Federal Agency for
Cartography and Geodesy

Overviews of Temporal accuracy

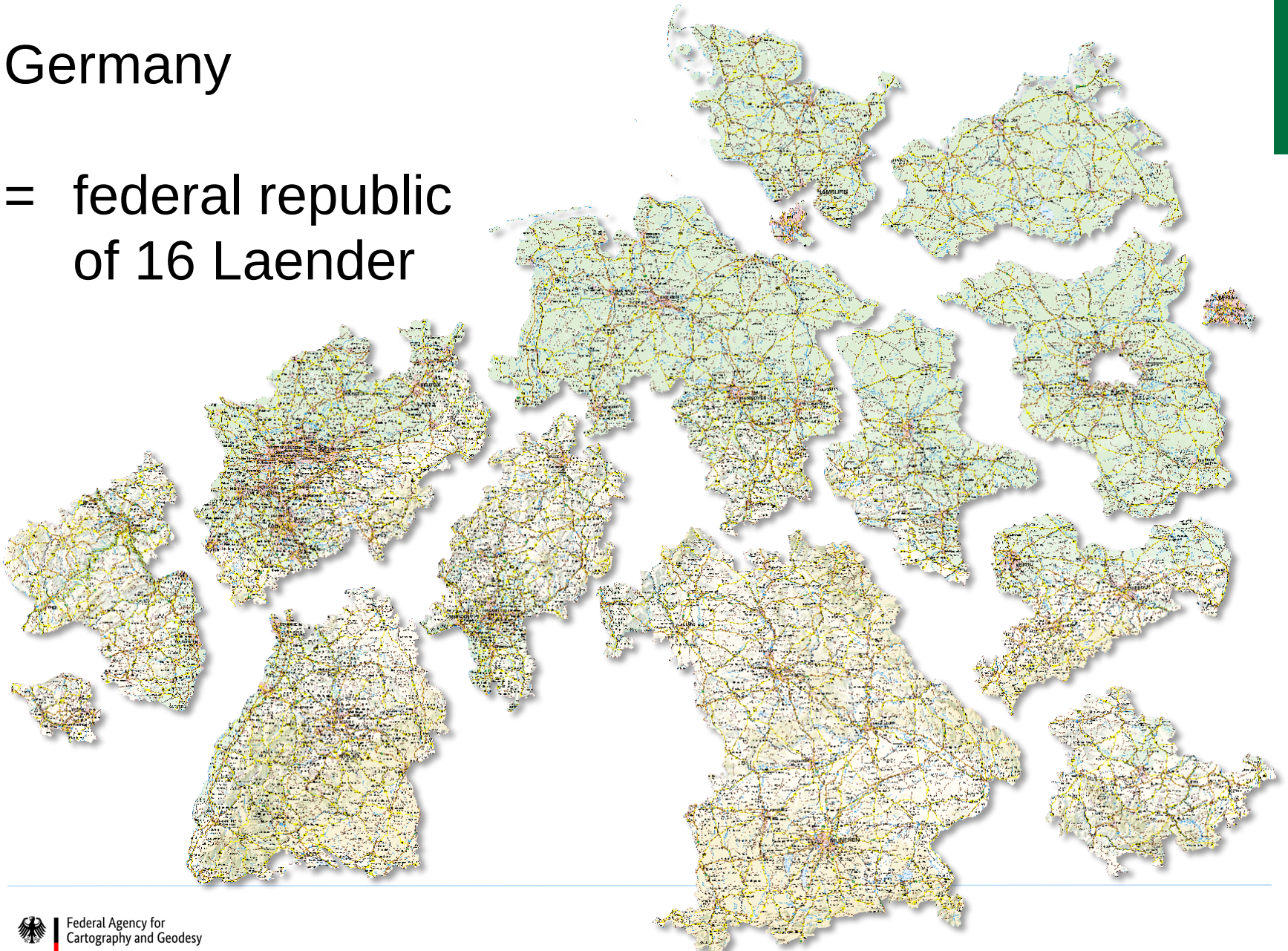
of nationwide datasets provided by the BKG

-

detailed and daily updated

Germany

= federal republic of 16 Laender



The task of the BKG

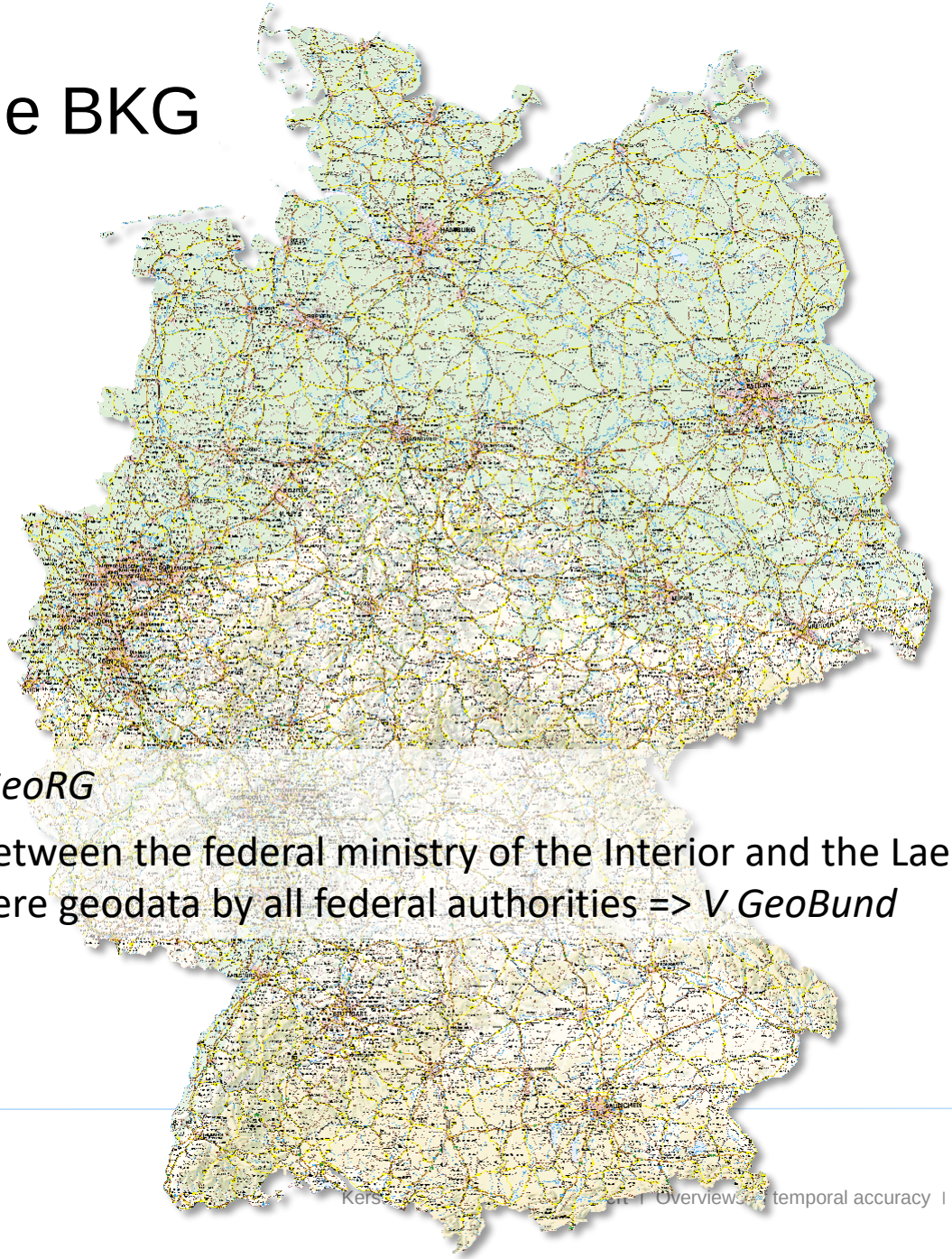
=

to build

one

nationwide

geodatabase

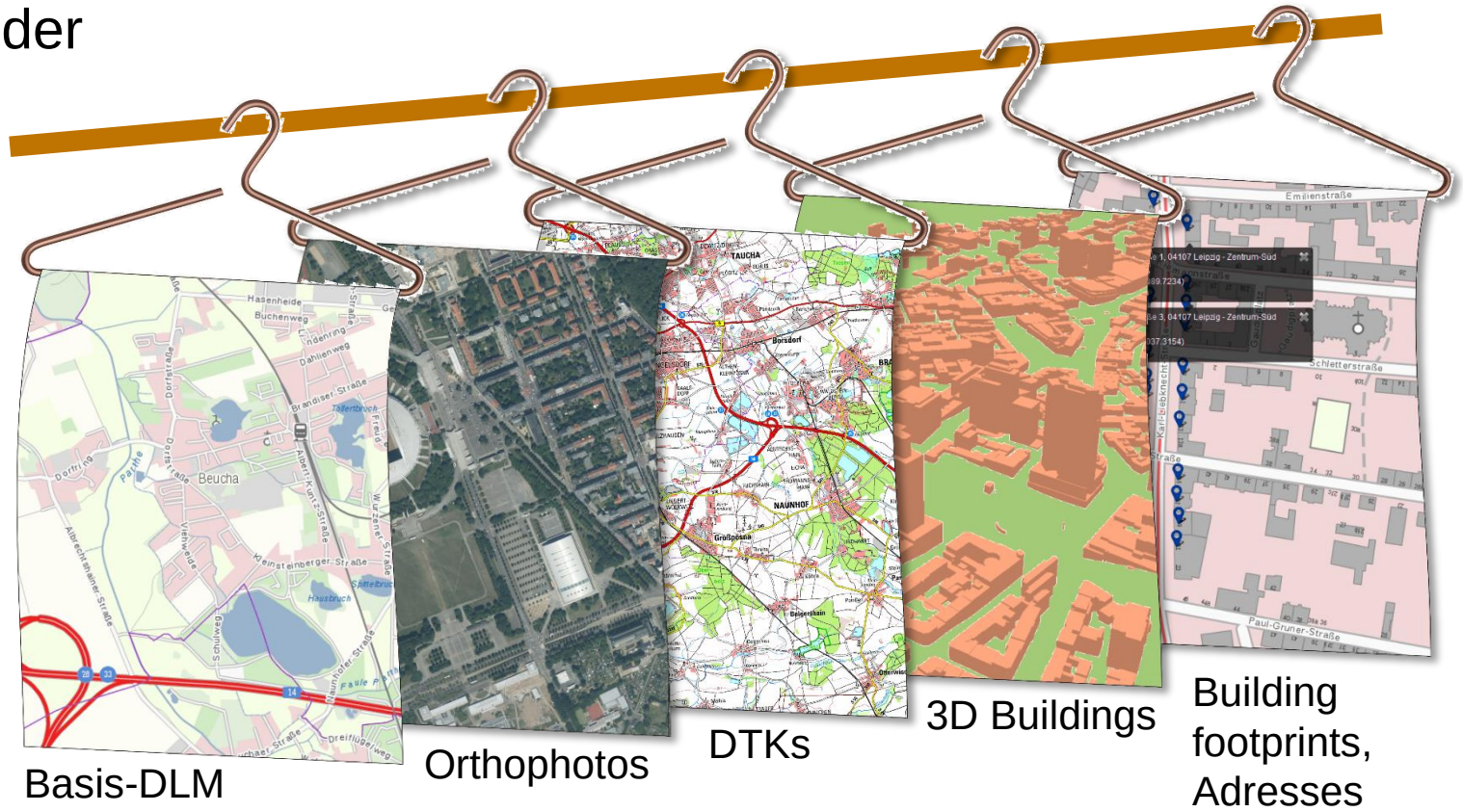


required by law => *BGeoRG*

realised by contract between the federal ministry of the Interior and the Laender about the usage of there geodata by all federal authorities => *V GeoBund*

Products provided by the BKG

Assortment of standard products derived from the datasets of the Laender



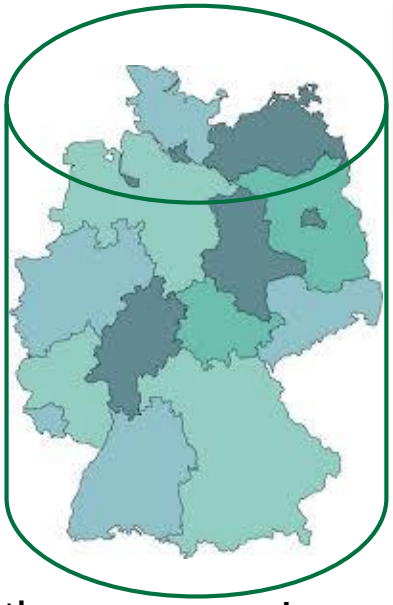
Data integration with quality inspection

general workflow

1. Collect datasets from federal states
2. Create one homogeneous database
3. Update the products of the BKG

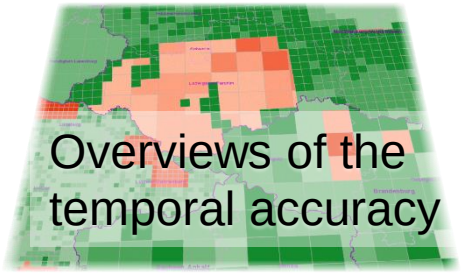
Delivery of data from the states

reception inspection



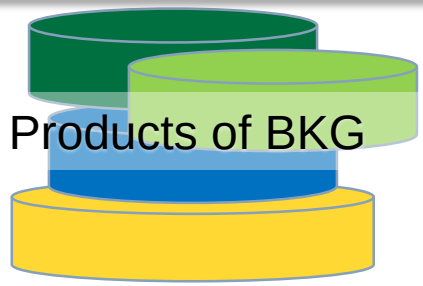
Update of the nationwide database

metadata



Overviews of the temporal accuracy

export



Products of BKG

Inspection of the data content

Test report

metadata of the products

MetaInformationsSystem (AdV)

- ISO 19115
- Static information, valid for the entire dataset

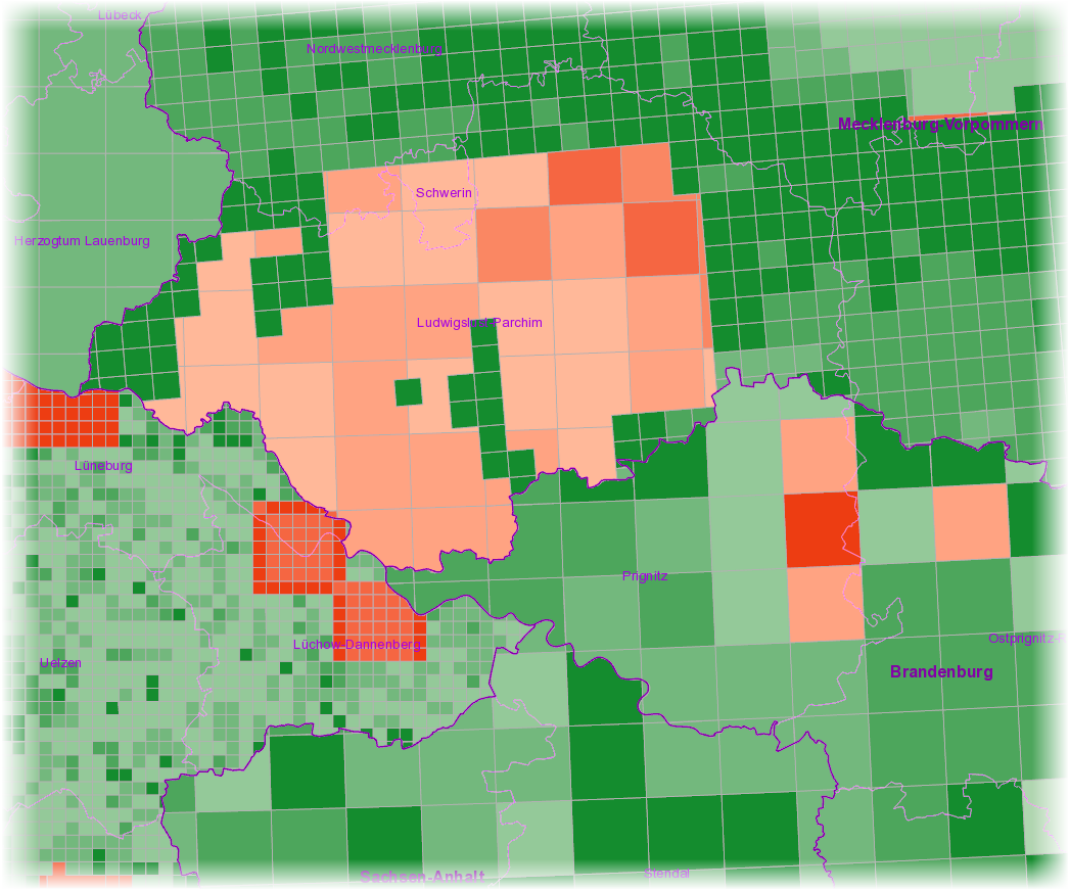
Metadata for our workflow management system

- Attached metadata for each update
- Partitioned into several spatial units (maps, tiles)
- Based on technical guidelines of AdV
- Most important information for customers:

How up-to-date is the data

→ We provide graphical overviews

detailed information about temporal accuracy



User needs information about up-to-dateness in there area of interest

Spatial units are different in:

- shapes (tiles or sheets)
- size
- spatial reference system

Geographical overview is the best way for presenting

Workflow 1

Reception inspection

- Corresponding data structure with definitions in the technical guideline of AdV?
- Corresponding content and number of files with the information in the metadata?
- Is the currency of the data younger then the actual presenting data?

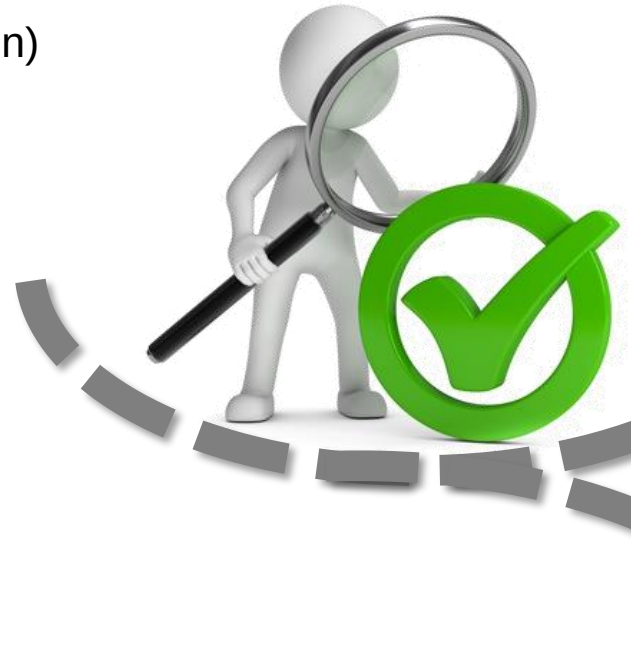
Registration of delivered data portions in the workflow management system

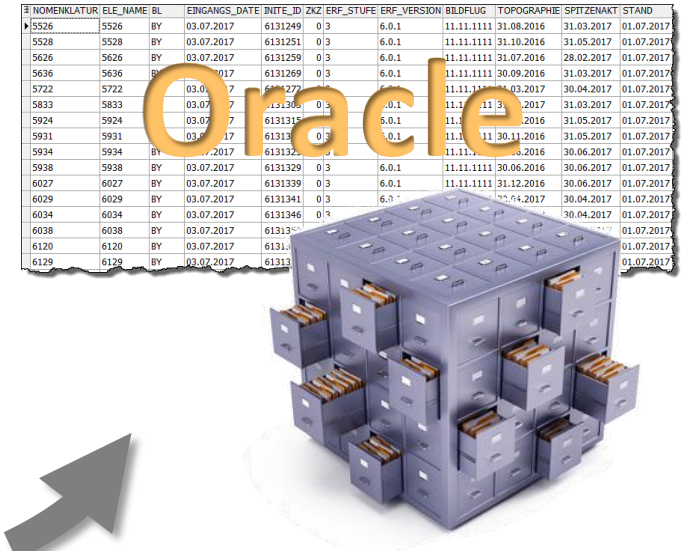
- Oracle-DB without spatial extension
- Processing status queried in list for every spatial unit

Workflow 1

Delivery of Updates
(incl. metadata information)

Reception inspection





NOMENKLATUR	ELE_NAME	BL	EINGANGS_DATE	INITE_ID	ZKZ	ERF_STUFE	ERF_VERSION	BILDFLUG	TOPOGRAPHIE	SPITZENAKT	STAND
5526	5526	BY	03.07.2017	6131249	0	3	6.0.1	11.11.1111	31.08.2016	31.03.2017	01.07.2017
5528	5528	BY	03.07.2017	6131251	0	3	6.0.1	11.11.1111	31.10.2016	31.05.2017	01.07.2017
5626	5626	BY	03.07.2017	6131259	0	3	6.0.1	11.11.1111	31.07.2016	28.02.2017	01.07.2017
5636	5636	BY	03.07.2017	6131269	0	3	6.0.1	11.11.1111	30.09.2016	31.03.2017	01.07.2017
5722	5722	BY	03.07.2017	6131272	0	3	6.0.1	11.11.1111	31.03.2017	30.04.2017	01.07.2017
5833	5833	BY	03.07.2017	6131305	0	3	6.0.1	11.11.1111	31.03.2017	31.03.2017	01.07.2017
5924	5924	BY	03.07.2017	6131315	0	3	6.0.1	11.11.1111	31.03.2016	31.05.2017	01.07.2017
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6129	6129	BY	03.07.2017	61313...	0	3	6.0.1	11.11.1111	31.03.2017	30.04.2017	01.07.2017

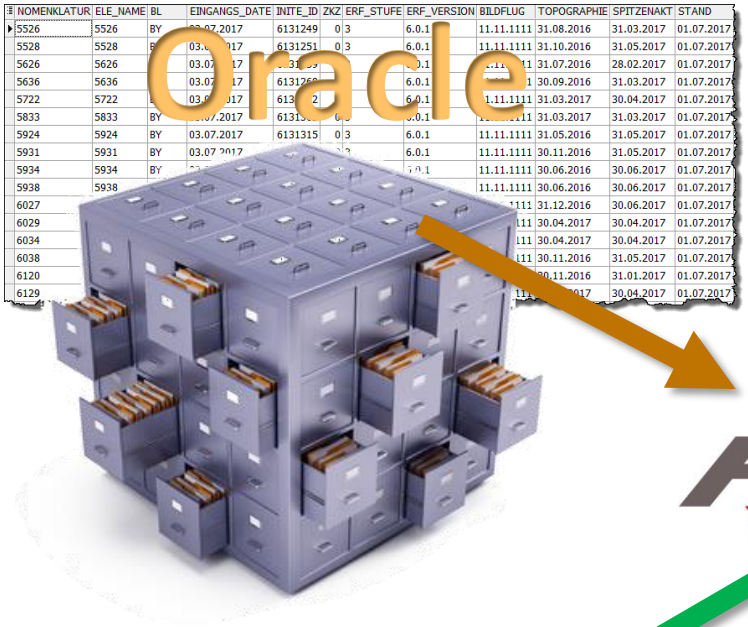
Registration of metadata

Update data

...

Workflow 2

Joining metadata information with footprints of spatial units



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5636	5636	BY	03.07.2017	6131359	0	3	6.0.1	11.11.1111	30.09.2016	31.03.2017	01.07.2017
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6129	6129	BY	03.07.2017	6131520	0	3	6.0.1	11.11.1111	30.11.2016	30.04.2017	01.07.2017

Shapefile
(for download)

PostGIS

Workflow 2

Footprints of spatial units in geodatabase

- Filebased GDB or PostGIS
- Clipped by state boundaries
- Tiles and Maps can overlap
- Different spatial reference systems (UTM32, UTM33, GK3)

Software FME

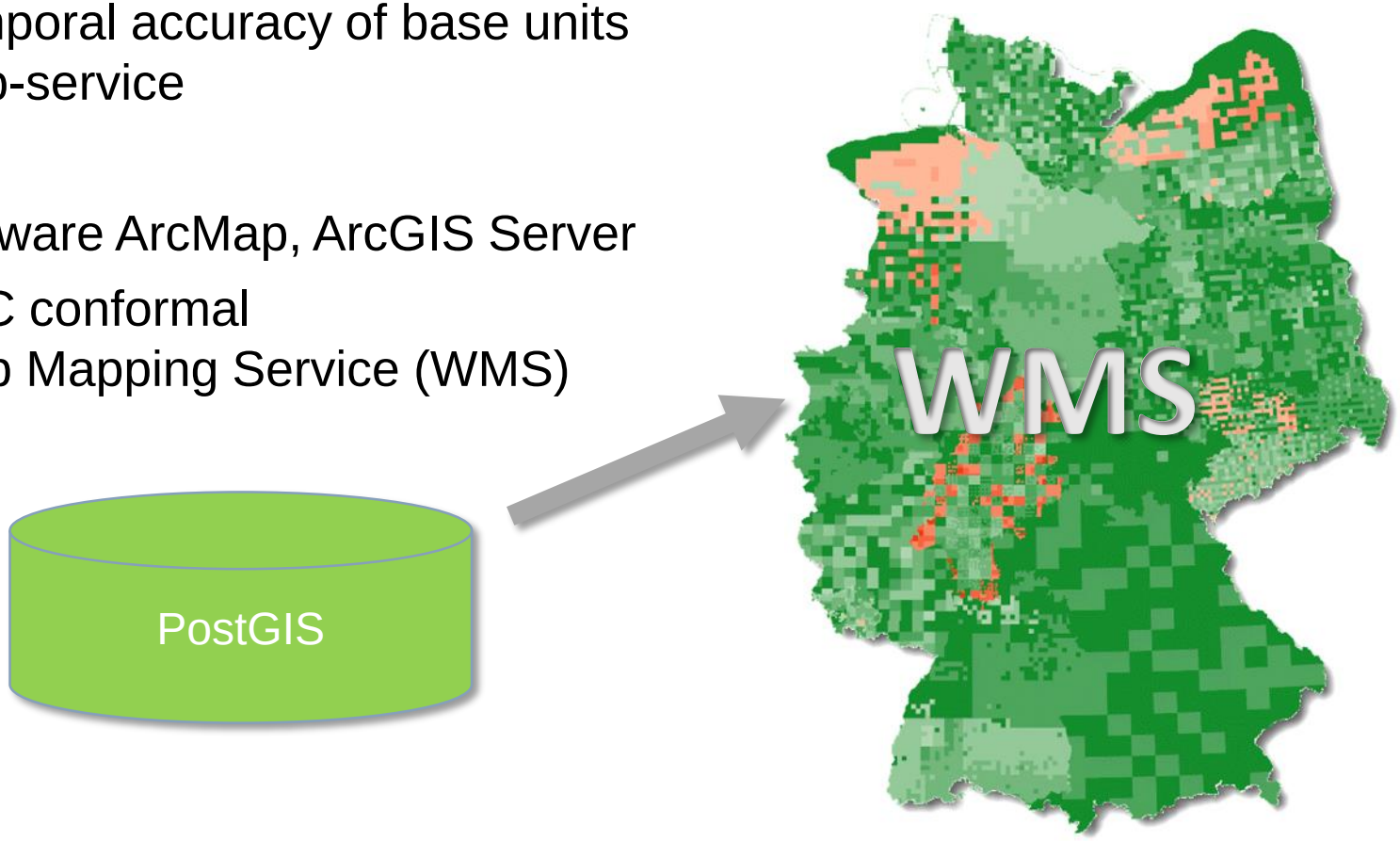
- Joins metadata information in the Oracle database and footprints of spatial units with the same ID
- Scheduled Job in FME Server works every night → daily update

Workflow 3

Publishing of spatial information about the temporal accuracy of base units via web-service

→ Software ArcMap, ArcGIS Server

→ OGC conformal
Web Mapping Service (WMS)



Workflow

Why did we choose this way?

- All kind of information in the internal workflow management system are secured, but metadata shall be accessible for everyone.

Access to information in Oracle only for internal processing

Free access to information about temporal accuracy of datasets

Workflow - Joint operation of departments

→ Best possible way to use the expertise of every employee in section GI5 and GI6

Cooperation between experts for

- AdV datasets,
- Oracle Database,
- ArcGIS,
- FME and
- Webservices

Benefit for the Service Center and the users.

Overviews of temporal accuracy

examples

Basis-DLM:

http://sg.geodatenzentrum.de/web_bkg_webmap/applications/info/dlm.html

DTK100 (digital topographic maps 1:10000):

http://sg.geodatenzentrum.de/web_bkg_webmap/applications/info/dtk100.html

Digital Orthophotos:

http://sg.geodatenzentrum.de/web_bkg_webmap/applications/info/dop.html

Thank you for your kind attention!

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