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Innovation Funding Programme for Public Passenger Transport

2025–28

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Executive summary

Background

Transport companies have to constantly adapt to new technological and sociological trends in personal mobility. Faced with the challenges of inflation and a shortage of qualified staff, they have to continually look for new ideas to improve their productivity. However, they often lack the resources required to develop or test new solutions while also performing their operational tasks.

Since its launch in 2020, the 'innovation funding programme for regional passenger transport', based on Art. 31 para. 2 of the Federal Act of 20 March 2009 on Passenger Transport (PTA)¹, has opened up new opportunities for licensed transport companies in the regional passenger transport sector by providing specific, non-repayable funding for innovative projects.

The reform of regional passenger transport aims to extend the programme to the entire public transport sector from 2025. It has therefore been renamed the 'Innovation Funding Programme for Public Passenger Transport'.

Aim of the research programme

The programme aims to strengthen the key role played by public transport in the Swiss mobility system on a long-term basis to make it more attractive and to improve its cost-effectiveness. The solutions tested as part of the programme must provide added value for the transport companies and/or public transport users. They should contribute towards increasing the use of public transport and cutting costs. For example, the anticipated effects include: an increase in public transport's modal share, improved profitability or an increase in public transport's self-financing contribution and a controlled increase in fares.

Definition of scope in relation to other subsidies

In addition to the PTA, other legislation also provides for the subsidisation of projects, more specifically research in the field of rail infrastructure, governed by the Railway Infrastructure Fund Act (RIFA)² of 21 June 2013 as well as energy efficiency legislation (Energy Strategy for Public Transport (ESPT) 2050 programme). The Goods Carriage Act of 25 September 2015 (GCarA)³ enables the promotion of innovation in the field of rail freight transport, while the Federal Act of 24 March 2000 on Railway Noise Abatement Measures (RNAA)⁴ provides for the support of research and innovation on railway noise abatement. Other federal organisations also provide research and innovation grants, in particular the Coordination Office for Sustainable Mobility (COMO) and Innosuisse.

Consultation on the research programme

The sector's requirements and expertise have to be taken into account when developing the research programme. Traditional universities, universities of applied sciences, professional associations, infrastructure managers and other federal offices were therefore consulted.

Criteria and conditions

In view of the extension of the programme to the entire public transport sector, the criterion on the project being applicable to regional passenger transport is no longer valid and has been replaced by the long-term cost-benefit ratio. The cost-benefit analysis was introduced when the programme was launched in 2020, but was not an application selection criterion. In light of the positive experience over the past three years, attaching greater importance to the cost-benefit ratio and introducing it as a new qualification criterion now seems an appropriate step.

In summary, the following four criteria have been selected for the 2025–28 programme: innovation, public interest, long-term cost-benefit ratio and risk management. All the criteria must be met.

To comply with the principle of subsidiarity and to ensure other available funding sources are exhausted, the Confederation only generally covers a share of the total project costs.

¹ SR 745.1

² SR 742.140

³ SR 742.41

⁴ SR 742.144

The research programme's priority areas

The programme's priority areas for the 2021–24 period were vehicle technology, operation and maintenance, solution design, ticketing, and customer experience. Consultation with industry actors indicated that these priorities are still relevant and reflect the trends identified in the public transport sector. They have therefore been retained. Digitalisation and automation look set to increase in these areas.

1 Introduction

It is widely accepted that public transport must continually adapt to new technological and sociological trends in personal mobility. Most transport companies nevertheless often lack the resources required to develop and test new solutions. The 'Innovation Funding Programme for Public Passenger Transport' aims to bridge this gap by providing the financial support required. National coordination of innovation funding in public transport must also ensure cost-effective use of public subsidies and avoid duplication of efforts in pilot projects. This document sets out the second 'Innovation Funding Programme for Public Passenger Transport' (previously called the 'innovation funding programme for regional passenger transport') and covers the period 2025–28.

1.1 Background

Since its launch in 2020, the programme has provided support for 12 projects, contributing around CHF 10 million (as at January 2024).

As part of the complete revision of the Ordinance on Subsidies for Regional Passenger Transport (RPTSO), which is set to enter into force on 1 January 2025, the programme's scope will be extended to the entire public transport sector and, in particular, to urban and long-distance services.

This significant change is in line with the view expressed in various recently published documents underlining the need to find new solutions and to adapt to the development of the governing framework:

- in line with the Federal Council's objectives for the 2023–27 legislative period, Switzerland aims to create a stable economic environment in the digital age, focusing on sustainable development goals to foster innovation and competition⁵;
- The Federal Office of Transport's (FOT) 2019 Strategy, which was updated in 2023, sets out these objectives in the field of public transport. In future, it will give priority to the consequences of technological development, multimodal mobility (mmm) and transversal electronic processes.

Clear reference is made to the 'Innovation Funding Programme for Public Passenger Transport' in the Federal Department of the Environment, Transport, Energy and Communications' (DETEC) 2025–28 transport and sustainability research concept.

While the programme's scope will be extended to the entire public transport sector, it will continue to be funded by the guarantee credit providing compensation for regional passenger transport services.

The explanatory report on the guarantee credit for regional passenger transport during the period 2022–25 indicates that, from 2020, the FOT will allocate CHF 5 million a year to innovations that aim to improve the efficiency and quality of passenger transport services subject to the approval of the guarantee credit for the 2026–28 period by Parliament. DETEC wishes to provide this budget on a long-term basis.

1.2 Scope and definition

The programme aims to encourage innovation in public passenger transport. This essentially concerns solutions based on research, but not the research itself. This means the programme supports pilot projects aiming to test innovative solutions based on research results. Only licensed passenger transport companies can submit funding applications. However, the projects may be jointly carried out with industry partners and universities.

1.3 Legal basis

*Art. 6 let. a of the Federal Act of 5 October 1990 on Financial Assistance and Subsidies (SubA)*⁶

⁵ Federal Council objectives for the 2023–27 legislative period, guideline 1, objective 1

⁶ SR 616.1

The legal provisions indicate that subsidies may be allocated if:

- a. the activity is in the Confederation's interests;

(...)

Art. 7 let. b, c and d SubA

The legal provisions governing the subsidies must stipulate that:

- b. The subsidy amount is based on the interests of the Confederation in the implementation of the activity as well as those of the funding recipients;
- c. The funding recipient is required to provide a contribution based on its financial capacity;
- d. The funding recipient will make full use of its resources and other funding sources available;

Art. 16 paras 1 and 2 SubA

¹ The financial assistance and subsidies are generally allocated by way of decision.

² In particular, a contract under public law may be concluded:

- a. if the authority responsible has a high degree of discretion;
- b. if, in the case of financial assistance, precluding the funding recipient's right to unilaterally withdraw from performance of the activity is a preferable option.

Art. 31 para. 2 PTA (Amendment of 16 December 2022)

² The Confederation may award financial assistance to proposals referred to in Art. 28 to promote innovation.

Art. 2 of the Ordinance on Subsidies for Regional Passenger Transport (RPTSO) (Version for consultation of 16 August 2023)

¹ This ordinance applies to companies transporting passengers on scheduled services, unscheduled services or routes classified as scheduled services based on a licence in accordance with Art. 6 PTA, authorisation in accordance with Art. 8 PTA or an international agreement and which benefit from subsidies or financial assistance in accordance with Art. 28 to 31 PTA.

Art. 56 paras 1 and 2 RPTSO (Version for consultation of 16 August 2023)

¹ To promote innovation, the Confederation may grant non-repayable contributions as part of the credits allocated.

² The FOT governs the conditions and procedure for granting contributions in a directive.

Art. 2 let. b of the Federal Act of 14 December 2012 on the Promotion of Research and Innovation (RIPA)⁷

Under this act, *science-based innovation* refers to the development of new products, procedures, processes and services for the economy and society through research activities, especially those focusing on applications, and the enhancement of their results.

The legal framework provides the basis required for the funding of innovation. The FOT may provide this funding in a flexible way and in the form it deems most appropriate.

2 Programme goals

The programme must contribute towards strengthening public transport's key role in the Swiss mobility system by making it more attractive and by continually improving its cost-effectiveness. It has to provide coordinated and targeted support for the implementation of innovative public transport solutions.

⁷ SR 420.1

This four-year programme defines the criteria for granting subsidies and the priority areas for the period 2025–28.

2.1 Strategic objectives

According to the Federal Office for Spatial Development's (ARE)⁸ strategy, the future of mobility will be based on energy-efficient and space-saving transport services capable of meeting both Switzerland's economic and social requirements. This will require the effective combination of the various modes of transport based on their respective benefits. As set out in the FOT's 2019 Strategy⁹, as a mode of transport providing environmental benefits, public transport must be made increasingly attractive to customers, funded on a long-term basis, efficient for the Swiss public, economy and state and operated in an environmentally friendly, safe and reliable way.

The innovation projects supported by the programme must contribute to the long-term consolidation of public transport's role in the Swiss transport network by increasing its appeal, profitability or self-financing contribution.

2.2 Impact objectives

The innovation projects' results must provide genuine added value for the transport companies and/or public transport users. They must contribute towards increasing revenues and/or cutting public transport costs. The anticipated effects include an increase in public transport's modal share, an improvement in profitability or public transport's self-financing contribution and a controlled increase in fares.

The project conclusions may also provide a working basis for the development of legislation and the provisions that currently apply.

3 Priority areas for 2025–28

The priority areas in which support can be provided for innovation projects are set out below (not in order of priority).

3.1 Vehicle technology and vehicle-related systems

This area covers topics such as: digitalisation, the automation of processes and information flows, assisted driving, lightweight design, energy recharging systems, etc. The programme does not fund rail infrastructure projects.

3.2 Operation and maintenance

This area covers topics such as: digitalisation, optimisation of transport capacity, support staff, cleaning/hygiene, automated operation, vehicle servicing and maintenance, staff and passenger safety, etc.

3.3 Solution design

This area covers topics such as: access to the region, timetables, modes of transport, multimodal mobility (mmm), exchange platforms, mobility as a service (maas), etc.

3.4 Fares and ticketing

This area covers topics such as: ticketing, sales, fares, fare and transport networks, etc.

3.5 Customer experience

This area covers topics such as: passenger information before and after travel as well as on the vehicle, on-board services, comfort, use of journey time, transport of luggage, bicycles and skis, etc.

⁸ <https://www.are.admin.ch/are/en/home/mobility/strategy-and-planning.html>; viewed on 2.10.2023

⁹ https://www.bav.admin.ch/dam/bav/fr/dokumente/das-bav/eine_strategie_fuerdiezukunftsdesoeffentlichenverkehrs.pdf.download.pdf/une_strategie_pourlavenirdestransportspublics.pdf; viewed on 2.10.2023

4 Coordination

The programme works in cooperation with other FOT support programmes. In particular, coordination must be ensured with the research funding programme for rail infrastructure in projects concerning multimodal mobility, exchange platforms, the impact of construction sites and automated driving.

5 Definition of the programme's focus

DETEC is responsible for sectoral research in accordance with Art. 16 para. 5 of the Federal Act on the Promotion of Research and Innovation (RIPA). This means the programme's focus is determined by the approval of DETEC's research and innovation programmes. The priority areas are generally re-defined every four years. Based on DETEC's mandate, the FOT has produced this funding programme taking account of the 'Transport and Sustainability 2025–28' research concept and in coordination with the 'Energy Strategy for Public Transport 2050' (ESPT 2050) and 'research on rail infrastructure' research programmes. The priority areas are based on the measures to be taken identified within the FOT, which were agreed through the consultation process.

6 Organisation

6.1 Description of the available instruments

The content of the innovation projects is in line with the principles and priority areas of innovation set out above. The results of the projects supported by the FOT are made available to the public.

Applications for innovation project funding can be submitted at any time. The FOT may approve them in the form of a subsidy from the guarantee credit funds for the compensation of regional passenger transport services provided the relevant conditions are met. It is important to note that no right to funding applies. The FOT reserves the right to reject applications.

The projects supported must benefit the transport companies. Only projects concerning new products, procedures, processes and services which have not already been tested in Swiss public transport can be supported.

The programme supports projects which fall into at least one of the following categories:

- **Pilot and demonstration:** Projects at the interface between the laboratory and market. In specific terms, this involves testing and evaluating new solutions (technical systems, prototypes) and approaches (including socio-economic aspects and commercial models) in a real environment (testing in the laboratory or in the field and analysis). This category also includes PoC¹⁰ studies.
- **Trials in the field and analysis:** Projects that aim to test and evaluate technologies, to assess organisational measures or to collect the data required for these tasks.

On a case-by-case basis, support may also be provided for projects in the field of **experimental development**, such as scheduled works or where knowledge obtained through research and practical experience is used to introduce new products and processes.

Projects in the field of basic or applied research cannot generally be supported.

6.2 Bodies and roles

To ensure innovation funding for public passenger transport is managed and coordinated effectively, the FOT has adopted the following organisational structure:

- **The programme's awarding body:** The FOT's management team is the awarding body for the programme and responsible for all aspects of it. It defines the principles and key elements of implementation. The awarding body is kept regularly informed of activities being implemented and takes any

¹⁰ Proof of concept

management measures or corrective action required. Even though it has delegated its decision-making powers to the Programme Committee, the awarding body continues to play a key role in the approval of contracts with the programme participants and contracting party.

- **Programme Committee (PC):** The PC responsible for this programme is the Federal Office of Transport's Research and Innovation Committee (RIC). It represents the awarding body in the programme management and provides a strategic vision. The PC coordinates the FOT's various research programmes. It oversees the programme and prepares the management's decisions.
- **The Head of the Finance division or Head of the Access to Market unit** decides on acceptance of applications submitted based on the recommendations of experts and the opinions of the Research and Innovation Committee (RIC) members. It determines the subsidy amount where applicable.
- A **pool of experts** made up of specialists from various areas of public transport evaluates the funding applications. The experts are selected based on the specific area concerned.
- The **Access to Market unit** manages the programme strategically and operationally.
- The **external staff office** provides the Access to Market unit with support on administrative and technical matters.

6.3 Subsidy award procedure

The awarding of federal government subsidies for research and innovation projects is governed by the SubA.

6.4 Application evaluation procedure

Four qualification criteria must all be met: innovation, long-term cost-benefit ratio, public interest and risk management.

Innovation

- Is the proposed solution really innovative?

Long-term cost-benefit ratio

- Is the cost-benefit ratio plausible and favourable in terms of use of the proposed solution in public transport?

Public interest

- Does the proposed solution provide genuine added value for transport companies and/or public transport users?

Risk management

- Are the project risks managed and is the chance of success high enough to achieve the project goals within the timeframe defined?

The experts evaluate the applications based on the four criteria by completing a multiple-choice questionnaire. Their answers are then weighted and combined to produce a score. The head of the programme submits a recommendation to the Head of the Finance division based on the result of the expert evaluation and opinion of the RIC members.

The innovation projects supported by the programme should not generally last longer than three years. At the end of the project, the results are compared with the initial objectives. The cost-benefit analysis is also updated based on feedback.

The documents and instructions required to submit a funding application (forms and guidelines) are available on the 'Innovation Funding Programme for Public Passenger Transport' website¹¹.

6.5 Funding programme recipients

The funding programme is aimed at licensed passenger transport companies. They can submit their applications to the FOT in partnership with universities and private sector companies.

As the programme provides financial contributions to the innovation projects, the SubA applies (see section 1.3). In accordance with Art. 7 let. c and d SubA, the subsidy beneficiary must provide its own contributions according to what can be reasonably expected based on its financial capacity and it must exhaust other available funding sources. The authority in charge must also verify the completion of the tasks as part of the project in accordance with Art. 25 para. 1 SubA.

The programme issues guidelines setting out the procedures concerning contributions to be made to projects by partners.

The subsidy award conditions are defined in a contract under public law between the FOT and the transport company participating in the project.

6.6 Monitoring, quality control and reporting

A project officer is assigned to each project and is tasked with ensuring deadlines are met and assessing the quality of deliverables. The Access to Market unit is responsible for overall programme management.

The results of the various research projects are published in the ARAMIS database which covers all research and innovation projects carried out or funded by the Swiss Confederation.

7 Financial resources

7.1 Financial resources

With an annual budget of CHF 5 million, the funding programme is the main funding instrument for innovation projects in public passenger transport. The innovation projects supported by the programme are ideally funded on a non-repayable basis.

The funding comes from the guarantee credit for the compensation of regional passenger transport services. The budget planning for the period 2025 to 2028 is set out below subject to approval by the Swiss Parliament and re-evaluation of the Confederation's activities in general:

- 2025: CHF 5 million
- 2026: CHF 5 million
- 2027: CHF 5 million
- 2028: CHF 5 million

7.2 Subsidiarity/co-funding

In accordance with SubA (Art. 7 let. c and d), the subsidy recipient must provide its own contributions according to what can be reasonably expected based on its financial capacity, or undertake initiatives within the limits of its own resources and exhaust available funding sources.

To comply with the principle of subsidiarity and the exhaustion of other available funding sources, the Confederation only generally covers part of the total project costs.

In exceptional cases, in particular where residual project costs can only be partially covered by other sources or not at all, and if the project is of major significance to public transport, the funding programme may cover up to 100% of the project costs.

¹¹ www.bav.admin.ch/innovation-try

Any participants applying for contributions under different legislation for the same project must notify the participating authorities. Any failure to comply with this obligation may result in the recovery of financial assistance or subsidies deemed unjustified.

7.3 Priorities

If the amount requested for applications exceeds the funding available, priority will be given to the projects achieving the best evaluation scores.

8 References

Federal Council, the Federal Council's objectives for the current legislative period

[Link to document](#) (viewed on 20.02.2024)

Federal Office of Transport, FOT's 2019 Strategy, Bern, 2019

[Link to document](#) (viewed on 20.02.2024)

Federal Roads Office and Federal Office of Transport, transport and sustainability research concept 2025–28, Bern, 2024

[Federal administration research \(admin.ch\)](#) (document 2025 – 2028 not yet available)

Swiss Confederation, dispatch on an amendment to the Passenger Transport Act 2021

[Link to document](#) (viewed on 02.10.2023)

Federal Office of Transport, explanatory report on the guarantee credit for regional passenger transport 2022–25, 2020

[Link to document](#) (viewed on 27.11.2020)