



Federal Agency for
Cartography and Geodesy



Requirements analysis for a raster data management system

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TOPICS

TOP1: Background information

- Why do we need a new system?
- Project management
 - Actual state analysis
 - Target/to be-analysis
 - Market analysis

TOP2: Discussion; Q&A

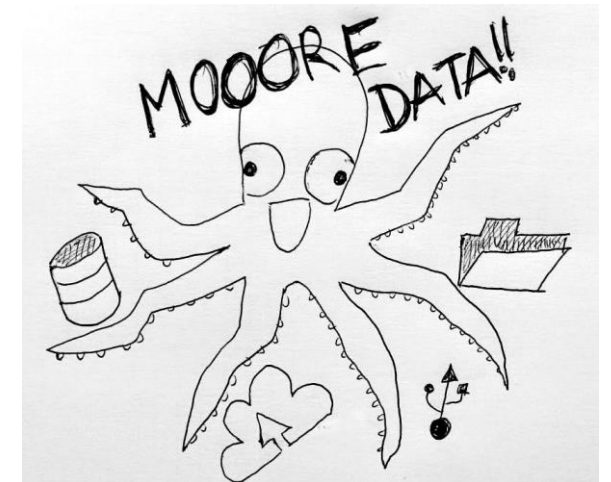
- Input experience with similar projects
- Lessons learned



BACKGROUND INFORMATION

- BKG is dealing with a huge amount of raster data
- Data is annually increasing
- data is stored differently (file system, database)
- different workflows for data integration depends on product
- Metadata is not linked to raster data

Conclusion: BKG needs a system to manage raster data



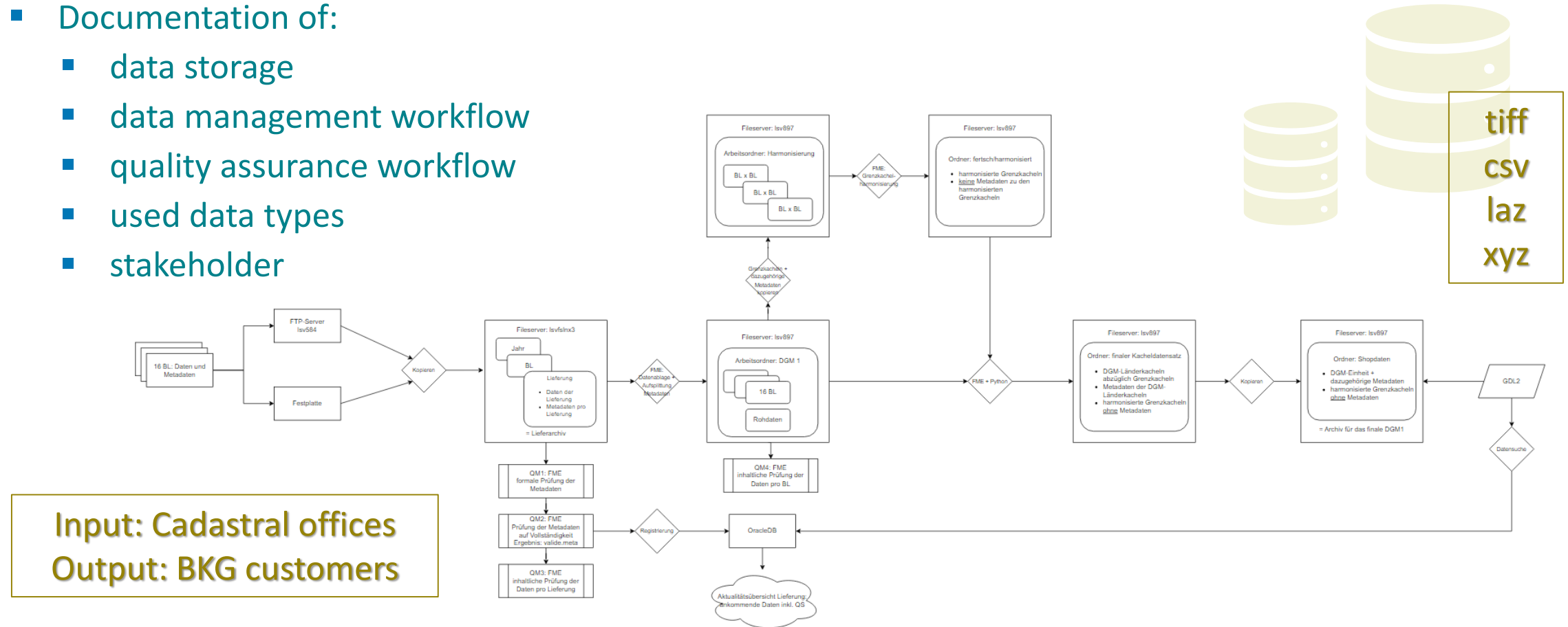
- in 2021 BKG aimed to implement a new raster data management system
- a German consulting company ist responsible for project planning
- project started in January 2022

objectives of the new system are:

- workflow for data integration, quality assurance and data archiving should be standardized
- finding raster data via its metadata

ACTUAL STATE ANALYSIS

- Documentation of:
 - data storage
 - data management workflow
 - quality assurance workflow
 - used data types
 - stakeholder



Observation

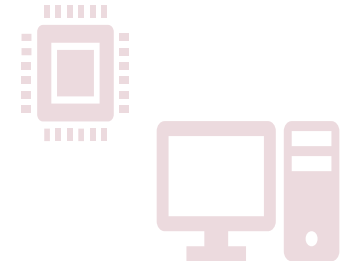
- Many applications/different tools for data management
- Distributed and heterogeneous data
- Steady data growth
- Data protection (personal reference/VS NFD)
- No status tracking
- Long-running/intensive computing processes



Observation



- Focus on open source software including maintenance
- Use of custom Python scripts
- High storage requirements
- Data transfer without technical trust (FTP)
- IT-Department often unable to understand the technical/professional requirements for geo-software
- Too few human resources



Ideas for Solution

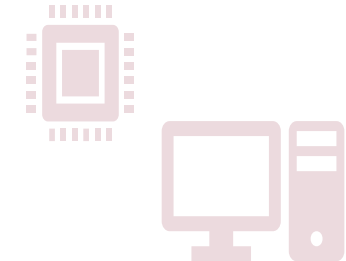
- open and non-proprietary solution
- automation options
- digital workflow management
- Data governance (decision rules, standards)
- standards to model geodata and to assure data quality
- Central access to data with authorization control



Ideas for Solution



- Central access to data management system
- Possibility to migrate/integrate current tools
- Link to current software landscape (FME, GIS)
- Integrated security and solution management
- Platform solution on premise/in the cloud



TARGET ANALYSIS in Summary

What do we actually need?

User-oriented, -friendly interface

One system to manage all raster data

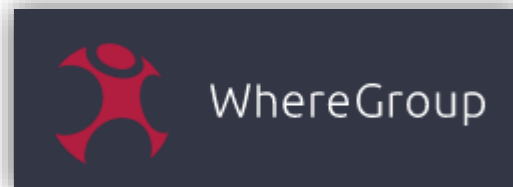
User types, roles and privileges

Regular crawling on storage location

Need of a release workflow within the system (e.g. data integration → data assurance → release in productive database)

Search engine to find all kinds of stored raster data (current/historical; via various data stores; including archives)

MARKET ANALYSIS



DISCUSSION





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Thank you for your kind attention!

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