

Petr KUBÍČEK, Zdeněk STACHOŇ, Milan KONEČNÝ, Tomáš Řezník LGC, MU Brno

27. 1. 2014

## Situace na VŠ

- Málo na **technických oborech** + vysoký podíl nedokončení studia.
- Nesoulad mezi volbou uchazečů o studium a poptávkou po absolventech na trhu práce.
- Bakalářské studium uplatnění (zaměření na odborný základ).
- Doktorské studium zaměření, uplatnitelnost a zájem?
- neschopnost spolupracovat s aplikační sférou;
- podpora výzkumu a vývoje na vysokých školách nakupovaný výzkum.
- profilace vysokých škol záměr novelizace VŠ zákona – profesní, akademické a výzkumné.
- malý zájem VŠ na realizaci dalšího vzdělávání
- OPVK, OPLLZ.



# **Geographic Information: Need to Know**

- Towards a more demand-driven geospatial workforce education/training system
- An EC funded project under the Lifelong Learning Program
  - WP3



- 2006: GIS&T BoK 1 (DiBiase) and others
  - To address the new educational challenges in the field
  - Aimed to be a comprehensive inventory of the GIS&T knowledge domain
  - " ... caused a great deal of excitement (FT: and related activity) in the domain community. Although a number of papers discussed the importance of using BoK ...actual implementation have been limited" (Ahearn, 2013)



## **GIS&T BoK1**

- 350 topics organized in 79 units and 10 knowledge areas.
- Each topic is accompanied by terms of one or more educational objectives
- Learning path definitions
- Reasons for use:
  - Professional certification
  - Checklist / inspiration for individual lecturers
  - Benchmarking
  - Curriculum classification
  - Curriculum development

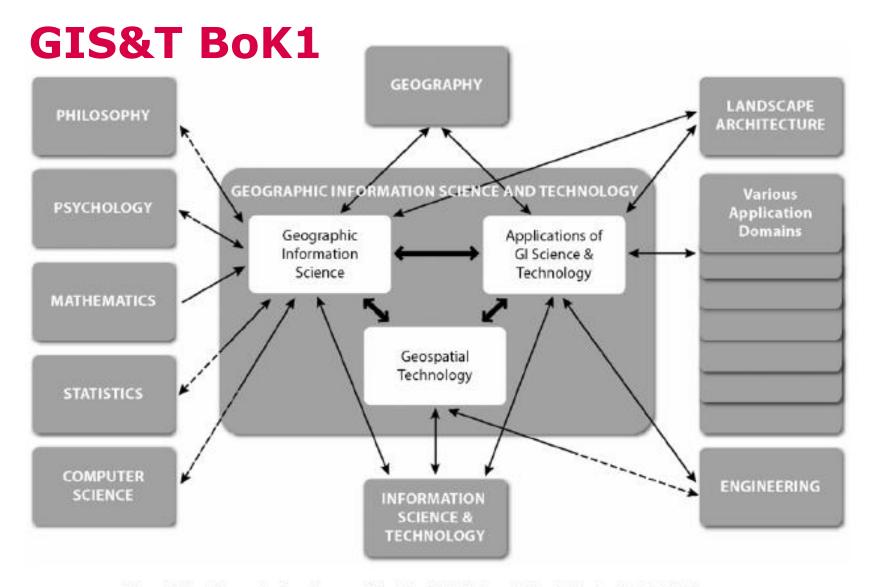


Figure 1: The three sub-domains comprising the GI S&T domain, in relation to allied fields. Two-way relations that are half-dashed represent asymmetrical contributions between allied fields.

From: Reinhardt & Toppen, 2008



- Critical approach:
  - Practical use limited
  - US perspective
  - Missing elements
- Use of GIS&T BoK in the European perspective

#### **BoK Goals:**

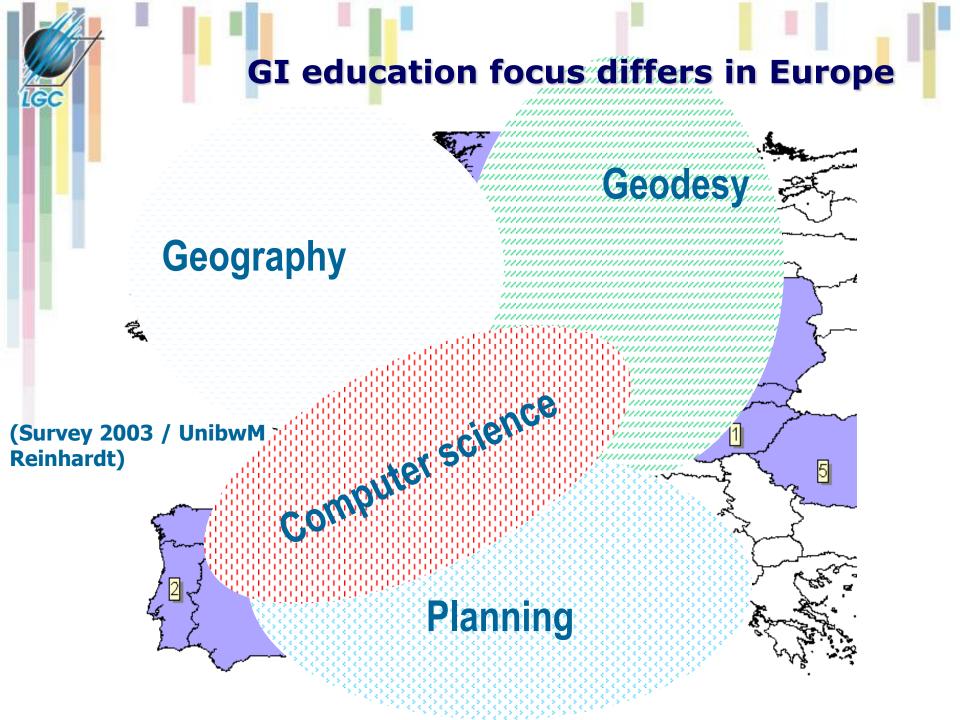
- •Curriculum planning→
- •Program accreditation→
- Program evaluation and assessment >
- •Curriculum revision→
- •Program articulation→
- •Professional certification→
- •Employee screening→

#### **EU** perspective:

- Bologna; new (MSc) degrees
- Bench marking (as part of ..)
- Bench marking
- Check for completeness and relevance
- Student mobility (Erasmus,
- **Bologna**)
- Role for EU professional
- organisations
- Role for EU professional organisations

# **European thoughts / initiatives**c. Completeness checking (Reinhardt)

- Missing (among others):
  - Computer sciences related issues
  - SDI
  - GI Standards
  - GI services
- Placement in topics/units/areas: hierarchy
- But, completeness is hard to define ...and is not the same throughout Europe



## GI N2K - Goal of the project

To make the geospatial workforce training system more demand-driven and flexible by producing an advanced European-authentic and dynamic GI S&T BoK.

### **Objectives of the project**

- to analyze the demand of private and public sector with the existing academic and vocational training offer
- to revise the BoK with technological developments, emerging new knowledge areas and European context
- to develop toolsets for the maintenance and use of the BoK and to define vocational and academic curricula, define job profiles,...
- to **test** the BoK, its toolsets and guidelines
- to promote and disseminate the dynamic GI S&T BoK and toolsets





## The project is divided into 8 work packages:

- WP1 Analysis of demand and supply
- WP2 Revision of the Body of Knowledge
- WP3 The Virtual Lab for the BoK: VirLaBok
- WP4 Testing & Validation
- WP5 Quality assurance
- WP6 Dissemination
- WP7 Exploitation and Sustainability
- WP8 Management



## **Objective**

- Analyze the current situation...
  - 1. Demand for GI S&T education and training
  - 2. Supply of GI S&T education and training
- Involvement of all partners
  - Contribute to assessment of education programs
  - Testing, communicating, promoting the survey
- Link to BoK
  - Analysis will use BoK content and concepts
  - Analysis will contribute to revision of the BoK



#### GI - Need To Know

Help us to make GI education fit for the future!

http://gi-n2k.limequery.com/index.php/survey/index/sid/962297/newtest/Y/lang/en





Geographic Information: Need to Know - towards a more demanddriven geospatial workforce education/training system

European project under the Life Long Learning Programme

#### Help us to make GI education fit for the future!

Our domain - Geographic Information Science & Technology (GIS&T) - is constantly changing. To keep up to date with market demands, GIS&T education needs to closely follow technological development and societal issues.

The aim of this survey is to identify today's and future workforce needs to educate GIS&T experts accordingly.

We need YOUR help in reaching this aim:)!

For the GI-N2K survey team,

Dr Barbara Hofer, Mag Christoph Traun, Dr Gudrun Wallentin

University of Salzburg | Interfaculty Department of Geoinformatics - Z\_GIS Hellbrunnerstrasse 34 | 5020 Salzburg, Austria



#### Privacy statement

We respect your privacy. Only non-identifiable data will be stored and answers will not be connected to email addresses.





With your help, the EU Erasmus project "Geographic Information: Need to Know" (GI-N2K) will produce an overview of the demand for geo-information competences by employers, teaching such competences in Europe.

This is the questionnaire about GI teaching on offer, the Supply side. You receive this via your National Contact person for GI-N2K in your country. We ask you cordially to spend some it. The contact person has agreed to be available for assistance in case you encounter any problems with the questionnaire. The time you will need to fill in this questionnaire ranges between

Please help us to map the GI teaching landscape by answering our questions before February 5th! Results of the questionnaire will be available in the summer of 2014.

Your data and e-mail address will not be forwarded to anyone else, nor will they be used for any other purpose than evaluating the survey.

Thanking you in advance,

Ir. Frans Rip / Dr. Ron van Lammeren

Wageningen University | Laboratory of Geo-information Science and Remote Sensing Droevendaalsesteeg 3 | 6708 PB Wageningen, the Netherlands

Start the questionnaire



The GI-N2K project is funded by the 2013 Call EAC/S07/12 (2012/C 232/04) of the European Union's Erasmus Lifelong Learning Program

Last modified: Mo

## http://www.geo-informatie.nl/projects/gi-n2k/

