

GEOCODING WITHIN THE GERMAN STATISTICAL SYSTEM- STATE OF PLAY

European Forum for Geography and Statistics

Manchester, 11th October 2019

Agenda

- » Overview
- » Fundamental understanding
- » Query on geocodeable statistics
- » Challenges
- » Development of analysis

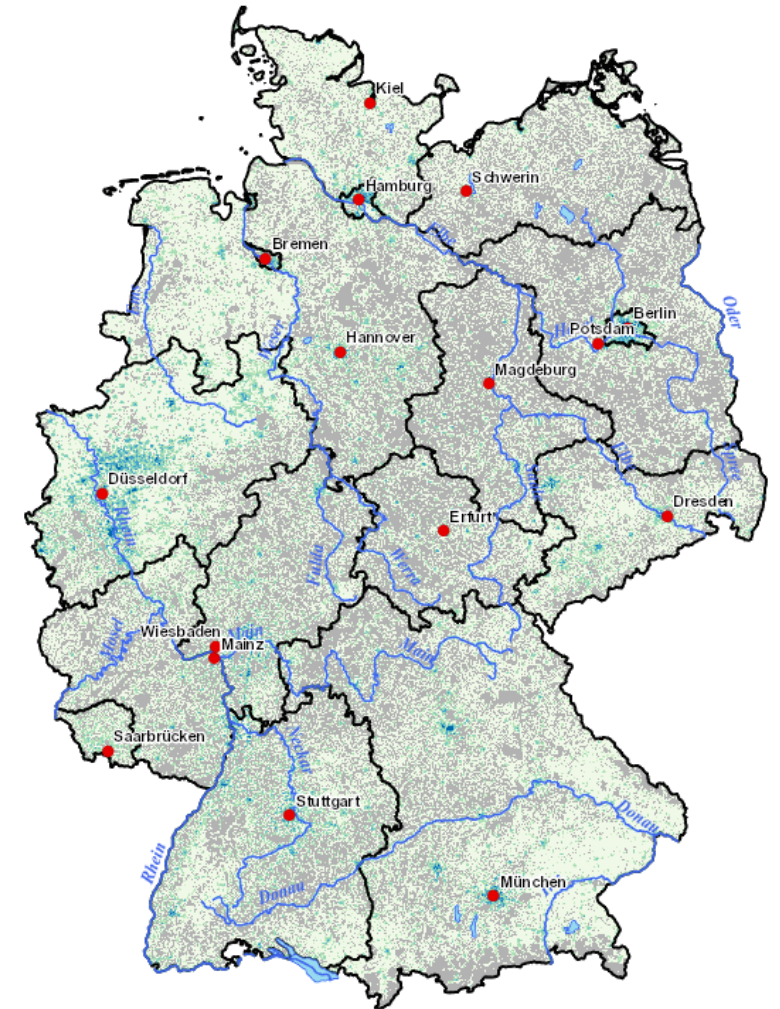
Overview- Federal Statistical System

Laender offices:

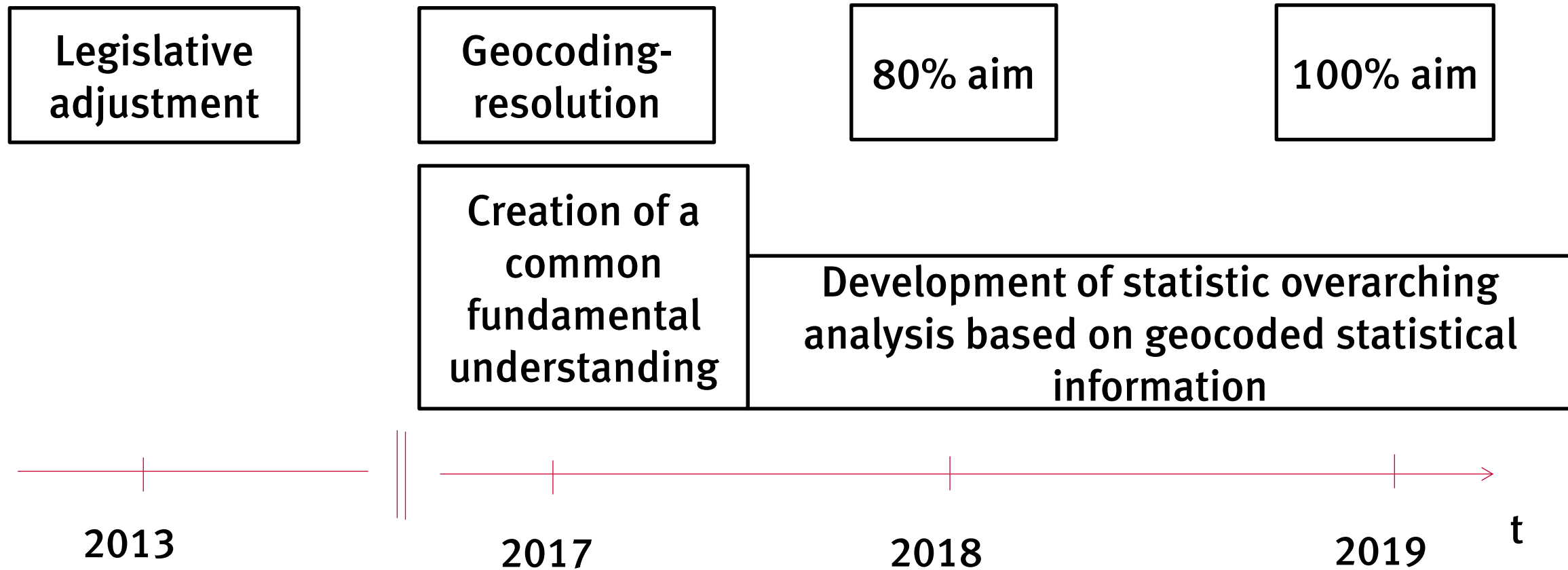
- » Launching statistics, i.e. data collection, dissemination of results up to Laender level

Federal Statistical Office:

- » Development of methods and technical preparations
- » Further development of the program of federal statistics
- » Coordination of statistics
- » Unite and publish federal results
- » International representation



Overview- timeline



Fundamental understanding (I)

- » **Geocoding: “assigning codes related to geographical places”**

Fundamental understanding of georeferenced information:

- » **Establishment of the geocoordinate as a granted attribute in order to provide and disseminate statistical information in an adequate, up-to-date manner and in accordance with international standards.**
- » **The integration of statistical and geographical information creates a cross-statistical analysis potential that goes far beyond small-scale cartographic representations of individual statistics.**
- » **Geocoordinates or grid cells allow links to other statistics or external data sources.**

Fundamental understanding – Potentials (II)

Georeferencing allows for improvements in

... the analysis and dissemination

- » Small-scale cartographic representations
- » Hot spot analyzes (e.g. regions with increased accident risk)
- » Neighborhood and accessibility analyzes also with sample-based statistics
- » Time series creation independent of administrative boundaries

... the methodology and survey conduction

- » sample design
- » survey control (e.g. planning the use of interviewers)
- » improved quality of results compared to interviews (e.g. broadband connection of households)

Query on geocodeable statistics (I)

“Geocodeable“

- » Registers/ Directories
- » Statistics: geocoding of
 - » the statistical unit itself (e.g. Census) or
 - » the unit which provides the information, given a homogenous territorial dimension (e.g. Causes of Death Statistics)
- » Statistics, which will be geocoded later than by the end of 2019 due to serious legal, technical or organisational obstacles (e.g. statistics on marriages)

Query on geocodeable statistics (II)

"Not geocodable"

- » Smallest regional unit corresponds to an administrative unit (e.g. Annual debts of the core households of the municipalities / municipal associations)
- » Heterogeneous regional reference of the reporting office (e.g. foreign trade statistics)
- » Statistics in conception

Challenges

Legal

- » Availability of addresses
- » Use of geospatial information in the Federal Statistical System
- » Restrictions by the purpose stated in underlying statistics law
- » Statistical confidentiality

Organisational

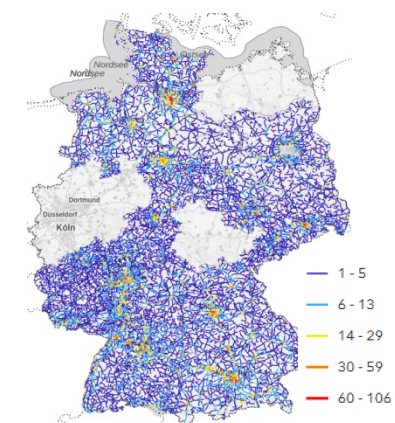
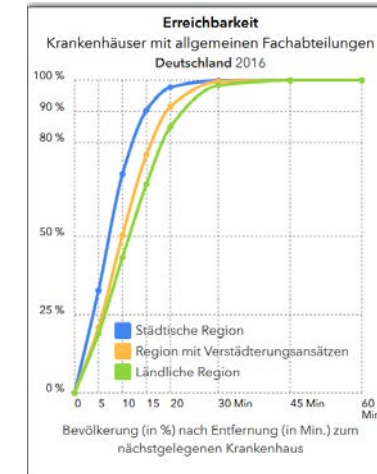
- » Small scale information are collected and owned by Laender Offices
 - » Development of „Model of cooperation“
- » Geocoding of redundant datasets- no integration in the existing statistical production processes yet

Development of analysis based on geocoded information

- » Currently published products:
 - » <https://unfallatlas.statistikportal.de/>
 - » <https://krankenhausatlas.statistikportal.de/>

- » Quotas of SGBII-recipients (cooperation project)
 - » Discussion of the use of non-homogenous grid cells

- » Next project: Analysis of living conditions and housing



Frequency of accidents (road sections) including personal damage

THANK YOU FOR YOUR ATTENTION!

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