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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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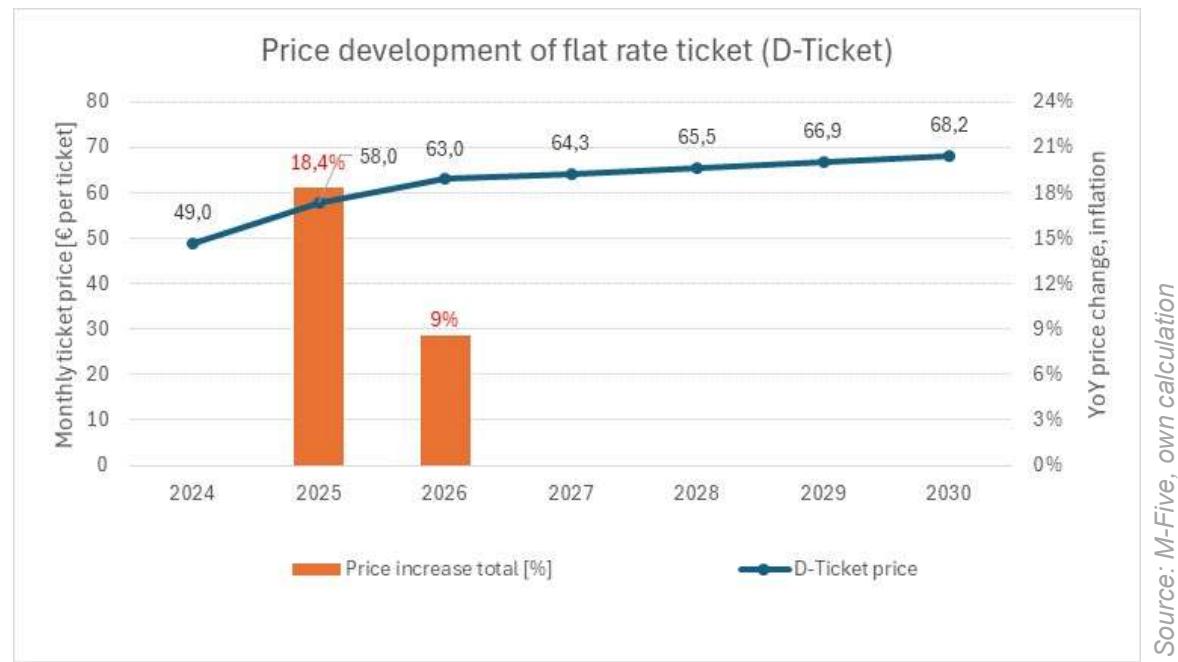
Development of Deutschlandticket



- 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 tarif 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

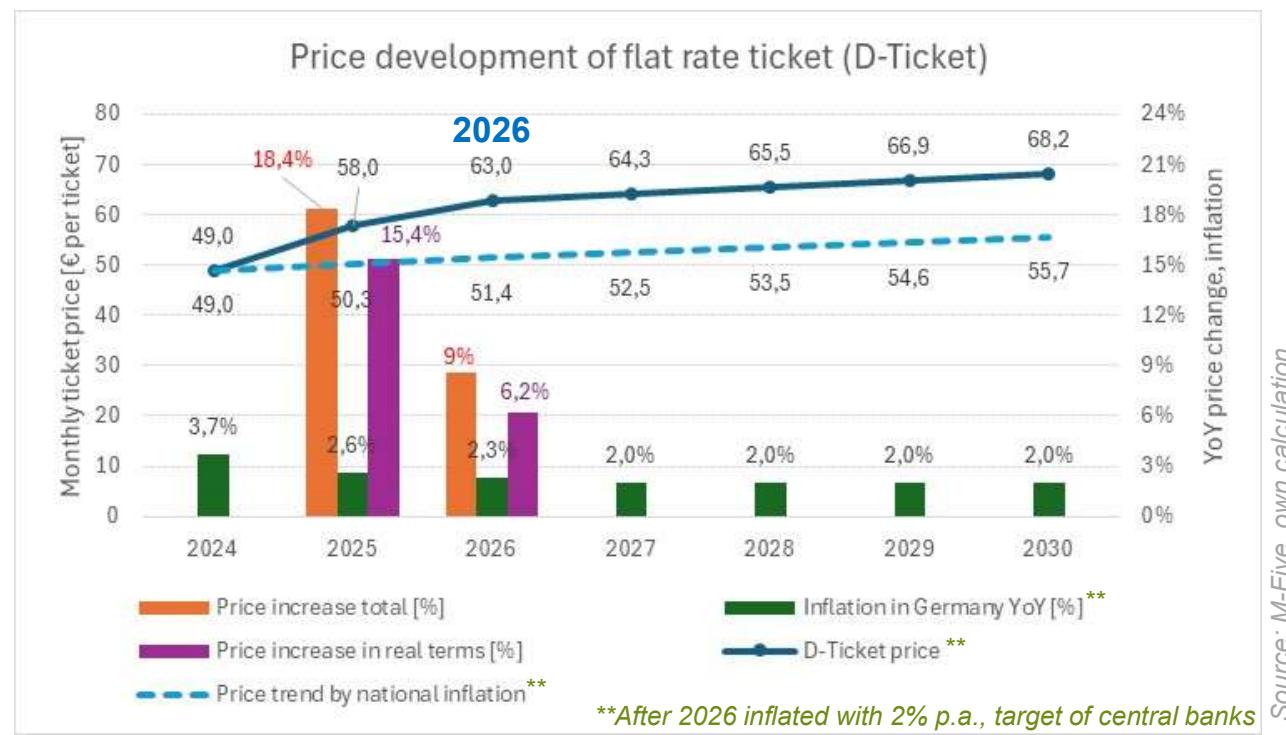
- On-demand shuttles (if available, and if part of public transport services)

- 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





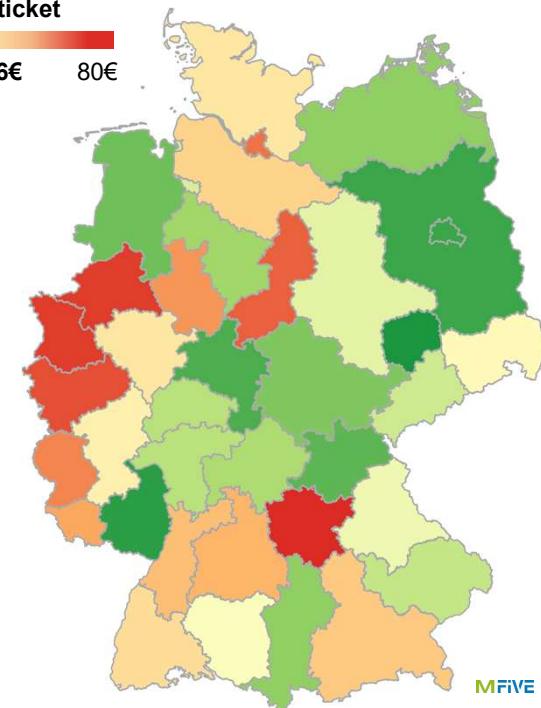
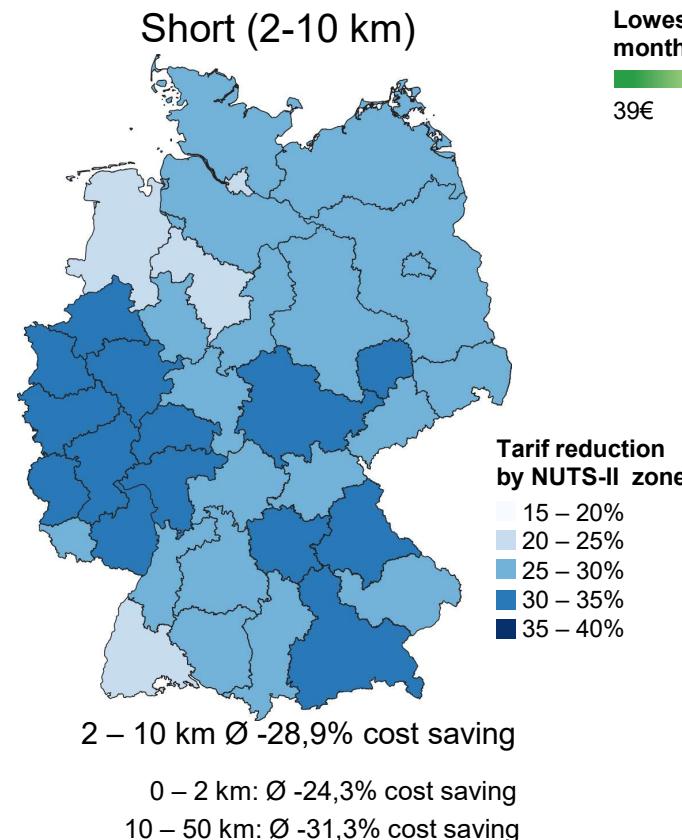
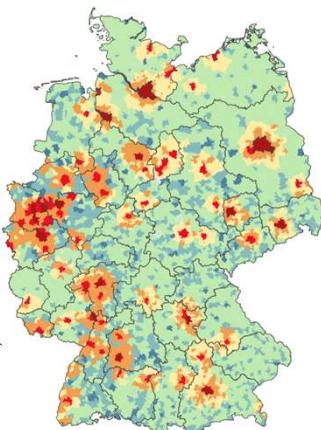
Quelle: WS

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

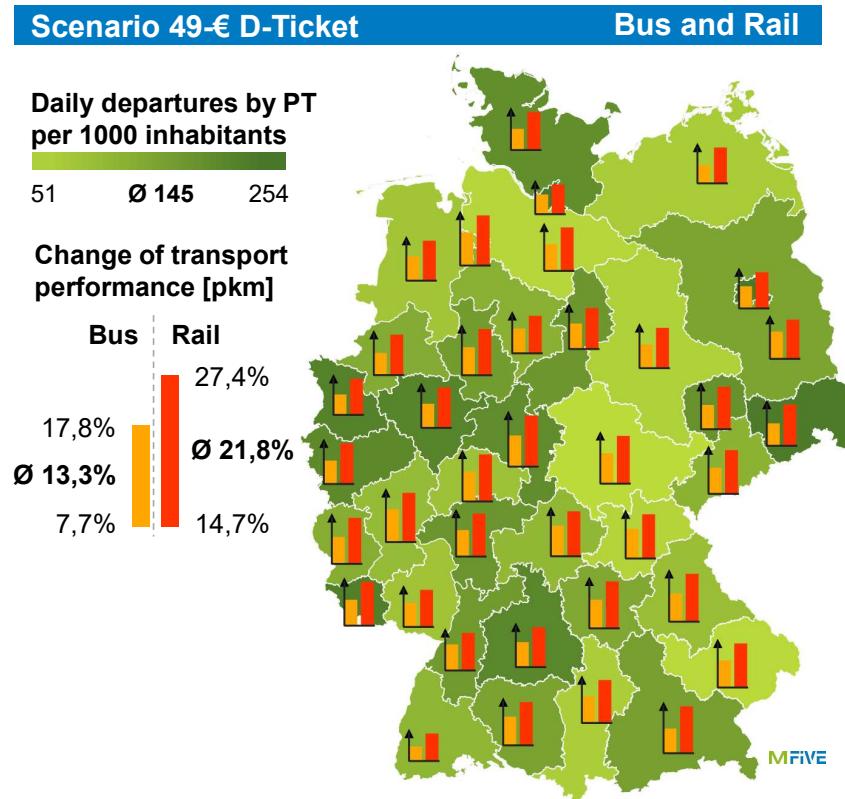


Source: M-Five, own research

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

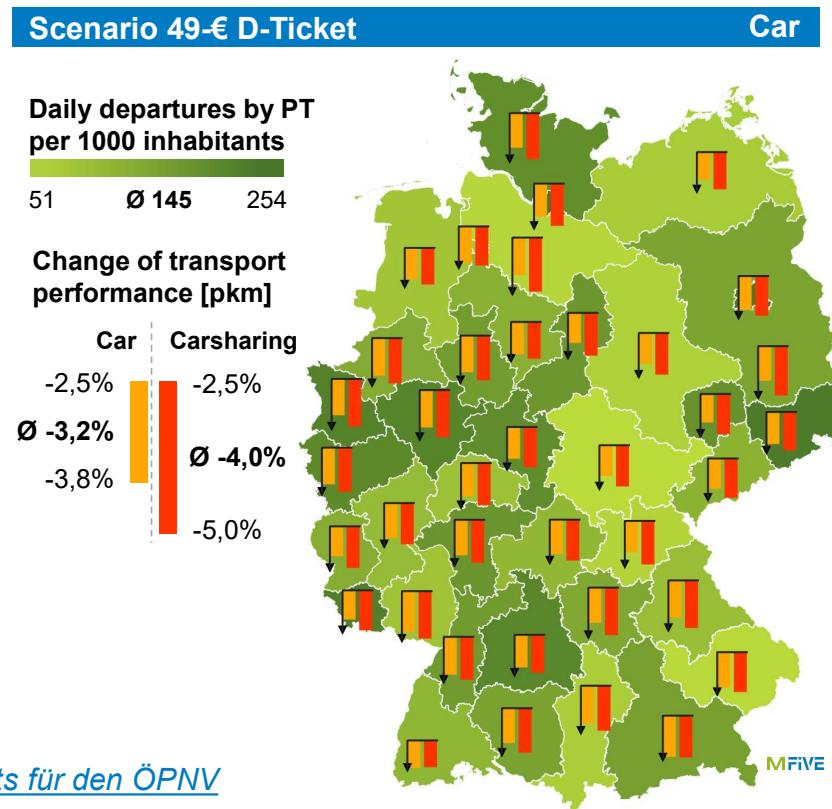


Source: M-Five, own calculations, ASTRA model

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 CO₂äq.



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



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:

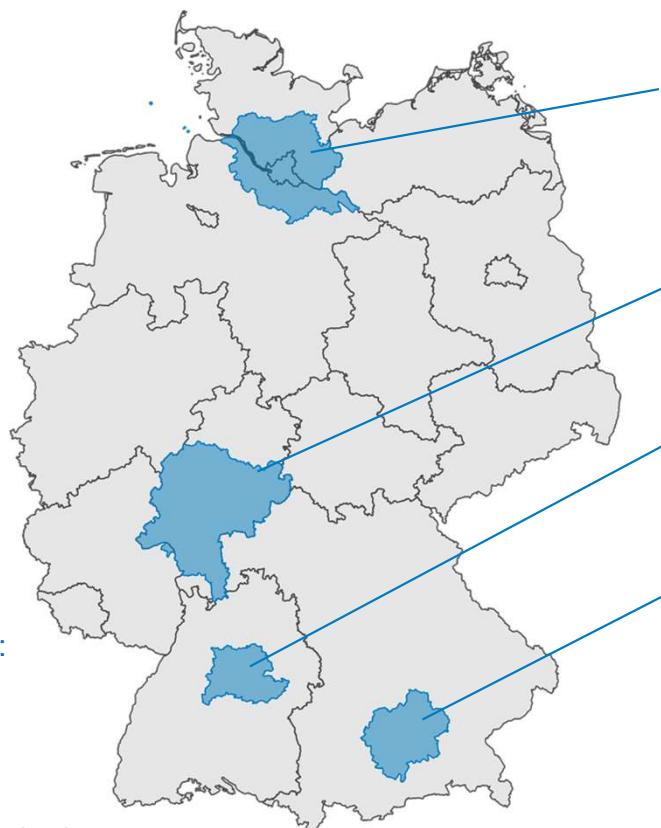
- 06/2023 versus 04/2023 +25%

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 Münchener Verkehrs- und Tarifverbund

- Bus passengers in district of Fürstenfeldbruck:
 - Increase of daily demand in 2023 vs. 2019: +27%

Legend:

Lander borders (NUTS-1)

Shares urban/rural by inhabitants

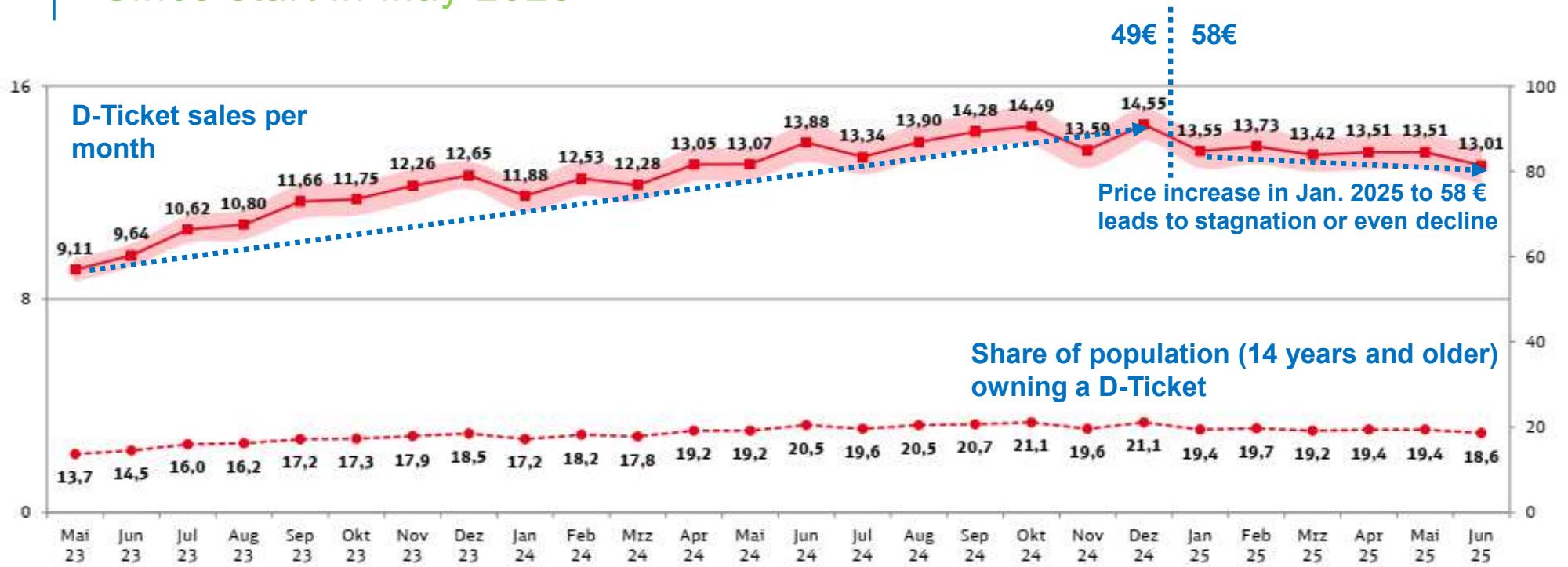
Tarif borders of PT

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 CO2eq.
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 enfold
- 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!

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POLIS

CITIES AND REGIONS FOR TRANSPORT INNOVATION



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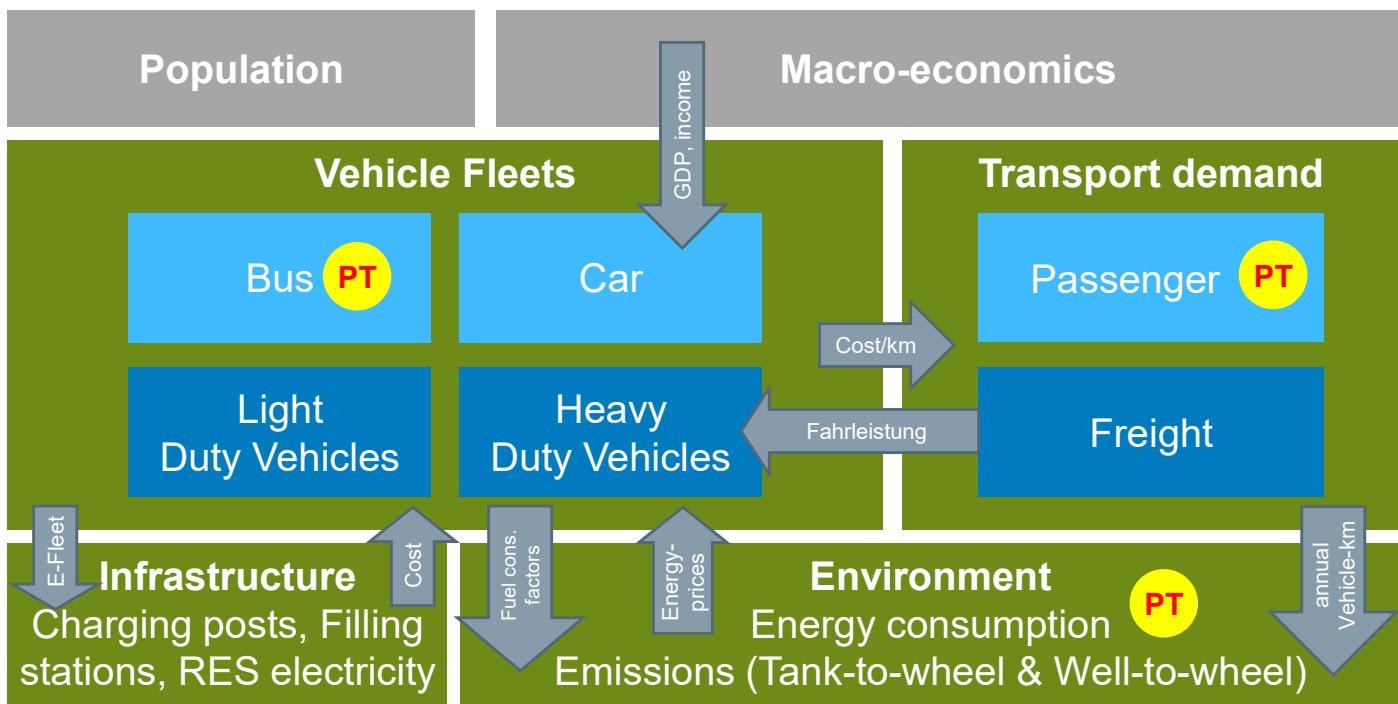
Development avenues of D-Ticket...

- 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

Empirical data base 1995-2022
 Scenario simulations 1995-2050
 Prices in EUR₂₀₁₀
 System Dynamics Model
 Discrete-choice and techno-economic decision-making e.g. in vehicle purchase and drivetrain decisions
 4-stage endogenous transport demand model



Legend:

Drivers

Modules

Models

Major interfaces

PT Impact lever of PT policy in ASTRA-M

Source: M-Five

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

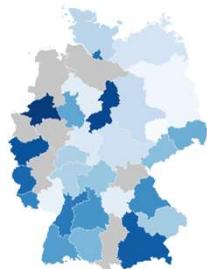
Status September 2022

Long-term subscription

Ø Minimum price/month



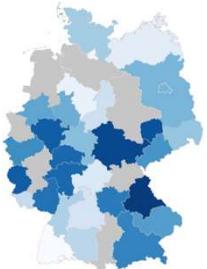
27€ 64,95€



Ø Maximum price/month

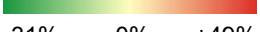


67,24€ 310€

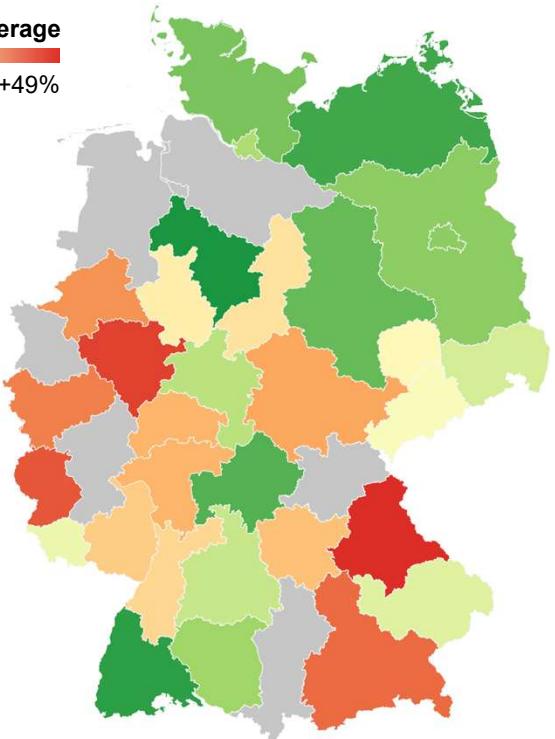


Difference of average monthly tarifs compared with the German average tarif

Difference to average



-31% 0% +49%

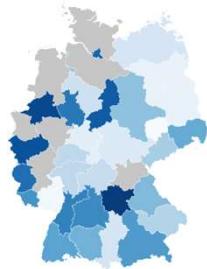


Monthly ticket

Ø Minimum price/month



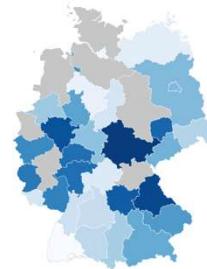
39€ 80,10€



Ø Maximum price/month



84,60€ 326,60€



Single ticket

Ø Minimum price/month



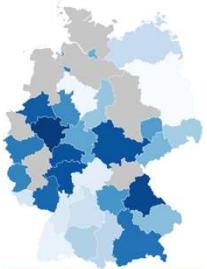
1,40€ 3,50€



Ø Maximum price/month



3,80€ 24,60€



Source: M-Five research and analysis