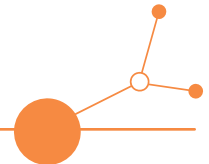


SUSTANCE

D.2.5.1. Long term sustainability guidelines for solution No.2

Cross-border train connection HU-AT - Neusiedl am See-Fertőszentmiklós-Sopron



Final
02/2025

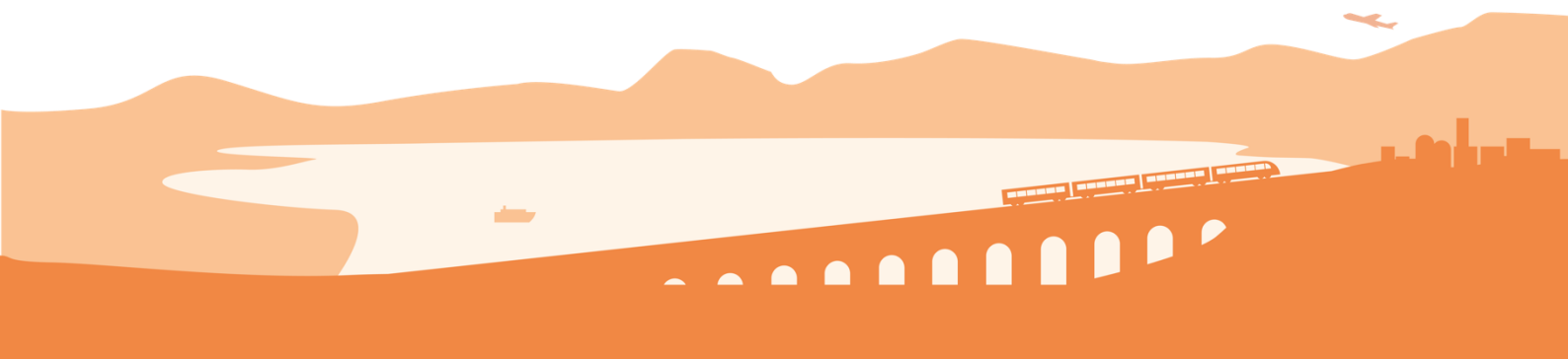




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Abbreviations

AF	Application Form
WP	Work Package
PT	Public Transport



1 Overview

This deliverable (D.2.5.1) is aimed at describing the approach for drafting a roadmap for taking up or scaling up a Sustance pilot solution. The 6 long-term sustainability guidelines (Jointly developed Solutions) are drafted by partners responsible for pilot action implementation in cooperation with involved PPs and APs (1 report for each pilot action - responsible PPs PA1/PP8 PA2/PP3; PA3/PP5; PA4/PP6; PA5/PP5; PA6 /PP4).

The Solution identified represents a transferable framework for planning, implementing and managing cross-border regional rail services beyond the pilot area.

Based on the knowledge gained during the analysis of accessibility (D.1.2.3), taking into account the feedback received from stakeholders during round table consultations (Act. 3.3) and building on the main results of the pilot actions (Act. 2.3 and 2.4), 6 Long term sustainability guidelines (Jointly developed Solutions) are drafted by partners responsible of pilot action implementation in cooperation with involved PPs and Aps.

Key objectives of the SUSTANCE long-term sustainability guidelines for solutions are:

- Definition of the solution based on the pilot action long-term capitalization/replicability/exploitation strategy;
- Definition of replicability factors (in the pilot area and beyond the pilot area).

2 The Sustance solution based on pilot SWOT analysis and technical measures adopted to overcome the main threats

The below table shows the results of the SWOT analysis for Pilot Action No. 2 (Cross- border train connection HU-AT - Neusiedl am See-Fertőszentmiklós-Sopron).

Strengths	Weaknesses
• Modern, comfortable rolling stock could be provided by GYSEV/Raaberbahn • The train service was reliable, without major disruptions or train delays • Possibility to carry bicycles on connecting Intercity services between Sopron and Budapest was provided during the traffic days of the train service (support activity by GYSEV, not part of the project) • Accompanying marketing activities • Very good coverage in print and online media and in national and regional television	• Relatively long planning and preparation was necessary before the start of the traffic, i.a. due to specific technical requirements on the rolling stock to be used for this international train service. However, all activities were accomplished on time and the traffic could start on time.
Opportunities	Threats
• Sopron and the Lake Neusiedl region are attractive for tourism (including bicycle tourism), providing a good basis for the	• Funding limitations posed a restriction on the scope of the pilot action. Some of the suggestions for improvement made by



train service and further development in the future

- The cross-border Lake Neusiedl/Fertő National Park region calls for environmentally friendly, sustainable forms of mobility and tourism; the Pilot Action could demonstrate, how rail can contribute to this.

stakeholders could have been implemented within the project, if available funding would have allowed so.

- High and strongly fluctuating, hard-to-predict numbers of bicycles on the trains are a potential safety issue; effective and at the same time customer-friendly capacity management measures for bicycles are still to be defined

No critical problems arose in connection with the development, implementation and testing of the Pilot Action, since the planning and operation of train services is a core activity of GYSEV. Certain specificities related to the train service had to be dealt with - first and foremost, authorization of an interoperable trainset for cross-border service, which had not previously used on the line concerned - , but this could be solved successfully and on time.

The evidence from the lessons learned from the pilot test shows that the fluctuating number of bicycles to be carried onboard - with demand on certain departures exceeding the nominal bicycle carrying capacity of the train - could in practice be solved by carrying more bicycles in the bicycle compartment (this can be done, if all or most of them are travelling to the same destination) or in few occasions by carrying bicycles in vestibules. Since the overall occupancy of the train in the mostly rural area, in which it operated, was (expectedly) low, this was a pragmatic and feasible solution. With a view the long-term sustainability, the aspect of capacity management of bicycle transport onboard trains and related safety aspects should be addressed on a broader sector-wide scale and on national or even European level.

When it comes to the long-term sustainability of a cross border train service, the main challenges are the future financing and partly wishes by stakeholders for modifications of the service - actually mostly wishes for extension of the service in geographical terms (routing) as well as with regard to the traffic period. For time reasons and even more so for reasons of budget limitations within the project, these modifications could not be done within the project but should be addressed after the end of the project. These aspects are addressed more in-depth in chapters 3 and 4.



3 The solution long-term sustainability goals and strategies

There are a number of aspects crucial for the feasibility and long-term sustainability of the solution as resulted from the pilot action testing .

First of all, to be mentioned here is funding. This aspect deserves particular attention and is therefore dealt with more in-depth in chapter 4.

A further, very important aspect is the cross-border nature of the pilot action and as a consequence of the essential elements of the solution. This means, that parties and decision-makers on both sides of the border - i.e. in Hungary and Austria - need to be involved in a long-term solution and need to act in a coordinated way.

In concrete, the actors to be involved in both countries are:

- Ministries, Public Transport associations or other entities in charge of funding of public transport services
- Railway undertakings providing the train service and rolling stock
- Public transport associations coordinating transport services in a region
- Taking into account the tourism-oriented nature of the service, also tourism offices and administrations (i.e for the Lake Neusiedl/Fertő National Park should become involved), partly to ensure adaptation of the traffic offer to local needs, partly to support marketing activities
- To secure local/regional political support municipalities and other regional governances in the region should be informed and consulted as well

The above is in principle also applicable to other regions, which may consider launching similar Public Transport services. Concerned are in particular rural/peripheral cross-border regions with either a potential for or already developed tourism.

When it comes to the more concrete aspects of designing and adapting the service for a long-term solution, the ideas and suggestions raised and discussed during the stakeholder consultations carried out as part of the project implementation, should be carefully considered. The following list contains the main suggestion:

- 1) Extension of traffic period to the shoulder season (in particular September and October)
- 2) Increased frequency of departures
- 3) Integration of the section Pamhagen - Fertőszentmiklós - Sopron into the VOR-tariff
- 4) Extension of the route from Neusiedl am See to Vienna
- 5) Integration with the “bicycle train” of ÖBB, operated between Vienna and Pamhagen during the tourist season
- 6) **Creation of a „circle line” around Lake Neusiedl (Sopron - Fertőszentmiklós - Neusiedl am See - Eisenstadt - Wulkaprodersdorf - Sopron)**
- 7) Additional stop in Sarród (on the Hungarian side between Fertőszentmiklós and Pamhagen)
- 8) Integration of the service in regional tourist card offer (e.g. Burgenland Card)

Suggestion No.6 raised the strongest interest from the side of the stakeholders and was discussed extensively, preferably in combination with Suggestions No.4 and No.5. Also, the extension of the traffic period to the shoulder season was considered important (Suggestion No.1). The integration of the service in regional tourist card offers (Suggestion No.8) arose as an idea during the consultation.

As demonstrated by the pilot, stakeholders noted, that an integration of the Hungarian section into the VOR-tariff (Suggestion No.3) would be desirable, but complicated and, if at all, only feasible long-term.



At this stage, GYSEV is on a bi-lateral basis in contact with several entities, informing them about the results of the pilot action and indicating possibilities for further development of the service in the future. In the end, the answer to the question of a continuation of the service will depend on sufficient political support and prioritisation in both countries.



4 Financial indications related to the long-term sustainability of the solution

As demonstrated by the Pilot test, the train service operated under the Pilot Action is, as practically almost all other local and regional Public Transport, not profitable as a purely commercial service, i.e. it is not possible to cover its costs exclusively from ticket revenues.

As potential solutions for financing of a continuation of the traffic the following two options were identified and assessed as follows:

Option 1: Complete integration into the public service contracts for the regional train traffic, on both sides on the border

- „Permanent” solution
- Complex negotiations needed between high number of actors in both countries
- Strong political support needed in both Hungary and Austria
- Probably only feasible in a long-term perspective

Option 2: Project related financing by suitable support programme

- Identification of suitable support programme(s)
- Temporary solution
- Possible follow-up project under Interreg to be considered, e.g. for testing of modified traffic offer (e.g. Circle Train around Lake Neusiedl)
- Probably easier and faster to implement than approach 1 (under the condition, that a suitable support programme can be identified)

Option 1 envisages the complete integration into the Public Service Contracts (PSCs) governing regional passenger rail services on both sides of the border. This represents the most sustainable and permanent financing mechanism for the long-term deployment of the solution, enabling the cross-border rail service model to become an integral component of the regional public transport system and ensuring stable operational funding through established public service financing schemes rather than temporary project resources.

The implementation of this financing approach requires coordinated negotiations among the competent ministries, regional public transport authorities, public transport associations and railway operators in Hungary and Austria, together with the alignment of transport planning, public service obligations and long-term funding commitments. Stakeholder consultations confirmed that the integration of the solution into the existing PSC framework requires strong political commitment and coordinated decision-making at both national and regional levels, supported by a shared strategic vision for sustainable cross-border mobility.

Although institutionally complex and therefore achievable mainly in the medium to long term, this financing mechanism offers the greatest potential for mainstreaming into national and regional mobility policies, ensuring its financial sustainability, institutional ownership and long-term transferability beyond the lifetime of EU-funded projects.

Option 2 envisages securing project-based financing through suitable European or national funding programmes to support the further deployment, validation and upscaling. This approach provides a flexible financing mechanism for progressively enhancing the solution by testing additional operational features, such as the proposed "Circle Train around Lake Neusiedl", the extension of the operating period, increased



service frequency, improved bicycle transport management and stronger integration with regional tourism and sustainable mobility initiatives.

At the same time, it generates the technical, operational and socio-economic evidence required to support future mainstreaming of the solution into permanent public transport financing mechanisms.

Stakeholder consultations identified this approach as the most feasible option in the short to medium term, as it can be implemented more rapidly than full integration into Public Service Contracts, provided that suitable funding opportunities—such as future Interreg or other European Territorial Cooperation programmes—can be secured. Furthermore, follow-up projects would allow the involvement of additional institutional actors as project partners, strengthening the governance framework, expanding political ownership and creating favourable conditions for the subsequent integration into stable, publicly funded regional and cross-border mobility policies

In the stakeholder consultations carried out during the project, stakeholders shared the assessment by GYSEV, that financing is the most challenging aspect for a future continuation. They expressed, that a project-based financing for testing a modified traffic solution might be the most feasible way forward in the short- to medium-term. In such a follow-up project it might be desirable to involve as project partners certain key actors, which in the current project only are involved as stakeholders.

It should also be noted, that the train service has the potential to generate positive economic, environmental and social impacts first and foremost in the field of (cross-border) tourism and recreation. The service could become an element of a sustainable mobility concept for the cross-border National Park Lake Neusiedl/Fertő region. While not being in the primary focus, there is also a side-benefit for cross-border commuters. Lasting long-term impacts and a further increasing ridership can only be achieved with a continuation of the train service in the future over several consecutive years.



5 Recommended solution governance schemes

A dedicated governance scheme for the continuation of the service will not be required, once a solution based on Approach No.1, as outlined in the previous chapter - i.e. a complete integration into the public service contracts for regional train traffic on both sides on the border - can be achieved.

However, as already noted, this can most likely only be achieved in a long-term perspective and success is at this stage not guaranteed.

Therefore, also taking into account the outcomes of the stakeholder consultations, a more realistic scenario is a follow-up project, in which a further developed traffic offer, which takes up suggestions made by the stakeholders, could be tested and demonstrated.

In such a follow-up project certain key actors, which in the current project only are stakeholders, could become involved as project partners. The below graphic shows an indicative governance scheme, which might be established in connection with such a project.

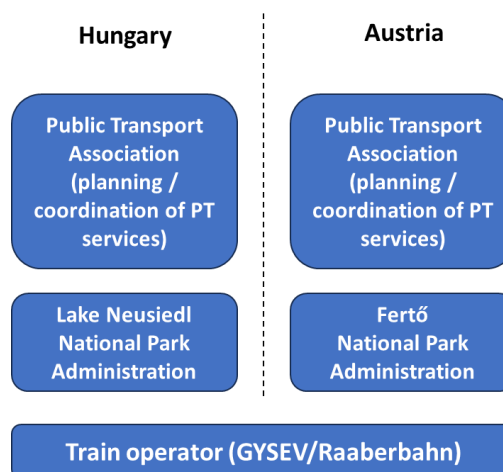


Figure: Indicative governance scheme in connection with a possible follow-up project, showing key actors to be involved as potential project partners.

The governance scheme should be finalized and formalized in connection with a possible project application, taking into account the rules and requirements set by the funding programme, if such can be identified.



6 Recommendations and suggestions for the mainstreaming of pilot lessons learned with solution for territories beyond the pilot action area

Solution represents a transferable framework for planning, implementing and managing cross-border regional rail services beyond the pilot area. Building on the experience gained along the Neusiedl am See-Fertőszentmiklós-Sopron (HU-AT) corridor, the solution provides a replicable model covering the key dimensions required for successful cross-border rail operations, including technical interoperability, rolling stock deployment, service planning, governance arrangements, financing mechanisms, tariff integration and stakeholder cooperation.

It promotes a phased implementation approach, combining pilot testing with the progressive integration of services into long-term public transport planning and financing schemes, such as Public Service Contracts (PSCs), supported where appropriate by European cooperation programmes.

The solution also demonstrates how tourism-oriented mobility, particularly bicycle tourism, can be integrated into regional public transport services through coordinated operational planning and dedicated passenger facilities.

Based on GYSEV's experience and assessment and also taking into account stakeholder feedback, the solution tested under the Pilot Action could be replicated in other regions, in particular rural/peripheral cross-border regions with either a potential for or already developed (cycling) tourism.

The most important - and hopefully encouraging - key message to people or entities interested in replicating the Pilot Action is, that the action was successfully implemented and exceeded the initial expectations with regard to market response. In particular, the key target group of cross-border bicycle tourists could be reached very well, with one-fourth of the passengers carrying a bicycle onboard, which is an outstandingly high share.

The fluctuating number of bicycles to be carried onboard - with demand on certain departures exceeding the nominal bicycle carrying capacity of the train - could in practice be solved by carrying more bicycles in the bicycle compartment (this can be done, if all or most of them are travelling to the same destination) or in few occasions by carrying bicycles in vestibules. Since the overall occupancy of the train in the mostly rural area, in which it operated, was (expectedly) low, this was a pragmatic and feasible solution. However, with a view on the implementation of such a train service in regions with higher overall passenger numbers and train occupancy rates, the aspect of capacity management of bicycle transport onboard the trains and related safety aspects should be carefully addressed.

It is also clear, that, while such a train service has the potential to generate positive economic, environmental and social impacts - first and foremost in the field of (cross-border) tourism and recreation - , it is under usual conditions not profitable from a purely commercial point of view. Thus, access to external funding is essential. Funding is THE key challenge - and remains so even for a possible continuation of the traffic service operated under this Pilot Action. In an ideal situation, the train service would become fully integrated into the public service contracts for the regional train traffic, on both sides of the border. An alternative, in particular when it comes to testing and demonstrating such a service, would be a project-based financing for a limited traffic period. This requires identifying a suitable funding programme. In our case, the Interreg Central Europe programme was well-suited. It has to be assessed in each individual case, which approach is feasible and most suitable.

GYSEV/Raaberbahn remains available to share its experience with any interested parties considering setting up a train service with similar features.





7 Conclusion. Sustance jointly developed solution to be taken up and/or to be up-scaled

The following table refers to Sustance jointly developed solutions from joint pilot actions implemented by supported projects. In order to be counted under the indicator, the developed solution should include indications of the actions needed for it to be taken up or to be up-scaled. This indicator implies the involvement of organisations from at least two participating countries in the drafting and design process of the solution. Solutions considered for this indicator should not have as their main focus administrative or legal frameworks. Innovative solutions can be procedures, instruments or tools (including physical objects, methods, concepts, or services etc.). To lead to the desired results, solutions have to be tailored to the needs of final users, also considering the respective framework conditions. Solutions should ideally be deployed in the project lifetime and taken up by a large number of institutions.

Sustance Solution No.2: Cross-border train connection HU-AT - Neusiedl am See-Fertőszentmiklós-Sopron	
Solution typology	transferable framework/approach for planning, implementing and managing cross-border regional rail services beyond the pilot area.
Final users/target groups	Visitors to the Lake Neusiedl region (especially the Seewinkel and Sopron areas) and recreation-seeking inhabitants, with a particular focus on bicycle tourists
Final user needs addressed	The solution addressed the need for comfortable, sustainable mobility with direct trains (i.e. without need to change trains) between the Sopron area in Hungary and the Seewinkel in Austria with possibility to carry bicycles onboard.
Co-design process (involved partners and country involved)	In connection with the implementation of the solution three peer review events and three stakeholder consultations were carried out - one each before the start of the pilot action, one towards the end of it and one after analysis of the results of the pilot action. Each stakeholder consultation comprised two separate events, one in Hungarian language for Hungarian stakeholders, and one in German for Austrian stakeholders. In the stakeholder events GYSEV's Associated Partners VOR and SCHIG participated. In the peer review events all project partners participated and information and comments by the experts were jointly discussed. With regards to Solution No.2 a parallel solution implemented in the project in form of a direct train service between Italy, Slovenia and Croatia was of particular interest, since it resembled to some extent solution No.2 from a technical, operational and marketing perspective. Further, a co-design



	meeting with all project partner was held during the preparatory phase on the Pilot Action.
Taken up strategy	“Taken up” describes the replication and practical use of project outputs by external stakeholders or in new contexts beyond the original partnership The solution can serve as a reference case and model for other cross-border rural/peripheral regions with an already developed tourism or a potential for tourism, in particular (but not limited to) bicycle tourism, in terms of service design, operational implementation and marketing.
Up-scaling Strategy	“Up-scaling” refers to the extension of outputs in terms of geographical coverage, target groups, or policy level, thereby increasing their overall impact and sustainability. An extension of the solution is possible both in terms of geographical coverage, traffic season, service frequency and to some extent service features and marketing. Several concrete suggestions were made by stakeholders during the consultations. A preliminary assessment of their feasibility was made by GYSEV and a prioritization discussed with stakeholders. Selected ideas for up-scaling are included in on-going discussions for a possible continuation of the traffic respectively a follow-up project to test a modified and further developed service. However, taking into account the nature and complexity of the task, with a wide range of actors in two countries involved and needing to agree internally and with each other and to act in a co-ordinated way, results from these discussions cannot be expected before end of the project. Therefore, GYSEV is prepared to continue the exchanges even after the project ends.

Disclaimer

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