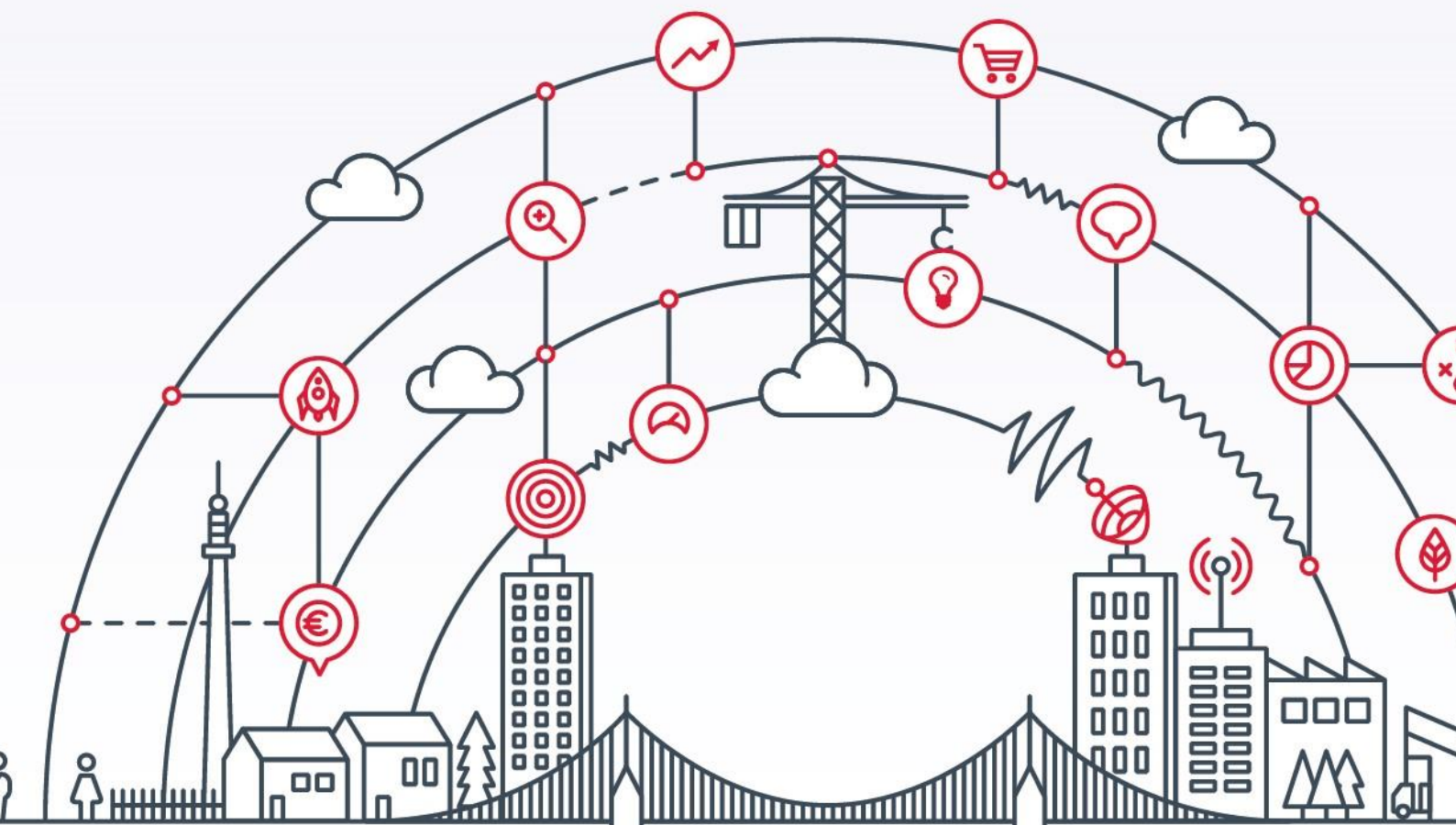


Automated inspection of fire protection systems

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

[Automatisierte Inspektion von brandschutztechnischen Gewerken - IÖB Innovationsplattform \(ioeb-innovationsplattform.at\)](https://www.ioeb-innovationsplattform.at)



An initiative of

 Federal Ministry
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 Federal Ministry
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Climate Action, Environment,
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In cooperation with

BBG BUNDES
BESCHAFFUNG

Challenge Sponsor

Vienna International Airport



Point of Departure

Technical fire protection is an important issue for Vienna Airport. Fire protection systems must undergo monthly or quarterly inspections in accordance with legal and normative requirements, which are currently carried out manually by employees. This involves around 150 systems across the entire airport infrastructure. These inspections generate an additional workload of around 3,800 working hours per year and block a big amount of human resources.

Particularly in view of the south extension of Terminal 3, which has already started, it is important to free up staff capacity for other activities.

ÖNORM F 3075 from 2023 specifies which system types must be inspected and documented at which frequencies and by which activities. An ÖNORM is an Austrian standard issued by Austrian Standards International as the legally recognized Austrian standards organization. Standards specify requirements for products, services, systems and qualifications and define criteria for their verification. They stand for quality and thus for confidence in products and services.

According to the standard, the test results of the inspections must be entered in an inspection log, recorded by the person carrying out the inspection and kept available for inspection. From the point of view of the system operator, these inspections according to the standard cause a lot of work and at the same time offer the starting point for innovative approaches.

The following systems fall under the umbrella term of fire protection systems:

- Pressurized ventilation systems
- fire smoke extraction systems
- Smoke and heat extraction systems

The building management system for the entire airport site enables the visualization of a large part of the affected systems, including fan activity. The airport's technical systems were implemented by various manufacturers. An additional challenge is that different external fire control systems are used in different buildings.

Vienna Airport is therefore looking for innovative solutions that enable the automation of inspection activities in fire protection systems.

Main Question

What technical solutions can be used to automate the current manual inspections of fire protection systems in a resource-saving way?

Desired situation

In this PPPI challenge, Vienna Airport is looking for technical solutions and devices that enable fully or partially automated inspections of fire protection systems, including logging.

The focus is on the overall approach of automated inspection. Ideally, the inspection process should be started remotely by automatically starting the system, inspecting the functionality of the fans using the appropriate technical solution, documenting any deviation from the target status, and logging the run.

It should be noted that the objects at the airport are in operation around the clock and without rest breaks. Corresponding operational effects (e.g. temperatures) must be considered. Ideally, the solution should not be visible from the outside (especially in the passenger area) and should be easily embedded in the airport's building and IT infrastructure. In particular, the high requirements of the IT infrastructure and IT security must be taken into account in order to keep airport operations running smoothly.

In addition, the simple manual adaptation of the automation must be considered, e.g. simple adaptation of the stored time periods or changes in locations (e.g. due to structural changes).

This market exploration is open to all technologies. For example, camera systems, sensor solutions and robot innovations have been addressed in the internal preparations. However, a wide variety of technological approaches can be submitted. Innovative approaches and solutions are welcome! The aim of the challenge is to gain an overview of innovations in the field of automated inspections and to get to know potential implementation partners.

Non-goals:

- Development of a control system for fire dampers
- Submission of fire detection systems or preventive fire protection measures
- Submission of individual modules or partial aspects of the overall solution (e.g. only cameras or sensors)
- Replacement of complete systems/installations/controls

Call for proposals

Do you have an interesting solution? Are you currently developing one? Are you an expert? Then enter a submission by 22nd of May 2024 by the latest!

Take this opportunity to present your innovative approaches. Vienna Airport is looking for companies or cooperation partners who already offer products and solutions that enable a holistic automated inspection of the facilities.

Click "Submit Solution" (Lösung einreichen) and have the following ready:

- **A meaningful description**
 - In particular, explain what technical solution you would use to achieve the desired result. Describe the overall approach of your solution and how ongoing support or training costs are considered in addition to technical implementation.
 - The focus of the description should match the evaluation criteria and the requirements described.

→ Convince with comprehensible use cases and references. Communicate your ideas regarding the course of the project (wishes, tips for the project managers).

- **A brief summary of the value added**
→ Get to the heart of the unique selling point and decisive advantages! What makes your solution particularly innovative? What makes you stand out?
- **Confidential Information**
→ 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.
→ Give us an idea of what your proposal means in terms of costs and effort. This will help Vienna Airport to design the procurement project within the right framework at an early stage. Please describe this information with reference to the reference project.
→ Alternatively, you can send a pdf by e-mail to the moderator of the challenge.
- **A title image**
→ This is your visual figurehead for the overview of submissions to this challenge.
- **Optional: Upload a file**
→ This file is intended to supplement but not replace or repeat the texts in the form fields! Use the file attachment for graphics, for example.

IMPORTANT NOTE: Submissions in a consortium are possible. Keep it short (guideline: maximum 10-12 presentation slides or 4-5 A4 pages. We are in the market exploration phase with the Challenge. It is therefore not necessary to prepare drafts or feasibility studies especially for this event.

Evaluation criteria

Degree of automation/efficiency gain (35%)

→ To what extent can the previous effort be reduced? Will a significant efficiency gain be realized through automation? What additional costs (maintenance, etc.) will arise?

Holistic approach (25%)

→ What must be considered with the solution? To what extent do the points usability, training effort, technical implementation, ongoing support emerge from the submission?

Feasibility (25%)

→ In what timeframe is a proof of concept feasible? Is a cost framework given?

Competencies/References (15%)

→ Are knowledge and qualifications evident? Is information provided on experience/concrete examples from similar projects already implemented?

Benefits of the Challenge and further course of the project

With this Challenge, Vienna International Airport will gain an overview of possible solutions and potential partners. The jury of internal experts then invites those companies whose solutions stand out particularly positively in the evaluation criteria to an innovation dialog. The solutions and a possible cooperation for a proof of concept can be discussed for the first time.

As a submitting company, please keep the 4th of July free for the Innovation Dialogue in Vienna.

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 by the jury made up of in-house experts. If you are among these winners, you will have the opportunity to present your solution during a market discussion with Vienna International Airport. You will exchange ideas directly with those responsible for the project.

The Challenge and the Innovation Dialogue create awareness 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:

Vienna Airport would like to learn about automation solutions for the inspection of fire protection systems as quickly as possible in order to free up personnel resources for other activities.

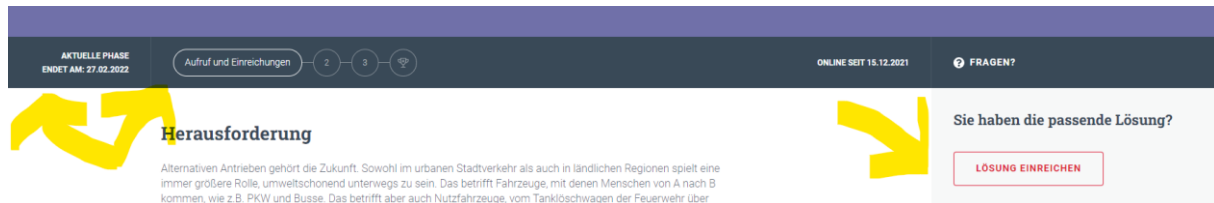
If the market discussions suggest that implementation makes sense, the immediate goal is to directly commission a proof of concept. In any case, subsequent steps depend on the maturity of the solution, the company behind it, the complexity of implementation and the final assessment of the jury.

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

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.

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