

Contributions to Economics

Hansjörg Drewello
Bernd Scholl *Editors*

Integrated Spatial and Transport Infrastructure Development

The Case of the European North-South
Corridor Rotterdam-Genoa



Springer

Contributions to Economics

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Corridor Rotterdam-Genoa

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Foreword



Transport is at the crossroads of the economic, social and environmental goals of Europe, an essential driver for jobs and growth. It underpins both export and competitiveness. Against this background, Europe's transport infrastructure plays a key role to completing the internal market through the removal of physical barriers and the introduction of soft measures. Furthermore, in today's interconnected world, neither scope nor vision can be exclusively limited to the European internal market but has to incorporate the broader global context where economic gains, and likewise economic challenges, no longer stop at the border. It is, therefore, necessary to change the

mental framework to understand that today's world no longer allows thinking in terms of a single mode or even country.

"Connecting to complete" and *"connecting to compete"* emerge as mottos for the creation of a single European transport area. Completing the transport network—in particular its core—interlinking modes and nodes—can provide a competitiveness boost and growth potential. This, however, will become reality only if all stakeholders act, and act together. In this context, three main strands emerge:

- balancing private and public interests, exploring potential areas of joint activity and collaboration, including through innovative financing schemes,
- reconciling short-term and long-term plans and vision, taking into account demand projections, and sustainability challenges within the larger European and global policy and economic framework, and
- above all, matching words with deeds, recognizing the need for the requisite firm political will, in the absence of which, even the best conceived project will flounder.

Transport, which has been part of one of the two founding policies present in the Treaty of Rome, holds a pre-eminent place in the European Union integration process. At a juncture when momentum for the European project is waning, it is the right time to deliver on political commitments, act on promises and progress with enforcement.

Against this backdrop, the CODE24 publication exploring the integrated spatial and transport infrastructure development on the Rotterdam Genoa corridor constitutes a vital instrument to analysing the transport challenges facing the continent as well as the specific needs of the Rhine–Alpine Corridor. As the publication highlights, recent developments and the emergence of the European transport corridors have added an additional layer of complexity when it comes to spatial planning, driven by the fact that corridors run not only across regional and national, physical and administrative borders but also cross-cut across issues related to economic development, environmental sustainability and social well-being.

As demonstrated in the opening part of the publication, the Rhine–Alpine Corridor stands out as an epitome of a mature, complex corridor that includes all modalities and which offers widely applicable insights. Altogether, more than 70 million people live, work and consume in the catchment area of the Rhine–Alpine Corridor. Leading manufacturing and trading companies, production plants and distribution centres are located within. The corridor runs through the so-called “Blue banana”, which includes major EU economic centres. Along its course, over 1 billion tonnes of freight are transported annually, resulting in a corridor GDP of more than 2700 billion euros. With 13 % of EU’s population, the Corridor regions generate 19 % of the EU’s GDP.

The Rhine–Alpine Corridor is a “forerunner” for other corridors with initiatives on innovations and new technologies paving the way into the future. The CODE24 publication offers an all-encompassing overview of the corridor, which can serve as a useful template for other corridors as well as for the larger questions confronting transport in the European Union. Part II provides a comprehensive overview of the freight sector, exploring bottlenecks in railway infrastructure, their impact on regional transport costs and analyses scenarios towards achieving an integrated railway network. Logistical processes, clusters and the connection of terminal ports to hinterland are addressed in detail in Part III, which also explores rail competitiveness, inland ports and urban development. Fundamentally, the publication addresses critical environmental aspects of railway infrastructure development along the corridor, such as noise reduction and the management of ecological measures for major projects, while its penultimate chapter factors in local preferences and closes in on the vital need for a buy-in from the European citizens as a requirement for political legitimacy.

Looking towards the future evolution of the corridor and transport in Europe at large, effective coordination emerges crucial for all European traffic flows. A project influences the performance of the entire Corridor, in every country involved, stressing the need to look beyond single initiatives. The work and involvement of all stakeholders remain vital. The comprehensive information

about the state of play as well as the needs and challenges of the corridor must be translated into reality. In this context, Code24 is a fitting example of the type of collaboration needed in order to provide crucial momentum and implement this corridor whose centrality cannot be overstated.

Brussels, Belgium

Ana Palacio

Ana Palacio was the European Coordinator for the Rhine-Alpine Core Network Corridor until May 2015. She is an international lawyer and founding partner of Palacio y Asociados, a law firm with offices in Madrid, Brussels and Washington, DC. Between 1994 and 2006, she was Member of the European Parliament, Minister of Foreign Affairs of Spain and Member of the Spanish Parliament. In 2006, Ms Palacio became Senior Vice President and General Counsel of the World Bank Group; in 2008 she was member of the Executive Committee of AREVA. In 2012, Ms Palacio became member of the *Consejo de Estado de Reino de España* (Council of State). She takes part of various boards, think tanks and public institutions and is distinguished professor of multiple universities.

Foreword

It was an ambitious intent when the project partners of CODE24 first applied for this seminal project. The project application for EU funding has been approved at the first attempt, and the project has also officially been awarded as a “strategic initiative”.

The project CODE24 with its 18 project partners from five countries has produced a number of tangible results culminating in the joint strategy for the development of the Rhine–Alpine Corridor. Partners from different professional backgrounds have cooperated seamlessly and have successfully delivered the intended outcome.

This publication provides a comprehensive insight into the concrete achievements and results of more than 4 years of cooperation. Obviously, a very broad field of issues has been tackled. This is due to the ambitious goal of the project to perform an interdisciplinary approach, looking at a variety of issues which are equally important for a reasonable regional development.

Looking ahead, the coordination of development activities and measures in the Rhine–Alpine Corridor is an enduring task and a continuing challenge. Thus, the intended creation of the European Grouping of Territorial Cooperation “Interregional Alliance for the Rhine–Alpine Corridor EGTC” plays a crucial role and will enable its members to perpetuate the fruitful collaboration for the sake of the development of this corridor.

The achievements of CODE24, which are presented in this publication, will serve as an excellent groundwork for this prospective cooperation.

I’d like to thank the editors for having attended to this complex endeavor!

Mannheim, Germany

Ralph Schlusche

Ralph Schlusche After a degree in Jurisprudence at the University Mannheim and a post-graduate course in Management Sciences, he entered into the higher public service of the Land Baden-Württemberg.

In 2010 he was elected as Director of the Regional Planning Association Rhein-Neckar. He also acts as Chief Executive Officer at the Metropolregion Rhein-Neckar GmbH and is Vice-Speaker of the “Initiativkreis Europäische Metropolregionen in Deutschland”. (450 Zeichen)

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Introduction

From Sea to Sea: Changing a Trade Route and Transit Area into a Common European Living Space

Hansjörg Drewello and Bernd Scholl

Abstract The Rhine axis and the adjoining trade routes southwards over the Alps to the Mediterranean are among the most important transport routes in Europe. The development and significance of this trading route has inspired the sciences as well as current policy-making. The French geographer Roger Brunet explains that this link has arisen from a fundamental ‘north-south dissymmetry’ of the European cultural landscape, starting as early as Roman times: the evil barbarians in the north facing the civilized cultures of the Mediterranean states. In economic terms, this inequality was manifested in the range of different resources: in the north amber, wool and wood and in the south spices, silk and precious stones, but also bronze weapons, often imported from Asia or the Near East. The resulting exchange of goods, technologies and culture began in the Bronze Age and was intensified up until the twelfth century CE on the shortest route between the Mediterranean and the North Sea. Between today’s North Sea ports of Antwerp, Rotterdam and Amsterdam and the ports of the Ligurian coast in northern Italy, one finds the highest concentrations of settlement activity and population, wealth, infrastructure and traffic in Europe, today called the Rhine–Alpine Corridor. This article illustrates the approach of the INTERREG project CODE24 dealing with direct negative consequences of the economic strength of the corridor, such as rising land prices, increased pollution, formidable traffic problems and further urban sprawl outside outside of the core cities.

The research done on the development opportunities of European cities by a group of French geographers under the direction of Brunet, the Réseau d’étude des changements dans les localisations et les unités spatiales (RECLUS), placed the core area of European economic power at the end of the 1980s in the centre of scientific discourse (RECLUS 1989). The study warned of growth deficits in

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France, as it is not connected to this central growth axis. In the discussion of the results of the study in the French press and the political arena, the term *Blue Banana* began to be used for this area, which extends from London via Randstad Holland, Brussels, Rhine-Ruhr, Rhine-Main, Rhine-Neckar, the Upper Rhine, Basel and Zurich to northern Italy and the cities of Milan, Turin und Genoa. Brunet explains that this important trading link has arisen from a fundamental ‘north-south dissymmetry’ of the European cultural landscape, starting as early as Roman times: the evil barbarians in the north facing the civilized cultures or the Mediterranean states (Brunet 2002: 15). Other studies as well acknowledged that this region, with names such as European Megalopolis, Manchester-Milan Axis or European Backbone, as the region with Europe’s greatest economic potential (Schätzl 1993; Delamaide 1994). Then another point of discussion was whether, in future, the Blue Banana could possibly lose its dominant position in Europe to the European Mediterranean coast (European Sunbelt) or to the regional axis Cologne-Berlin-Warsaw (yellow banana) (Lambooy 1994; Erzner 1999).

More than a fifth of EU citizens, about 110 million people, live in the Blue Banana region. Up to today, a loss of economic prosperity has not been discernible. A comparison of the countries involved reveals that in each case the regions lying in the blue banana exhibit high productivity and low unemployment.

In addition to these economic strengths, one must also acknowledge some direct negative consequences, such as rising land prices, increased pollution, formidable traffic problems and further urban sprawl outside of the core cities. All of this has sparked diverse political activities and the construction of new infrastructures. In 1992, the citizens of Switzerland voted for the NRLA concept (New Railway Link through the Alps) and the corresponding financing plan by a clear majority. In 1994, the first measures were taken to construct the 34.6 km long Lötschberg Base Tunnel in Switzerland, which became operational in 2007. The opening of the 57 km long Gotthard Base Tunnel is planned for December 2016 and the 15.4 km long Ceneri Base Tunnel is scheduled to open at the end of 2019. Thus, capacities for transalpine goods traffic have been created, but up to now neither the German nor the Italian side have been able to utilise this possibility with their existing access routes. In 1996, the Federal Republic of Germany and Switzerland signed a bilateral agreement, the Lugano Convention, to expand the capacity of the northern railway connection to NRLA between Karlsruhe and Basel to four tracks, to keep pace with traffic demand.

In this context, the upgrading of the northern part of the traffic corridor in the Netherlands is worth mentioning. In 2007, a strictly freight route was put into operation in order to improve transport of the increasing quantities of goods handled in the Port of Rotterdam to the European hinterland. This Betuwe line connects Rotterdam with the city of Emmerich on the Dutch-German border, a distance of 160 km. It increases the capacity pressure on the corridor from the north.

Against a background of existing traffic problems, the Association of Chambers of Industry and Commerce on the North-South Railway Link Rotterdam–Genoa, (Communauté des Chambres de commerce de l’axe ferroviaire nord-sud Rotterdam–Gênes) was established in 2004 with Italian, Swiss and German

chambers of industry and commerce. The association is committed to the expansion of the rail link between Genoa and Rotterdam. At the same time, informal meetings took place at Karlsruhe University, Dept. of Urban and Regional Planning, with experts in regional and railway planning in Germany and Switzerland.

In 2007, the Association hosted a conference: The AlpTransit Rotterdam–Genoa: Its Significance for Europe, in Karlsruhe. There the Karlsruhe Declaration was adopted, in which 87 European chambers of industry and commerce called for the rapid expansion of the rail link, especially the access routes to both of the large Swiss tunnels. The first contact between the chambers of industry and commerce and the Swiss Federal Institute of Technology Zurich (ETH) took place at this conference, which ultimately resulted in the Corridor Development Rotterdam–Genoa INTERREG Project (CODE24). The determining factor for this decision was a visit by members of the Rhine-Neckar Regional Association to the construction site of the Gotthard Base Tunnel in Sedrun in 2007 and a subsequent visit to ETH Zurich.

Parallel to the activities of economic players, planning associations along the traffic corridor also developed diverse initiatives (Saalbach 2012: 441). In 2007, in a joint position paper, they called for a harmonisation and coordination of national requirement planning, the acceleration of the planning process, a reduction in traffic noise as well as regular and systematic assessments of the situation (Rhine-Neckar Regional Association VRRN 2008), among other things. A further impetus for the CODE24 project came from the position paper by the Regional Studies and Planning Academy of the ARL (2009) on the future challenges of large-scale traffic development. Here the north-south railway link for Europe was used as an example to show that ‘these problems can only be solved by an infrastructure policy which is carried out across regions and modes of transport, and which serves to integrate traffic and regional development.’

In 2010, the CODE24 project began under the auspices of the Rhine-Neckar Regional Association, starting with 15 partners, which later grew to 18 partners. The partnership comprises four organisation types: (1) regional planning bodies and local authorities, (2) universities and research institutes, (3) port authorities, and (4) private engineering firms. The funding came from the EU programme INTERREG IVB Northwestern Europe.

Three project partners from Italy have also been involved, although the country is not in the programme region. This exception, involving the expansion of the region, was possible due to the flexibility rule, which is provided for by EU regulation and the funding programme if good reasons can be shown. In particular, this applies to designated corridors throughout the EU that extend beyond the individual funding areas. ETH Zurich is also involved as a partner from Switzerland. Co-financing for the ETH was ensured through the participation of the Swiss Federal Office of Spatial Development (ARE) and the Gotthard Committee (Fig. 1).

The main objective of this EU project is to coordinate regional, national and international traffic development of the most important European north-south corridor between the North Sea and the Mediterranean (Rhine–Alpine Corridor). It can be aptly described with the slogan: One corridor—one strategy (Saalbach

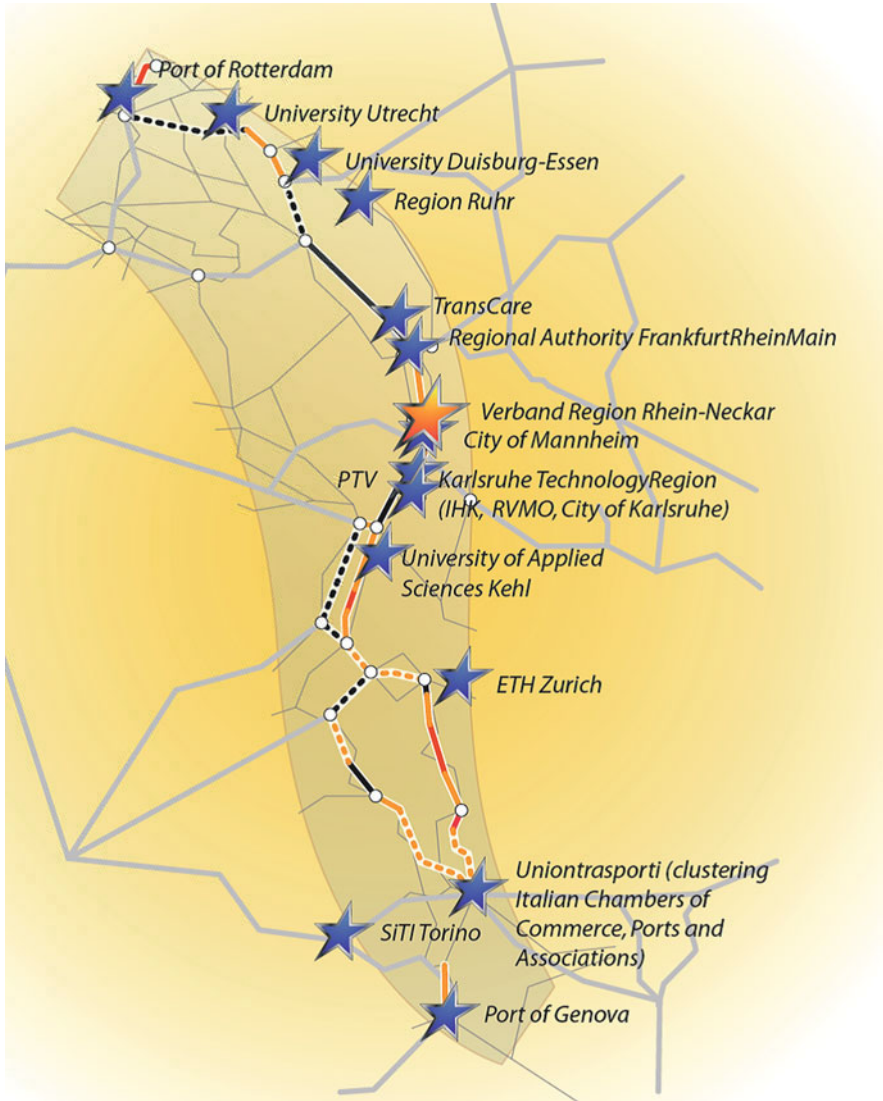


Fig. 1 Location of the partners. *Source:* Project map CODE 24

2011: 34–37). With the project, the partners would like to help to further intensify the discussion about the expansion of the entire railway link, especially the northern and southern access routes leading to the Alpine crossing, as well as examine the specifics in bottleneck areas. Regions were examined that are expected to experience increasing traffic bottlenecks, such as the German-Dutch border region at Emmerich, the Rhine-Main region, the Upper Rhine and northern Italy. With the interdisciplinary project approach, it has become clear that what is important for the

partner nations, in addition to the increase in economic performance, is the minimisation of the negative effects on the environment and the population, above all with regard to goods transport and logistics networks. The various studies want to establish a traffic and noise management system on the railway that takes the development of the railway system as well as sustainable regional planning into account.

The studies were carried out in four study segments:

- Study segment 1: Coordinated regional and infrastructure development
- Study segment 2: Environmental aspects and noise reduction
- Study segment 3: Goods transport and logistics
- Study segment 4: Communication, acceptance and continuation of interregional cooperation

In addition, the project was used as a platform to bring together the partners most affected by this topic. Thus, processes and joint initiatives could be set in motion. Through its practical approach, the project contributed to a better integration of economic promotion, logistics, traffic and regional planning. Another important goal of the project was the development of sustainable cooperation in the corridor area. The basis for this has been created with the continuation of the cooperation within the framework of a European Association for Territorial Cooperation (EVTZ), which was established in November 2014.

The editors of this book have attempted to explain and illustrate the issues, proposals and progress made, as well as the interdisciplinary and cross-cultural approach necessary for a sustainable, efficient and generally accepted design and development of the Rhine–Alpine traffic corridor and living space.

Part I illustrates the framework and challenges of developing the Rhine–Alpine Corridor from a heavily used transit area to a sustainably designable living space of national and European significance. In his article, Bernd Scholl shows that regional planning and development must prove to be of value on a European scale in order to achieve integrated solutions. Approaches and experiences with this topic exist in the individual countries. Large-scale cooperation could be tested within the framework of CODE24, just as in a laboratory. At the same time, the ability to present arguments from a regional planning perspective plays a decisive role. In his article, Rolf Signer presents important basic principles and insights into this aspect, as logically consistent argumentation leads to important foundations for decision-making. In her article, Isabella Lami deals with decision-making in conflict situations in regional planning. Peter Endemann and Birgit Simon present the challenges of the Rhine–Main area, which has always been a first-rate European transportation hub due to its central location. Finally, Tejo Spit and Patrick Witt examine the challenges from a Dutch perspective.

Part II focuses on articles dealing with the topic of regional accessibility. With the CODE24 model developed during the project, Hansjörg Drewello, Marcel Huschebeck and Norbert Schick simulate the effects of a shift from rail-to-road caused by bottlenecks in goods transport. The article by Alessandro Africani et al. presents a qualitative method of regional analysis for identifying deficits in

regional accessibility, using the example of the ‘Technology Region’ of Karlsruhe and the region of Liguria. In their article, Mauricio Arnone et al. show how regional accessibility can be increased in regions not directly connected to a high-speed network by an intelligent link-up with existing light rail lines, without building new infrastructures.

Efficiently organised logistics processes create new transport capacities. This idea is the focus of the articles in Part III. With the help of case studies, Julian Brenienek and Rudolf Juchelka describe the development of logistics clusters along the Rhine–Alpine Corridor. The article ‘Linking the ports to the hinterland’ by Alessandro Africani et al. shows, with the help of a newly developed port-performance indicator, the strengths and weaknesses of seaports in supplying their hinterland with goods. In his article, Peter Endemann describes a possible way of better utilising unused transport capacity in freight trains. An online exchange for freight shipping services, which was developed in the project, can improve the coordination of the supply and demand of freight shipped by rail. The inland ports play an important role in the Rhine–Alpine Corridor. Using two case studies, Nina Marzioch, Manfred Rausch and Kerstin Ruppenthal analyse synergies arising from cooperation among the ports. The last article of the chapter by Markus Ibert and Daniel Halter provides information about the results of a regional economic feasibility study for a logistics service centre at the Black Forest Airport in Lahr.

Increasing freight traffic creates disruptive effects on the environment. Integrated, sustainable traffic planning must take these effects into account. In Part IV, Sebastian Wilske analyses different approaches to noise protection with the aim of increasing the acceptance of traffic infrastructure projects in the population. Regulations on conservation and environmental protection often seem to be contrary to the goals of traffic planning. Claus Peinemann uses examples to show how development and infrastructure projects in the Rhine–Alpine Corridor can be brought in line with national and European regulations.

The focus of the last chapter is how to establish acceptance of European infrastructure projects through participation. Using a case study, Frank Joneit describes the involvement of regional lobbyists in an informal planning process in the Wesel area. With the help of the economic theory of federalism, Hansjörg Drewello shows that one can achieve better economic efficiency through more effective involvement of regional players in planning processes for a European infrastructure. The European Association of Territorial Cooperation is still a new legal form of cooperation for regional authorities in Europe. Finally, Jörg Saalbach portrays how this construct should ensure the future representation of the interests of regional authorities in the Rhine–Alpine Corridor.

As editors, we hope that the new ideas discussed in this book can make a small contribution towards coping with the emerging challenges in European regional and traffic infrastructure policy. On this note, we hope the book will give the reader much inspiration and food for thought. And as the American composer John Cage once said: ‘I can’t understand why people are frightened of new ideas. I’m frightened of the old ones.’ (Kostelanetz 1988).

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Since 2009 **Hansjörg Drewello** has been a professor of economics, first at the University of Applied Sciences Göttingen and now at the University of Applied Sciences Kehl. He is the German director of the European Competence and Research Centre Cluster Management. His teaching and research deal with regional economics, in particular infrastructure development and the regional economic impact of cluster initiatives in a cross-border context. Until 2009 Hansjörg Drewello was the director of the Department of International Commerce, Transportation, Commerce and Tourism at the Chamber of Commerce and Industry Karlsruhe and a member of its management board. He was the lead partner of the study segment “Freight transport and logistics” of CODE24.

Bernd Scholl is since 2006 a full professor for Spatial Planning and Development at the ETH Zürich. His professorship is part of the Institute for Spatial and Landscape Development at the ETH Zurich. He is director of the institute and Delegate (Dean) of the department for the Master of Advanced Studies in Spatial Planning (MAS RP). His teaching and research focal points are on land and spatial management in the local and regional development, space and infrastructure development, transnational tasks as well as development and organization of innovative planning processes and methods in spatial planning and regional development. In 2010 he initiated the Interreg-Project Corridor development Rotterdam/Antwerp-Genova (CODE24).

Part I
Developing the Transport Corridor
Rotterdam-Genoa Within Spaces of
National and European Importance

Spatial Planning and Development in a European and Macro-regional Context

Bernd Scholl

Abstract Throughout the entire history of Europe and its spatial development, the north-south corridor from Rotterdam to Genoa has formed a quasi ‘transport backbone’. The most densely settled areas of Europe are to be found here, together with diverse landscapes and urban regions of various sizes. It is also the area where the highest economic value is created. To a considerable extent, the economic power of this axis determines many European developments. Major investments of all kinds: airports, railway systems, distribution centres, industries, etc., are concentrated here.

The renovation and development of the regions along this corridor are a challenge for those involved. Global, European, national, regional, and local processes overlap each other and changes are plain to see. The serious conflicts within spatial development in this transit area also inevitably lead to addressing Europe’s cultural and political history, as well as its future and the future of its nations. What are the central questions, and what solutions are possible? In recent years, stakeholders from all the countries involved have formed, for the first time, a group for developing a spatial strategy in a European and macro-regional context. This contribution deals with the challenges and perspectives of one of the most important corridors in Europe and the need for an action-oriented European spatial programme.

1 Introduction

Up to now, spatial planning and development in Europe and the European Union has been seen as a national task. This contribution will not question this task distribution, conducted on the basis of the subsidiarity¹ principle. On the contrary,

¹ The principle of subsidiarity is defined in Article 5 of the Treaty on European Union. It ensures that decisions are taken as closely as possible to the citizen and that constant checks are made to

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this contribution wants to promote a strengthened collaboration between the various governance levels and spatially relevant actors in a European context.

1.1 European Spatial Development from Concept to Territorial Agenda

This is in keeping with the Territorial Agenda 2020 (TA 2020), published by the EU, in which it states: ‘...to provide strategic orientation for territorial development, to foster integration of territorial dimensions within different policies at all governance levels and to ensure the implementation of the Europe 2020 Strategy according to the territorial cohesion principle’ (European Union 2011).

The global economic crisis triggered by the USA in 2008 has affected the countries of Europe to various degrees. Crisis times are also times of opportunity. They should be used to strengthen the solidarity in Europe through special initiatives and make economic prosperity a possibility for European nations and their inhabitants, thereby contributing to the protection of peace. These goals could be achieved, especially if the national and European institutions can manage to inspire the greatest number of actors possible to embrace European thinking and to motivate them to take up their own initiatives. This has succeeded, specifically through solving problems that lay in the common interest, meaning tasks in which it has been recognised that they were not simply in the interests of nearby local, regional or national levels, but also in the European interest.

Spatial planning has a special responsibility here: planning’s central task is to bring a frugal approach to the use of land, a limited resource. The resulting mandate, in coordination with sector planning, is to effect an integrated sustainable spatial development—a challenging task. This is being practised in different European countries in different ways and with various levels of success, because the approach to land, and therefore to spatial planning, is connected to a considerable extent with the language and culture of the country.²

verify that action at Union level is justified in light of the possibilities available at national, regional or local level. Specifically, it is the principle whereby the Union does not take action (except in the areas that fall within its exclusive competence), unless it is more effective than action taken at national, regional or local level. It is closely bound up with the principle of proportionality, which requires that any action by the Union should not go beyond what is necessary to achieve the objectives of the Treaties. See: europa.eu/legislation_summaries/glossary/subsidiarity; Accessed 14.11.22.

²The newest publication on the topic, *Spatial Planning Systems and Practice in Europe*, also makes this clear. The publication is the outcome of an ARL European Working Group that devoted their time to this topic over a 3-year period. ‘Although the emergence of the EU spatial planning agenda played an influential role as a driving force in domestic planning reforms, this did not lead to a complete ‘harmonisation’ of spatial planning systems and practises across Europe,’ (Reimer et al. 2014). As Switzerland was not included in this analysis it may be of interest to be aware of the differences. Its understanding of planning is clearly differentiated from its neighbours. One of the

The Territorial Agenda 2020 clarified that the approach to land issues should be an action-oriented³ political framework. One conclusion is that spatial planning must also be action-oriented.⁴ In an action-oriented process, important tasks are revealed through mutual treatments and decisions, and solutions are introduced within the framework of well-considered and well thought-out processes. Deviations of these spatial development tasks from their usual form will also be required informally in the completion of the formal spatial planning procedures and instruments. Time-limited, customised processes are suitable for identifying strategic tasks and for the application of solutions that can then be implemented with the usual methods and legislative foundations of the respective countries and institutions.

The results of spatial planning seldom materialise in the short term because the results of spatial planning activities can often take many years or even decades to complete, not only due to the length of time needed for actors and planners to reach a decision, but also for the measures to pass through all the administrative levels of implementation. Unfortunately, undesirable elements can creep in or are only recognised as the process unfolds. The space itself is 'inert.' Many developments proceed slowly, for example, sprawl spreading into more and more agricultural land. 'Wrong' results are mostly, if at all, noticed after a long time period. The corrections that follow likewise stretch over a longer timeframe (see Sect. 2 on the time aspects of spatial planning) and can also produce unwanted effects.

One burden of long-term planning is that it seems to be heavier and more cumbersome in comparison to results effected by the electronic media, especially the Internet, where the wheel appears to turn faster and the flood of information it brings make it more and more difficult to distinguish the essential from the non-essential. In addition, many political actors, who are subject to the rhythm of election periods, do not see spatial planning as an attractive sphere of activity.

main differences is that Swiss planning is understood as a 'rolling' process as indicated by the *Richtplan* (Guidelines) in which the categories of Pre-orientation (Vororientierung), Interim Results (Zwischenergebnisse) and Final Assessment (Festsetzung) of the various plans must be represented, including a final representation of the desired state. The pragmatic approach used in Switzerland recognises that spatial planning must also be intensely concerned with what could be important for the coordination (Pre-orientation) and the representation which, until now, has shown what solutions have been achieved through planning (Interim Report) (Zwischenergebnisse) and, finally, what direction the solution should follow (Final Assessment). These categories deliver an overview that is important for the coordination of an effective process and its decisions.

³ The ministers responsible for spatial organisation and territorial development state that: 'The TA 2020 is our action-oriented policy framework to promote territorial cohesion in Europe as a new goal of the European Union introduced by the Treaty of Lisbon (Art 3. TEU).'

⁴ In my work on action-planning, the use of the essential principles and methods of action-oriented spatial planning to solve complex core tasks was presented. The knowledge is based on the evaluation of comprehensive complex tasks in which the author was also involved.

This should not discourage actors active in spatial planning, however, spatial planning can be strengthened, especially through well-founded initiatives⁵ and successful examples extending to other European connections as well. In this way, initiatives of the various EU presidencies and of the minister responsible for spatial planning have brought the topic of territorial cohesion to a dialogue between cities, which led to the passage of the European Spatial Development Concept (ESDP) in Potsdam in 1999.⁶ Further initiatives came from this foundation, which led to the first generation of the transnational INTERREG Cooperation Programme, among others, and the establishment of a European Spatial Observation Network (ESPON) (European Commission 2008).

In 2004, an intensive debate on European spatial development started under the Dutch EU presidency against the background of EU expansion and the contributions of spatial development to the Lisbon Strategy. Results of this, as well as the Rotterdam processes, were on the Territorial Agenda in 2007 ‘... for a competitive sustainable Europe of diverse multi-faceted regions’. A Green Paper appeared in 2008 on the appraisal and intensification of the debate on territorial cohesion: *Turning Territorial Diversity into Strength* (European Commission 2008).

In order to convey the importance of an expanded Europe and the states’ noteworthy contributions to this, the German EU presidency passed the Leipzig Charter on the sustainable state in 2007. Under the Hungarian presidency, the Territorial Agenda was finally further developed and passed in 2011 with the title *Territorial Agenda 2020: For an Integrated, Intelligent and Sustainable Europe of Diverse Regions* by the ministers responsible for spatial organisation and territorial development. This was followed in mid-2014 by the *Sixth Status Report on Economic, Social and Territorial Cohesion* (European Commission 2014a).

⁵ Worth mentioning in this connection is the *Landschaftsinitiative* of Switzerland. It led to an intensive public debate about spatial planning and to the revision of the spatial planning law. A central goal is limiting sprawl through the implementation of the basic strategy: Redevelopment before New Development. The law was approved by over 60 % of the voting population in Spring 2013.

⁶ ESDP 1999: ‘With the aim to provide an [integrated](#), multi-sector and indicative [strategy](#) for [spatial development](#), the key ideas of ESDP are: To achieve an integrated approach, i.e. not just look at specific sectors of development activity, e.g. environment, economic development, or transport, but to recognise that they all affect each other; an understanding of spatial development, a much wider view of sector development vital for an integrative approach; to include strategic actions, which means also to set priorities.’ Of interest in this connection are also the spatial policy guidelines, summarised here:

- Development of a [polycentric](#) and balanced urban system, and strengthening of the partnership between urban and rural areas, in order to create a new urban-rural relationship.
- Promotion of integrated transport and communication concepts, which support the polycentric development of the EU territory, so that there is gradual progress towards parity of access to infrastructure and knowledge.
- Wise management of the natural and cultural heritage, which will help conserve regional identities and cultural diversity in the face of globalisation.

The policy and guidelines appear in a different form in the Territorial Agendas of 2007 and 2020.

The Territorial Agenda mainly follows the goal of using European regions potentially capable of economic growth. Less in focus is a large-scale regional cooperation, which is desirable for transit spaces of European importance. The macro-regional strategies of the EU have moved in this direction since 2011, similar to that for the Danube area or the Baltic region. The collaborations along the Main East-West Railway (Paris–Budapest), which has merged into the TEN-T core network, have also delivered important experiences.

1.2 The Need for Action- and Problem-Oriented Spatial Development

All in all, the last decade has seen an intense debate take place about the basic concepts and programmes of European spatial development. Anyone in the respective countries involved with the practice of spatial planning will also discover that spatial planning argumentation in concrete local, regional, or national plans hardly plays a role in the European connection. This also relates to the fact that many plans of European importance involve sectors and small spaces as well as less problem-oriented areas. In a real sense, an action- *and* problem-oriented European spatial development does not exist.⁷ This was confirmed by a multi-year exchange among high-ranking European experts from the science and practice of regional spatial development.⁸ In the opinion of the author, this is required in order to attain a sustainable European spatial development.

To bring the coordination of large-scale infrastructures, e.g. in the branches of energy and transport, in line with the desired spatial development of affected cities and regions is one of the central tasks (METREX 2013). In particular, narrow

⁷ I use ‘difficult, challenging tasks’ as synonymous with complex problems. They differentiate themselves from routine tasks in that such tasks don’t fit into commonly used solution patterns and sometimes it is not at all clear at the beginning of the clarification process, which tasks are to be solved in general.

⁸ Scholl 2012: In the summary it was stated: ‘Once more, it has been confirmed that spatial planning is a discipline that is linked to language, culture and paradigms of thinking. For these reasons alone, mutual understanding is already a major challenge. Nevertheless, the cross-border dialogue is important in order to recognise new developments, attain new knowledge and stimulate and encourage through discussions—perhaps even formulate new initiatives. Through the exchange that took place during the symposia and the discussions of the case studies, the knowledge that a pan-European spatial planning does not exist has become a consensus. The increased development of trans-European infrastructural networks, for example, the energy sector (such as cable and pipeline routes) and the transport sector already call for this development. This shows that sector development is very often neglected during the customary development of the living space. A compilation of the spaces and projects of national importance in the individual countries would be a very good foundation for the spaces and projects that lie within mutual European interests’.

reciprocal effects persist between transport development and settlement development, even on a large-scale (Initiativkreis Europäische Metropolregionen 2007). Spatial and transport development are two sides of the same coin in the effort to bring about the sustainable development of common living spaces.

An action-oriented European spatial development should start from tasks that are concrete, strategically important and lie in the common European interest. According to the subsidiarity⁹ principle, it is incumbent upon spatial planning and the responsible actors to implement the decisions taken and the appropriate processes.

On the regional and national levels, tasks bound up with spatial development are already challenging enough, and, without a clear strategy for spatial and transport development that sets authentic priorities and provides planning security through secure financing, it becomes nearly unmanageable.¹⁰

However, this deficiency cannot be used as a reason to ignore the European dimension of a required collaboration across several national boundaries. When, for example, major investments in the harbours of northwest Europe are active in order to increase their handling capacity, then the transport level in the nearby hinterlands, both inside and outside of the settlement spaces, will need to be managed. If in the areas of the transport infrastructures, the corresponding provisions are not met, then increasing traffic jams on the highways and freeways will be the result. If the quality level for maintaining connections for entire regions grows worse, this will also have negative consequences for the economic development of the affected regions. Even the welcome shift of any amount of goods transport from the roads to the rails, as stipulated in the EU's *White Paper on Transport* (2011) and most of the national planning documents, hide some risks: insufficient rail capacity could displace railway passenger transport, thus once again reducing the quality of public transport railway connections, which in turn plays a central role in the containment of sprawl. The catchment areas of the railway stations and stops are a crystallisation point for the philosophy of redeveloping settlements first.

A capable, attractive public transport system is of great importance for a redevelopment-oriented settlement strategy because it would allow the basic strategy of sustainable spatial development to be realised. It builds upon using the reserves of the settlement's building stock for development before any new 'green fields' are re-zoned. This basic strategy is not only standard for countries such as Switzerland or Germany, but for all European countries that want to make sustainable spatial development a reality. This argumentation makes it clear that an

⁹ IRL 2011: 'According to the subsidiarity principle, tasks should only be transferred to a super-ordinate state level when it can demonstrate that it can fulfil the task as well as the subordinated state levels.'

¹⁰ ARL *Position Paper No. 79*, 2009: In this paper on the 'future challenges of the large-scale transport development in Germany', it was stated: 'In addition, it needs a clear commitment to the prioritisation of planning preparation as well as the implementation of concepts on the main axes. Correspondingly, strategic approaches and considerations have not been, however, on hand for a long time. And not on the side of the government either.'

effective interplay between transport development and spatial development on a European scale, namely for the entire European space, is of extraordinary, as well as general, European interest. Obviously, if value creation declines in strongly performing regions because of uncoordinated and non-sustainable spatial development, then there will necessarily be fewer means available for the economically weaker regions of Europe.

Moreover, the argument that joint European spatial development would first require harmonising European legislation is not convincing. A European comparison of spatial planning laws and their connected instruments and processes would certainly show just how different these are from one another. This also supports the idea that the ways and means of how spatial planning is conceived and conducted are shaped, as already mentioned, by pattern of thinking, culture and language. Given that an action-oriented European spatial development should start from the tasks to be jointly solved, a common understanding of what tasks this actually concerns, what sort of time sequence is needed for their solution and how the financial means for it should be raised, then taking steps in this direction is urgent. One could call it setting priorities.

The necessary, current and future-compatible overviews are mostly missing. Generating them does not require a legally regulated formal process. Using informal, time-limited processes to achieve an expansion or completion of an overview should be sufficient (see 'Die Methode der Testplanung' in *Grundriss der Raumentwicklung*, ARL, Hannover). Within the framework of such processes, for example, agreements can be made and multi-lateral contracts can be prepared. Informal processes can also be used to find cross-border solutions for known tasks. The actors responsible can also bring potential solutions before the respective national and regional legislatures, much as this is carried out in current practice for spatially important tasks in the 'Triangle' area of Germany, France and Switzerland.¹¹

For an effective collaboration and the further development of large-scale structures of European importance, jointly prepared ideas about the spatial development of the affected spaces are of central importance. Because the construction of such infrastructures takes years or decades, the timeframe for such ideas must also range over 30 or 40 years.¹² This is not an exceptional demand, because the life span of

¹¹ In connection with a 'bypass discussion' about a railway in the course of the planned four-track construction on the Upper Rhine River, the regions from Switzerland, Germany and France have found their way to cooperating on a plan for an integrated spatial and railway development. The results were published in Scholl (2007).

¹² At present, a very promising test trial is taking place in the Limmat Valley, an approximately 20 km long space of national importance between Zurich and West Baden. The report has recommendations from an international *Ideenkonkurrenz* (idea competition) that could be important for similar tasks. Published by ETH Zürich, Fall 2013.

such infrastructures stretches over a much longer timeframe, usually 60-to-80 years—or even longer.

An invaluable advantage for such important European collaboration projects is to be able to gain a common background on the problems to be solved through cooperation. Because of the cultural polymorphism of Europe, which is also its wealth, cooperation depends on creating projects of European importance in spaces of European importance. Through the collaboration on spatially important projects of European importance, the cohesion of Europe can also be strengthened. Discovering and disclosing the connections of spatially important activities in various areas of Europe are therefore the first step. Clarification of the tasks to be solved together, its financing and realisation are further steps. Of pivotal importance is that the connections, tasks, and solutions should be clearly communicated to the inhabitants of the affected regions.

In an enlightened pluralistic society, projects of European importance can only be realised with—and not against—its inhabitants. Spatial planning can play an important role when its actors manage to make the connections between transport development and spatial development generally understandable on both a large scale and in European standards, i.e. in everyday language, illustrated and defined for the search for integrated solutions, as the EU's Territorial Agenda 2020 requires.

1.3 TEN-T Projects as Pioneering Works

The projects of the Trans-European Network of the European Union (TEN-T) could serve as concrete examples of the above-mentioned types of problems. The intention is to produce high-capacity transport and communication infrastructures for a polycentric European network, as proclaimed in TA 2020 (Fig. 1).¹³

By 2030, the current gaps should be closed and bottlenecks, with co-financing from the TEN-T facilities (European Commission 2014b), should be eliminated.¹⁴ To achieve this, the integration of the respective countries and regions in spatial development and spatial planning is urgently required. Many countries stipulate that the spatial coordination for projects, such as eliminating bottlenecks and closing gaps in the infrastructural network, must follow legal and formal processes.

¹³ Under point 24 of the TA 2020, it emphasises that ‘...a polycentric and balanced spatial development in the EU is a key element for the achievement of territorial cohesion.’

¹⁴ European Commission 2014a, p. 43. ‘The TEN-T consists of two layers: a core network to be completed by 2030 and a comprehensive network feeding into the core network, to be completed by 2050. The core network will provide essential support for the Single Market by facilitating the flow of goods and people around the EU, including in the less developed Member States (Map 1.22). It involves connecting 94 main European ports to rail and road links, 38 key airports with rail connections into major cities, 15,000 km of railway lines upgraded to high-speed and 35 cross-border projects to reduce bottlenecks.’