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The curriculum of Geo Media & Design and an example of the working practice: Key Register Large Scale Topography (BGT)

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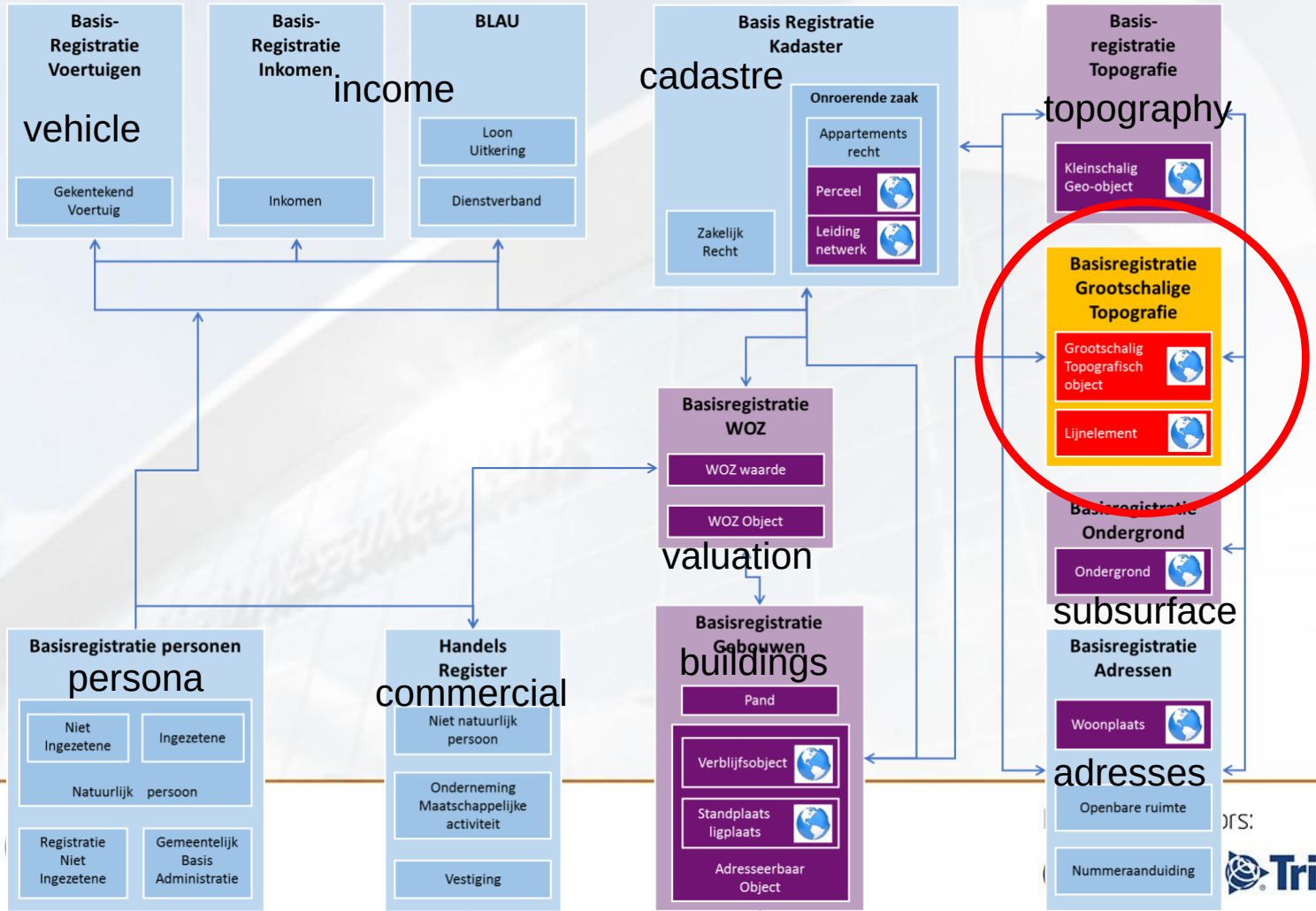
Vision: sustainable curriculum

- Up to date
  - Technology
  - Society
  - In line with needs of working practice and students
- How to do?
  - An example of the Netherlands
    - Key Register Large Base Topography (BGT)
    - Geo, Media & Design

Key Registers NL



Key Register Large Base Topography (BGT)

Participants:
Ministry of Economic Affairs (1)
Ministry of Defence (1)
Waterboards (21)
Municipalities (386)
Provinces (12)
Ministry of Infrastructure and the Environment (Rijkswaterstaat) (1)
ProRAIL (1)

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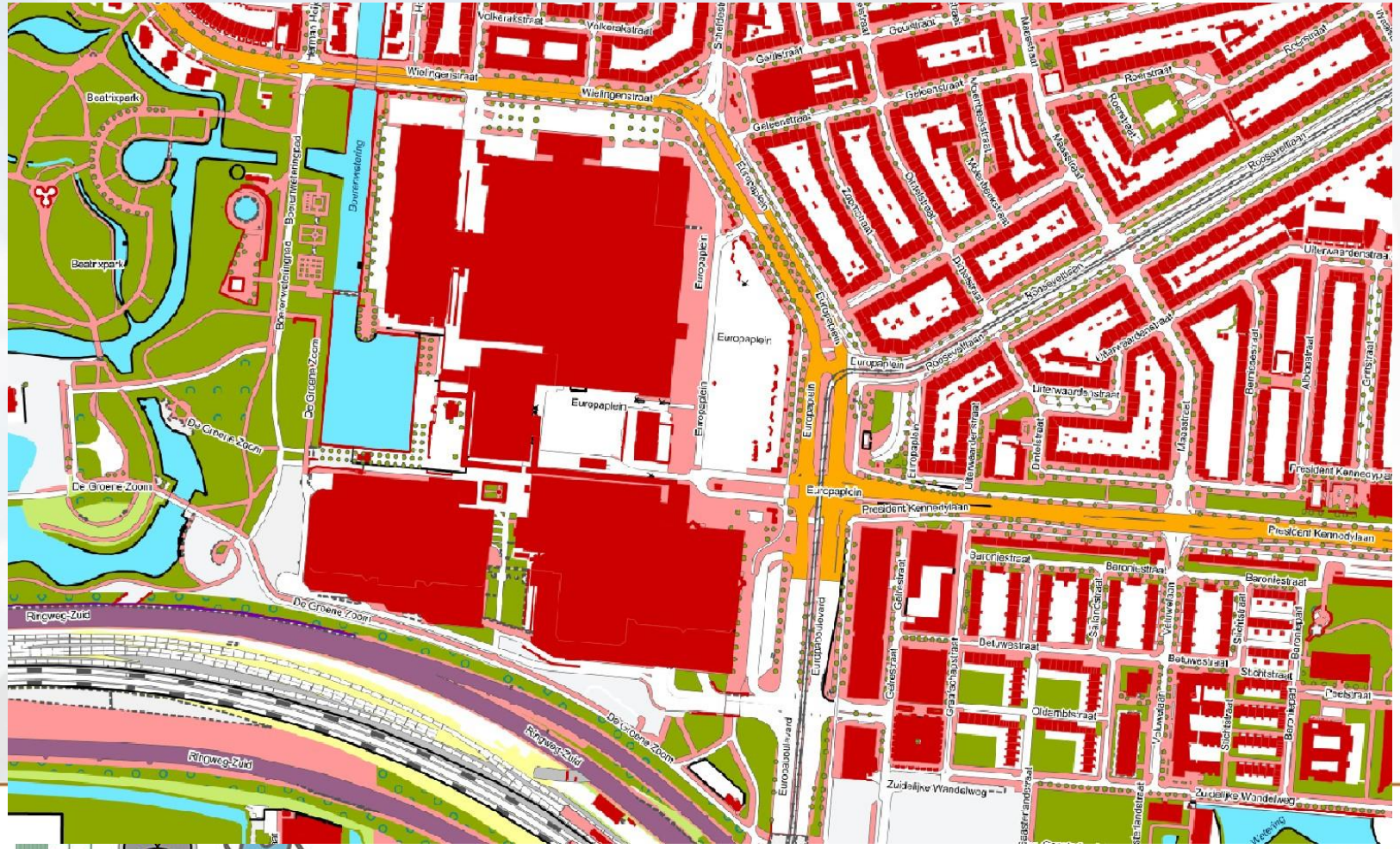
Example BGT: conference location FIG workingweek 2020



Involved Actors & competencies needed (I)

Stage	Context	Knowledge	Skills	Attitude
Production	Data Collecting	Data standards	information use	Accurate
		Geodesy	software	Practical
				Inquisitive
				Broad Interest
	Data Processing	Data standards	software / GIS	Accurate
		Geodesy		Technical
				Practical
				Critical
	Quality Control	Data standards	application domain	Technical
		Geodesy	information use	Critical
			software / GIS	Experimental
			data administration	Client-oriented
				Inquisitive

Involved Actors & competencies needed (II)

Stage	Context	Knowledge	Skills	Attitude
Enabler	Data Visualization	Data standards	software / GIS	Communicative
		Cartography	information use	Technical
				Client-oriented
				Integrating
				Creative
				Artistic
				Overview
	Project Management	Data standards	proces overview / integration	Independent
		Geodesy	application domain	Communicative
			people management	Client-oriented
			financial management	Integrating
			information use	Abstract
				Enterprising
				Overview

Involved Actors & competencies needed (III)

Stage	Context	Knowledge	Skills	Attitude
Business	Information Usage:	General standards	software / GIS viewer	Client-oriented
	* citizen		application domain	Integrating
	* government			Solution Oriented
	* entrepeneur			Enterprising

Geo Media & Design (GMD), HAS University of Applied Sciences

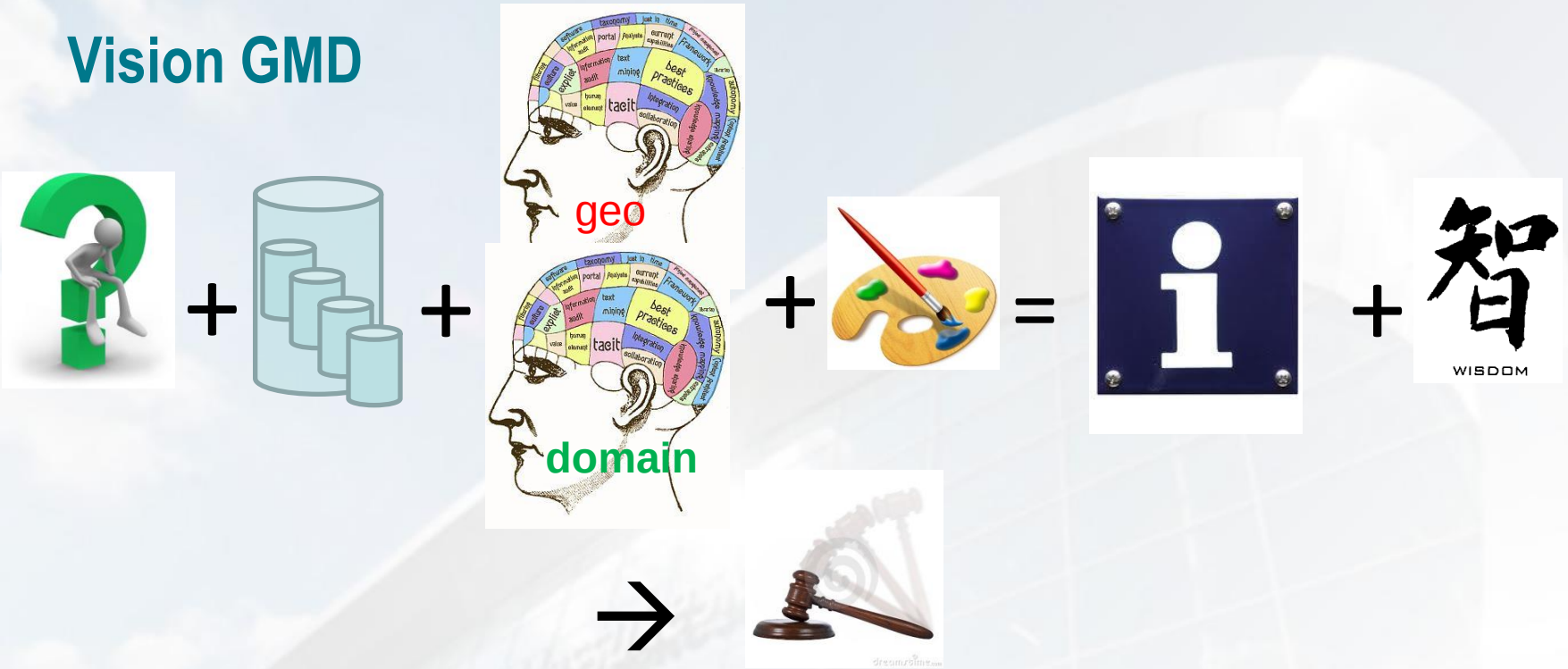
- Started in 2012, first graduates (14) last summer
- Started with 20 students, now (september 2017) almost 100
- Developed in conjuction with working practice (SAGEO and Geobusiness NL)

- Curriculum: 4 year bachelor
  - **G**eo: spatial aware
  - **M**edia: hard-, soft-, orgi-ware and data
  - **D**esign: visualisation (cartography, infographics) and user interface design

- More info:
  - https://has.nl/en
  - http://geomediadesign.nl/info/

has university of applied sciences

Vision GMD



question + data + (geo + application domain) competencies + visualisation → **information** + wisdom → decision (support)

Competencies GMD

specific to Geo Media & Design

- 1. Designing and implementing spatial information systems *
- 2. Designing and developing geo-information *
- 3. Geographical theory and methods
- 4. Spatial visualisation and visual interaction *

specific to HAS University of Applied Sciences

- 5. Sustainable development of the green domain
- 6. Initiating and supervising creative and innovative processes *
- 7. Enterprising and opportunity-focused working methods

generic in higher professional education in the Netherlands

- 8. Project-based working methods *
- 9. Communication *
- 10. Working on personal and professional development

*
Important for BGT

Comparison BGT & GMD competencies

- Program manager is too much for first or second job
- End-user point of view is well incorporated
- Maintenance of data (quality control) is difficult to incorporate

Conclusion

- Comparison is fruitfull, gives an improved curriculum, although ...
  - Working practice uses different terminology
  - More contact is needed in development of curriculum (reality check both ways)
  - Differences in scope (only one process or educating for more)

Questions??