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ANNUAL CONFERENCE

26-27 November 2025
Royal Jaarbeurs | Utrecht, Netherlands

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Session:
Mobility as a right –
Public transport as a service

Utrecht, 27.11.2025



Quelle: WS

Ex-ante and ex-post assessment of the German flatrate for public transport (so called Deutschlandticket, D-Ticket)

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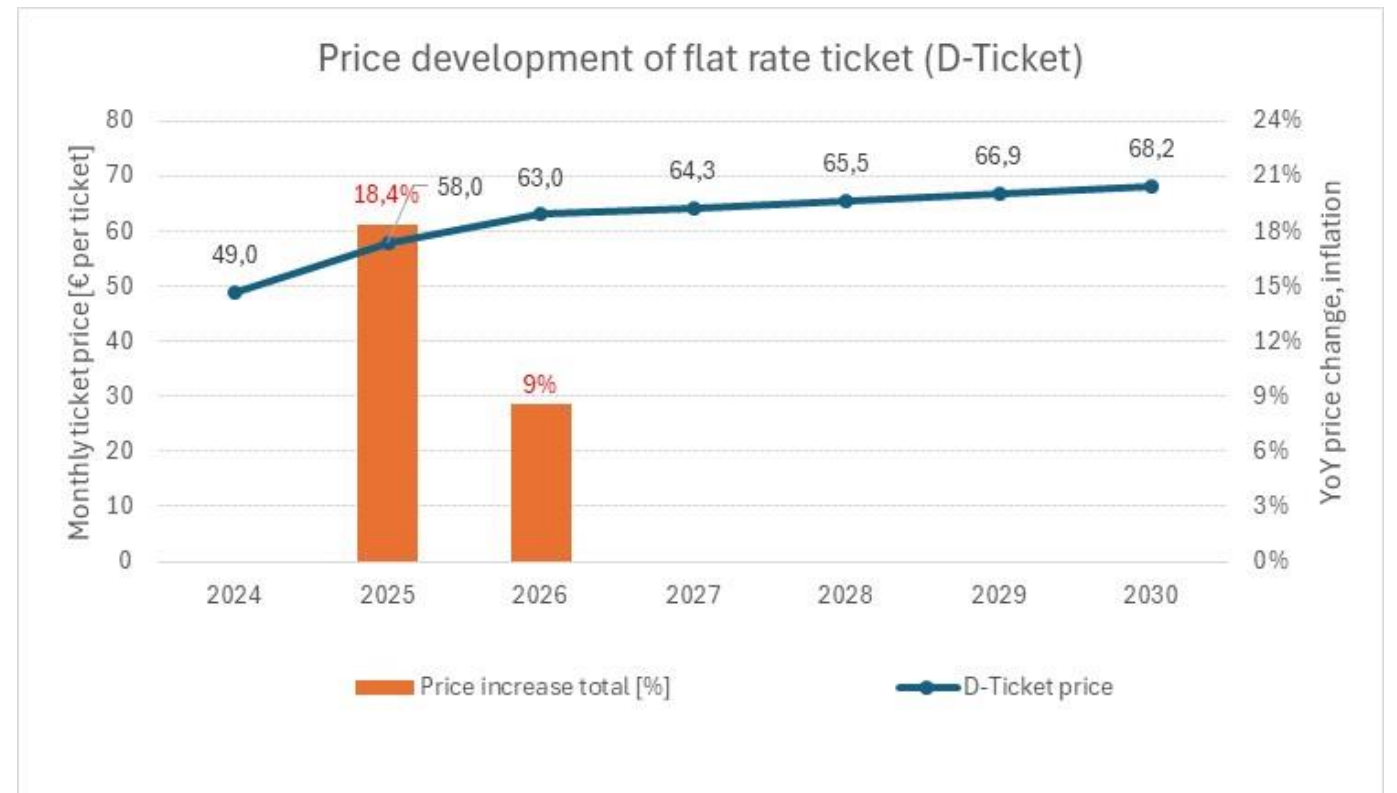
Development of Deutschlandticket



- 9-€-Ticket in response to energy price crisis in 2022
- ~50% of Germans bought the ticket

Major objectives:

- D-Ticket as part of climate policy programme for transport
- Simplify overly complex diversity of German public transport tariff system
- Job-ticket at reduced price to support businesses to comply with CSR
- Accelerate digitalisation of PT



Use of Deutschlandticket (in short D-Ticket)

All local and regional public transport

- Tram
- Metro
- S-Bahn
- Regional trains

- Urban bus
- Regional bus

- Ferries if part of public transport services

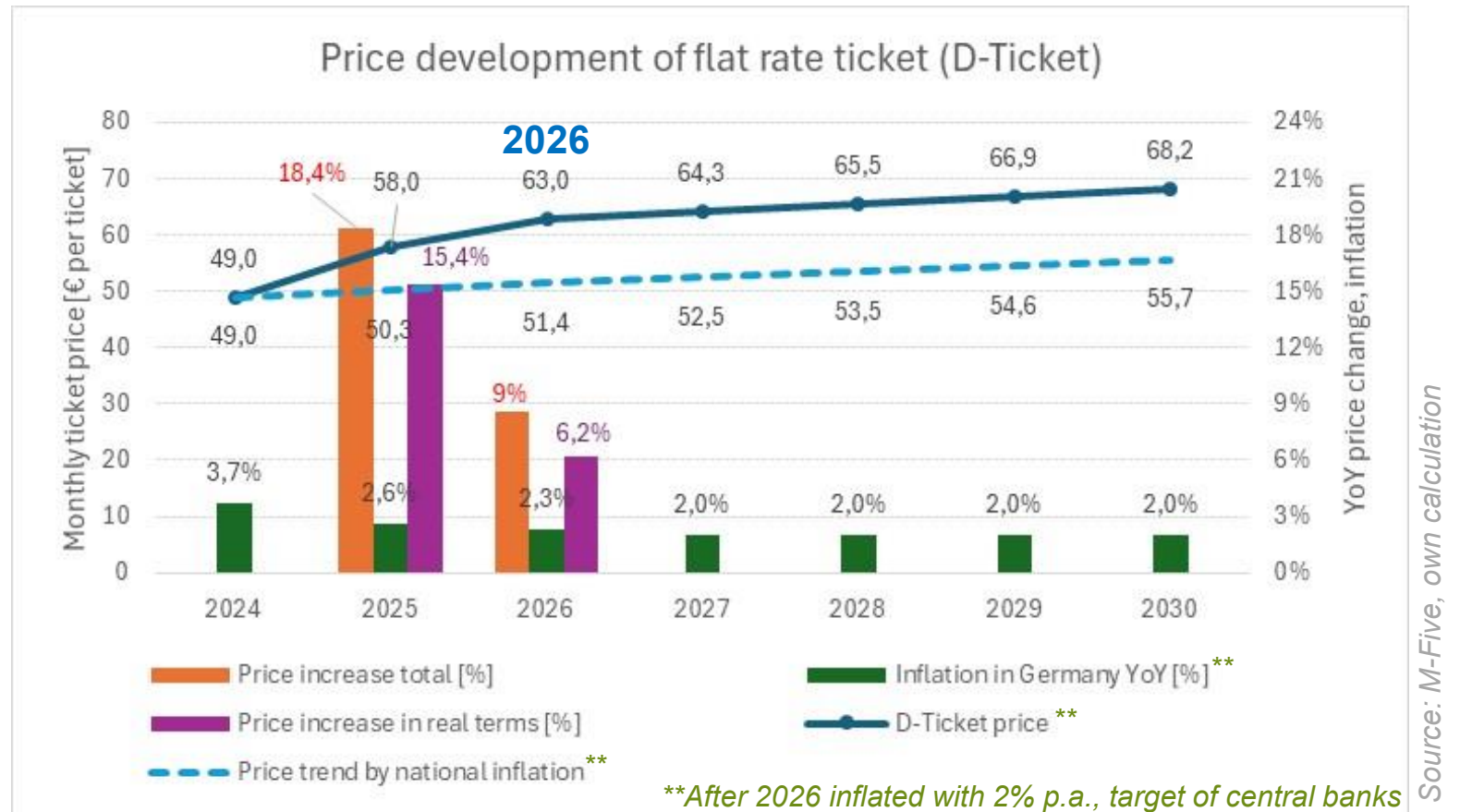
- On-demand shuttles (if available, and if part of public transport services)

- Excluded: ICE, IC, Flixbus/Flixtrain, RJ/NJ/TGV, other long distance services

Development of price of Deutschlandticket

Price increase far beyond inflation

- Real price increase was above 15% in 2025, and will be above 6% in 2026
- Compensating only for inflation price increase would be much lower
- Price in 2026 should be 51,4 € instead of 63 €
- After 2026 an index will be constructed to annually adapt price of D-Ticket
- Permanence of ticket long unclear





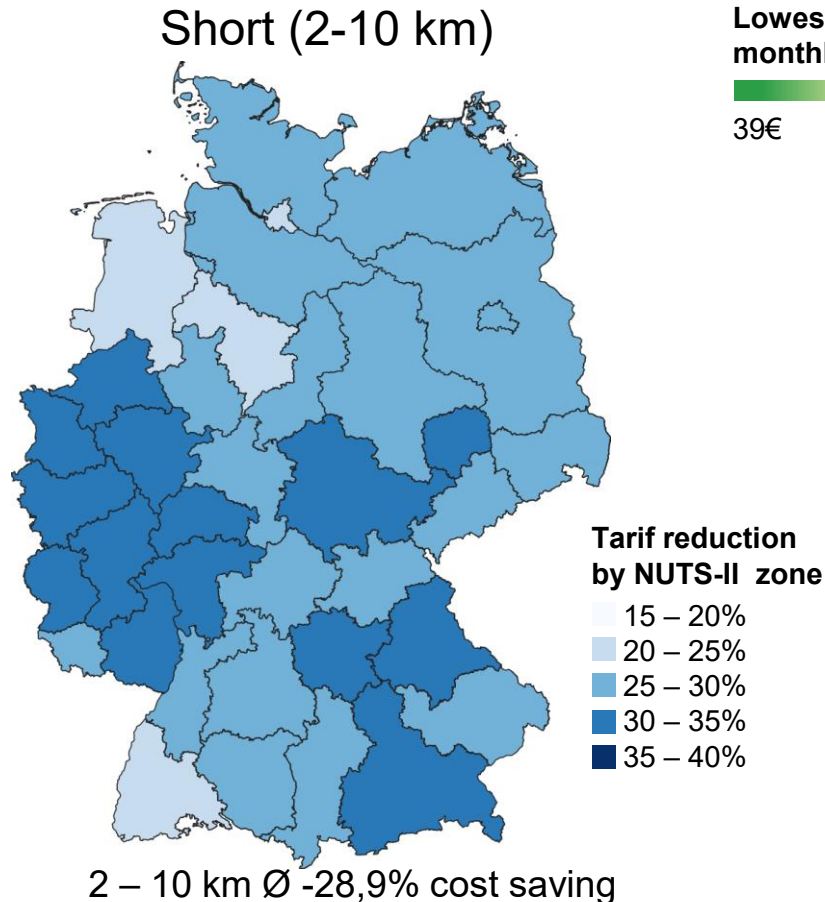
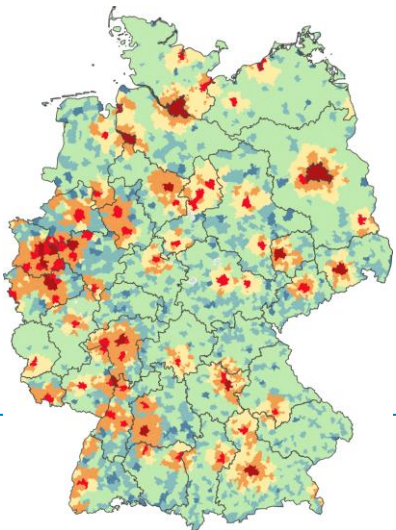
Quelle: WS

Ex-ante assessment

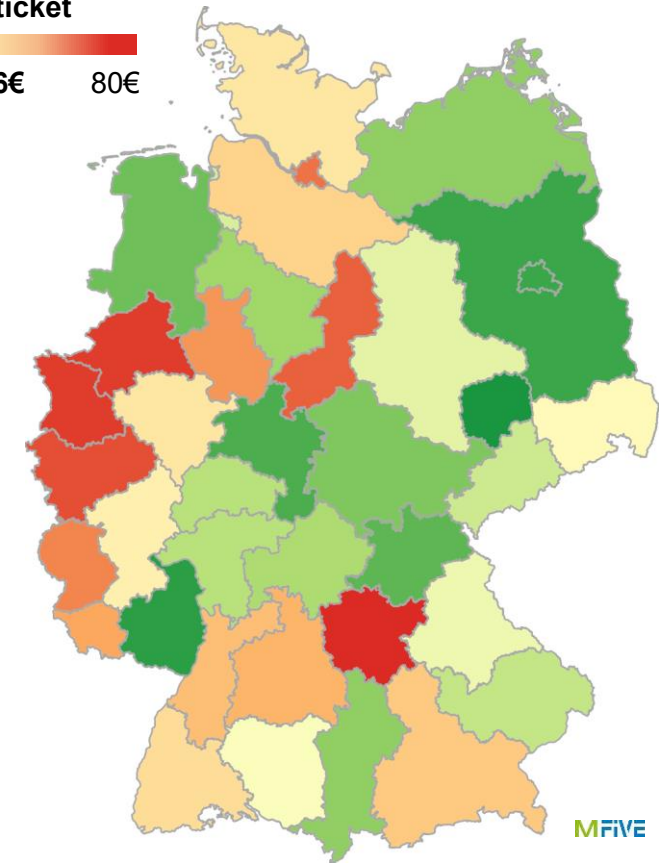
Database on German public transport (PT)

Tarifs, supply (number of daily departures), capacity (NUTS-III)

- Data based on M-Five research of ticket prices in 55 transport areas (out of 70 in Germany)
- Different ticket options (single, reduced, weekly, monthly, smallest area, whole network ...)
- Supply of departures based on DELFI e.V. (today Mobilithek)
- Based on NUTS-III level and RegioStar 7



0 – 2 km: Ø -24,3% cost saving
10 – 50 km: Ø -31,3% cost saving



Source: M-Five, own research

Model-based ex-ante findings (1)

Considering supply of PT, regional cost and trip purposes

- ASTRA model of M-Five
- 4-stage transport model
- NUTS-II zones
- Split into urban and rural area
- Modelling destination choice and modal choice (car, bus, rail, bike, walk, car-sharing, micro-sharing, pooling/on-demand)
- **Change of destinations on longer trips enables more frequent use of PT**
- Modal-share of car reduces by 2,6 %-points
- Rail (S-/U-/Tram/Regional) gain +2,1 %-points
- Bus +0,6 %-points

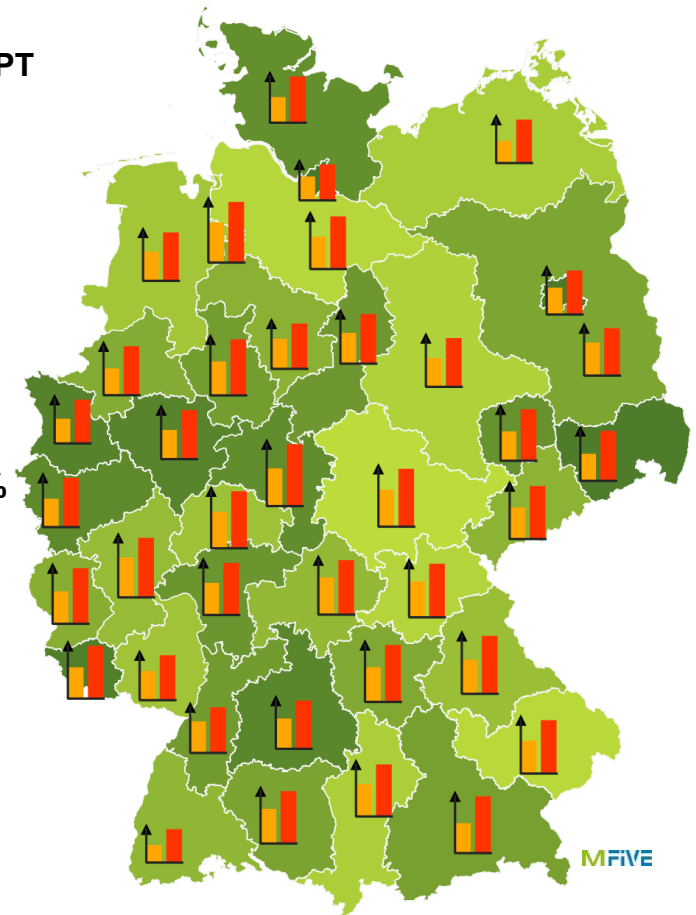
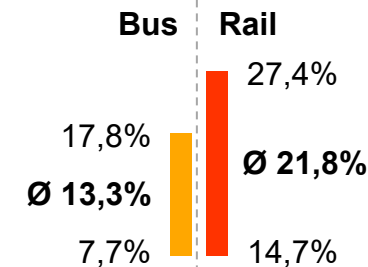
Scenario 49-€ D-Ticket

Bus and Rail

Daily departures by PT
per 1000 inhabitants

51 Ø 145 254

Change of transport
performance [pkm]



Source: M-Five, own calculations, ASTRA model

Model-based ex-ante findings (2)

Considering supply of PT, regional cost and trip purposes

- Average transport performance by car is reduced by -3,2 %
- For car-sharing the reduction is slightly larger with -4 %
- Impacts are stronger where the tariffs have been higher prior to D-Ticket
- Ride-pooling services increase
- Greenhouse gas emission (GHG) reduction: 2,5 to 2,8 Mt CO₂_{äq.}

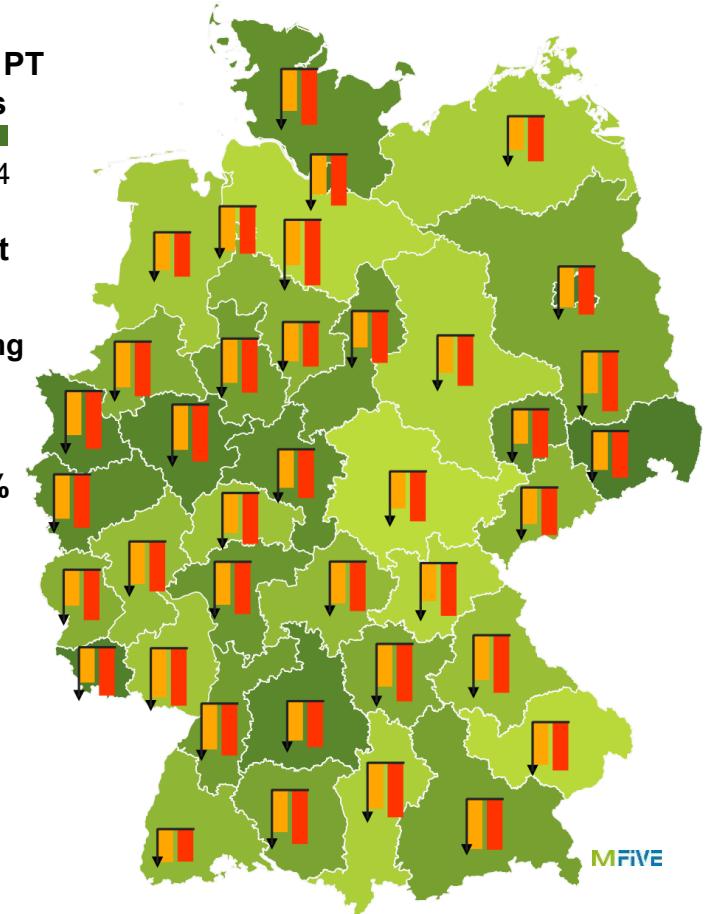
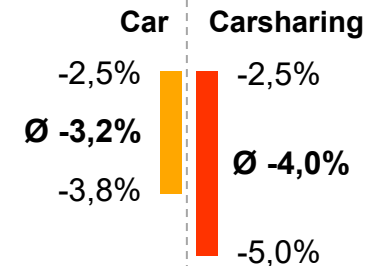
Scenario 49-€ D-Ticket

Car

Daily departures by PT
per 1000 inhabitants

51 Ø 145 254

Change of transport
performance [pkm]



M-Five (2023): [Bewertung von Ausgestaltungsvarianten des Deutschlandtickets für den ÖPNV](#)

Source: M-Five, own calculations, ASTRA model



Quelle: WS

Ex-post / ongoing assessments

Short-term impacts 3 months after introduction of D-Ticket



Germany

VDV market research 07/08 2023:

- Ca. 11 Mio. D-Tickets per sold, of which
 - 42% Previous subscribers,
 - 47% New subscribers, prior PT users
 - 8% Non-users of PT

Share of population owning a D-Ticket:

- urban 20-30%
- rural ca. 6%

Modal-shift to PT:

- since 05/2023: 5% of car trips

DB-Regio 07/2023:

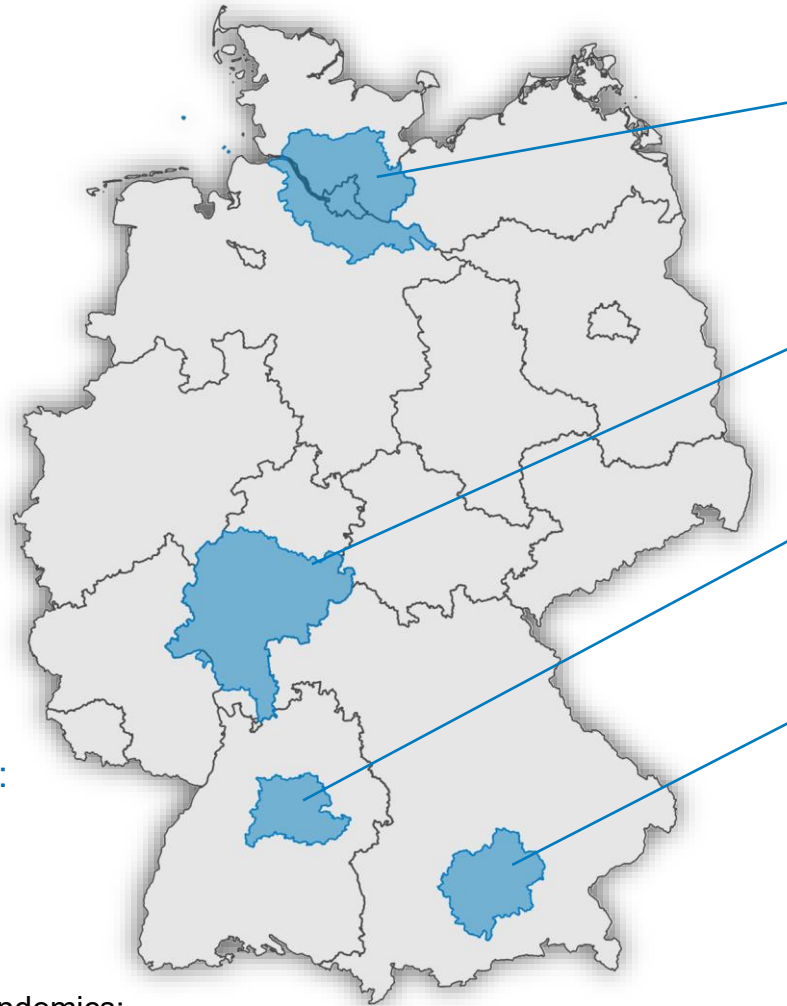
Increase of trips on regional trains:

- 06/2023 versus 04/2023 +25%

O2 Telefónica Mobility Monitor – number 3:

All trips >30 km 06/2023 versus 06/2019:

- Bus +8% trips
- Rail +13%
- Commute by PT +11.8%
- Commute by car -11.2%
- But also behavioural change due to Covid pandemics:
In 2019 87.9% of inhabitants left at least once per day their house, in 2023 this shrank to only 80.2% [O2 MM Ausgabe 1]



HVV Hamburger Verkehrsverbund

- 250,000 D-Tickets sold
- Passenger increase 07/2023 vs. 07/2019: +8%
- Modal-shift to PT:
05-07/2023: 19% of car trips



RMV Rhein-Main-Verkehrsverbund

- 09/2023: 310,000 D-Tickets sold
- Passenger increase 07/23 vs. 04/2023: +10%**



VVS Verkehrs- und Tarifverbund Stuttgart

- Trips increase 2023 vs. 2019: +7,8%



MVV Münchner Verkehrs- und Tarifverbund

Bus passengers in district of Fürstenfeldbruck:

- Increase of daily demand in 2023 vs. 2019: +27%

Legend:



Länder borders
(NUTS-1)



Tarif borders of PT



Shares urban/rural
by inhabitants

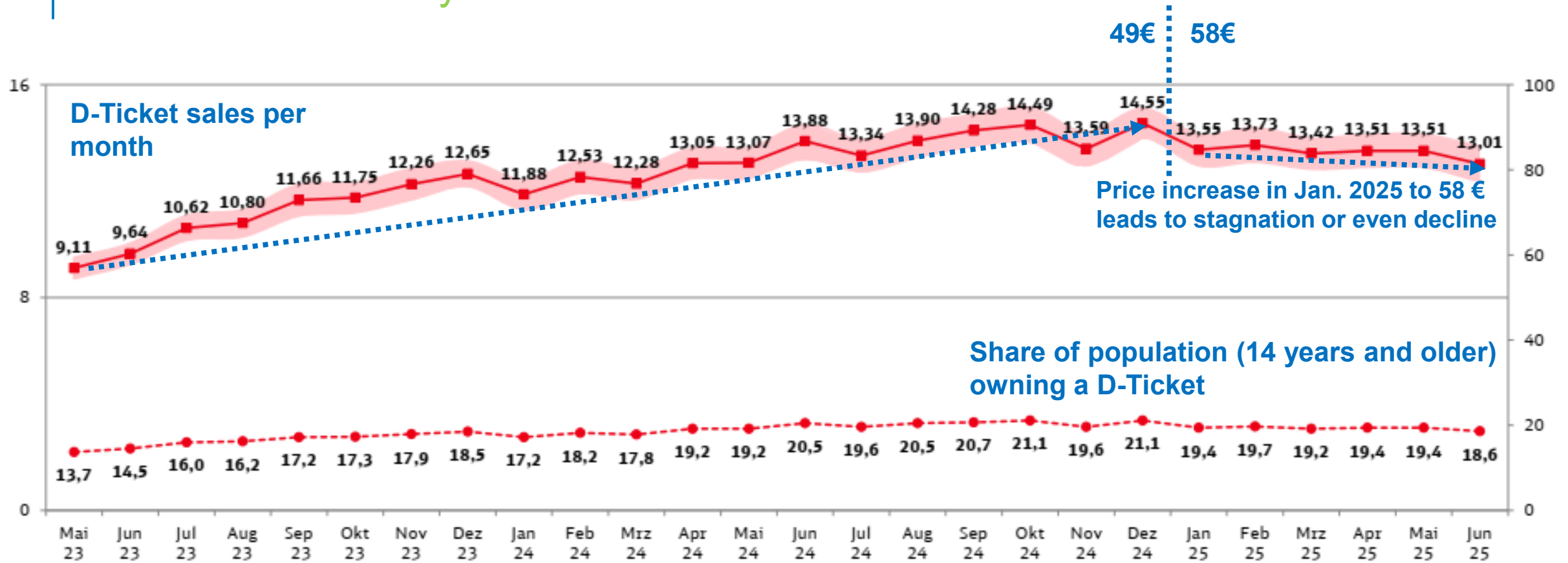


Shares urban/rural
by area

Source: M-Five, own analysis

Development of D-Ticket sales and ownership

Since start in May 2023



Source: VDV / DB (2025): Evaluation zum Deutschland-Ticket, Halbjahresbericht 2025

Selection of ex-post studies on D-Ticket

Study, Paper	Year	Source / Database	D-Ticket Sales p.m.	Rail increase % pkm, pax	Car reduction, % pkm or share of D-Ticket trips	GHG savings Mt CO ₂ eq.
Ex-ante assessment, M-Five	2022	ASTRA model, PT database	14,8 Mio.	+21,8% (pkm)	-3,2% (pkm)	-2,5 to -2,8
VDV market research	2023	Survey	11,2 Mio.	---	7,1% (trips)	~ -1,3
VDV market research	2024	Survey	14 Mio.	---	7,8% (trips)	~ -1,45
VDV market research	2025	Survey	13,3 Mio.	---	-1% pkm, 8,4% (trips)	~ -1,56
ARIADNE D-Ticket monitor	2025	Digital tracking, Modelling	n.a.	+33,7% (pax)	-2,5% to -3,9% (pkm)	-4,2 to -6,5
DZSF Analysis	2025	Survey	n.a.	---	7% (trips)	- 1,3

Sources: M-Five (2023): *Bewertung von Ausgestaltungsvarianten des Deutschlandtickets für den ÖPNV*
 ARIADNE / Koch et al. (2025): *Faktencheck Deutschlandticket: Eine Bestandsaufnahme der empirischen Evidenz*
 VDV / DB (2024): *Interpretierende Zusammenfassung, Berichtszeitraum 1. Halbjahr 2024*
 VDV / DB (2025): *Evaluation zum Deutschland-Ticket, Halbjahresbericht 2025*
 DZSF, Lutz/Rollin (2025): *Neue Mobilitätsroutinen dank Deutschlandticket?, in: Internationales Verkehrswesen*

Summary and conclusions

- 49 €₂₀₂₂ seems the maximum price of all options, balancing effectiveness (modal-shift, climate) and PT revenues
- Between >1% to 5% reduced demand of car transport, savings of GHG 1,5 to 6 Mt CO₂eq.
- Estimations of impacts based on surveys differ significantly from comprehensive model-based approaches
- Behavioral change is induced, but duration, yet, not long enough to fully unfold
- Still large untapped potential for increase of modal-share of PT and reduction of car use
- BUT: potential of D-Ticket is reduced by
 - Recent increases of prices far above inflation
 - Uncertainty about long-term existence of D-Ticket (reduces job-tickets, lack of incentive to consider D-Ticket in moving decisions)
- The simplification advantage of having one single ticket (mostly digital) in Germany is still not conceived by all stakeholders



Thank you for your attention!

POLIS

CITIES AND REGIONS FOR TRANSPORT INNOVATION

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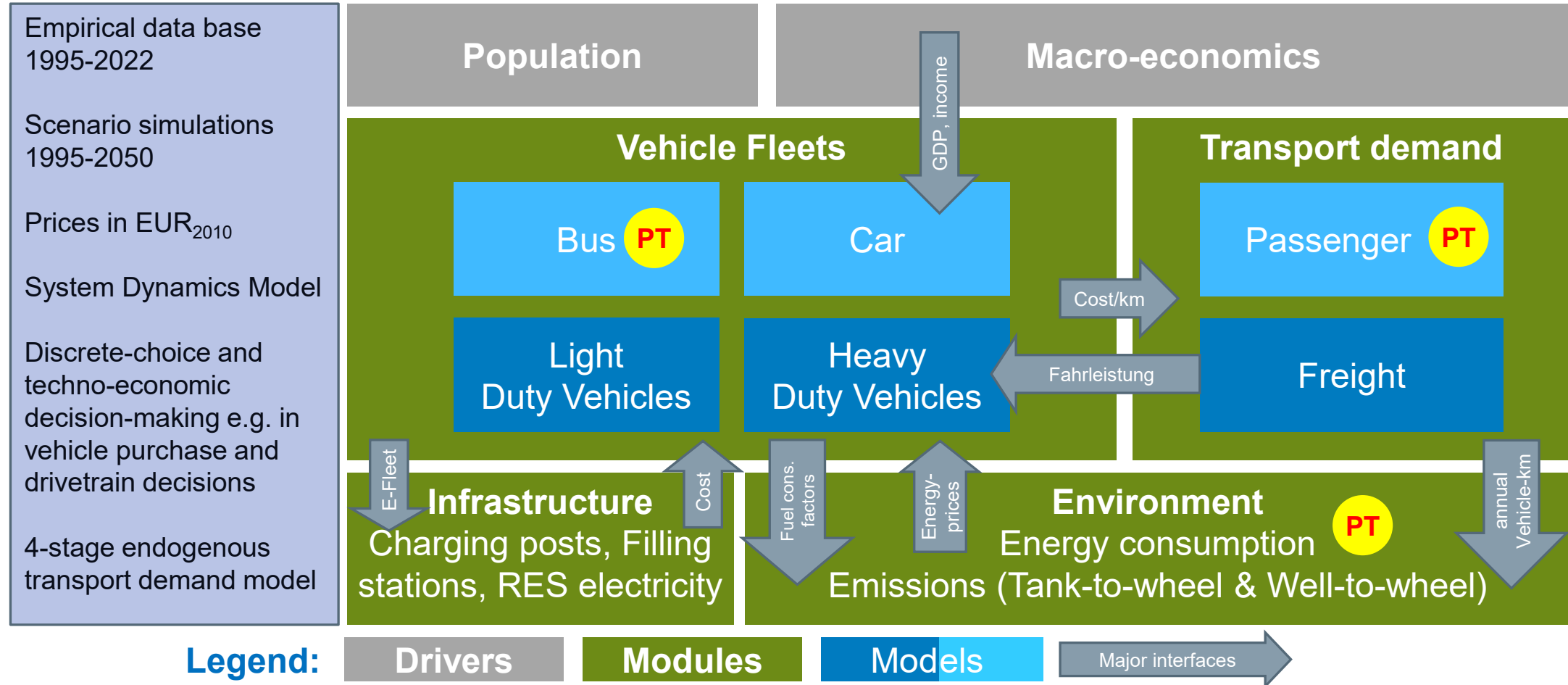
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Development avenues of D-Ticket...

- D-Ticket becomes **one of many ticket options** of each PT association
- D-Ticket is **abolished after 2030**
- **D-Ticket as at the start** (price level 49 €₂₀₂₃, and social discount option)
- **D-Ticket+** add further flat-rate services to provide flexible new mobility (micro-sharing, car-sharing, ride-sharing)
- **Objective: capture the potential** of the 45% of potential PT users!

Backup

ASTRA-M model overview



Source: M-Five

Tarif difference in Public Transport (PT) by NUTS-II Zone

Status September 2022

Long-term subscription

Ø Minimum price/month

27€ 64,95€

Ø Maximum price/month

67,24€ 310€

Monthly ticket

Ø Minimum price/month

39€ 80,10€

Ø Maximum price/month

84,60€ 326,60€

Single ticket

Ø Minimum price/month

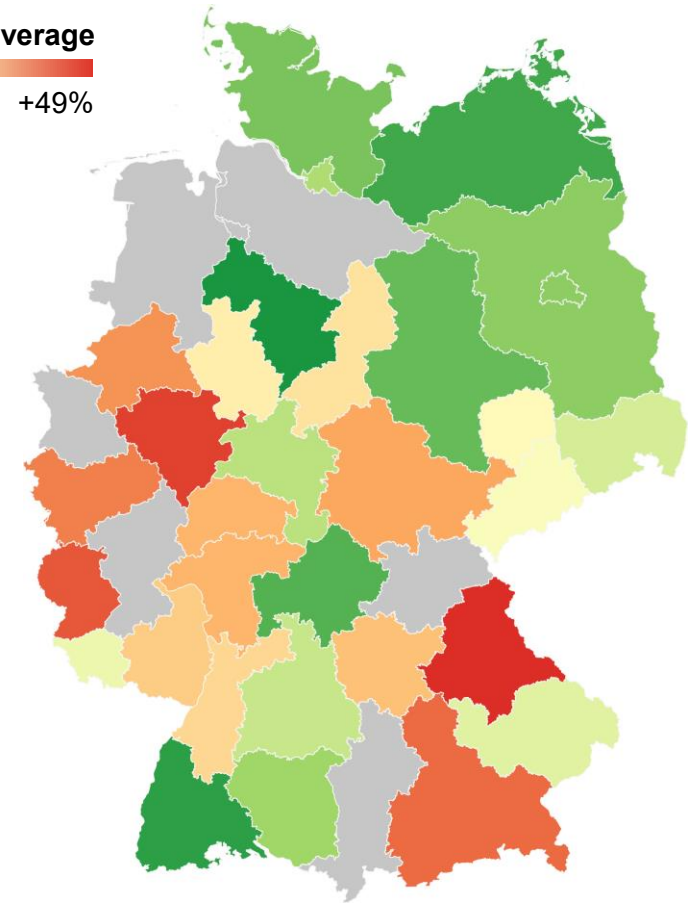
1,40€ 3,50€

Ø Maximum price/month

3,80€ 24,60€

Difference of average monthly tariffs compared with the German average tariff

Difference to average
-31% 0% +49%



Source: M-Five research and analysis