



*»Unternehmen
bewegen«*

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**Design and potential of electronic fares in public transport:
Evidence from a pilot test in Heidelberg**



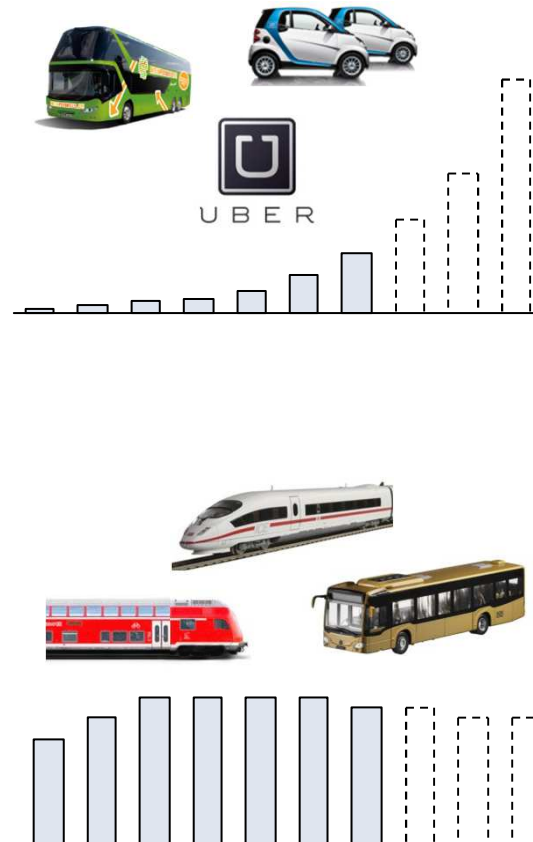
Vienna, October 15th 2015

Innovative pricing strategies are one key element to comply with the changing customer needs and new competitors for public transport

Diversity of services and customer needs



Market growth



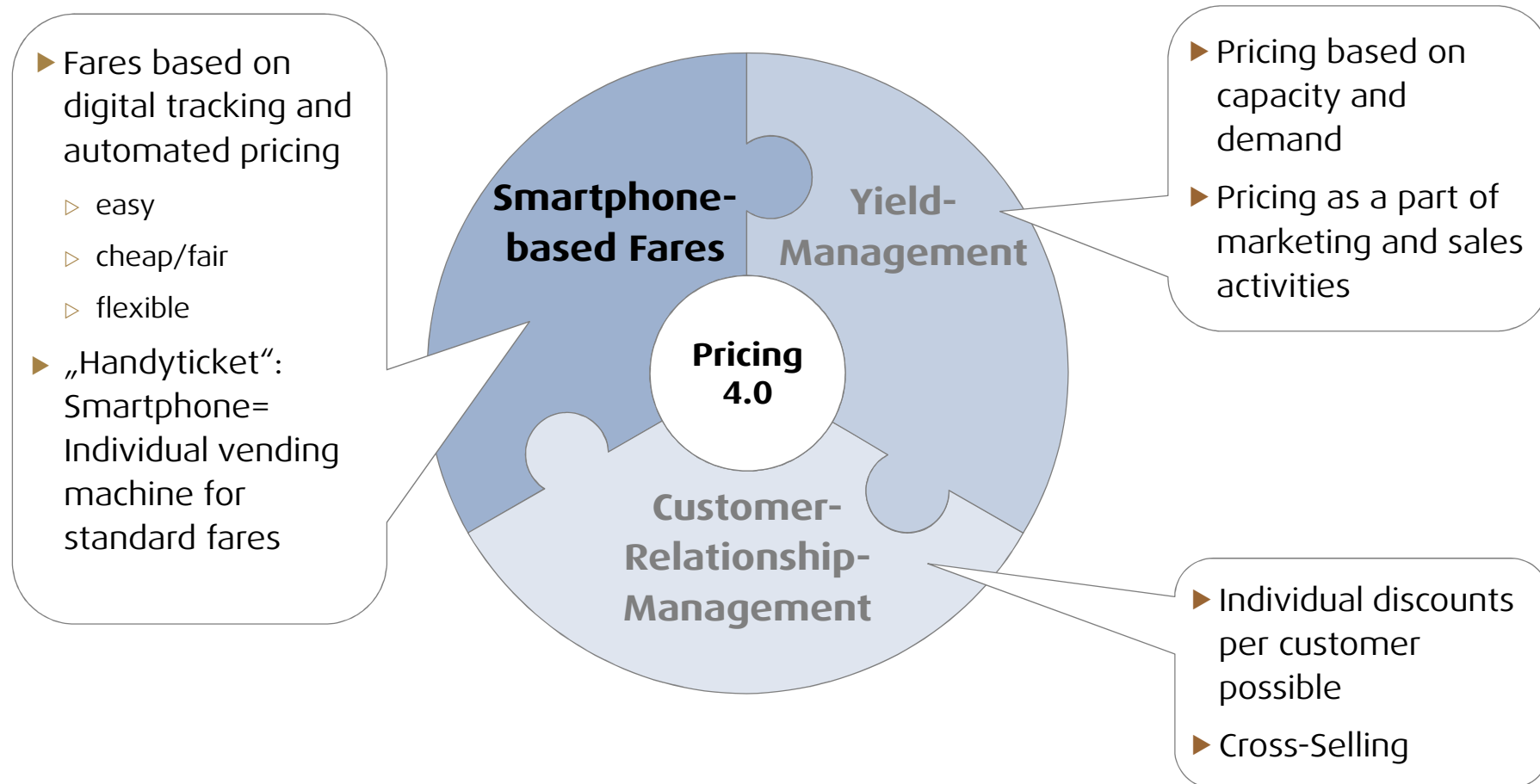
Challenges for pricing in public transport

- ▶ Most fare systems do not support an active market development
- ▶ Current pricing schemes are not really able to attract new target/customer groups
- ▶ Generating customer loyalty is an aim only achieved by very few tickets or products



To overcome the current challenges innovative pricing strategies combine three major elements

Elements of pricing 4.0 in public transport



An electronic fare system is offering a huge potential to increase demand and revenues

Perceived advantages of electronic fares

Decreasing barriers of entry

- ▶ Fares based on automated pricing are able to overcome the perceived complexity by customers when occasionally using public transport

Simplicity as a key to target new costumers

- ▶ When based on a simple and easy to communicate pricing scheme electronic fares can attract new costumers

Possibilities for price differentiation

- ▶ Apart from new target groups additional potential is derived from more differentiated pricing that possible with electronic fares

No „all-in-one“-electronic fare is available: options must be chosen based on assessment of individual requirements

Parameters	Design options					
Base fare	Base fare per day		Base fare per ride		Minimum fare per ride	None
Flexible fare (per unit)	Time: per single min	Time: scale (5/10 ...90 min.)	Trip distance: per single km	Trip distance: scale (5/10 km)	Beeline: shortest	Beeline: longest
Price curve	Linear		Declining		Stepwise	
Differentiation	Age	1. class	Product	“Bahncard”	Time of day	Day of week
Price caps	Best price per day	Price of weekly ticket	Price of monthly ticket	Price of yearly ticket	None	Per single trip
Volume discount	Km (distance)		Revenue		Loyalty (duration of contract)	
Calculation of discount	Per trip (continuous rebates)			Per month		
Compensation of discount	Invoicing month		Following month		“free rides”/voucher	
Type of contract with costumer	Period contract		Volume contract		Flexible contract	
Payment	Cash		debit		Credit card	
Point of payment	Pre-paid			Post-paid		

Light blue options: option is in reality only possible with electronic fares

Innovative pricing is a significant prerequisite for public transport to assume a leading role in integrated mobility services

Example of an integrated multimodal fare system with high flexibility

Per ride

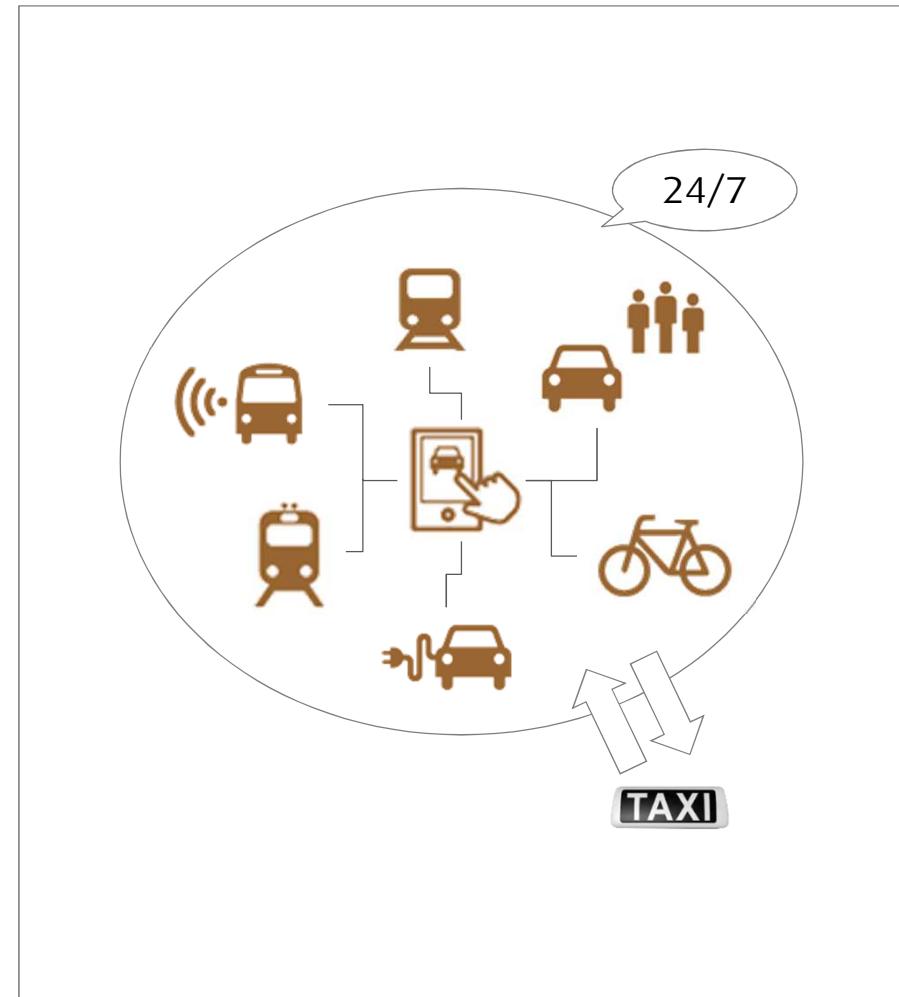
	Base fare	Distance	Time	Product type
PT	1,50 €	0,20 €/km	-	-
Car-sharing	-	0,30 €/km	2,50 €/h	Standard
	-	0,40 €/km	3,00 €/h	Electric Car
E-Bike-sharing	-	-	0,15 € / min	-

Monthly bill (20 rides)

10 x PT: base fare + 30 km	=	21,00 €
+ 5 x E-carsharing: 10 h + 150 km	=	90,00 €
+ 5 x Bikesharing: 3 h	=	27,00 €
Total		138,00 €

Ex post-discount

Example: 15 € discount given as rebate on the next monthly invoice



The electronic fare „eTarif Heidelberg“

- eTarif is applied for all origin-destination-pairs inside the Heidelberg fare zone booked with the smartphone-app „Touch & Travel“ as of Jan 1st 2015.
- The pilot test can be run for a maximum of 3 years. Possible Roll-out date: 2017 or 2018
- The current electronic fare:
base fare per ride: 1,00 €
flexible fare per beeline-km: 0,20 €
- 25% discount on base and flexible fare for BahnCard-holders
- No additional price cap per day or per month in the pilot test
- Both eTarif-tickets and classic VRN-tickets are pooled for the existing day-ticket price cap

www.vrn.de

Eine App. Keine Tickets.
Einfach losfahren.

touch & travel

☑ Spart Zeit.
☑ Schont Nerven
☑ Ist ganz ein...

Neu bei Touch&Travel:
In Heidelberg zahlen
Sie nur die Luftlinie!
Info unter: www.vrn.de/luftlinie

Einfach
ankommen.

VRN
VERKEHRSVERBUND RHEIN-NECKAR

Success factor CiCo-system Touch & Travel

- ▶ Touch & Travel (T&T) was launched in all public transport (pt) vehicles in the VRN in June 2013.
- ▶ Presently **T&T is the only well-established smartphone-based CiCo-system** in the german pt-market.
- ▶ There is a day cap in all pt-associations that are offering T&T to their customers.
- ▶ **Customers do not need any fare knowledge** when using T&T, they just have to check in and check out.
- ▶ **T&T overcomes existing fare- and carrier-borders.** Local transport and heavy rail can be used in one CiCo-operation and are being put into one invoice.



Success factor customer orientation

- ▶ What we learned from market research results: the fare system ...
 - ... has to be **easy and understandable**.
 - ... has to be distance-related. The beeline-concept is well known and closely linked to customer value.
 - ... needs to have price caps per day und per month.
 - ... should not be demand-related or day-time-related.

Casual customers are the most important target group to increase demand.



„beeline“ as essential innovation

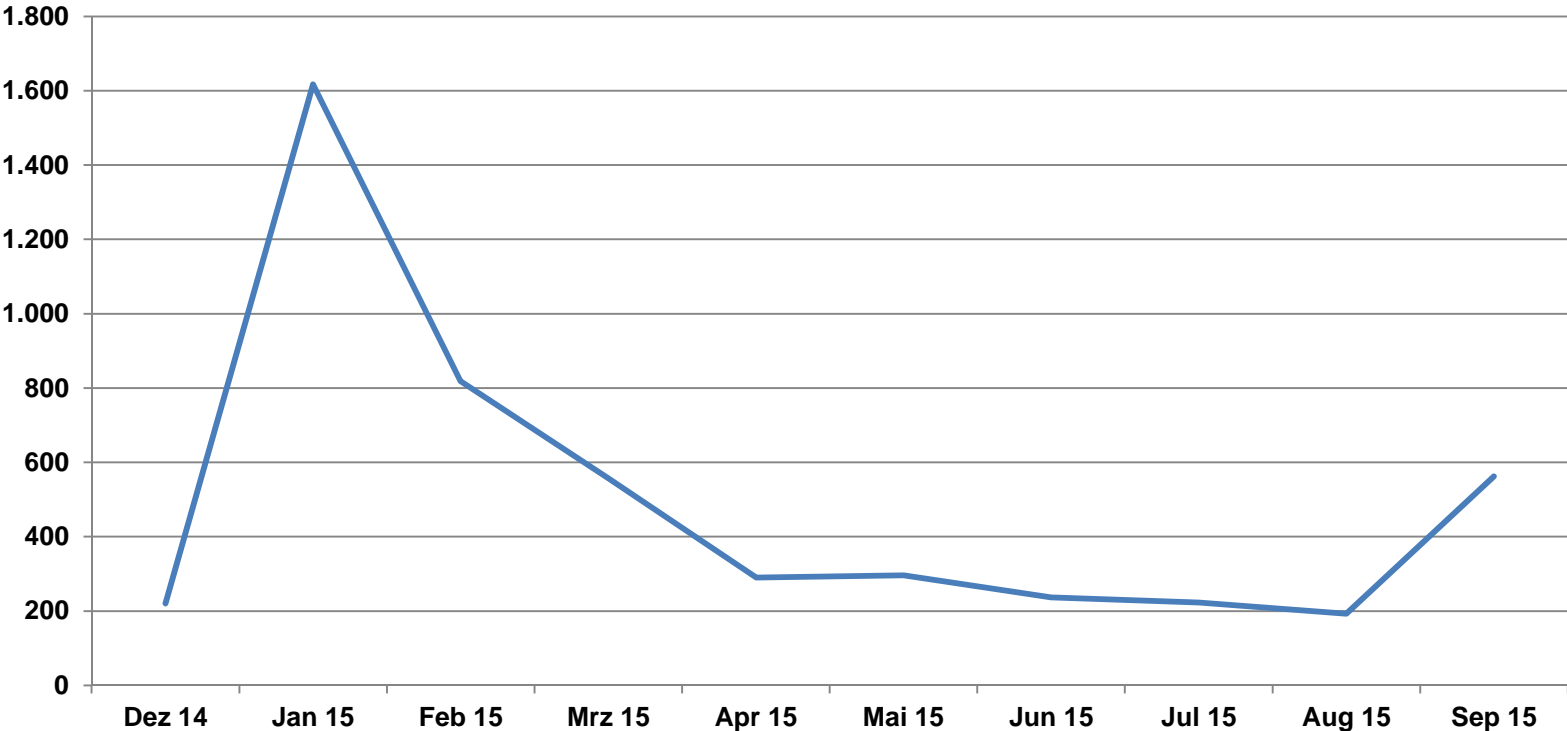
- There is no reasonable alternative to distance-related fares !?
- Customers voted „Yes“ on beeline in our market research
- The beeline concept is commonly used and well known



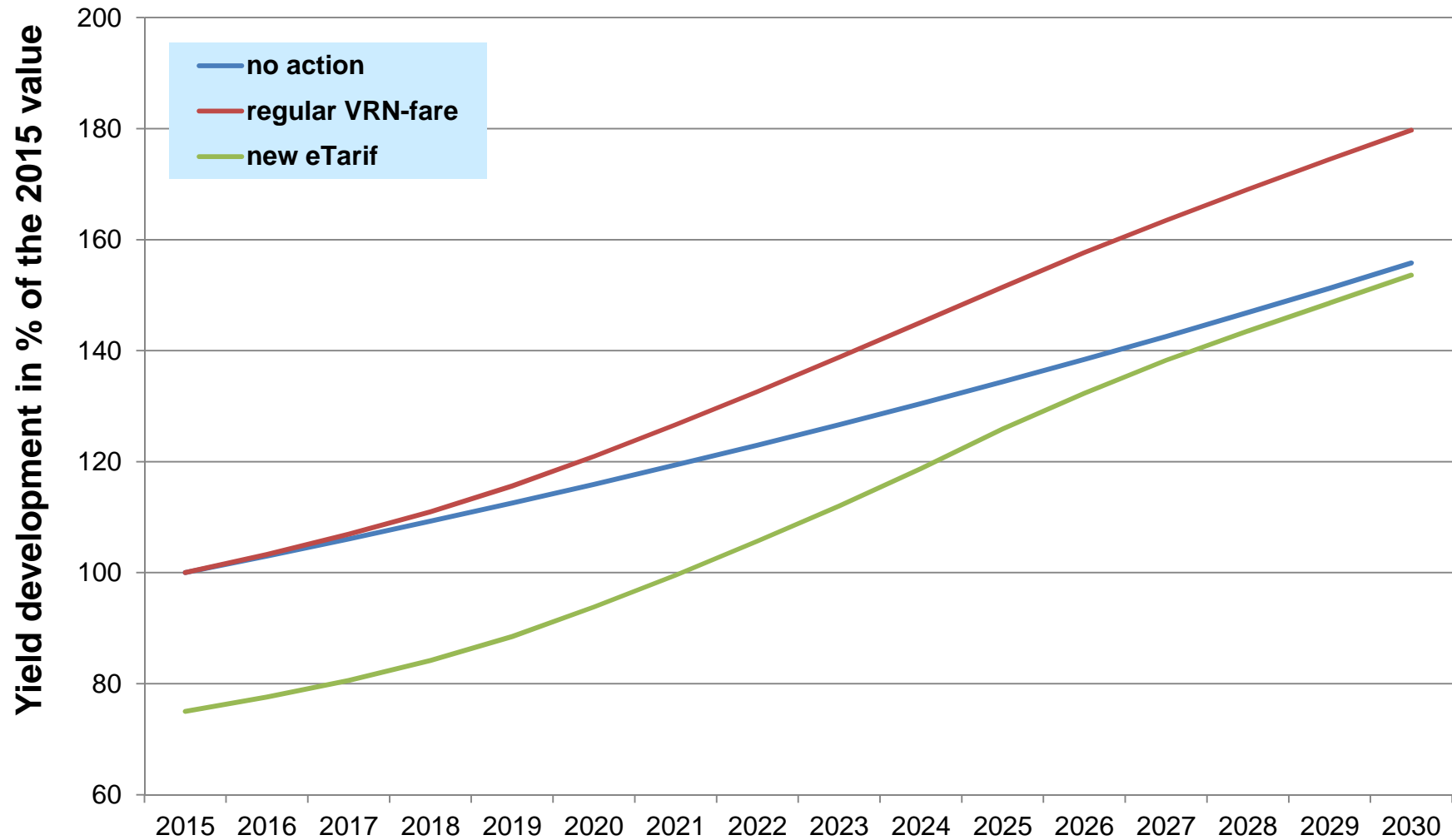
- It is regarded as fair and just, because only direct customer value is charged.
- Technically and legally (almost) perfectly defined
- Easy communication, ideal advertising slogan
- *Fraud potential !*
- *CiCo-system is obligatory.*


The eTarif makes customers trust our fare system

Number of requested price informations



Target migration process in the VRN-area





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Thank you for your attention!

mobilité

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