

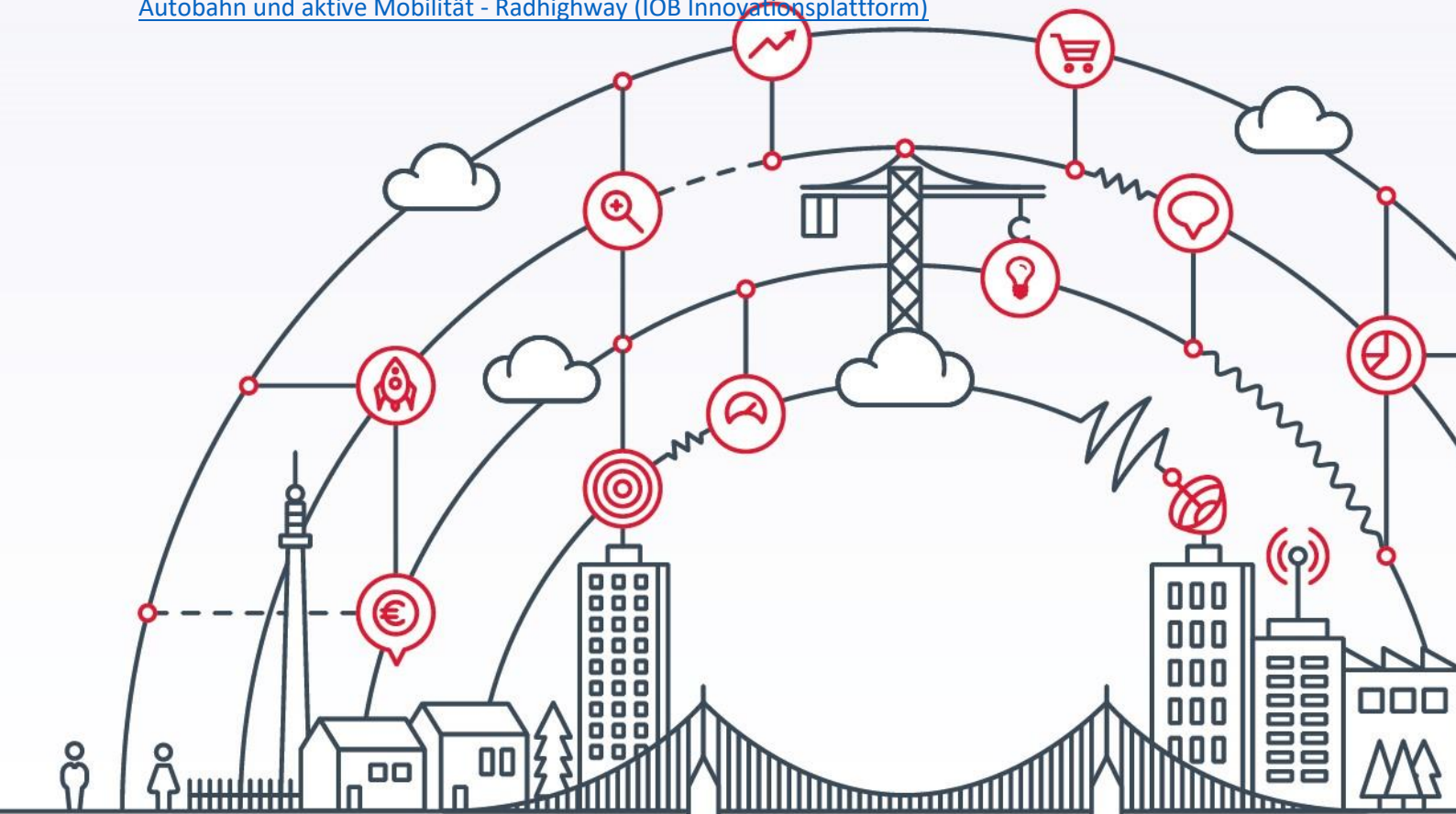


Public Procurement
Promoting Innovation

Motorways and active mobility - cycle highways

This is a translation – for the original challenge description, contacts and submission go to:

[Autobahn und aktive Mobilität - Radhighway \(IÖB Innovationsplattform\)](#)



An initiative of

 Federal Ministry
Republic of Austria
Digital and
Economic Affairs

 Federal Ministry
Republic of Austria
Climate Action, Environment,
Energy, Mobility,
Innovation and Technology

In cooperation with

 **BBG** BUNDES
BESCHAFFUNG

Challenge Sponsor

ASFiNAG Bau Management GmbH



Point of Departure

For some time now, **Autobahnen- und Schnellstraßen-Finanzierungs-AG**, or ASFiNAG for short, has been making the transition from a pure infrastructure operator responsible for the planning, construction, and operation of the Austrian highway and motorway network to a reliable, innovative, and sustainable mobility partner of the future.

As a strong mobility partner, ASFiNAG is increasingly focusing on the areas of mobility and traffic management. Smart measures for avoiding, shifting, and managing traffic enable sustainable mobility on and around the motorway network. Cross-modal solutions, as well as active mobility, play a significant role here.

In addition to classic traffic control or selective structural expansions, consideration must also be given to whether and with what measures the principles of the federal Mobility Master Plan 2030 can be met. This includes prioritising public transport in sections, as well as initiatives to increase the occupancy rate of vehicles, i.e., how many people use a vehicle.

ASFiNAG's existing infrastructure is to be optimally used, public transport is to be prioritised section by section, and initiatives to increase the occupancy rate are to be rolled out further. ASFiNAG thus aims to live up to its role as a mobility partner and make a significant contribution to the greening of mobility.

The "ideal" motorway cross-section should provide all the functions of ancillary facilities such as restraint systems (guard rails, guide walls), noise protection measures, power generation, embankment protection, ITS facilities and accompanying roads, but especially in interurban areas, space for active mobility such as cycling. To be able to implement this ideal cross-section in a cost-effective and space-saving manner in terms of reducing soil sealing, innovative solutions are required (e.g., precast elements).

Even though the use of motorways and cycling are two forms of mobility that, at first sight incompatible, ASFiNAG is intensively searching for technical and organisational solutions that make it possible to combine or link high-ranking roads with cycle paths. In summary, considering and including the existing network, additional cycle path infrastructure is to be created where sensible and safely possible.

Main Question

Which technical-organisational measures enable a resource-saving and safe routing of cycle paths on, next to, under or over highways and motorways?

Desired situation

On the one hand, it is about the structural integration into the existing motorway system of ASFiNAG and on the other hand, it is about meeting the needs of cyclists (everyday trips with greenery along the cycle path, easily accessible commuter routes, bypassing traffic jams in the vicinity of conurbations, etc.). The route can either be completely cycled or intermodal with a combination of bicycle, car, or public transport. Solutions are sought on how to combine cycle paths and motorways. An obvious solution is to run cycle paths parallel to the motorway behind the noise barrier. However, solutions that run directly on the motorway are also conceivable, such as temporary partition walls, barriers, or temporary inlet elements. The aim is to integrate active mobility as sustainably as possible into the ideal motorway cross-section.

In general, the aim here is to make optimal use of the existing infrastructure. This can mean that when there is little traffic, parts of the motorway are temporarily or at certain fixed times available for cycling. In cases of heavy traffic and congestion or generally at peak times, additional capacities can be created (e.g., opening the hard shoulder for cyclists or other structural measures).

The cycle highways running parallel to the motorway or integrated into it should be as simple and inexpensive to manufacture as possible. Ideally, as modular prefabricated components that can be relatively easily plugged together or assembled behind the noise barrier. This should ensure rapid scaling and the availability of cycling infrastructure. The cycle highways (and thus also the envisaged construction elements) should be designed with a roof if possible and ideally also equipped with photovoltaic elements to enable the charging of electric bicycles. The routing of the cycle highways can be organised into several lanes (e.g., slow lane, fast lane, cargo bikes). Basically, the problem of noise and emissions for cyclists on and next to the motorway must be solved or defused. Therefore, modular solutions that improve the acoustic shielding of cyclists, the greening, absorption, or filtration of exhaust gases, or generally the design of the cycling environment (greenery, art,) and ideally even fit into the basic construction elements of the cycle highway are also welcome. Emphasis is also placed on sustainable construction materials (e.g., surfacing, noise protection, safeguarding).

Call for proposals

Do you have an interesting (partial) solution? Are you currently developing one? Are you an expert? Then enter an online submission until latest 10th October 2023!

Click "Submit Solution" and have the following ready:

- A title image
- A meaningful description
How could the new functions be implemented together with you? Provide further information relating to the evaluation criteria (e.g., non-binding cost estimate). Use any available reference projects for illustration purposes.
- A summary of the value added:
Get to the heart of your unique selling proposition and decisive advantages.
- For any information that you cannot disclose publicly, there is a special field for "confidential information":

Only the moderator and the jury can see what you enter this field. The number of characters is limited – the Innovation Dialogue will offer you the opportunity to provide further details. P.S.: Don't worry, the jury members are committed to confidentiality.

- Optional: Upload a file (e.g., existing product brochures or illustrations that supplement – but do not replace! – your description)

NOTE: Submissions in consortium are possible. Keep it short (guideline: maximum three A4 pages or ten presentation slides in total). We are in the market exploration phase with the Challenge. Therefore, the following is not yet necessary for participation to raise interest: completely new concepts, drafts, or feasibility studies prepared especially for this occasion.

Benefits of the Challenge and further course of the project

As a submitting company, please keep 6th December free for the Innovation Dialogue in Vienna!

The "ideal" proposal can range from an idea to a finished technical design.

The existing (ASFiNAG) infrastructure should be used as best as possible as a "basis" to be able to create the following offers permanently or temporarily by means of technical measures:

- General: universal "cycle path superstructure" as part of an "ideal-typical cross-section" (together with restraint systems, noise protection measures, energy generation, slope protection, ITS facilities, and accompanying paths).

- City / urban space / conurbations

Rapid overcoming of barriers (motorway embankment, motorway junction, ...) by overpasses or subways, closing off unneeded strips (partition walls, barriers, or temporary inlet elements)

- Rural regions: motorways with parallel running cycle lanes, supplement missing sections of existing infrastructure.

From the company's point of view, key success criteria for technical solutions are

- cost-effective and space-saving (reduction of or minimum land use)

- little use of resources, can be implemented quickly (e.g., prefabricated parts behind noise barrier), modular solutions

- Multi-lane, roofing (photovoltaic elements)

- Integrated shielding elements (reduce noise and emission pollution for users)

- Design options (greening, Art, ...)
- Sustainable materials (suitability in cycling surfaces, minimisation of injury potential)
- No significant impairment of the classic road operation (to be ensured by ASFiNAG).

Depending on the results, the further project plan foresees the following:

Piloting, after further analysis of the legal and technical framework conditions.

This challenge provides the sponsor with an overview of possible solutions and potential partners. The jury of internal experts then invites those companies to an innovation dialogue whose solutions stand out particularly positively in the evaluation criteria.

For companies, this means: By participating in the Challenge, you get on the radar of the public contracting authority. Your submission remains visible as your business card for other interested parties even after the Challenge is over. You put yourself in position for further public sector purchasing projects. If you are among the winners and are invited to the final innovation dialogue, you can present your solution at a market meeting. You will exchange ideas directly with those responsible for the project.

The Challenge and the Innovation Dialogue create sensitivity and understanding regarding suitable innovations on the part of the public-sector client. This is important, as it allows the public-sector client to take innovative approaches into account in subsequent purchasing projects under the Federal Procurement Act following the market exploration phase.

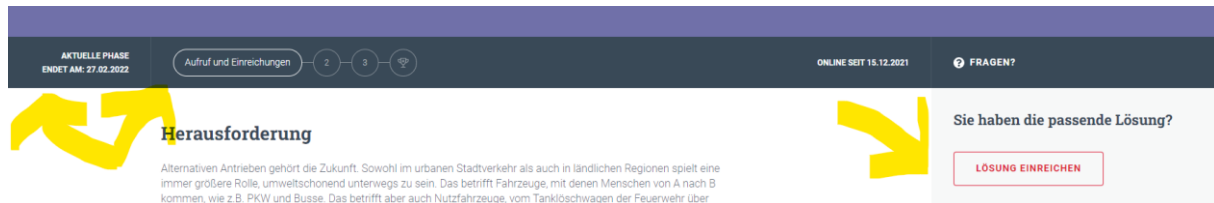
This creates sensitivity and understanding for suitable innovations on the part of the contracting authority. This is important so that the contracting authority can take innovative approaches into account in any purchasing project under the Federal Procurement Act after the market investigation.

Your Questions

Contact the moderator or post your question about the challenge online. Our moderators will check, research, and publish your question together with the answer. This way, all potential participants are certain to receive the same information.

How to submit a solution/idea

Check the submission deadline (phase "Aufruf und Einreichungen"); click on the button "Lösung einreichen" on the top right side of the page.



- **Beschreibung**
Post a meaningful description (make references to the description of the challenge and evaluation criteria on the right side of the challenge page)
- **Mehrwert**
Highlight the benefits of your solution.
- **Titelbild**
Upload a picture to be displayed on the landing page of the challenge.
- **Kooperationspartner**
If you are handing in a joint contribution with other companies, this is where you make sure they are represented with logos and names.
- **Dateien & Infos**
If necessary in addition to the descriptions above: add pdf-files (e.g. existing product brochures). But: Keep your contribution manageable for the jury.
- **Vertrauliche Infos**
If necessary, place a confidential information for the jury, the sponsor and moderator (e.g. indication of approximate price range). All other parts of the contribution will be public.

Please be aware of the fact, that a challenge is market research / market engagement prior to a possible procurement. The challenge will not decide upon a contract award nor will it lead to any unfair advantage in a tender. Please balance your time and effort.

Contact Information

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