Session 8B1

"GEO-INFORMATION FOR A SUSTAINABLE FUTURE ENERGY SUPPLY"
- benefits, needs for action -

Organised by EUROGI Member the German Umbrella Association for Geospatial Information

8 October 2014, 11:00 - 12:30
At the same time the 6. Deutsches GeoForum

Moderator:
Peter Ladstaetter, CEO, Ladstätter Geoinformatik, Co-author of the DDGI position paper on GI and Energy Policy

Rapporteur:
Wolfgang Steinborn, European delegate of DDGI, German Aerospace Centre, Bonn

11:00 Introduction by the moderator
11:05 Keynote one
GIS at the Central Data Entry and Integration Platform in a Large Electricity Utility
Florian Brandl-Dohrn, Manager International Business, AED-SICAD AG

11:25 Keynote two
Information priorities for the transition to renewable energies in France
François Salgè, Senior advisor to the director general for spatial planning, housing and nature, Ministry of ecology, sustainable development and housing and ministry of housing, territories equality and rural policy

11:45 Panel Discussion

12:25 Conclusions

~ 25 participants
Europe must reduce its dependency from energy import with energies available here -> renewable energies

EU-28 Energy Import Dependency

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<tr>
<td>Total</td>
<td>43.0%</td>
<td>46.7%</td>
<td>52.2%</td>
<td>52.7%</td>
<td>53.9%</td>
<td>53.4%</td>
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<td>Solid Fuels</td>
<td>21.5%</td>
<td>30.6%</td>
<td>39.4%</td>
<td>39.4%</td>
<td>41.7%</td>
<td>42.2%</td>
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<td>of which Hard Coal</td>
<td>29.7%</td>
<td>42.6%</td>
<td>55.7%</td>
<td>57.9%</td>
<td>62.3%</td>
<td>62.5%</td>
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<td>Petroleum and Products</td>
<td>74.0%</td>
<td>75.7%</td>
<td>82.1%</td>
<td>84.4%</td>
<td>85.1%</td>
<td>86.4%</td>
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<td>of which Crude and NGL</td>
<td>73.0%</td>
<td>74.5%</td>
<td>81.3%</td>
<td>84.6%</td>
<td>85.5%</td>
<td>87.8%</td>
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<td>Natural Gas</td>
<td>43.4%</td>
<td>48.9%</td>
<td>57.1%</td>
<td>62.1%</td>
<td>67.1%</td>
<td>65.8%</td>
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From presentation Menna

Renewable energy means:
• De-centralised supply (bottom-up rather than top-down as before)
• Energy availability varying over short periods (range of 0.2% - 56 % contribution was quoted)
-> challenge to ICT to handle big and real-time data and produce predictions
Exploitation of renewable energies is a cross-border task:

- Sources belong to more than one country (e.g. North Sea)
- X-Border transport networks are needed for high and medium voltages to smoothen peaks and outages
GIS is indispensable to master the challenge (speeds up planning, manages grids etc.). ICT and utilities industry has developed the right technology, but

- Necessary are data from the local level which are not ready to integrate into ntl. or European GIS (FR maritime GIS has 100 layers, some data were on paper only)
- X-Border infrastructure for exchange of Big Data is insufficient

From presentation Brandi-Dohrn
CONCLUSIONS

1. The geographic dimension of the sustainable future energy supply is gradually recognised by politics.

2. Implementation of INSPIRE interoperability standards must reach the local level.

3. ICT needs a boost towards big and real-time data integration and analysis (predictive analytics).

4. Public acceptance of energy plants, storage and transmission lines etc. must also be supported by GIS.

The DDGI position paper of 2012 describes the situation well and is in line with findings in France.