

# ***Exercise 1 - Location Based Services***

Mobile Business II (SS 2017)

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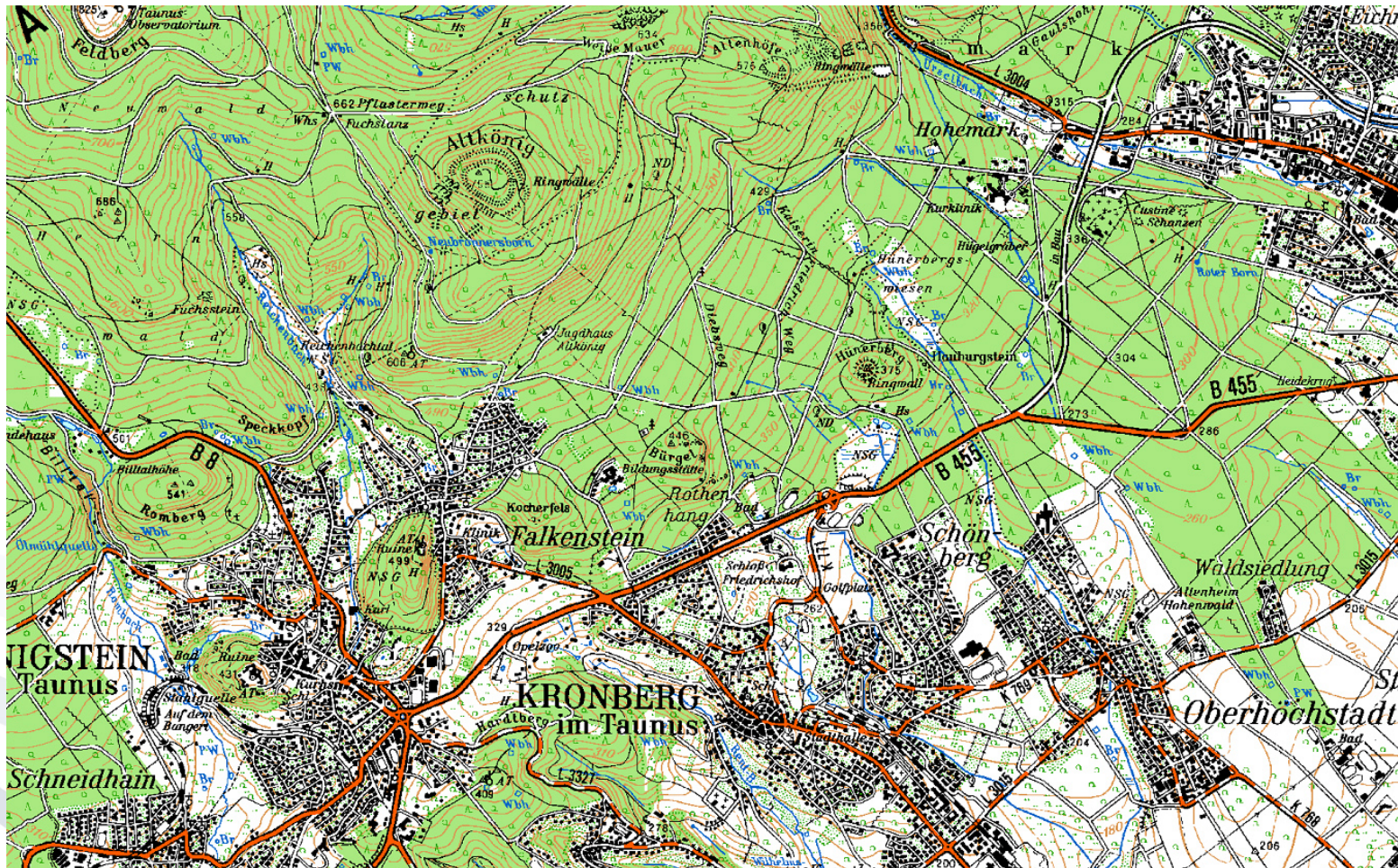
- Maps and their usage
- Mobile Communities and LBS
- Travel services
- Misc
- Your participation 😊

Look at the following maps. Think about the following questions:

- **Purpose:** What is the purpose the map / what can it be used for?
- **Orientation usefulness:** Does this map help you to ride a bicycle from Königstein to Kronberg?
- **Decision support:** Will this map help you to evaluate whether a particular street is a nice place to live in?



# Map 1: Topological map

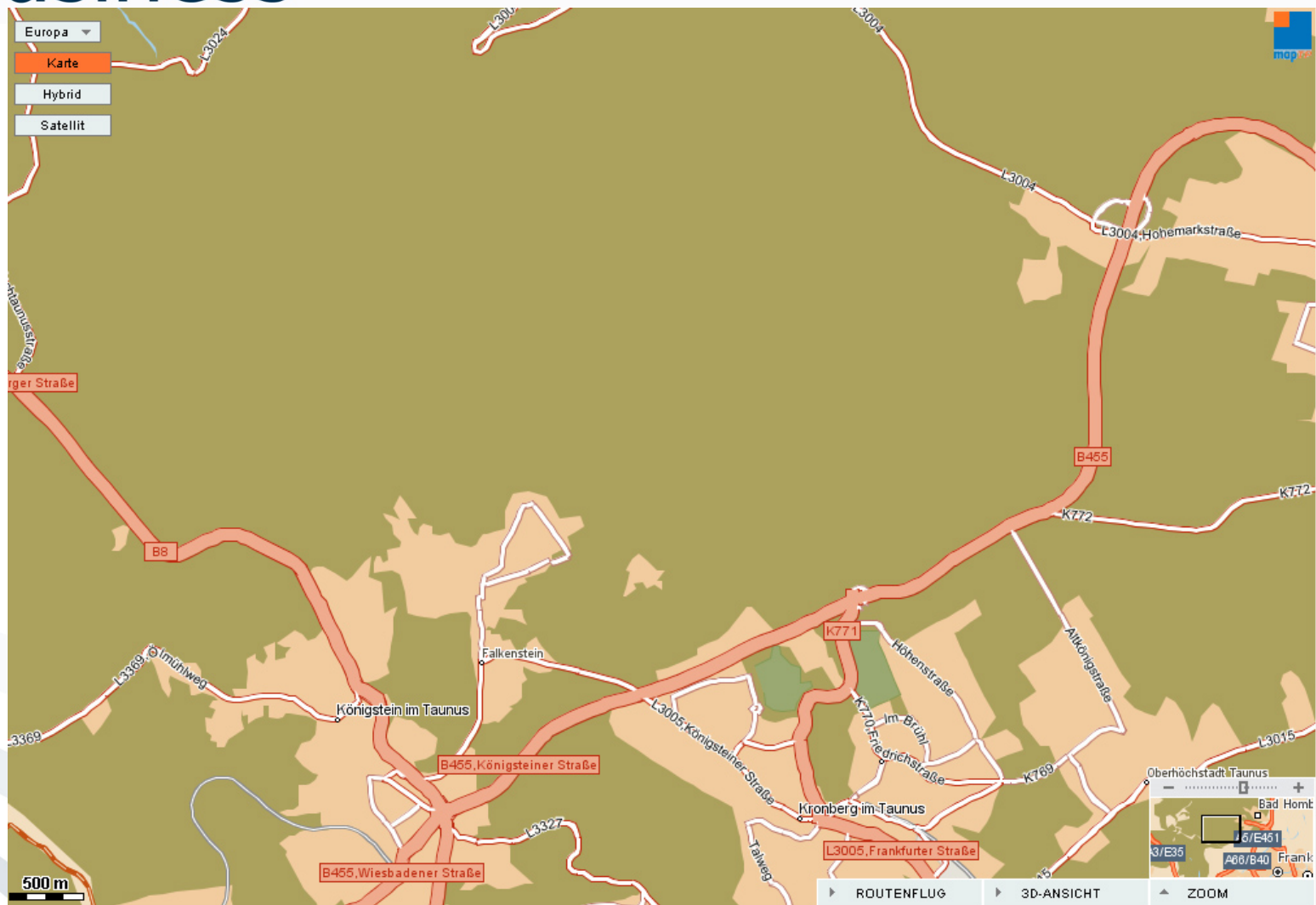


## Map 1: Topological map (2)

- **What is the purpose this map can be used for?**
  - Get an overview of the terrain
  - Height differences
  - Geographical details
  - The area where a certain town is located
- **Does this map help you to ride a bicycle from Königstein to Kronberg?**
  - Yes, since all the roads are shown.
- **Will this map help you to evaluate whether a particular street is a nice place to live in?**
  - One can only partly see what in the surrounding area is, but no precise details.



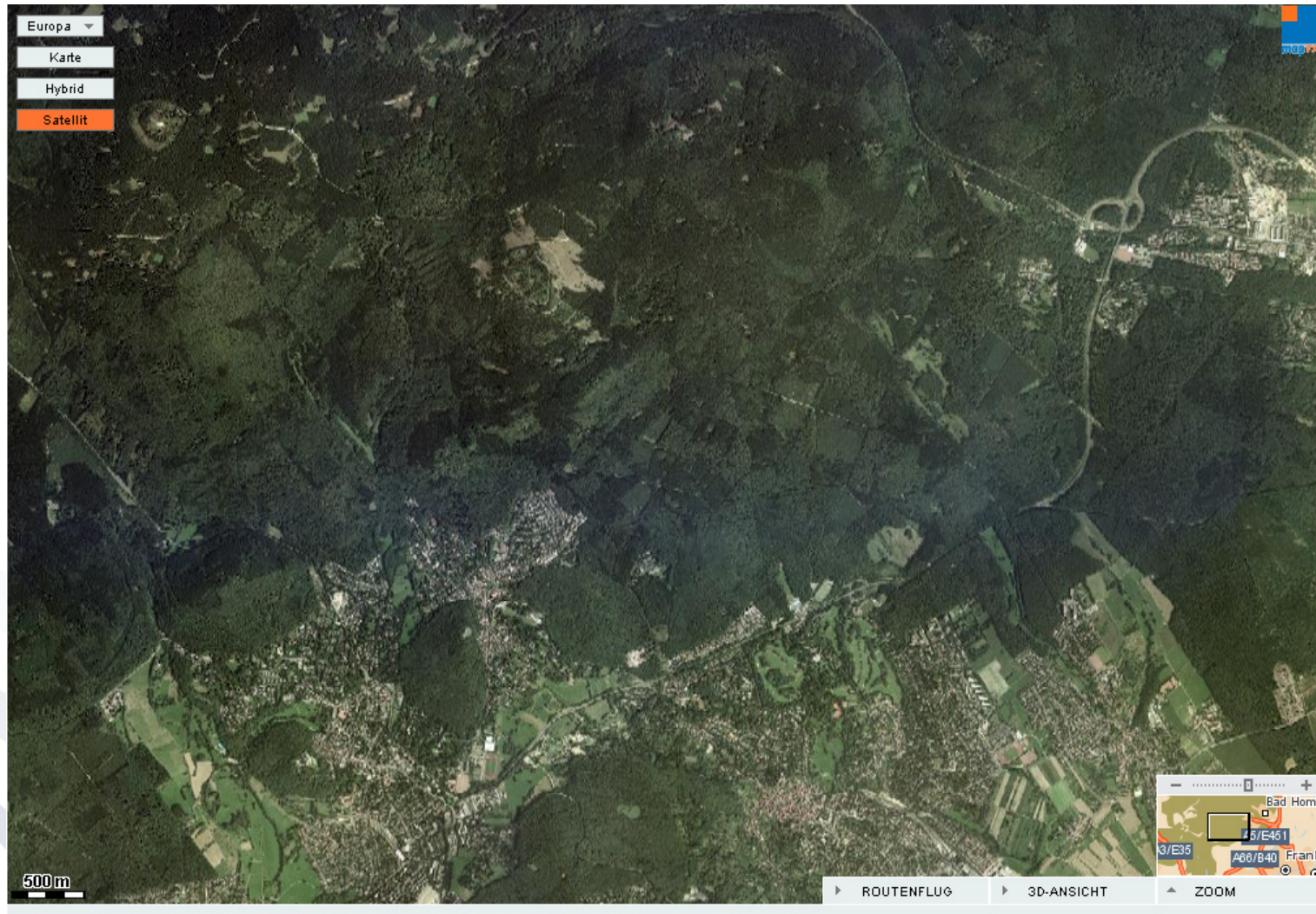
## Map 2: Street-map view



## Map 2: Street-map view (2)

- **What is the purpose this map can be used for?**
  - Car navigation
  - The most important streets and distances are shown.
- **Does this map help you to ride a bicycle from Königstein to Kronberg?**
  - Only partly. The bigger roads are shown, but smaller connecting ways, which are available on a bike are not.
- **Will this map help you to evaluate whether a particular street is a nice place to live in?**
  - No, details missing, except for travelling (connecting) roads to the towns

## Map 3: Satellite view





## Map 3: Satellite view (2)

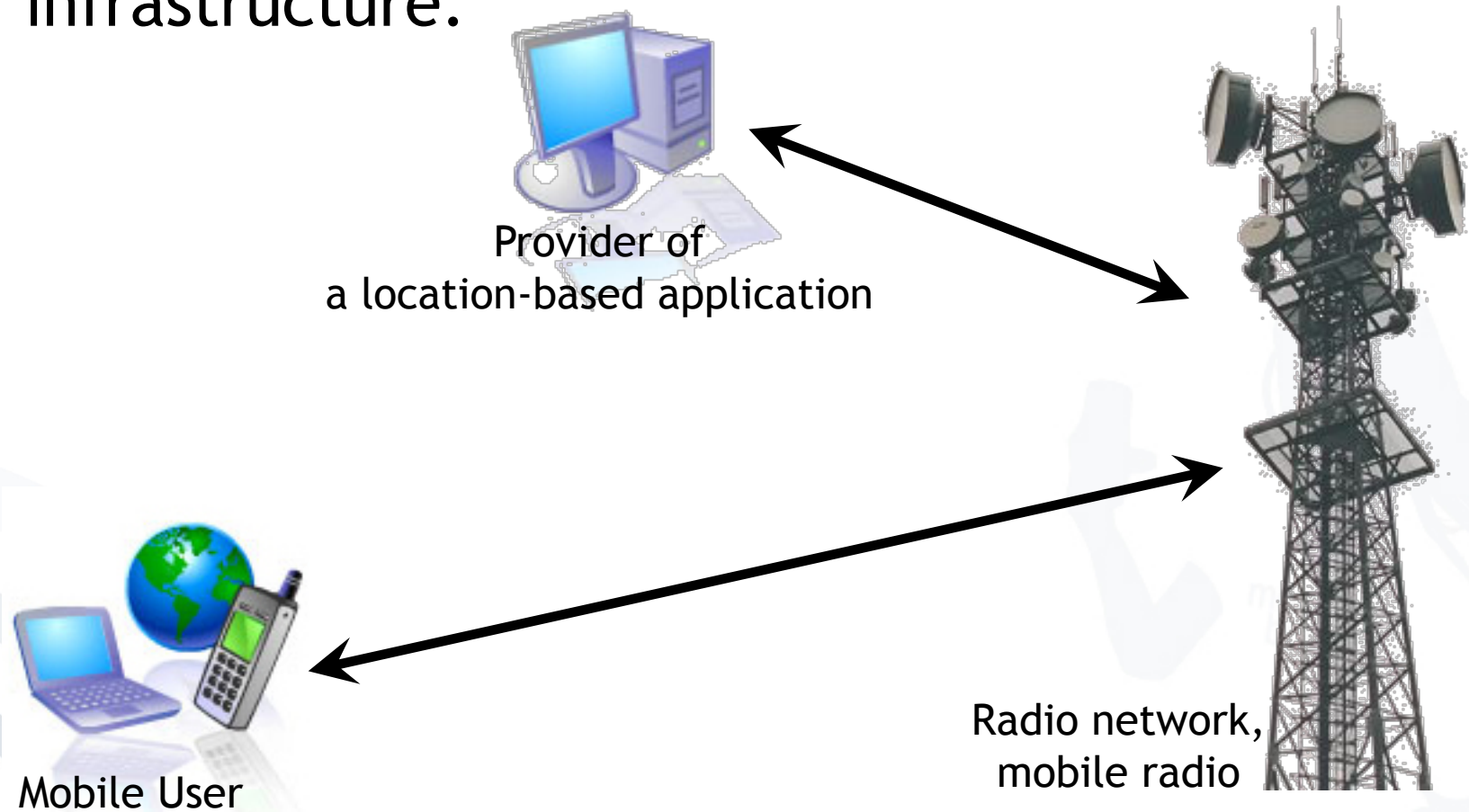
- **What is the purpose this map can be used for?**
  - Satellite picture, more precise details about the area can be found.
- **Does this map help you to ride a bicycle from Königstein to Kronberg?**
  - No, the roads are not shown. The streets can only partly be seen, but in the mountains they are hidden from the trees.
- **Will this map help you to evaluate whether a particular street is a nice place to live in?**
  - Yes, depending on the possibility to zoom in and out, precise details can be recognized.

- Biking
  - Bikemap.net for biking
  - Google Maps brings biking directions in certain countries
- Any other examples that you use?

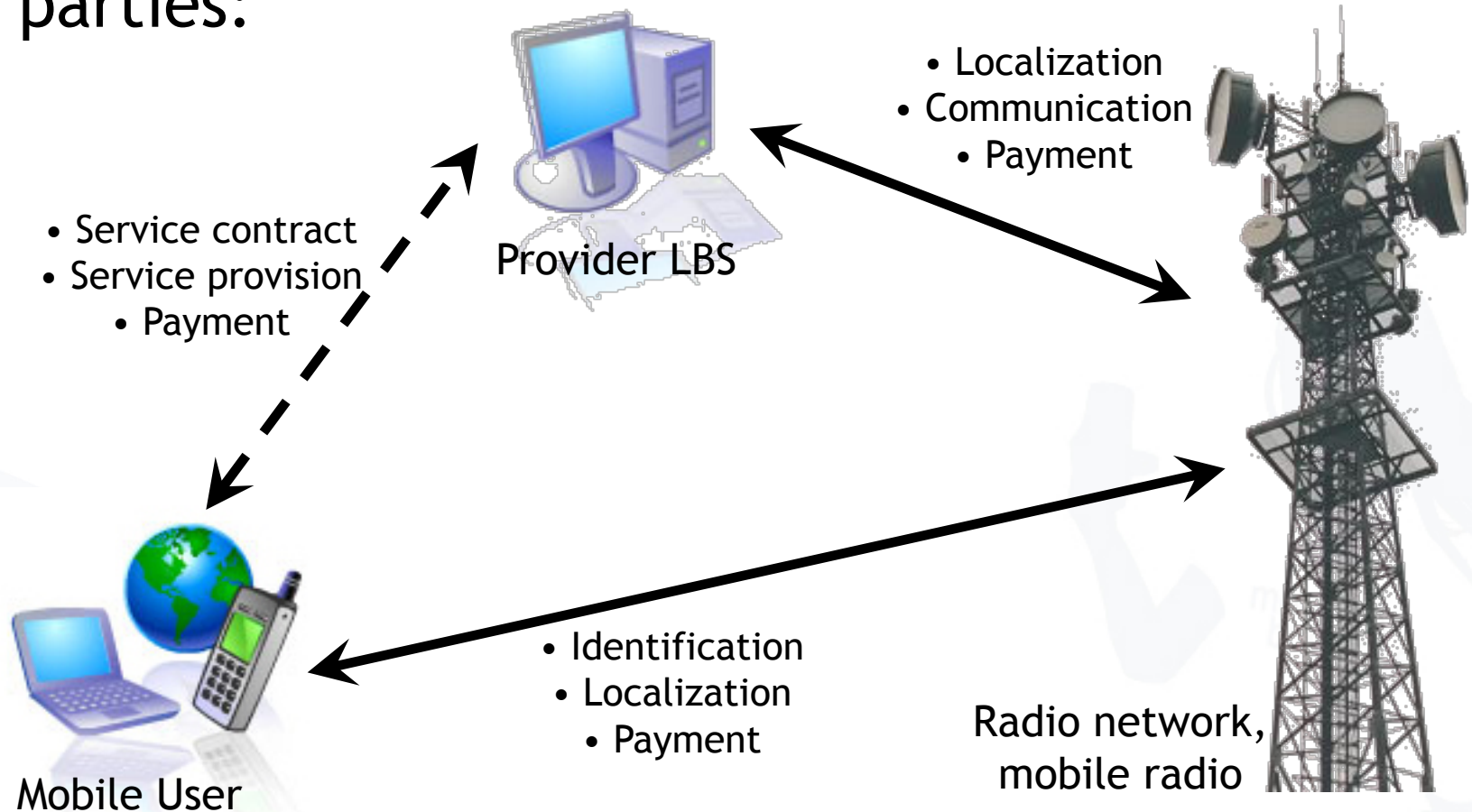
# INFRASTRUCTURE FOR LBS



Usually, we speak of variants of the following infrastructure:



LBS require many relationships among involved parties:



If you are planning to provide a LBS,

**WHICH FACTORS ARE RELEVANT FOR YOU AS  
A SERVICE PROVIDER IN ORDER TO CHOOSE A  
POSITIONING METHOD FOR YOUR SERVICE?**



# Elements of a Business Model

## (1) Value Proposition

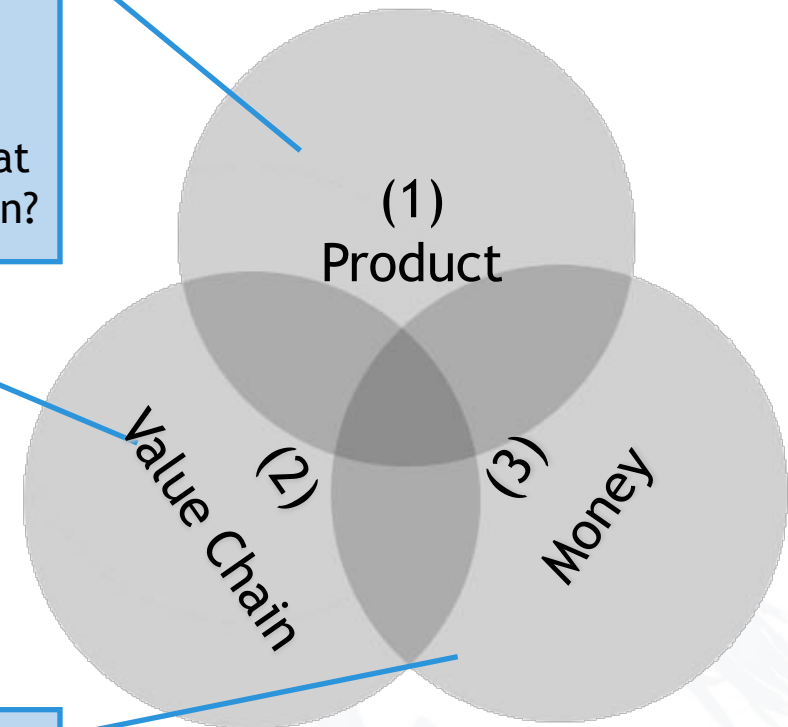
- How does the organisation benefit customers and partners?
- What are the advantages of players that are in relationship with the organisation?

## (2) Architecture of added value

- How is the manufacturing of the output presented?
- In which configuration is the output produced?

## (3) Revenue Model

- Which revenues will be generated from which sources?
- What are possible types and forms of revenue?



## Revenue models

Subscription	Single transaction	Advertisements	Miscellaneous
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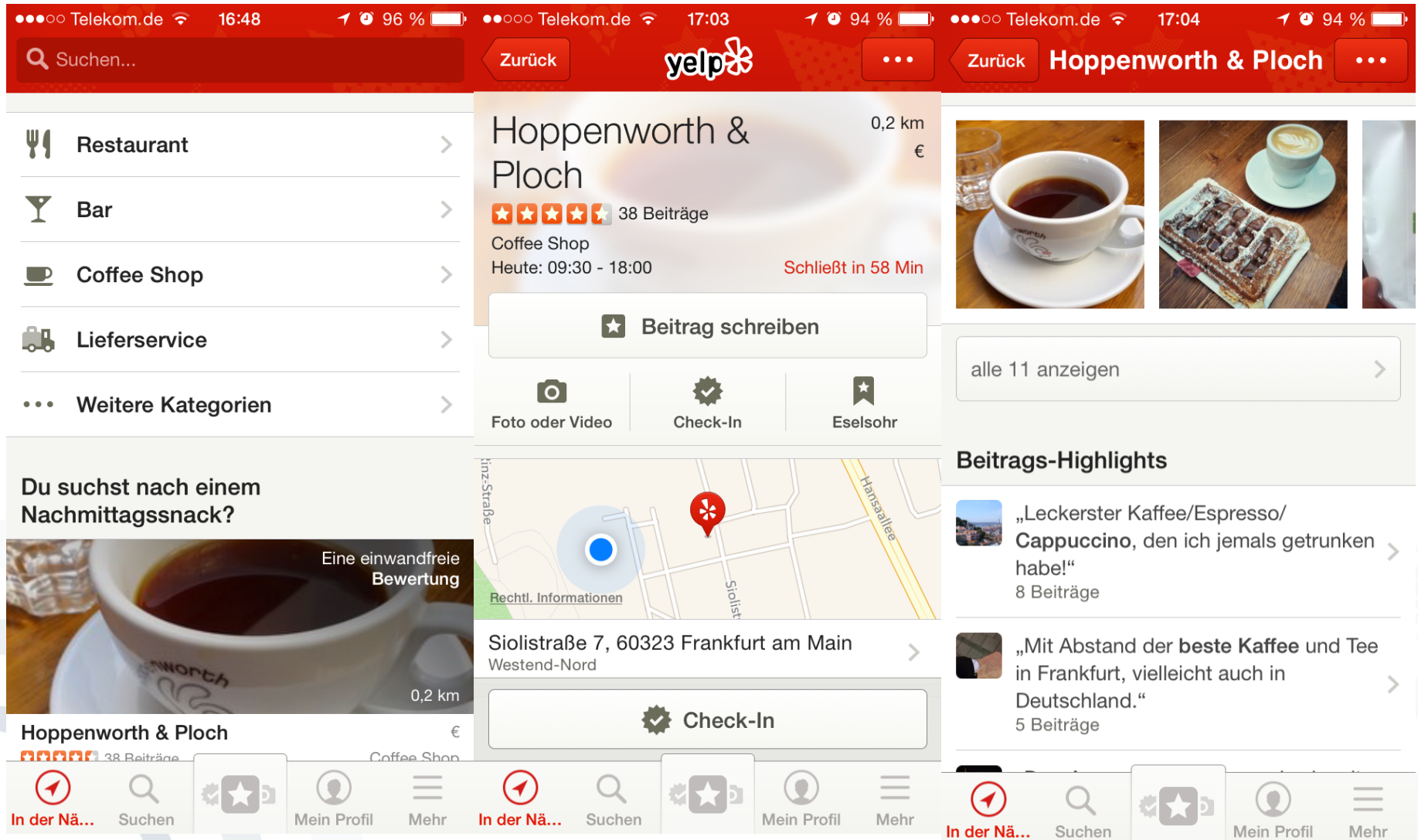
## Revenue types

Direct		Indirect	
Utilisation dependent	Utilisation independent	Via enterprise	Via state
Single transaction depending on quantity or period of use	One-time	e.g. advertisement, commission	Subsidisation
	regular e.g. subscription, (broadcast) fee		

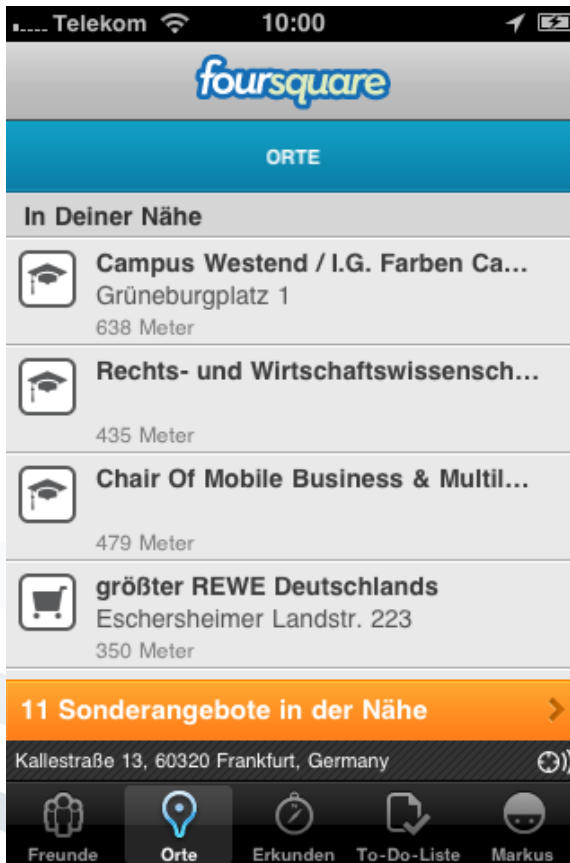
- Examples
- Type of services
- Advantages
- Technology requirements for the users



## Example 1: yelp

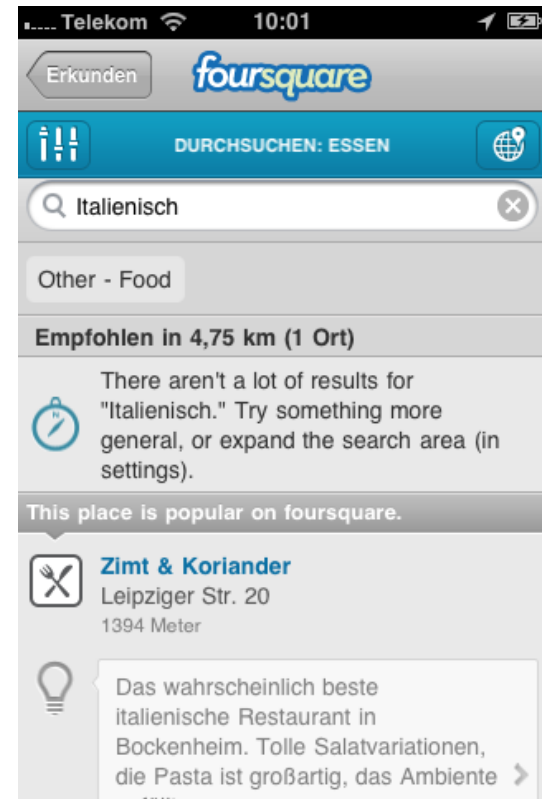


# Example 2 - Foursquare - Check-In



# Example 2 - Foursquare

## Find places around you





# Example 2 - Foursquare Gaming and Honor

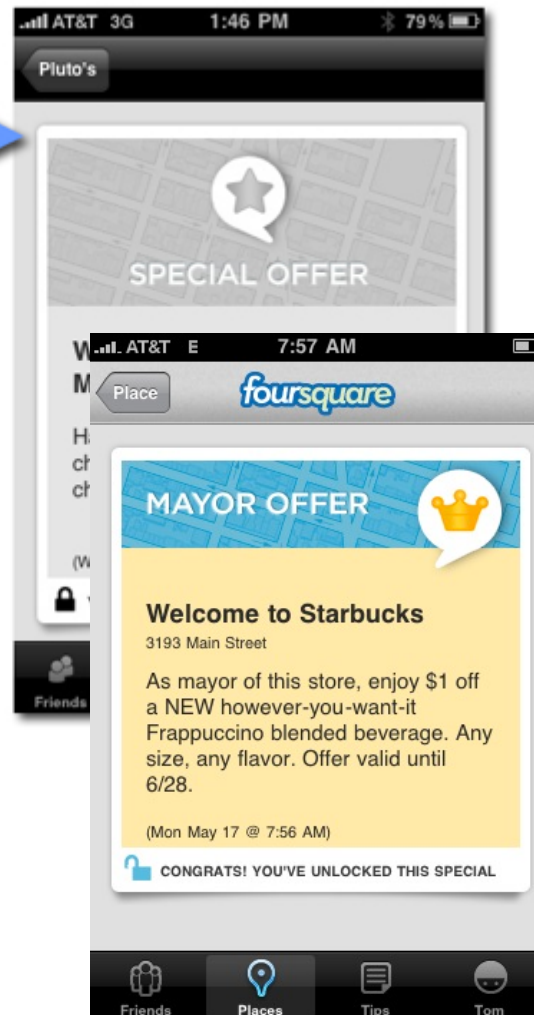
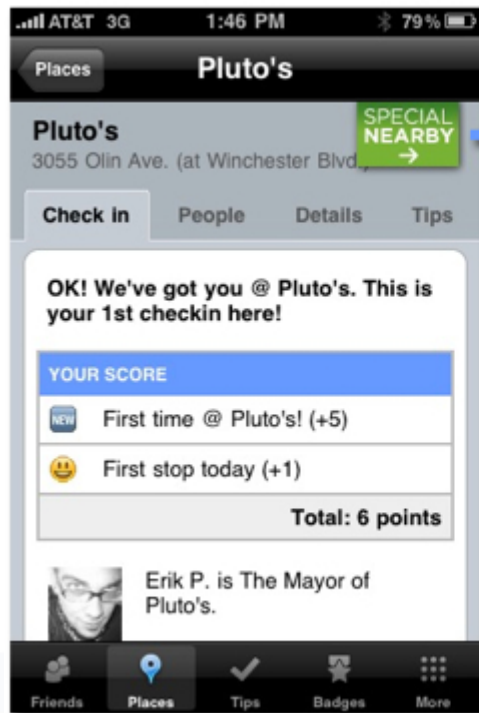
## General Badges



## Partner Badges



## Example 2 - Foursquare Special Offers



### Mayor Special

Free drink with platter purchase.  
Unlocked for the mayor

### Check-in Special

Adam will get you a fresh beverage today during your session if you so choose!  
Unlocked every check-in

### Newbie Special

Thanks for checking in! Please show your checkin to our booth staff to receive a free gift.  
Unlocked on your 1st check-in

### Loyalty Special

Free Potato Pancake with every 3rd check in!  
Unlocked every 3 check-ins

### Special Offer

Buy any whole sandwich, wrap or salad and a drink, and receive a FREE slice of pumpkin cranberry cake!  
Unlocked for some other condition

If you are planning to provide a LBS,

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# Exercise III: Travel applications: Touch&Travel



[https://www.youtube.com/watch?v=iF78QdCn\\_xQ](https://www.youtube.com/watch?v=iF78QdCn_xQ)

## Exercise III: Travel applications: Touch&Travel (2)



- Additional info:
  - App installation on the phone
  - Support of the telecom operators
- Location can be determined by:
  - Phone
  - Barcode scan at the station
  - Contact-point number input
  - Reading the NFC tag at the station
- Check-in, check-out!
- Pay in the end of the month!



Now:

**WHICH FACTORS ARE RELEVANT FOR YOU AS  
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### III: Travel applications: Touch&Travel (2)



- What are the advantages for the travellers?
- What are the requirements of the travellers?
- What are the advantages for D-Bahn?
- What is the role of the network operators?

### III: Travel applications: Touch&Travel (3)



- What are the advantages for the travellers?
  - Less stressful travel
    - Ticket on the spot
    - Smarter pricing - daily vs. one-way tickets
  - Travel now - pay later
  - Electronic receipt of the travel
- What are the requirements for the travellers?
  - Smartphone with location capability and/or camera (QR code)
  - Registration (bank, address)
  - „Certain“ mobile operator
  - Mobile data (internet connectivity)

### III: Travel applications: Touch&Travel (4)



- What are the advantages for DBahn?
  - „Mobile and distributed“ terminals
  - Less expenses for maintaining/installing ticket machines
  - Less expenses - less personnel
  - Potential additional customer data and travel profiles
- For discussion:
  - The role of the network operators
    - Setting up the database of the stations/stops
    - Determining the location of the phone
  - (Any other) parties involved!?

- Other uses:
  - Outdoor activities (jogging)
  - Advertisements
  - Meeting friends (sharing location on Whatsapp, for instance)
- Privacy concerns: who should own the location data?
- Your other ideas, experiences in general.



Now:

**WHICH FACTORS ARE RELEVANT FOR YOU AS  
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POSITIONING METHOD FOR YOUR SERVICE?**

Let's check an online tool out!

[http://www.positioningtechniques.eu/lbs\\_technique\\_checker.asp](http://www.positioningtechniques.eu/lbs_technique_checker.asp)

Questions  
[mob2@m-chair.de](mailto:mob2@m-chair.de)