

## FLADEMO

### Flächendeckende Mobilitäts-Servicegarantie (Nationwide Mobility Service Guarantee)

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In the project FLADEMO, a **first knowledge basis** for a nationwide mobility service guarantee (MNSG) is constructed. The research in this project is not intended to formulate the ready-to-implement policy, but to serve as a first basis for further research activities in the future. Thus, the result summarized below is to be understood as a result an extensive and structured **gedankenexperiment**.

In light of the Climate Goal 2040 of the Austrian government, as well as rapidly and continuously changing demographic structure, the goals of MNSG are defined as follows:

- **Provision of general interest/social or socio-political goal:** to ensure a sufficient level of mobility services as a condition for equal participation of the population in public life without owning a car
- **Special consideration of barrier-free access:** to provide non-discriminatory access to these mobility services for everyday journeys
- **Environmental goals:** to create an incentive to switch to sustainable forms of mobility

In Austria, at the time of the research, 20% of inhabitants on school weekdays (1.57 million inhabitants) and 15.4% on weekdays during school holidays (1.21 million inhabitants) are not served with conventional public transport at the service level of the national minimum service level (4 departures per direction) or within the reasonably reachable distances (max. 1,250m). In particular, rural districts (countries) have much potential to make use of the demand-responsive services. This low service level of public transport geographically correlates to the level of car ownership per household. Compared to Vienna and other larger cities, multiple car ownership per household in regional centres (33% of household with 2 cars, 9% with 3 or more) and rural districts (countries; 30% of household with 2 cars and 14% with 3 or more) are remarkable.

As a mobility service guarantee, governments (national, regional and local ones) may legally guarantee the following points. The core is the guarantee of service provision: minimum service level for mobility services (conventional public transport and demand-responsive public transport). The guarantee can be additionally complemented by ensuring nationwide car-pooling platform. Guarantee in case of service cancellation and missed connection can also be included. As the basis, the infrastructure for sustainable mobility, in particular active modes, will serve as a basis not just as access and egress to the above-mentioned mobility service but also for door-to-door travels. In addition to this, a legal framework for mobility platform (from a legal point of view, essentially a broker service) can also be guaranteed. To embed the guarantee in the legal system, a new basic act is thinkable such as a (Federal) Mobility Act.

Other New Mobility Services such as vehicle sharing could serve as complementary services, but not considered as a part of the guarantee. This is because the availability of vehicles, especially in the rural areas, cannot be guaranteed (operational difficulty to guarantee), and the ability to drive such shared vehicles is not necessarily given to everyone (e.g., driver's license, physical ability): this leads to non-fulfillment of the social and socio-political goals.

In FLADEMO, five different scenarios (implementation approaches) towards NMSG with different characteristics of transport and mobility parameters are defined and analyzed. The five scenarios are:

- **Scenario 1 “All regions aboard”**: focus is set on the basic service provision of mobility services in rural areas, where the service hardly exists. In light of scenarios, this is to be understood as a minimum scenario to demonstrate the effect of improved public transport services alone without other policy instruments. This is not a recommendable implementation scenario, but as the minimum scenario this will help to draw conclusions.
- **Scenario 2: “Focus active mobility”**: in this scenario, public transport is moderately improved, particularly in rural areas. The strong focus is on active modes of travel. In this scenario, bicycle is an important access and egress mode to public transport services: the cycling infrastructure is much improved.
- **Scenario 3: “Focus car-pooling”**: public transport services are improved similarly to the scenario “Focus active mobility”. Car-pooling with private automobiles are considered as an important complement to public transport, especially in rural area where the public transport service level is low.

- **Scenario 4: “Goodbye private cars”**: this scenario is a reflection of the vision that everyone without own car can be as mobile as those who own cars. Public transport services (both conventional and demand-responsive ones) are improved not only in rural areas but also in urban areas. In comparison to the previous scenarios, NMSG guarantees shorter access and egress paths to public transport, shorter intervals and longer service hours. The improvement is also combined with strong push measures to discourage the use of private cars.
- **Scenario 5: “Questionable utopia” or “Public transport for everyone and any trips”**: this scenario is a maximum scenario for the comparisons, and mainly serves itself to understand the limit values of our gedankenexperiment in the comparison with other scenario, as does the scenario “All regions aboard”. Thus, this does not reflect realistic and recommendable scenario for implementation. In this scenario, public transport is available for everyone on 24/7-basis for free. It is also combined with strong push measures to discourage the use of private cars.

Modeling results show that the simple improvement of public transport services (scenario **“All regions aboard”**) is not enough to achieve the NMSG goals. The three scenarios - **“Focus active mobility”**, **“Goodbye private cars”** and **“Questionable utopia”** leads to the level that is required to achieve the Climate Goals. The result implies that active travel plays important role to fulfil the environmental goal of the NMSG. However, this does not necessarily fulfill the social and socio-political goal of NMSG: to this end, further improvement of public transport (both conventional and demand-responsive ones) with shorter intervals and longer service hours is needed. It is also worth noting that focus on car-pooling (scenario **“Focus car-pooling”**) will lead to potential rebound effects due to more attractive use of private cars.

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