

# Challenge: E-charging infrastructure for Municipalities in Lower Austria

This is a translation – for the original challenge description, contacts and submission got to: https://www.ioeb-innovationsplattform.at/challenges/detail/turbo-fuer-2025-die-richtige-e-ladeinfrastruktur-fuer-niederoesterreichische-gemeinden/



An initiative of

Federal Ministry Republic of Austria Digital and Economic Affairs Federal Ministry Republic of Austria Transport, Innovation and Technology In cooperation with



# Challenge Sponsor

Federal State of Lower Austria and Lower Austrian Environment and Energy Agency



# **Point of Departure**

Quite a few things happen in Lower Austria when it comes to Electro mobility. Already in 2010, the federal state launched an electric mobility initiative. Since then, various e-mobility projects have drawn attention. Their attractiveness shall now spread to other municipalities. One of Lower Austria's key environmental goals thus is to promote the switch from conventional engines to climate-friendlier electric vehicles.

In order to increase the number and use of electric vehicles, an appropriate charging infrastructure must be available. The state and the municipalities are therefore facing the challenge of how to provide a comprehensive e-charging infrastructure in the public space.

A major challenge is the provision of charging facilities in public space (e.g. municipal roads, public car lots, etc.), but above all also for existing residential settlements without the possibility of charging points on private sites (e.g. old residential buildings).

A further challenge for a federal-state-wide implementation is the network infrastructure in the municipalities and the eventually associated limitations regarding the available capacity.

In addition to the construction of the charging infrastructure, the operation and optimal use of the charging points is of great importance. The administration of charging points, booking management and billing are subject to various interfaces, which must be available for the integration of user, charging and billing data.

# Main Question

What does a concept for an E-charging infrastructure look like that is applicable for municipalities in Lower Austria, regardless of their size and structure?

# **Desired situation**

The Federal state of Lower Austria and the Lower Austrian municipalities are looking for an E-charging infrastructure concept that is applicable for municipalities regardless of their size and structure.

The concept for an E-charging infrastructure should include concrete products and services that meet current technical standards (e.g. ISO standard 15118). The implementation of the concept should be as favourable as possible for the municipality and the users.

First scenario for a municipality:

Mr Anselm, employee of a small municipality receives the order from the mayor to set up an E-charging infrastructure in the village. As a first step, the municipality would like to set up a public E-charging station at two central locations.

# Translation from ioeb-innovationsplattform.at

The mayor would like to have charging stations with an integrated photovoltaic system and an energy storage system. Important for him: The municipality will not carry out the operation of the stations.

After the installation of the stations, the local citizens praise the simple reservation and the high user-friendliness of a charging station; above all, the uncomplicated payment system is just great.

Second scenario for another municipality:

Mr. Bayer, employee of a large municipality, hears about the success in the other municipality and the implementation of his colleague impresses him a lot. Mr. Bayer's community has already installed charging points in five public places. However, the local council would like to have charging facilities in residential settlings for cars, which permanently park on public roads. In addition, the municipality would be pleased to be able to develop the existing charging facilities into smart charging facilities.

No worries for Mr. Bayer: Why? The concept for E-charging infrastructure provides for all of his requirements on a modular basis. Mr. Bayer chooses his favourites flowers from the well-prepared bouquet and plans the infrastructure entirely according to the wishes of his municipality.

FOR YOUR OVERVIEW, THE REQUIREMENTS FOR THE E-CHARGING CONCEPT ARE SUMMARIZED HERE:

Concept for E-charging infrastructure that is applicable for municipalities on a modular level, regardless of their size and structure

- The concept builds upon concrete products and services
- E-charging infrastructure especially for permanent parking on public roads
- Infrastructure (e.g. electricity grid) that can be used in existing residential settlements (grid compatibility)
- Payment system as open as possible (minimum requirement: credit card, Paypal)

#### **Optional requirements:**

- Intelligent charging station that serves the network (charging station as an energy storage device for the use of surplus energy, e.g. emergency power supply or network load balancing)

- Integration of innovative and useful elements into existing infrastructure (e.g. photovoltaics, weather protection, lighting, infotainment)

- Considerations for the visualization of the ecological quality of the fuelled electricity

What is not expected:

- The presentation of standard products without a proper concept
- The illustration of a typical product catalogue

# Call for proposals

Do you have an interesting (partial) solution? Are you currently developing one? Are you an expert? Then enter your submission until 5 July 2019!

You are of course also welcome to submit your ideas with cooperation partners.

Click "Submit Solution" and have the following ready:

- A title image
- A meaningful description of the concept In particular, also provide further information relating to the evaluation criteria (e.g. non-binding cost estimate).
- A brief summary of the value added
- 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 into 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.

NOTE: With this Challenge, we are currently in the market exploration phase. Therefore, the following is not yet necessary for participation, in order to attract interest: concepts which are completely new or have been specially developed for this Challenge, detailed technical designs or feasibility studies. Please be concise (as a guideline: a maximum of five A4 pages or ten presentation slides in total).

# Benefits of the Challenge and further course of the project

With this Challenge, the Lower Austrian Environment and Energy Agency and the Federal State of Lower Austria will gain an overview of possible concepts / solutions and potential partners.

For companies, this means: By participating in the Challenge, you will be on the radar of the public-sector client. Even after the Challenge has ended, your submission will remain visible to other interested parties as your virtual calling card. You are putting yourself in a good position for further public procurement projects. You may draw the attention of cooperation partners.

The jury made up of in-house as well as external experts will invite those companies, whose solutions stand out in a particularly positive way with regard to the specific evaluation criteria, to a subsequent Innovation Dialogue. If you are among these winners, you will have the opportunity to present your solution during a market discussion with the Federal State of Lower Austria and the Lower Austrian Environment and Energy Agency. You will exchange ideas directly with those responsible for the project.

As a submitting company, please keep 5 September free for the Innovation Dialogue in Vienna.

# Translation from ioeb-innovationsplattform.at

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.

### Depending on the results, the further project plan provides for the following:

The aim is to initiate a pilot project in a municipality with the support of the Federal State of Lower Austria, depending on the results obtained during the Challenge.

#### **Your Questions**

Contact the moderator or post your question about the Challenge. 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

Go to the challenge page. Click on the button "Idee einreichen" on the right side of the page.

- <u>Beschreibung</u>
  Post a meaningful description (make references to the description of the challenge and evaluation criteria on the right side of the challenge page)
- <u>Mehrwert</u> Highlight the benefits of your concept/solution.
- <u>Titelbild</u> Upload a picture to be displayed on the landing page of the challenge.
- <u>Kooperationspartner</u>

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.

# **Contact Information**

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