



Earth Observation Use and Requirements in Germany

12th UIC meeting, Melbourne, Australia (Sept. 2009)

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German Group on Earth Observations (D-GEO)



D-GEO

Germany supports GEO and its goals:

- Initiative to implement GEOSS nationally
- Until 2008: rotating chair in Executive Committee
- Co-chairs since GEO V: UIC and STC
- Annual financial contribution to GEOSEC
- Support of GEO Tasks and Committees
- Support via the European Program GMES

BMVBS is mandated to implement GEOSS in D:

- D-GEO: national planning and coordination entity
- National Implementation Plan with yearly work plans
- Regular reports to national organisations, e.g. Interministerial Committee for Geo Information (IMAGI)



A

German Group on Earth Observations (D-GEO)

Main activities in 2009, e.g.

- National showcases for successful GEOSS usage (“D-GEO flagships”)
- Facilitate registration of German components in GEOSS
- Strengthen working relationships to relevant national organizations
- Enter discussions on data policy (literature analysis)
- Further develop and expand national geodata infrastructure
- Outreach to relevant (user) groups, e.g. national S&T community
- User requirement studies

... 2009 ...

... 2010 ...

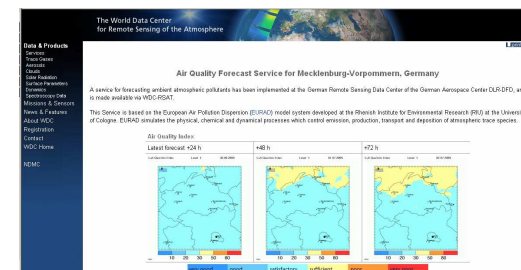
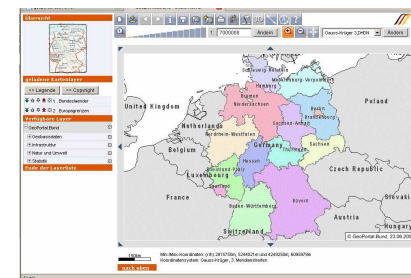


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German Group on Earth Observations (D-GEO)

German contributions to GEOSS, e.g.

- **GeoPortal.Bund:**
Main access point to the GeoData Infrastructure Germany (GDI-DE); developed and operated by BKG.
- **Global Precipitation Climatology Centre (GPCC):**
Supplies global precipitation analyses for climate monitoring and research; under auspices of WMO and operated by DWD.
- **Global Runoff Data Centre (GRDC):**
Global repository of river discharge data and associated metadata; under auspices of WMO and operated by BfG.
- **ICSU World Data Centers (WDC):**
Climate – Climatology (MPI-M + DKRZ)
MARE – Marine Environmental Sciences (AWI, MARUM)
RSAT – Remote Sensing of the Atmosphere (DLR)
TERRA – Lithosphere and Geodesy (candidate) – (GFZ)



B

Requirement studies for national GEOSS implementation



B

Requirement studies for national GEOSS implementation

National GEOSS Implementation Plan (D-GIP)

- **Objective:** prepare a national strategy for German participation in GEOSS
- Based on literature research, expertise and activities of participating bodies and an survey among users of geoinformation
- Adapted to changing needs during implementation process (i.e. living document)
- The D-GIP links strategic goals of GEOSS with national interests
- Helps decision-makers in the „Geoinformation services“ policy field to realize benefits of GEOSS with regard to national issues
- Current strategy contains 13 recommendations
- Available at http://www.d-geo.de/docs/dgip_en.pdf

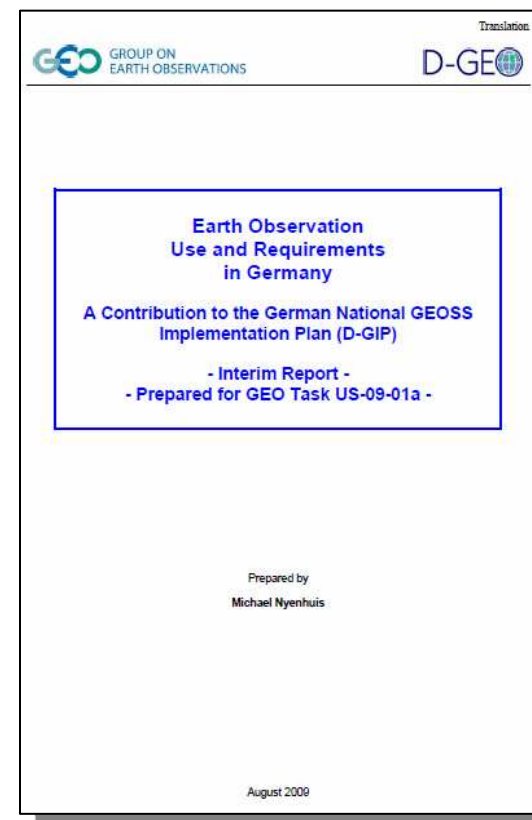


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Requirement studies for national GEOSS implementation

“EO use and requirements in Germany”

- Interim report compiled for US-09-01a on request of GEOSEC
- Contains results of existing studies on EO needs of national users (currently 2 studies)
 - D-GIP user requirements study
 - Satellite based EO use and requirements for statutory tasks of BMVBS
- 5 SBAs covered so far (D-GIP study): Weather, Climate, Water, Ecosystems and Biodiversity
- User requirement study builds a key basis for the D-GIP and will be updated accordingly
- Study on EO use and needs of private sector organizations in progress to estimate economic potential of geodata held by administrative bodies



B**Requirement studies for national GEOSS implementation****“EO use and requirements in Germany”****Contents (D-GIP user requirement study):**

- Overview of key initiatives and responsible organisations (e.g. ministries and agencies; scientific org.) in the field of Earth observation
- Current use of EO data and associated EO technology for different applications
- Emerging shortcomings and requirements
- Assessment of anticipated changes of demand for EO data (in view of future technological developments and availability of EO systems)

Further information & contacts via D-GEO (<http://www.d-geo.de/>):

- Enable access to mentioned documents
- Provide contacts to (German) initiatives and organisations
- Email: michael.nyenhuis@uni-bonn.de

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Requirement studies for national GEOSS implementation



GeoBusiness

GIW-Kommission

German GeoBusiness Commission (GGC)

Background:

- Set up in 2004 by the German government represented by the Federal Ministry of Economics and Technology (BMWi)
- Members are German Economic Umbrella Associations from business sectors interested in geoinformation

Objective:

- Demonstrate and enhance and the added value of administrative bodies' geoinformation for private sector organisations

Fields of action:

- Lead projects
- Awareness campaigns, www – campaigns, networking with other boards
- Studies on general conditions (e.g. pricing models, terms of use, privacy)

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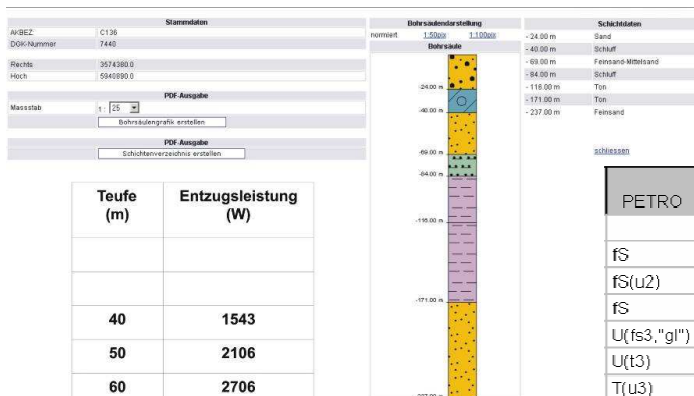
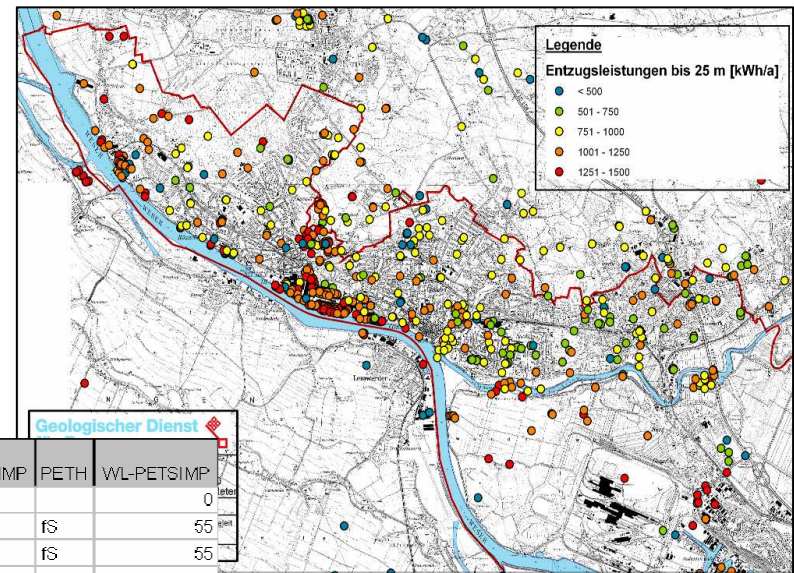
Requirement studies for national GEOSS implementation



„GeoEnergie“

(Lead project on Geothermal Conditions)

- Business Case for companies dealing with trade and facility management
- e.g. ~ 2 Million borehole datasets available in Germany
- Challenge: gather & analyse distributed geoinformation for decision support



Teufe (m)	Entzugsleistung (W)
40	1543
50	2106
60	2706
70	3306
80	3893
90	4493
100	4948

PETRO	PETRO-SIMP	PETH	WL-PETSIMP
fS	fS	fS	55
fS(u2)	fS(u2)	fS	55
fS	fS	fS	55
U(fs3, "gl")	U(fs3)	U	35
U(t3)	U(t3)	U	35
T(u3)	T(u3)	T	35
U(t4)	U(t4)	U	35
fS(u4)	fS(u4)	fS	55
fS(u2)	fS(u2)	fS	55
fS(^brk)	fS	fS	55

Source: Geological Service HH

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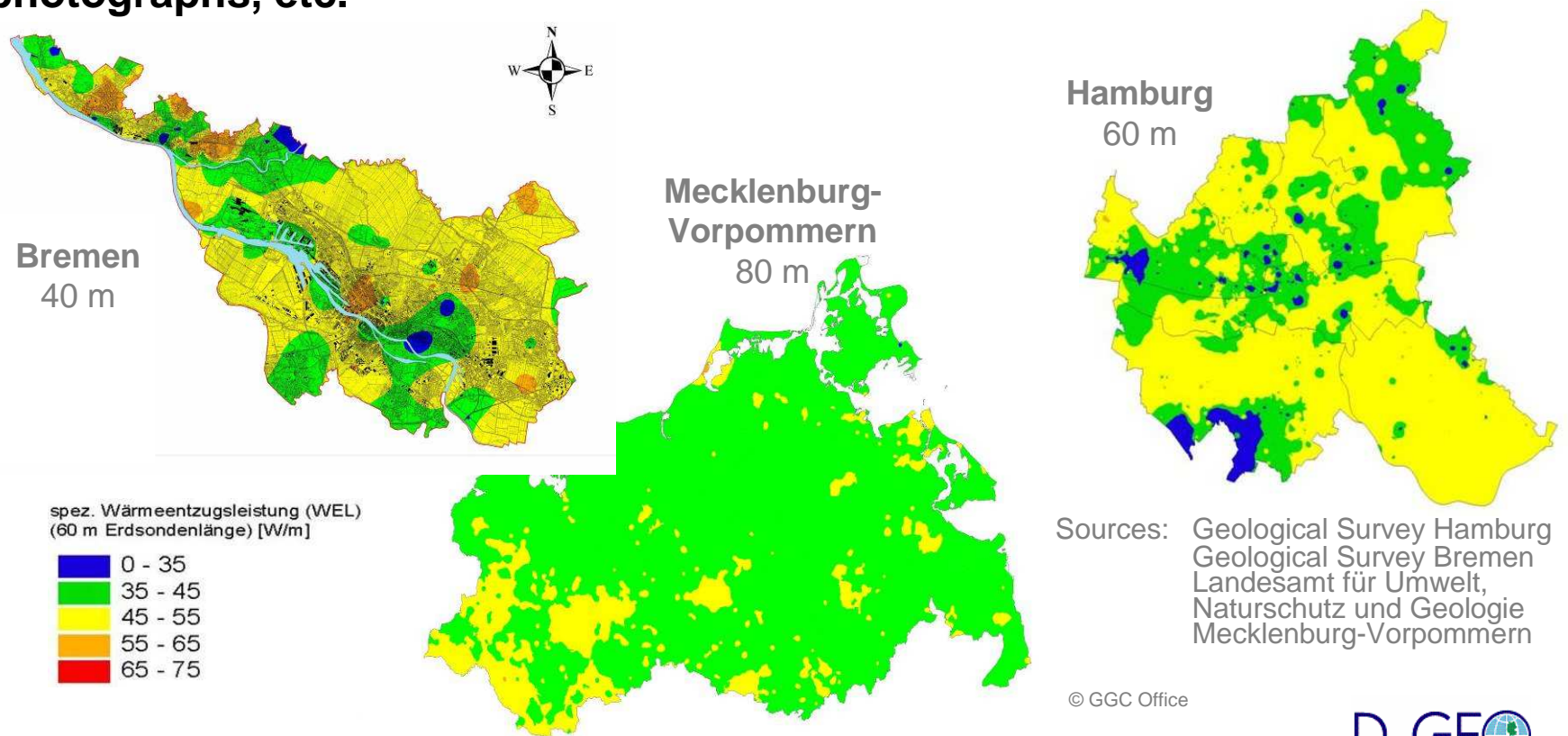
Requirement studies for national GEOSS implementation



„GeoEnergie“

(Lead project on Geothermal Conditions)

- **Results:** Maps of heat extraction power that can be combined with additional spatial information, e.g. water conservation areas, cadastral information, air photographs, etc.





Thank you!

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A

German Group on Earth Observations (D-GEO)

Roles and responsibilities

- **Ministry of Transportation, Building and Urban Affairs (BMVBS):**
In charge of GEOSS implementation in Germany; UIC Co-Chair
- **German Weather Service (DWD):**
Head of German GEO delegation; ADC
- **Federal Institute of Hydrology (BfG) & University Bonn (commissioned) / German GeoBusiness Commission (GGC) :**
UIC
- **Federal Agency for Cartography and Geodesy (BKG):**
ADC
- **Federal Institute for Geosciences and Natural Resources (BGR):**
CBC
- **German Aerospace Center (DLR):**
D-GEO Secretariat; STC Co-Chair