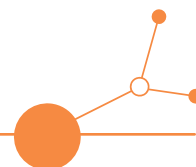


SUSTANCE

D.2.5.1. Long term sustainability guidelines for solution n. 6 (ref to. Pilot action n. 6 - D.2.4.3)



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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 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).

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

The Solution identified provides an integrated digital passenger information and multimodal mobility promotion model that supports public transport operators in improving the accessibility, visibility and attractiveness of cross-border sustainable mobility services.

The solution combines a user-centred digital information platform with a structured methodology for collecting, organising and disseminating reliable multimodal travel information, including public transport services, cycling infrastructure, EuroVelo routes, tourism services and other sustainable mobility options within a single digital environment.

By integrating information from different transport and tourism stakeholders and presenting it through a common digital interface, the solution promotes seamless multimodal travel, encourages modal shift towards rail and cycling, and strengthens the integration of sustainable mobility with regional tourism strategies.

Designed as a scalable and easily adaptable concept, the solution can be replicated by public transport operators, regional authorities and tourism organisations wishing to enhance digital passenger information and cross-border mobility services.

The solution was validated through Pilot Action 6, implemented by HŽPP, which tested the practical application of the model by developing the TRAIN'N'GREEN digital platform.

The pilot demonstrated how structured, multilingual and regularly updated information on cross-border public transport, cycling routes, EuroVelo corridors, bicycle services, accommodation facilities and tourist attractions can be integrated within the official railway website and linked to external information sources. The experience confirmed the technical feasibility, stakeholder cooperation model and long-term applicability of the solution, providing a solid basis for its mainstreaming and replication in other territories and by other public transport operators.

The lesson learned derived from the SUSTANCE project pilot action no 6 (D.2.4.3) which is based on the digital promotion of green mobility in Croatia, Slovenia and four regions of northern Italy (Trento Alto Adige, Friuli Venezia Giulia, Veneto and Emilia Romagna) and improving relations between the countries involved.

The pilot action managed to provide publicly available information on the HŽPP website on the options of "cross-border green mobility". Visitors to the website are also in large numbers rail transport users



who, in addition to the current possibilities of transporting bicycles on the train, will be able to be timely informed about other sustainable options in one place.

SUSTANCE information are available grouped by defined countries and available content that depends on countries and regions. The links available on the website will redirect the user to external content that offers more detailed information with photos, descriptions, interactive maps and informative content about cultural sites.

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

Strengths	Weaknesses
• Web page published in the institutional website of HZPP • Grouping information by country • View data by region • Promoting sustainability and green mobility • Promotion of tourist boards websites and local cycling societies • Providing external links for different attractions • Communication with different stakeholders and expanding knowledge towards end users	• Cooperation with Stakeholders is essential to regularly update the available information on the website • Visibility of possible destinations could be improved • Redirecting users to external web sources limits use of the HZPP page
Opportunities	Threats
• Attracting more passengers and tourists • Cross-border connections • Involvement of local societies • Marketing measures for different accommodation facilities • Expanding transport service • Engaging different stakeholders and communities to share touristic offers/possibilities to expand service.	• Requesting additional access from different service providers • Information delay • Not prompt info • Maintenance problems

The testing reveals problems influencing the development of this pilot action were mostly regarding enormous amount of information. It was necessary to classify them according to categories and relevance. Also, the facts that the information for the database were coming from three different countries, additional classification was also in order, following rendition of some parts of the categories and their description. These were all small impediments for finalization of action. Crucial problem was data migration from the old to the new CMS within HZPP web domain. This was an action which affected not only HZPP pilot action, but also other articles/news published earlier at HZPP web page. Due to that reason, classification of



number of views/individual visits of the TRAIN’N’GREEN domain wasn’t available. Considering the situation in which the Google Analytics for entire HZPP web page didn’t work properly and stopped with collecting relevant data, it was necessary to upgrade web page. This includes Google Analytics necessary for identifying targeting groups of SUSTANCE project which was initially posing a problem for partnership in general because it doesn’t allow us to monitor pilot action progress as anticipated by the AF. Considering that this informative web page will not be suspended with project closure, this might not seem like a crucial issue.

Internal factors favouring the correct development of the pilot action:

- Cooperation with external stakeholders by different HZPP business units
- Communication between Management board and different HZPP business sectors
- Dedication of tasks and reallocation of priorities
- Administration procedures

External factors favouring the correct development of the pilot action:

- External experts’ opinions
- External experts’ work reallocation
- External experts’ influence on contracting third parties.

The testing process was instrumental in refining and validating Solution 6, transforming an initial digital concept into a robust and replicable integrated digital passenger information and multimodal mobility promotion model. The practical implementation highlighted key technical and organisational challenges, including the harmonisation of heterogeneous datasets from different countries, content classification, CMS migration and the integration of monitoring and analytics tools. Addressing these challenges enabled the definition of common methodologies for data management, and digital platform governance, significantly strengthening the robustness and long-term sustainability of the solution.

3 The solution long-term sustainability goals and strategies

Three long-term sustainability goals have been identified for the continuation of the pilot action:

- Goal G1: maintain database with relevant information
- Goal G2: stakeholder cooperation and collaboration
- Goal G3: upgrade existing platform with new amenities

No.	Long-term sustainability goals	Proposed strategies for implementation of goals	Expected long-term impact
G1	Maintain database with relevant information	• Visual interest and correct data are requirements that will make users pleased and interested in following content in long term. • Web design must attract users; however, the content must be appealing, worthwhile and useful to attract as many users as possible. • Frequent updates need to be part of everyday business model and	• More users • New prescribers • Supporting modal shift from cars to bike and train • Ecological awareness



		part of yearly based plans for company. • Maintenance costs shall be calculated in financial statistics and be part of company's business plan and cash flow report.	
G2	Stakeholder cooperation and collaboration	• Continue collaboration with stakeholders - sharing news and information regarding future events • Media campaigns regarding raising awareness on eco-friendly means of transport • Signing different MoU to confirm collaboration and define future steps	• Clear roles and obligations for involved parties • Possibilities to influence and participate in drafting different strategies and action plans • Future cross border collaboration on other initiatives
G3	Upgrading existing platform with new amenities	• Adding different applications for users such as ticket purchase or other useful connections • Adding new contents	• More users • New prescribers • Enhancing attractiveness of web site

3.1 Hints for continuation and extension of PA6

The Solution promotes an integrated digital passenger information and multimodal mobility promotion model that supports public transport operators in enhancing the accessibility, visibility and attractiveness of sustainable cross-border mobility services. The solution is based on the continuous provision of reliable, multilingual and user-oriented digital information, fostering the integration of rail, cycling and other sustainable mobility options within a single digital environment. Pilot Action 6 validated this approach by demonstrating how such a model can be implemented and maintained through an operational digital platform, providing practical evidence on its technical feasibility,

In relation to the possibility of continuing feeding the web domain with additional data and continue maintaining web page in the future, public urban transport is one of the most important elements of overall transport, and with the help of advanced technology it will be developing faster and faster. By providing to everyday users as well as tourists with proper information that is on the spot, railway transport would become first choice of transport mean by many residents. The key is in valid, prompt and up-to-date information as well as fast, reliable and safe services. By combining two different services (bike and train) and providing useful information at one place in more than one language, HŽPP has begun new trend and providing a stepping stone at national as well as international level. In order to contribute to the main project motto: "Sustainable public transport solutions and innovative governance schemes for improving connectivity in Central Europe" this pilot action and its final result will try to influence on lacking efficient and sustainable public transport solutions in peripheral and cross-border areas of Central Europe with an idea that is practical and user friendly.

On the basis of the testing, there was a potential for the development of a specific bike system in relation to e-mobility. The use of e-bikes has a great potential for the development of bike systems in cities with



unfavourable morphology. This could also help and cause potential to change travel behaviour in favour of bicycles, public transport, e-mobility etc., which would bring a significant reduction of greenhouse gas emissions and enable the application of multi-modal transport systems. In comparison with other EU cities, this leads to a conclusion that better integration of the bike system in public transport and the improvement of infrastructure offers a big potential for improving the modal split in favour of bikes not only in Croatia but can serve as best practice example to neighbouring countries as well.

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

The long-term sustainability of Solution tasted by the pilot will be ensured for the concerned area through HŽPP's regular operational and digital service management activities. As the solution is based on a modular and interoperable digital information platform, its operational and maintenance requirements are limited and can be integrated into the company's ordinary ICT and communication functions. The dedicated IT department will ensure the continuous updating of digital content, maintenance of the platform and integration of new information and functionalities as mobility needs evolve. The flexible architecture of the solution also enables the progressive enhancement of the digital environment through the introduction of new services, visual features, databases and multimodal mobility information, ensuring that the solution remains up to date, user-oriented and aligned with future technological developments and sustainable mobility policies

5 Recommended solution governance schemes

The intention of creating TRAIN'N'GREEN web domain was to inform general population with relevant information regarding their journey. In the frame of information, it is possible to bring closer European Commission declarations and Statements regarding transportation and urban mobility policies to everyday users. Also, European declarations are included in national policies and stipulated as obligatory. According to recommendations, transport service providers need to adjust their services to reach full potential. The EU, together with regional and local authorities, have a key role in supporting the further uptake of cycling.

The solution contributes to the implementation and promotion of European, national and regional policies supporting sustainable mobility, multimodal transport and digital passenger information. While it is not a policy instrument in itself, the solution provides a practical implementation model that facilitates the achievement of policy objectives by improving the accessibility, continuity and attractiveness of cross-border sustainable mobility services.

Through the integration of reliable digital information on rail services, cycling infrastructure, EuroVelo routes, secure bicycle parking, e-bike charging facilities and other multimodal mobility options, the solution encourages behavioural change towards more sustainable travel patterns and supports the wider uptake of cycling and public transport as complementary modes of transport

The long-term sustainability of Solution 6 is supported by a collaborative governance approach involving public authorities, transport institutions, NGOs and other relevant stakeholders. During the stakeholder consultation process, cooperation was established with the ODRAZ Agency, the Cyclists' Union, the Ministry and other transport institutions to support the continuous collection, validation and dissemination of multimodal mobility information. These stakeholders have expressed their commitment to contributing to the regular updating of the digital platform and to promoting the solution through their own communication



channels, thereby increasing its visibility, expanding its outreach and reinforcing its role as an integrated digital passenger information service for sustainable cross-border mobility.

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

Solution provides an integrated digital passenger information and multimodal mobility promotion model that supports public transport operators in improving the accessibility and attractiveness of cross-border sustainable mobility services. Building on the experience gained by HŽPP in Croatia, the solution combines a user-centred digital information platform with a structured methodology for collecting, managing and disseminating reliable multimodal travel information, including rail services, cycling infrastructure, EuroVelo routes, tourist destinations and local mobility services.

Beyond the digital platform itself, the solution establishes a governance and cooperation model based on continuous stakeholder collaboration with transport authorities, tourism organisations, cycling associations and regional institutions, ensuring regular content updates, data quality and long-term service maintenance.

It also provides practical guidance on digital content management, multilingual communication, interoperability with external information sources, stakeholder engagement and long-term operational sustainability, enabling integration into regional sustainable mobility and tourism strategies. As such, the solution represents a replicable implementation model for public transport operators and regional authorities across Central Europe seeking to strengthen cross-border passenger information services, promote multimodal and bicycle-friendly travel, improve the visibility of sustainable mobility options and support the digital transition of public transport

The Solution has strong replication potential across different sectors, particularly public transport, tourism and regional mobility planning. Its implementation can be effectively transferred to other territories provided that it is preceded by an assessment of local mobility needs, market demand and user expectations. The successful deployment of the solution relies on close cooperation among public transport operators, public authorities, tourism organisations and other relevant stakeholders to ensure that the digital platform is tailored to local conditions while maintaining interoperability and a user-centred approach. This collaborative process enables the creation of integrated digital passenger information services that promote sustainable multimodal mobility and can be progressively adapted and expanded according to regional priorities and technological developments.

Replicability of the solution can be seen in different business sectors, tourism especially for example. Considering that collaboration with different entities and organizations is crucial, proposal for starting such activity as creating new web domain/page should be by investigating market demand and population needs. Research based on existing knowledge and identified issues should help set up new web domain much easier. Having in mind already identified issues or needs, creative process would transfer needs into solutions. This would be innovative process answering exact problems and offering transparent solutions. Engaging marketing activities at early stage could help boost interest in new product/service/tool, depending on owners needs and wishes. Promotion can be part of investigation on which segments to focus while creating new product/service/tool. It could benefit further elaboration and set a scope of deliverable in a way of creating framework with certain and specific topics which will this new product/service/tool provide for end users. Communication with different individuals, organizations, NGO's, agencies, tourist boards, governments, ministries, local or regional authorities is essential. Approval can be additional encouragement to pursuit idea and create new solution. What could also help is to make MoU's with different entities so that collaboration is verified and that each side obey rules and timeframe set within contract.



Financial obligations are also something to keep in mind while planning new product/service/tool. Proposal must be elaborated in detail regarding different financial obligations concerning maintenance and supply. It should be stipulated who is responsible for each segment of the product/service/tool and in which amount.

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 6: Digital promotion of green mobility in Croatia and surrounding countries (IT, SI)	
Solution typology	• integrated digital passenger information and multimodal mobility promotion model that supports public transport operators in improving the accessibility and attractiveness of cross-border sustainable mobility services
Final users/target groups	• Cyclists, especially international ones and the ones travelling long distances • Railway users • Tourists, especially international ones
Final user needs addressed	• Providing numerous information in one place • Providing reliable information • Grouping information by relevant topic and country • Bilingual information
Co-design process (involved partners and country involved)	Solution 6 is co-designed and co-created during the three peer-review events held during the project life (see deliverable D.2.2.2). In particular, PP4-HZPP collaborated in Solution 6 development with LP-CEI, PP5-IDA, PP6-ITL and PP8-SZPP (for data regarding all 3 countries: Croatia, Italy and Slovenia).
Taken up strategy	Solution 6 is a concept easily replicated by observation. The data provided within is publicly available and links provided regularly updated. Numerous data in one place, redirecting users through categorized information. The solution was already and will be presented to relevant stakeholders on national and EU level to



	guarantee full replicability. The replication is possible by public transport companies (not only railway and on all levels) or other institutions, such as hotels, cities, tourist boards etc. that want to provide their users with useful data.
Up-scaling Strategy	The Sustance Solution 6 up-scaling strategy is related to the possibility of expanding the scope and geographical coverage of data. Other types of data and services can be provided, such as carbon footprint or purchase of integrated tickets. In relation to additional potential interested target groups, the Sustance solution can be replicated by other transport operators and/or planners. Also, the concept can be introduced in the company's strategic documents.