterized by coal-mining and industrialization
- set up of a small system of indicators to follow the development from 1995 to 2005 for different dimensions (social, economical, ecological) by using online databases of Germany, Poland and Czech Republic
- problems of availability, time covering and the same meaning of indicators for sustainable development have been clearly visible even in this small system
- maps show the relative changes and their directions by using traffic-light colours
- biggest similarities lie in the increase of the ecological situation
- other two dimensions are inhomogeneous in their development

Author

Rick Glöckner
Student of geography, Dresden University of Technology

References

[GENESIS] Saxony online-database
[Statistical Office of Poland] Polish online-database
[RIS CZ] Czech regional information service

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SUSTAINABLE DEVELOPMENT IN THE TRI-BORDER GERMAN-CZECH-POLISH REGION FORMERLY KNOWN AS THE "BLACK TRIANGLE"

-Examples of development by chosen indicators-

SUMMARY

Rick Glöckner
University of Technology, Dresden

Keywords: *Black Triangle, sustainable development, indicator system, online databases*

The region formerly known as the "*Black Triangle*", which covers the tri-border region of Saxony, Poland and Czech Republic, has had the highest values of **air pollution** in Middle Europe at the end of the 1980's. The area is characterized by coal mining and is highly industrialized, which had huge consequences for the environment. After the political changes 1989 and with the EU-membership of Czech Republic and Poland there is now the chance to change the area's negative image for the better. The **Leibniz Institute of Ecological and Regional Development (IOER)** is working on this task with its project "*Evaluation of environmentally sound renovation- and development-processes in the German-Polish-Czech tri-border region*".

The presentation is showing the **regional development from 1995 to 2005** for choosen indicators by using statistics from several online databases (as listed below). At first they should cover different **dimensions** (***social, economical, ecological***) in order to follow the idea of '*sustainable development*', but even in this small system of indicators different problems showed up which made the **cross-border-comparison** rather difficult (in terms of availability, time covering, semantic meaning). Indicators finally used are the following:

social dimension:
- natural population movement (living births, deaths) 1995-2005
- spatial population movement (moving in, moving out) 1995-2005

economical dimension:
- number of unemployed 1999-2005
- labour force by economical sector (agricultural, industrial, services) 1995-2001

ecological dimension:
- emissions of air pollutants (SO2, NOx) 1998-2004
- water quality

For some parts of the ecological indicators third sources had to be used because the online databases could not provide necessary data.

The indicators' relative changes are shown in maps by using traffic-light colours to present the development's direction. Red equals *negative* development, yellow a *medium* one and green a *positive* direction. To divide more details for some maps more shades of the colours have been used.

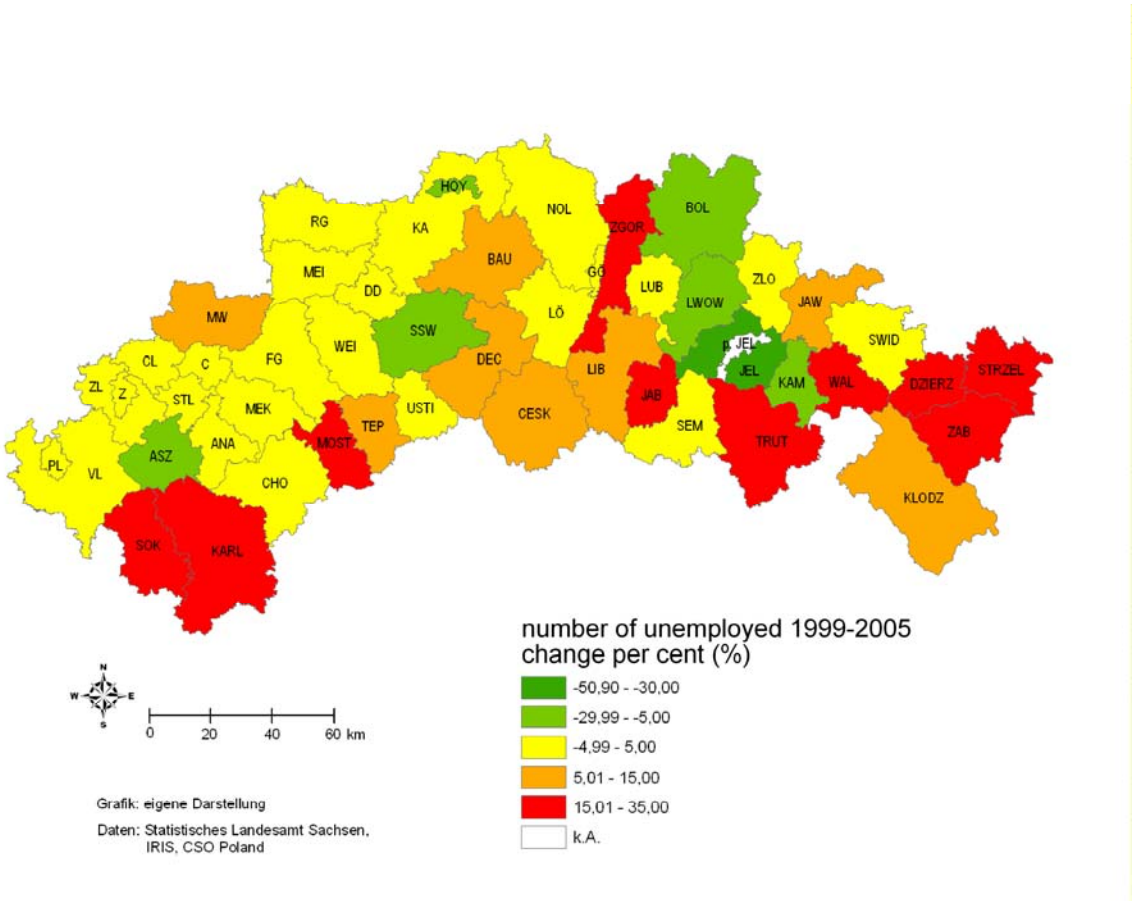

Figure 1: example map showing development of number of unemployed

The picture of the former Black Triangle which is shown here makes clear that the **environmental dimension** is the only one which took a positive direction in the whole region. For the other dimension every part of the former Black Triangle displays an individual pattern. The **social indicators** are the ones that are most inhomogeneous and the **economical indicators** mostly show the same direction but seem to reveal regional differences.

Online databases used for the presentation:

Saxony Online-DBS "GENESIS"
[http://www.statistik.sachsen.de/genonline/online/logon]
[Statistical Office of Poland] Polish online-database
[RIS CZ] Czech regional information service

NEXTMAP® EUROPA – DIE EINHEITLICHE, DIGITALE NEUKARTIERUNG EUROPAS IN 3D

RENE GÜNZKOFER
Intermap Technologies, München (DE)

ABSTRACT

Keywords: *3D, Cross-border Mapping, Datenerfassung, Europa, Geodaten, Geländemodelle, Höhendaten,* ***IFSAR Radar-Technologie,*** *INSPIRE, Simulation*

Abstract:

Die aktuelle Geodaten-Abdeckung vieler europäischer Länder erinnert an eine Patchworkdecke. Unterschiedliche Erfassungstechniken einer Vielzahl von Behörden mit unterschiedlichsten Vorstellungen weisen alle möglichen Qualitäts- und Genauigkeitsstufen von einem Extrem zum anderen auf. Unglücklicherweise ist das die gute Nachricht. Oft existieren bestimmte Geodaten für einige Regionen überhaupt noch nicht oder sind derart veraltet, dass sie praktisch unbrauchbar sind.

- Die Direktive 2007/2/EC (INSPIRE)
- Einheitliche und großflächige Kartierung Europas
- Intermap ***IFSAR Radar-*** Technologie - NEXTMap-Kampagne®
- Höhendaten mit **1m** Höhengenauigkeit oder besser für die USA und Europa
- Daten für Deutschland seit Ende 2007 flächendeckend
- Orthorektifizierte Radarbilder und Echtfarbenbilder
- Thematische Fachanwendungen für Katastrophen-Management und Planung

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NEXTMAP® EUROPA – DIE EINHEITLICHE, DIGITALE NEUKARTIERUNG EUROPAS IN 3D

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SUMMARY

Die **aktuelle Geodaten-Abdeckung** vieler europäischer Länder erinnert an eine Patchworkdecke. Unterschiedliche Erfassungstechniken einer Vielzahl von Behörden mit unterschiedlichsten Vorstellungen weisen alle möglichen ***Qualitäts- und Genauigkeitsstufen*** von einem Extrem zum anderen auf. Unglücklicherweise ist das die gute Nachricht. Oft existieren bestimmte Geodaten für einige Regionen noch überhaupt nicht oder sind derart veraltet, dass sie praktisch unbrauchbar sind.

Die **Direktive 2007/2/EC (INSPIRE)** des Europäischen Parlamentes und der Ratsversammlung vom 14. März 2007 verfügte die Etablierung einer Infrastruktur für Geoinformationen in der Europäischen Gemeinschaft und soll das grundlegend ändern. Demzufolge benötigen die Mitgliedsländer der Europäischen Union seit dem 10. Mai 2007 dringend eine einheitliche und großflächige Kartierung Europas. Nach wie vor unterscheiden sich die fachlichen Fragestellungen und damit die Anforderungen an Art und Genauigkeit der Geodaten erheblich.

Intermap Technologies ist auf die großflächige Kartierung der Erdoberfläche in drei Dimensionen spezialisiert. In nur 10 Jahren haben wir mehr als 6 Millionen Quadratkilometer der Erdoberfläche dreidimensional kartiert. Unsere derzeit laufende ***NEXTMap-Kampagne®,*** das bisher größte private 3D-Kartierungsprogramm aller Zeiten, ist die konsequente Weiterführung dieser langjährigen Erfahrung: Als erstes Unternehmen weltweit wird Intermap Technologies bis 2009 flächendeckende digitale Höhendaten mit 1m Höhengenauigkeit oder besser für die USA und Großteile Europas erstellen.

Die **Daten für Deutschland** stehen bereits seit Ende 2007 flächendeckend bereit. Bei unseren Kartierungen setzen wir auf eine von uns entwickelte flugzeuggetragene ***IFSAR Radar-Technologie***, die unter den verschiedensten Wetterbedingungen und praktisch überall und jederzeit einsatzfähig ist. NEXTMap® Daten umfassen Digitale Geländemodelle, Digitale Oberflächenmodelle, orthorektifizierte Radarbilder und orthorektifizierte Echtfarbenbilder. NEXTMap®-Daten können unter anderem eingesetzt werden bei: ***Katastrophen-Management, Bauplanung, Umweltschutz, Funknetzplanung, Simulation, Visualisierung und Navigation.***

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FGIS_ONLINE UND GEOMIS.FORST

Schnittstellen des Staatsbetriebes Sachsenforst zur GDI-Sachsen

ANDREAS HERGERT
Staatsbetrieb Sachsenforst (DE)

ABSTRACT

Keywords: *CSW, FGIS_online, Forstverwaltung, GDI-Sachsen, Geodatendienste, Geodateninfrastruktur, GeoMIS.Forst, Interoperabilität,. Kartendienste, Katalogdienst, Metainformationssystem, Staatsbetrieb Sachsenforst, WebGIS, WMS.*

Abstract:

- Der **Staatsbetrieb Sachsenforst** fungiert als Landesforstverwaltung und Landesforstbetrieb im Freistaat Sachsen.
- Geoinformationen bilden die Grundlage für zahlreiche ***Geschäftsprozesse und Fachaufgaben*** in der Forstwirtschaft.
- Der **Staatsbetrieb Sachsenforst** erhebt auf Basis diverser Fachverfahren (*Forsteinrichtung, Waldbiotopkartierung* etc.) eigene ***forstliche Geodaten*** und publiziert diese in Form von ***Kartendiensten*** in der internen WebGIS-Lösung (FGIS_online) und im Internet für die GDI-Sachsen.
- Im Gegenzug werden Kartendienste der Landesvermessung und anderer Fachbehörden in **FGIS_online** eingebunden und den Mitarbeitern so zur Verfügung gestellt.
- Das ***Web-basierte Metainformationssystem GeoMIS.Forst*** dient der Erfassung von forstlichen Metadaten und deren Recherche durch die Mitarbeiter.
- Die Kopplung von **GeoMIS.Forst** mit dem zentralen Metadaten-Portal der sächsischen Verwaltung (***GeoMIS.Sachsen***) ermöglicht die automatisierte Publikation ausgewählter forstlicher Metadaten im Internet.
- Der Vortrag gibt einen Überblick über die Web-Lösungen **FGIS_online und GeoMIS.Forst** und skizziert die Aktivitäten des Staatsbetriebs Sachsenforst innerhalb der GDI-Sachsen

Autor

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Staatsbetrieb Sachsenforst - Referent WebGIS-Entwicklung

Referenzen

[http://www.forsten.sachsen.de/de/wu/organisation/obere_behoerden/landesforstpraesidium/graupa/pdf/Hergert_FGIS_online.pdf]

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INSPIRED SPATIAL DATA INFRASTRUCTURES BUILDING: THE ROLE OF GI LITERACY AND CAGI PRACTICE

A growing experience of Czech Association for Geo-Information illustrates the importance of specialised and focused GI knowledge and skills as a new secondary kind of adult users literacy

JIRI HIESS
Regional Government of Vysocina, Jihlava (CZ)
President of Czech Association for GeoInformation

ABSTRACT

Keywords: *CAGI, INSPIRE, GIS, GIT, NGO, Spatial Data Infrastructures, GI education.*

Abstract Thesis:

- A human sources gap: top-level administrators and different user groups need permanent and smart modern GI learning focused on adult professionals.
- CAGI (the Czech Aassociation for Geo-Information) prepared a special learning course, accredited at the Ministry of Interior. The participants obtain certificates proving their growing skills and specialized knowledge.
- The goal is to develop & precise the teaching methods for Life-Long- Learning (LLL).
- CAGI cooperates with both Czech and foreign universities, and in the EUROGI frame. The ECDL-GIS concept is under development.
- The learning content needs international coordination and cooperation. Invitation to a next special LLL educational project.

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References

[Regional GIS] Regional GIS in Vysocina, one of 14 Czech Regions, integrating different SDI levels
[CAGI] Professional, non-governmental association at national level in Czech Republic

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POSTGRADUAL GIS EDUCATION AT SAXONIAN "*BILDUNGSWERK OST-WEST*" (BOW)

Development, Actual Status and Challenges of the Future

Gudrun HOFFMANN & Frank HOFFMANN

Bildungswerk Ost-West (BOW-Dresden) & INNOVATION.Grenzüberschreitendes Netzwerk (IGN)

ABSTRACT

Keywords: *15 Jahre BOWGIS, ArcGIS, Awareness, Bildungswerk Ost-West, BOW-Akademie, ESRI, EU, GeoMedia, GIS-Kurse, INTERGRAPH, inter-regional Cooperation,OpenGIS, POLYGIS, Postgraduale Weiterbildung, Projektmanagement, Strategieseminare, Training, Weiterbildung, X-border-Collaboration.*

Abstract:

< ZITAT des Monats > In 30 Tagen passiert jede Menge... Within 30 days a lot is happening…

Innerhalb von 30 Tagen ...widmet ein Büromitarbeiter weniger als 9 Minuten seiner beruflichen Weiterbildung.
Within 30 days ... an administrative staff member is using lesser than 9 Minutes for its own postgradual Education.

Quelle / Source: **Intergraph Marketing Manager Central Europe** (10.03.2008, MA)

< /ZITAT >

- **The History & the "grassroots"** of BOW founded in 1990 and its GIS evolution until 2008
- **BOW** - Bildungswerk Ost-West, a non-profit organisation, is registered under HR # **19 100** in 1990
- **GI business development** at BOW - Start of GIS related postgradual seminar & course system and its technological evolution in the 90-ties until the well-known **GI2000** initiatives of EC/DG3 (1995-1999)
- The **OpenGIS** development 1994 and the **5th EC-GI&GIS** Workshop in Stresa (IT) as **the** "***Milestones***" for development of so-called "**OpenGIS Strategy Seminar**" **series** for Saxonian State Ministries (*SSK, SMUL, SMI, ...*) , Saxonian State Agencies (e.g. *Landesvermessungsamt, Landesamt Umwelt und Geologie,…*) , Public organizations (like *SIB, SAKD, ...*) and other, GI related private SME's (examples: *BEAK, DGIS, IAC, IPM, ESRI-L, ...*) to push the Geo-Dataservice-Infrastructure for Saxony (GDI-SN) since year 1999 !
- The ***GDI-Sachsen*** was a "*foundation*" by BOWGIS resulting from the **GI2000** strategy seminar series, e.g. some ***tale stories*** to be told from its start as a Virtual server Community [GDI-SN-L] to the creation of the Internet domain [GDI-SN.de] a result of **GI2002,** and Saxonian **GDI** Cluster Initiatives
- Finally, some statistical facts about EU project management initiatives at BOW and outcoming results after **15 years Postgradual GIS courses** (*260 GI specialists postgraduated since 1994*)
- The future engagement of BOWGIS is focused on overcoming the fragmented, non-interoperable "*data islands*" at ***local, regional and cross-border*** level preparing GI specialists in a close, and inter-regional partnership with the GI industry (IGN / CCSS / ESRI / INTERGRAPH / POLYGIS,…)
- **CONCLUSION** - ***ESRI is searching for geoinformaticians ! - …but, not only, as the whole branche searches for geoinformatics specialists…*** (Source: *ArcAktuell*, 2008, vol. 1, p. 13)

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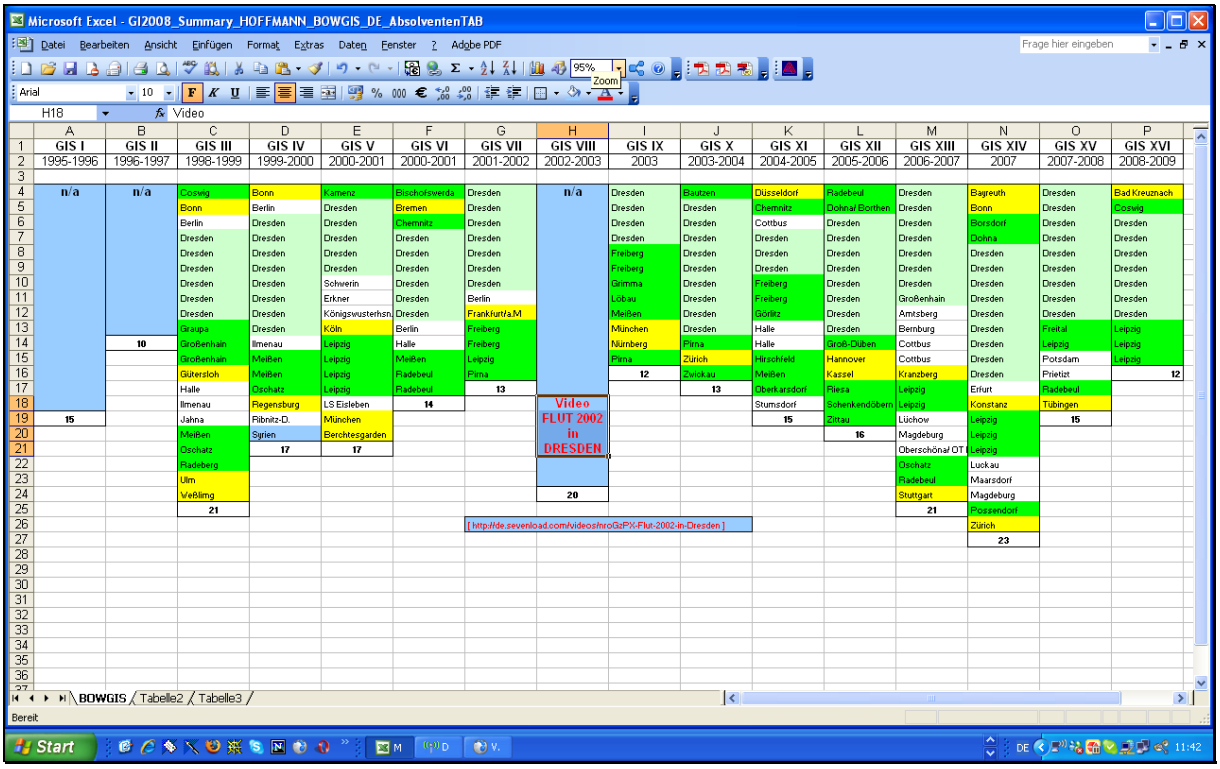

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	GIS I	GIS II	GIS III	GIS IV	GIS V	GIS VI	GIS VII	GIS VIII	GIS IX	GIS X	GIS XI	GIS XII	GIS XIII	GIS XIV	GIS XV	GIS XVI
2	1995-1996	1996-1997	1998-1999	1999-2000	2000-2001	2000-2001	2001-2002	2002-2003	2003	2003-2004	2004-2005	2005-2006	2006-2007	2007	2007-2008	2008-2009
3																
4	n/a	n/a	Coswig	Bonn	Kamenz	Bischofswerda	Dresden	n/a	Dresden	Bautzen	Düsseldorf	Radebeul	Dresden	Bayreuth	Dresden	Bad Kreuznach
5			Bonn	Berlin	Dresden	Bremen	Dresden		Dresden	Dresden	Chemnitz	Dohna/ Borthen	Dresden	Bonn	Dresden	Coswig
6			Berlin	Dresden	Dresden	Chemnitz	Dresden		Dresden	Dresden	Cottbus	Dresden	Dresden	Borsdorf	Dresden	Dresden
7			Dresden	Dresden	Dresden	Dresden	Dresden		Dresden	Dresden	Dresden	Dresden	Dresden	Dohna	Dresden	Dresden
8			Dresden	Dresden	Dresden	Dresden	Dresden		Freiberg	Dresden	Dresden	Dresden	Dresden	Dresden	Dresden	Dresden
9			Dresden	Dresden	Dresden	Dresden	Dresden		Freiberg	Dresden	Dresden	Dresden	Dresden	Dresden	Dresden	Dresden
10			Dresden	Dresden	Schwerin	Dresden	Dresden		Grimma	Dresden	Freiberg	Dresden	Dresden	Dresden	Dresden	Dresden
11			Dresden	Dresden	Erkner	Dresden	Berlin		Löbau	Dresden	Freiberg	Dresden	Großenhain	Dresden	Dresden	Dresden
12			Dresden	Dresden	Königswusterhsn.	Dresden	Frankfurt/a.M.		Meißen	Dresden	Görlitz	Dresden	Amtsberg	Dresden	Dresden	Dresden
13			Graupa	Dresden	Köln	Berlin	Freiberg		München	Dresden	Halle	Dresden	Bernburg	Dresden	Freital	Leipzig
14		10	Großenhain	Ilmenau	Leipzig	Halle	Freiberg		Nürnberg	Pirna	Halle	Groß-Düben	Cottbus	Dresden	Leipzig	Leipzig
15			Großenhain	Meißen	Leipzig	Meißen	Leipzig		Pirna	Zürich	Hirschfeld	Hannover	Cottbus	Dresden	Potsdam	Leipzig
16			Güterloh	Meißen	Leipzig	Radebeul	Pirna		12	Zwickau	Meißen	Kassel	Kranzberg	Dresden	Prietzt	12
17			Halle	Oschatz	Leipzig	Radebeul	13			13	Oberkarzdorf	Riesa	Leipzig	Erfurt	Radebeul	
18			Ilmenau	Regensburg	LS Eisleben	14		Video FLUT 2002 in DRESDEN			Stumsdorf	Schenkendöbern	Leipzig	Konstanz	Tübingen	
19	15		Jahna	Ribnitz-D.	München						15	Zittau	Lüchow	Leipzig	15	
20			Meißen	Syrien	Berchtesgarden							16	Magdeburg	Leipzig		
21			Oschatz	17	17								Oberschönaf OT	Leipzig		
22			Radeberg										Oschatz	Luckau		
23			Ulm										Radebeul	Maarsdorf		
24			Weßling					20					Stuttgart	Magdeburg		
25			21										21	Possendorf		
26							[http://de.sevenload.com/videos/nroGzPX-Flut-2002-in-Dresden]							Zürich		
27														23		

Abbildung: Übersicht BOWGIS-KursteilnehmerInnen nach Wohn-/Meldeorten
Figure: Overview of BOWGIS Course Participants according their Locations
(no Data available for GIS-I, GIS-II and GIS-VIII)

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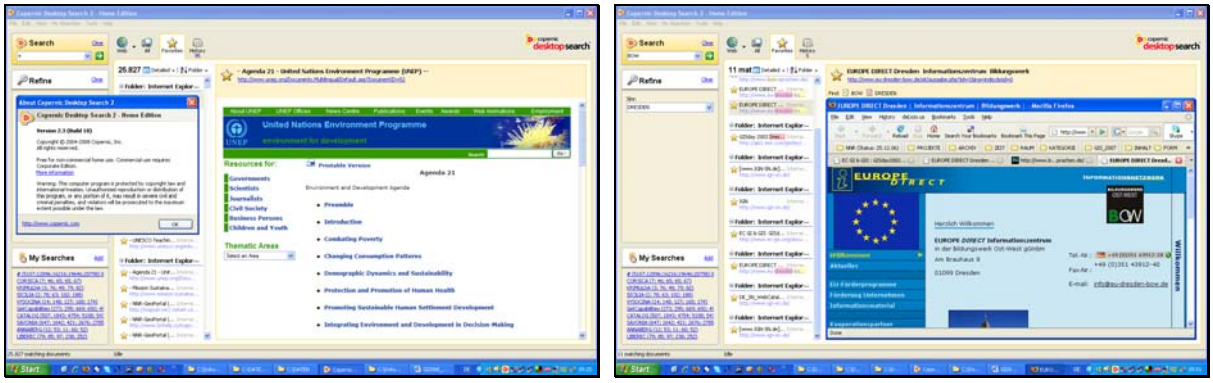
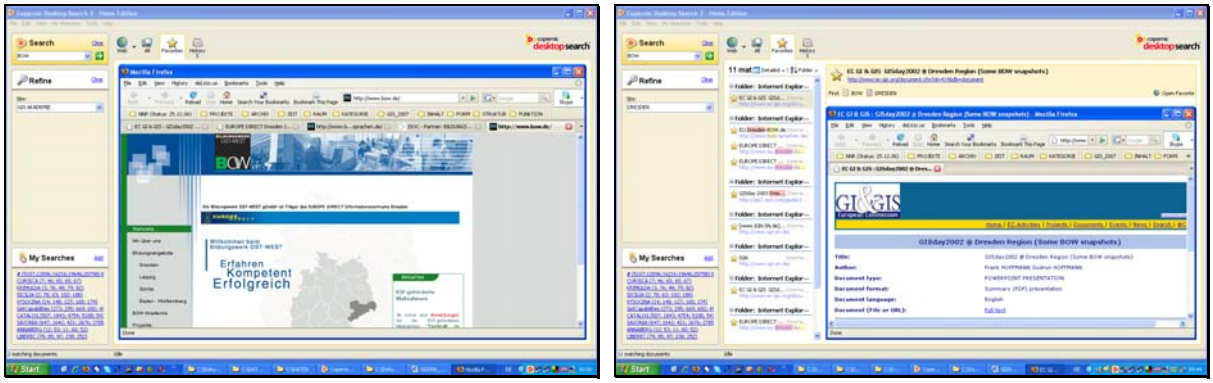
Selected BOW References: *EU-Project Management & Postgradual GIS Education*

(Ausgewählte BOW-Referenzen: EU-Projektmanagement & Postgraduale GIS-Weiterbildung)

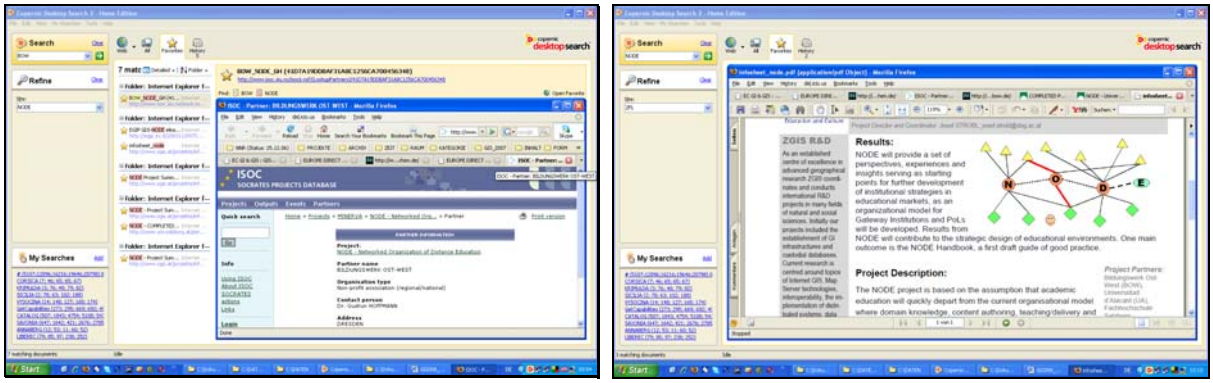


NNR-Desktop-SEARCHTOOL « **NATURNET-Content-NAVIGATOR** » as a personalized eLearning support solution for integrated Knowledge resource management (**Left:** Actual CDS-Engine Version 2.3 // **Right:** Search result by Find & Bind & Access: *BOW, EU, GIS, Resources*)



BOW = Experienced, competent & successful ! [http://www.BOW.de/]

BOWGIS = GISday2002 Report @EC-JRC-Archiv-DB [http://www.EC-GIS.org/document.cfm?id=414&db=document]



EU-FP6-Sokrates-Minerva (2001-2003)**: NODE**@BOW **NODE-Project-Description** @ZGIS, Uni Salzburg [http://www.isoc.siu.no/isocii.nsf/projectlist/89923][http://wwwZGIS.at/projekte/infoblatt/infosheet_node.pdf]

The "NATURNET-Content-NAVIGATOR" as a personalized Supporting Tool for Web-Based Teaching & Learning in Europe of Regions

FRANK HOFFMANN

IGN e.V. - INNOVATION.Grenzüberschreitendes Netzwerk - Dresden

ABSTRACT

Keywords: *15 Jahre BOWGIS, Agenda21, ArcGIS, Awareness, Bildungswerk Ost-West, BOW-Akademie, Data, Decision, Development, Education, eLearning contents, ENVIRO, ESRI, Europa, GEO, GIS-Kurse, Information, Infrastructure, INSPIRE, Interoperability, INTERGRAPH, inter-regional Cooperation,OpenGIS, POLYGIS, Postgraduale Weiterbildung, Projektmanagement, Region, Services, SPATIO, Strategieseminare, Sustainability, System, Tools, Training, Web applications, Web processing, Weiterbildung, X-border-Collaboration.*

Abstrakt:

< ZITAT des Monats > In 30 Tagen passiert jede Menge... # Within 30 days a lot is happening...
Innerhalb von 30 Tagen ...widmet ein Büromitarbeiter weniger als 9 Minuten seiner beruflichen Weiterbildung.
Quelle: **Intergraph Marketing Manager Central Europe** (10.03.2008, MA)
< /ZITAT >

- Sustainable Regional Development needs more Awareness and Knowledge about Data, Information, and Applications to use Learning Resources available from the WWW by applying Web Catalogue Services and other Multimedial Web Contents to support E-Learning and WebBasedTraining (WBT).
- Using different Web SEARCH engines like GOOGLE, LIVE_SEARCH or other Searching tools ends up - *as usual* - with an "INFORMATION WASTE" overload...
- Therefore, IGN has composed open Web resources for the "NATURNET-Content-NAVIGATOR" which contains structurized data, information, applications and and other knowledge collected by domain experts about SUSTAINABILITY, INTEROPERABILITY and USABILITY for web-based e_LEARNING processes.
- The MetaInfo about Knowledge Resources from the Web has been developed for EU-FP6-Project NATURNET and is intented for personal use by CITIZENS, BUSINESSES, ADMINISTRATIONS, SCHOOLS, TEACHERS and STUDENTS interested in finding RESOURCES on the WEB for formal as well self-paced informal Learning.

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Vorstandsvorsitzender IGN e.V.

References

[http://www.google.de/search?q=IGN+e.V.+Dresden]
[http://directory.eoportal.org/d_ann.php?an_id=2343]

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THE "NATURNET-CONTENT-NAVIGATOR" AS A PERSONALIZED SUPPORTING TOOL FOR WEB-BASED TEACHING & LEARNING IN EUROPE OF REGIONS

FRANK HOFFMANN
INNOVATION.Grenzüberschreitendes Netzwerk (IGN e.V.)

SUMMARY

Sustainable Regional Development needs more ***Awarenes***s about *Data, Information, and Application or* ***Knowledge*** *about Learning Resources* available from the WWW using Web Catalogue Services and other Multimedial Web Contents supporting E-Learning-Online and WebBasedTraining (WBT). Using Web SEARCH engines like GOOGLE, LIVE_SEARCH or other Searching tools ends up - *as usual* - with an "INFORMATION WASTE" overload...

Therefore, IGN has composed the "**NATURNET-Content-NAVIGATOR**" which contains structurized knowledge on Universal Resource Links (URL) collected for learning by domain experts on ***SUSTAINABILITY, INTEROPERABILITY and USABILITY*** - the ***MetaInfo about Knowledge Resources*** has been collected and categorized for EU-FP6-Project NATURNET and is intented for personalized re-use by CITIZENS, BUSINESSES, ADMINISTRATIONS, SCHOOLS, TEACHERS and STUDENTS interested in finding RESOURCES for formal Teaching and Learning, as well as for using in self-paced informal E-Learning via the WEB (Online) or WBT (Offline).

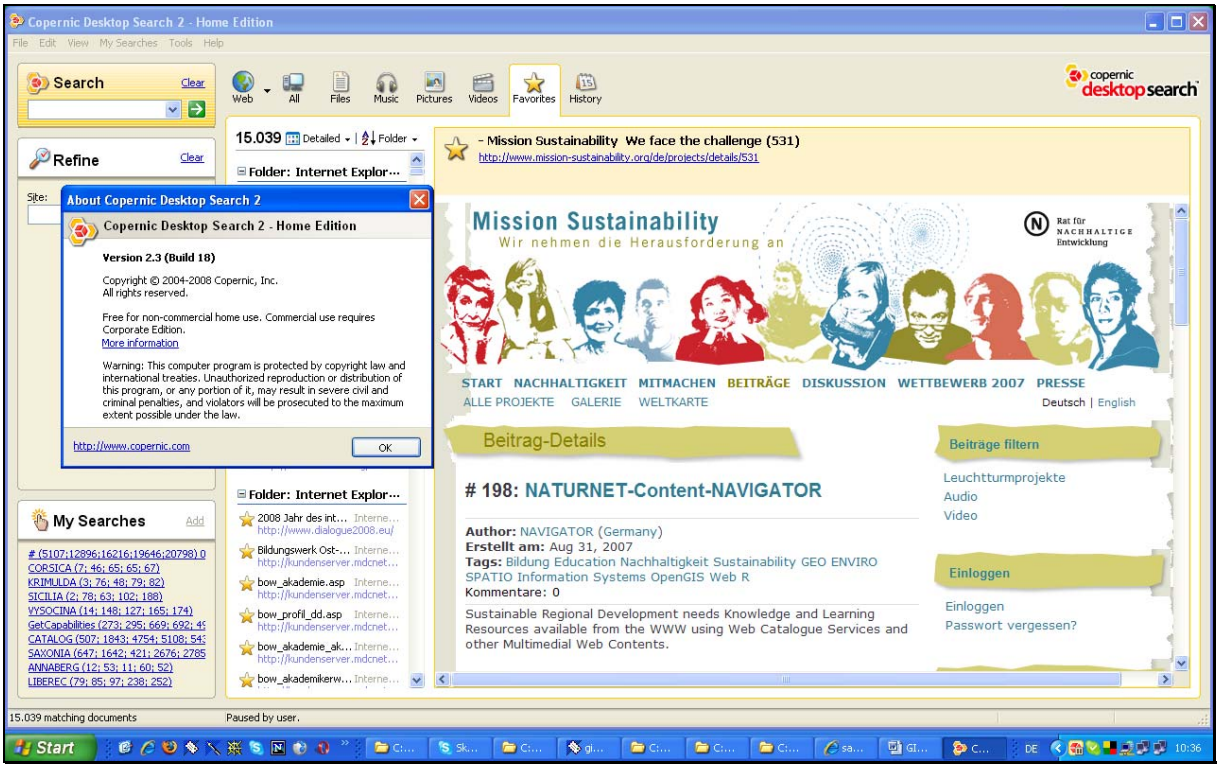

Fig. 1: Personalized COPERNICDESKTOPSEARCH Engine - CDS-2.3.18 for indexing and integration of Internet & Desktop Resources

The "NATURNET-Content-NAVIGATOR" (NCN) allows intelligent Search processes using the spezialized Expert Knowledge Base about Sustainability, Interoperability, and Usability of ***ecologic, social and economic Data, Services and Applications*** as an innovative and personalized solution for personal learning (*a powerful commercial version is available too*) - the searching tool ***Desktop Search Engine: CDS.2.x*** - The freeware search engine "**CopernicDesktopSearch**", release 2.0.2 (2005) and 2.1.1 (July 2007) was used for final NNR project: [http://www.COPERNIC.com].

Actually, the **CDS-2.3.18 release version** (April 2008) imported favourite URL's from the Web which have been ***searched, collected, assessed, evaluated and categorized*** by IGN experts, and a **Knowledge Base INDEX** (*see Figure 1 above*) was generated to be accessible directly on the user's personal computer (either Desktop or Notebook) - the way CDS allows a sustainably usage of **Web-based CONTENT resources** for personalized TEACHING and/or LEARNING, but enables also ***integration of favourite contents from the WEB with other resources locally stored*** on the users desktop or notebook, e.g. **Audios, Videos, Images, Tables, Documents** or other files with different formats like *.XML, *.DOC, *.PPT, *.PDF, *.HTM, *PHP, *.ASP, *.ZIP etc.

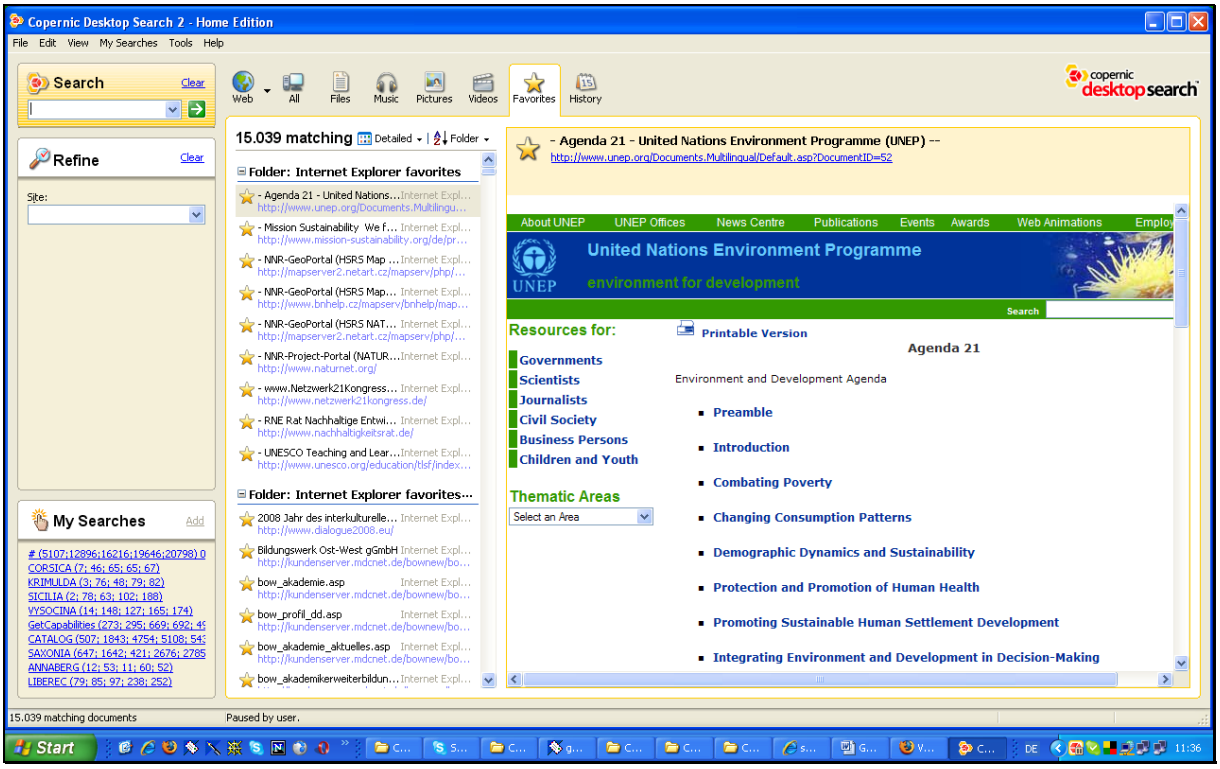

Fig. 2: Integrated INDEX of 15039 Information Resources, Teaching & Learning Modules, Search Profiles of NNR-Pilot-REGIONS

This reduces dramatically the time for SEARCH, FIND, BIND and ACCESS instantly the **original** links to resources of Learning modules, as well as data, services, applications of interest from GEO, ENVIRO and SPATIO information sectors openly available on the web for teaching and learning. The NCN can be used for better informed awareness about web resources, their integration with personal knowledge documents - the way for better informed decision making on sustainable local /rural /regional /cross-border development.

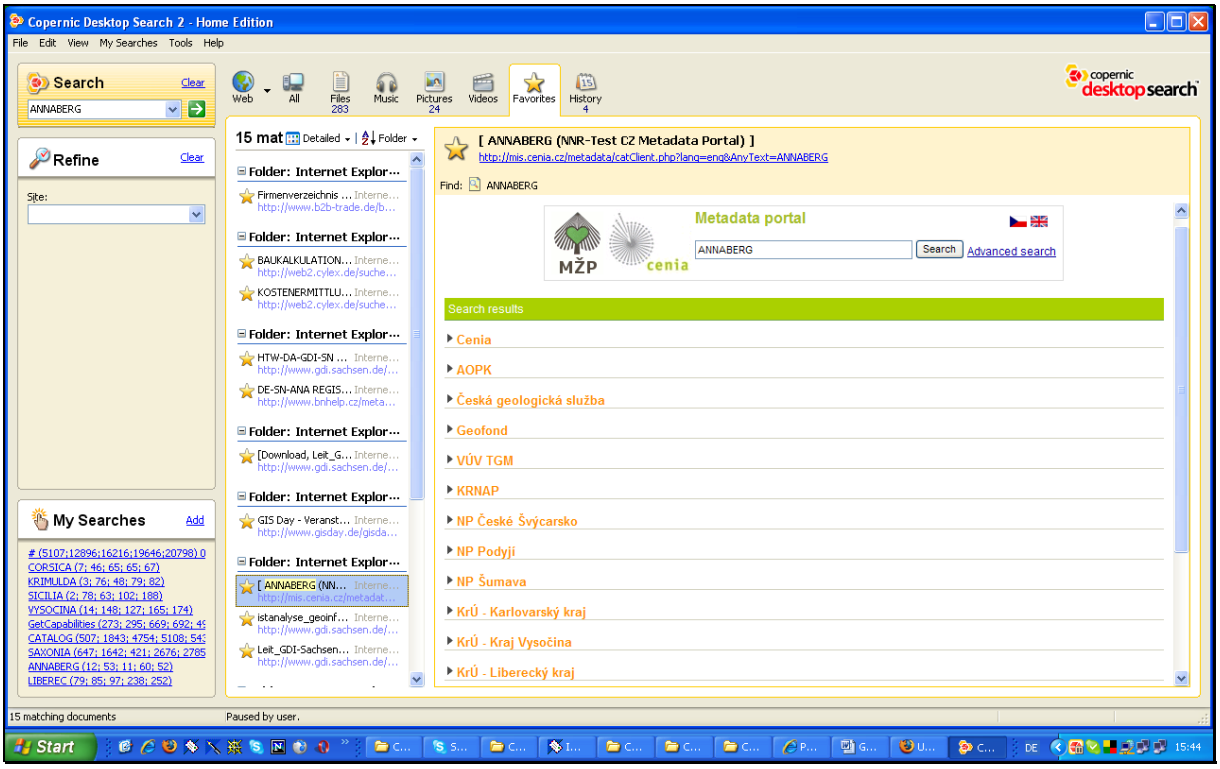

Fig. 3: Integrated Search Profile for Region ANNABERG (Saxony) in GeoCatalogue Network of CZ-EnviroMIS.CENIA

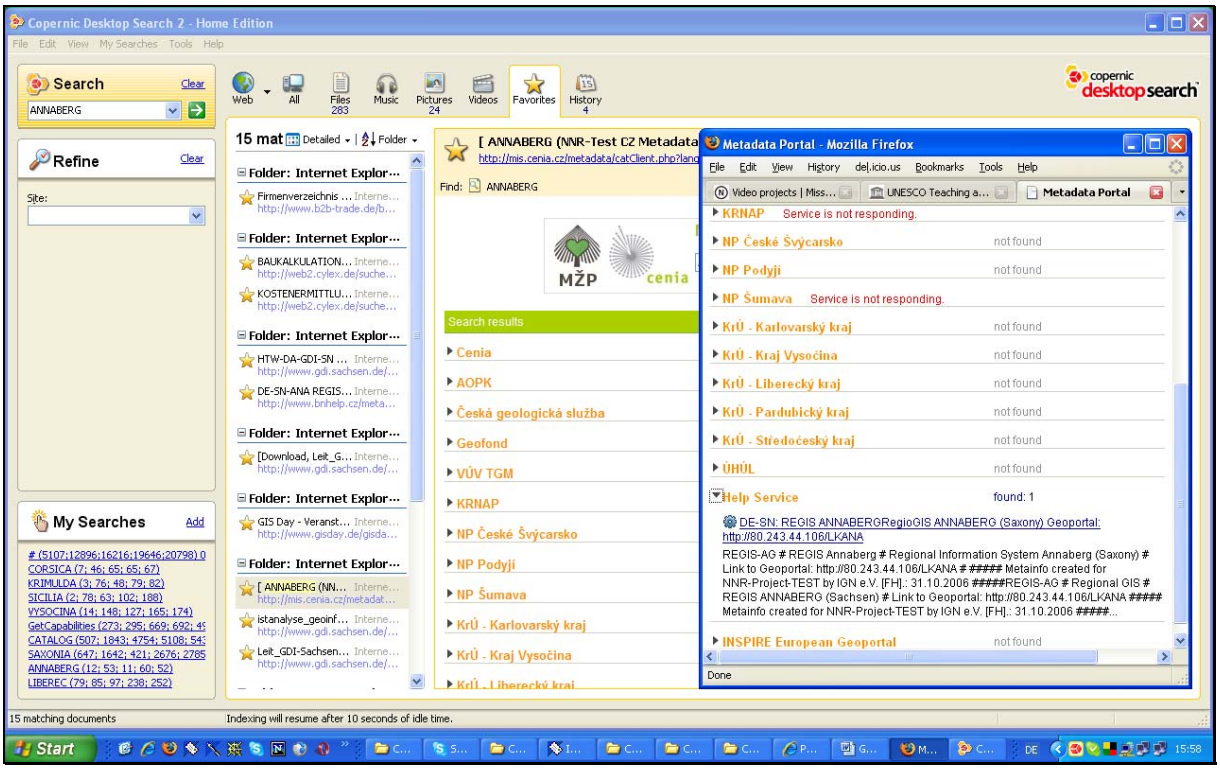

Fig. 4: Integrated Resource Management with NaturNet-CONTENT-Navigator (Search>Find>Bind>Access REGIS-AG)

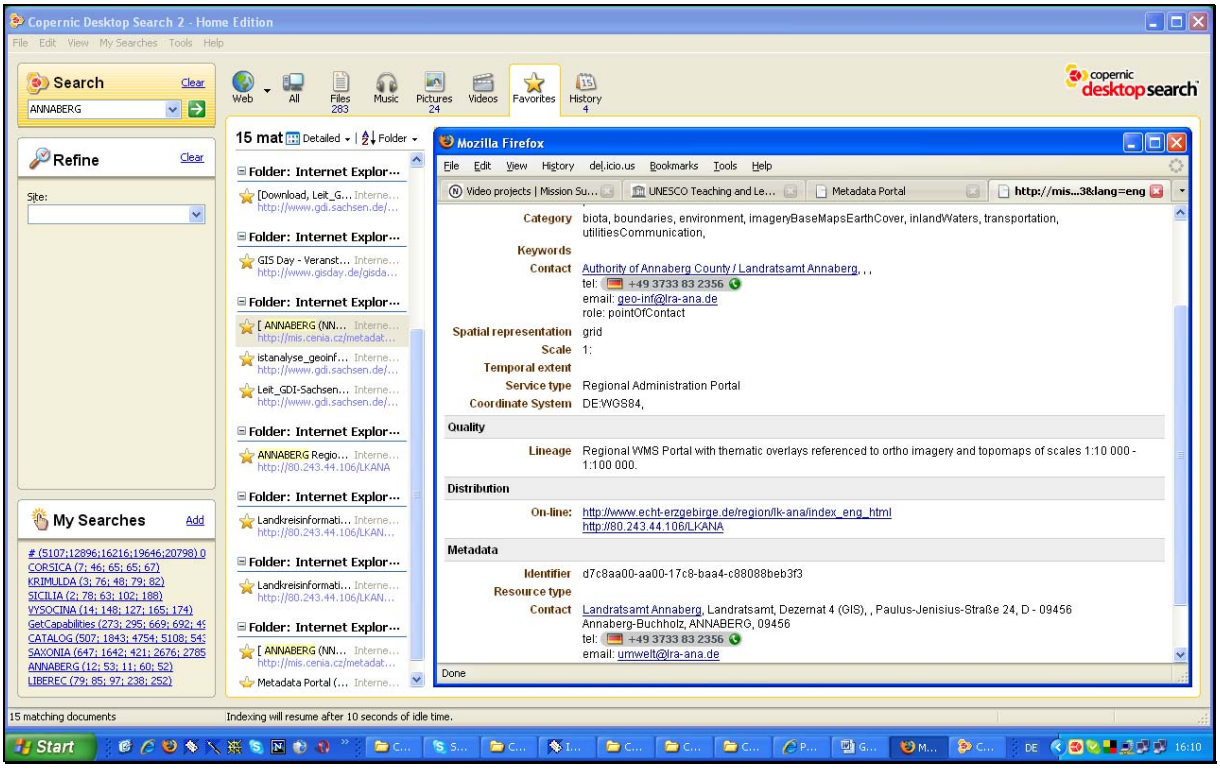

Fig. 5: Integrated Resource Management using MetaData for Region ANNABERG at GeoMIS "MICKA" © HSRS (CZ)

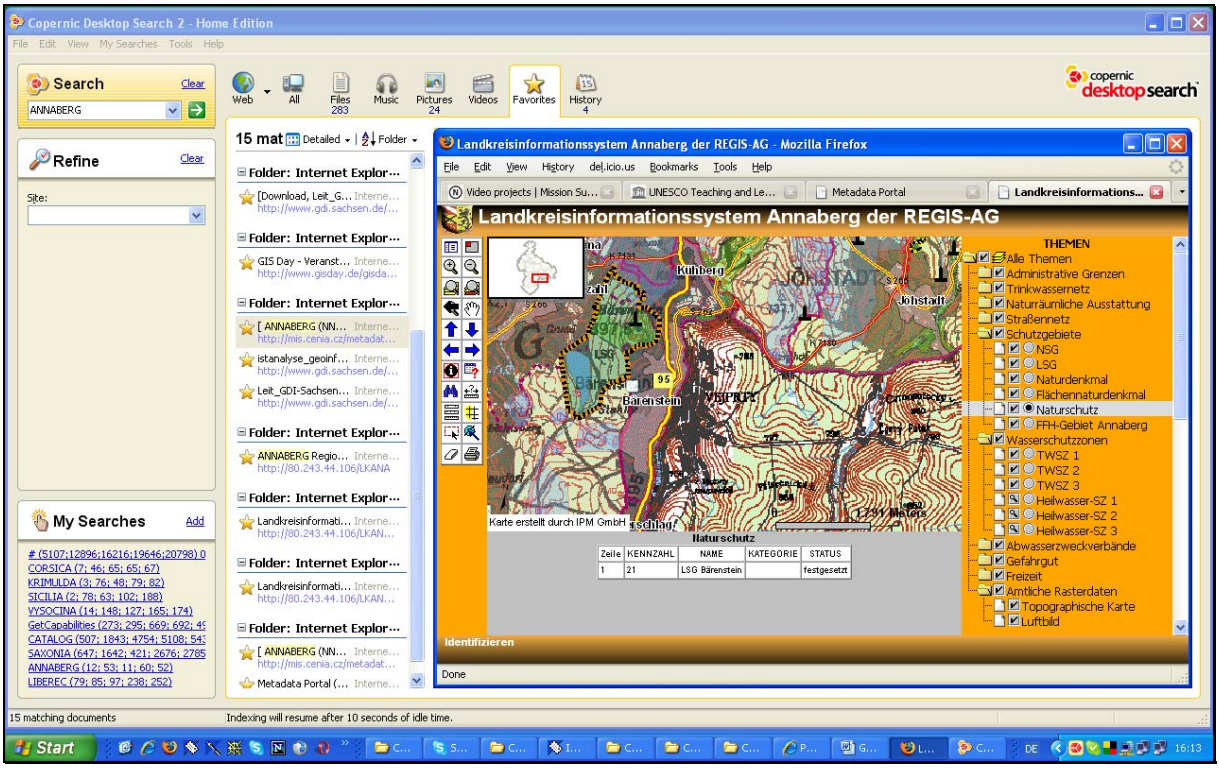

Fig. 6: Integrated Resource Management using direct MetaData link to Web Application © REGIS-Portal ANNABERG

Actually, the intern TEST version for NATURNET-Project has been expanded to more than **6** MB compressed web links derived from content semantics of about **15.000** indexed URL resource files of web addresses favoured, categorized and structurized into nearly **1.500** Directories including SubFolders for ***original Web resources,*** for example: ***Learning modules, Tools, Catalogues, GetCapabilities, Videos, Images, Audios, …*** etc.

The indexed, but proprietary internal (binary) Knowledge DataBase expanded on the personalized IGN project desktop to **118,3** MB, and is enabling the **integration** of ALL personalized "***IGN-Desktop-Warehouse***" resources, e .g. actually **53.710 indexed DOCUMENTS** integrated from Web & personal Desktop/Notebook resources and is searchable by over **800.000 KEYWORDS.**

The CDS-2.x Engine allows indexing of favourite resources collected and imported from different Web browsers: ***MSIExplorer-7.x, Firefox-2.x,*** and/or ***Netscape-9.x,*** while the latest **opensource Social web browser *Flock-1.x*** newly installed is enabling similar functionalities as the CDS-2.3.18 , but it has not yet tested more deeply to be compared with the CDS search engine.

An ONLINE demonstration of the "***NATURNET-Content-NAVIGATOR***" can be found and demonstrated using the weblinks either at:

- [http://gdi-sn.blogspot.com/] or
- [http://www.ign-sn.de/Mission-SD-NAVIGATOR-20070831.pps]

Also possible is to go directly into NATURNET-Portal-MOODLE which contains a guided Learning module composed for test use by NNR-Partners in Pilot-Regions of ***Corsica, Latvia, Sicilia and Vysocina*** (*when the NNR Business model has been defined taking into account also a solution for IPR of re-using the NNR learning resources and after the approval of the project deliverables from the EC, then a* ***Password is required*** *from Webmaster to access the NaturNet-Project-PORTAL*).

The internal **Moodle-NCN-Modul** learning package connected with the **NNR-Portal** explains the personalizing of local NCN installation and its usage by indexing process for **SEARCH, FIND, BIND & ACCESS** to Teaching & Learning resources of interest.

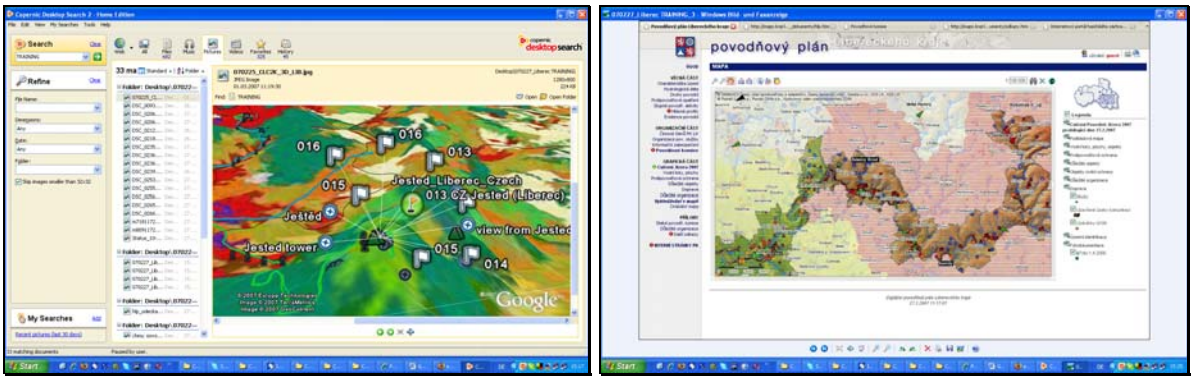

Fig. 7 / 8: Integrated Resources Management with the NaturNet-CONTENT-Navigator using Web-based Services (left: Region LIBEREC with mapped GPS routes + WMS of CLC2000 layers on personalized GoogleEarth © FH, IGN) (right: Region LIBEREC using WMS based Public Sector Information of KULK for Flood Training © Irena Koskova)

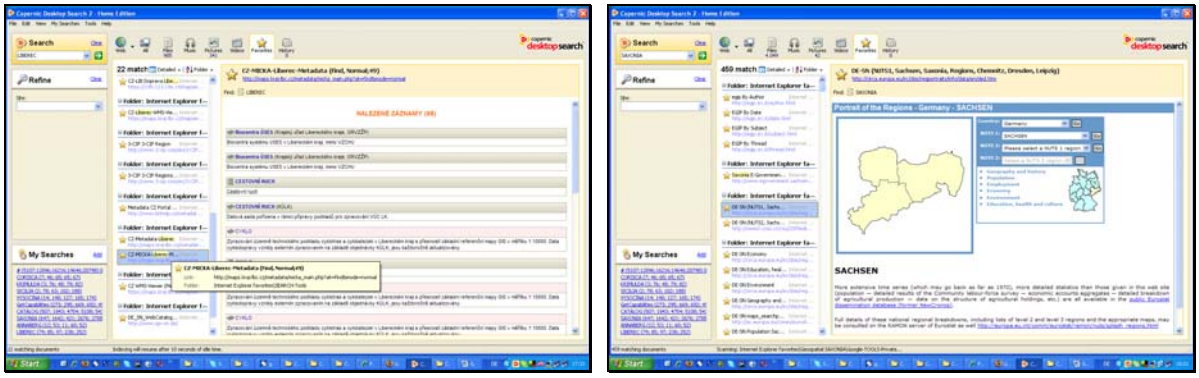

Fig. 9 / 10: Integrated Resources Management with the NaturNet-CONTENT-Navigator searching MetaInformation (left: Search > Find > Bind MetaInformation by Keyword "LIBEREC" located at Regional GeoMIS.LIBEREC.CZ) (right: Search > Find > Bind MetaInformation by Keyword "SAXONIA" located at European CIRCA.EUROPE.EU)
Full details of these national & regional thematical and statistical solutions including lists of NUTS level 2 and level 3 regions and the appropriate maps, may be consulted directly on the RAMON server of EUROSTAT
[http://europa.eu.int/comm/eurostat/ramon/nuts/splash_regions.html]

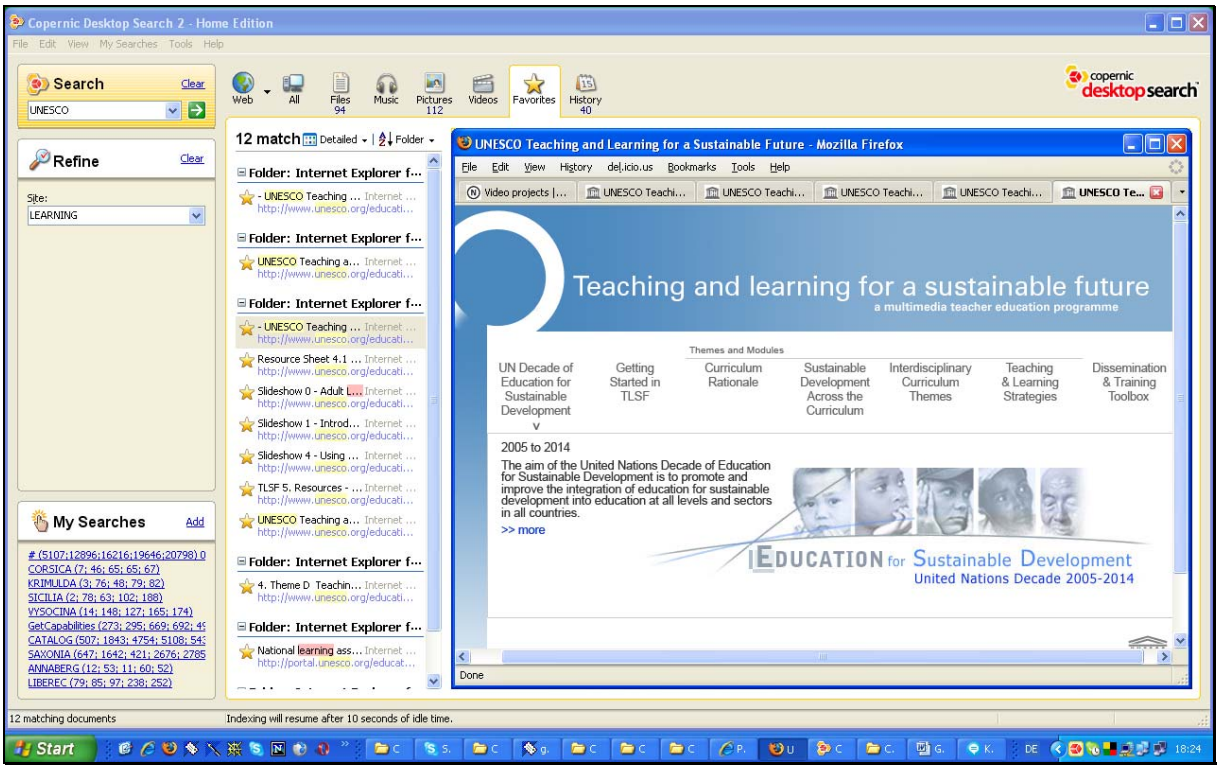

Fig. 11: Integrated Resources Management with the NaturNet-CONTENT-Navigator
Search MetaInformation by Keyword "UNESCO" & Find > Bind > Access a Learning Modul by Keyword "LEARNING"

References

- [http://www.IGN-SN.de] & [http://www.NATURNET.org]
- [http://GDI-SN.blogspot.com] & [http://portal.NATURNET.org]

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REGIONAL LEARNING TOOLS AND ENVIORONMENT IN VYSOCINA REGION

VACLAV JACHIM & PETR PAVLINEC
Regional Government of Vysocina, Jihlava (CZ)

ABSTRACT

Keywords: *Distance education, Education, eLearning, ICT, Regional government, Video conferences, Web casting*

Abstract Thesis:

e- Learning system - EDOCEO

- for internal education in Regional Administration Office (*special ICT lectures, IT security, @-signature...*)
- a distant education portal for institutions founded by the Vysocina autonomous region (e.g. by definition: "*Land*" in German, "*Kraj*" in Czech)

Videoconferencing

- inter-regional platform for regular meetings, official sessions, and quick immediate information exchange

Webcasting technology

- for education, it serves to on-line transmissions and archiving of educational content
- ability to integrate documents and programmme modules for remote audience
- regional IP television at [http://www.vysocina.public-i.tv/site/]
- planning and feedback

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References

[http://lms.kr-vysocina.cz]
[http://www.kr-vysocina.cz/tv]

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REGIONAL LEARNING TOOLS AND ENVIRONMENT IN VYSOCINA REGION

SUMMARY

Vaclav Jachim
Vysocina Region (CZ)

Keywords: *eLearning, Videoconferencing, eParticipation, Web stream*

The Vysocina Region is the leader within **14** Czech regions in using ICT tools for the development of the public services. In the field of communication and sharing knowledge the region uses several tools to enable efficient learning, communication and access to the ***public information.***

First tool is the **eLearning application**. It is based on the Czech LMS **eDoceo**, which was provided to the Regional Authority in 2005. LMS is used for training of big groups of the regional employees to support the traditional learning process. Technological platform is the **Access database**. Courses are prepared by ourselves in the tool called "***Author***" or on demand by external company.

Types of courses: ***IT security, MS Office, Electronic signature, special one-off tests*** for the officers… The development of this tool for more courses is planned, the cooperation between departments is needed. Biggest problem of the eLearning is ***not the technology, but the strategy*** and its fulfilment.

My personal view – eLearning should be the source for the **knowledge base** of the Regional authority and the whole system should serve as the ***regional elearning portal*** for the authority and the established organizations. First step has been done – RA shares the platform with first organization – ***Roads maintenance office*** (they plan to train their staff in ICT issues - MS office).

Second communication tool is the **Video conference unit**.

It has been installed in 2007 and it is used to the inter-regional meeting with the colleagues from the other Czech regions. Nowadays this system can operate between Vysocina Regional Authority and the Regional Office in Brussels. It enables to meet the people without necessity of travelling and it is mostly used for the quick meetings of more that 2 sides.

Third possibility how to share knowledge and public information is the **eParticipation tool – video webcasting**. It is now used for making the live webcasts from the regional assembly meetings or the meeting from the local authoritities – municipalities. System is mobile and was bought under the **eTen project** (***eParticipate***). It consists of the 2 cameras and the mobile computer unit with the special software installed in it.

Since beginning of 2008 the region webcasted ***15 regional and local meetings***, average hits number is about **400** per meeting. This technology enabled the growth of participation at the meeting more that ten times comparing to the personal attendance in the past. Mobile character of the unit is enabling us to use it anywhere, the ***internet access is the only need***, sometimes we use just the record and the video is uploaded only to the archive (when cutting and other modifications are used).

This ***webcasting system*** is not used only for citizens, but we are able to webcast important ***internal conferences or trainings***, so the officers can watch the events in case they are not able to attend it personally, or to come back to the training days after for refreshing information.

These three possibilities of **communication and sharing knowledge** make the environment, which covers mostly all needs of our region to use all information in the effective way.

AUTOMATIC IDENTIFICATION OF INCONSISTENCIES IN SPATIAL DATABASES

KAREL JANECKA
University of West Bohemia in Pilsen (CZ)

ABSTRACT

Keywords: *Spatial databases, Automatic identification of inconsistencies, Computational geometry, Real estate registry information system.*

Abstract Thesis:

- Motivation for automatic identification of inconsistencies in spatial databases.
- Demands on valid spatial data stored in spatial databases, concretely in Real estate registry information system administrated by Czech office for surveying, mapping and Cadastre in Prague.
- Usage of algorithms of computational geometry and effective implementation of such algorithms.
- Development of new methods for automatic identification of inconsistencies in spatial databases and effective implementation of such algorithms.

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AUTOMATIC IDENTIFICATION OF INCONSISTENCIES IN SPATIAL DATABASES

SUMMARY

KAREL JANECKA
University of West Bohemia in Pilsen (CZ)

Motivation for automatic identification of inconsistencies in spatial databases.

If I mention spatial data in this article I suppose spatial data in vector form. Data in database must be consistent. There are some rules and constraints on the database side which take care of database consistency. In case of spatial data there are some topology rules we must to consider. For example two lines can intersect only in known vertex. There exists software for processing of spatial data. We can find some types of inconsistencies by the use of this software but we are limited by the spatial extent of controlled data. Solution of this situation is to propound and to implement algorithms which find automatically all inconsistencies in all spatial data stored in spatial database.

Demands on valid spatial data stored in spatial databases, concretely in Real estate registry information system administrated by Czech office for Surveying, Mapping and Cadastre in Prague.

There is the main source of spatial data in the Czech Republic – Real estate registry information system, maintained by the Czech Office for Surveying, Mapping and Cadastre. There in the forthcoming future the central database of real estate cadastre will be created in Czech Republic. Real estate registry information system (RERIS) administrated by Czech office for surveying, mapping and cadastre (COSMC) in Prague contains data from several local databases. RERIS contains concretely attribute data (data about owners, parcels, buildings, ownerships) and spatial data (digital cadastral maps). Oracle Spatial – a part of the Oracle Database Enterprise Edition, is used for the storage of spatial data in the RERIS. I would like to mention the fact we have to take into account during the processing and utilization of spatial data from RERIS – the inconsistency of spatial relationships. General requirements on the topological valid data are well known. There I concentrate on specific demands on spatial data of cadastre in this article. By reason of historical data base development there we can find some inconsistencies in spatial data in RERIS.

Usage of algorithms of computational geometry and effective implementation of such algorithms.

Consistency assuring of spatial relationships between geometries of spatial features is very important for an effective usage of data. These inconsistencies can influence for example an automatic generalization in a negative way. Computational geometry can be very useful in the

data quality assurance. Many algorithms from the area of computational geometry we can use for finding some types of inconsistencies in spatial data. Some of them I implemented in Java programming language. Concretely it is sweep-line algorithm for finding of all intersects in the set of line segments and algorithm for finding two closest points in the set of points. Finding of all intersects in the set of line segments can be used when we want to know if there are some "unknown" crossing points in the set of line segments. Line segments can be for example a geometry representation of boundaries of parcels. In the case of two closest points these points can be considered as duplicate if the distance between them is smaller then some threshold value. RERIS contains huge amount of data and therefore is necessary to do the identification of inconsistencies in a proper and efficient way.

Development of new methods for automatic identification of inconsistencies in spatial databases and effective implementation of such algorithms.

I proposed several algorithms for finding special types of spatial data inconsistencies. These spatial data are of course stored in RERIS. These inconsistencies deal with attribute data which are also stored in RERIS. Typically we can illustrate this on the following example.

"Spindle"

"Spindle" is the example of spatial data inconsistency. Each line segment of parcel boundary has reference on the land parcel on the left and reference on the land parcel on the right. These parcels must have different parcel identifiers. In some cases this condition is not satisfied and then we have so called "spindle". Find all appearance of "spindles" is not so difficult. We can do so only by the use of SQL (Structured Query Language).

Figure 1 Example of „spindle".

But to find some other types of spatial data inconsistencies we have to use some high level language such as Java.

Duplicate points

As was mentioned earlier in this article we can use algorithms from the area of computational geometry for the assurance of spatial data quality. For example sweep line algorithm (in detail described in [2]) can find two closest points in a set of points (of course we suppose 2D situation as we speak about Czech cadastre). This set of points can consists from points which geometrically represent for example reference points of symbols of types of lands. This situation is illustrated on the following figures.

Figure 2 Duplicate map symbol

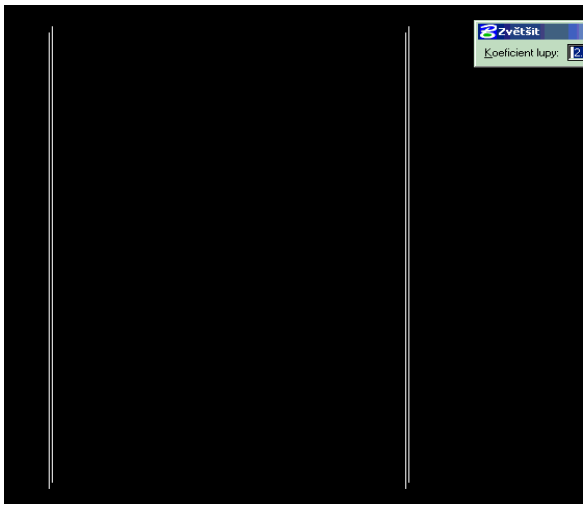

Figure 3 Duplicate map symbol – detail

"Unknown" crossing points in the set of line segments

There can be following situation in spatial data stored in RERIS: lines representing for example boundaries of cadastral territories can intersect in "unknown" crossing points. "Unknown" crossing point is point without the computed coordinates. The usage and effective implementation of appropriate algorithm is quite necessary. There we can find algorithm described in [1] to solve this problem. I did so and today I tested results. The aim is to have clear cadastral boundaries and also the interior drawing.

"Empty" parcel

Every parcel has own unique identifier in RERIS. Parcel boundary consists of the closed sequence of line segments whereas the first point of this geometric description is consistent with the last point of description. Sometimes we can find in spatial data from RERIS so called "empty" parcel. It means closed sequence of line segments without its identifier, see the figure 4 and the detail of "empty" parcel in the figure 5. I proposed my own algorithm which finds all appearances of "empty" parcels in RERIS. This algorithm I published in [3].

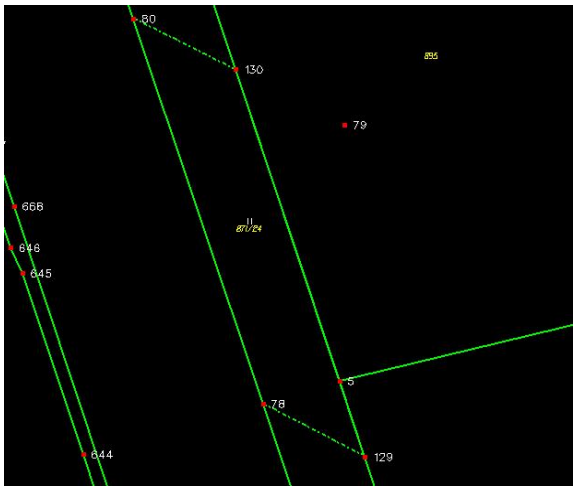

Figure 4: Cadastral map

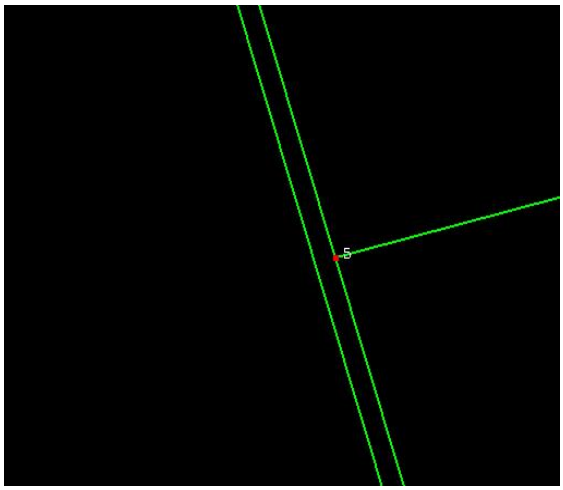

Figure 5 Detail of "empty" parcel

Conclusion

Described inconsistencies are not only inconsistencies which we can find in spatial data in RERIS. The functionality and the utilization rate of Oracle Spatial in the RERIS does not allow to find all inconsistencies in spatial data only by using the means of Spatial. I suggested a solution based on the application of convenient algorithms from the field of computational geometry. These algorithms were programmed in Java programming language and most of them were already successfully tested and used in practice. Founded inconsistencies are repaired on particular land cadastre offices.

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"RURAL WINGS" - A SATELLITE-BASED NETWORK FOR DISSEMINATION OF LEARNING CONTENTS IN RURAL AREAS OF EUROPE

NINA KAHNWALD & THOMAS KÖHLER

TU-Dresden, Medien-Design-Center (MDC)

ABSTRACT

Keywords: *Bildung, Rural Areas, Ländliche Regionen,*
Abstract Thesis:

- **Das Projekt** „**Rural Wings**" hat den Aufbau eines satellitengestützten Netzwerks zur ***Verbreitung von Bildungsinhalten in ländlichen Gebieten Europas*** zum Ziel. Entwickelt wird eine Lernplattform mit Satelliten-Anbindung, mit deren Hilfe ***in ländlichen Regionen*** die Medienkompetenz sowie die Akzeptanz der Nutzung neuer Medien erhöht werden soll.
- **„Rural Wings"** zielt darauf, lebendige Nutzer-Gemeinschaften zu entwickeln und zu vernetzen und so den ***Wissenstransfer*** zu verbessern. Nach einer eingehenden Analyse der spezifischen Bedürfnisse ausgewählter Communities werden zahlreiche ***Pilot-Knoten*** in **18** Ländern implementiert und projektbegleitend evaluiert.
- **Projektdauer:** 01/2006 - 06/2009,
- **Förderung durch EU:** mit einer Gesamtsumme von über 7,1 Mio EUR
- **Das MDC leitet** das Arbeitspaket WP7: *USABILITY EVALUATION*
  - 7.1 Design of Usability Test and Evaluation Plan
  - 7.2 Usability testing and System evaluation
- **Das MDC ist beteiligt** an WP 3: *USER NEEDS ANALYSIS*
  - 3.1 User needs analysis
  - 3.2 User segmentation & User profiles
  - 3.3 Task Analysis
- Dieser Kurzbeitrag befasst sich insbesondere mit Fragen der ***Usability-Evaluation*** und der ***Bedarfsanalyse*** von Nutzern in ländlichen Regionen.

Autoren

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[http://ruralwings.rd.forthnet.gr/]
[http://www.ruralwings-project.net/]
[http://www.ruralwings-project.net/RW/Home/default.aspx]
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"RURAL WINGS" - A SATELLITE-BASED NETWORK FOR DISSEMINATION OF LEARNING CONTENTS IN RURAL AREAS OF EUROPE

SUMMARY

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Satellite Technology Communications are being promoted as key instruments to achieve the development of the Information Society by providing broadband services to those being deprived to have access to modern communication infrastructure because of geographical isolation or other reasons. Many recent developments in the field of satellite communications are providing the opportunity to offer broadband services to rural areas and isolated regions because of the unique capability of satellite communication to deliver wireless broadband connectivity of high quality to population groups outside of densely populated regions. This summary presents scale and objectives of the multi-disciplinary research and development activity Rural Wings that is funded by the European Commission for the duration of four years (2006-2009) as well as results from a usability evaluation that was conducted during first test runs.

The Rural Wings project promotes a user-centred methodological approach, based on innovation practices and techniques. Throughout this approach it is aimed to support the development of a "digital" culture in rural areas to lower the resistance of local communities to the use of new technologies. The Rural Wings project involves more than 30 international partners from the fields of e-learning and satellite technology and will offer e-learning services by installing DVB/RCS satellite terminals equipment into ***126 pilot sites in 13 European countries***. These pilot sites are in most cases situated in isolated and remote villages in rural areas and geographical locations such as mountainous sectors or islands where fast internet access (i.e. ADSL) has never been available before or for certain reasons is impossible or not economic. Pilot sites vary widely including beduin villages in the Negev desert as well as mountain villages on greek islands and research stations on the polar circle.

As soon as **suitable pilot sites** were identified by the national project coordinators, a user needs analysis was conducted and the technical infrastructure for each site was defined accordingly. While the installation of the satellite equipment and the training of national coordinators and end users began, *educational scenarios* were developed to structure and support learning activities in different contexts and the available learning tools and platforms were adapted to local and technological requirements. During the different phases of test and final runs, usage and performance of the system and the applications will be monitored and evaluated from different perspectives (*usability, education, technology*). According to the evaluation results at the respective stage the system and the scenarios will continually be assessed and adapted.

Usability Evaluation of the Test Runs

The implementation phase is accompanied by evaluation activities to synthesize all relevant results from the project's implementation. The evaluation framework consists of usability evaluation, network monitoring (technical evaluation) and pedagogical evaluation that also incorporates the social impact of the rural wings project for the participating communities. In the following section procedures and results of the usability evaluation during the test runs that started in 34 pilot sites in September 2007 will be summarized.

Usability of user interfaces is one narrow concern of the overall system acceptability. While utility is the question of whether the functionality of the system in principle can do what is needed, usability focuses on how well users can use that functionality. Thus, the usability evaluation of the rural wings services does not investigate, if the services offered are suitable to meet the user needs, but how well end users can access and use the provided services.

A triangulation of different methods was used in order to evaluate and improve the usability of the Rural Wings project at different levels (*technical infrastructure, Central Access Point (RW-CAP), user trainings and Rural Wings applications*), from different perspectives (feedback from usability experts, end users, project members [national coordinators] and technical monitoring of network usage) and at different stages (before and during the test runs). Following a preparatory usability workshop in Dresden in 2006 three different studies were conducted:

1. **Usability heuristic Evaluation** of Rural Wings Central Access Point – prototype stage (8/2007)
2. **Usability Testing** through monitoring of questions and problems – during implementation and training sessions (6/2007-2/2008)
3. **Usability Assessment** through Questionnaires – after a few months of usage (11/2007-2/2008)

The heuristic evaluation of the RW Platform prototype was conducted by usability experts in order to ensure good usability of the central access point at the start of the test runs. The web usability index (WUI) that was found to have a high validity when compared to other usability inspection methods (Othmer 2006) was chosen as heuristic for the evaluation.

In order to identify possible usability problems, a structured template for the ***collection of user questions and problems*** arising during the training of end users was provided to all National Coordinators. Workshop leaders and/or trainers were asked to fill in the form during and after training sessions and e-mail it back for data analysis.

A survey with an online questionnaire was conducted after the start of the test run and after the users had gained some experience using the RW-CAP, the RW-applications and the technical infrastructure (summative evaluation). After an extensive research on available instruments the „Questionnaire for User Interface Satisfaction" (QUIS) was chosen to cover all relevant usability aspects. It has a high validity (0.95 Cronbach's Alpha) and consists of 15 different scales that form a modular structure.

The usability evaluation questionnaire was completed by 52 participants distributed to the user groups as follows: nearly 40% of the participants were teachers, 15% students, 15% local authority personnel, 11% entrepreneur and nearly 6% were farmers or fishermen. No medical personnel participated and 9% of the participants did not specify their user type.

As the usability survey showed, the Rural Wings services are mostly used during the week, as nearly one third of the end users have no access on weekends (i.e. where terminals are installed in schools). The end users were mainly using web browsing (89%), e-mail (79%), file transfers (52%), software updates (40%) and RW applications and tools (38%) via the RW internet access.

Nearly all participants in the usability evaluation survey (50 out of 52) have used the Central Access Point during the test runs and 40% did name it as one of the three most visited websites. It thus plays an integral part in usage and perception of the project.

Although 22% of the participants in the survey had not used any Rural Wings applications when answering the questionnaire, 15 different applications were used and rated during the test runs. The usability ratings for the applications were overall positive. Lower ratings of single applications or specific usability aspects will be considered seriously to improve services for the main implementation phase.

Concerning the competencies of the end users it became obvious from the usability survey that the IT knowledge varies widely. Thus the local support staff will be even more aware of their end users different needs in terms of support and training. The usability monitoring showed furthermore that additional competencies might be necessary for different user groups in specific contexts (i.e. online collaboration). The translation of manuals and the preparation of additional tutorials form an important part of this complex. While the overall rating of the projects installation services and the support was very positive, 13% of the end users rated the introduction to the platform and to the overall infrastructure as poor over 70% of them students. Thus, special attention will be given to cover information needs by this specific target group in coming implementation phases.

Results from the first test runs and the usability evaluation show that user engagement and acceptance is high. Critical factors remain the localisation (i.e. translation) of e-learning content and tutorials and the continuous identification of additional training for specific user groups and contexts of use. The following implementation phases will continuously be evaluated through 2008 and 2009 to further adapt the Rural Wings services to the needs of end-users in rural areas.

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FACHLICHE STANDARDS UND PROBLEME DER SEMANTISCHEN HARMONISIERUNG VON GEODATEN

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ABSTRACT

Keywords: *Datenharmonisierung, Fachdaten, GDI-DE, Geodaten, INSPIRE, ISO, Metadaten, Profil, Standards.*

- **INSPIRE und die Nationale Geodateninfrastruktur** (GDI-DE) fordern frei zugängliche Geoinformationen. Deren effektive Verwaltung, Auffindbarkeit und Verwendung erfordern es, die Fragen des fachlichen Kontextes dieser Informationen, insbesondere aus der Sicht der jeweiligen maßstabsabhängigen Darstellungen sowie deren Semantik transparent zu gestalten.

- **Mit Hilfe *standardisierten Metaverzeichnisse*** wird angestrebt, die verschiedensten Geodaten über kaskadierende Verzeichnisse zentralisiert bereitzustellen. Da aus organisatorischen Gründen bezweifelt werden muss, dies in der Vollständigkeit im Nationalen bzw. EU-Maßstab zu realisieren, sind spezielle fachliche Filter notwendig, um die Bereitstellung beherrschbar zu gestalten. Erste strukturelle Ansätze zur Entwicklung solcher fachlichen Filter aus der Sicht von wirtschaftlich relevanten Anforderungsprofilen, sollen zur Diskussion gestellt werden.

- **In den Schlussfolgerung** werden Zielstellungen erörtert, die für die weitere fachliche Spezialisierung der Geodatenbereitstellung aus der Sicht der Prozessunterstützung notwendig sind.

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EXPERIENCES ON FLOOD EMERGENCY TRAINING SUPPORTED BY SPATIAL INFORMATION IN REGION LIBEREC

IRENA KOŠKOVÁ
Regional Government of Liberec Region, Liberec (CZ)

ABSTRACT

Keywords: *Awareness, Emergency management, Fire rescue service, Flood plan, GIS, Liberec Regional government, Public sector information, Training, WMS.*

Abstract Thesis:

- **Main objectives** of web-based application ***"Flood Plan of Liberec Region"*** - support for communication, coordination and decision making at all organization levels of ***flood protection management*** (see POSTER !).
- **Concentration of all accessible information resources** required for effective flood protection and support as a collaborative working space for communication in emergency situations
- **Main users of application** - members of flood commissions at all levels of local & regional governments
- **Basic information and thematic datasets** used for *"Flood Plan of Liberec Region"* and their updating by various ways (using WMS, XML, updating by means of map server)
- Using the ***"Flood Plan of Liberec Region"*** for spatial support of flood emergency training - regional "***Flood Jizera 2007***" and statewide "***Vltava - Labe 2007***" - some new features were tested.

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EXPERIENCES ON FLOOD EMERGENCY TRAINING SUPPORTED BY SPATIAL INFORMATION IN REGION LIBEREC

SUMMARY

IRENA KOŠKOVÁ
Regional Government of Liberec Region, Liberec (CZ)

In the 2004 the "Flood plain of Liberec region" was officially accepted by the Liberec Region Council. It became obligatory document for public authorities. It contains policies for management of flood situations, contacts for flood commissions and on-line communication and information tools. The flood plan concentrates all the necessary information in the public workspace with electronic remote approach during emergency situations.

As no major flood occurred since the 2004, the flood plan has been used during two flood emergency trainings: "***Flood Jizera 2007***" on regional level and "***Vltava - Labe 2007"*** on statewide level. During both occasions we have tested complete functionality of the system with new feature added each time.

The system provided on-line visualization of current state of flood levels in localities, movements of members of flood commissions and rescue personal and on-line communication platform for all members of emergency team.

In the reactions on both flood management trainings the flood team members appreciated mainly the on-line visualization of emergency situations, the imported on-line weather warnings by Czech hydrometeorological institute and especially on-line communication within the discussion forum.

Outputs of the flood trainings resulted in requests of other parts of integrated emergency management of Liberec region for extended application of the flood plan for general crisis management. Currently we analyze the potential of the flood plan in this field with expected application in crisis management training in June 2008.

ICT SOLUTIONS FOR A FUTURE, MANAGED BY FARMERS AND FORESTERS PRODUCING FOOD/FEED, BIOMASS AND A HEALTHY ENVIRONMENT

***PROGIS is pleased to inform, that after an intensive developing phase with worldwide thousands of "best practice" installations there was launched the holistic agro-software solution called* "AGROffice - complete"**

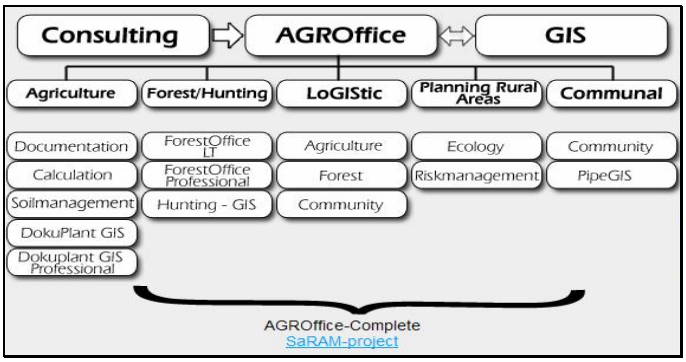
DI Walter Mayer
PROGIS Software GmbH - Villach (AT)

ABSTRACT

Keywords: *documentation, traceability, cost-calculation, logistics, mapping, evaluation of natural resources, risk management, planning and management of rural areas, awareness rising, knowledge transfer, education, training, capacity building*

Abstract:

"AGROffice - complete" is a *GIS-based integrated technology* for farmers, farm advisors, agro-logisticians, for forestry, ecological tasks, rural community management, for risk and land management, or in general for the whole ***regional and rural area management.***



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ICT SOLUTIONS FOR A FUTURE, MANAGED BY FARMERS AND FORESTERS PRODUCING FOOD/FEED, BIOMASS AND A HEALTHY ENVIRONMENT

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"AGROffice - complete" is a *GIS-based integrated technology* for farmers, farm advisors, agro-logisticians, for forestry, ecological tasks, rural community management, for risk and land management, or in general for the whole ***regional and rural area management.***

"AGROffice - complete" is a planning-, calculation-, documentation-, evaluation- and advisory tool and users will cash in on it, by

- a better management,
- optimising the whole work and production process
- having ongoing direct access to the latest expert know-how
- complying easily with EU- and regional legislations
- achieving a higher valuation of produced products
- a reduced bureaucratic work
- environmental care-taking
- automatically reporting
- high value advise
- significant costs reductions especially in the field of logistics
- intercompany comparisons etc.

"AGROffice-complete" enables and boosts as **holistic approach:**

- education,
- capacity building,
- knowledge transfer,
- rural IT-access,
- land management,
- integrated public private partnership models.

"AGROffice-complete" provides tools for **single users (agriculture, forestry, rural experts), user groups** and for **advisors**. Latter ones will profit by having finally a software for managing up to several hundred agricultural enterprises with just one licence.

Next to high-level advisory service to farmers they are able to create business plans, to analyse data for factorings or insurance purposes and they will play a crucial part in spatial planning and rural area management questions by forming the bottom up element of an integrated approach.

Public authorities and **science organisations** have to be integrated from the very beginning into the project and will benefit by a faster transfer of know how toward practitioners and get the chance to integrate farmers in total land management needs.

ICT partners will get a platform to develop on top of the basic tools (*WinGIS, WinMAP, DokuPlant, ForestOffice, HuntingGIS, CommunityGIS, PipeGIS, LoGIStics, FOMUMIIS*) their own local requirements.

Other direct or indirect beneficiaries who are enabled to be integrated with their needs are traders, export organisations, banks, insurance companies, sellers of agro-machines, sellers of agro-chemicals, et al.

- Learn more about the products on the PROGIS homepage, [www.progis.com]

- **"SaRAM" - the education and training program**

The product launch started with January 2008. A range of seminars is offered to learn the software step by step – module by module, to get the qualification to adapt it for a country and finally to become a qualified and certified expert in IT use for agriculture, forestry, environment, regional and rural area management.

- Register yourself on our homepage at the designed button "**SaRAM**" to get best informed on the program.

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NEUE ANFORDERUNGEN AN DIE GEOINFORMATIK-AUSBILDUNG

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ABSTRACT

Keywords: *Ausbildung, Geofernerkundung, Geoinformatik, E-Learning, Programmierung*

Abstract Thesis:

Die ***Geoinformatik einschließlich der Geofernerkundung*** entwickeln sich hochdynamisch. Neue Fernerkundungssensoren, neue Segmentierungs- und Klassifikationsmethoden, neue Anforderungen an WebGIS-Lösungen und INSPIRE seien hier nur beispielhaft auf Seiten der Grundlagen genannt.

Insbesondere aber die ***zunehmende Implementierung geographischer Lösungen*** in Programme des Business- bzw. Consumermarktes erfordern ***Geoinformatiker mit Programmierkenntnissen.*** Dieses setzt neben einer soliden Vermittlung von Grundlagenwissen auch die Vermittlung von Programmierkenntnissen und eine praxisnahe Ausbildung voraus.

In dem Beitrag wird über ***Erfahrungen und neue Anforderungen*** in diesem Umfeld durch langjährige Ausbildungstätigkeit an der ***Technischen Universität Dresden*** und dem ***Bildungswerk Ost-West (BOW)*** berichtet.

Autor

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ENVIRONMENT, GEOINFORMATION AND GIS-AWARENESS IN KINDERGARDEN ?

Some experience from Region LIBEREC (CZ)

JANA MODRÁ
Silva Sacra,o.s., Raspenava (CZ)

ABSTRACT

Keywords: *GIS, environmental education, kindergarden, pre-school education*

Abstract Thesis:

- **Pre-school education** is a good possibility to include ***environmental*** education
- **Geo-education** can be inter-linked with education about the environment, but it would be very difficult for children and, therefore, needs additional themes
- **Geo-education** is aimed at basic understanding of the "***map language***" by children.
- Currently, there is one project with geo-themes running in about **40** kindergardens – "*What is hidden behind the lost stump*"?
- Another project is ***under preparation*** – it will be targeted to get children familiar with inhabitants of other continents. It will include the so-called "**WATOTO**" principle, e.g. "*Children*" in Swahili language (*a program dealing with demonstration of life of children on other continents*).

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ENVIRONMENT, GEOINFORMATION AND GIS-AWARENESS IN KINDERGARDEN?

Some experience from Region LIBEREC (CZ)

JANA MODRÁ
Silva Sacra, o.s., Raspenava (CZ)

SUMMARY

Educational system in kindergardens provides a plenty of time and opportunities for environmental education. Moreover, this age is very suitable for building a positive relationship to nature and environment. Most children have a positive approach to both plants and animals and strengthening this relationship will pay back in increased environmental awareness.

Thinking about geographical education in kindergarden, there is a question rising to which extent children at this age can understand the basic idea of geography – the distribution of locations in space. The second question is how to represent the geographical position of items, when the children are not capable of sufficient understanding of world abstraction. We consider "reading a map" being a usual skill. On the other hand, even many adults with perfect local knowledge can not understand the map in the developing regions (probably because they do not need to).

As a result, geographical themes themselves are quite difficult for kindergarden children. They need to be combined with more relaxing themes, out of which environmental education seems to be suitable. There are close relations between them as objects visited within environmental education are often distinctive and suitable for exploring geographical relations.

Traces of geographical education can be followed in the projects with environmental education tasks.

In the full-year project "*What is hidden behind the lost stump*?**"** a group of kindergarden children "*gets lost on an excursion*". In each month children fill tasks that can help them to find they way home. The tasks are filled in the working sheets (size A2) which set-up together create a simple map of the stroll.

Currently we are preparing a project aimed at understanding environmental variability of Earth employing the **WATOTO** project principles. On the examples of children living on other continents we want to demonstrate their life with daily problems and key issues. Together with that, we will attempt to bring closer to children the size of continents and distances between them.

Regarding the GIS part of the contribution title, it does not seem to be a suitable theme for kindergarden. The understanding of basic geographical principles themselves is quite difficult for these young children. Together with their low computing skills and lacking ability to read, the conventional GIS systems do not provide a vital environment.

THE PUBLIC AWARENESS OF LOCAL LANDSCAPES AS A BASIC CONDITION FOR ENVIRONMENT PROTECTION

Use of GIS tools to increase the public awareness on the Landscape and Environment qualities at local and regional Level

MARTIN MODRÝ
Regional Government of Liberec region, Liberec (CZ)

ABSTRACT

Keywords: *GIS, environmental education, public awareness, landscape*

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Abstract Thesis:

- **The detailed knowledge** of local landscape and environment qualities plays a key role in motivating people to respect these qualities.
- **GIS principles enable understanding** of some of the patterns as well as presenting them to general public.
- **Use of GIS tools** makes the environmental themes more attractive, especially for younger part of population.
- **Map Server of Liberec region** makes a suitable environment for such activities with several projects running and more in preparation.

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References

[EnviroMAPS] Map portal of Environment department, Liberec region
[https://maps.kraj-lbc.cz]
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THE PUBLIC AWARENESS OF LOCAL LANDSCAPES AS A BASIC CONDITION FOR ENVIRONMENT PROTECTION

Use of GIS tools to increase the public awareness on the Landscape and Environment qualities at local and regional Level

SUMMARY

MARTIN MODRÝ
Regional Government of Liberec region, Liberec (CZ)

Protection of "general open" landscapes (landscapes without a special nature conservation values) is a challenging task for nature conservation institutions in the Czech Republic. Although special protected species or ecosystems do not occur here, these landscapes are of key importance in environment and biodiversity issues. Despite this fact, the Czech nature conservation code does not provide strong tools for protection of general landscapes. Public awareness on the local landscape qualities thus becomes a basic tool for environment protection.

In the framework of raising public awareness on nature conservation issues, a printed series dealing with interesting parts of landscape was published in years 2004 – 2007 (Learning trails of Liberec region, Protected areas of Liberec region, Monumental trees of Liberec region, Geological points of interest of Liberec region). Public reaction on these publications was very positive (2 reprints of Learning trails, second reprint of Protected areas).

This descriptive approach seems to satisfy the awareness needs mainly on regional level. As a result, waste majority of local level landscape features remains unattended by these publications. On the other hand, mainly the local level features lack the "official" conservation status and have to be protected voluntarily by local people. Publications aiming the local level (published by regional office) would be too costly. From this point of view, the electronic means of communication with public seem to be more cost effective.

Although for the older part of population, the printed version of information in more suitable, the younger are more attracted to electronic information sources. Moreover, they do prefer the explorative approach to the usual descriptive approach.

In respect to this, two electronic applications currently running within the Environmental Information System of Liberec Region can be used:

Nature conservation project on the MapServer of Environment contains all relevant environmental data combined with photo documentation and enables further exploration of corresponding datasets of Nature Conservation Agency of the Czech Republic.

Besides that, there is a young application "GeoGame", which is also partly oriented to nature conservation points of interest. The purpose of the game is to find photographed items on a region map. The game enables selection of local x regional importance items, category of items (protected areas, monumental tress, sacral architecture ...). The online access statistics show that this application is very attractive for public.

Another project is in preparations. It will be targeted directly to local level conservation and landscape issues. In the environment of MapServer, public groups will record the local level landscape features and create their own database within a predefined structure. Combinations of these datasets will enable comparisons among localities. We expect that setting up a explorative approached combined with competitive environment among e.g. school collectives should increase attractiveness of local landscape exploration and understanding mainly among younger people. The consecutive way from understanding to respecting is relatively short.

RURIS – RURAL INFORMATION SOCIETY - INTERNET CONNECTIVITY AND TOOLS FOR RURAL DEVELOPMENT IN SICILY

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ABSTRACT

Keywords: *Digital divide, Sustainable development of the rural areas, ICT, Information Society*

Abstract Thesis:

The extreme isolation of the rural areas is well known. Unable to maximize the usage of the new communication technologies both for objective difficulties (***lack of ADSL in vast majority of these rural areas, with no possible solution at least in the short term because of the cost which the Providers would have to bear***) and for the lack of a common platform of communication which is in fact a "*Babel Tower*" with hundreds of web sites which render almost impossible for the final users in rural areas to understand what is going on.
Therefore, the RURIS project aims to realize a great ***Virtual Market Place*** where the operators of the rural areas can find people interested in how to do much better they can offer in terms of culture, of products, of services. This with the realization of a ***collaborative model*** between the single rural area and his LDA (*Local Development Agency*)and between all the LDAs aimed at a profitable inter-territorial and transnational cooperation, using the technological support and the communication infrastructure with all the related services by means of manyfold open source opportunities offered by the net community.

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RURIS – RURAL INFORMATION SOCIETY - INTERNET CONNECTIVITY AND TOOLS FOR RURAL DEVELOPMENT IN SICILY

NINO PATERNO

Stepim s.a.s, Local development strategies, Mascalucia/Catania, Sicily (IT)
Technical manager

Introduction

The project idea arises from the consideration of the "***local***" dimension of the rural reality and it moves in the awareness that this characteristic, even forming on the one hand their point of force, on the other hand it makes them completely inadequate to have a confrontation with markets that are more and more large and global.

The Project, therefore, picks the need to exceed the restrictions of the structure implied in this dimension, realizing a **"System of rural areas",** able to strengthen the dialogue between the social and economic reality of a district and its own LDA (*Local Development Agency*), between the LDAs forming the System and the System and the rest of the world, indispensable communication for an adequate confrontation with global systems, fully observing, of course, the local specificity, bringing out and optimizing unambiguously the social, economic and productive aspects. In this process the approach to the new communication technologies becomes indispensable, with particular attention to the potentials offered by the broadband internet tool.

The access to this technology is almost precluded to most of the European rural areas; the existing Internet Provider, in fact, do not consider "*economically valid*" the diffusion of this tool in rural areas, where the possible economic return would not justify the necessary investments.

Leaving out motivations of economic kind, it remains an unacceptable isolation, **"digital divide**", for rural areas, which, actually, cannot benefit from the powerful tools put at disposal by the broadband such as ***e-learning, videoconference, voice-ip, e-marketing, e-government*** etc., living, actually, a "*technical*" alienation, which is realized by the impossibility to participate to the global "*virtual market*", which communicates and lives with an only language .

Project articulation

The Project aims to define a **collaboration model** for the participating LDAs and to realize the necessary supports, indicating the communication infrastructure and also the overhanging service layers.

The **communication infrastructure** is the fundament for all the project. In fact, it must guarantee the connection between the operators and their own LDA, the connection between

the LDAs, and also the connection between each LDA and the rest of the world through the Internet.

Therefore, the communication infrastructure is based on the adoption of an ***integrated satellite communication system*** with WiFi access points.

The tools and services for the collaboration scheduled by the project and leaning on the communication service, reflect the skill concerning the collaboration, as defined by several current initiatives at national and European level.

Aspects of collaboration

The basic principle of the **collaborative structures** is to aim at a sustainable model, which becomes more and more independent both from the economic and from the organizing point of view. It is therefore necessary to direct the overall process: not only the "*functions*" and the "*systems*", but most of all the "*exchanges*" and the "*interactions*". The purpose of the infrastructure is to create good bases so that **all actors can be involved**. This means also a diffusion process that **creates awareness in the community**, and in parallel a series of interventions of instruction and support for the operators and citizens. The interventions have to be, at least at the beginning, aiming at making these users able to intervene in the process according to the identified pattern.

But it is very important to keep in mind the importance of **mobile communication** (*GPRS, WiFi, WImax*) also regarding citizens and trade operators. Mobile phones have, in fact, a very high diffusion also in rural areas and are part of everyday life of everyone. Each initiative directed through this tool has an immediate perception from the citizens. We don't have to consider mobile phone and terminal in general (*PDA, Smartphones*) only as final diffusion points for services like "***broadcast***", but as real "***operating***" terminals for the two-way exchange of information. For example, a good Virtual Market Place could offer to the trade operators the possibility to bring the information that concern them up to date (*availability of services, initiatives, opening time for the public*) in real time through their own mobile phone.

In this picture the role of "**simplifier**" of the LDAs is fundamental. From their privileged point of view they are able to capture first the needs of Public Administrations, of the operators and of the citizens, and to identify and promote the most efficient initiatives of support and instruction.

The collaboration model

The analysis of the needs and processes, together with the examination of the collaboration technologies available on the market, bring us to define a pattern on 3 levels:

- the basic infrastructure and communication services
- the basic services and the tools for the collaboration
- the collaborative applications, specific of the community

RURIS aims to the realization of the basic structures for the collaborative net of the LDAs, the elaboration and implementation of the applicative functionalities.

Description of the intervention

The project foresees:

1. setting up of the **communication infrastructure** (*satellite or ADSL where possible*), integrated with the local mobile support for communication Wifi.
2. elaboration and setting up of the **collaborative infrastructure** common for all LDAs:

    - management of the users (including privacy and security, single-sign on, authentication and authorisation)
    - e-mail
    - Voice-over-IP
    - configuration management of data and documents
    - multimodality (*this means ability to communicate with users choosing dynamically the most appropriate communication: e-mail, voce, SMS, web sites*).

3. elaboration and setting up of **a Virtual Market Place,** with following characteristics:

    - Power to manage the peculiarities of the different production sectors existing on the territory (handicraft, services, products ecc).
    - Updating functionality from far based on different communication tools (web, e-mail, SMS).
    - Opportune advertising initiatives on Internet, in order to give immediate visibility to the Virtual Market Place.
    - Initial dimension of the host and configuration power in order to put on-line operators from different production sectors.

4. elaboration and setting up of a **collaboration area** between the LDAs. This activity aims at making as efficacious as possible the collaboration between the LDAs. The directed topics include the different communication possibilities (*e-mail, voice overIP*) and the management of a controlled area for the registration and the exchange of information and data.
5. Running several **pilots for each LDA**. The pilots will address specific applications for the LDA (for example: *E-learning, virtual market place, services for the local tourism, content management and territorial analysis for the Public Administration, e-government, territorial portal* etc)

Literature:

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Vidhya Alakeson - Inclusion in the Information Society – finale version D 12 of the project **DEESD** (Digital Europe: E-Business and Sustainable Development): Brussel IST-2000-28606

PSI EDUCATIONAL EXPERIENCE AT CHARLES UNIVERSITY PRAHA

ALES PEKAREK

European Projects & Management Agency (EPMA)
Institute of Information Studies, Charles University, Prague

ABSTRACT

Keywords: *Catalogue, Charles University, Czech Republic, FOIA, EPMA, Information science, Metadata, Public bodies, PSI.*

Abstract Thesis:

- Historically first PSI course within Czech universities has been launched at Institute of information studies (UISK), Philosophical faculty, Charles University in Prague in summer semester 2008
- First 15 students of MSc. study programme of Information science got deeply into PSI problematics
- Their main task has been to communicate with individual public bodies to get detailed info on their electronic documents, datasets, databases and geographical layers available to further development of a "PSI dream" – complete list or catalogue of all PSI in Czech Republic together with all relevant metadata
- Very interesting results – each public body has answered the same request in a different way
- Results will be used for justification of some changes of Czech FOIA (e.g. obligatory PSI catalogue paragraph), as EPMA is a member of Ministry of Interior Advisory Group for FOIA amendment.

Author

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MSc. thesis: *Current information policy of the Czech Republic*

Digital literacy analysis in Czech and Slovak Republic (EPMA subcontract to DTI and EC)

Census District and Building Register (paper presented in GI2007, Dresden).

Available at:

[http://www.epsiplus.net/content/download/3872/48901/file/GI2007_PDF_PEKAREK_CZSO_(PSI_Products_of_CZSO).pdf]

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INSTITUT FÜR KOMMUNALE GEOINFORMATIONSSYSTEME (IKGIS) e.V. – *Eine Kooperationsplattform am Geodätischen Institut der TU Darmstadt*

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Intergraph-Hochschulvertrieb am IKGIS e.V.

ABSTRACT

Keywords: IKGIS, Geodätisches Institut, TU Darmstadt, Fortbildung, Beratung, GIS

Abstract:

Das Geodätische Institut der TU Darmstadt beschäftigt sich schon seit mehreren Jahren mit Forschungsfragen zu Geoinformationssystemen. Dies führte 1998 zur Gründung des *Instituts für Kommunale Geoinformationssysteme e.V.* (IKGIS) als Forschungsinstitut in Kooperation mit der TU Darmstadt und seit 2006 mit der FH Frankfurt.

Thematische Schwerpunkte des IKGIS sind neben der Forschung im Bereich GIS insbesondere die Bereiche *Aus- und Weiterbildung* sowie die *Beratung*. So dienen z. B. die jährlichen Fortbildungsreihen „**KGIS-Workshop**“ und „**Basiswissen GIS**“ dem Know-how-Transfer und eignen sich zum Einstieg und zur Weiterbildung in das Thema GIS. Seit Herbst 2007 wird diese Reihe ergänzt durch einen Workshop zum Thema „**Mobiles GIS**“.

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GIS FÜR HYDROLOGISCHE FRAGESTELLUNGEN – INTERGRAPH GEOMEDIA GRID UNTERSTÜTZT GEOWISSENSCHAFTEN

Vorstellung eines (universitären) Lehrmoduls für Hydrologie/ Hydrogeographie basierend auf GeoMedia Professional und GeoMedia Grid

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ABSTRACT

Keywords: *GeoMedia Grid, GeoMedia Professional, Hydrologie, Hydrogeographie, Lehrmodul.*

Abstract:

GeoMedia Grid bietet mächtige Funktionalitäten zur Durchführung von hydrologischen Analysen. Darauf aufbauend hat Intergraphs Hochschulvertrieb in Zusammenarbeit mit dem Geographischen Institut der Universität Frankfurt/M. und hier speziell mit Frau Prof. Dr. Petra Döll von der Arbeitsgruppe Hydrologie, ein umfangreiches ***Lehrmodul*** entwickelt. Darin wird das rund 25 km² große Einzugsgebiet des Eichelbachs (Vogelsberg, Hessen) hydrologisch charakterisiert.

Ziel des Lehrmoduls – welches interessierten Hochschulinstituten ***kostenfrei*** zur Verfügung steht - ist es, den Studierenden für hydrologische Fragestellungen die Anwendung von Geographischen Informationssystemen nahe zu bringen.

Autor

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INTERGRAPH UND GIS-AUSBILDUNG – *ANFORDERUNGEN UND FÖRDERUNGSMÖGLICHKEITEN*

Dipl.- Geogr. MARKUS SCHAFFERT
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Keywords: *Absolventenqualifikation, Aus- & Fortbildung, GIS-Markt, Hochschullandschaft, Hochschulförderprogramm, INTERGRAPH.*

Abstract:

Der GIS-Markt entwickelt sich dynamisch. **INTERGRAPH** profitiert stark an dieser erfreulichen Entwicklung und schafft zahlreiche neue Stellen. Geeignete Mitarbeiter in ausreichender Zahl zu finden, hat bislang problemlos funktioniert.

- Aber wird das so bleiben?

Die gesamte GIS-Branche sucht Geoinformatiker und Stimmen, die von personellen Engpässen oder gar von Facharbeitermangel sprechen, häufen sich. Vor diesem Hintergrund wird die Diskussion nach den geeigneten ***Absolventenprofilen*** grundsätzlich bedeutsamer – auch ein GIS-Weltmarktführer muss sich dieser Diskussion stellen.

Welche Anforderungen stellt die INTERGRAPH (Deutschland) GmbH an zukünftige Mitarbeiter? ***Was tut INTERGRAPH, um die GIS-Ausbildung an Hochschulen und Weiterbildungsinstitutionen zu fördern?***

Diese Fragen möchte der Vortrag beantworten.

Speaker

Dipl.-Geogr. Markus Schaffert
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References

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ALTERNATIVE GEOSPATIAL DATA HANDLING AND AUGMENTED REALITY

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ABSTRACT

Keywords: *Augmented reality, geospatial data handling, emergency management.*

Abstract Thesis:

Presented paper deals with alternative ways of geospatial data handling and visualization. Special focus is given to possibilities of augmented reality (AR) use in field and geospatial applications in emergency management activities.

Paper summarises current state of the art of AR technology, use, and visualization peculiarities. International projects dealing with information systems and geospatial interoperability in emergency management are commented keeping in mind potential and practical use of AR.

Emergency situation based scenarios using AR are described and evaluated.

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[http://www.geogr.muni.cz/en/vyzkum/lgc/resene-projekty.html]

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Research plan which comprehensively deals with the process of transfer of geoinformation to the user.

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ALTERNATIVE GEOSPATIAL DATA HANDLING AND AUGMENTED REALITY

SUMMARY

ZDENEK STACHON, PETR KUBICEK, VEROSLAV KAPLAN
Masaryk University, Brno (CZ)

In order to deliver geographic information fitting the needs of the emergency responders we need to move beyond the traditional location-aware approach in which the location of the user is considered as the prime criterion for relevant GI delivery. While this attitude is often used in mobile computing as well as location based services approach, its usage is not limited for these areas only. Erharuyi and Fairbairn (2004, 2005) describe the concept of task centred adaptation of geographic information delivery and emphasises in particular individual information needs optimisation based on location, user, goals and tasks allowing the determination of situation-adapted information solutions. Geographic Information (GI), easily accessible in real time and capable of being shared amongst users through different emerging technologies (particularly mobile technologies), is essential for a wide range of organisations responsible for disaster management tasks.

The above mentioned attitude arise the question how to enable access and optimum use of GI by different levels of emergency personals so they can handle appropriate and relevant information about response decisions, resource allocation and other conditions for a specific emergency situation and location. One of potentially viable and promising technologies to be used is so called augmented reality (AR).

Augmented reality can be defined as the replenishment of real world picture by computer assisted information. Augmented information is presented in several forms like weather conditions, localisation, and last but not least cartographic outputs.

Fully functional AR complies with following conditions:

- combines both real world and virtual objects
- is interactive
- works in real time

There exists a wide range of gadgets used for AR applications. HMD Nomad by Microvision (fig. 1) has been used during the experiments. This tool offers a high resolution see-through display for touchless access to different visualized information. Laser projector displays projected picture directly to eye retina and combines it with real world view (see fig. 2).

Figure1: Augmented reality device by Microvision [http://www.microvision.com **]**

Fi**gure2a:** Text info via augmented reality interface

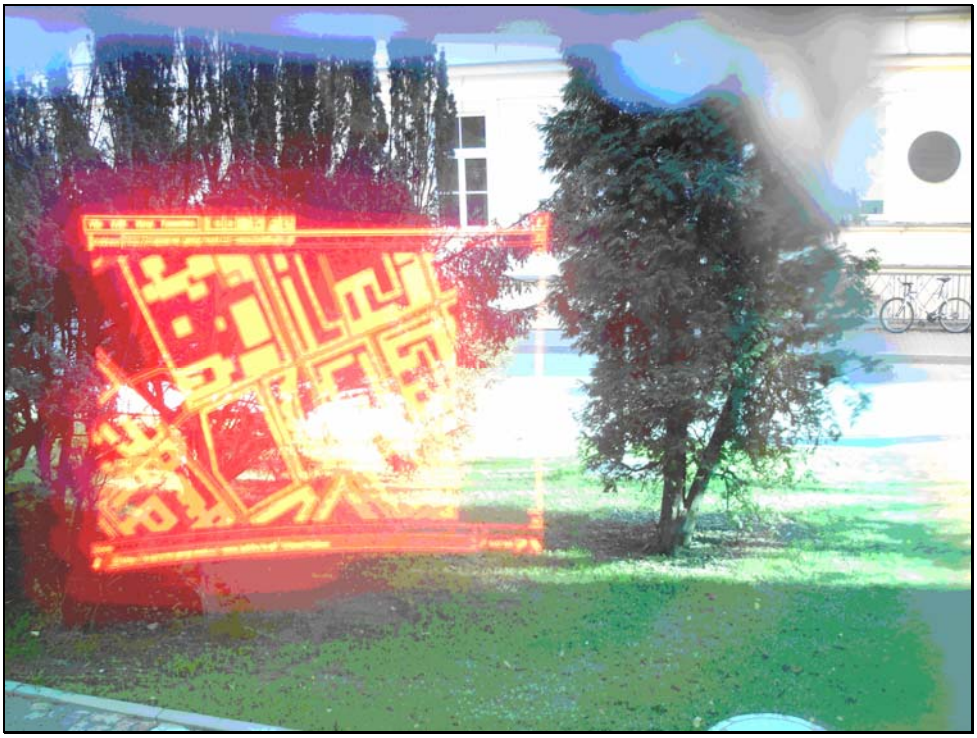

Figure2b: Visual info via augmented reality interface

The functionality of AR has been tested during the pilot scenario „***Transporation of dangerous chemical substances***“ in order to evaluate the efficiency and effectivness of AR and propose further development of emergency management applications.

GPS position, car speed, and GPS and GPRS signal quality have been monitored during the experiment and send to Nomad virtual screen via wireless connection. The location of the dangerous chemical substace has been trasferred to the server by GPRS, processed and provided as web mapping service (WMS). This WMS is avialable for AR usage and updated periodically in web browser. Web pages with map services had to be adjusted for specific environment of Windows CE browser.

While the technological part of data transfer and portrayal for AR see-through display worked well, some cartographic limitations were indentified due to the limitation of one coloured display. Only red hue with variable saturation can be used for display of this particular AR device. Specific red shade map symbols have been proposed and tested during the experiment.

Further development of AR applications in emergency management is connected with both HW side (robustness, integration with other devices) and extensive testing and optimisation of visualised geospatial data and used cartographic symbology.

The presented work is supported by project “***Dynamic Geovisualization in Emergency Management***” (no.: MSM0021622418) financed by the Ministry of Education, Youth and Sports of the Czech Republic.

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GI AWARENESS & EDUCATIONAL CHALLENGES AT THE HEART OF SUSTAINABILITY AND INFRASTRUCTURE FOR TOMORROW

JEFF THURSTON
V1 Magazine, V1 Newsletter, V1 Blogs - Berlin

ABSTRACT - KEYNOTE

Keywords: *GIS, capacity building, education, sustainability, infrastructure, processes*

Abstract Thesis:

- ***Society*** is faced with many challenges today.
- ***Education supporting sustainable processes*** will ultimately provide the development of appropriate solutions, new technology and
- Educational challenges lead to the development of governance interfaces upon which spatial computing and ***decision making technologies of tomorrow*** can be constructed.

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[http://www.vector1media.com]
[http://vector1media.com/vectorone/]

V1 - Magazine - Issue 13.05.2008
[http://vector1media.com/newsletter/archive/v1-newsletter%11vol.-2,-issue-19/]

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GI AWARENESS & EDUCATIONAL CHALLENGES FOR THE FUTURE

SUMMARY OF EDUCATIONAL KEYNOTE SPEAKER's PROFIL

Jeff J. THURSTON
Editor / CoFounder – Vector1 Media

Publishers of V1 Magazine, V1 Newsletter and V1 Blogs
Berlin, Germany and Denver, U.S.A

Keywords: *architecture, building capacity, CAD, education, geospatial, GIS, infrastructure, sensors, spatial, sustainability, urban planning*

Jeff Thurston holds a Master of Science Degree in Geographic Information Science from Manchester Metropolitan University, UK and graduated in Forest Technology from Lakehead University in Canada. Jeff also graduated with an Advanced Diploma in Geographic Information Systems (UNIGIS) from Simon Fraser University, Vancouver, Canada.

Previously, Jeff worked at the ***University of Alberta located in Edmonton, Canada*** where he managed research facilities for inter-disciplinary research projects. He taught surveying, GIS and GPS at the university in the undergraduate program and was a developer of international online course development and delivery. Jeff has also reviewed many technologies for leading manufacturers and has previously been editor at GeoInformatics and GeoConnexion magazines in Europe before co-founding Vector1 Media. Based in Berlin, Germany and serves as editor for the Europe, Russia, Middle East and African markets and he is a member of the Canadian Association of Journalists.

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SEARCHING THE TREASURE - HOW TO FIND GEODATA THROUGOUT EUROPE

Fifteen years of IOER projects have led to insights regarding the pre-conditions of successful border-crossing geoanalysis. It depends on tools and rules, standards and international initiatives reflected by the individual skills of the particular GI-workers (and occasionally also of the map-user). Experiences of the recent relevant IOER research projects focus on the hurdles of geodata detection throughout Europe. The report evaluates search strategies, offered tools and the individual qualifications. The potentials of training and education in this field and the "customization" of international developments have to be discussed.

SABINE WITSCHAS

Leibniz Institute of Ecological and Regional Development Dresden (DE)

ABSTRACT

Keywords: *Cross-border Mapping (CBM) Skills-Rules-Tools, Awareness, SDI, Internet search strategies, Geo-Portals, Multilinguality*

Abstract Thesis:

- IOER: CBM research projects and the requirements to objective and subjective preconditions,
- FOCUS: human factor - the development of technology and initiatives still leaves deficits and non-awareness of the challenges and potentials,
- ISSUE: How to improve CBM preconditions inclusive skills?
- QUALIFICATION: college, professional and scientific education (Universität Dresden, HTW Dresden, BOW, DGfK...) and alternative ways: websites, training courses
- TECH SUPPORT: by appropriate Geo-Tools maintaining geodata search
- CONCLUSIONS: recommendations, improvements, communication not only inside GI community...

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GI2008

SYMPOSIUM

INTER-REGIONAL

POSTER

EUROPEAN SPACE AGENCY - WIRELESSINFO -

POSTER

Name: ***"AMI4FOR" - Open Agriculture Services***

Authors: *CCSS (CZ), ESA-Frascati (IT), SESA-Roma (IT), MENDEL-Uni-Brno (CZ), UHUL (CZ), WIRELESSINFO (CZ)*

Organisation: *WIRELESSINFO, Litovel (CZ)*

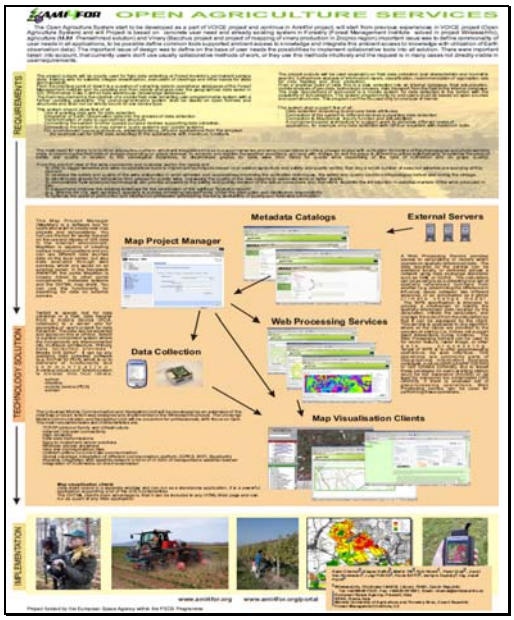
Short description:

OPEN AGRICULTURAL SERVICES

- Ambient Mobile Intelligence for *Forest/Agriculture Management* - AMI4FOR - [www.ami4for.org] is a VOICE / PECS project funded by ESA / ESRIN and coordinated by WIRELESSINFO that tries to find solutions for implementation of the AMI ideas into practical work for forestry and agriculture. From the practical point of view it is a solution of collecting data from the field directly into operational database and implementation of *Spatial Data Infrastructure* (SDI) principles into partner systems.

- The communication among the independent parts of the system and also among whole systems is provided on the base of *Open Standards*, which are defined by Open Geospatial Consortium (OGC) and W3C. Geospatial web services establish the foundation stone of the data transfer and their harmonisation is one of the helpful innovations of the research work.

- Main objective of the project was defined as establishment of a new concept of Ambient Mobile Intelligence for forest/agriculture management integrated mobile communication, new methods of navigation and integration of spatial information including satellite imaging.



- [http://www.AMI4FOR.org]
- [http://www.AMI4FOR.org/portal]
- [http://www.wirelessinfo.cz]
- [http://portal.futurefarm.eu]
- [http://www.c-rural.cz]

Size: Format A0

Address:
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Mr. Pavel Gnip, tel. + 420-602-778-192, email: gnip@wirelessinfo.cz

EU-FP6-PROJECT *"WIRELESSINFO"*

POSTER

Name: ***Czech Living Lab "WIRELESSINFO"***
Authors: *WIRELESSINFO et al. (CZ)*

Organisation: *EU-FP6-Project- Consortium WIRELESSINFO*

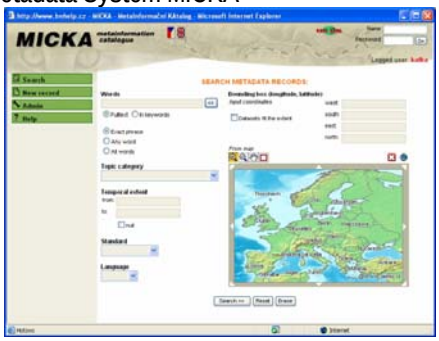
Short description:

Development of Applications based on collaborative technologies to improve territorial decision processes:

- Spatial Data Infrastructures
- Collaborative Decision Tools
- Collaborative Environment

Technologies of Czech Living Lab WIRELESSINFO:

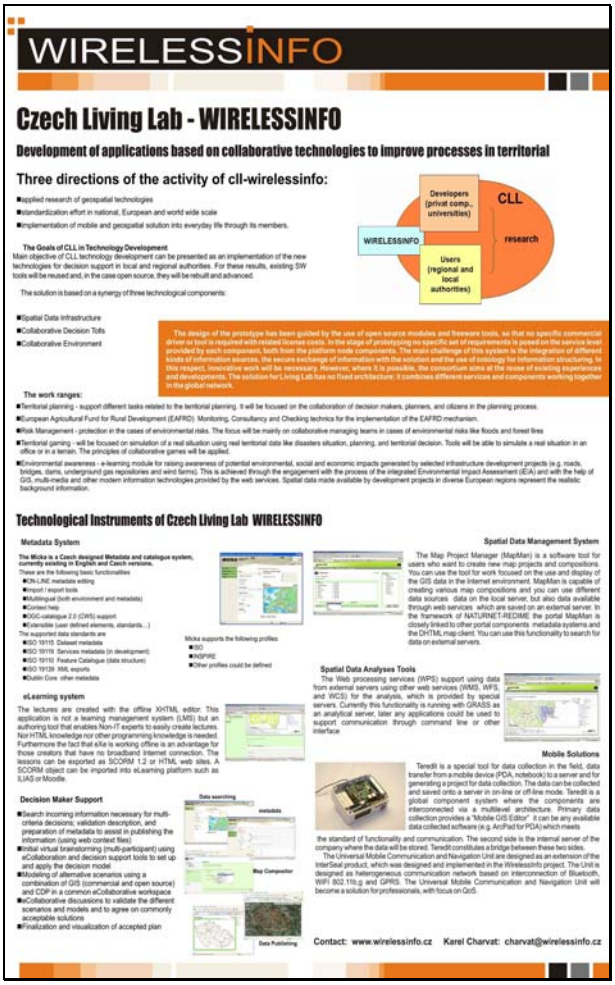
- Metadata System MICKA



- Spatial Data Management System

The Map Project Manager (MapMan) is a software tool for users to create new map projects and compositions. MapMan is capable of creating various map compositions using different data sources on local server, as well data data available through web services on external servers.
In the framework of NATURNET+REDIME project the MapMan-Tool is closely linked to other portal components - the Metadata systems and the DHTML Map client to be used for data searches on external servers.

- GRASS-GIS Spatial Data Analysis Tools using WPS, WMS, WFS and WCS
- Mobile Solutions: TEREDIT, MobileGIS, NNRmobile
- E-Learning System MOODLE
- Decision Maker Support with eCollaboration Tools



- [http://www.WIRELESSINFO.cz/]
- [http://portal.NATURNET.org/]
- [http://www.AMI4FOR.org]

Size: Format A0

EU-FP6-PROJECT *"NATURNET+REDIME"*

POSTER

Name: *"NATURNET" - INTEGRATED SOLUTIONS IN THE FRAMEWORK OF NATURNET+REDIME PROJECT*

Authors: CCSS et al. (CZ)
Organisation: EU-FP6-Project NNR Consortium

Short description:

- **Access to Distributed Information Resources**

The metadata catalogue system provides data *producers* with appropriate information to characterize their data properly, enables *users* to apply *sustainable development data* in the most efficient way by knowing its basic characteristics and enables data discovery, retrieval and re-use. Users are able to *locate, access, evaluate, purchase and utilize* sustainable development data.

- **Spatial Data Management System**

The *Map Project Manager* (MapMan) is a software tool for users who want to create new map projects and compositions and display of GIS data in the Internet environment. NNR-MM is linked to other portal components – Metadata systems and the Visualisation map client (DHTML client, JAVA client, Google map and/or Google Earth).

- **Web Processing Services**

An OGC *Web Processing Services (WPS)* is a Web Service that takes a defined set of inputs, applies a calculation, and produces a defined set of outputs.

- **3-D Visualization**

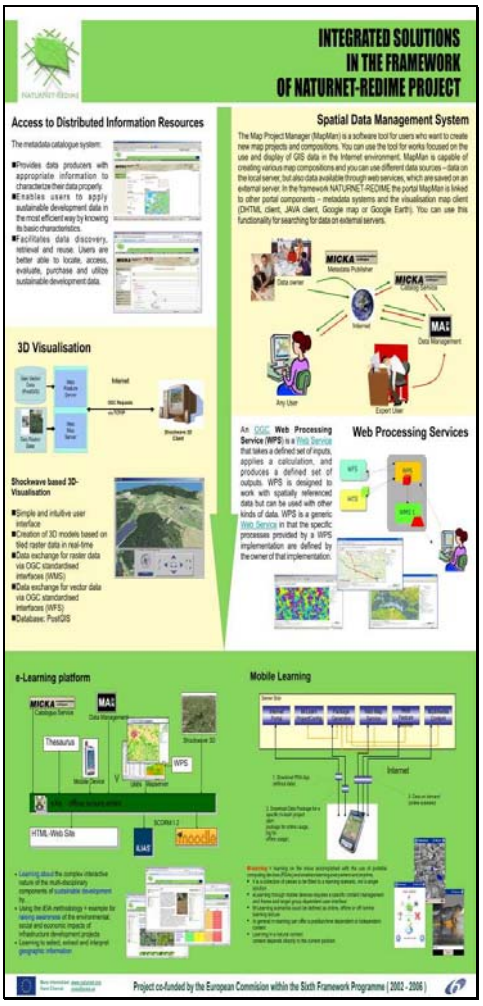
Shockwave based 3D-Visualization Tool with simple and intuitive user interface for creation in real-time of 3D models, Data exchange of raster data *via OGC standardized interfaces* (WMS) and Data exchange of vector data via OGC standardized interfaces (WFS). The *PostGIS* Database has been applied.

- **E-Learning Platform**

Learning moduls about the complex nature of the multi-disciplinary components of sustainable development by use of iEIA methodology for *raising awareness* of the environmental, social and economic impacts of infrastructure development projects and for learning how to select, extract and interprete geographic information.

- **Mobile Learning**

M-learning solution using portable computing devices (PDAs) to enable learning on the move *everywhere and anytime.*



- [http://www.NATURNET.org/]
- [http://PORTAL.NATURNET.org/]

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EU-FP6-PROJECT « NATURNET+REDIME »

POSTER

Name: *«QUALITATIVE REASONING FOR SUSTAINABILITY WITHIN CONTEXT OF THE NATURNET + REDIME PROJECT »*

Authors: ***Free University of Amsterdam et al. of REDIME***

Organisation: ***EU-FP6-Project NNR, coordinated by CCSS (CZ)***

Short description:

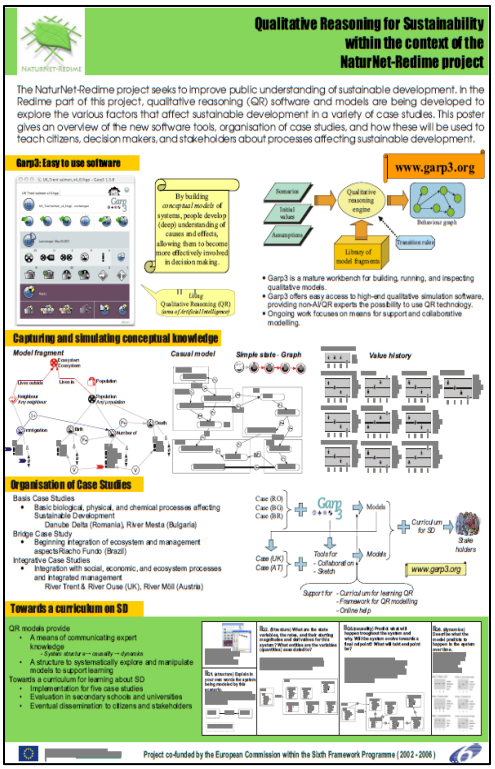
- The **Qualitative Reasoning and Modelling (QRM)** portal provides software tools (***Garp3***), documentation and support for users to build and simulate qualitative models.

- **Qualitative Reasoning (QR)** is an area of research within Artificial Intelligence (AI) that automates reasoning and problem solving about the (physical) world. It creates non-numerical descriptions of systems and their behaviour, preserving important behavioural properties and qualitative distinctions.

- **Successful application areas** include autonomous spacecraft support, failure analysis and on-board diagnosis of vehicle systems, automated generation of control software for photocopiers, conceptual knowledge capture in ecology, and intelligent aids for human learning. For an overview of this AI research, consult the special issue of the AI magazine on Qualitative Reasoning (*Bredeweg & Struss, 2003*).

- **Qualitative Reasoning** has particularly value for developing, strengthening and further improving education and training on topics dealing with systems and their behaviour. The goal of this QRM portal was to provide ***tools, methods and communication facilities*** to support such activities. Particularly the ***Garp3 workbench*** is being developed to support users in articulating, simulating and inspecting their conceptual knowledge of system's behaviour.

- See **Software** for the latest version of ***Garp3.***



[http://www.naturnet.org]
[http://hcs.science.uva.nl/QRM]
[http://www.science.uva.nl/~bredeweg]

Size: Format A0

Address:
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Contact: Dr. Bert BREDEWEG, E-mail: bredeweg@science.uva.nl

EU-FP6-PROJECT *"NATURNET+REDIME"*

POSTER

Name: ***COLLABORATIVE TOOLS FOR SUSTAINABLE IMPACT ASSESSMENT - "Integrated Environmental Impact Assessment" - iEIA -***

Authors: ENL, FELIS, CCSS et al. (DE,CZ)

Organisation: EU-FP6-Project NNR Consortium

Short description:

Integrated Environment Impact Assessment (iEIA)

- Environmental Impact
- Economic Impact
- Social Impact

Visibility Assessment:

- Assessing the impact on the Landscape caused by a *Wind Generator* with a height of 100 m

Used Tool:

- *Map Server & WPS* (Visibility Analysis)

GIS data:

- *Elevation Data,*
- *Urban area data*

Workflow process:

1. Define the area that may be affected by the impact
2. Search for available data
3. Connect the datasets using the Data Management Tool *"MapManager"*
4. Visualize the data and learn to combine and overlay useful datasets
5. Analyse and process the data to obtain maximum information for decision making
6. User assigns level of impact to environmental parameters *"Landscape & Visibility"*
7. User assigns level of impact to all Sustainability parameters (Environmental, Social, Economic)
8. Users evaluates the iEIA Matrix results and takes the decicion optimized by integrated impact Indicators

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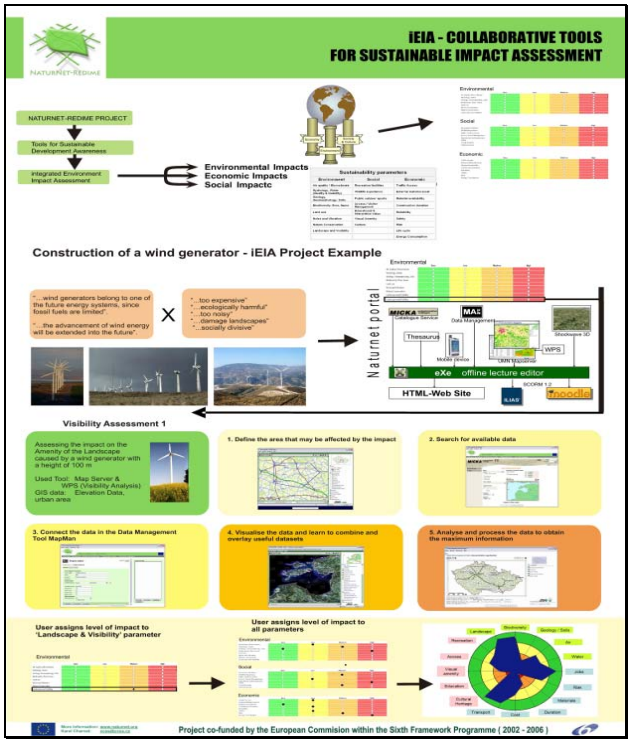

- [http://www.NATURNET.org/]
- [http://PORTAL.NATURNET.org/]

Project has been co-funded by the European Commision within the Sixth Framework Programme (2002-2006)

Project duration: 01.03.2005 - 31.10.2007

EU-FP6-PROJECT « NATURNET+REDIME »

POSTER

Name: *« INTEGRATED KNOWLEDGE RESOURCE MANAGEMENT »*

SUPPORTING PERSONALIZED SEARCHES ABOUT GLOBAL, REGIONAL AND LOCAL SUSTAINABILITY DEVELOPMENT, INTEROPERABILITY OF WEBSERVICES AND USABILITY OF E-LEARNING CONTENTS (FIND → BIND → ACCESS) ON THE NATURNET-LEARNING-PORTAL

Author: *HOFFMANN, Frank* et al. of **IGN e.V.**

INNOVATION. GRENZÜBERSCHREITENDES NETZWERK
X-BORDER-NETWORK FOR EURO-REGIONAL EDUCATION, DEVELOPMENT AND KNOWLEDGE TRANSFER

Organisation: **EU-FP6-Project NNR,** coordinated by CCSS (CZ)

Short description:

ABSTRACT

Decision making on Sustainable Regional Development needs better ***Awareness about Data, Information, Knowledge*** and other ***Learning Resources*** available using Web Catalogue Services and other web-based, multimedial Learning CONTENTS to support **formal** Education, **informal** web-based-Training (WBT), as well as a combination of mixed "**blended**" Learning approaches.
As usual, the usage of Web **SEARCH Engines** like GOOGLE, LIVE_SEARCH or other Searching tools ends up with an personal overloading with "*INFORMATION WASTE*"…
Therefore, IGN has composed the "***NATURNET-Content-NAVIGATOR***" (NCN) which contains structurized and indexed Knowledge categories collected, assessed and experts on ***Interoperability & Sustainability*** evaluated its ***Usability*** to support web-based **e-Teaching and e-Learning** processes***:***

[http://www.mission-sustainability.org/en/projects/details/531]

The NCN ***MetaInformation Database*** containing Web Resources has been tested within NNR Project and is intented for public use by ***Public Administrations, Business, Citizens, Schools, Students and Teachers*** interested in **finding CONTENTS for teaching** and **accessing RESOURCES for eLearning** on the WEB, especially for ***sustainable regional decision making*** using E-Learning modules about ***Interoperability and Sustainability.***
An **MOODLE** learning package connected with the NNR-Portal explains the personalizing of local NCN installations and its usage by indexing process for **SEARCH, FIND, BIND & ACCESS** teaching and learning resources.
Actually, the **NCN** contains ~ **15.000 Knowledge resource** links.

KEYWORDS

Agenda21, Applications, Awareness, Catalogue, Collaboration, Content, Cooperation, Decision, Development, Dublin Core, Education, eGOV, eLearning, ENVIRO, Europe, GEO, Geoprocessing, GIS, Information System, Infrastructure, INSPIRE,Interoperability, ISO19115, Metadata standard, NATURNET, Planning, QRM, REDIME, Region, SDI, Services, SPATIO, Sustainability, Teaching, Tools, Training, Usability, Web, X-border-GDI.

[http://www.NATURNET.org]

[http://portal.NATURNET.org]

[http://GDI-SN.blogspot.com]

[http://www.IGN-SN.de]

Size: Format A0

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Contact: Doz. Dr. Frank Hoffmann, CSc [info@GDI-SN.de]

EU-FP6-Project-TEAM « NaturNet+Redime » (NNR)

SIXTH FRAMEWORK PROGRAMME
Educational programmes on social, economic, and environmental tools for the implementation of the EU Strategy on Sustainable Development at both EU and international levels

NATURNET-REDIME

New Education and Decision Support Model for Active Behaviour in Sustainable Development Based on Innovative Web Services and Qualitative Reasoning

Project no. 004074
Instrument: SPECIFIC TARGETED RESEARCH PROJECT
Thematic Priority: SUSTDEV-2004-3.VIII.2.e
Start date of project: 1st March 2005 Duration: 30 months
Web: http://www.naturnet.org
Project officer Patrizia Poggi Patrizia.POGGI@ec.europa.eu

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)

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University of Hull, International Fisheries Institute	Ian Cowx	UK	i.g.cowx@hull.ac.uk
University of Natural Resources and Applied Life Sciences, Department of Hydrobiology, Fisheries and Aquaculture	Stefan Schmutz	AT	stefan.schmutz@boku.ac.at

STUBA - Faculty of Architecture of Slovak University of Technology Bratislava - Department of Computer Aided Design of Architectural and Urban Planning

POSTERS

Poster No.1

Name: ***Urban study - Residential area Záhorská Bystrica Dievčí Hrádok***
Authors of poster:
Ing. arch. Juraj Furdík, PhD., Ing. arch. Monika Šmiralová, PhD., Mgr. Rostislav Ondruš
Organisation:
Faculty of Architecture of Slovak University of Technology Bratislava, Slovak Republic

The proposal of residential area Záhorská Bystrica Dievčí Hrádok represents the hudge interest for a new residential areas. The area is situated in sloped terrain near to the protected area of Carpatian mountains. The complicated relief creates assumpion for organical composition of urban structure with the full functional outfit of the zone. The line of whole city amenities is proposed in western part, which is situated close to the main transport corridor and to the highway.

The organical composition of the structure creates assumption of inner and outer diversity of spaces and endeavour spatial segregation of transportational and recreational activities.
Basic information – ***surface of area 38,219 ha, number of inhabitants 4 722, number of employees 1 566, number of family houses 143, number of flats 1 951.***

SIZE of poster: 700x1000mm

Poster No.2

Name: ***Urban study- Residential area Čunovo Konopiská***
Authors of poster:
Ing. arch. Juraj Furdík, PhD., Ing. arch. Monika Šmiralová, PhD., Mgr. Rostislav Ondruš

The endeavour of today needs according to the Master plan of Bratislava city is to find new conceptions of new residential areas which can bring higher quality of living in appropriate accessibility to the other functions of city.

Urban study of residential zone Čunovo- Konopiská with its concept contributes to this topic. Flat area in the bottom land of river Danube in southern edge of Bratislava city offers the ideal space for square structure with the full functional equipment except primar production.
Basic information – ***surface of area 45,171 ha, number of inhabitants 2 527, number of employees 635, number of family houses 334, number of flats 693.***

SIZE of poster: 700x1000mm

STAATSBETRIEB SACHSENFORST (SBS)

POSTER

Titel: *FGIS_ONLINE - DIE WEBGIS-LÖSUNG VON SACHSENFORST*

Autor: ***Andreas HERGERT***
Organisation: ***Staatsbetrieb Sachsenforst, Graupa***
Short description:

Zur Unterstützung der forstfachlichen Tätigkeiten seiner Mitarbeiter betreibt der Staatsbetrieb Sachsenforst das Forstliche-Web-Geoinformationssystem **FGIS_online**.

Forstliche Geodateninfrastruktur

Mit Hilfe der Dienste-basierten Web-GIS-Lösung kann über das ***Intranet*** auf forstlich relevante Daten zugegriffen werden. FGIS_online ermöglicht neben der Darstellung und Recherche der betriebseigenen Daten auch den ***Zugriff auf Geofachdaten*** anderer sächsischer Behörden, sowie auf Geobasisdaten der Landesvermessung. Die Integration erfolgt über Web-Map-Services (WMS). Zudem erfolgt die Integration flächenbezogener Waldinformationen aus der ***Betriebsdatenbank***. Die transparente Überlagerung der Kartenthemen und deren Verknüpfung mit Sachdaten erzeugen den gewünschten ***Informationsgewinn.*** Mit FGIS_online können vom Bildschirm aus Fragen beantwortet werden:

- Wo liegt eine bestimmte Waldfläche?
- Welche Eigenschaften hat die Fläche (z.B. *Bestockung, Vorrat, Alter*).
- Welche Flurstücke oder anderen Objekte (z.B. *Waldfunktionen, Waldbiotope*) werden von der Fläche geschnitten?

Web-Funktionalitäten

Neben der Online-Recherche sind die Erstellung und Speicherung individueller Arbeitskarten, das Erfassen von Geometrieobjekten sowie weitere Funktionalitäten verfügbar. Hierzu zählt auch das schnelle Auffinden von Objekten in der Karte mit Hilfe von Namensverzeichnissen (Ortssuche).

Über das angeschlossene **Metainformationssystem** für Geodaten des Freistaates Sachsen (***GeoMIS.Sachsen***) können die Nutzer weitere Datenquellen in Form von Kartendiensten hinzuladen. Neben der Unterstützung betrieblicher Verfahren, ist FGIS _online auch ein Werkzeug zur Erfüllung von hoheitlichen und Verwaltungsaufgaben. Es wird in den Forstrevieren, Forstbezirken und in der Geschäftsleitung eingesetzt.

Service-orientierte Architektur

Die Web-GIS-Lösung FGIS_online ist modular aufgebaut. Programmfunktionalitäten werden durch einzelne unabhängig arbeitende Komponenten (i. d. R. ***Webservices***) bereitgestellt. So erfolgt die Geometrieerfassung bspw. auf Basis eines OGC-konformen **WFS-T**. Die Ortssuche (Namensverzeichnisse) wird durch einen **WFS-G** bereitgestellt.

Komponenten und Partner

FGIS_online wurde in Zusammenarbeit mit der **Firma con terra GmbH** aus Münster entwickelt und basiert auf Komponenten des ***sdi.suite-Frameworks*** sowie auf Basistechnologie (***ArcIMS, ArcSDE***) der Firma ESRI. Neben kommerziellen Komponenten wird auch Open-Source-Software, wie der **Geoserver** und der **UMN-Mapserver** eingesetzt.

Size: 70x100cm

EARTHLOOK.CZ – utilization of spatial data technologies within GMES activities in Czech republic

PETR HORAK & KAREL CHARVAT

POSTER - ABSTRACT

Keywords: *GMES, metadata, GIS, SDI, INSPIRE, web services*

Abstract thesis:

Support the implementation of GMES in the Czech Republic is one the main goals of the EarthLookCZ project. An Analysis of the GMES Situation in the Czech Republic was completed in 2007 as the first project output. The analysis presents the importance of GMES within a European policy framework for Space research and refers current GMES activity on the both the European and national levels. In the Czech Republic the analysis is focused on current GMES solutions projects and on the activities currently taking place in the ***EarthLookCZ project*** with the main goal the implementation of the solutions. An overview of current data sources in public administration is another part of the study.

An integral part of the project is valorisation and publication at scientific conferences and in various publications. From a technical point of view, the main outputs of the project are presented by The Design of Technological Infrastructure on the Basis of ***ISO and OGC Standards*** and also Design and Implementation of the ***Prototype of GMES Spatial Data Infrastructure Solution.***

The solution is designed in distributed system form, which will provide the connection to metadata about GMES data and services. This early prototyping solution will test the principle of GMES catalogue services on a national level which should be used for the later international EarthLookCZ context.

A GMES national catalogue portal is one of independent components of **EarthLook.CZ** complex system for raster and vector spatial data sharing. The catalogue portal will provide data source searching on the basis of their metadata records through structure queries. The portal will also contain edit functionality for new metadata records creating or editing. The metadata and catalogue system corresponds to ***ISO 19115/19119/19139*** standards and provides for cascade searching on the other standardized catalogue systems, ***GeoNetwork*** for instance.

Authors

Petr Horak & Karel Charvat
WIRELESSINFO & CCSS
Czech Centre for Science and Society, Praha (CZ)

References

Petr HORAK: Analysis of GMES activities in Czech Republic, 2007
[http://ww.earthlook.cz]

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Tel.: **+420 603496851**
Email: horak@wirelessinfo.cz

REGIONAL GOVERNMENT OF VYSOCINA REGION (CZ)

POSTER

Name:

Regional SDI in VYSOCINA Region

Author:

Ing. Lubomir JUZL, GIS administrator
juzl.l@kr-vysocina.cz

Organisation:

GIS unit at ICT department, Selfgoverning VYSOCINA Region Administration

Address:

Zizkova 57, 587 33 Jihlava, Czech Republic

Reference: [http://www.kr-vysocina.cz **]**

Short description:

- **Organizational scheme** of existing, distributed regional GIS,
- **including** the advanced OGC web services
- **based** on ESRI Geo-Information Technology,
- **using** an open source GIS
- **working** cooperation between public administration institutions
- **sharing** the GI sources from regional and municipal servers.

Size: A0

STUBA - FACULTY OF CIVIL ENGINEERING OF SLOVAK UNIVERSITY OF TECHNOLOGY IN BRATISLAVA - DEPARTMENT OF THEORETICAL GEODESY

POSTER

Name: ***Possibilities of metadata distribution for geodata between open source and commercial GI applications.***

Author: ***Tomáš Kliment***

Organisation:
Faculty of Civil Engineering of Slovak University of Technology in Bratislava, Slovak republic

Short description:

The demand for geoinformation is excessive and unstoppable at the present. It is necessary to ***create and distribute metadata about geodata*** in standardized and compacted form, because this form is comparable and comprehensible for human and for computer too.

This poster contains the base information about ***metadata for geodata domain***, the main characteristics and principles of standard **ISO 19115:2003** Geographic information – Metadata, which defines the schema required to describe geodata and the main ***characteristics and principles*** of technical specification **ISO 19139:2007** Geographic information – Metadata – XML (eXtensible Markup Language) schema implementation, which defines XML schema implementation derived from ISO 19115.

The main part is orientated to the Implementation of ISO 19115 and ISO 19139 standards on the sample geodata in **Open Source application CatMDedit**, which allows a local service of metadata and testing the possibilities of distribution of metadata between the sample **Open source and commerce GIS** (Geographical Information Systems) and **METIS** (Metainformation systems) applications.

Size: 70x100cm

REGIONAL GOVERNMENT OF LIBEREC REGION (CZ)

POSTER

Name: ***"Flood Plan of Liberec Region"***

Author: ***Dipl.Inf. Irena KOSKOVA, GIS-Manager***

Organisation: ***KULK, Liberec Region (CZ)***

Short description:

- **Main objectives** of web-based application ***"Flood Plan of Liberec Region"*** - support for *communication, coordination and decision making* at all organization levels of *flood protection management*
- **Concentration of all accessible information resources** required for effective flood protection and support as a collaborative working space for communication in emergency situations

Size: 140cm x 200cm

GI2008

SYMPOSIUM

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Bundesministerium für Bildung und Forschung

ESF Europäischer Sozialfonds für Deutschland

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Berlin, 23. April 2008 /067/2008

MINISTERIN SCHAVAN: „*BILDUNGSPRÄMIE KANN STARTEN*“

Bundeskabinett beschließt Konzeption zum Lebenslangen Lernen / Weiterbildungsquote soll auf 50 Prozent steigen

German Federal Government approved Concept of Life-Long-Learning / Continuing Education quote should be increased to 50 %

Das Bundeskabinett hat am Mittwoch in Berlin die „***Konzeption der Bundesregierung zum Lernen im Lebenslauf***“ beschlossen. „*Lebenslanges Lernen ist entscheidend für die Perspektive jedes Einzelnen, und es ist wichtig für das Wirtschaftswachstum und für das Wohlergehen der Gesellschaft insgesamt*“, sagte Bundesbildungsministerin Annette Schavan. Angesichts der immer älter werdenden Gesellschaft komme der regelmäßigen Weiterbildung außerdem eine noch stärkere Bedeutung zu als bisher. „*Für ein erfolgreiches Berufsleben ist die kontinuierliche Fortbildung eine entscheidende Voraussetzung*.“

Um die Bereitschaft jedes Einzelnen zu fördern, mehr für die eigene **Weiterbildung** zu tun, führt die Bundesregierung eine **Bildungsprämie** ein. Die Prämie wird im Herbst starten und richtet sich besonders an Menschen mit mittleren und niedrigen Einkommen. Konkret heißt das: Eine Prämie von **maximal 154 Euro** bekommt, wessen zu versteuerndes jährliches Einkommen 17.900 Euro (bzw. 35.800 Euro für Verheiratete) nicht übersteigt. Die Prämie kann einmal im Jahr dafür eingesetzt werden, um 50 Prozent der Seminarkosten oberhalb einer Bagatellgrenze von 30 Euro zu finanzieren. Ein **Weiterbildungsdarlehen** soll – analog zu den KfW-Studienkrediten – zudem allen Menschen zur Verfügung stehen – unabhängig von der Höhe ihres Einkommens. Schließlich soll durch eine Öffnung des **Vermögensbildungsgesetzes** erreicht werden, dass das Ansparguthaben auch vor Ablauf der Sperrfrist für Weiterbildungszwecke verwendet werden darf, ohne dass damit der Anspruch auf die Arbeitnehmersparzulage verloren geht.

Die „**Konzeption der Bundesregierung zum Lernen im Lebenslauf**“ beinhaltet zahlreiche Initiativen, die ***Lebenslanges Lernen*** erleichtern sollen. Eine wichtige Grundlage für diese Initiativen sind die ***Empfehlungen des Innovationskreises Weiterbildung,*** die seit März 2008 vorliegen. Ausgangspunkt der Konzeption ist der Befund, dass die ***Beteiligung an Weiterbildung in Deutschland im internationalen Vergleich zu niedrig*** ist. Vor allem Menschen mit niedriger Qualifikation bilden sich zu wenig fort. „*Wir wollen, dass sich deutlich mehr Menschen als bisher regelmäßig weiterbilden*“, sagte Schavan. Derzeit nehmen ***43 Prozent*** der Berufstätigen in Deutschland einmal im Jahr an einer Weiterbildung teil – die Regierung möchte diese ***Quote bis zum Jahr 2015 auf 50 Prozent steigern***. Die Finanzierung der Initiativen erfolgt über Bundesmittel sowie durch den Europäischen Sozialfonds.

Außer einer **Kampagne zum lebensbegleitenden Lernen** und verschiedenen Projekten zur Verbesserung der Bildungsberatung in Deutschland sollen mit der ***Initiative „Lernen vor Ort“*** Kommunen unterstützt werden, ein ***regionales Bildungsmanagement*** zu etablieren. Außerdem werden mit einer bundesweiten Telefonhotline und einem **Informationsportal** die vorhandenen Instrumente zur Bildungsberatung transparenter und zugänglicher gemacht. Mit der Einführung eines Freiwilligen Technischen Jahres soll das Interesse für technisch-naturwissenschaftliche Studiengänge geweckt werden. Schließlich wird ein breit angelegtes **Forschungs- und Entwicklungsprogramm** für das Lernen im Lebenslauf aufgelegt, dessen Forschungsergebnisse in die Praxis übertragen werden.

Format edited: 24.04.2008 by FH / IGN e.V.
QUELLE: Die Druckversion dieser Pressemitteilung finden Sie hier als PDF-Datei.
URL: [http://www.bmbf.de/_media/press/pm_20080423067.pdf]

Brüssel, 25. April 2008

VORSCHLAG DER EUROPÄISCHEN KOMMISSION ZUR EINRICHTUNG DES EUROPÄISCHEN LEISTUNGSPUNKTESYSTEMS

PRESSEINFORMATION

Lernergebnisse sollen europaweit übertragbar werden.
Förderung der grenzüberschreitenden beruflichen Mobilität
Learning Results should be transferable throughout Europe.
Support of Vocational X-border-Mobility

WIB 25.04.2008 (CR) - Um die grenzüberschreitende berufliche Mobilität und die Übertragung von Lernergebnissen in der Europäischen Union zu erleichtern, hat die Europäische Kommission am 10.04.2008 einen **Empfehlungsvorschlag** zur "*Einrichtung des Europäischen Leistungspunktesystems für die Berufsbildung*" vorgelegt. Mit der Verabschiedung durch den Rat der EU-Bildungsminister und das Europäische Parlament ist nicht vor Ende 2009 zu rechnen.

Das Leistungspunktesystem ECVET (*European Credits for Vocational Education and Training*) soll ermöglichen, sinnvolle Einheiten von Lernergebnissen zu definieren. Diese können dann in ein anderes Bildungssystem übertragen werden. Sie werden dort anerkannt und im Hinblick auf eine Qualifikation akkumuliert. Als zusätzliche Information in numerischer Form und basierend auf einer Konvention, werden einer Qualifikation und ihren einzelnen Einheiten bestimmte Leistungspunkte zugeteilt. Dabei soll die Konvention gelten, dass für die erwarteten ***Lernergebnisse eines Jahres formaler Vollzeit-Berufsausbildung 60 Punkte*** vergeben werden. Um die **Transparenz** und das gegenseitige Vertrauen zwischen interessierten Einrichtungen der Berufsbildung zu fördern, sollen so genannte **ECVET-Vereinbarungen (***Memoranda of Understanding***)** sowie individuelle Lernverträge abgeschlossen werden.

ECVET soll auch einen besseren Zugang zum lebenslangen Lernen ermöglichen und nicht nur die berufliche Aus- und Weiterbildung (CQAF) umfassen, sondern auch das ***informelle Lernen*** einbeziehen. Weiterhin soll es *nicht nur die grenzüberschreitende, sondern auch die horizontale Mobilität innerhalb der nationalen Bildungssysteme* in der EU fördern.

Die Europäische Kommission empfiehlt, ECVET bereits bis 2012 schrittweise und auf freiwilliger Basis einzuführen. ECVET soll durch die Einrichtung eines *europäischen Bezugsrahmens für die Qualitätssicherung in der beruflichen Aus- und Weiterbildung (CQAF)* flankiert werden. Auch dazu hat die Europäische Kommission am 10.04.2008 einen **Empfehlungsvorschlag** vorgelegt. Dieser soll ***auf nationaler Ebene bereits ab 2010 umgesetzt*** werden.

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QUELLE: Diese Pressemitteilung finden Sie im Pressespiegel der Sächsischen Staatskanzlei

URL: [http://www.wib.sachsen.de/2632.htm]

PRESS INFORMATION

INTERMAP TECHNOLOGIES COMPLETES 3D DIGITAL MAPPING DATA COLLECTION FOR WESTERN EUROPE

Geographic data being processed to complete NEXTMap Europe elevation mapping program

DENVER - Monday, May 5, 2008: Intermap Technologies today announced that it has completed the data collection of its **NEXTMap® Europe 3D mapping program**.

The company-funded initiative to collect approximately 2.2 million km^2 across Europe began with Great Britain in 2003, continued with Germany in 2006, and was completed April 11, 2008. ***The Company's NEXTMap Europe datasets include 18 Western European countries***, including Andorra, Austria, Belgium, Czech Republic, Denmark, France, Germany, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, the Netherlands, Portugal, San Marino, Spain, Switzerland, and the United Kingdom. ***The processing of the data is underway and is scheduled to be fully completed by March 31, 2009.***

According to Brian Bullock, Intermap's president and CEO, "*this is a feat of tremendous significance. Never before has a commercial enterprise endeavored to collect a database of uniformly accurate 3D elevation data and orthorectified images of entire countries, let alone nearly half of a continent. A project of this magnitude is not only unheard of, it provides an enabling foundation for the development of a variety of applications that rely on high-quality and consistent elevation data.*"

The NEXTMap Europe program will generate national datasets at unprecedented accuracy and detail that include ***3D digital terrain models*** and ***digital surface models*** containing more than 80 billion elevation measurements. In addition, the datasets include black and white and color orthorectified radar images containing over 1.3 trillion pixels each. The Company is also creating contours, 3D road centerline geometries, and other high-resolution geospatial products as part of the program. **The NEXTMap data is available** directly from Intermap or through selected partners worldwide.

"***European companies and governments, and international enterprises will benefit greatly by having access to such a comprehensive data set,***" continued Mr. Bullock. "***As initiatives mandated by the European Union affect companies across a wide range of industries and countries, we're pleased to be in a position to meet their geospatial needs.***"

The ever growing geospatial market will benefit from this new foundational layer in the areas of geographic information systems (GIS), environmental management, carbon emission reduction, fuel efficiency improvements, engineering planning, transportation, automotive, recreation, risk management for flood and windstorm damage, irrigation, telecommunications/wireless network planning, aviation safety, wind energy, 3D visualization, online virtual tours, topographic maps, and computer games.

The Company will continue its ongoing processing and editing of the collected data to produce commercially available datasets over the coming ten months. Additionally, the Company is continuing its collection, processing, and editing of its NEXTMap USA program, which is expected to be completed by the end of 2009. Once the U.S. is complete, the Company intends to expand its coverage to include the entire European Union.

About Intermap Technologies

Intermap (TSX: IMP.TO, AIM: IMAP.L) is a preeminent digital mapping company creating uniform high-resolution 3D digital models of the earth's surface. The Company is proactively remapping entire countries and building uniform national databases, called NEXTMap®, consisting of affordably priced elevation data and geometric images of unprecedented accuracy. Demand for NEXTMap data is growing as new commercial applications emerge within the ***GIS, engineering, automotive, personal navigation device, insurance risk assessment, oil and gas, hydrology, environmental planning, wireless communications, transportation, aviation and 3D*** visualization markets.

Headquartered in Denver, Colorado, Intermap employs more than 660 people worldwide, with additional offices in **Munich, Prague,** Calgary, Detroit, Jakarta, London, Ottawa, and Washington D.C. For more information, visit [http://www.Intermap.com].

NEXTMap® is a registered trademark of **Intermap Technologies Corporation**.

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QUELLE: Diese Pressemitteilung ist im Internet abrufbar unter :
URL: [http://www.intermap.com/interior.php/pid/1/sid/306/tid/245/nid/2195]

Berlin, 6. Mai 2008 /080/2008

Bundesministerium für Bildung und Forschung

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Presse-mitteilung

ASIEN ZEIGT STARKES INTERESSE AN BOLOGNA-REFORM

Schavan: "***Zusammenarbeit Europas und Asiens in der Bildung muss intensiver werden***" / Erste ASEM-Bildungsministerkonferenz in Berlin

German Minister for Education & Research: "Cooperation between Europe and Asia must be intensified"/ First ASEM Conference of Ministers for Education in Berlin

Ein erstes Treffen der Bildungsminister Asiens und Europas im Rahmen des ASEM (Asia-Europe Meeting) Netzwerks fand am Montag und Dienstag unter Vorsitz von Bundesbildungsministerin Annette Schavan in Berlin statt. "***Europa und Asien werden in Zukunft stärker im Bereich der Bildung zusammenarbeiten - damit legen wir eine solide Basis für die schnell wachsenden Beziehungen zwischen unseren Kontinenten***", sagte Schavan am Dienstag im Rahmen der Konferenz.

Weltweit an dritter Stelle in der Rangliste der Aufnahmeländer für ausländische Studierende ist Deutschland mit seinen **Hochschulen** besonders attraktiv für asiatische Studierende. Das deutsche **Berufsbildungssystem** gilt in Asien als vorbildlich, und auch der **Bologna-Prozess** wird dort aufmerksam betrachtet und auf seine Übertragbarkeit hin geprüft. In Berlin standen ***zwei Themen im Mittelpunkt:***

- Die Stärkung der Hochschulkooperation zwischen den Partnerstaaten und
- die engere Verknüpfung von Bildung und Arbeitsmarkt zur Verbesserung der Beschäftigungsfähigkeit.

"***Unsere asiatischen Partner haben großes Interesse an der Entwicklung des europäischen Hochschulraumes mit Hilfe des Bologna-Prozesses. Vieles, was Europa dort gemeinsam erarbeitet hat, ist auch für Asien attraktiv***", so Schavan.

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QUELLE: Die Druckversion dieser Pressemitteilung finden Sie hier als PDF-Datei.
URL: [http://www.bmbf.de/_media/press/pm_20080423067.pdf]

INTERGRAPH

PRESSEMITTEILUNG

PR SG&I Nr. 10/2008

ZUR SOFORTIGEN VERÖFFENTLICHUNG

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RWE POWER SETZT DIGITAL MAPPING CAMERA® VON INTERGRAPH® EIN

Digitaler Workflow bei Tagebauaufmaß sorgt bei Energieversorger für mehr Effizienz und Präzision

ISMANING, 07.05.2008 – Die Intergraph (Deutschland) GmbH hat an den Stromerzeuger RWE Power AG eine Z/I Imaging® Digital Mapping Camera (DMC®) ausgeliefert. Sofort nach Einführung des Systems bewährte sich die DMC beim Aufmaß der Braunkohletagebaue der RWE Power. Aus den hochpräzisen digitalen Luftbildern mit bis zu fünf Zentimetern Bodenauflösung gewinnt die RWE Power Informationen über geförderte Volumen von Abraum und Kohle sowie die aktuelle Geometrie der Gewinnungssohlen und Kippenstrossen in den Tagebauen. Bislang nutzte RWE Power – früher bekannt als Rheinbraun AG – für die Bilderfassung und Bildumwandlung ausschließlich Analogkameras und Präzisionsscanner. Der neue digitale Workflow sorgt für mehr Effizienz, schnellere Abwicklung und erhöhte Präzision.

„***Durch den Einsatz der Digitaltechnik können wir uns zwei Arbeitsschritte, das Entwickeln der Filme und das anschließende Digitalisieren, sparen***“, berichtet Dipl.-Ing. Carsten Weyand, Projektleiter im Bereich Geobasisdaten/Photogrammetrie bei RWE Power in Köln. Das DMC-System biete die bis dato beste Kombination von Bodenauflösung und Genauigkeit im Vergleich mit allen am Markt befindlichen Systemen und gelte als äußerst zuverlässig, erläutert Weyand.

Die RWE Power AG fördert in ihren Tagebauen Garzweiler, Hambach und Inden jährlich rund 100 Millionen Tonnen Braunkohle. „***Das ist mehr als die Hälfte dessen, was jährlich an Braunkohle in der gesamten Republik gefördert wird. Rein statistisch gesehen verändert sich die gesamte Abbaufläche jeden Monat einmal vollständig***“, erklärt Weyand. Diese Veränderungen werden photogrammetrisch, das heißt auf Grundlage der DMC-Bilder, aufgemessen. Da die Braunkohle erst gefördert werden kann, wenn das überlagernde Deckgebirge, der so genannte Abraum, abgetragen wurde, wird täglich durchschnittlich mehr als eine Million Tonnen Abraum gefördert. Eine sorgfältige Tagebauplanung muss sicherstellen, dass das geförderte Material punktgenau auf der bereits ausgekohlten Seite des Tagebaus verkippt werden kann.

Für die komplexen Abbauplanungen benötigt RWE Power hochgenaue Luftbilder. Schnelligkeit und Präzision sind für die Befliegung oberste Gebote und zwei Gründe, warum RWE Power seit neuestem auf die digitale Kamera aus dem Hause Intergraph setzt. Bisher verschlang die Filmentwicklung einen halben Arbeitstag, das Scannen aller 40 bis 50 Bilder eines Tagebaus mehr als einen Tag. Das RWE Power-eigene Flugzeug der Marke Cessna überfliegt den Tagebau in sich überlappenden Streifen in konstanter Flughöhe von 1.300 Metern über Grund, während das Kamerasystem ein vorher festgelegtes Aufnahmeprogramm durchführt.

Die **DMC-Kameradaten** werden während des Fluges auf einem in etwa autobatteriegroßen Festkörperspeichermodul abgelegt, das ähnlich einem USB-Stick einfach an der Basisstation in Köln ausgelesen werden kann. Vier Personen werten die Bilder aus und erstellen 3D-Vektor-Dateien. Rasch werden zentimetergenaue Antworten geliefert auf Fragen wie zum Beispiel „*Wo und wie viel hat sich im Vergleich zum letzten Flug verändert?*“ oder „*Wo ist wie viel Abraum verkippt worden?*“

Durch die Überlappung benachbarter Bilder können diese „*Nachbaraufnahmen*“ stereoskopisch, das heißt dreidimensional betrachtet werden. Jede noch so kleine Veränderung wird von den Luftbildauswertern der RWE Power in das Computer Aided Design (CAD)-Modell des entsprechenden Tagebaumodells übertragen. Über die Integration von vier multispektralen Kanälen in der Digital Mapping Camera sind sogar simultane Aufnahmen von Farb- und Falschfarbenbildern möglich.

„***Gegenüber der herkömmlichen Analogfotografie bietet die digitale Technik große Effizienzsprünge***“, betont Dr. Horst Harbauer, Geschäftsführer der Intergraph (Deutschland) GmbH. Bisher versuchten die Spezialisten bei RWE Power an Tagen mit ungünstigen Lichtverhältnissen die notwendigen Bildinformationen durch ein verändertes Entwicklerbad aus den unterbelichteten Negativen der Analogkameras zu erschließen. Mit dem Einsatz der DMC-Kamera entfallen die bisherigen komplexen Prozesse bei der Filmentwicklung.

Informationen zur RWE Power AG
Die RWE Power AG, Essen/Köln, ist ein Unternehmen des RWE-Konzerns und führend in Rohstoffgewinnung und Stromerzeugung. Mit rund 17.000 Mitarbeitern und einem breiten Energiemix aus Braunkohle, Steinkohle, Kernenergie, Erdgas und Wasserkraft sichert es rund 30 Prozent der deutschen Stromversorgung. Einer der Schwerpunkte der RWE Power AG ist das rheinische Braunkohlenrevier, wo sie jährlich 100 Millionen Tonnen Braunkohle subventionsfrei gewinnt. Die Rekultivierung ehemaliger Tagebaue gilt unter Fachleuten weltweit als vorbildlich. Das Unternehmen investiert Milliarden in den Bau neuer, klimaschonenderer Kraftwerke und in die Energieforschung. Weitere Informationen siehe unter [www.rwe.com].

Informationen zu Intergraph® Security, Government & Infrastructure (SG&I)
Intergraph® SG&I ist einer der führenden internationalen Anbieter raumbezogener Lösungen für die Marktsegmente Sicherheit, öffentliche Verwaltung und Infrastruktur. Intergraph® SG&I stattet zahlreiche Branchen mit seinen raumbezogenen Lösungen aus – Verteidigung und Nachrichtenwesen, Behörden und Organisationen mit Sicherheitsaufgaben (BOS), Öffentliche Verwaltung, Transport und Verkehr, Photogrammetrie, Versorgungswirtschaft und Telekommunikation. Wir ermöglichen unseren Kunden, umfangreiche und komplexe Daten in aussagekräftiger und fachbezogener Weise zu verwalten und zu visualisieren. Durch den Rückgriff auf die Software von Intergraph® können Intergraph®-Kunden schneller und besser operative Entscheidungen treffen, von denen tagtäglich die Sicherheit und das Wohlbefinden von Millionen von Menschen rund um den Globus abhängig sind. Weitere Informationen erhalten Sie im Internet unter [www.intergraph.de, www.intergraph.ch, www.intergraph.at oder www.intergraph.com/sgi]

# # #

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QUELLE: Diese Pressemitteilung ist im Internet abrufbar unter :
URL: [http://www.intergraph.de/press/press_releases.asp]
VIDEO-Clip: [http://www.intergraph.de/pressreleases/2008/SGI07052008.asp]

2. NETZWERK 21 KONGRESS AM 29./30. SEPTEMBER 2008 IN LEIPZIG

PRESSEINFORMATION

Nachhaltig festgehalten… Sustainably noticed...

Dokumentation zum 1. Netzwerk-21-Kongress 2007 erhältlich

Eine umfangreiche Tagungsdokumentation spiegelt die Ergebnisse und Diskussionen des Netzwerk21Kongresses 2007 wider. Sie kann ab sofort im Internet [http://www.netzwerk21kongress.de] als pdf-Dokument herunter geladen oder gegen eine Versandgebühr von 2,00 € im Konferenzbüro bestellt werden. Die Veranstaltung in Berlin bildete den Auftakt für eine jährlich fortzusetzende Reihe von Kongressen an jeweils unterschiedlichen Orten in Deutschland. Die Dokumentation zeigt, welche Herausforderungen an Nachhaltigkeitsinitiativen gestellt werden und gibt Einblick in das vielfältige Workshopangebot des Kongresses.

2. Netzwerk-21-Kongress am 29./30. September 2008 in Leipzig

Am 29. und 30. September 2008 findet in Leipzig der 2. bundesweite Fortbildungs-und Netzwerkkongress für lokale Nachhaltigkeitsinitiativen statt. Unter dem Motto „*Vom Parallelprozess zur Integration – wie kann nachhaltiges Handeln wirksam in Kommunen verankert werden?*“ wird es Vorträge und Diskussionsrunden zu den Themen gesellschaftliche Dimensionen von nachhaltiger Entwicklung, Klimaschutz und Nachhaltigkeitsmanagement geben. Nähere Informationen zum Kongress werden laufend auf der Website [http://www.netzwerk21kongress.de] aktualisiert.

- Der Deutsche Lokale Nachhaltigkeitspreis Zeitzeiche(N) wird erweitert.

Im Rahmen des Netzwerk21Kongresses wird auch in diesem Jahr wieder der Deutsche Lokale Nachhaltigkeitspreis Zeitzeiche(N) verliehen. Er würdigt Initiativen für die Gestaltung einer lebenswerten Zukunft in den Kategorien Einzelpersonen, Initiativen, Unternehmen und Kommunen. Erstmals verliehen wird in diesem Jahr der Preis Zeitzeiche(N)_Ideen 2008. Mit der Verleihung dieser Preise soll ein Zeichen für die Anerkennung gesellschaftlichen Engagements gesetzt werden. Die Ausschreibung zum „Zeitzeiche(N)“ wird im April 2008 veröffentlicht.

Der Netzwerk21Kongress wird durch eine Arbeitsgemeinschaft von GRÜNER LIGA Berlin e.V., Institut für Zukunftsstudien und Technologiebewertung gGmbH, aduno gGmbH und CivixX organisiert und veranstaltet. Förderer sind das Bundesumweltministerium/Umweltbundesamt, VEOLIA WASSER, BMW und T-Home. Unterstützt wird die Veranstaltung von: Deutscher Städtetag, Deutscher Landkreistag, Deutscher Städte-und Gemeindebund, Rat für Nachhaltige Entwicklung, ICLEI, Servicestelle Kommunen in der Einen Welt und der Deutschen Umwelthilfe.

Nähere Informationen:

Koordinator der Arbeitsgemeinschaft / Konferenzbüro: Stefan Richter, GRÜNE LIGA Berlin e.V., Landesgeschäftsstelle, Prenzlauer Allee 230, 10405 Berlin. Tel.: (030) 44 33 91-0 Fax: (030) 44 33 91-33

- [http://www.netzwerk21kongress.de]
- [mail@netzwerk21kongress.de]

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QUELLE: Diese Pressemitteilung finden Sie im Pressespiegel von NETZWERK 21 KONGRESS
URL: [http://www.netzwerk21kongress.de/papers/pm1_08nachhaltig_festgehalten.pdf]

PROGRAMM FÜR DEN NETZWERK21-KONGRESS 2008

Das Motto des Kongresses 2008 lautet „*Vom Parallelprozess zur Integration – Verankerung der Lokalen Agenda 21 in strategische, nachhaltigkeitsorientierte Prozesse der Kommunen*".
Dabei wird es verschiedene Workshops und Seminare zu folgenden Themenbereichen geben:

Nachhaltigkeitsmanagement

- Mainstreaming von Nachhaltigkeit in den Kommunen (u.a. Verbindung von Agenda 21 mit anderen fachübergreifenden strategischen Prozessen wie Integrierte Stadtentwicklung, Standortmarketing u.a.)
- Instrumente für ein Nachhaltigkeitsmanagement in den Kommunen (zyklisches Nachhaltigkeitsmanagement, Indikatoren, Nachhaltigkeitsprüfung, Nachhaltigkeitsberichte u.a.)
- Nachhaltigkeit finanzieren - Tragfähige Strategien für die Finanzierung von Nachhaltigkeitsprozessen und –projekten (kommunale Finanzierung, Sponsoring, regionale Fonds, Gemeinschaftsstiftungen u.a.)
- Lobbybbyismus für Nachhaltigkeit(Kooperationsbeziehungen von Wirtschaft, Wissenschaft und Nachhaltigkeitsinitiativen, Corporate Citizenship u.a.)
- Regionales Management für Nachhaltigkeit (Stadt-Umland-Kooperationen, Netzwerke im ländlichen Raum u.a.)

Klimaschutz

- Modelle für eine Zukunftsfähige Mobilität (Verantwortung der Automobilindustrie, integrierte Verkehrskonzepte)
- Lokales Klimaschutzmanagement (Förderung bürgerschaftlichen Engagegements, European Energy Award, Kommunale Entwicklungszusammenarbeit unter dem Schwerpunkt Klimaschutz u.a.)
- Lebensstil und Klimaschutz / Vermittlung von Nachhaltigkeit in verschiedene Kulturkreise (Mobilität, Ernährung, regionale Wirtschaftskreisläufe u.a.)
- Klimaschutzstrategien von deutschen Unternehmen (Verantwortung und Möglichkeiten von Unternehmen, Praxisbeispiele u.a.)

Gesellschaftliche Dimension nachhaltiger Entwicklung

- Nachhaltige Entwicklung und Unternehmensethik (gute Beispiele für Corporate Social Responsibility u.a.)
- Regionales Management für Nachhaltigkeit (regionale Stoff- und Finanzkreisläufe, Bewusstsein für regionale Produkte und Dienstleistungen u.a.)
- Politische Bildung am Beispiel des Bürgerhaushaltes (aktuelle Ansätze und Modelle in Deutschland, Schnittstellen und Rollenverständnis von Verwaltung, Politik und Bürgern)
- Kommunen in der UN-Dekade der Bildung für Nachhaltige Entwicklung
- Soziale Integration in der alternden Gesellschaft (Arbeit für "junge Alte", Teilhabe am gesellschaftlichen Leben, intergenerationelle Unterstützung, lebenslanges Lernen u.a.)

Zusätzlich sind folgende Programmelemente geplant:

- Impulsreferate im Plenum
- ein halbtägiger Strategieworkshop zum Thema der vertikalen Integration einer Nachhaltigen Entwicklung über die Ebenen von Bund, Ländern und Kommunen
- eine Podiumsdiskussion zum Leitthema der Tagung
- die feierliche Verleihung der ZeitzeicheN 2008
- mehrere Exkursionsangebote
- Präsentationen im Markt der Möglichkeiten

Das Programm für den Kongress:

- [http://www.netzwerk21kongress.de/de/Programm_2008.asp].
- [http://www.netzwerk21kongress.de/papers/netz21_gesamt.pdf]

GI2008

SYMPOSIUM

INTER-REGIONAL

INSPIRE & GDI-DE LINK REFERENCES

- European Commission - Copyright Greenpaper
- European Commission - Directive 2003/98/EC - PSI
- European Commission - Directive 2007/2/EC - INSPIRE
- GeoDatenInfrastruktur - Deutschland (GDI-DE)
- GeoDatenZugangsGesetz - (GeoZG) - UmweltBundesAmt

Infrastruktur für räumliche Informationen in Europa (INSPIRE)
Deutscher Bundestag beschließt GeodatenZugangsGesetz (GeoZG)

GEOINFORMATIONEN / UMWELTINFORMATIONEN

- Daten mit räumlichem Bezug werden einfacher zugänglich und nutzbar.

Auf Vorschlag von Bundesumweltminister Sigmar Gabriel hat das Bundeskabinett am **30. 07. 2008** das Gesetz über den Zugang zu digitalen Geodaten (GeodatenZugangsGesetz #8722; GeoZG) beschlossen...

... Das GeoZG, das den Zugang zu Geodaten und ihre Nutzung erheblich vereinfacht, setzt die Europäische, so genannte „INSPIRE-Richtlinie“ (Directive 2007/2/EC) vom 14. März 2007 auf der Ebene des Bundes um. Diese schafft die Grundlagen für den Aufbau einer europäischen Geodateninfrastruktur (*englisch*: **IN**frastructure for **SP**atial **I**nfo**R**mation in the **E**uropean Community)...

Mehr Info siehe:

WEBLOG @ Geospatial SAXONY

- [INSPIRE & GeodatenZugangsGesetz - Infrastruktur für räumliche INFORMATION in der EU]

Infrastructure for Spatial Information in the European Community (INSPIRE)

- [http://www.ec-gis.org/inspire/directive/l_10820070425en00010014.pdf]

31.07.2008 / IGN e.V. [FH].

European Commission - Greenpaper

Copyright in the Knowledge Economy

[http://ec.europa.eu/internal_market/copyright/docs/copyright-infso/greenpaper_en.pdf]

European Commission - Directive 2003/98/EC - PSI

Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information

[http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32003L0098:EN:HTML]
[http://www.epsiplus.net/reports/european_directive_on_psi/directive_2003_98_ec]
[http://ec.europa.eu/information_society/policy/psi/what_is_psi/index_en.htm]

European Commission - Directive 2007/2/EC - INSPIRE

Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) was published in the official Journal on the 25th April 2007. It entered into force on the 15th May 2007

[http://register.consilium.europa.eu/pdf/en/05/st10/st10553.en05.pdf] - Document draft 2005
[http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+JOINT-TEXT+C6-2006-0445+0+DOC+PDF+V0//DE&language=DE] 2007
[http://inspire.jrc.it/] - INSPIRE Document status 2008
[http://inspire.jrc.ec.europa.eu/directive.cfm] - INSPIRE Documents listing
[http://www.ec-gis.org/Workshops/inspire_2008/] - INSPIRE Implementation status
[http://inspire.jrc.ec.europa.eu/directive/l_10820070425en00010014.pdf] - English text
[http://www.bmu.de/umweltinformation/geoinformationen/doc/36544.php] - UBA Info
[http://www.bmu.de/files/pdfs/allgemein/application/pdf/richtlinie_inspire.pdf] - Deutsch

GeoDatenInfrastruktur Deutschland (GDI-DE)

GDI-Deutschland & GDI-Gesetzgebung

[http://www.gdi-de.org/de/f_start.html] [http://www.gdi.sachsen.de/]
[http://www.gdi.bayern.de/] [http://www.gdi.bayern.de/Pressemitteilung_BayGDIG.pdf]
[http://www.stadtentwicklung.berlin.de/geoinformation/geodateninfrastruktur/index.shtml]
[http://www.stadtentwicklung.berlin.de/geoinformation/geodateninfrastruktur/de/efre_foerderung.shtml]

GeoDatenZugangsGesetz - Entwurf - UmweltBundesAmt

Umweltinformation / GeodatenZugangsGesetz - (20080716: Kabinett-Entwurf GeoZG.doc**)**

[http://www.bmu.de/files/pdfs/allgemein/application/pdf/geozg_entwurf_begr.pdf]
[http://www.bmu.de/umweltinformation/aktuell/1786.php]
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