

CO₂-optimised construction site for Wiener Linien

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

<https://www.ioeb-innovationsplattform.at/challenges/detail/co2-optimierte-baustelle-fuer-die-wiener-linien/>



An initiative of

 Federal Ministry
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Labour and Economy

 Federal Ministry
Republic of Austria
Climate Action, Environment,
Energy, Mobility,
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In cooperation with

BBG BUNDES
BESCHAFFUNG

Challenge Sponsor

Wiener Linien



Point of Departure

Austria has the goal of achieving climate neutrality by 2040. This is an ambitious task. Reducing greenhouse gas emissions is especially a challenge for construction site management. The construction industry is a major driver of climate change. Energy-related CO₂ emissions and high resource consumption are the most important factors in the construction industry. This is precisely where effective measures must be taken and technologies further developed.

For Wiener Linien, it is an important goal to design its future construction sites in a CO₂-optimised or, ideally, in a CO₂-neutral way. To this end, Wiener Linien has already launched two demonstration projects in cooperation with the Vienna University of Technology. In these construction projects, the first use of electrified construction machines is being tested. The aim is to gain initial insights on the way to an emission-optimised construction site.

Wiener Linien, however, does not want to lose any time on this topic and wants to take a closer look at the possibilities of CO₂-optimised construction sites. The focus should be on the big picture. In addition to the energy issue and the aspect of resource conservation, there is also a clear focus on circular economy. In terms of circular economy, decisions made today in the construction phase contribute to the environmental impact in the further phases of a construction project's life cycle.

Main Question

Which innovative solutions contribute to a CO₂-optimised and resource-saving construction site?

Desired situation

The construction site of the future, which we are looking for in this call, should look completely different from today's construction sites. The goal of Wiener Linien is to reduce the CO₂ balance of construction sites in urban areas as much as possible. Wiener Linien is convinced that construction sites can and must be carried out more ecologically and with lower emissions to achieve climate neutrality.

For this reason, innovative ideas are being sought that can be implemented. The goal of Wiener Linien is that promising ideas for solutions are implemented directly in future tenders and become common practice.

The construction sites of Wiener Linien are building construction and civil engineering projects, including construction sites, underground construction, stations and stops as well as railway stations and garages.

The terms of reference of this Challenge cover the following areas:

- **Construction site processes and procedures**
Emission and time savings are to be achieved by optimising routes and construction site transports as well as by organisational simplifications.
Alternative logistics concepts should lead to improved overall construction site planning.
- **Construction site equipment and machinery**
Machines and equipment with optimised, ideally alternative, drives should be used. The aim is to use alternatively powered large construction machinery and construction site vehicles. The creation of energy-autonomous construction containers as well as on-site generation of renewable energy and energy storage options are parts of this area.
- **Materials and resources**
When it comes to the materials used, the focus is on re-use and recycling. The use of recyclable materials rounds off the holistic thinking. The negative environmental impact of the resources used in construction should be kept as low as possible.

Note: This call is not looking for solutions that are aimed for compensation CO2 emissions.

Call for proposals

Do you have an interesting (partial) solution? Are you currently developing one? Are you an expert? Then enter a submission!

Take the chance and present your innovative approaches. Wiener Linien is looking for companies or cooperation partners that already offer products and solutions that are as concrete as possible and that can contribute to a CO2-optimised construction site. Wiener Linien has set itself the goal of quickly implementing innovative ideas presented in the course of tenders.

It is not necessary to submit a final concept, study, plan or design especially prepared for this occasion. The point is to convey your own implementation idea, the concrete use of the product and competence.

Click "Submit Solution" and have the following ready:

- A cover picture
- A meaningful description:
Outline your solution(s) or your concrete product for a CO2-optimised construction site. Feel free to include reference examples. Think about the evaluation criteria. Convey the added value of your solution and give the jury an impression of how your product is used and what concrete contribution it can make to reducing emissions. What makes your solution innovative? What makes it stand out? Present your competencies and implementation experience.
- A summary of the added value
- 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. You can also send further confidential information to one of the moderators of the challenge via e-mail.

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

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, Wiener Linien will gain an overview of possible 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.

Those companies, whose solutions stand out in a particularly positive way with regard to the specific evaluation criteria, will be invited to a subsequent Innovation Dialogue on *December 19, 2022*. If you are among these winners, you will have the opportunity to present your solution during a market discussion with Wiener Linien. 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.

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

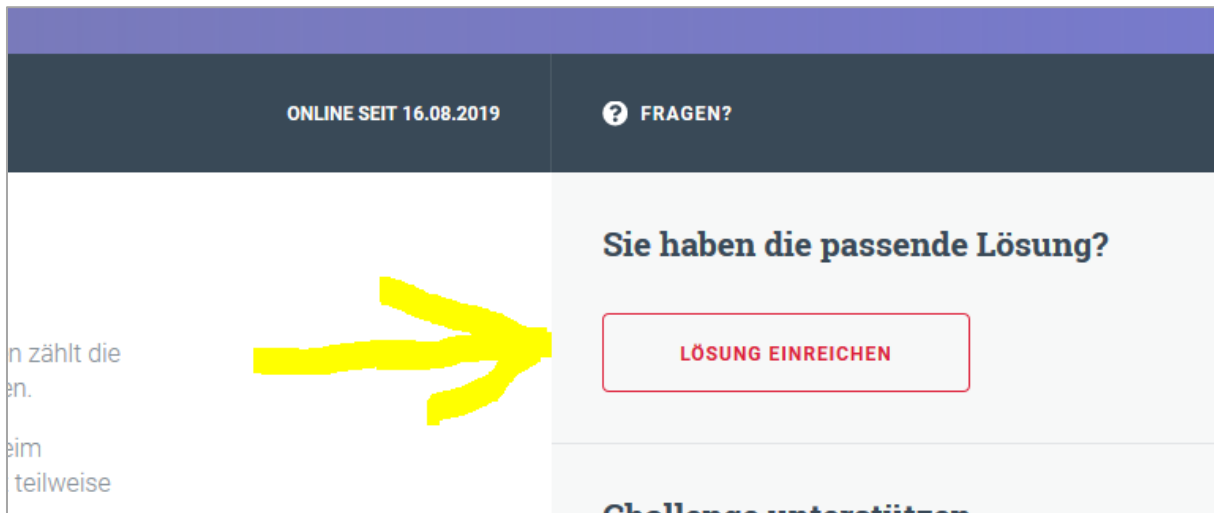
A possible (near-term) pilot project is together with a sawmill currently planned, depending on the results obtained during the Challenge.

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 "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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