

Data for Spatial Planning – A Comparison of Three Cities

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Contents

- Introduction
- Data and Processes for Spatial Planning
- Comparison of Three Cities
 - Vienna
 - Bratislava
 - Teheran
- Conclusion
- References

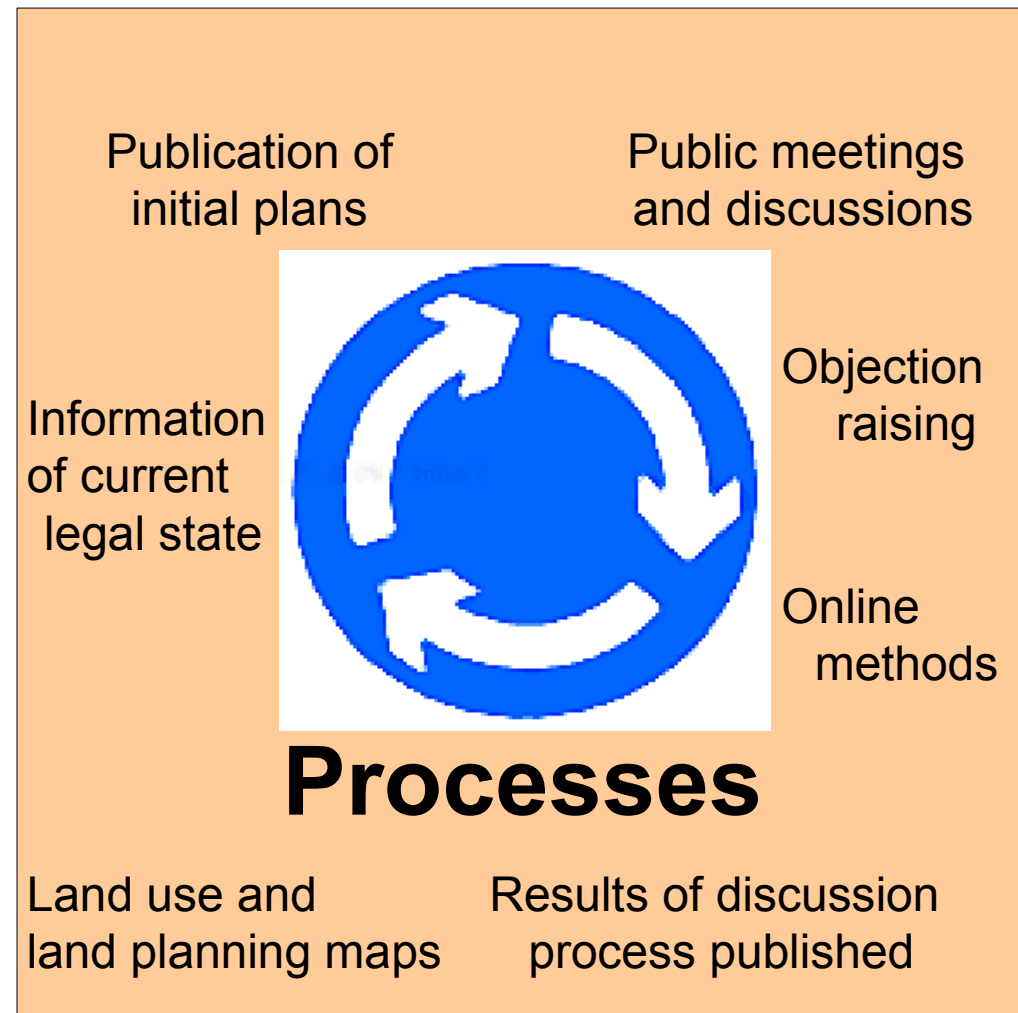
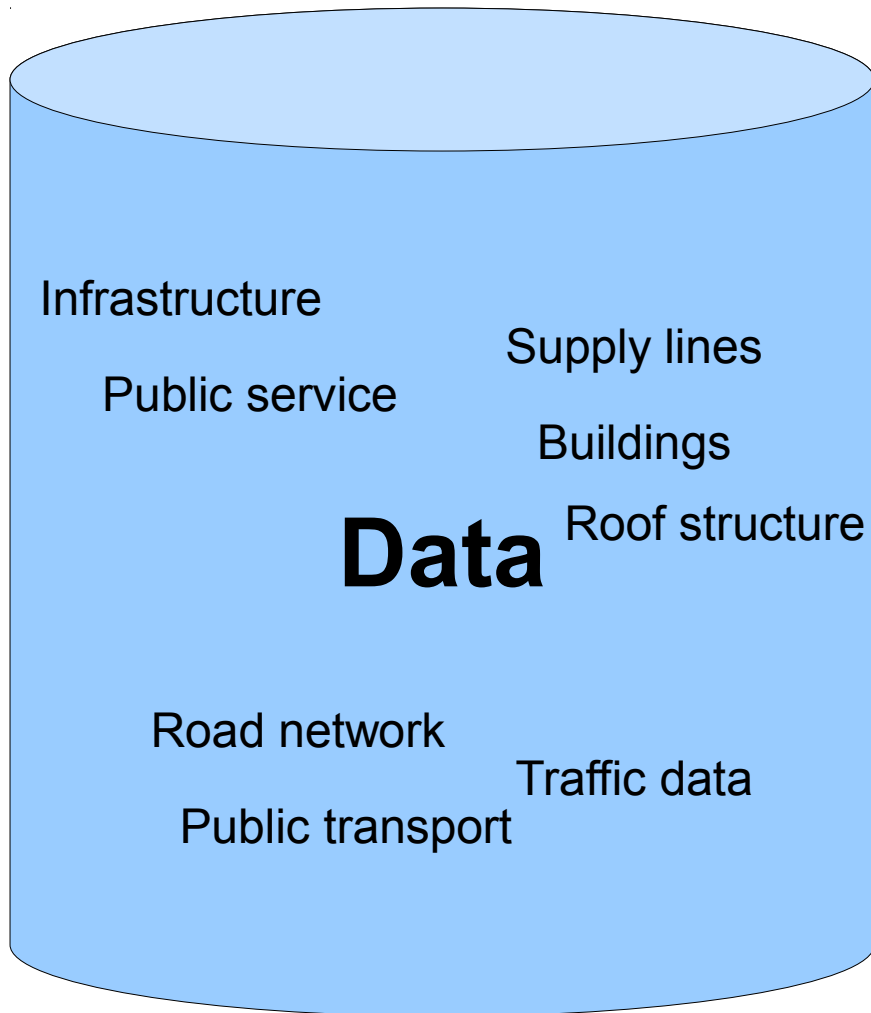
Introduction

- Urbanization is global trend
 - Cities are highly populated → social conflicts may arise
 - Contact to “soil services” lost (Braimoh and Vlek 2008)
- Spatial Planning objective
 - Efficient management of natural resources – especially land
- Requirements to fulfill objective
 - Information about what is where
 - Information about what is missing
 - Information about existing and emerging conflicts

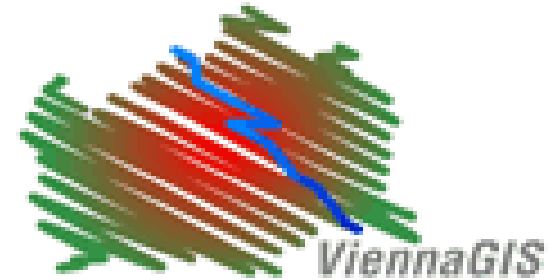
Introduction

- How to acquire information?
 - Systematic way by planning authority
 - Volunteered Geoinformation – citizens serve as local experts (Goodchild 2008)
 - requires processes to exchange information between planning authority and citizens
 - planning authority has to process information received by citizens properly

Data and Processes for Spatial Planning

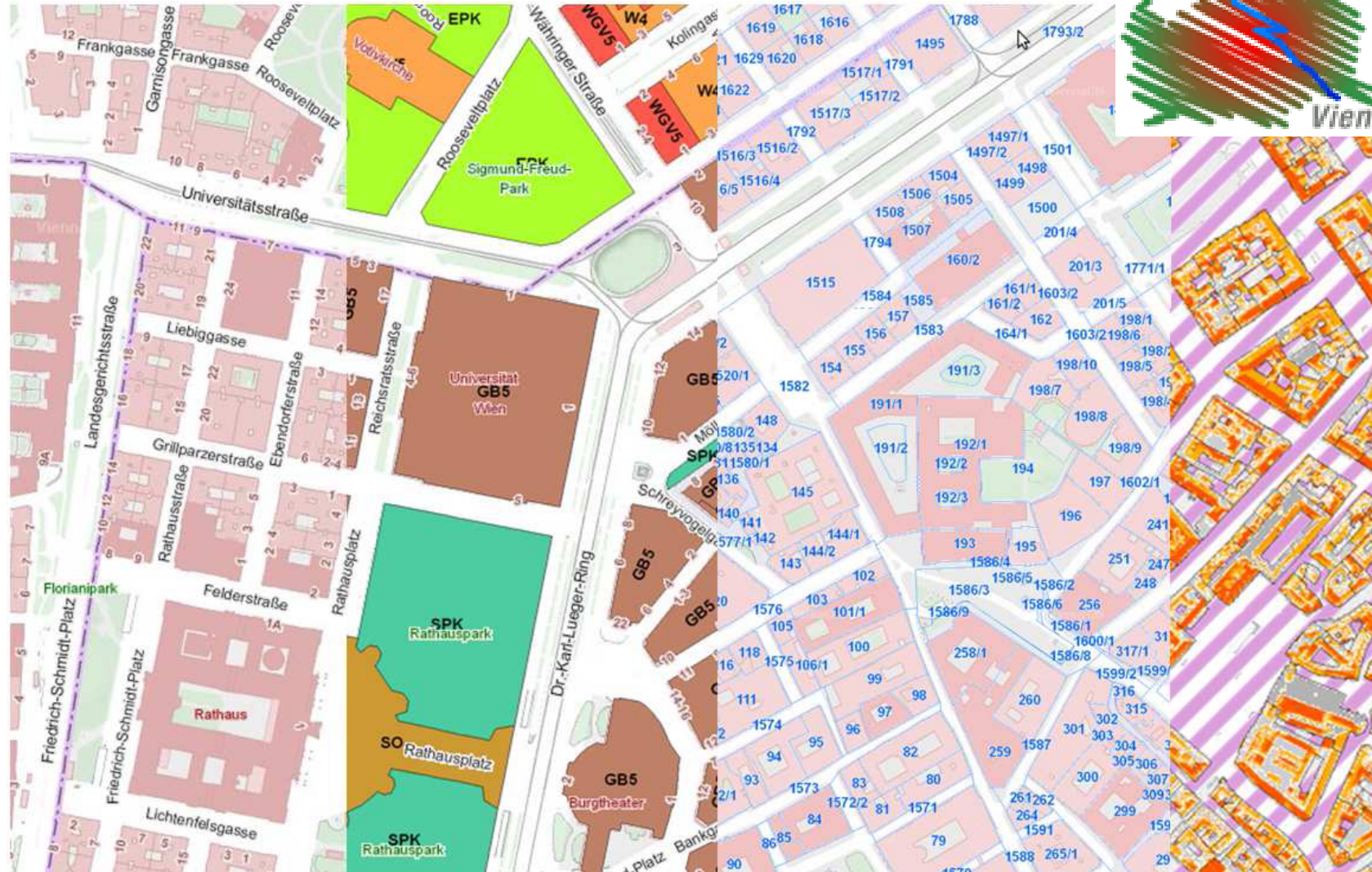
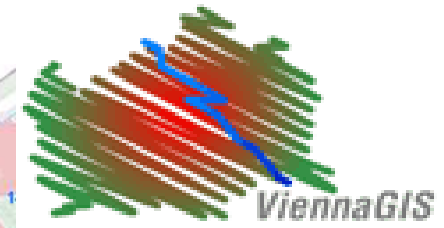


Comparison of Three Cities: Vienna



- City of Vienna started GIS in late 1980's – ViennaGIS
- GIS allows to establish the link between spatial data and user generated data
- Since 1995 ViennaGIS is available over the Internet for public use including the following data:
 - Intended land use plan
 - Prohibitions on building
 - Protected zones
 - Zones of world heritage
 - Projects of city development
 - Networks of public transport, streets, bicycle routes
 - Natural protection zones
 - Service installations (e.g. schools, kindergartens)

Comparison of Three Cities: Vienna



Vienna base map

Land use plan

Cadastral map

Solar panel
potential

Comparison of Three Cities: Vienna

The screenshot shows the website data.wien.gv.at in a browser window. The page features a navigation bar with 'Themen' and 'Virtuelles Amt' tabs. The main header includes the 'wien.at' logo and the text 'Open Government Data Offene Daten für Wien'. A callout bubble points to the URL, stating 'data.wien.gv.at online since yesterday (!) 17-05-2011'. The main content area is titled 'Open Government Data' and includes a sidebar with a 'Datenkatalog' menu listing categories like 'Bevölkerung', 'Bildung', 'Budget', 'Freizeit', 'Gesundheit', 'Kultur', 'Öffentliche Einrichtungen', 'Schnittstellen', 'Soziales', 'Umwelt', and 'Verkehr'. The main content area contains three sections: 'Was bedeutet OGD?' with a word cloud, 'Formate' with a table of data, and 'Suche im Datenkatalog' with a search box and a 'Datenkatalog A bis Z' link. A 'Forum' section encourages discussion on 'Open Government Data'.

data.wien.gv.at
online since
yesterday (!)
17-05-2011

Open Government Data
Offene Daten für Wien

[wien.at](#) > Open Government Data

Open Government Data

Datenkatalog

- ▶ Bevölkerung
- ▶ Bildung
- ▶ Budget
- ▶ Freizeit
- ▶ Gesundheit
- ▶ Kultur
- ▶ Öffentliche Einrichtungen
- ▶ Schnittstellen
- ▶ Soziales
- ▶ Umwelt
- ▶ Verkehr

Was bedeutet OGD?

Mittels Open Government Data werden von der Verwaltung gesammelte Daten frei zugänglich gemacht. [mehr](#)

Formate

Die Stadt Wien startet Ihr Open Data - Angebot mit "Simple Open Data" in den Formaten [CSV](#) und [XML](#). [mehr](#)

Suche im Datenkatalog

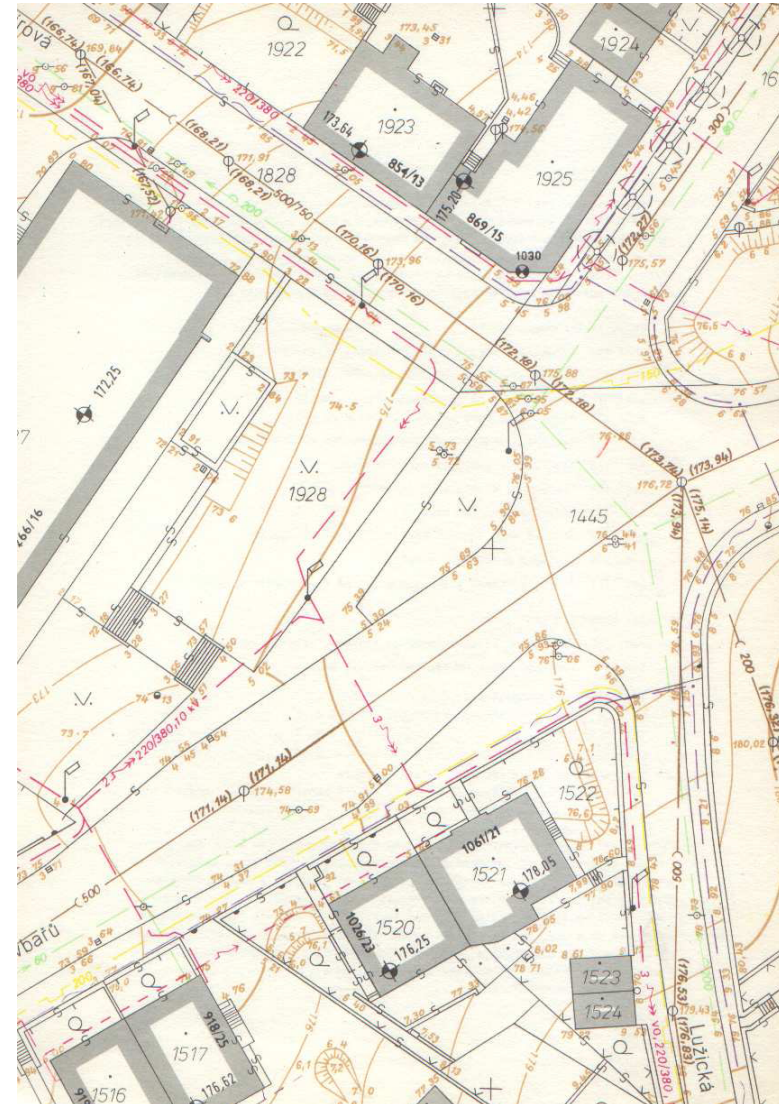
[Datenkatalog A bis Z](#)

Forum Diskutieren Sie mit zum Thema "Open Government Data". Ihr Feedback ist uns wichtig. [mehr](#)

OGD auf twitter

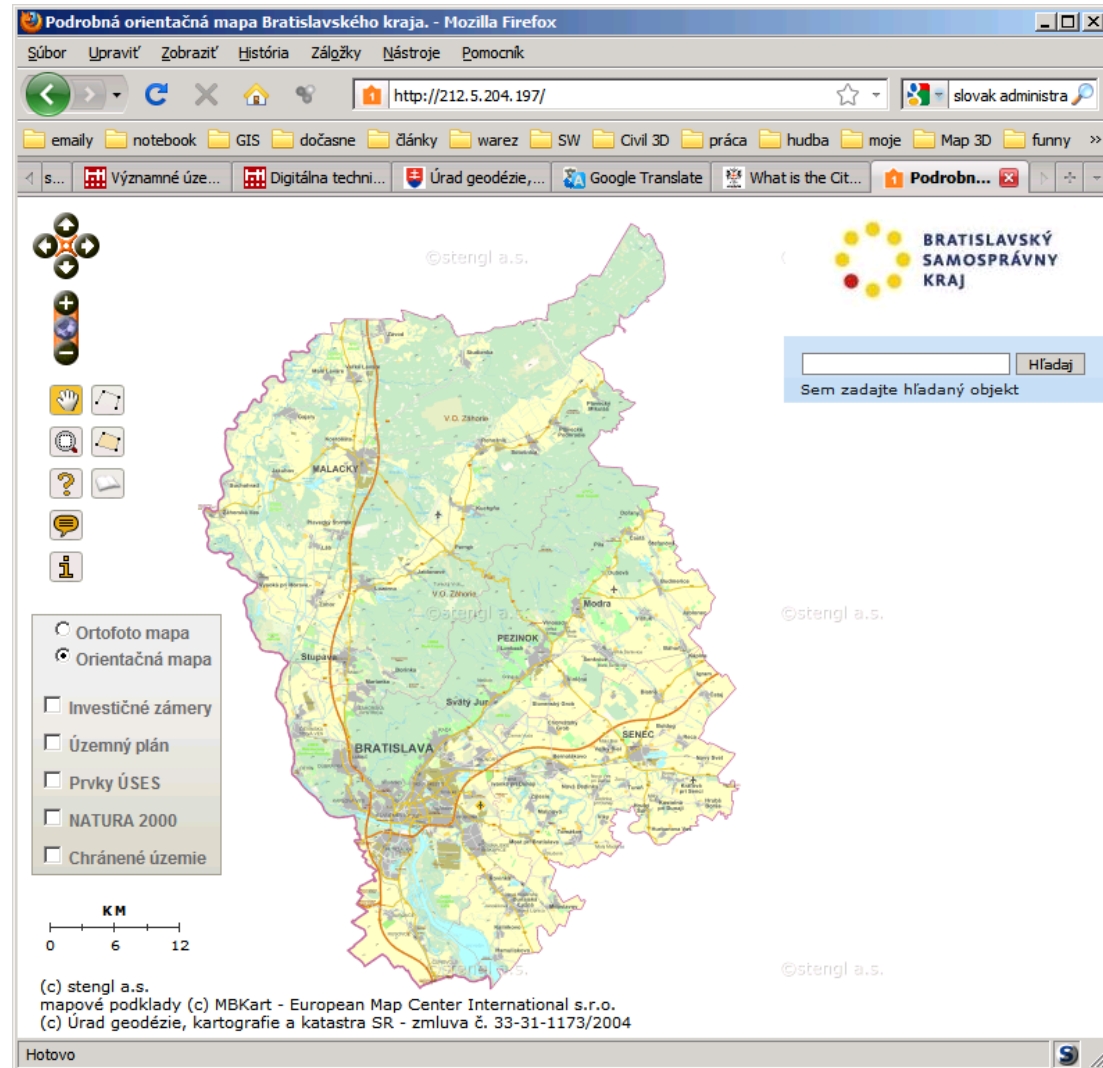
Comparison of Three Cities: Bratislava

- City of Bratislava maintains a *digital technical map*, containing:
 - Buildings (above and below the surface)
 - Relief
 - Technical infrastructure
- Published in analogue and digital format (digital map sheets, CD's)
 - Spatial information portal is currently being developed



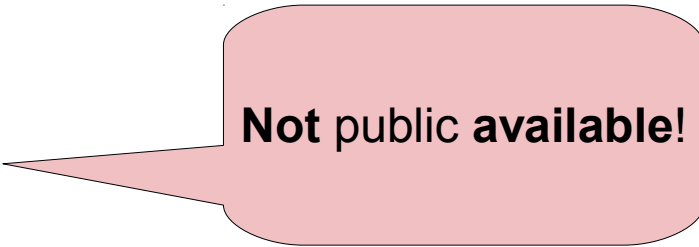
Comparison of Three Cities: Bratislava

- Data on land use:
 - Published as PDF
 - Geoportal of administrative region – <http://212.5.204.197/>
- Does not satisfy the needs of users (scale, content)
- Creates barriers in public participation in spatial planning



Comparison of Three Cities: Teheran

- Data for spatial planning are collected by several institutions:
 - National cartographic center:
 - Parcels, land use and land cover, streets
 - Updated every 5-10 years
 - Scale 1:12000
 - Teheran Geographical Information Center – data for the city of Teheran
 - Street networks and traffic
 - Public transport
 - Underground facilities and supply lines
 - Protected and historical zones
 - Service installations (schools, hospitals, fire stations)



Not public available!



Public available!

Comparison of Three Cities: Teheran

- Teheran Geographical Information Center
 - Manages reconstruction of deprecated areas
 - Manages natural hazard protection
- Master plan exists that is public available (spatial planning)
- Faults
 - Buildings
 - Streets
 - Underground facilities



Conclusion

- Comparison of cities having reached different phases in the transition from analogue to digital spatial planning
 - Vienna:
 - started digital base map approx. 30 years ago
 - Bratislava:
 - Started later due to democratization and split from Czech Republic
 - Teheran:
 - Data are not completely digitized – opportunity to learn from other cities and avoid mistakes
- Data for digital spatial planning are recognized as valuable for each city
- Transition is time consuming and leads to undesirable situations as processes are re-engineered

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