



# **GEOSPATIAL DATA & STATISTICS AT AUSTRIAN POST**

European Forum for Geography & Statistics Conference | PARIS, Nov 16<sup>th</sup>. 2016



# AGENDA

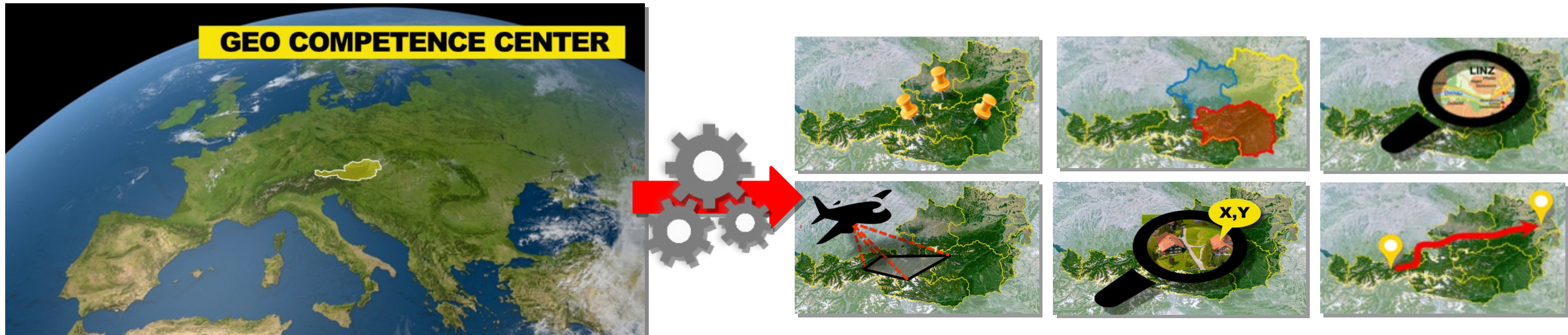
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- **Geo Competence Center**  
provider of geospatial Data & Services at Austrian Post...
- **Postal Geodata**  
our basements for widely extended usage in all postal GI Services
- **Geo Business Solutions → Usage of Geostatistic Data ...**  
well formed spatial Solutions based of ESRI Components ...

# MISSION OF GEO COMPETENCE CENTER (GCC)

**GCC is a provider of Enterprise GI Systems for Mail & Branch Network Division at Austrian Post**

- Operation and maintenance of geo applications
- Design & production of postal geodata
- Processing & Updating of all geodata in Enterprise GI System
- Thematic cartography & map production
- GIS Analysis & inhouse consulting services





# EXAMPLES OF POSTAL GEODATA BASED ON: ADDRESSES & PROPRIETARY INFORMATIONS OF AUSTRIAN POST

## LOCATIONS



- **Adresses (2.2 Mil)**
- **Households (4,5 Mil)**
- **PostBoxes (15.000)**
- **BranchOffice (1.800)**
- DeliveryBaseLocation
- StreetNetwork – AccessPoints (2.2 Mil)
- ... other LocationData

## AREAS



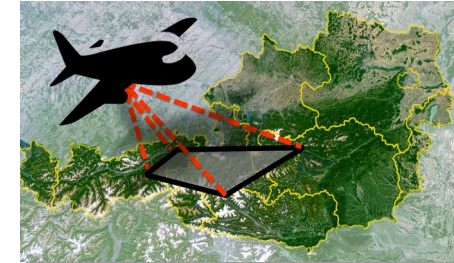
- **ZIP Code (2.200)**
- **DeliveryDistrict(7.000)**
- **DeliveryBaseArea**
- **Community/ MunicipalityArea**
- RegionArea
- SettlementArea
- PopulationArea
- ElectionDistricts (7.600)
- ... other Areas

## ROUTES



- **StreetNetwork (TomTom)**
- StreetNetwork (GIP Austria)
- FootPath Sketches
- LetterDeliveryRoutes
- MainLogisticRoutes
- DistanceMatrix /Routes for all DeliveryLocations
- ... other NetworkData

## RASTER



- **Aerial/SatelliteViews**
- **Rasterized StreetMaps**
- Hillshade / (digital height model DHM)
- Aspect / (DHM)

## OTHER



- **DemographicData**
- **BuildingRegister**
- **Buying/SpendingPower**
- **MicroRaster Demography**
- LandCategory
- ElevationModel (DHM)

\*) Data Categories used for Geomarketing Services → (Bold Letters)



# EXAMPLES OF GIS SERVICES

## GEOCODING OF DELIVERY ADDRESSES / LOCATIONS





# EXAMPLES OF GIS SERVICES

## LOGISTICS: OPTIMIZATION OF DELIVERY ROUTES

1

**Create & Calculate automatically all DeliveryRoutes**  
according to DeliverySequences

2

**Detailed inspection/check of all RouteSegments**  
change locations of DeliveryPoints or add FootPaths

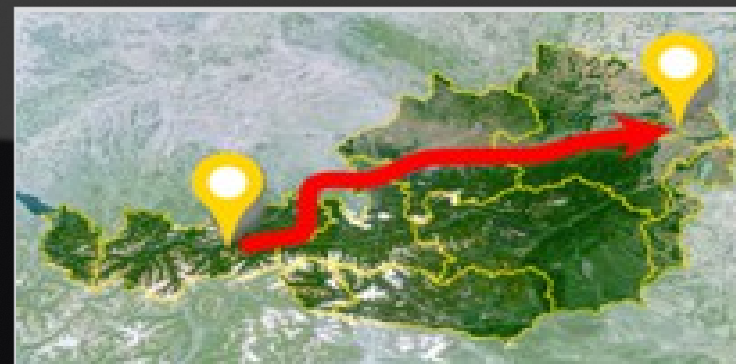
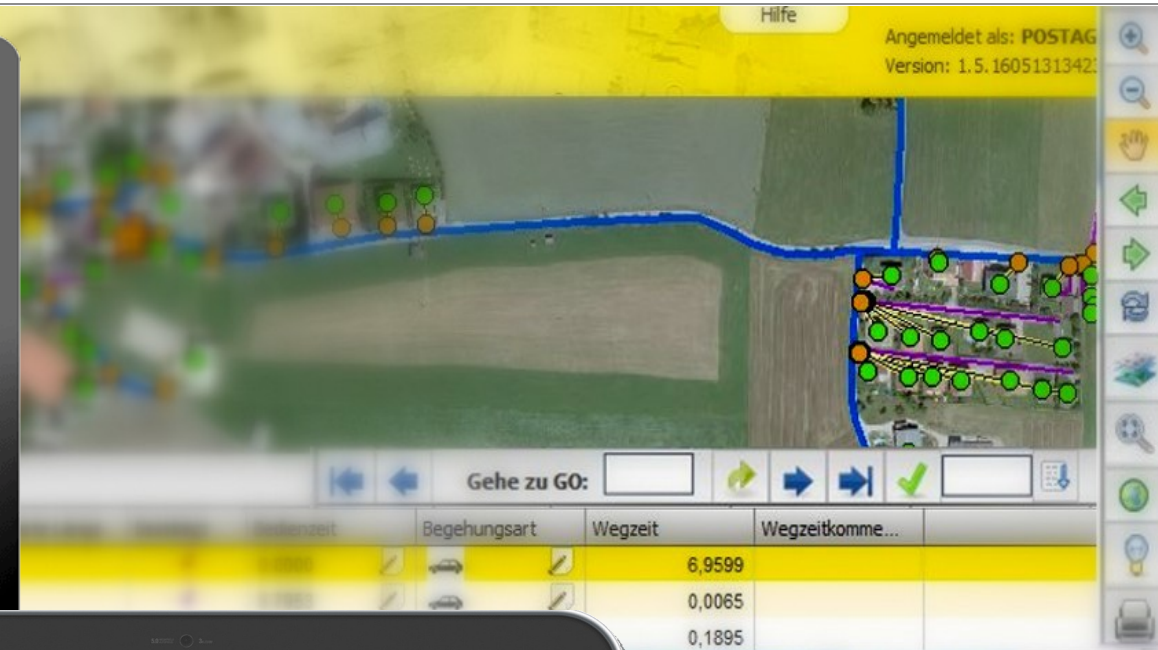
3

**Generate new routing Scenarios for delivery base areas**  
Remodeling / Reshaping of existing delivery districts/routes

4

**Create routes with optimized (sequenced) new order of stops, that respect:**

- Traffic street network restriction (one way etc ...)
- User-specified, network oriented restrictions (zick-zack delivery, u-turn delivery ...)
- User-specified, service location oriented restrictions (several service time spent on each stop point, time window of stops ...)

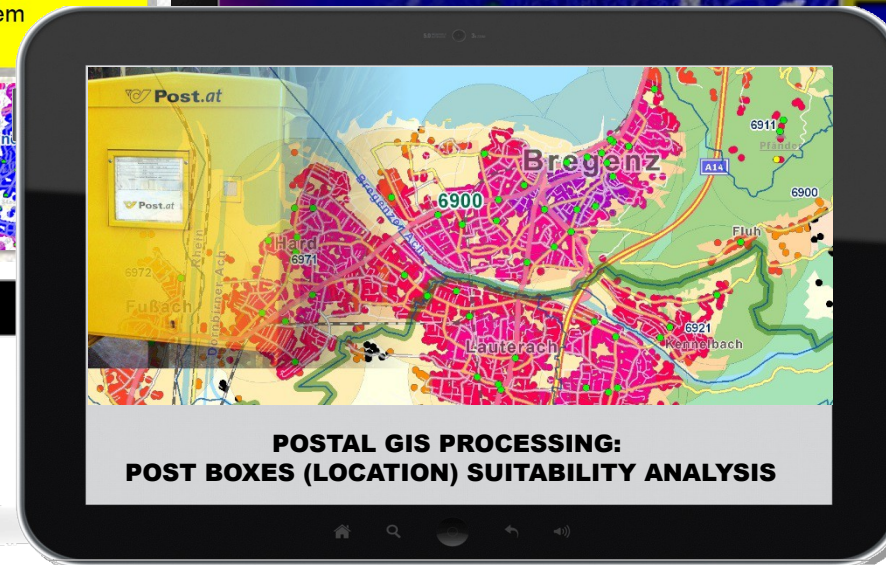
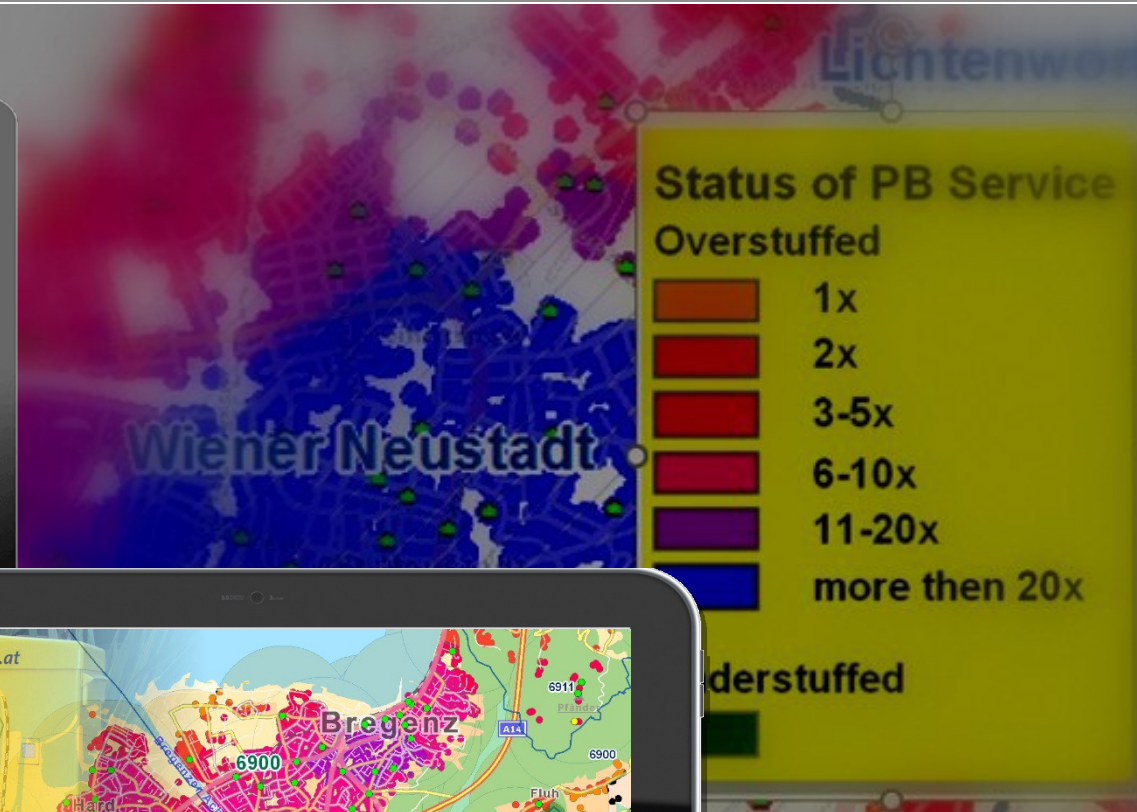


**POSTAL GIS PROCESSING:  
STREET NETWORK ANALYSIS**



# EXAMPLES OF GIS SERVICES

## SITE/LOCATION SUITABILITY ANALYSIS: POST BOXES





# OUR MAIN GEO APPLICATIONS & GIS HOTSPOTS AREAS





# MAIN FUTURE TRENDS FOR POSTAL OPERATORS

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- **Integration & Usage of BigData and BI (Business Intelligence processes) ...**  
→ business analytics, geoanalytics, new media surveys ...
- **Autonomous Driving & E-Mobility**  
→ delivery vehicles/fleets, delivery robotics ...
- **Unmanned aerial vehicles (UAV, Drones)**  
→ conditions, limitations & regulations for regulary operations ...
- **Augmented Reality**  
→ maintenance processes in Sorting Centers, recognizing of delivery routes for new crew ...

... Our database makes it happen, for it matches geographical data (such as delivery areas and postcode areas) with sociodemographic criteria (age, marital status, children, etc.) as well as socioeconomic criteria (including purchasing power).

## Benefits

- Increased response rates
- Reduced wastage
- Saves money thanks to fewer printed materials and less postage

## Options

- Target audience/group distribution plan / “Zielgruppen-Streuplan”  
Definition of distribution areas by selecting from approximately 40 criteria including age, gender, level of education, purchasing power, etc. segmented per area/household/person.
- Postal branch distribution plan / “Filial-Streuplan”  
Relying on geomarketing to create a distribution plan based on our list of postal branches. You can select any area surrounding the postal branch of your choice, thereby determining the number of recipients. Depending from kind of request, you also have the option of adding target group specific criteria.



# EXAMPLES OF GEOMARKETING SERVICES (INTRANET BASED ...)

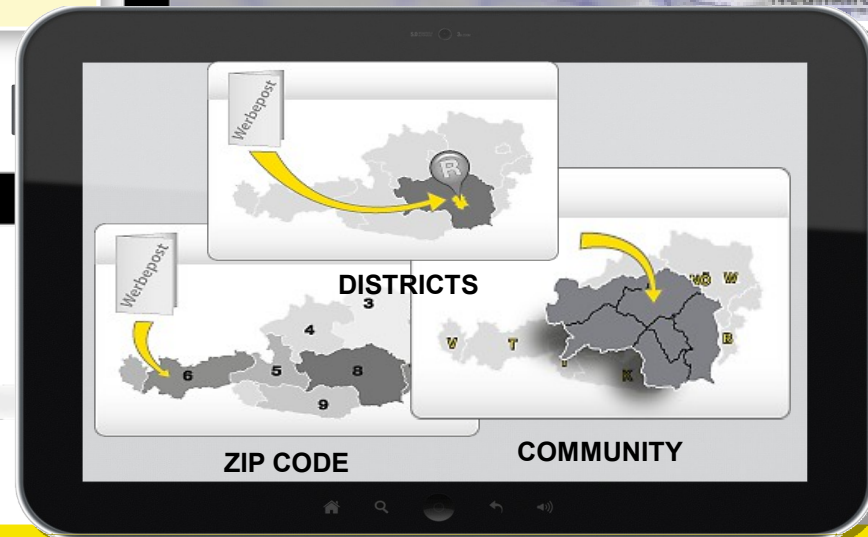
## Intranet based spatial GIS Applikation

### BASIS-MODUL

- Standard spatial Analysis
- ZIP Code Area

### PREMIUM-MODUL

- Advanced spatial Analysis
- ZIP Code & Letter Carrier Routes

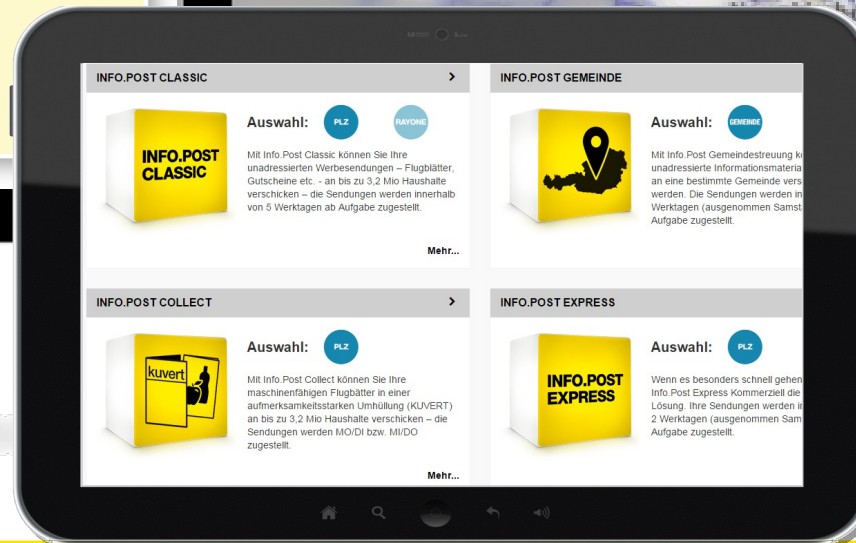
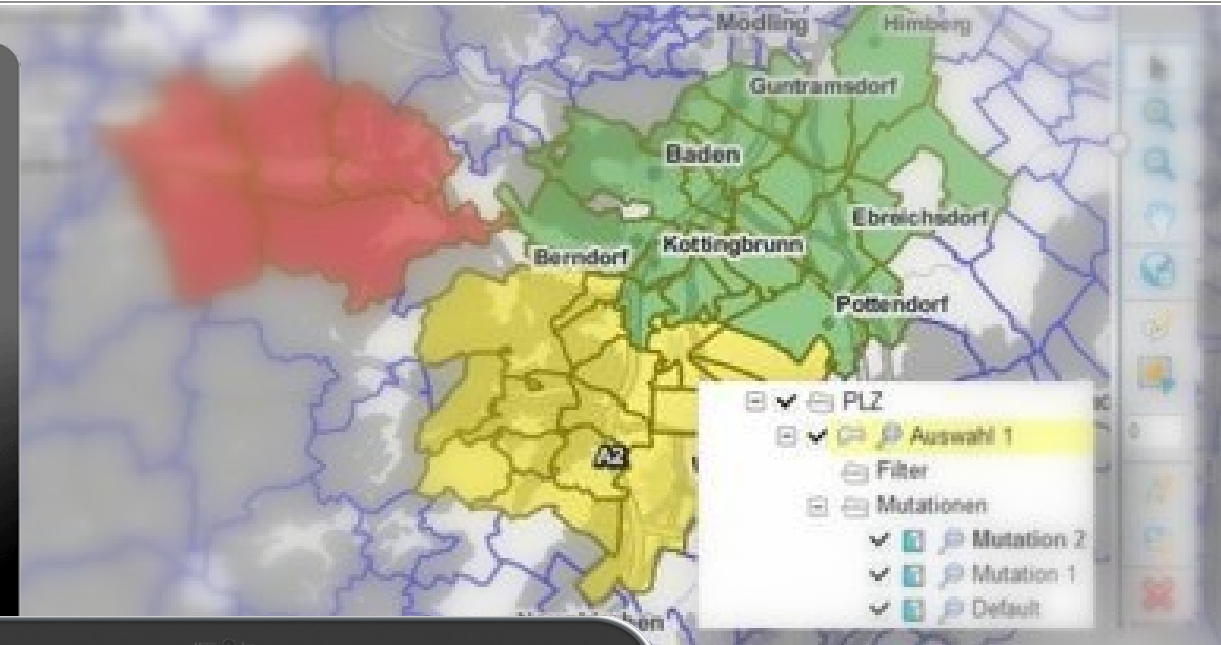


# EXAMPLES OF GEOMARKETING SERVICES (WEB BASED ...)

## WEB based spatial GIS Applikation

PostGeo ([www.postgeo.at](http://www.postgeo.at))

- **Responsive Design** (for mobile device usage ...)
- **SingleSignOn** Communication with Operation pre-systems
- **Small scale distribution areas** (postal delivery districts)
- **Collaboration Plattform** (for advanced interaction between web user & backoffice crew ...)





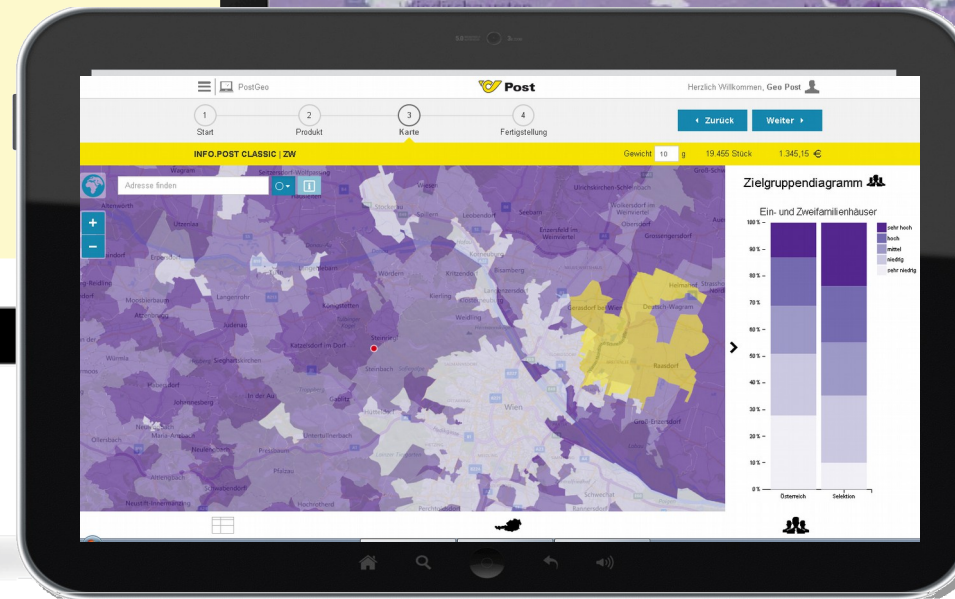
# GEOMARKETING SERVICES (EXAMPLES)

## POSTGEO

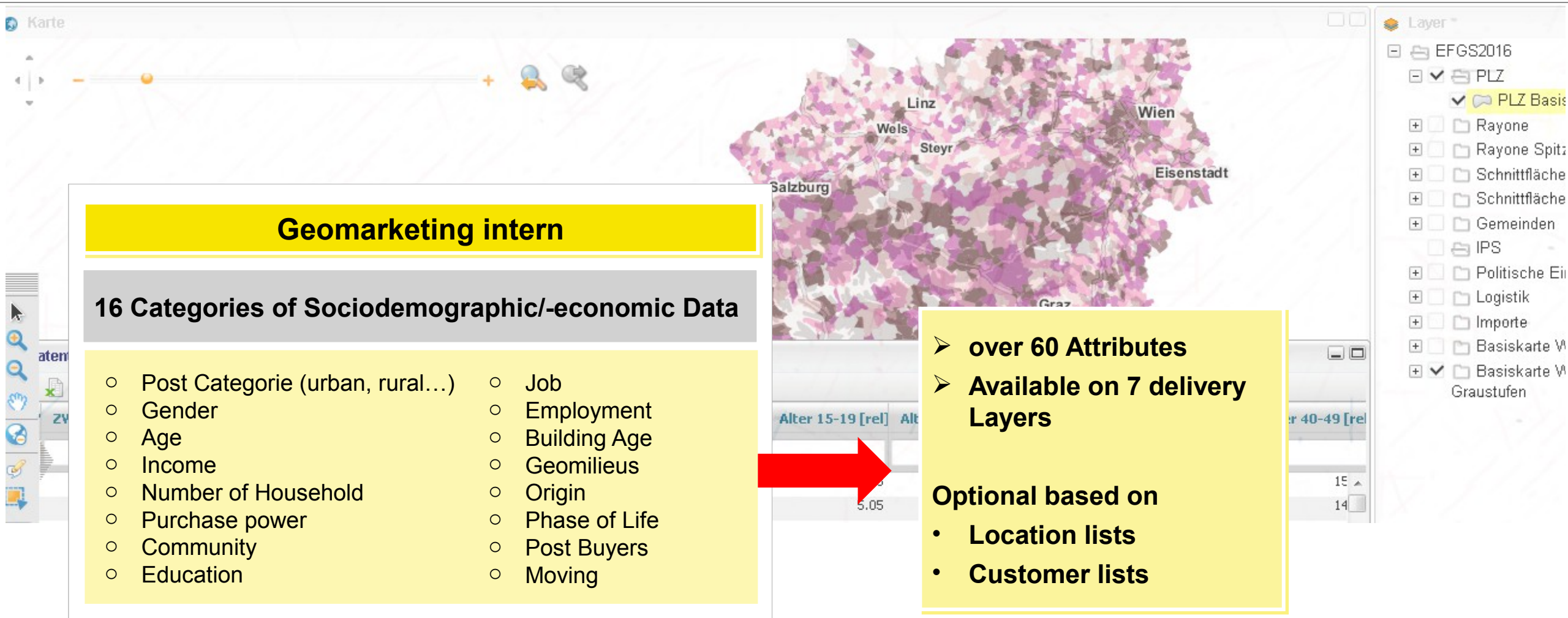
### 6 Criterias of Sociodemographic Data

#### For ZIP's and Postal delivery areas

- Post Kategorie (urban, rural...)
- Purchasing power
- Family/duplex houses
- Families with children
- Education
- Age



# GEOMARKETING SERVICES (EXAMPLES)





## GEOMARKETING IN FIGURES

- **4,4 Mio. Housholds and Companies**
- **3,5 Mrd. unadressed Flyers**
- **290 Mio. Regionalmedia**
- **~7000 Projects a year**
- **~6600 small delivery areas**
- **Over 60 Attributes to choose**



# THANKS FOR YOUR ATTENTION ...

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