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FIG

Bridging the Gap: About Integrating Survey and GIS

Opening Speech at the ESRI „Survey and GIS Summit - Bridging the Gap 2003“
San Diego, 6th July, 2003

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FIG What will you hear in the next 30 minutes?

Introduction

1. GIS as a key infrastructural component with immense value and benefits for surveyors as well as for spatial planners and scientists;
2. Despite the progress within GIS development further efforts to bridge the still existing gap between different standards have to be made;
3. The relationship between Surveyors and GIS is outstandingly strong as the surveyor is the classical expert for spatial data acquisition;
4. The FIG supports the development and use of GIS through its Commission 3 that is closely intertwined with its other commissions and leading GIS experts and GIS industry;
5. GIS is no end in itself – doing GIS requires more than just coping with technical aspects;
6. GIS – a bridging role for disciplines and professions;
7. GIS and survey – from partnership to integration for a sustainable world;

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FIG 1. GIS as a key infrastructural component with immense value and benefits for surveyors as well as for spatial planners and scientists

The information contained in GI-datasets is a key infrastructural component carrying immense value;

But it is not only the value of the datasets we also profit from the ability of GI-Systems to analyze, compare and combine them in their complex spatial context;

Nevertheless it took about 10 to 15 years that GIS became popular amongst surveyors and universities – But today it has become a commodity;

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FIG 2. Despite the progress within GIS development further efforts to bridge the still existing gap between different standards have to be made

We have to force an interdisciplinary understanding of object oriented information

Following organization are trying to achieve this goal:

- **IMAGI** (Interministerial Committee for Geoinformation, Germany)
- **EuroGeographics** (Association of Europe's National Mapping Agencies, Europe)
- **FGDC** (Federal Geographic Data Committee, USA)
- **GSDI** (Global Spatial Data Infrastructure, Worldwide initiative)

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FIG 3. The relationship between Surveyors and GIS is outstandingly strong as the surveyor is the expert for spatial data acquisition

FIG's vision of surveyors competence:
Once having started with ‚data gathering‘ surveyors have moved on to ‚data modeling‘ and now they strongly should go towards the ‚**integrated competence of land, property and construction managing**‘.

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FIG 4. The FIG supports the development and use of GIS through its Commission 3 that is closely intertwined with its other commissions and leading GIS experts and GIS industry

FIG encourages also knowledge, skills and capabilities of surveyors in the field of GIS.
Here the **appropriate use and further technical development of GIS** is amongst others **needed as key tool** in order to provide a successful field work.

Our commissions do not only cooperate within FIG but also outside with other international organizations and industries

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5. GIS is no end in itself – doing GIS requires more than just coping with technical aspects

- Surveyors must develop good skills in all their subject areas and should be open minded to an interdisciplinary cooperation.
- Today a surveyor as well as every other professional dealing with space, spatial and socio-political etc. topics has to master both **general competence** and **special knowledge** in one or more fields of surveyor's range or vice versa.
- What is needed is the **'well grounded specialized generalist'**

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6. GIS – a bridging role for disciplines and professions

The common interest in GIS brings together individuals from different spatial sciences and disciplines.

So sharing of experience and know-how is also the aim of most conferences dealing amongst other topics with GIS in spatial sciences and disciplines.

For example the **most important annual European**, possibly even most important global, surveying event the german DVW run **INTERGEO** is **visited not only by surveyors but by other "spatial professionals"**, too

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7. GIS and survey – from partnership to integration for a sustainable world

"Geography and GIS are necessary tools if we are willing to sustain our world" (*Dangermond, J.: 2003 cited after ESRI: ArcNews Online*).

GIS's contribution to sustainability ...

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7. GIS and survey – from partnership to integration for a sustainable world

GIS's contribution to sustainability:

1. The databases and the data management used in geodatabases contribute to an **economically sustainable data storage** and sustainable use of the core of every GIS-application – and represents a vast amount of **highly valuable geodata** about our world and its environment.
2. GIS projects and systems can **help to get a better understanding for processes and problems of our world** and therefore contribute to a sustainable use and management of resources, environmental protection and last but not least to a more just world.

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7. GIS and survey – from partnership to integration for a sustainable world

It's ultimate time for integration

Recent Situation: Own GIS-World ↔ Own Survey-World

Current Situation: GIS ↔ (cooperation/collaboration) ↔ Survey

Future Reality: **GIS & Survey**
Integrating GIS & survey towards an entity

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7. GIS and survey – from partnership to integration for a sustainable world

Many thanks for your attention