

Policy

Document

— 08/2026

Cost savings for the entire railway system

NextGen Swissrail

Executive summary	3
1. Strategic services development	4
2. Vehicle procurement	7
3. Infrastructure, construction and maintenance	12
4. Measure catalogue	16

Executive summary

Rising system costs constitute a major challenge for the long-term development of public transport in Switzerland. Increasing pressure is also being exerted on the resources available. The Swiss Federal Office of Transport (FOT), therefore, places great store by “Keeping control of costs”. With this in mind, around 40 young experts from industry, BAV and operators at a NextGen-Swissrail workshop in May 2026 took a critical look at the current railway system.

Attention was placed on the long-term development of the service offering, the overall process of rolling stock procurement as well as the construction and maintenance of the infrastructure. The main issue is this: **Where do costs that are avoidable or that can be reduced occur in the railway system as a whole, and which we, in the view of NextGen, can identify collectively, prioritise, and turn into a key lever?**

The discussions showed: The levers that were identified over and over again were reducing unnecessary complexity, increasing standardisation, taking a critical look at requirements and standards that have increased over time and consistently exploiting the regulatory and technological room for manoeuvre. Requirements, standards and investments should be assessed more strictly according to what real added value they create for customers and for system as a whole.

At the same time, efforts should be geared more towards demand and benefits. This starts from the very offer planning stage, since the decisions made during this process trigger long-term subsequent investments in infrastructure, vehicles and facilities. New technologies and intermodal solutions should, therefore, be incorporated into future service concepts and information gleaned from successful pilot projects should be used to develop them further.

This policy document is specifically geared towards the rail and mobility sector with a concrete catalogue of measures. Its aim is to serve as the basis for additional discussion and contribute to turning the identified areas of action into the initial concrete stages of implementation.

The young generation of the sector wants to play an active role in shaping the transformation, to question existing models and to give new impetus to an economically stable, sustainable and high-performance railway system. NextGen Swissrail is creating a net-working platform for this and is incorporating the views of younger experts into the sector discussions.

1. Strategic services development

The long-term development of services determines the cost framework

The term “strategic services development” encompasses defining the service concept, taking into account infrastructure expansion, vehicle procurement or modernisation, maintenance facilities, and technologies and requirements that form the basis for the above. The strategic planning of public transport services and the framework conditions for service delivery will have a significant long-term impact on the operating costs of infrastructure and rail services in the coming decades. Once the necessary upgrades, vehicles to be developed, or new technologies to be integrated – essential for a public transport service - have been determined, these decisions will translate into operating costs in upcoming years. This then also creates an opportunity to affect future system costs early on, by laying down the framework conditions. This includes, for example, deciding whether or not to adopt new technologies in rail production and asset management by way of strategically defined guidelines and systematically identifying any limiting factors. In short, a service concept based solely on current technologies and standards would lock them in until completion, causing an additional increase in system costs.

Methodology

The workshop was split into two parts and was held in a similar way to the SRF “Arena” format: a moderated discussion, during which various stances and viewpoints were highlighted, both from experts and from the general population. During the first part of the workshop, the participants first split into three groups to examine a technical dossier – including analyses – covering the following topics:

- Increased system costs in Switzerland including the effects on financial key figures since 2007/2010
- Current concepts for the extension of the public transport offering (AS35, Verkehr’ 45 [Traffic 45])
- Screening of new technologies in public transport, concentrating on automation

The groups were then split into three groups by role, each with expertise in the three subject areas:

- (A): Ordering authority/client: Swiss Federal Office of Transport (FOT), cantons, policymakers in general
- (B): Transport companies and infrastructure operators
- (C): The general population (public transport users/others)

Based on the SRF “Arena” the following key issue was discussed
“Where in the system as a whole do avoidable or reducible costs arise?”

The discussion raised recommendations for action

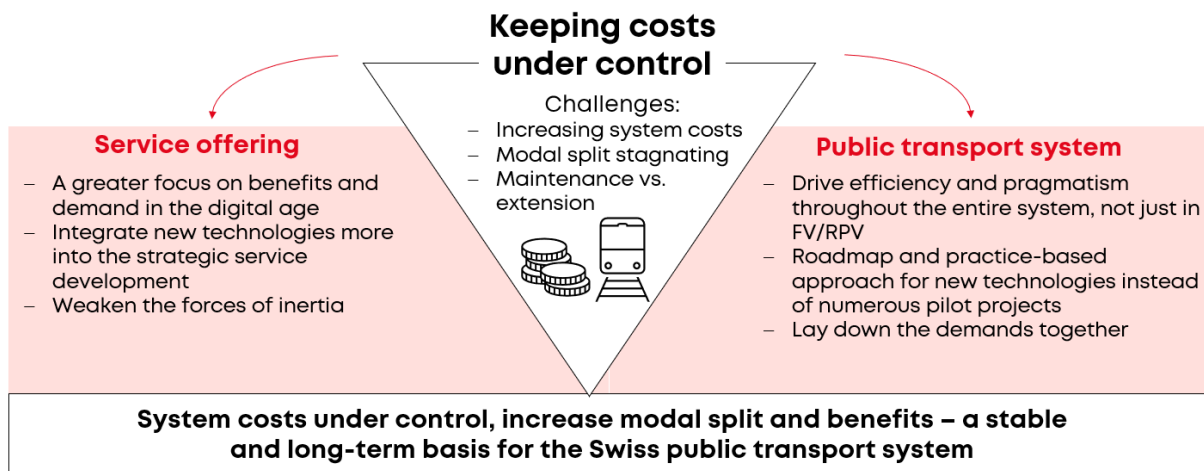
The initial observations that emerged from the discussion revealed a broad consensus on the trend towards rising system costs and the need to factor in the associated maintenance and operating costs for expansion projects, and raised the issue of significant inertia in the current public transport system. The “Arena” discussion resulted in the following recommendations for action:

Developing the service offering

- Projects for expansion and development should be guided by a long-term supply strategy and demand management. If this is not the case, high system costs with only limited benefits will ensue.
- The “digital” age requires a more demand-oriented public transport system (e.g., different levels of service from Monday to Friday compared with Saturday and Sunday). Rigidly maintaining the same service frequency and route schedules from Monday to Sunday is no longer a priority.
- New technologies and the opportunities they offer should be incorporated more fully into service planning. They could include, for example, automated driving on roads and railways or targeted management of capacity utilisation, but they could also be exploited to find effective solutions that create a balance between attractiveness and costs across comprehensive (intermodal) transport.
- Gaps in public transport services: there are public transport routes where travel time and the need to take connecting services are now making it less attractive than using private vehicles. Some journeys could even be done more quickly by road bike. There is potential here to increase public transport’s modal share and the benefits it provides to the general population, without placing excessive attention on existing service models. Conflicting objectives between the increasing commuter traffic during the week and recreational travel must also be identified and addressed.

Railway production and the public transport system

- New technologies should be integrated into day-to-day public transport services and prepared for use in practice – this means facilitation rather than regulation by the authorities and open, collaborative partnerships between operators.
- Efficiency and pragmatism should be promoted for long-distance transport (LDT) and regional passenger transport (RPT) within transport companies. The entire system, however, must also include infrastructure and long-term development, with the aim of returning to pragmatic and intelligent solutions instead of sticking with the current “business as usual” mentality. The contracting authorities must set up a broad control mechanisms, and all parties involved must be prepared to change their mindset.
- The demands placed on new systems, the infrastructure and vehicles should, once a certain level of complexity has been reached (e.g., innovation projects), be defined jointly by clients, transport companies, infrastructure operators and the industry. This approach helps avoid costly siloed efforts, and promotes compromise rather than “gold-standard” solutions.



Summary

Defining the strategic service concept exerts considerable leverage on the financial viability of future expansion phases and service growth, given the resulting follow-on investments in rail infrastructure, rolling stock and service facilities. When faced with rising system costs, a stagnant modal split, and increasing maintenance needs, a cultural shift toward efficiency and pragmatism is essential, and not just for rail production. New technologies such as automated driving on the roads and regional lines, intermodality, and real-time journey planning should be put in place to increase the benefits of the new service concepts. This makes it possible to address “blind spots” and develop new line concepts where demand warrants them, while keeping costs under control through a stronger focus on demand. Innovations must be scalable and the route to implementation must be demonstrated via a clear roadmap with pilot projects. A future service concept within the next +10 years should and indeed must incorporate new technologies and plan for their use to ensure their widespread adoption and facilitate their implementation.

2. Vehicle procurement

Methodology

The goal was to identify avoidable costs throughout the entire lifecycle of vehicles and to come up with measures with the greatest possible impact, without compromising safety, reliability and performance.

The discussion was broken down into four procurement phases:

1. Definition of needs and requirements
2. Tenders and awarding of contracts
3. Vehicle development and delivery
4. Operations and lifecycle management

The participants first identified the cost drivers, analysed their causes and then prioritised the most promising levers for cost reduction. The results presented below reflect the joint assessment of the workshop participants.

Cost drivers in vehicle procurement

The discussions showed that a considerable part of the costs has already been determined long before the vehicle is commissioned. Decisions made during the needs and requirements definition and procurement preparation phases affect the entire lifecycle of the fleet.

1. Increasing complexity because of individual requirements

One of the cost drivers mentioned most frequently is the tendency to develop top-level, customer-specific vehicle solutions for individual operators or projects. While specific operational requirements are often justified, many procurement contracts end up including additional requirements, interfaces or vehicle variants that reduce standardisation and increase the engineering workload. As a result, suppliers must adapt existing platforms instead of delivering tried-and-tested standard solutions.

This leads to:

- higher development costs
- longer authorisation and certification processes
- more testing
- lower economies of scale
- more complex maintenance and replacement part management during and beyond the lifecycle

Several participants noticed that operators often optimise for their own local needs, while system-wide cost effects are not always sufficiently taken into account.

2. Limited standardisation between operators and projects

The workshop showed that comparable transport companies procure similar functionalities via different technical specifications, contractual models and procurement approaches. This fragmentation:

- prevents larger procurement volumes
- doubles the engineering time
- reduces marketing efficiency
- and limits the reuse of existing designs by suppliers.

The railway sector has considerable experience with large-scale standardisation initiatives such as ETCS and other interoperability requirements. These have created important benefits for safety and interoperability, and at the same time have shown that standardisation can itself bring about considerable investments and transitional costs. The participants, however, identified more potential for reducing life-cycle costs through greater standardisation of subsystems, interfaces and procurement processes, particularly if similar requirements are developed several times, independently of one another.

3. Procurement processes focusing on compliance instead of value creation

The participants stressed that public procurement processes can unintentionally encourage risk-averse behaviour, both by operators and suppliers. The following observations were made:

- Tender requirements are often very detailed from the outset
- Innovation opportunities are limited during the procurement process
- The dialogue between the client and the supplier is constrained
- Assessment criteria focus more on formal fulfilment than on lifecycle benefits

This can result in costly specifications being implemented whose long-term benefits are unclear, while potentially more cost-effective solutions are not exploited. The workshop identified the need for iterative and collaborative procurement approaches that allow for technical optimisations before the requirements are firmly laid down.

4. Costly changes during development and supply

Another important cost driver is the introduction of changes after the contract has been awarded. It was noticed that adjustments to requirements, interpretations of regulations or operational requirements during development frequently lead to:

- delays
- extra work
- additional tests
- contractual modifications
- increased project risk

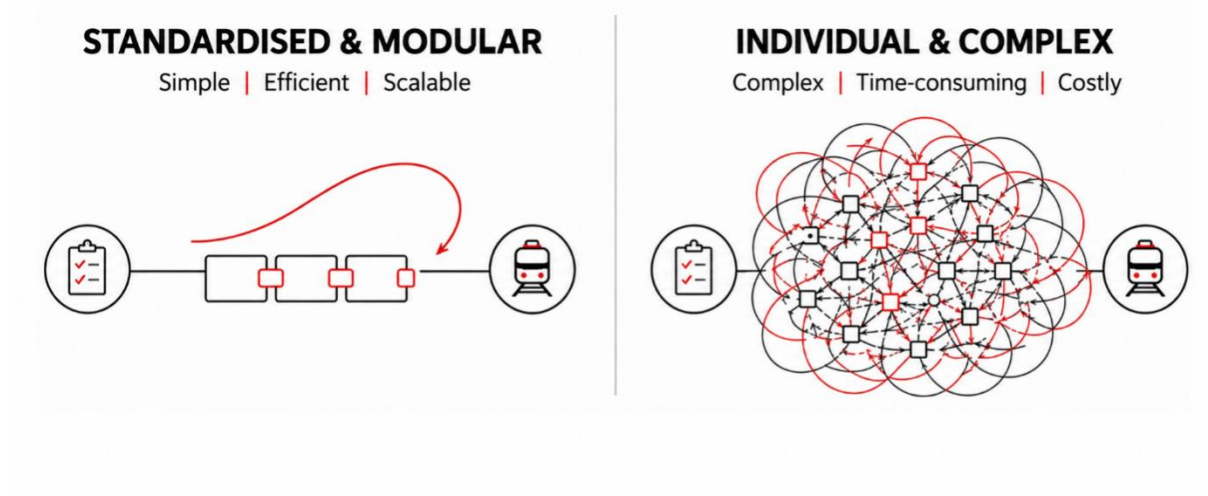
Since railway projects involve long development cycles and a large number of stakeholders, even minor changes can result in significant subsequent outlay.

5. High lifecycle costs due to non-standardised components

The participants stressed that procurement decisions frequently focus primarily on procurement costs, while long-term maintenance aspects are given less consideration. Customer-specific components, proprietary solutions and restricted availability of replacement parts may, over a typical lifetime of 30 to 40 years, give rise to considerable costs. The identified challenges include:

- obsolescence management
- availability of replacement parts
- compatibility with future upgrades
- dependence on individual suppliers

The groups came to the conclusion that the lifecycle aspects should be incorporated more into the procurement decision from the outset.



Measures with high leverage

The workshop identified three priority areas of action with the potential for achieving significant cost savings for the Swiss railway system.

1. Increased standardisation and modularisation

The clearest and most consistent message from the participants was the need for greater standardisation. This includes:

- greater use of tried-and-tested vehicle platforms
- standardised sub-systems and interfaces
- harmonised requirements between operators
- joint procurement specifications, where possible

The aim is not to eliminate operational differentiation, but to critically check whether individual requirements offer sufficient added value in relation to the costs. A stronger modular and standardised approach would reduce engineering outlay, simplify maintenance and produce economies of scale.

2. Modernisation of procurement and tender processes

The participants recommended switching from highly prescriptive procurement procedures to collaborative and value-based approaches. They include:

- earlier market dialogue
- iterative tendering models
- greater consideration for lifecycle costs
- greater transparency for risk sharing
- incorporation of technical and commercial expertise from the outset

Such approaches could improve solution quality while reducing costly misunderstandings and subsequent modifications.

3. Promotion of data exchange and digital tools

The workshop identified a considerable, thus far unexploited, potential for the use of digital tools and artificial intelligence (AI). In particular, opportunities for making use of AI for the following were cited:

- improving communication between stakeholders
- building joint knowledge databases
- recycling information from previous projects
- optimising requirements
- improving lifecycle and maintenance planning

Improved data availability and transparency could reduce duplicated efforts and enable more informed decisions throughout the entire procurement process.

Summary

Vehicle procurement offers significant potential for cost reduction without compromising safety, quality or performance. The main issue is to reduce unnecessary complexity, increase the level of standardisation and increase cooperation between operations, authorities and industry. Instead of highly customised solutions and requirements that have developed over time, tried-and-tested modular approaches should be used consistently, and requirements should be evaluated based on their actual added value. Only by more effectively aligning procurement processes with lifecycle costs, taking advantage of regulatory flexibility and coordinating changes early, will it be possible to reduce system costs in the long term while improving the efficiency and cost-effectiveness of the rail system at the same time.

3. Infrastructure, construction and maintenance

Methodology

The workshop was conducted in two parts that built on each other. During the first part, the viewpoints of clients and contractors were discussed using real-world examples, and the resulting cost drivers were identified from their point of view. During the second part, measures for reducing costs were drawn up and assigned to the responsible actors. The aim was to identify solution approaches with the greatest potential for sustainably reducing system costs in the railway infrastructure.

The issue

The identified growth in railway infrastructure costs shows that effective optimisation cannot be achieved by focusing on just one aspect. A combination of regulatory adjustments, clearer project specifications, and more efficient authorisation and implementation processes is needed, and stronger emphasis must be placed on practicality and life-cycle costs.

The key issue, therefore, is how the available funds can be used to safeguard the integrity of the existing network and maintain its performance while avoiding unnecessary costs. Cost optimisation must not, therefore, be confused with a general drop in performance. The aim is to critically analyse the requirements that do not improve safety, availability or customer benefits.

Cost drivers and measures in the infrastructure

Speeding up planning authorisation procedures

Planning authorisation constitutes an important area of action. These days, a large number of stakeholders are involved, making projects more complex, longer and more expensive, because of the extensive procedures. Wherever possible and reasonable, using simplified procedures or waiving the planning permission process should be examined more thoroughly. Infrastructure operators and the regulatory authority, the Swiss Federal Office of Transport (FOT), need to adopt a more pragmatic approach to “good-enough” solutions at the same time. Focus must be placed on safety-related issues and the scope of evidence management must be proportionate to the benefits.

Concrete implementation suggestions:

- Extend the existing digital application platform for submitting planning authorisation applications to include a feature for tracking documents. Using this tool, access should be available for the following: an overview of all planning conditions, including responsibility, the status of the settlement of imposed conditions (feedback from comments, reply, rejoinder, surrejoinder), as well as the option for planners and railway companies to upload additional attachments directly to the platform.
- Binding processing deadlines for the BAV with clear escalation rules if deadlines are not met.
- A free, binding preliminary review period before the formal submission of the application, so that planning consultancy firms can obtain feedback quickly on whether the application is complete and on the right track.
- A standardised, binding set of criteria specifying whether a project is exempt from planning authorisation when a simplified planning authorisation procedure must be completed.
- Regular discussions on experience between the BAV, planning consultancy firms and infrastructure operators.

Check standards and guidelines to ensure they are feasible in practice

A second key lever concerns specifications, guidelines and threshold values, such as those set out, for example, in the Implementing Provisions for the Railways Ordinance (AB-EBV). Existing guidelines, for example regarding minimum gravel thicknesses or load-bearing capacities, should be reviewed again to assess whether they are technically necessary and cost-effective. If simplified maintenance measures can ensure safety and serviceability, greater consideration should be given to them rather than costly structural renovations. This requires that both the authorities and infrastructure operators reassess existing threshold values. For planners and companies, this means not developing and implementing projects schematically, but rather in a way that is tailored more to the specific project and that takes costs into account.

Concrete implementation suggestions:

- A joint working group comprising the Federal Office of Transport (BAV), the Association of Public Transport (VöV), planning consultancy firms and construction companies should review the AB-EBV within a fixed timeframe (e.g. by 2028) with the explicit purpose of reducing the scope of the standards.
- Ensuring non-discriminatory access to RTE standards for design offices and construction companies: at the moment, only employees of railway companies are granted free access, whilst external parties (planners and companies) must purchase the rules, even though they apply them directly on behalf of the railway companies.
- Ensure that planning offices have a formal right to be consulted in RTE project groups rather than, as has been the case until now, only involving them to provide feedback during the second reading.

Project stability via design-freeze

The client must also define a clear scope of work and ensure that a binding design freeze is agreed upon to avoid changes and additional work later on. Changes to orders are among the biggest cost drivers. They disrupt ongoing planning and construction processes require additional coordination.

Concrete implementation suggestions:

- Lay down a binding design-freeze milestone in the project agreement. Any subsequent changes should only be allowed via a formal amendment process, along with an assessment of the additional costs and the impact on the timetable.
- Before issuing the invitation to tender, ensure that clients agree to provide a project order that has been fully reviewed and approved within the company, to minimise subsequent changes to the plans.

Optimise execution of the construction work and restricted access windows

For implementation, another key factor is making better use of service closure times and taking an overall view of rail operations. Short intervals during ongoing operations often lead to inefficient construction processes, high safety expenditure and low productivity. If it is operationally feasible, work can be carried out more cost-effectively and safely through longer, planned closures or bundled cluster projects. The service life of existing facilities must be exploited to the full, and replacement measures must be critically assessed to determine their added value. Furthermore, greater emphasis should be put on modular solutions, innovations from the construction industry and the use of recycled materials, provided they meet the technical requirements and do not complicate the authorisation process further.

Concrete implementation suggestions:

- Greater use should be made of framework agreements with construction companies instead of repeating individual tenders to improve planning certainty for the company, achieving lower unit prices.
- A simplified, generic approval process for recycled materials, modular building systems and vehicles (type approval).
- Award criteria that, along with price, take into account the innovative contributions made by construction companies to create incentives to use more efficient construction methods.

Establish lifecycle costs as a basis for decision-making

Finally, the financing perspective must be thoroughly taken into account throughout the entire lifecycle. The most cost-effective infrastructure measure is not always the one with the lowest construction costs. In some cases, it is the one that delivers the greatest overall benefit for operation, maintenance, renewal and decommissioning combined, and at a reasonable cost. This is why lifecycle costing (LCC) should be carried out more systematically during the early stages of a project, and alternatives should be more rigorously assessed for long-term cost-effectiveness.

Concrete implementation suggestions:

- Provide a standardised LCC calculation tool or standardised guidelines for all infrastructure operators, to ensure that planning consultancy firms are able to work on an equal footing and different options can be compared fairly.
- Incentive schemes (e.g., bonus-malus schemes) for planners and companies that propose and implement variants optimised for life-cycle costs.

Summary

The long-term financial viability of the rail infrastructure can only be ensured if equal weight is given to technical requirements, cost-effectiveness and customer benefits. Rather than pursuing established practices or standards that have developed over time, solutions should be assessed on the basis of their tangible benefits. System costs can only be reduced in the long term, without compromising the safety and performance of the rail network, if regulatory flexibility is exploited, requirements simplified, and projects organised and implemented more efficiently.

4. Measure catalogue

To ensure that the identified levers are not just empty promises, NextGen Swissrail would like to put forward the following catalogue of measures, setting out specific responsibilities and timeframes:

Strategic offer creation

- A cultural shift back towards pragmatic and intelligent solutions, based on an analysis of system cost trends over recent years at divisional and functional levels, along with targeted, coordinated measures
 - Responsible: entire sector (FOT, VöV, industry)
 - Timeframe: medium-term (2027–2029)
- Draw up and adopt the technological framework conditions and assumptions for the 2050 service concept, including the innovations to deliver the service and to keep rising costs in check
 - Responsible: entire sector (FOT, VöV, industry)
 - Timeframe: medium-term (2027–2029)
- Define the service concept up to 2050 (“Transport 45”) and analyse the implications for system costs (including the investment in rolling stock and service facilities required as a result)
 - Responsible: Federal Office of Transport, VöV
 - Timeframe: medium-term (2027–2029)
- Develop an alternative service concept for 2050 based on the premise of new technologies (e.g. automated driving for public transport on roads and on individual regional public transport routes, increasing the flexibility of services and improving connections to “blind spots”)
 - Responsible: entire sector (FOT, VöV, industry)
 - Timeframe: long-term (2027–2032)
- Integrate reflection on system costs into delivery agreement and thoroughly analyse and indicate the consequences for the stages of development
 - Responsible: Federal Office of Transport and VöV
 - Timeframe: long-term (2027–2032)

Vehicle procurement

- Promote standardised vehicle platforms and common procurement specifications to reduce customer-specific developments to produce economies of scale across several operators
 - Responsible: Transport companies, Public Transport Association (VöV), vehicle manufacturers.
 - Timeframe: medium-term (2027–2029)
- Establish industry-wide benchmark requirements and standardised technical interfaces for vehicle procurement
 - Responsible: Public Transport Association (VöV), Federal Office for Transport, transport companies and vehicle manufacturers
 - Timeframe: short term (2026–2028), followed by ongoing development
- Consistently base procurement procedures on life-cycle costs (LCC) and overall benefits rather than primarily on purchase costs
 - Responsible: Transport companies, Federal Office of Transport, cantons
 - Timeframe: short-term (2026–2028)
- Initiate binding market dialogues before large purchases of vehicles to identify financially sound and innovative solutions early on
 - Responsible: Transport companies and procurement departments
 - Timeframe: short-term (from 2026)
- Create a shared digital knowledge and data platform for vehicle procurement so that project experience, requirements, operational data and best practices are systematically recycled
 - Responsible: Public Transport Association (VöV), Federal Office of Transport, transport companies and vehicle manufacturers
 - Timeframe: medium-term (2027–2029)

Infrastructure, construction and maintenance

- Add settlement of imposed conditions (overview of conditions, including responsibilities and the resolution progress) to the existing digital application platform
 - Responsible: Federal Office of Transport
 - Timeframe: medium-term (2027–2029)
- RTE-specific and company-specific regulations should be reviewed and updated more frequently and planners and construction companies should be involved. Access to these schemes for planning consultancy firms and businesses also needs to be improved
 - Responsible: Public transport association (RTE programme management), planning consultancy firms, construction companies
 - Timeframe: short-term

- Establish binding design freeze milestones and a supplementary process with deadlines for changes to orders
 - Responsible: Infrastructure operators (builders)
 - Timeframe: medium-term (2027–2029)
- The LCC calculation tool should be available to all infrastructure operators so that planning consultancy firms and construction companies can work on an equal footing
 - Responsible: Federal Office of Transport and the Public Transport Association
 - Timeframe: long-term (2027–2032)

We are happy to be there for you

Swissrail Industry Association
Taubenstrasse 32
CH-3011 Bern

+41 31 398 50 50
swissrail@swissrail.com
swissrail.com/en