#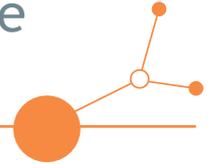 D.1.3.6. Roadmap n. 6 based on the accessibility assessment of the peripheral routes around the Trento–Bolzano–Innsbruck axis

Final version

09 2025
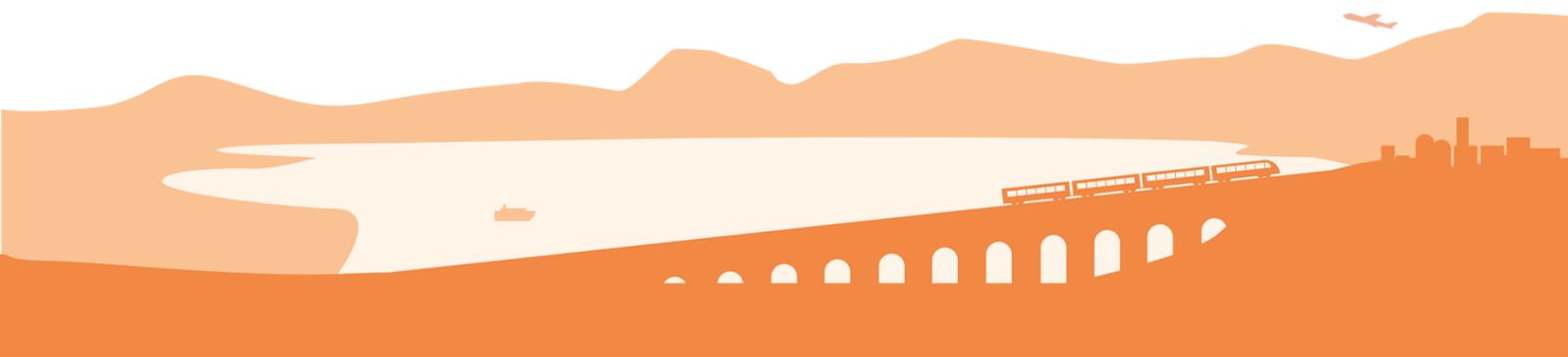
Table of contents

1 Introduction

This roadmap (D.1.3.6) aims to design a realistic path for improving accessibility of the peripheral areas of the Euregio Tyrol-South Tyrol-Trentino to the main nodes of the Brenner railway corridor beyond the project closure. The roadmap is prepared by partner PP2 (EURAC) in cooperation with AP1 and AP2 (EGTC Tyrol-South Tyrol-Trentino; Mobility department of the Province South Tyrol) as associated partners.

The roadmap focuses on the Euregio Tyrol-South Tyrol-Trentino (hereinafter only "Euregio"). This is a mostly rural area comprising three towns with over 100,000 residents (i.e. Trento, Bolzano and Innsbruck), while 90% of its municipalities have less than 5,000 inhabitants (Figure 1A). Within the Euregio, this roadmap addresses nine local railway lines linking the peripheral valleys of the Euregio to the main nodes of the Brenner corridor, which is a portion of the TEN-T Scandinavian-Mediterranean corridor (Figure 1A-B).

The roadmap is based on the findings and results from the following SUSTANCE deliverables:

* PT Accessibility report 5: *Accessibility assessment of the peripheral rail routes around the TEN-T axis Trento-Bolzano-Innsbruck* (D.1.2.3)
* Transnational Public Transport Accessibility Report (D.1.2.3)

Three consultation meetings with local stakeholders (19/02/2024+28/03/2024; 09/09/2024+18/09/2024; 31/03/2025+05/05/2025) provide additional insights to the findings in the deliverables listed above. These local meetings were organized by EURAC with representatives of Province Trento, Province South Tyrol, Land Tyrol, Euregio, Trenitalia South Tyrol, STA (South Tyrolean transport agency), ÖBB Tyrol, and VVT (Tyrolean transport agency). In these meetings, the participants discussed: (1) the results of the accessibility assessment and governance report (D.1.2.3; D.3.2.1); (2) the already **"planned measures"** that will foster peripheral railway accessibility in the next years; and (3) integrative so-called **"potential measures"** still not part of official plans, but potentially suitable for future consideration. Results of the three meetings are summarised in the related reports (D.3.3.1; D.3.3.2; D.3.3.3).
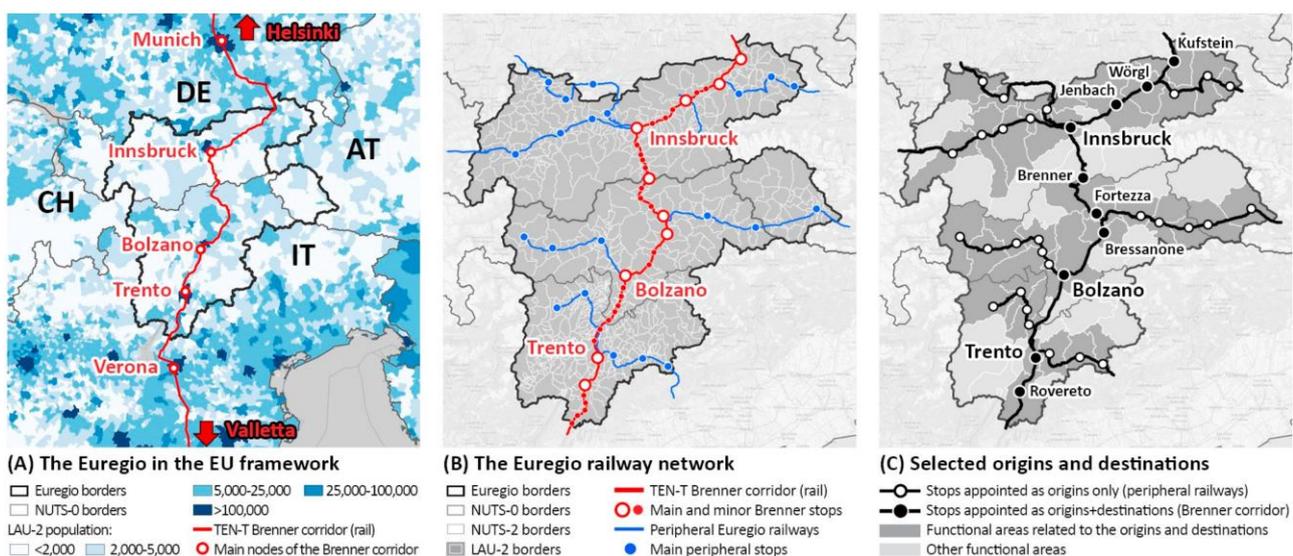
Figure 1. (A) The Euregio in the EU framework; (B) The Euregio railway network; (C) Origins and destinations in the Euregio accessibility analysis (see Section 2 below).

2 Existing public transport accessibility and key challenges

The accessibility analysis made by EURAC in 2024 (D.1.2.3; Dianin and Chizzali, 2025) aimed to describe the peripheral accessibility of the Euregio at the status quo. To this end, it focused on 28 railway stops along to

the peripheral Euregio railways (appointed as origins; Figure 1C) and estimated their accessibility to 10 main stops along the Brenner corridor (appointed as destinations; Figure 1C). Moreover, the analysis estimated the accessibility of the 10 selected Brenner stops to all the other Brenner stops, so as to enable an accessibility comparison between the peripheral and Brenner railway lines. The estimation combined various connectivity parameters (e.g. travel time, frequency, service period, transfers) and info-mobility ones (like availability and integration of public-transport information) to measure accessibility.

Results (Figure 2A-C) revealed inter-regional and intra-regional accessibility gaps. In detail:

- **Inter-regional gaps:** In Trentino, South Tyrol and Tyrol, accessibility is notably higher for the stops directly along the Brenner corridor than for those along the nine peripheral railways. This is mainly due to differences in connectivity performances, as info-mobility tends to be generally competitive. Moreover, accessibility tends to be lower for the peripheral stops more distant from the Brenner. This shows how distance often undermines commercial speed, frequency, and need for transfers.

- **Intra-regional gaps:** Accessibility gaps between Brenner and peripheral railways are larger in Trentino and Tyrol, while are lower in South Tyrol. Trentino performs worst on the Trento-Mezzana line mainly due to info-mobility gaps. Tyrol performs worst for stops that require crossing AT-IT or AT-DE border to access the Brenner corridor. South Tyrol generally performs below the Euregio average for both the Brenner and peripheral stops, but it shows smaller gaps between the two railway systems.
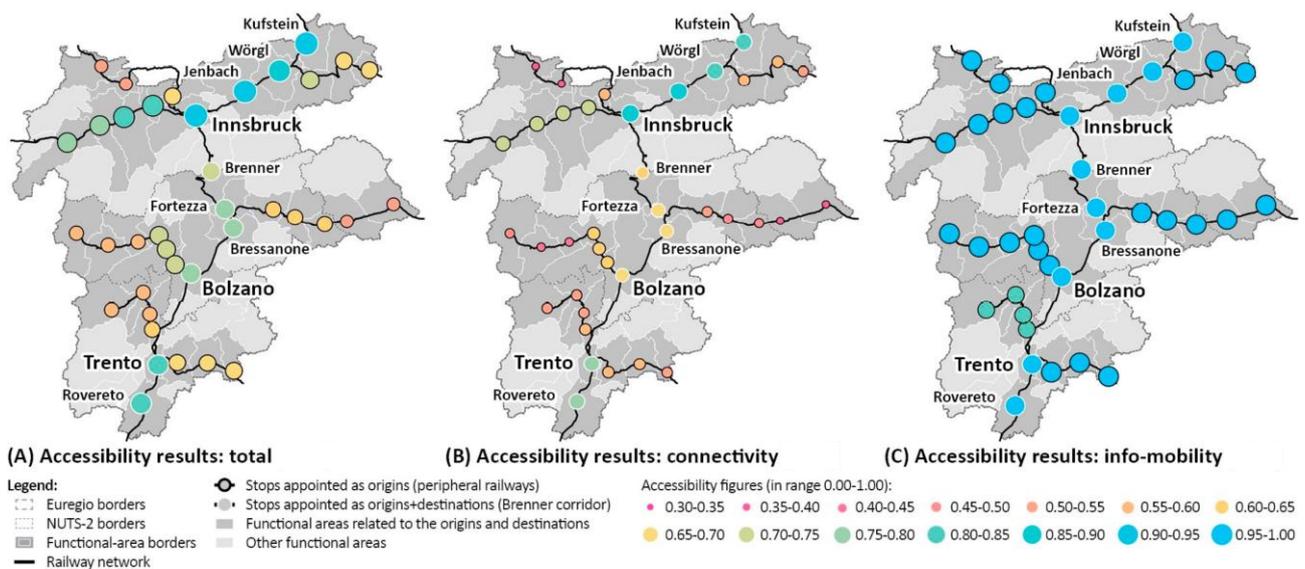

Figure 2. (A) Total accessibility results; (B) Accessibility results regarding connectivity parameters (rapidity, daily connections, directness, service period); (C) Accessibility results regarding info-mobility parameters (information types and means).

3 Impact of "planned measures" on Euregio accessibility

As discussed in the consultations with stakeholders from the Euregio, several measures already planned or under implementation at regional level (hereinafter called "planned measures") will positively impact the accessibility results reported above and thus must be considered in this roadmap. These planned measures encompass three domains: the improvement of physical *connectivity*, the upgrade of *info-mobility* systems, and the strengthening of *ticketing* options. Some non-exhaustive examples are given below.

Connectivity: The electrification of the Trento-Bassano line and upgrade of the Trento-Mezzana line will foster connectivity Trentino. This applies also to the purchase of new electric rolling stock both in Trentino and South Tyrol. The electrification of the Merano-Malles line and the construction of the Riga valley bypass will provide substantial benefits in South Tyrol. Moreover, new developments of on-demand services and mobility hubs are planned to increase peripheral accessibility in Tyrol.

Info-mobility: A renewed integrated mobility platform will be implemented in Trentino. Multimodal on-board information provided also at cross-border level will support Tyrol and South Tyrol, together with the usage of social media to spread core information to users. Strategic integration of the Weg-Finder app with e.g. bike-spot booking and private transport offers will positively affect Tyrol. New developments of the LinkingAlps platform might boost info-mobility integration at the Euregio level.

Ticketing: New ticket options with discounts for household members (inspired from e.g. the PlusEins-Bonus VVT concept) will boost transit usage in Tyrol, especially for alternative and on-demand services. The extension of the Euregio Ticket from specific user categories (daily tickets for families and student tickets) to the general public will increase ticket convenience at the Euregio level.

4 Vision and goals for public transport accessibility upgrade

Considering the already planned measures above, this roadmap aims to design a realistic path for improving the accessibility of the peripheral areas of the Euregio. To this end, the roadmap sets: one overall **vision**; four concrete **goals** to implement the vision; and 16 **potential measures** to operationalise the goals.

<u>1 VISION:</u> All Euregio communities (central, peripheral, remote) achieve comparable public-transport accessibility standards, although by accepting reasonable differences between central, peripheral and remote locations. Railways work as a system backbone for all main valleys, complemented by fixed and flexible road transport options to ensure territorial coverage even in remote areas. Users move easily even across regional and national borders thanks to shared information systems and integrated ticketing. Visitors and especially cyclists find tailored solutions that do not contrast with the needs of local travellers. Finally, cross-regional and -national cooperation guarantees smooth operations, even during disruptions.

<u>4 GOALS:</u> To achieve the general vision above, we set four operative goals, which refer to four macro areas. The first goal is to improve physical connectivity of peripheral areas through the upgrade of rail infrastructure, the enrichment of rail services, and the upscale of complementary mobility solutions (like on-demand and shared mobility) to reach most remote locations. The second goal is to finetune info-mobility solutions through standardised, homogeneous and cross-border IT tools covering the whole Euregio. The third goal is to diversify the ticketing offer, by paying particular attention to visitors and bike users. Finally, the fourth goal is to boost cross-border cooperation both across regional and national borders, especially with the purpose of optimising coordination during maintenance works and disturbance events.

Figure 3 sums up the vision, gaols and their connection with <u>**16 POTENTIAL MEASURES**</u> that are presented and described in detail in the following Section 5.
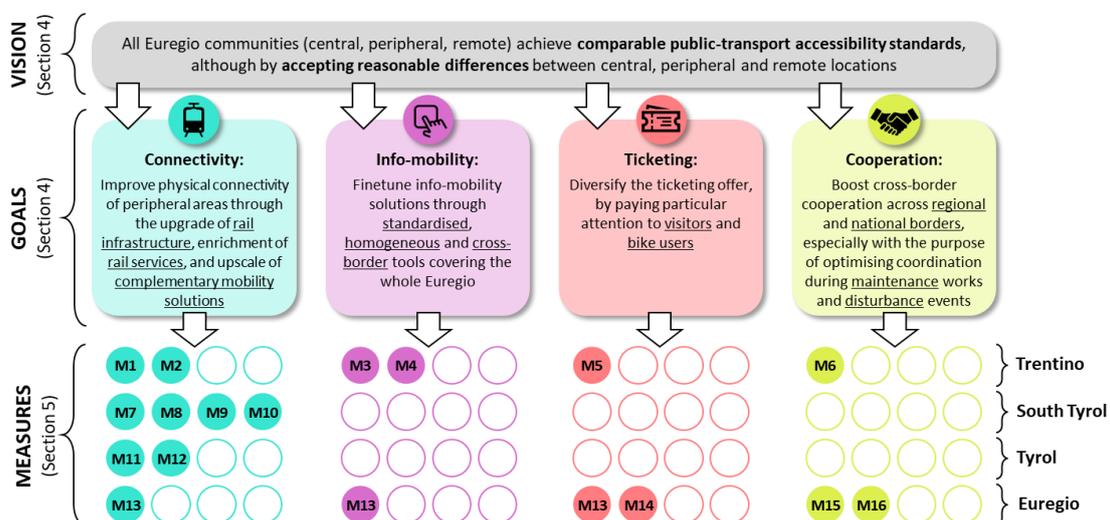

Figure 3. One vision, four goals, and 16 potential measures (see Section 5) proposed by this roadmap.

5 Key "potential measures" and steps to achive goals

In line with Figure 3 above, Table 1 provides a list of "potential measures" (i.e. measures not yet included in official regional plans) that might be relevant to increase peripheral accessibility in the Euregio in the next years, and reach the vision and goals presented above. These measures were **identified by EURAC in cooperation with local stakeholders** during the consultation meetings occurred in 2024 and 2025 (D.3.3.2; D.3.3.3). Moreover, they cover four macro areas: (a) improving physical **connectivity**; (b) upgrading digital **info-mobility**; (c) enriching **ticketing** options; and (d) boosting **cooperation**.

POTENTIAN MEASURES		STEPS		
¹No.	*Description*	²*Description*	³*Timeline*	*Main involved stakeholders*
TRENTINO				
M1	**New rail connection Rovereto-Riva:** *To manage the high tourist flows in the area and relive road traffic, also for the benefit of residents*	M1.S1: *Technical/financial feasibility study*	Medium	Province TN, RFI, Trenitalia, Trentino Trasporti
		M1.S2: *Demand-reaction forecasts rail/road*	Medium	
		M1.S3: *Design of track/stop variants*	Long	
M2	**Direct links Trento-Bassano-Venice:** *To provide more convenient links for both visitors and business travellers, with no transfer*	M2.S1: *Finalisation of electrification works*	Short	Province TN, Veneto Region, Trenitalia
		M2.S2: *Negotiation/exchange with Veneto region*	Medium	
		M2.S3: *Timetable and service design*	Long	
M3	**Integration of Trento-Mezzana line in the Trenitalia portal:** *To increase visibility and ease of usage of the line, through ticket booking/purchasing*	M3.S1: *Definition of implementation costs*	Short	Province TN, Trentino Trasporti, Trenitalia
		M3.S2: *Technical agreement for data sharing*	Medium	
		M3.S3: *Business agreement on revenue sharing*	Medium	
M4	**Standardisation of real-time data across local portals:** *To harmonise real-time data structure and provision and provide consistent local info*	M4.S1: *Definition of reference EU technical standards for data format and sharing*	Short	Province TN, Trentino Trasporti, Local IT experts
		M4.S2: *Implementation of local projects on info-mobility and tariff-system upgrade*	Medium	
M5	**Bike-ticketing integration along the Trento-Mezzana/Bassano lines:** *To ease train-bike integration and prevent disservice in case of crowded carriages and limited bike spots*	M5.S1: *Finalisation of electrification works*	Short	Province TN, Trentino Trasporti, Trenitalia
		M5.S2: *New ticketing offers bike & train*	Medium	
		M5.S3: *New online ticket sailing options*	Long	
		M5.S4: *New capacity-based reservation system*	Long	
M6	**Maintenance/disruption event coordination for the Trento-Bassano line:** *To optimise cross-border cooperation between Trentino and Veneto*	M6.S1: *Finalisation of electrification works*	Short	Province TN, Veneto Region, Trenitalia
		M6.S2: *Negotiation with regions/provinces*	Medium	
		M6.S3: *Negotiation with rail service operators*	Medium	
SOUTH TYROL				
M7	**New rail connection Malles-CH/AT:** *To link the peripheral South Tyrolean network to bordering countries and long-distance strategic destinations.*	M7.S1: *Technical/financial feasibility study*	Medium	Province BZ, Land Tyrol, Caton Grisons, related rail infrastructure managers
		M7.S2: *Demand-reaction forecasts rail/road*	Medium	
		M7.S3: *Design of track/stop variants*	Medium	
		M7.S4: *Negotiation with involved countries/regions*	Long	
M8	**New rail connection Brunico-Campo Tures:** *To provide a more appealing alternative to extra-urban bus along one of the most frequented lines*	M8.S1: *Existing demand analysis (extra-urban bus)*	Medium	Province BZ, STA, RFI, affected district communities and municipalities
		M8.S2: *Demand potential analysis (low population)*	Medium	
		M8.S3: *Technical/financial feasibility study*	Long	
M9	**Higher rolling-stock and infrastructure capacity:** *To meet increasing demand for rail transport and increase punctuality and reliability*	M9.S1: *Forecast of expected rail-demand growth*	Short	Province BZ, STA, Trenitalia regional division
		M9.S2: *Forecast of expected rail-capacity growth*	Short	
		M9.S3: *Cost analysis of possible capacity measures*	Medium	
		M9.S4: *Evaluation of capacity/comfort trade-offs*	Medium	

	Measure	Step	Term	Stakeholders
M10 🚆	**Minimised railway crossings for Merano-Bolzano and Fortezza-Lienz lines:** *To minimise service disturbance and increase safety*	**M10.S1:** *Analysis of safety and reliability issues along the lines Bolzano-Merano and Fortezza-Lienz*	Short	Province BZ, STA, affected district communities and municipalities
		M10.S2: *Identification of most relevant railway crossings to replace with new infrastructure types*	Medium	
TYROL				
M11 🚆	**Increased share of direct links Saalfelden-Wörgl-Innsbruck:** *To increase comfort, reliability, convenience especially for urban-rural commuters*	**M11.S1:** *Current demand and supply analysis*	Short	Land Tyrol, Land Salzburg, VVT, Salzburg Verkehr, ÖBB
		M11.S2: *Negotiation with bordering Salzburg region*	Medium	
		M11.S3: *Timetable and service design*	Medium	
M12 🚆	**Higher development of multimodal rural mobility hubs:** *To hold together alternative means like buses, (e)-bike sharing, car-sharing and compensate lower provision of traditional transit*	**M12.S1:** *Identification of most suitable locations*	Short	Land Tyrol, VVT, car-sharing/pooling and bike-sharing providers, affected municipalities
		M12.S2: *Definition of mobility services to join*	Short	
		M12.S3: *Definition of complementary services to combine with mobility ones (e.g. parcel lockers)*	Short	
		M12.S4: *Physical design of mobility hubs*	Medium	
EUREGIO				
M13	**Improved provision of biking options at train and bus stations:** *To avoid overload of carriages with on-board bike transport, especially during peak hours and in the summer season*	**M13.S1:** *Analysis of current bike-carrying capacity*	Short	Province TN, Province BZ, Land Tyrol, Trentino Trasporti, Trenitalia, STA, VVT, ÖBB
		M13.S2: *Analysis of current bike-carrying policies*	Short	
		M13.S3: *Analysis of current bike-sharing options*	Short	
		M13.S4: *Identification of potential solutions considering diverse needs of all three regions*	Medium	
M14	**New cross-border offers for given target groups:** *To offer a wider array of Euregio tickets for groups like minors, seniors, or people with disabilities*	**M14.S1:** *Identification of suitable target groups*	Short	Province TN, Province BZ, Land Tyrol, operators of services to include
		M14.S2: *Trilateral negotiation on common fare*	Medium	
		M14.S3: *Trilateral negotiation on included transport services and providers*	Medium	
M15	**Cross-border platform to handle disruptions and interventions:** *To optimise the coordination of e.g. maintenance works and replacement services even at cross-border level*	**M15.S1:** *Trilateral negotiation on the information types to be shared on a common platform*	Medium	Province TN, Province BZ, Land Tyrol, transport operators, further civil-society bodies to be integrated
		M15.S2: *Trilateral negotiation on the modality and duty of data sharing on a common platform*	Medium	
		M15.S3: *Trilateral negotiation on the coverage of implementation and maintenance costs*	Medium	
M16	**Cross-border mobility survey:** *To understand the magnitude and core characteristics of cross-border flows for utilitarian and recreational purpose*	**M16.S1:** *Trilateral discussion on the potential relevance of such data collection, based on available datasets*	Short	Province TN, Province BZ, Land Tyrol, tendered external expert
		M16.S2: *Externalisation of the survey and study*	Medium	

Notes:

[1] Numbers used in this column (M1-16) are the same used in Figure 3, Section 4.

[2] Steps listed in this column are not exhaustive of the full implementation process, but rather represent the first possible phases

[3] Short: short-term steps (<2 years); Medium: medium-term steps (2>5 years); Long: long-term steps (>5 years)

Table 1. "Potential" measures operationalizing the vision and goals defined in this roadmap.

Clearly, the implementation of the potential measures listed in Table 1 is subject to several constraints, including planning priorities, stakeholder coordination, technical feasibility, and funding. Regarding this last constrain, **some funding opportunities are available at EU level,** and they could complement local funding from regional (or national) government. In particular, EU programmes like Horizon, DUT, Interreg Europe, Alpine Space, Central Europe, or Italy-Austria provide opportunities to test innovative practical solutions or capitalise on previous regional projects/initiatives. Although they usually cannot provide sufficient funding for infrastructural measures (e.g. M1, M7, M8, M9, M10), they may rather foster the testing of lither solutions of connectivity (e.g. M2, M11), info-mobility and ticketing (e.g. M3, M5, M13). Moreover, they are keen to promote cross-border cooperation and ease related coordination processes (e.g. M6, M15, M16).

Even in light of these funding opportunities, this roadmap aims to provide stakeholders from the Euregio with inspiration for future actions that may complement the already reach regional plans. Nevertheless, any kind of application of the suggested measures will be subject to the several mentioned constraints.