

*Generalization Operators for
Practice – A Survey at NMAs*

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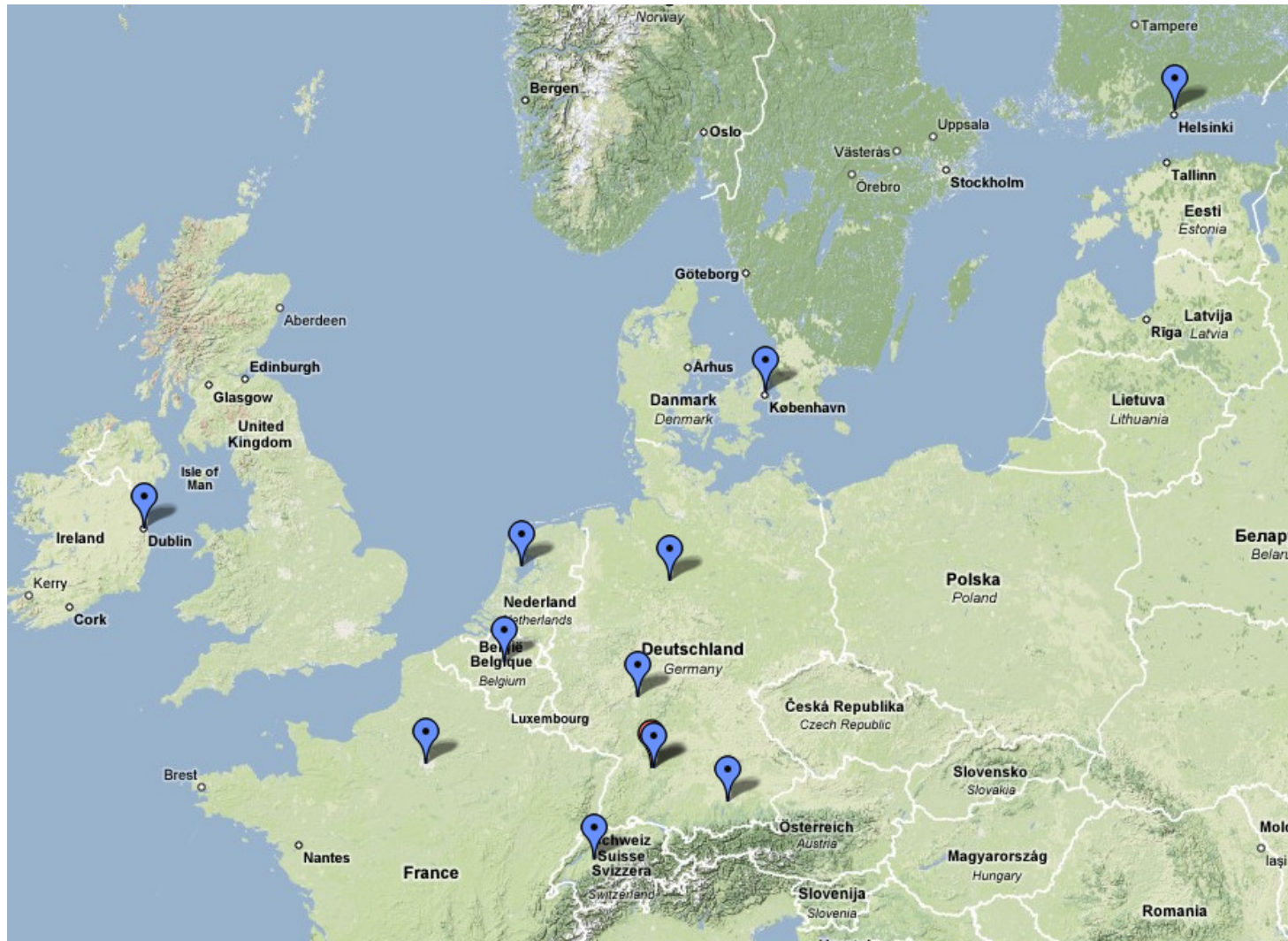
11th ICA workshop on automated generalization
and multiple representation

20th June 2008, Montpellier, France

Motivation

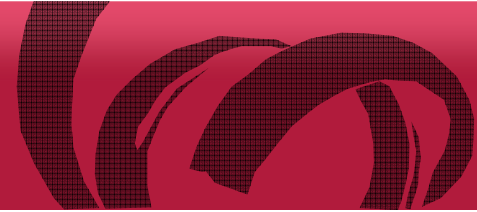
- Operators play a key role in generalization
 - Encapsulate generalization functionality
 - Lots of surveys are carried out
 - Rieger & Coulson (1993)
 - OEEPE
 - EuroSDR project about the research on state-of-the-art of generalization
 - NMAs are striving towards automated generalization
 - Demands and communalities of NMAs towards operators still unknown
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- ➔ Survey on operators at NMAs
 - ➔ Focus on topographic data
 - ➔ Results are relevant to the research community and software suppliers

Participants



11 NMAs from 8 Countries

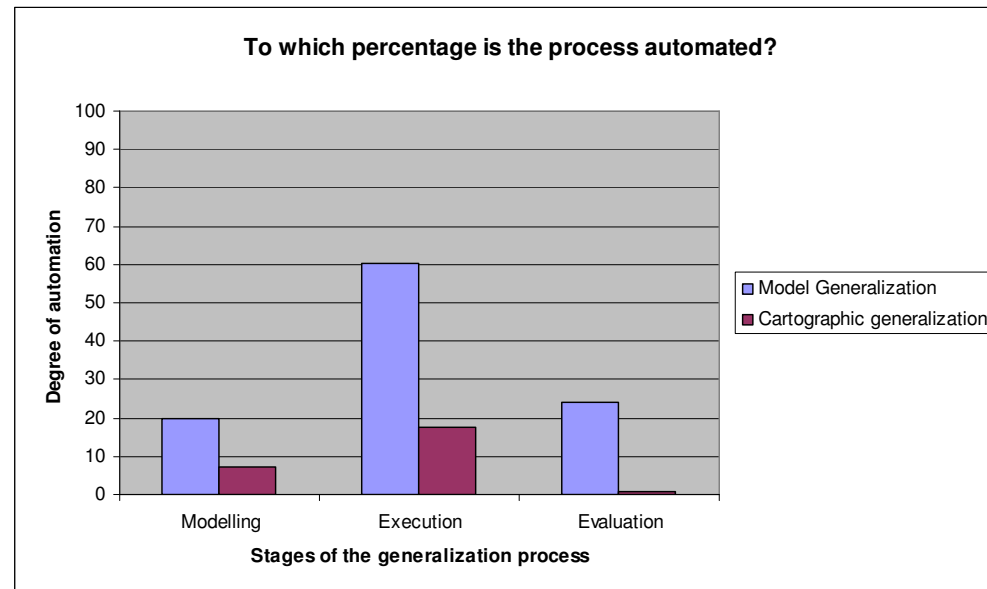
Survey Structure



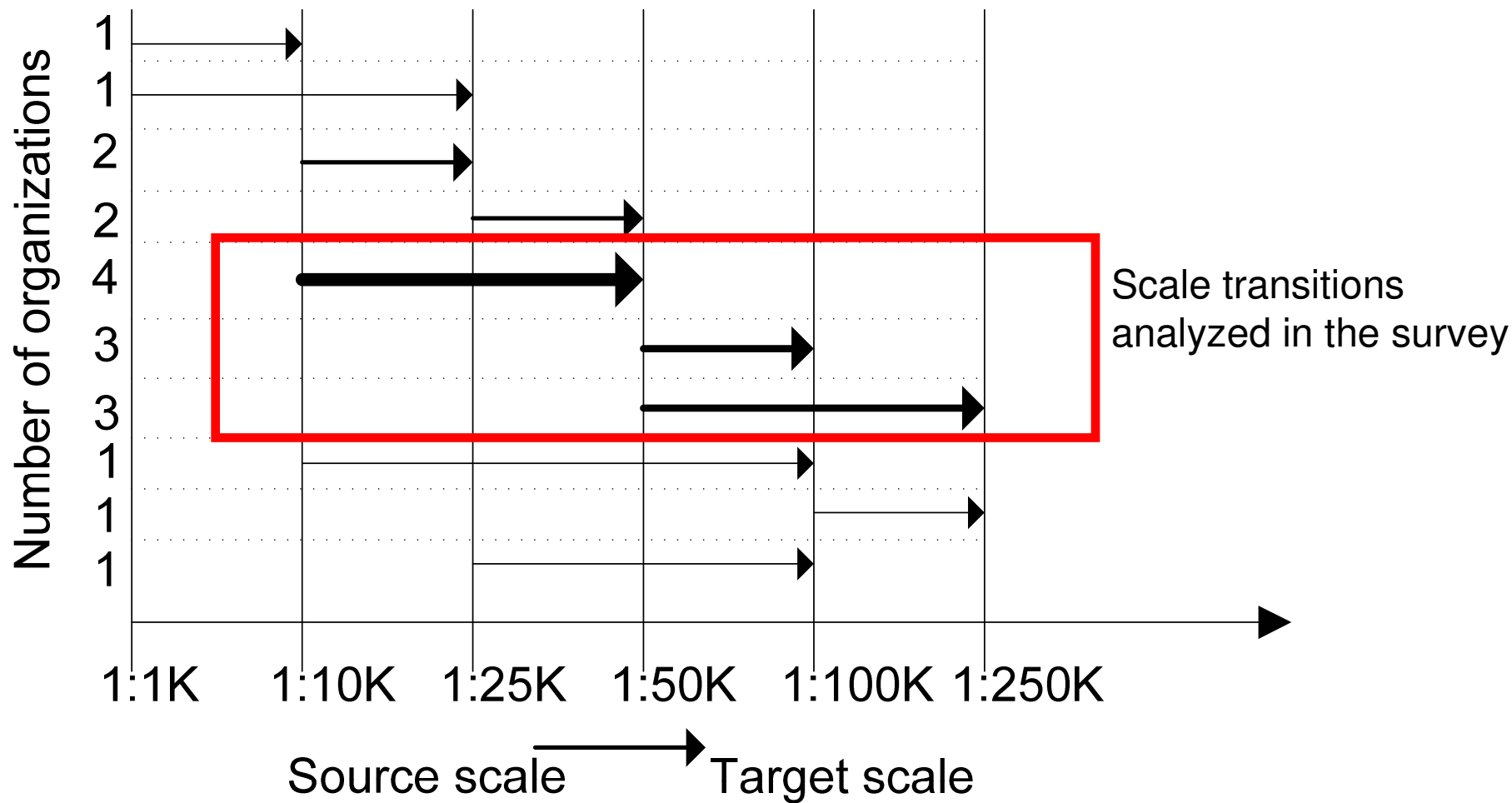
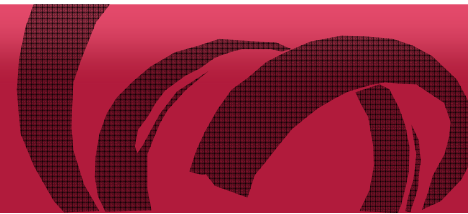
- Overall generalization process
 - Produced products (data vs. map)
 - Model vs. Cartographic generalization
 - Software environment
 - Degree of automation
 - Modeling
 - Processing
 - Automation
- Generalization operators in detail
 - Per supplied scale
 - Importance of geometries vs. topographic classes
 - Importance of operators vs. topographic classes
 - Problematic of operators vs. topographic classes
- Operators classification of Foerster et al. (2007):
Towards a formal classification of Generalization operators, ICA 2007.

Preliminary results - part I

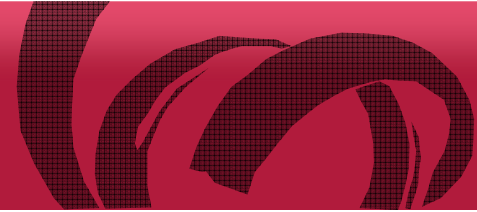
- 2/3 separating production of map & model generalization
 - Easing production process
- However, separation of model vs. cartographic generalization is not strict
 - Cartographic generalization operators already applied in Model generalization



Supplied scales - part II



Preliminary results – part II



- Importance of topographic classes vs. geometry type
 - Building and landcover are important at large scale
 - Small scales has less polygons but more lines
- Importance of model generalization is high at transition towards small scales
- Problematic generalization operators vs. feature types
 - No problems in model generalization
 - Problems with cartographic generalization operators
 - Displacement
 - Typification

Outlook

- Investigate possible links between the different questions and apply further statistics
- Relate the survey to the geographical setting of the specific countries
 - Is there a classification of European topography?
- Relate the results of the survey with the NMA strategies overview
 - Ladder vs. star approach

Conclusion

- NMAs provide some feedback on low-level functionality
- Some statistical backup on observations
- Survey only investigated sufficiently supplied scale ranges
- Cartographic generalization is still key issue in automated generalization
- In-depth analysis and further linking still required
- Results are relevant to the research community and software suppliers
 - Web Generalization Services

Thanks for your attention!

DURP
ondergronden

Introduction

About us


Documents

Links

Introduction

Generation and use of base maps for integrated querying of digital physical development plans

The Dutch Ministry of Housing, Spatial Planning and the Environment DURP project (Digitale Uitwisseling Ruimtelijke plannen / digital exchange of physical plans) allows for the exchange of digital physical plans. The ITC *DURP base maps* project investigates how the base maps of these physical plans can be designed so as to provide optimal support for the exchange and integration of physical plans. This four-year project examines the way base maps should and can be defined and generated in an Internet environment, in order to support the auditing of physical plans at all levels (municipal, provincial and national).

 RGI 002

Questions?
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