

Exercise 1 - Location Based Services

Mobile Business II (SS 2024)

Dr. Ahad Niknia

Chair of Mobile Business and Multilateral Security
Johann Wolfgang Goethe-Universität Frankfurt a. M.

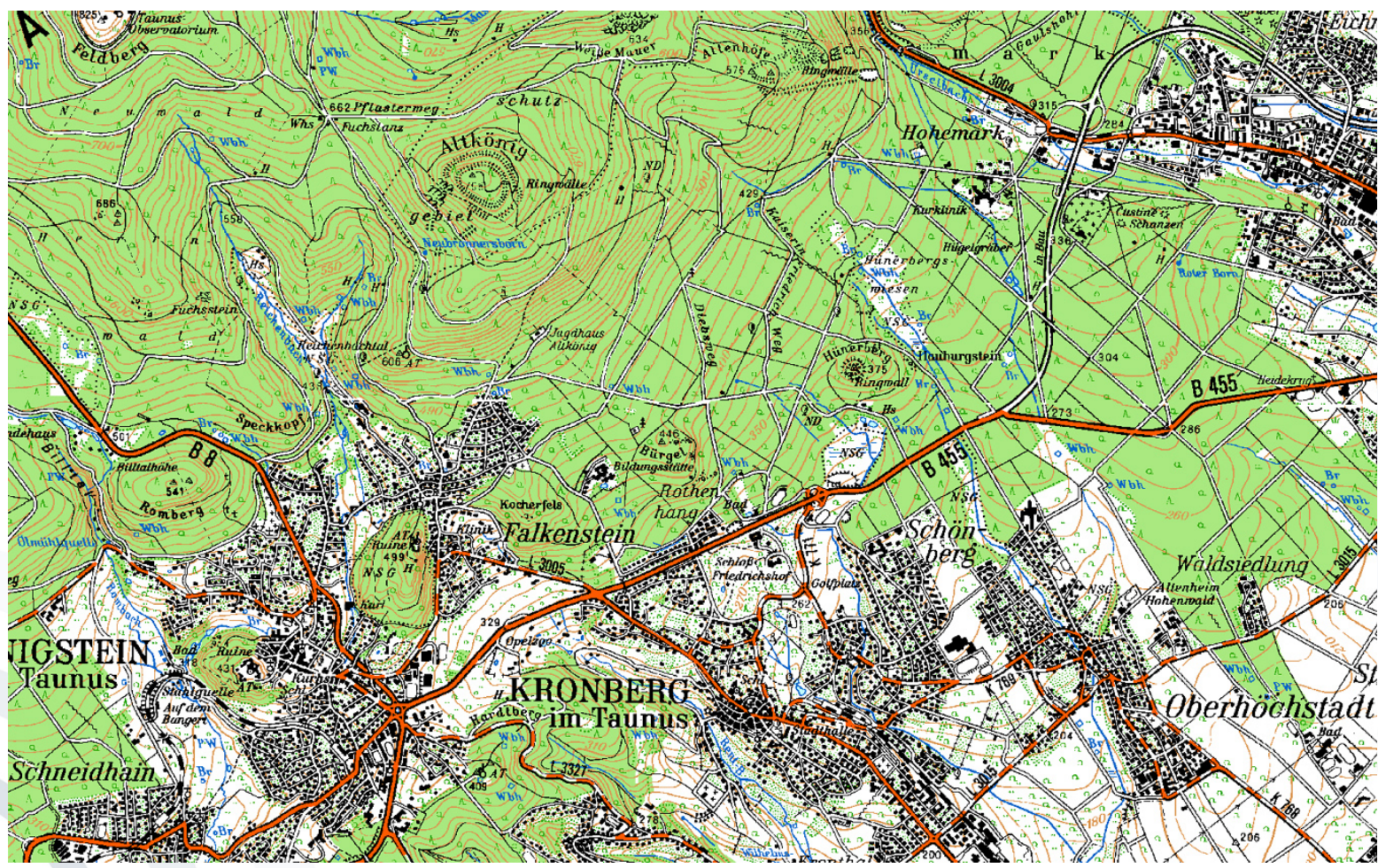


- Digital maps and their usage
- Mobile communities and LBS
- Travel services
- Your participation 😊

Look at the following maps and briefly answer the three questions for each of them.

1. **Purpose:** What is the purpose this map can be used for?
2. **Usefulness for orientation:** Does this map help you to ride a bicycle from Königstein to Kronberg?
3. **Decision support:** Will this map help you to evaluate whether a particular street is a nice place to live in?

Map 1: Topographic map



Map 1: Topographic map (2)

1. What is the purpose this map can be used for?
2. Does this map help you to ride a bicycle from Königstein to Kronberg?
3. Will this map help you to evaluate whether a particular street is a nice place to live in?

Map 1: Topographic map (2)

- 1. 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
- 2. Does this map help you to ride a bicycle from Königstein to Kronberg?**
- 3. Will this map help you to evaluate whether a particular street is a nice place to live in?**

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 - Yes, since all the roads are shown.
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 - Yes, since all the roads are shown.
- 3. 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

- 1. What is the purpose this map can be used for?**
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Map 2: Street-map view

- 1. What is the purpose this map can be used for?**
 - Car navigation
 - The most important streets and distances are shown.
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Map 2: Street-map view

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 - Car navigation
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 - Only partly. The bigger roads are shown, but smaller connecting ways, which are available on a bike are not.
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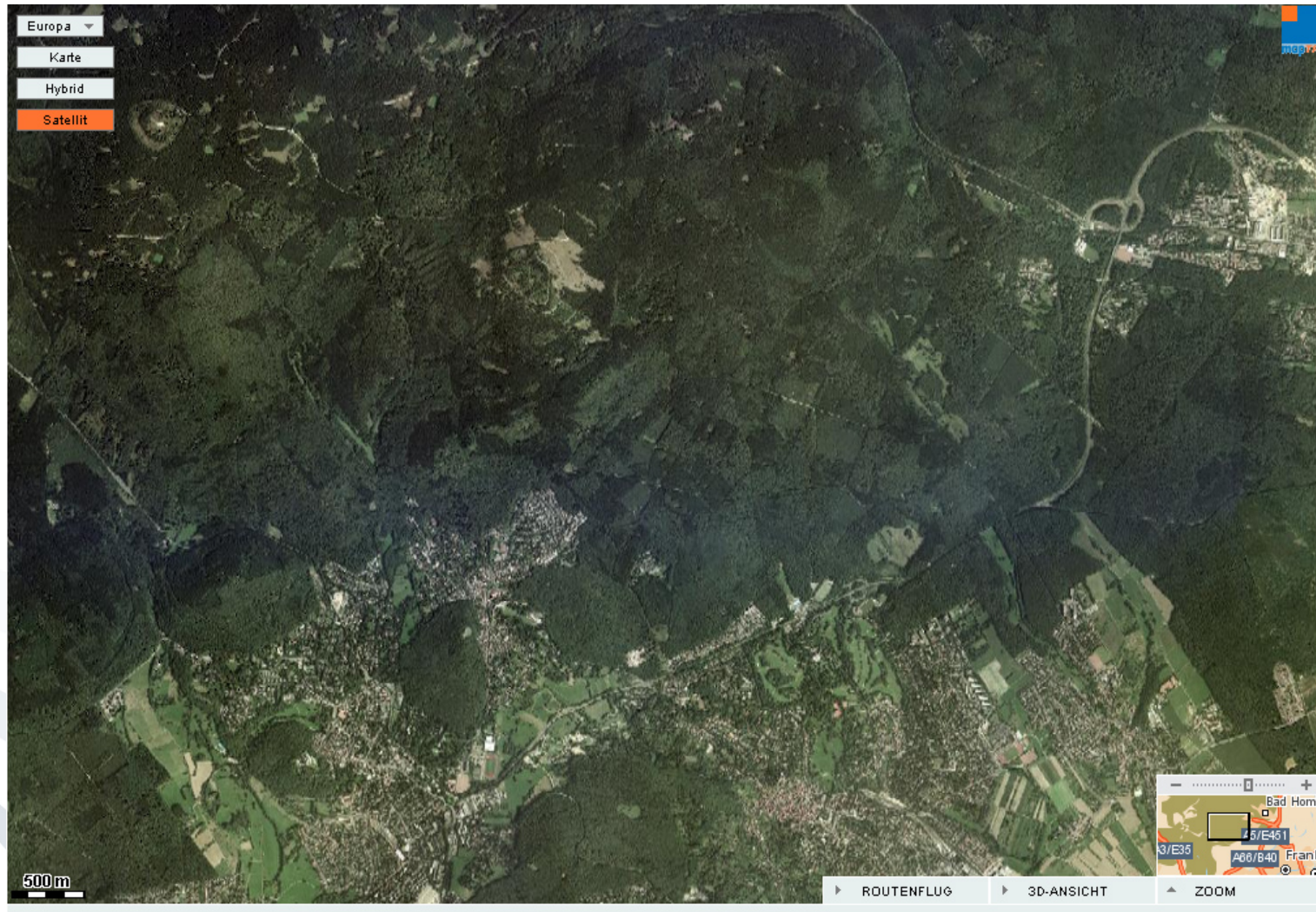
2. Does this map help you to ride a bicycle from Königstein to Kronberg?

- Only partly. The bigger roads are shown, but smaller connecting ways, which are available on a bike are not.

3. 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



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Map 3: Satellite view

- 1. What is the purpose this map can be used for?**
 - Satellite picture, more precise details about the area can be found.
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- 1. What is the purpose this map can be used for?**
 - Satellite picture, more precise details about the area can be found.
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 - No, the roads are not shown. The streets can only partly be seen, but in the mountains they are hidden from the trees
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 - No, the roads are not shown. The streets can only partly be seen, but in the mountains they are hidden from the trees
- 3. 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.

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?**

Revenue and revenue models

Infrastructure for LBS

business model

Business relations

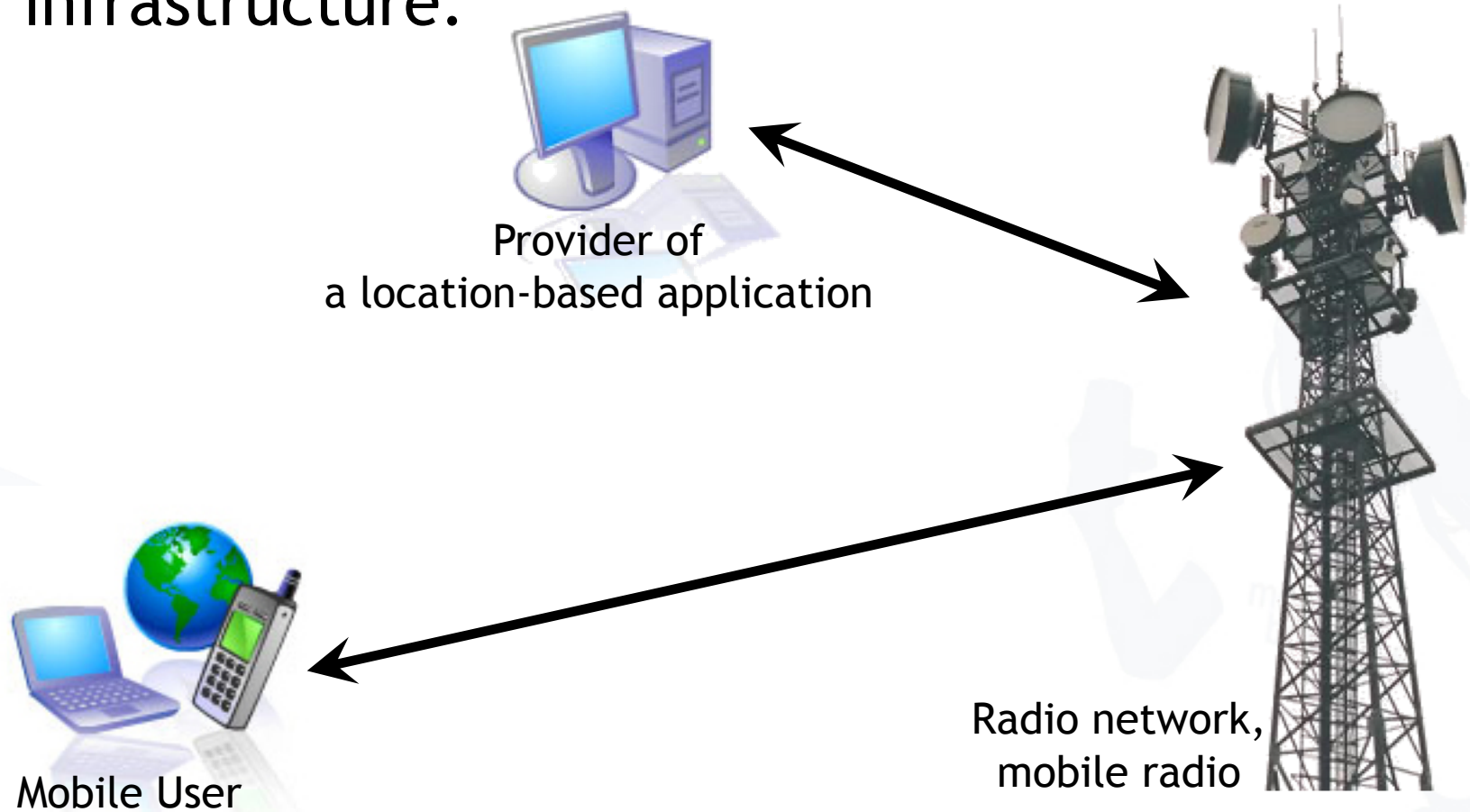
Architecture of the added value

If you are planning to provide a LBS,

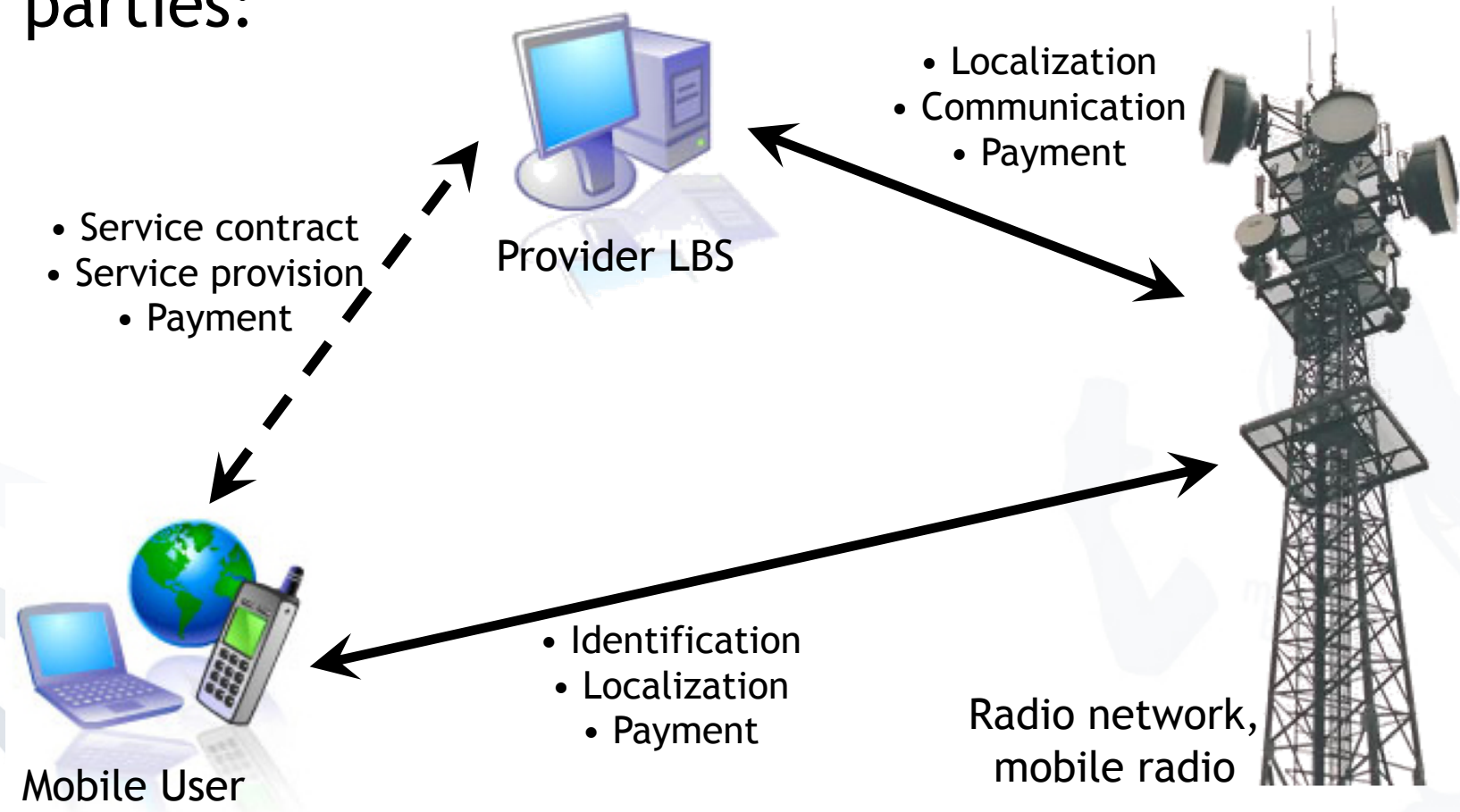
**WHICH FACTORS ARE RELEVANT FOR YOU AS
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INFRASTRUCTURE FOR LBS

Usually, we speak of variants of the following infrastructure:



LBS require many relationships among involved parties:



(1) Value Proposition

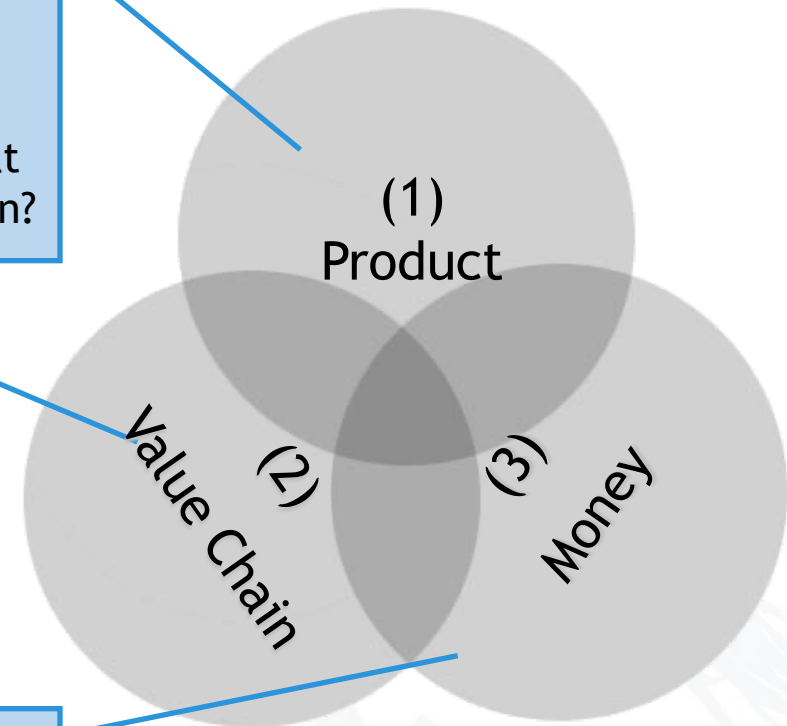
- How does the organisation benefit customers and partners?
- What are the advantages of players that are in relationship with the organisation?

(2) Architecture of added value

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

(3) Revenue Model

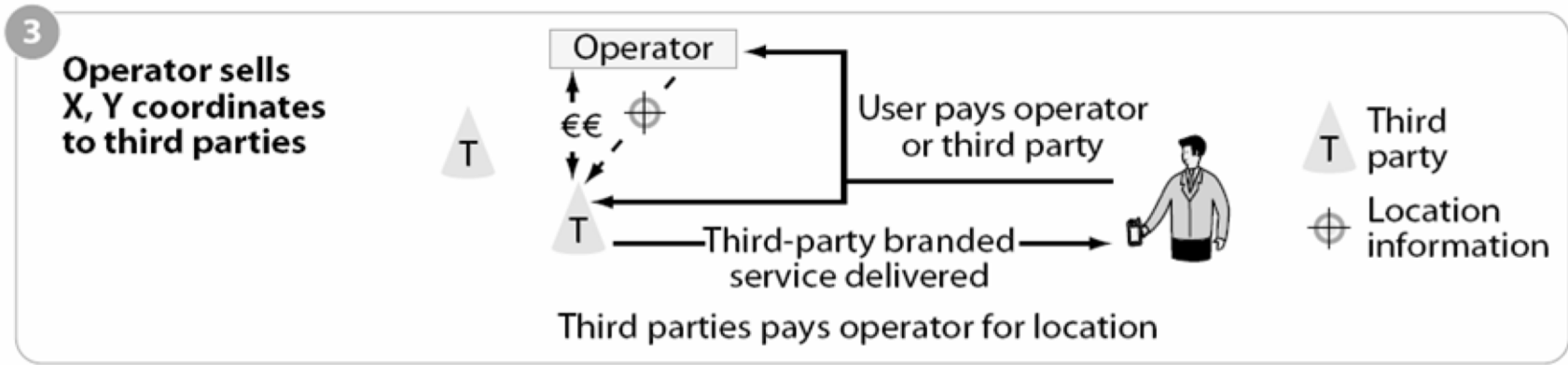
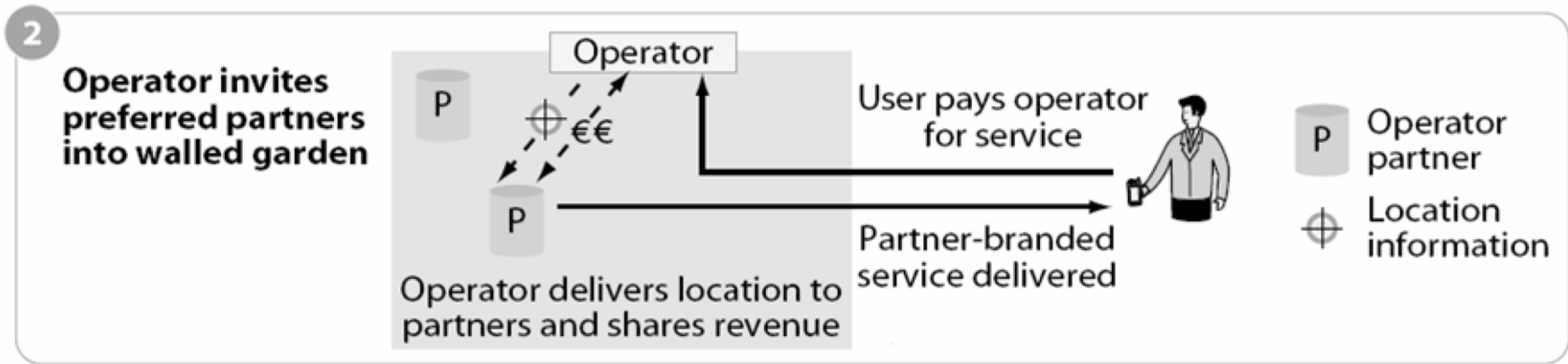
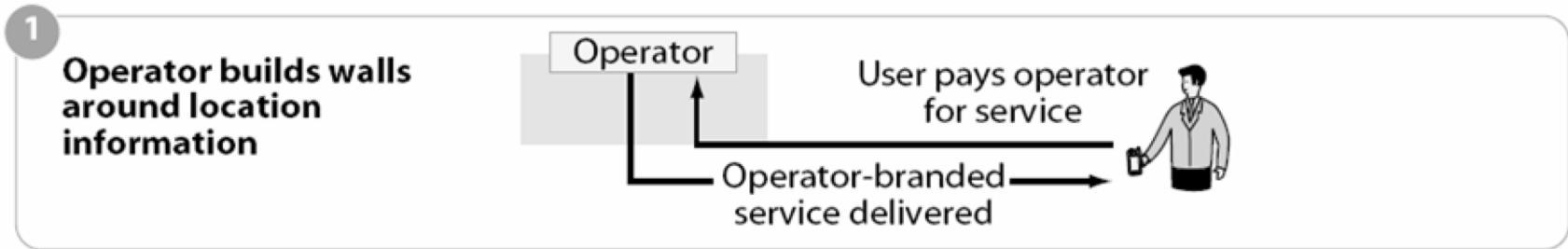
- Which revenues will be generated from which sources?
- What are possible types and forms of revenue?



Revenue models			
Subscription	Single transaction	Advertisements	Miscellaneous

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

Architecture of the added value



- Examples for mobile community platforms and travel apps
- Type of services
- Advantages
- Technology requirements for the users


Telekom.de 16:48 96 %

Suchen...

- Restaurant
- Bar
- Coffee Shop
- Lieferservice
- Weitere Kategorien

Du suchst nach einem Nachmittagsnack?

Eine einwandfreie Bewertung



Hoppenworth & Ploch €

38 Beiträge Coffee Shop

In der Nä... Suchen Mein Profil Mehr

Telekom.de 17:03 94 %

Zurück **yelp** ...

Hoppenworth & Ploch 0,2 km €

★★★★★ 38 Beiträge

Coffee Shop Heute: 09:30 - 18:00 Schließt in 58 Min

Beitrag schreiben

Foto oder Video Check-In Eselsohr




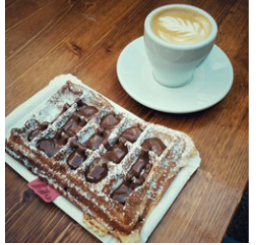
Siolistraße 7, 60323 Frankfurt am Main Westend-Nord

Check-In

In der Nä... Suchen Mein Profil Mehr

Telekom.de 17:04 94 %

Zurück **Hoppenworth & Ploch** ...

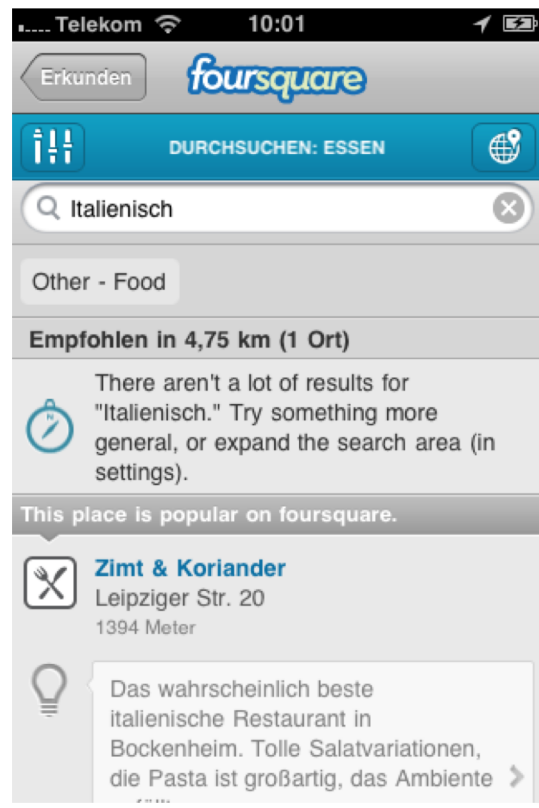
alle 11 anzeigen

Beitrags-Highlights

- „Leckerster Kaffee/Espresso/Cappuccino, den ich jemals getrunken habe!“ 8 Beiträge
- „Mit Abstand der beste Kaffee und Tee in Frankfurt, vielleicht auch in Deutschland.“ 5 Beiträge

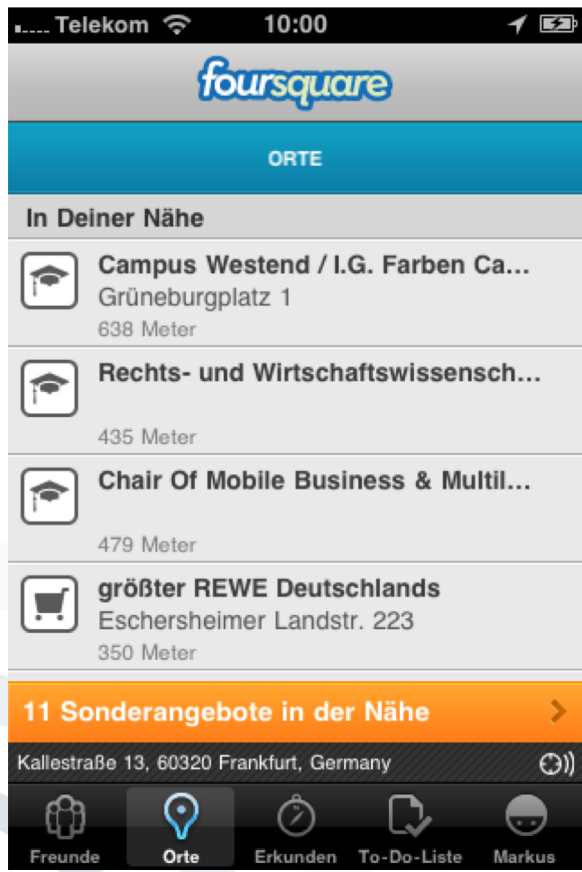
In der Nä... Suchen Mein Profil Mehr

Example 2: Foursquare Find places around you





Example 2: Foursquare Check-In

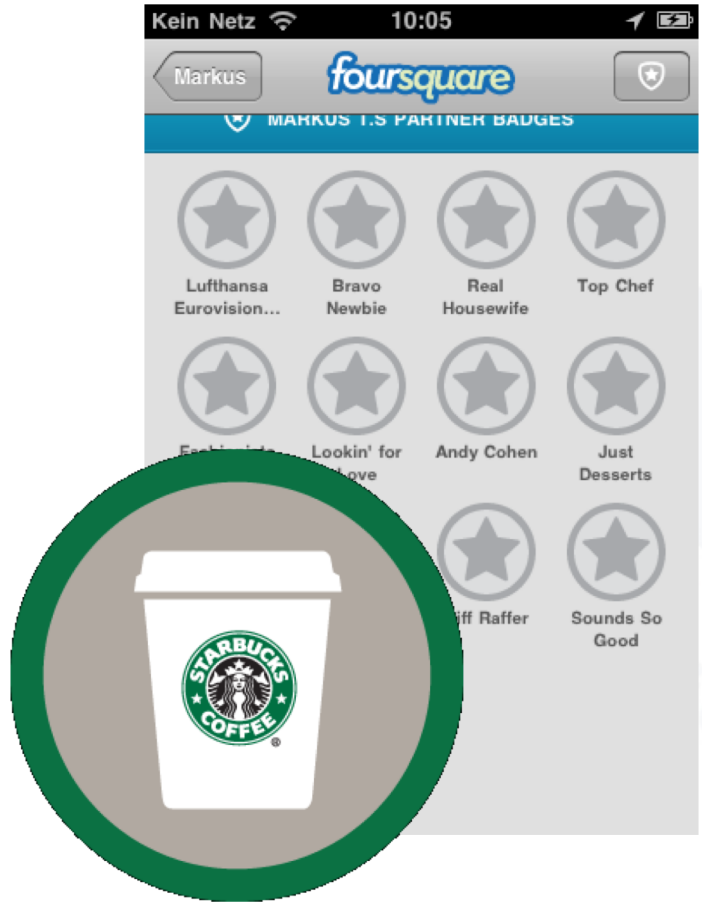


Example 2 - Foursquare Gaming and Honor

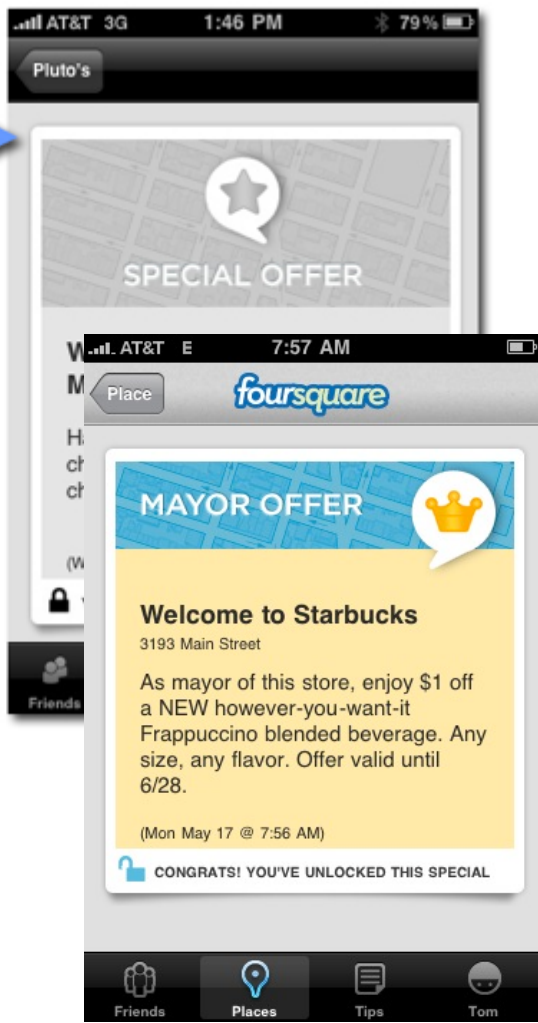
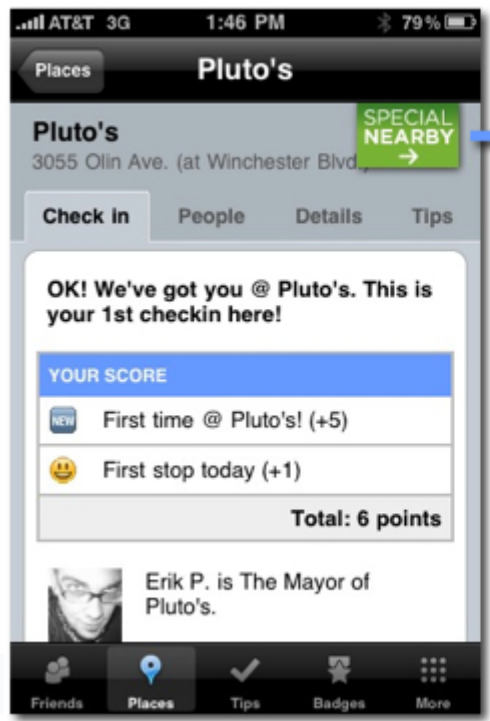
General Badges



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

Example 3: Travel applications: Touch&Travel



https://www.youtube.com/watch?v=iF78QdCn_xQ

Example 3: Travel applications: Touch&Travel



- Additional info:
 - App installation on the phone
 - Support of the telecom operators
- Location can be determined by:
 - GPS
 - Barcode scan at the station
 - Registering the number of a touch point in the app
 - Reading the NFC tag at the station
- Check-in, check-out
- Pay at the end of the month

III: Travel applications: Touch&Travel



- a) What are the advantages for the travellers?
- b) What are the requirements of the travellers?
- c) What are the advantages for D-Bahn?
- d) What is the role of the network operators?



a) 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

b) What are the requirements for the travellers?

- Smartphone with location capability or camera (QR code)
- Registration (bank, address)
- „Certain“ mobile operator
- Mobile data (internet connectivity)



c) 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

d) The role of the network operators

- Determining the location of the phone
- Setting up the database of the stations/stops

Questions

mob2@m-chair.de

- Topographic maps are a detailed record of a land area, giving geographic positions and elevations for both natural and man-made features. They show the shape of the land the mountains, valleys, and plains by means of brown contour lines (lines of equal elevation above sea level).