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Land Sector FBiH Digital Transformation & Future Prospects

Jasmin Catic, Federal Administration for Geodetic and Real Property Affairs Geospatial World Forum 2024, Rotterdam National Mapping Summit

Quick facts about FGA

Decentralized	FGA is under FBiH
organization	Government
There are Cantonal Geodetic Authorities, and local cadastre offices in Municipalities (79)	Dual Land System (Cadastre & Land Registry)
FGA + LSU = Cadastre	Federal Ministry of Justice + Land Registry offices = Land Registry
There are 45	Around 750
employees in	employees in the
the FGA	Land Sector in FBiH



Main goals



Improved area of surveying, basic geodetic works, cartography, etc. in the territory of the Federation of Bosnia and Herzegovina



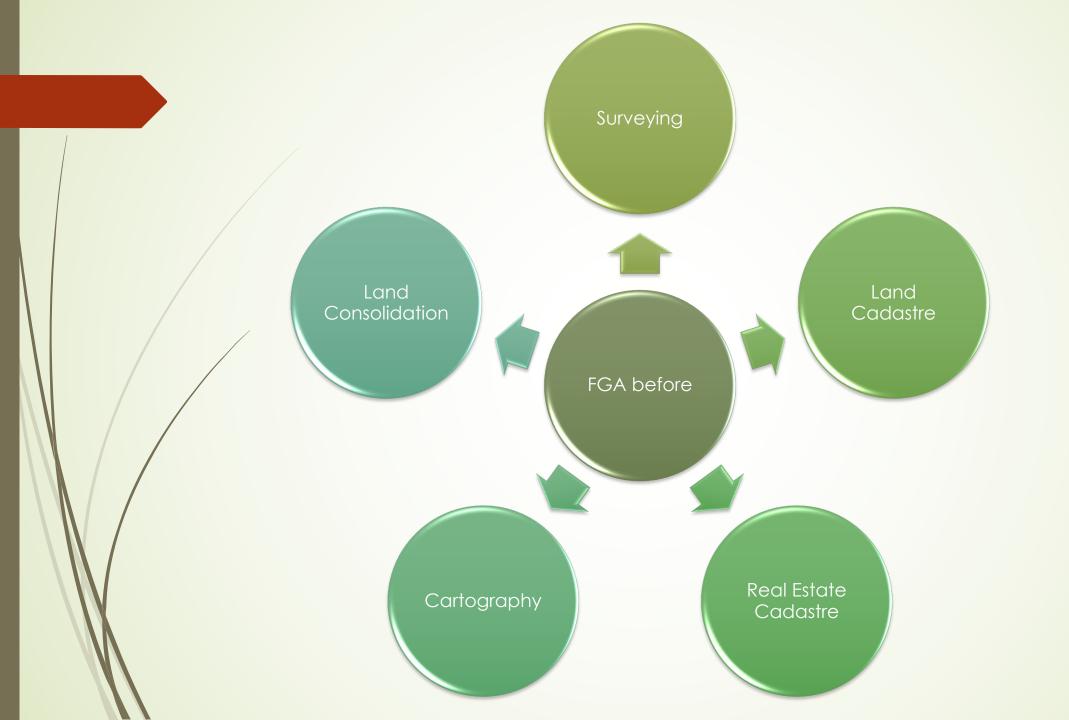
Spatial data of the FGA should reflect the actual situation on the field, with ensured collection and management in digital form in accordance with defined data models and ensured long-term maintenance of quality and interoperability.



Spatial data of FGA available to users through standardized web services and e-services



Through legal and efficient resolution of administrative matters, make a full contribution to legal certainty and raising the level of trust in state bodies.





Digital Transformation – Key milestones

Software

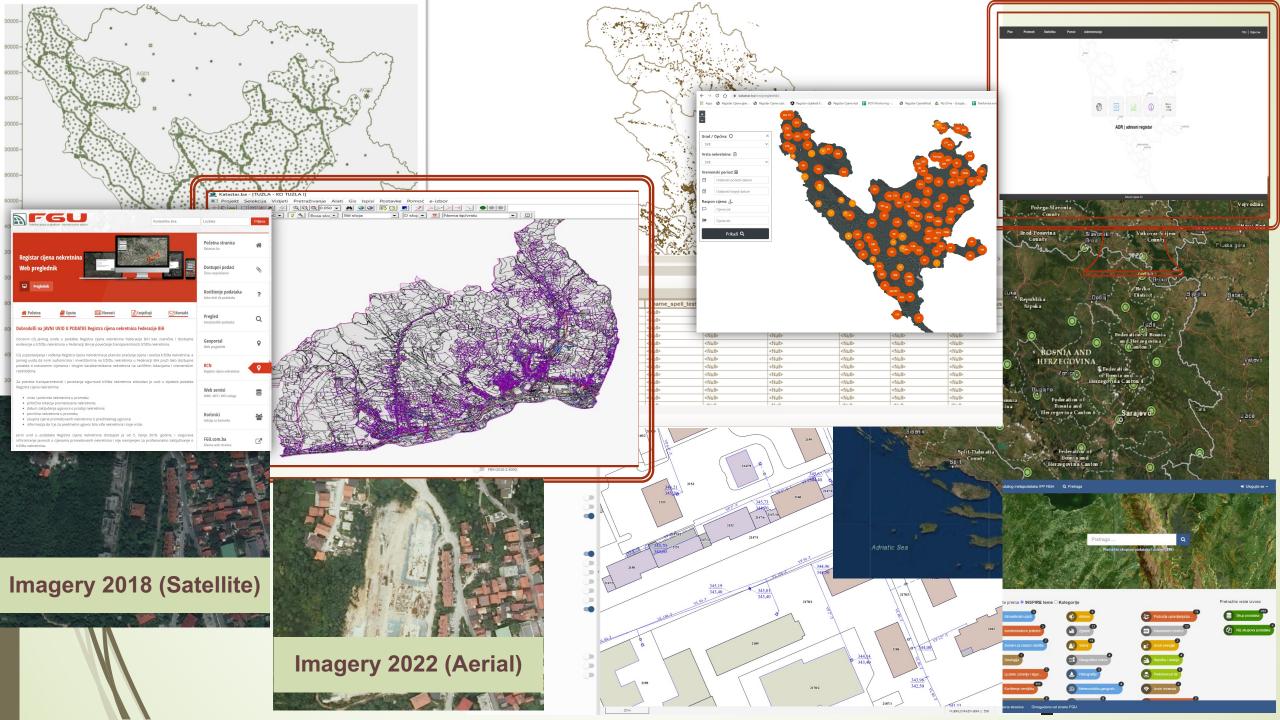
improvement

Digitalization

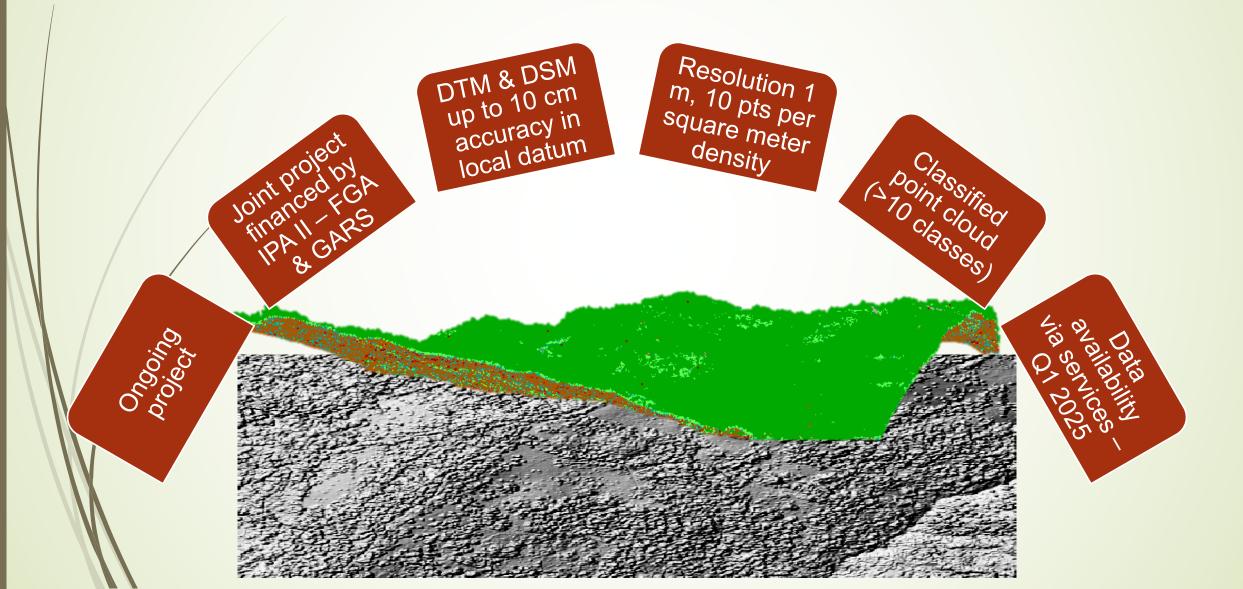
- Digitalization of processes
- Cadastral data is 100% digital
- Harmonisation of data between Cadastre & Land Registry – systematic approach (saving hundred of milions €)
- Digital platforms in place
- Optine services for citizens, businesses, etc.
- Øata standardization, INSPIRE, OGC, ISO
- Web services, APIs, ...
- FGA provides real time and up-to-date data to our users
- We focus mainly on quality
- FGA is the main data & service provider in FBiH



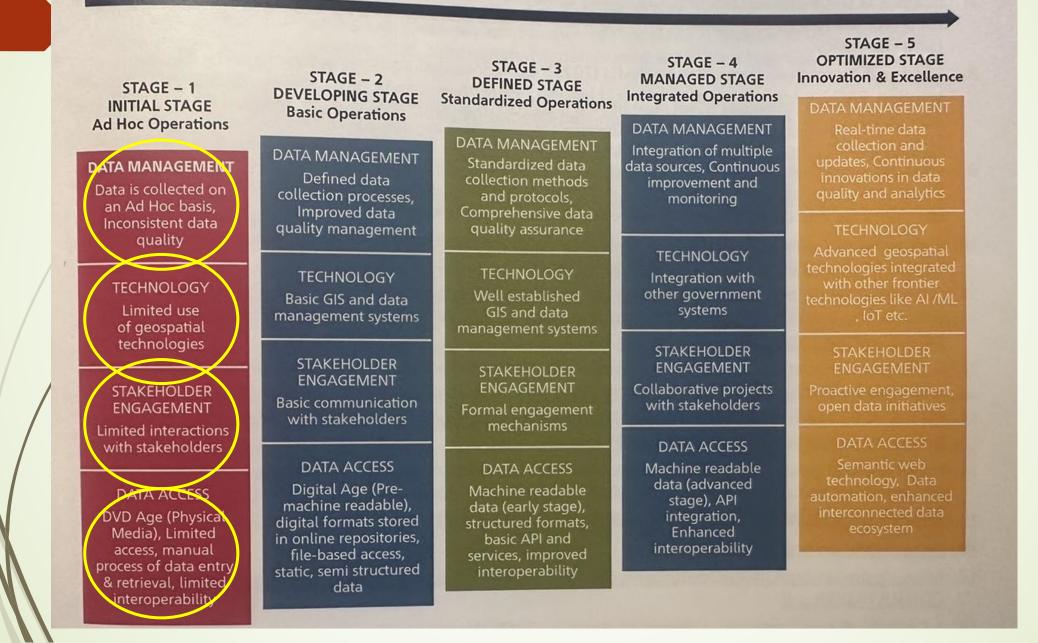
Data interoperability between FGA and other institutions Data interoperability between different IT systems in FGA



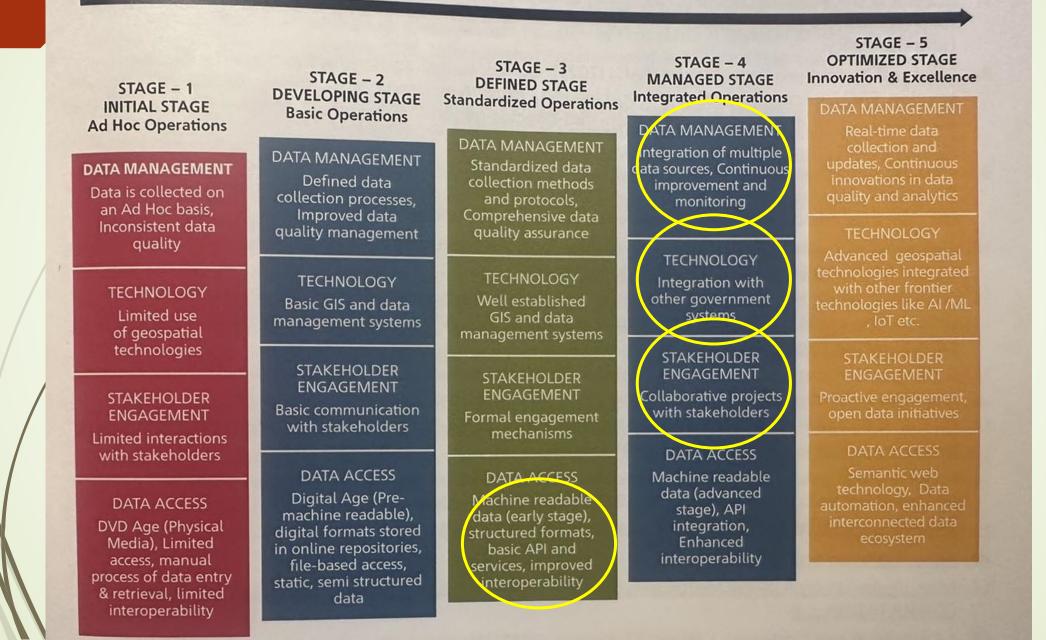
LiDAR scanning and generation of detailed elevation data for Bosnia and Herzegovina



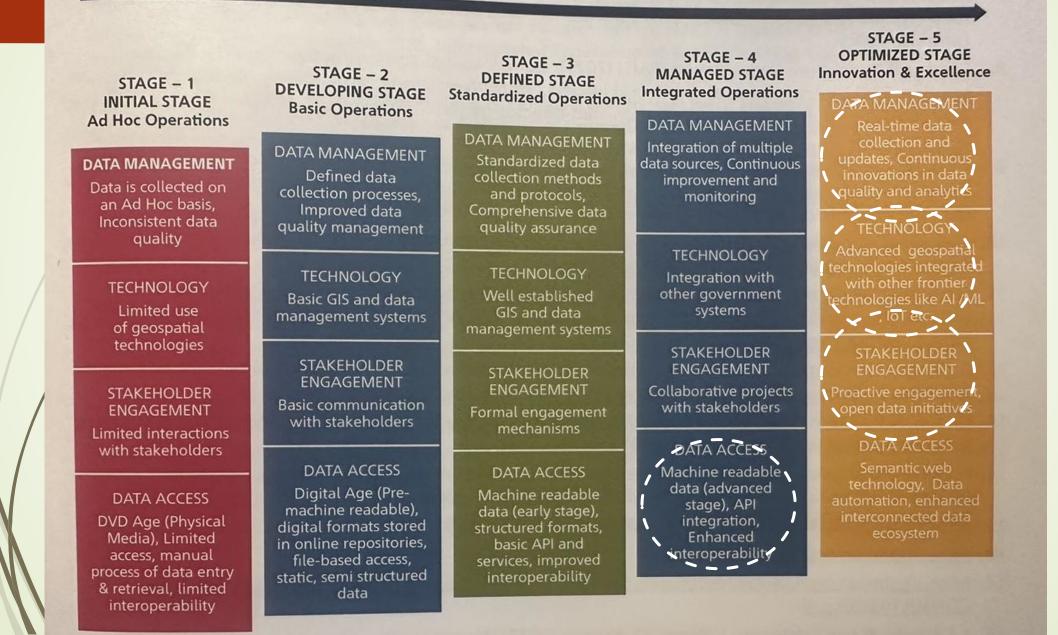
Maturity Stages of NGAs towards high socio-economic impact



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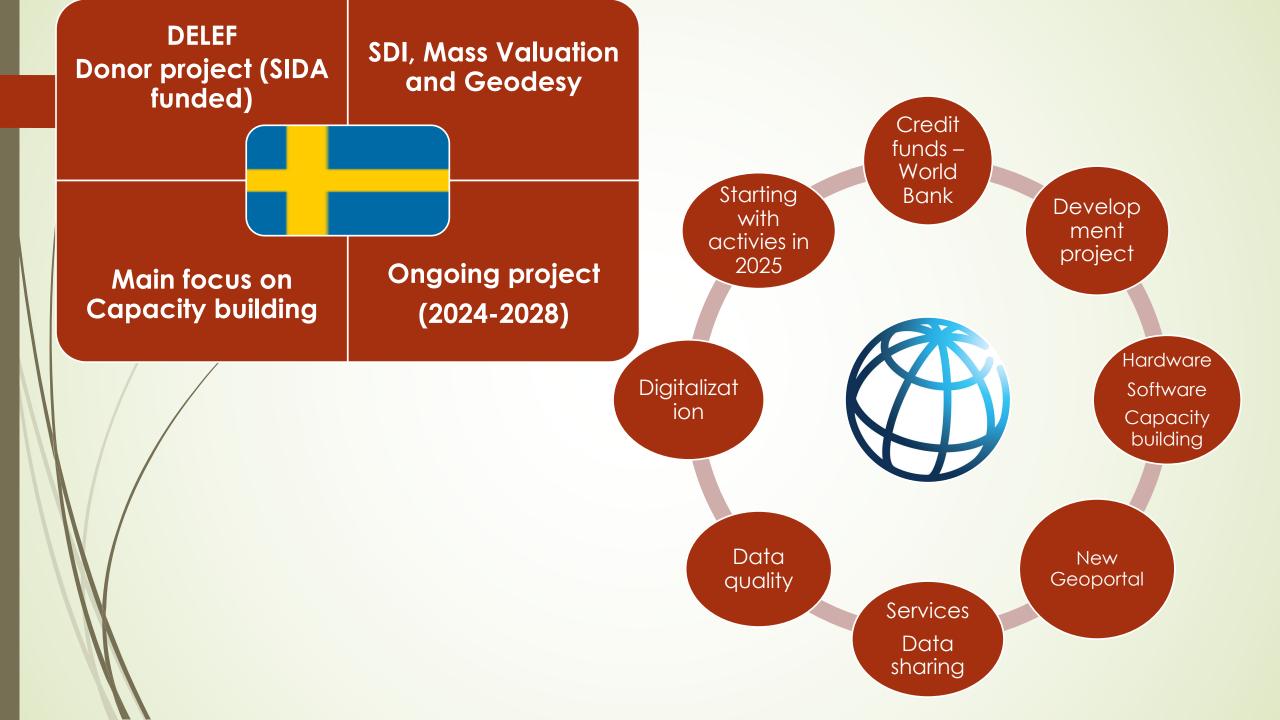


Challenges

- Capacity building support to other data providers and users in FBiH
- Lack of human capacities
- Lack of educated experts in related fields (Geodesy, GIS, IT, ...)
- Promote importance of SDI in general
- Moving to opensource
- Business model
- Change in behaviour

Plans

- Capacity building comes first!!!
- Imagery data every 2 years with improved resolution (30 cm or better)
- LiDAR data (currently in progress)
- Use LiDAR and Imagery alongside with AI/ML to enhance data acquisition and create new products
- Keep up with the technology
- New Geoportal
 → new architecture, optimization of data & services, central access point, AI/ML utilisation, service ready portal (view, download, transform, search, etc.), modular platform
- Offer new services and data to our users
- Geospatial Al ready
- Innovations



Conclusion

- We produce high quality datasets, but we don't stop here!
- We tend to be the backbone for core decision making
- Cadastre, Geodetic infrastructure maintenance, CORS network and positioning services are still our main products but we are moving forward and offer other data and services as well
- IT modernization
 - o Softwares for Cadastre, Address Register, Utility Cadastre, etc.
 - Advanced cyber security based on Strategy
 - Moving to opensource (trying to be independent of commercial softwares)
- Moving forward → slowly but safely

THANK YOU!

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