

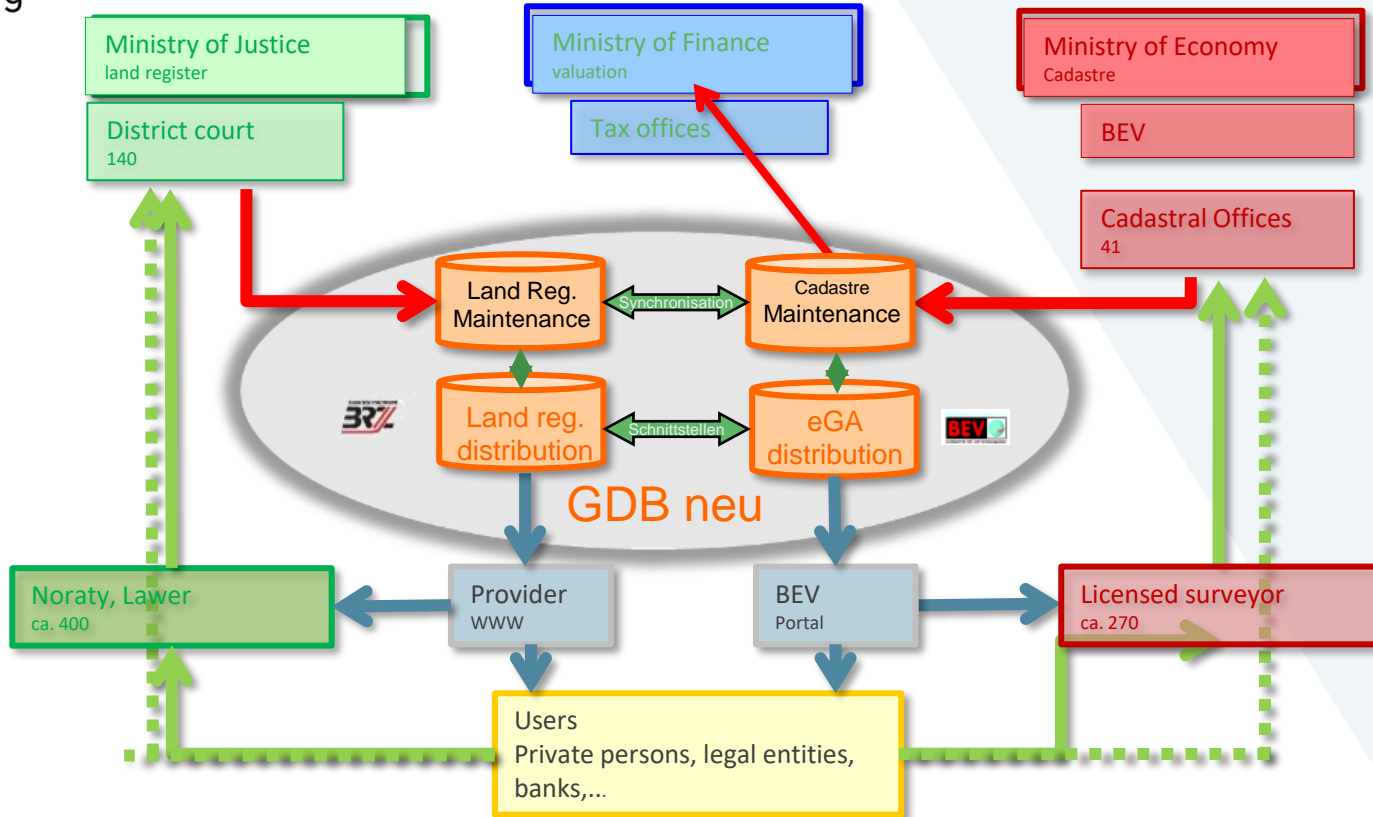
# Contribution of the Cadastre to public Services

The BEV as a reliable partner in a shared data room

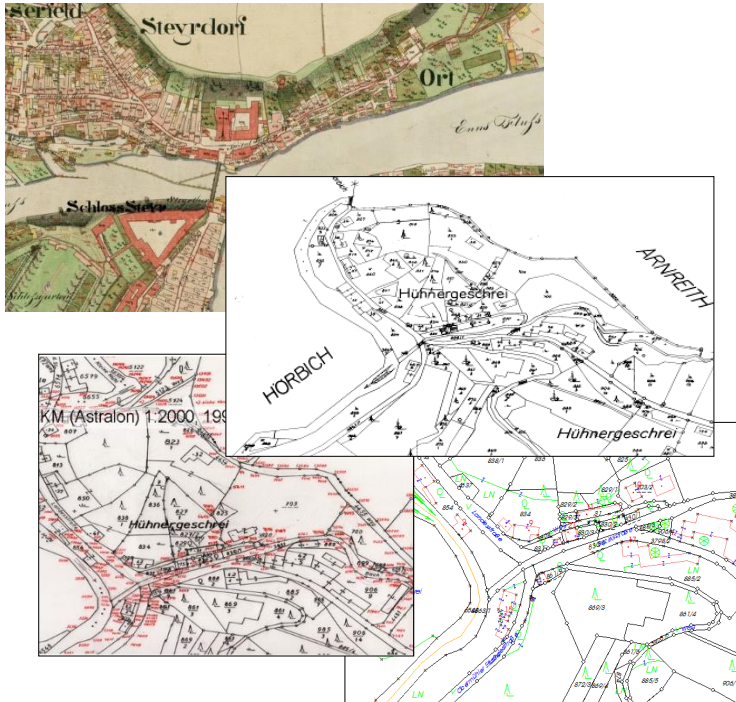
## Agenda

- Cadastre in Austria
- Challenges
- The Geoportal of the BEV
- New Services
- APOS for precise farming
- Address register





## From Property Tax Cadastre ...



- Property Tax Act 1817
- Basis for taxation of agricultural land
- Surveying of all parcels by means of plane table
- Graphic documentation in the cadastral map
- different cultivation (field, meadow, common pasture, forest, ...)

## .. to Cadastre of Boundaries (legal Cadastre)



- Since 1969 (Land Surveying Act)
- Signature by owners and surveying
- Property boundary is legally binding
- Protection of good faith
- In case of boundary dispute, the surveying authority is in charge
- 18 % of all parcels in “legal Cadastre”

## The World is Changing...

- Increasingly influence by global trends and developments
- Challenges and opportunities for land administration
  - Huge progress in technology supports access to information and knowledge and
  - at the same time, it can threaten privacy, erode security and increase the digital divide

(source: WPLA)



## Challenges for land administration authorities

- remain relevant and provide trustworthy services
- perform a role as a key partner in solving state priorities
  - e-government, smart cities, spatial data infrastructure, .....
- How can land administration authorities create, increase, and retain value with respect to relevance, liability and trustworthiness?
  - “.....authorities should provide a foundation of trust, on the basis of which society and individuals can develop .....”

(source: WPLA)

## Study of the Austrian Institute of Economic Research:

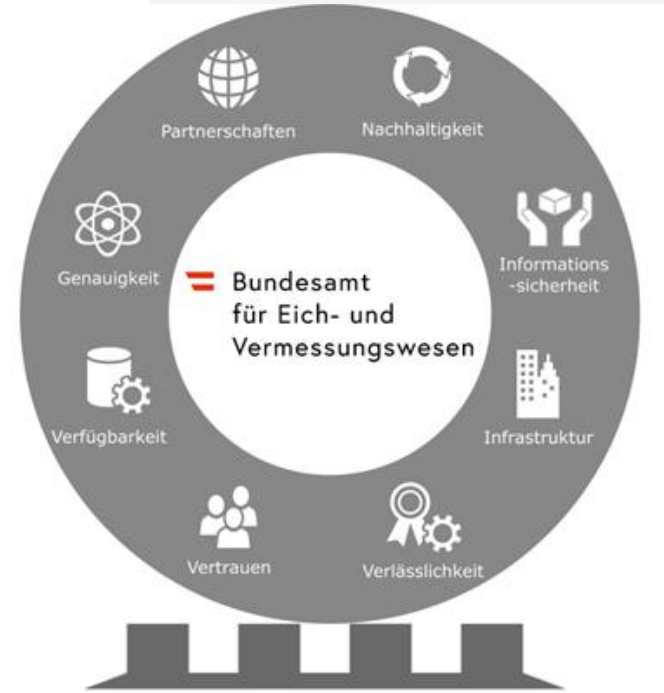
- ...”The social benefit of the BEV (Federal Office for Metrology and Surveying) goes beyond the economic aspects and concerns, for example, environmental, health and consumer protection, climate research or the precise coordination of emergency services in the event of a crisis. Because artificial intelligence and automation place growing **demands on reliable reference, data and quality systems** (e.g. Industry 4.0, autonomous driving), calibration and surveying will continue to gain in importance in the future in the course of digitization....”

[https://www.wifo.ac.at/news/die\\_volkswirtschaftliche\\_bedeutung\\_des\\_eich-\\_und\\_vermessungswesens](https://www.wifo.ac.at/news/die_volkswirtschaftliche_bedeutung_des_eich-_und_vermessungswesens)



## BEV- service provider with trust

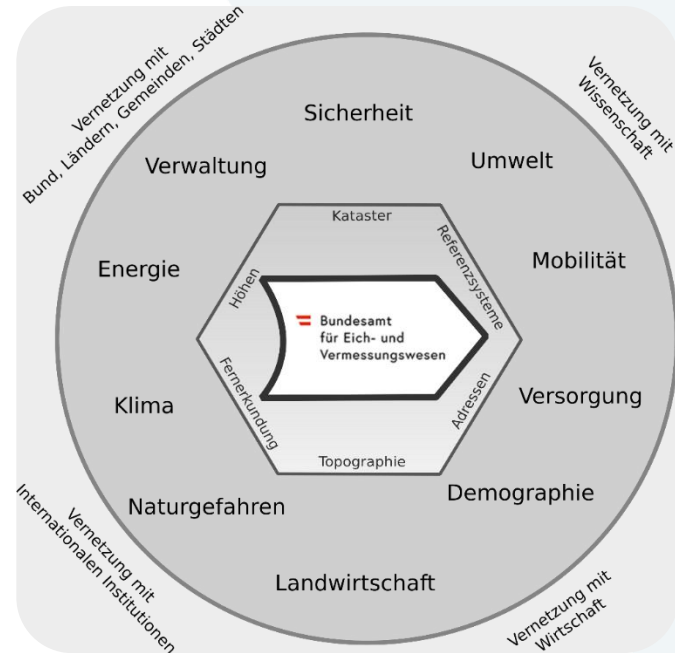
- The BEV as a reliable partner
- multiplicity of data sources and formats
- possible to combine the data, to enhance the value of the data
- development of innovative technologies to acquire a better knowledge of the territory



Geoinformation as a cornerstone of a  
modern state and society

## BEV in the common spatial data space

- guarantee the relevance of cadastral data
- cadastral authorities have a crucial role in enhancing and adapting their own data for making them available within a broader geoinformation infrastructure
- strategic concepts will help to valorise the cadastral data > to add value



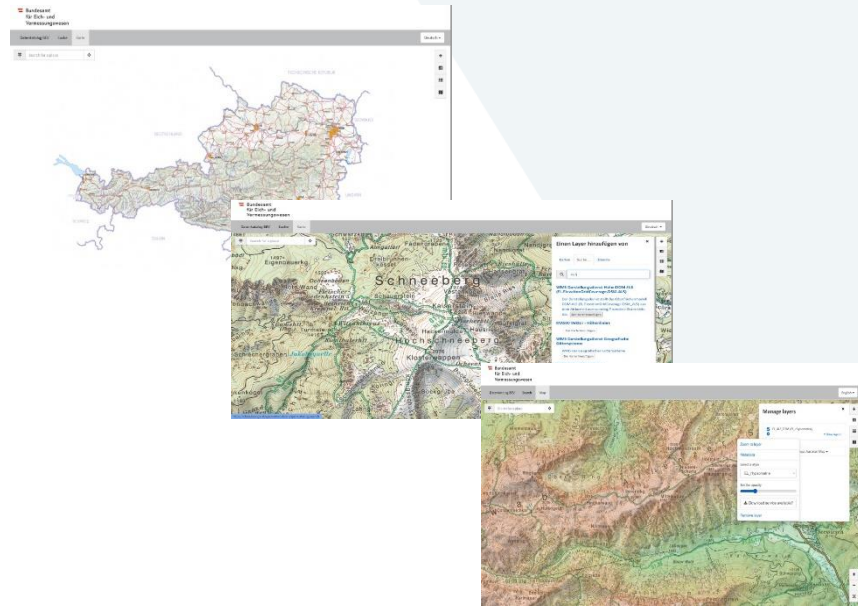
## General Conditions

- EU- Directive on open data and the re-use of public sector information (OpenData Directive, PSI); July 17, 2021
- environmentally relevant federal Geodata Infrastructure law (GeoDIG)



## Geoportal data.bev.gv.a

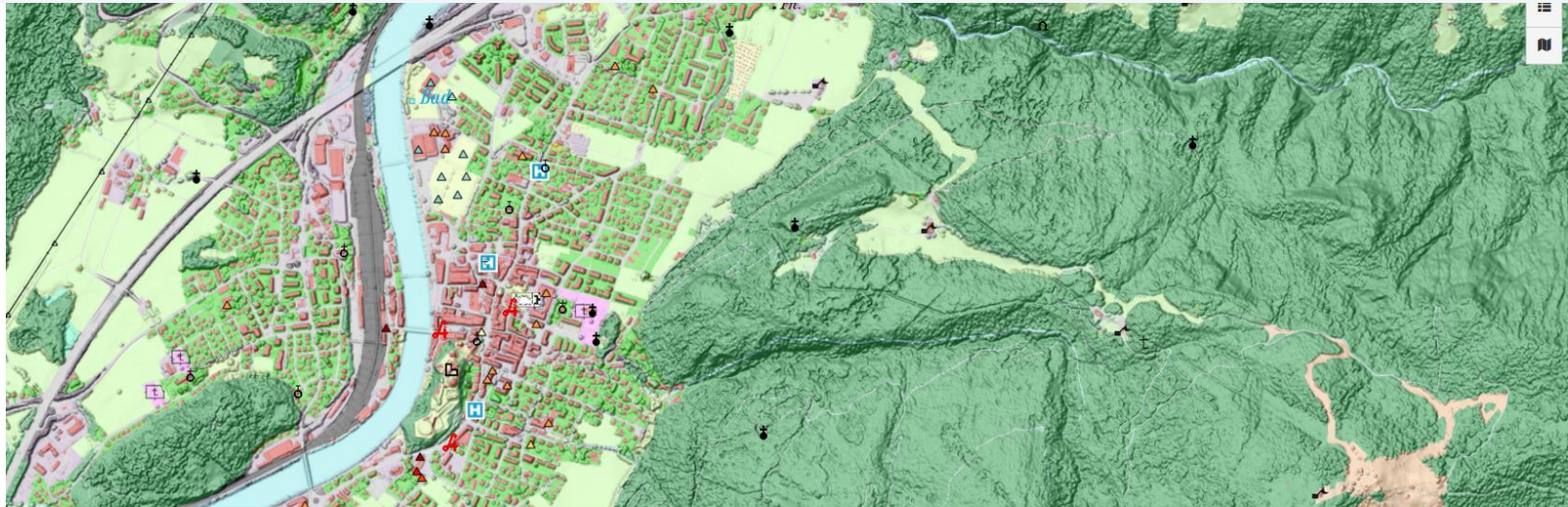
- implemented the legal framework on open data and re-use of public sector information
- to enhance the access to data following the FAIR principles with standardized interfaces
- distributed cloud strategy for the provision of the geospatial data



## The concept

- based on a 24/7 service to access authoritative geospatial data
- builds on interoperability of data, services and IT applications
- delivery, expansion and easy usage of open authoritative data
- Interactive Maps within the geoportal provide the ability to navigate to properties and to combine geospatial features through the free on-line application

data.bev.gv.at



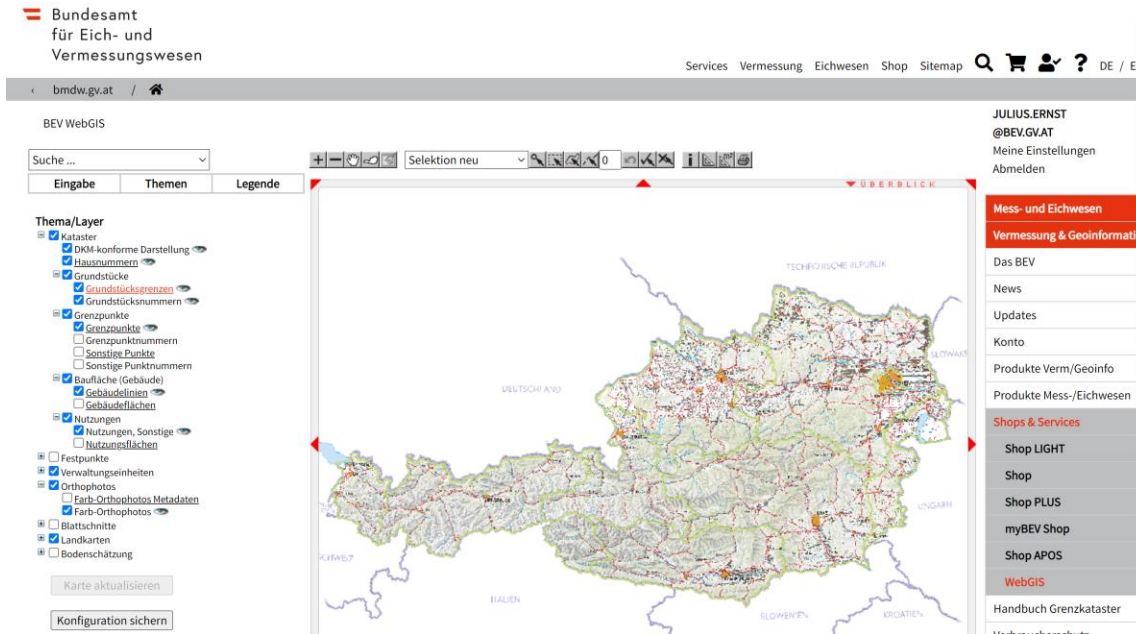
Digitales Landschaftsm... 1 KAT\_DKM\_NFL 3 EL\_ALS\_DSM 1 EL\_ALS\_DTM 1

F_CODE	F_NAME	NAME	ART	BETREIBER	KENNZAHL	ADR_CODE	SUB_CODE	PLZ	ORTSNAME	STRASSENNAME	HNR_ADR_ZUSAMMEN	ERFASS_ART	ERSTELL_DAT	BEARB_DAT
2105	2105 Krankenanstalt	Wittlinger Therapiezentrum - Arge Med Kufstein	Keine Erfassung	Keine Erfassung	A70506	7085189	2	6330	Kufstein	Gewerbehof	1	AGWR	2014-08- 19T12:00:00Z	2020-07- 24T12:00:00Z

+ 14  
-



## e-geodata Austria: bev.gv.at



The screenshot shows the BEV WebGIS interface. At the top, it displays the logo of the Bundesamt für Eich- und Vermessungswesen and navigation links for Services, Vermessung, Eichwesen, Shop, and Sitemap. The main area features a map of Austria with various layers and navigation tools. On the left, there is a 'Thema/Layer' panel with a search bar and a list of layers including 'Kataster', 'DKM-konforme Darstellung', 'Hausnummern', 'Grundstücke', 'Grundstücksgrenzen', 'Grundstücksnr.', 'Grenzpunkte', 'Grenzpunkte', 'Grenzpunktnr.', 'Sonstige Punktnr.', 'Baufliche (Gebäude)', 'Gebäudeflächennr.', 'Gebäudeflächen', 'Nutzungen', 'Nutzungen, Sonstige', 'Nutzungsflächen', 'Festpunkte', 'Verwaltungseinheiten', 'Orthophotos', 'Farb-Orthophotos Metadaten', 'Farb-Orthophotos', 'Blattschnitte', 'Landarten', and 'Bodenschätzung'. On the right, there is a user profile for 'JULIUS.ERNST @BEV.GV.AT' and a menu with options like 'Mess- und Eichwesen', 'Vermessung & Geoinformatik', 'Das BEV', 'News', 'Updates', 'Konto', 'Produkte Verm/GeoInfo', 'Produkte Mess-/Eichwesen', 'Shops & Services', 'Shop LIGHT', 'Shop', 'Shop PLUS', 'myBEV Shop', 'Shop APOS', 'WebGIS', 'Handbuch Grenzkataster', and 'WebGIS'. The map itself shows a detailed view of Austria with various colored overlays representing different data layers.

Special services with  
standard charges

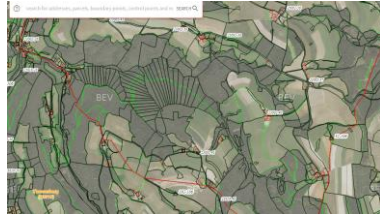
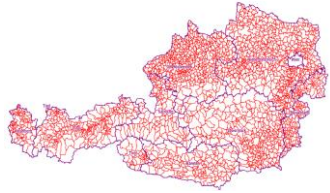
- comply with the principles of PSI (IWG)

## Cadastre - Service



- daily updated data of the cadaster
- free for everyone to use
- large selection of search options
- Various types of representation
- German and English

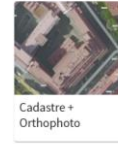




Header options



Cadastre classic



Cadastre +  
Orthophoto



Cadastre light



Cadastre GIS Layer



detail information

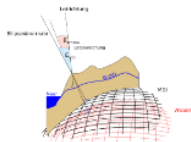
X

parcel number:	326		
legal status:	Fiscal Cadastre		
entry number:	206 (GB 31133)		
last change:	update of field measurement ratio after soil evaluation - 11330/2012/34		
land cover symbol	land cover description	area[m <sup>2</sup> ]	yield index number
LN	Fields, Meadows or Pastures	10 131	4 604
<b>Total area:</b>		<b>10 131</b>	

Parcel

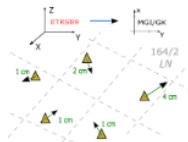
New: BEV Transformator 3.0. find information to BEV – Transformator [here](#)

## Austrian Mode



Transform coordinates within Austria with our products GIS-Grid as well as Heightgrid, Geoid and Heightgrid+Geoid for height .

## Cadastre Mode



Transform GNSS based coordinates in ETRS89 into the official system MGI/GK in relation to the nearest lying reference points.

## Farming Mode



Are your field boundaries in ITRF2014 and you want to work with APOS? With this tool you can easily convert them into the APOS ETRS89 coordinate system.

## Advanced Mode



Transform your coordinates from any geographic coordinate system. Here you can choose between systems in different reference frames, on different ellipsoids and with different projections. Different epochs and speeds can also be converted.

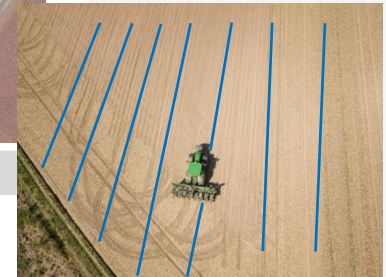
# Precise Farming with APOS



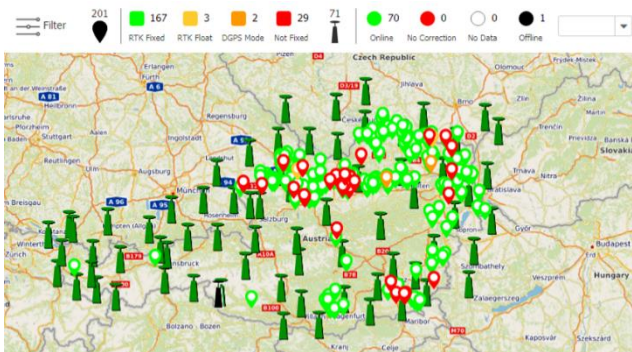
Field boundaries



Tracks for tractor



management of arable land



# Address data for multiple applications

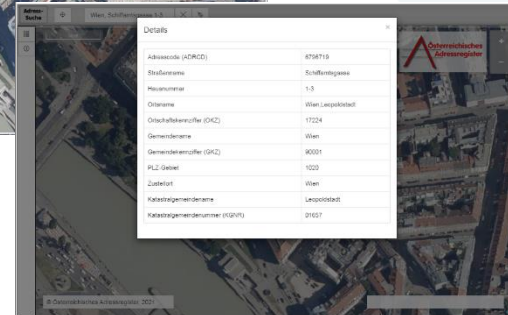
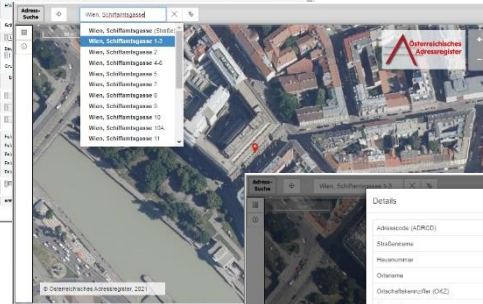
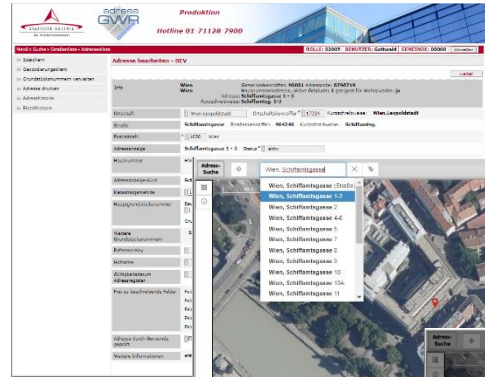


ADRC  
SUBCD  
OBJEKTNUMMER

...



- electoral district, Polling stations,
- Allocation of the elective districts to the building objects



# Thank you!

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