Tóth, Bálint László

Department of International Relations

Supervisor:

Kollai, István PhD

Assistant Professor

Corvinus University of Budapest
Doctoral School of International Relations and Political Science
International and Security Studies Subprogram

RAILWAY COOPERATION AMONG V4 STATES

The role of political spillovers in rail transport integration between the Czech Republic, Hungary, the Republic of Poland, and the Slovak Republic (1999–2021)

Doctoral Dissertation

Bálint László Tóth

Budapest, Hungary
2023

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

ABBREVIATIONS

CCTT	Coordinating Council on Trans-Siberian Transportation
CEF	Connecting Europe Facility
CEFTA	Central European Free Trade Agreement
CEI	Central European Initiative
CER	Community of European Railway and Infrastructure Companies
CIT	International Rail Transport Committee
CMEA	Council for Mutual Economic Assistance
ČD	České Dráhy (Czech Railways)
EBRD	European Bank for Reconstruction and Development
ECC	European Economic Community
ECE	East Central Europe
ECOSOC	United Nations Economic and Social Council
ERA	European Railway Agency
ERDF	European Regional Development Fund
ERTMS	European Rail Traffic Management System
ETCS	European Train Control System
EU	European Union
EUAR	European Union Agency for Railways
EUSDR	EU Strategy for the Danube Region
GySEV	Győr-Sopron-Ebenfurti Vasút (Győr-Sopron-Ebenfurt Railways)
HLWG	High Level Working Group
HSR	High-Speed Railway
IK	Instytut Kolejnictwa (Polish Railway Research Institute)
IVF	International Visegrad Fund
MÁV	Magyar Államvasutak (Hungarian State Railways)
MFF	Multiannual Financial Framework
MMV	Magyar Magánvasút
NATO	North Atlantic Treaty Organization
OSJD	Organization for Co-operation between Railways
OTIF	Organisation intergouvernementale pour les transports internationaux ferroviaires (Intergovernmental Organization for International Carriage by Rail)

PKP	Polskie Koleje Państwowe (Polish State Railways)
PRWG	Permanent Railway Working Group
RFC	Rail Freight Corridor
RNE	RailNetEurope
SETA	South–East Transport Axis
SUNFED	Special United Nations Fund for Economic Development
SŽCZ	Správa železnic, státní organizace (Czech national railway infrastructure manager)
TEN-T	Trans-European Transport Network
UIC	Union internationale des chemins de fer (International Union of Railways)
UN	United Nations
UNIFE	Union des Industries Ferroviaires Européennes (Association of the European Rail Industry)
USSR	Union of Soviet Socialist Republics
VHF	Nemzeti Közlekedési Hatóság Vasúti Hatósági Főosztály (Hungarian National Transport Authority's Department of Railway Regulation)
V4	Visegrad Four
WB	Western Balkans
ŽSR	Železnice Slovenskej republiky (Railways of the Slovak Republic)
ŽSSK	Železničná spoločnosť Slovensko (Slovakia's passenger train company)

ACKNOWLEDGEMENTS

Even though it is principally a solitary endeavor, producing a dissertation would be barely possible without the assistance of numerous helpful relatives, friends, colleagues, professors, and peer researchers. I will never be able to express my gratitude to everyone who offered their support to me in one capacity or another during the research work, the writing, the clarification, or the edition of the hereby presented PhD thesis paper. First and foremost, it is my greatest pleasure expressing my thankfulness to István Kollai, who has been supervising my research since I began my doctoral program. He helped me identifying a research topic that suited both my professional and academic endeavors and circumstances. It was a great honor working with assistant professor Kollai, whose patience, helpfulness, "to-the-point" attitude and novel ideas greatly contributed to the continuation of my research at the crucial moments.

I am likewise indebted to associate professors Vigvári Gábor and Gábor Kutasi for the most valuable insights, comments, and advices they kindly provided to me as opponents during the debate of this dissertation's draft version. I also owe gratitude and respect to professor emerita Erzsébet Kaponyi for her helpfulness and understanding during my doctoral studies, as well as to assistant professor Ágnes Kemenszky, for it was thanks to her influence that I started writing publications in the field of social sciences.

A special thanks goes to my friends and colleagues at the MCC Center for Political Science and the International Relations Directorate of MÁV Hungarian State Railways, for their encouragement and guidance. Las but not least, this research would not have been possible without the stabile and encouraging background provided by my beloved family, especially my mother, who introduced me to the world of academic researches, and whose example as well as purposefulness helped me pursue my goals. My loving wife, who supported me emotionally ever since we met and made it possible for me to continue my intellectual journey.

1. INTRODUCTION

After the 1989/1990 regime changes, it has become a shared responsibility for former Eastern Bloc countries to achieve the legal/political/financial requirements for long-term economic growth and democratic transition, with the guidance and assistance of the European Economic Community ("ECC") and later the European Union ("EU"). Due to the relative development of their social, economic, and political systems, Visegrad Group[1] states were considered to be the vanguards of Euro-Atlantic integration among the former Warsaw Pact countries in East Central Europe ("ECE"). The intergovernmental cooperation implemented in the so-called "Visegrad Four format" continues to this day, even after the common goals (joining the North Atlantic Treaty Organization – "NATO" and the EU), originally defined by the political leadership of the four states, have already been achieved. In recent decades, numerous political science and international relations studies have dealt with the possible explanations for the durability and flexibility of the V4 cooperation format, from a politics-level approach. However, the examination of the quadripartite intergovernmental cooperation's policy-level factors might likewise provide valuable conclusions and findings for understanding the tirelessness and inexhaustibility of the four-party decision-making in ECE.

The research continues the investigations on finding answers for the viability of the V4 cooperation after these countries' EU accession. Examining spillovers helps to keep track of the process of the widening and expanding of intergovernmental collaboration circles (as far as V4 sectoral policy coordination is considered), as well as to extrapolate the underlying logic. Yet political spillovers can also explain why the intergovernmental decision-making in the Visegrad format remained constant even after several shifts in foreign policy strategies, direction, and attitudes (not mentioning the four states' accession to Euro-Atlantic organizations): the process-tracing provided by the research suggests that the incumbent governments of the four states concerned predominantly refer to the V4 formula as a means for interest articulation within international platforms.

[1] The Czech Republic, the Republic of Hungary, the Republic of Poland, and – after 1993 – the Slovak Republic – henceforth also to be referred to as "Visegrad Four", "V4", "Visegrad countries", "Visegrad states", "V4 states", "Visegrad area", "Visegrad zone", and "the V4s".

The starting point of regional integration theories is that the political leadership of two or more states first needs to solve the so-called collaboration dilemma: whether to cooperate or not, based on individual and actual *raison d'état* perceptions. In case the decision-makers come to the conclusions that cooperation is more beneficial than competition, as a second step, they must also decide on the modes and natures of partnership they would like to formulate. According to Ernst Bernard Haas (1961), when nations are compelled to build trust among themselves, convergent policy goals typically take precedence over opposing ones. The evolution of international organizations shows many distinct ways for nation-states to organizing group actions, and each one has a different distributional impact on the participants. Therefore, "free-riding" might not be a more logical option to membership, as the latter one gives the participant a say in how the goals of collective action are carried out (Snidal 1995). Increased interdependence reduces the chance of states engaging in conflict with each other (Jackson and Sørensen 2007).

According to institutional neoliberalism, once achieved, a greater level of transnational ties between nations cannot be disregarded in future. After the removal of the Iron Curtain, Visegrad states became the front-line applicants for the accession to the European Community, with similar institutional as well as structural reforms taking place throughout the region (Péter 2012). In order to demonstrate readiness for integration into the Euro-Atlantic international institutions, decision-makers of the Visegrad states began to create a system of reciprocal polity and policy level interactions (Bársony 1998).

This intersectoral aspect fuels, for instance, member states' reluctance to hand over responsibilities to the European Union, fearing a practical spillover impact, in which initiatives can be ensured by taking more action, which, in turn, generates a new situation and demand for more actions (Smith 2004). Sectoral EU policies are a random agglomeration of policies confined to narrow issues rather than a well-founded global strategy, as a result of the spillover effect and its political logic (Guigner 2004). To cope with an extremely comprehensive and complex structure of rules, directives, interventions, programs, guidelines, and subsidies, a massive bureaucratic organizational structure has been created as part of the European integration. Consequently, such cooperation circles may be seen as products of a multiplicity of national and transnational action levels (Smith 2004).

According to the liberal intergovernmentalist school of thought, exogenous rather than endogenous factors are the main forces behind the strengthening of inter-state cooperation. One of these external, basic causes supporting integration is the pursuit of economic interests (Moravcsik 2005). The efficiency of a regional development cooperation depends primarily on the complexity of socio-economic processes and the harmony of different development factors. Hence it is crucial to integrate national and subnational levels connecting different – economic and financial, geographical, scientific and technical, moral and historical, natural, social, infrastructure, legal and institutional, political, and strategic – areas (Baranyi 2013).

Within the Visegrad zone, cooperation in transportation shows how shared goals and political will outweigh conflicting economic interests: these countries have become integral parts of priority transport axes, while the creation (or upgrading) of such routes has been given a special priority in their four-party decision-making (Lackenbauer 2004). The Visegrad states' railway markets compete with each other on the Eurasian freight corridors. However, the V4s have decided that the development of upgraded and reliable north–south corridors and high-speed linkages is particularly important to all of them, demonstrating how non-converging economic interests can be offset by shared values and political will. Additionally, public opinion surveys show that the development of transportation and energy infrastructures was seen by V4 citizens as a considerably significant element in the Visegrad-format cooperation (Gyárfášová and Mesežnikov 2016).

As for the dissertation's position along the coordinates of ongoing and former researches on the topic, among the many building blocks of the bumpy road of market liberalization and Western-style democratization, this dissertation scrutinizes the European integration efforts regarding the ECE transport systems. Passenger and freight infrastructures of the four states needed to be significantly strengthened, modernized, reconnected, and reintegrated into the "bloodstream" of the continent's transport system, which had been divided for many decades. This thesis work deals exclusively with the railway aspects of the Visegrad states' transport development efforts – and the related coordinated international interest promotion – in order to take a closer look at the practical aspects of the four states' intergovernmental cooperation, following a policy-focused approach.[2]

[2] Extending the magnifying glass of the investigation to all other modes of transport would certainly lead to valuable findings and comparisons. It would not, however, provide more useful arguments and examples

With the intention of contributing to the scarce academic literature on the motivations of joint intergovernmental sectoral projects involving the V4 states, the topic of railway cooperation is chosen as a case study all through the research for several reasons. First, the development of transportation networks has always been high on the agenda of V4 annual presidencies since the very beginning of this quadrilateral regional cooperation, regardless of international crisis situations and the actual geopolitical challenges affecting the region.

Second, these four countries' rail networks share a number of strategic characteristics: most V4 states have higher network densities and electrification levels than the EU average, and the proportion of regular users of railway services in the Visegrad region is likewise above the European average. Therefore, railway connectivity is a historically important pillar of the ECE region's transport system.

Third, at the time of writing, the EU's cohesion and regional development policies as well as climate goals prioritize the development of cross-border railway services over other modes of transport. Last but not least, as the beginning of ECE railway integration dates way back in time, the process can be examined on a wide enough time horizon to outline certain trends and come to well-based conclusions. The above features enable the researcher to conduct a comprehensive study of the multi-level international sectoral policy making's external and internal factors.

Transport collaboration exemplifies the viability of the V4 format: government level policy coordination is effectuated if strategic interests meet and there is enough motivation (EU strategies and political/financial mechanisms, as well as the demands of the single market) with the potential to spill over into tighter cooperation involving other policy areas, such as the creation of specialized V4 bodies for joint rail traffic coordination or development.

At the time of finalizing the dissertation paper, the Czech, Hungarian, Polish, and Slovak rail networks do not constitute a single transport area, due to their divergent technological and structural characteristics. Yet the territory of the four countries is destined to be part of a unified European mobility system because of their geopolitical circumstances. Numerous directives, white papers, strategy documents, and background reports of the European Union stress the Continent's rail network's need for further integration in the fields of technology, regulation, and operation in order for the member

for understanding the intergovernmental joint decision-making mechanism of the Visegrad Four at the policy level – while, it would most likely exceed the scope limits of the dissertation.

states to create appropriate circumstances for the safe and fast flow of goods, persons, and services. Since the 2004 EU-accession of the four ECE countries, their respective governments have continuously emphasized their intention to make the region's rail networks mutually interoperable, as reported by various press reports and statements.

The evolution of the Visegrad Group's intergovernmental co-decision-making formula is far from linear. Since 1990, sectoral synergies have served as engines to drive the dynamics and give strength to the four states' inter-state cooperation format. Prior to the eastern enlargement of the EU in 2004, the V4 format regional cooperation helped the four states coordinate their efforts as well as share their experiences and best practices in fulfilling the accession criteria. After becoming full members of the European Union, the governments of the Czech Republic, Hungary, Poland, and Slovakia joined forces in adopting the Community's policies, norms, regulations, and strategies.

What is even more important for the scope of this research: representatives of these four states started to formulate joint positions at summits of EU institutions as far as the catching up of the region has been concerned. In case of transport policies, with the aim of achieving the EU's connectivity and interoperability strategies, the four states started to plan and effectuate national and cross-border investments (co-)sponsored by Communitarian financing mechanisms.

The number of cross-border railway construction projects in the Visegrad countries has increased in tandem with the raise in Communitarian financing tools and policies promoting the creation of sustainable, safe, and quick mobility solutions over the programming cycles of the European Union's Cohesion Policy. Visegrad Four states have initiated a number of formalized quadripartite negotiations, such as the V4 Rail Roundtable or the High Level Working Group on Transport Links, in order to create appropriate *fora* for expert debates that would assist in the implementation of their agreements on railway integration. Thus, the barely institutionalized regional intergovernmental negotiating forum of the Czech Republic, Hungary, Poland, and Slovakia began to serve as a valuable instrument for supporting interests in railway diplomacy, complementing these states' efforts in specific EU bodies or other specialized organizations. The political leadership of the four states recognized the importance of the Visegrad Cooperation in establishing mutually beneficial negotiating positions, when it comes to changes in the technological or legislative environment, at European levels.

1.1. Research questions and hypotheses

As will be clarified and defined, in addition to the many common structural, strategic, historical, social, and cultural features, since the 1989/1990 regime changes, the Czech, Hungarian, Polish, and Slovak track-based traffic systems have become market competitors in terms of attracting international development capital and better exploitation of the traffic of continental transport corridors. Still, the following chapters list the many aspects and dimensions of the decades-long railway policy initiatives between the political leadership of the four states. In order to resolve the above contradiction, it is indispensable identifying the factors that motivated the decision-makers representing V4 states to continue and further deepen the quadripartite railway integration, taking into account all cohesive and repulsive forces (attributes). This is the linkage in the logical chain where the dissertation's investigation connects to research history as far as theoretical papers analyzing the Visegrad format intergovernmental co-decision-making are considered.

The preliminary theoretical starting point of the research suggests that the co-decision making within the Visegrad Group takes place in a *sui generis* intergovernmental format: it is important that the lack of institutional elements – which is a specific characteristic of the V4 cooperation – is compensated for by an international organization's mutually respected legal–institutional framework, in order to achieve more significant integration between policy areas. The EU provides the institutional/financial/legal framework necessary to pursue the original V4 goal: caching up with more developed western/northern partner states in terms of infrastructural/economic/social standards. The four-party negotiating platform serves as a tactical tool for advancing the political objectives of its members inside the institutional framework of the European Union.

The starting point of the track of thought the dissertation endeavors to corroborate is that the EU provides the administrative, budgetary, and legal framework required to advance the transport development ambitions of the V4 states. The implementation of the European Union's transport policy directives, cohesion goals, and regional development endeavors require strategic cooperation between the incumbent governments of Visegrad countries. That is the way how the different sectoral aspects of the European integration give birth to new forms of tighter regional cooperation: the institutional/organizational/political/budgetary pillars of the single market ensuring the free movement of goods, services, capital, and persons spills over

into further joint policy planning, coordination, and implementation among the political leadership of Visegrad countries. The planning, coordination, and implementation of rail transport initiatives require regular meetings of expert working groups.

As national (political, business, and cultural) elites align their objectives and desires in reaction to supranational activities, political spillover raises domestic demand for integration. The process when sectoral integrative measures cascade onto further (broader/deeper) collaborative actions in other fields of policy making by the decisions of the partner states' governments is referred to as a political spillover. So the railway cooperation demonstrates how integration circles are progressively entwined in case of the Visegrad-format regional co-decision-making. Therefore, as will be outlined and proven in detail throughout the dissertation, the Visegrad format collaboration might be described as a multidimensional network of areas of practical cooperation, in which specific joint projects imply further integration through spillovers at the level of politics.

The above line of argument also suggests that top–down political spillover effects of the EU's regional and cohesion policies might, at least in part, explain the deepening and broadening of sectoral (in our case: railway) cooperation among the incumbent V4 governments. Thus, it is essential determining the role of EU policies and funds in motivating Visegrad governments to harmonize and combine their respective railway development endeavors. **To this end, analyses presented in the following chapters seek answers to the central research question: can the European Union, as a legal/political/financial framework, be considered a driving force promoting railway policy cooperation among the political leadership of V4 states?**

At this point, the research's logical chain arrives to the factors where the dissertation goes beyond previous studies analyzing the motivations of the four-party sectoral cooperation. The research results shed light on the practical and political contexts of intergovernmental regional railway cooperation, with particular regard to the European Union's organizational and financial structures, which the governments of the V4 states can rely on in their quadrilateral transport related decision-making, in the absence of their own relevant institutional frameworks. While the implementation of the decisions regarding intergovernmental transport cooperation exemplifies the public policy aspects of the Visegrad formula, the ever-deepening political spillover effects of the EU integration help understand the nature and dynamics of the four states' joint promotion of interests in the given field.

Intergovernmental cooperation does not automatically lead to the joint coordination of specific sectoral policies (e.g., rail transport development), yet it is worth emphasizing the cases when there are interactions between the policy and politics levels of international decision-making. Hence it makes sense examining the V4 cooperation regarding public policy coordination in parallel with the four states' joint political actions on EU platforms. **Therefore, the thesis identifies and describes the political, legal, and financial instruments and co-decision-making *fora* of the Visegrad countries' railway development efforts, with special attention to the policy and politics level intertwining of all these dimensions.**

In order to compare the consultative and decision-making structures within the Visegrad Cooperation with the corresponding institutional and political *fora* of the EU, the dissertation examines the relationship, interactions, and dynamics between Visegrad railway policies and the relevant legal/institutional/financial toolkit of the European Union. Following railway related EU policies and directives, in recent decades, the intention of the Visegrad states' political leadership to upgrade and add new connections to the existing transportation routes have resulted an increasingly interconnected network that made it necessary to create new platforms of political interactions between the four incumbent governments. Additionally, the growing market competition between different transportation sectors has resulted in the need for more reliable and safer high-speed railway ("HSR") corridors, which again boosts the need for deepening the four-party cooperation and joint interest promotion in the field.

Going back to the central research question, the dissertation examines the extent to which the broadening of supranational policy making mechanisms can be traced in the integration of EU sectoral policies. Inter-state transport cooperation exemplifies the intertwining of integration circles among Visegrad countries at public policy levels, while political spillovers from existing integrative mechanisms (such as the EU's financial tools and development policies) are critical to understand the nature and dynamics of Visegrad cooperation at politics level. As will be elaborated, the research's basic assumption is that **it is the governments of the four neighboring states to decide which specific fields of sectoral policy coordination is worth letting it grow into a new (semi-/pseudo-) institutional element of regional political integration**. Thus, politics-level decision-making is essential in the spilling over of a specific international cooperative measure towards other fields of supranational integration. Furthermore, the convergence of supranational integration areas among

the incumbent Czech, the Hungarian, the Polish, and the Slovakian governments is principally driven by intergovernmental and/or EU-level policy making, whereas bottom–up automatisms of the cooperative procedures' gradual multiplication are less visible as far as supranational interest promotion is concerned: the broadening of multilateral cooperative mechanisms is needed for the implementation of high-level decisions at practical fields, and it does not necessarily follow commercial, social, cultural trends.

1.2. Conceptual and methodological frameworks

The research explores possible correlations between the number of V4 format railway integration initiatives (as dependent variables) and the availability of infrastructure development strategies supported by the EU's multiannual financial frameworks ("MFFs"), legal corpus (directives, regulations, and white papers), and other kind of incentives (as independent variables). The method of investigation is both historical in approach and explanatory in intent. With the aim of identifying and systematizing the inputs of ECE intergovernmental initiatives, the investigations focus on the nature of political spillovers triggering joint projects in the Visegrad area. Spillovers in the field of transport materialize in a relatively short time, in a concentrated manner and with clear regional perspective. Such attributes let the observer monitor the entire decision-making processes leading to the realization of different policies.[3]

The research rests on three methodological pillars: the qualitative conclusions of integration theory analyzes are supported by the quantifiable results of keyword-based content analysis of official documents issued by the Visegrad Four between October 1999 and March 2021.[4] Whereas the correlations identified in the examined corpus (the intensity of co-occurrence of dependent and independent factors) are confirmed from a practical point of view by structured interviews with Czech, Hungarian, Polish, and Slovakian experts dealing with international railway strategies. This deductive methodology intends to determine the influence of EU funding, legislation, and policies on the decisions of V4 political leaders to modernize railway infrastructure in the region.

[3] Common infrastructure development projects have clear regional and time focus. In case of transport development, the implementation of the governmental projects is relatively easy to track (through the inauguration of modernized or newly constructed infrastructures, or the expression of opinion of civil society and professional bodies), especially with the help of economic and other statistical indicators. These well-documented processes provide widely accessible date both at EU and member state levels.

[4] The earliest English-language source accessible in the topic is dated October 1999, while the most recent source available at the time the analysis was finished is dated March 2021.

The emergence of joint railway initiatives and the regular appearance of quadrilateral professional negotiations on track-based transport indicate regional sectoral policy integration, however, this does not in itself explain the EU's role in all of this. By adding to the equation the EU's political, institutional, and financial incentives (directives, standardization efforts and cohesion founds) available in the same time frame, a certain logical relationship can be assumed between the trigger factors and the triggered actions. After a detailed description of the development of the V4 format railway cooperation, as well as the presentation of the relevant policies and legal frameworks of the European Union, there is nothing left but to prove whether the governments of the Czech Republic, Hungary, Poland, and Slovakia consciously decide to coordinate transport endeavors due to their countries' EU membership.

Keyword-based content analysis of English-language official V4 documents[5], a thorough systemization and analysis of statistical data retrieved from online accessible EU transport databases serve to present the materialization of the railway related Visegrad format multilateral decision-making (*Chapters n. 2* and *4*). Information retrieved from such documents by targeted keyword research filters is shown by explicitly elaborated data visualization methods (diagrams, graphs, tables) and summarized in the main body of the thesis work. Diagrams, linear time scale spectrums, and summaries of finding serve all through the thesis paper in order to help identify the correlations between independent and dependent variables.[6] The synthesis of international relations theories dealing with political integration at European, regional, and sectoral dimensions helps understand the train of thought on how tasks related to railway operation are delegated from governmental to supranational levels amid creating intergovernmental and inter-state interdependencies *(Chapter 3).*

An additional methodological pillar to the broader investigation of the ever-expanding circles of V4 railway policy integration is provided by the analysis of the findings of structured interviews effectuated with railway transport experts working at state-owned railway undertakings and/or research institutes based in V4 countries. As part

[5] *Memoranda* of understanding, presidency programs, *communiqués,* and other official quadripartite documents available in the online library of the website of the Visegrad Group.

[6] Government-level (politics) interference through political spillovers between policy areas resulting in wider and stronger rail transport integration in the V4 region is traced in official documents issued by high-ranking representatives of the V4 countries. In order to support the idea that non-political elites (financial, market actors, lobby organizations, NGOs, trade unions, etc.) in V4 states do not have enough power to act as pressure groups altering the state-level policy making process, comparative data analysis from Eurostat sources is used to show whether one specific railway development project is underpinned by freight volume growth, passenger habits, customer satisfaction levels, and so on.

of the investigation, professionals from different Visegrad countries express their opinion about the effectiveness, opportunities, and limits of EU funds as for the railway development projects in the region.

On one hand, with the help of co-word occurrence frequency analysis of official V4 documents, the dissertation research focuses on tracing the communication factors that indicate the will for further political integration within the Visegrad Group, as far as rail transport synergies are considered. On the other hand, the application of rail transport professionals' "in-the-matter" viewpoints gives a bottom–up dimension to the theoretical and quantitative research, which outline the top–down effect of regional railway integration. By developing a comprehensive understanding of the political spillovers' functioning in the deepening and enlargement of intergovernmental sectoral cooperation (regional integration theories), the observer might trace the realization of V4 railway integration back to its beginning, step-by-step.

Through the example of the intensification of the Visegrad states' railway cooperation, the research examines the extent to which spillovers, leading to the multiplication of intergovernmental decision-making mechanisms, can be identified in the deepening integration of EU sectoral policies, namely: the Communitarian transport (railway) policies. The study's conceptual framework is based on international relations integration theories that assign a key role to spillovers in explaining the gradual transfer of state or sub-state sovereignty towards supranational spheres.

EU-funded regional transport investments shall be interpreted in a century-long historical perspective, while its topicality and relevance most probably remain constant. As far as real-life examples are considered, the research's focus is on rail transport integration decisions adopted during the 2007–2014 and the 2014–2020 MMFs of the European Union. Railway integration in the V4 region is an ongoing process driven by spillovers deriving from gradual decisions and actual, concrete economic interests of sub-state, governmental or supranational actors. Therefore, the main network of literature and research material comprises international relations theoretical studies on intergovernmental integration, multilateral decision-making, sovereignty transfer, while the practical side of the above-noted processes in the Visegrad Group's joint policy making is presented and illustrated by official documents, statistical data retrieved from transport databases, and structured interviews conducted with experts and transport specialists working at railway undertakings that do business in the Visegrad countries.

Through comparative analysis and visualization, quantitative data are proposed as points of reference throughout the dissertation paper. European Commission datasheets, Eurostat databases, online available financial statements, surveys, Eurobarometer documents are the principal sources for quantitative analyses of V4 transport endeavors resulting from political spillovers from other policy areas.[7]

1.3. A "train of thought" on spillovers: main findings and intended contributions

As will be outlined, targeted thematic keyword research in V4 official presidency programs and annual reports show that in the V4 region, politics-level decisions are essential for the spilling over of a cooperation area into other fields of integration, insofar as since their 2004 EU-accession, the high-ranking and expert-level negotiation *fora* of the four states considered gave birth to (semi-)formalized quadripartite consultations in the field of track-based transport. It can be stated that the different railway related topics are frequently and consequently mentioned in such documents as one of the most important pillars of the V4 transport development goals. This information reflects the EU railway strategies operative at the time of conducting the research: completion of the Trans-European Transportation Network ("TEN-T"), refurbishment of existing lines with the latest generations of the European Rail Traffic Management System ("ERTMS"), elimination of bottlenecks, (re-)opening of border-crossings, and inauguration of high-speed railway ("HSR") connections.

With the aim of filling the gap in academic literature as far as sectoral policy integration analyses with V4 focus is considered, this dissertation contributes to the better understanding of the spillover *phenomena* in the examined countries, and through the operalization of the related terminologies by offering a synthesis of findings of the neofunctionalist and liberal intergovernmentalist theoretical narratives.

In terms of regulation, organization, and international standards, railway traffic is at the forefront in the field of world-wide international transport coordination. Specialized United Nations ("UN") agencies or EU bodies are concerned with technical assistance, social services, and growth, a standard-setting, technical aid, social services, and development. The membership of V4 states (through their responsible ministries,

[7] By searching the above indicated sources, one can find data for all kind of indicators for rail network development (evolution of the length of railway lines, railway track, electrified lines, type of current used, the volume of cargo shipped on rail, the passenger transport numbers, new train services, and a lot more) in each EU member states where there is rail traffic.

authorities, or national operators) in numerous international platforms often serve as motors for common rail transport endeavors of these four countries that might be interpreted as outcomes of these overlapping memberships in specialized organizations.

The MFFs of the 2007–2013 and the 2014–2020 periods, the Horizon 2020 goals, the cohesion funds (Connecting Europe Facility, Shift2Rail Joint Undertaking – to be clarified in the following) have spilled into the demand for creating further collaborative structures for constructing denser rail connections and launching more reliable train services in ECE. Past MFFs of the EU prioritized cross-border railway developments over other modes of transport, which extends the relevance of the research for years to come.[8]

The dissertation provides a comprehensive picture on the Visegrad forum's functioning within the EU policy making and implementation procedures. To this end, the research identifies, collects, and interprets the correlations between EU policies/funds and the evolution of the V4 integration. In order to highlight the academic added value of the thesis, it is important to stress that at the time of finalizing the research, investigation conducted on accessible academic literature and databases/libraries did not yield any results for spillover analyzes with V4 focus. **New, the following chapters may be seen as parts of a spillover-based study on regional integration with V4 focus.** Additionally, at the time of writing, no comprehensive studies, papers or analyses were identified in relation to the motivations of V4 format transport initiatives.

Based on the research experiences related to the dissertation, the major practical suggestion for authors of further analyses about the role of political spillovers in the strengthening, deepening, and stratification of regional intergovernmental cooperation mechanisms is the following: as spillover is a process and not a static phenomenon, in order to trace it, one must focus on its triggering factors on the one hand, and on its effects on the other. Once a potential political spillover effect is identified between two or more successive acts of intergovernmental cooperation, in order to understand its nature and evaluate its impact, one shall analyze the geopolitical, legal/institutional and economic circumstances (cost-benefit assessment) of the multilateral decision-making leading to further inter-state synergies.

[8] At the time of the research, the framework of EU transport policies, initiatives, and financing tools (that are fundamental for the feasibility of infrastructure investments) is determined by the idea of sustainable mobility. Within EU institutions and member states, there is widespread agreement that railways are critical to the development of an economically, socially, and environmentally sustainable Trans-European transportation system (European Commission 2021).

As a main contribution to academic debates over V4 policy coordination, the dissertation proposes that certain conditions shall be met so that a policy area could spill over into other fields of integration. On one hand, it is essential that the common gains of the cooperation outweigh the individual losses. On the other hand, the lack of institutional elements in the Visegrad Cooperation shall be sufficiently balanced by the legal–institutional framework of the EU or other international organizations – as mentioned before.

The chapters to come offer numerous illustrations for sectoral cooperation among V4 governments with regards to railway strategies. The practical examples of Visegrad railway cooperation shall help better grasp the transportation needs of a region located in the crossroads of east–west and north–south corridors. When discussing joint intergovernmental railroad projects, it is essential to determine whether the Visegrad Forum is the right mean for the enhancement of ECE transport interests. As will be outlined in detail, the Visegrad platform is a negotiating forum to agree upon joint lobbying positions before voting on transport related regulations in international organizations. Moreover, representatives of the Czech Republic, Hungary, the Republic of Poland, and the Slovak Republic tend to exchange best practices and know-how at V4 *fora* in order to help each other adopt international rail traffic regulations or standards.

In the examined period, the V4 cooperation introduced ministerial conferences and experts group meetings to harmonize the four states' positions on international mobility policies. At the same time, however, governments, national authorities, and state-owned businesses of the four states are members in a number of specialized international organizations dealing with transport policies. Consequently, the dissertation paper also offers a supranational perspective on the factors that cumulatively resulted in joint V4 transport infrastructure development policies.

An added value of the dissertation is the author's professional experience gained in the field of international railway operation that helps the interpretation and adoption to an East Central European context of the main findings of previous theoretical researches in the field.[9]

[9] From 2017 to 2021, the Author served as an international relations expert at the Hungarian State Railways (MÁV Magyar Államvasutak) that provides him a unique chance to understand the nature, the background and the practical aspects of transport initiatives launched by Visegrad states. On a daily basis, the Author has managed the operational relations between the Hungarian State Railways Co and its Slovakian, Czech, Polish, and Serbian partner companies (ŽSR, SŽDC, PKP, and IŽS). Building upon professional relationships, the Author had the chance to maintain close work ties to the traffic and strategy departments

2. RAILWAY COOPERATION IN THE V4 FORMAT

Throughout the thirty years of its existence, the Visegrad Group has not developed into a mandatory negotiating platform or a well-institutionalized international body. Some of the major factors that prevented the V4 countries from finding the attributes required to create a dominant organization for regional political integration were the four states' slightly differing strategic determinations and their relentless competition for foreign investors. However, the governments of the V4 countries seek points of agreement, as well as ways to reconcile and articulate their individual positions in order to formulate a joint stance. The four states' accession to NATO and the EU necessitated an increased level of government interactions between Poles, Czechs, Hungarians, and Slovaks. However, rivalry and differing strategic goals prevented the leadership of the four states from seeking suitable solutions to actual conflicts and tensions.

With the aim of providing detailed background information to the core topic of this dissertation, the following subchapters focus on the goals, circumstances, and possibilities of the V4 format railway cooperation. These sections serve to understand the evolution of the quadripartite decision-making related to regional railway development endeavors, before identifying and analyzing the motives and drivers of such intergovernmental cooperative steps. As will be explained in detail, cross-border railway projects have multiplied in the Visegrad countries in parallel with the increase of thematic EU financing tools and policies. Railway integration in the V4 region is thus an ongoing process, however, taking a closer look at the region's geopolitical, historical, strategic, and economic features, it is not that obvious to identify the real motivations and driving forces behind such permanent cooperative measures. Parallel to the numerous common development objectives, negotiations, meetings, legal and technological harmonization, inherited legal–political structures, as well as similar strategic geopolitical conditions, there are also significant conflicts of interest behind the railway market aspirations of the four countries.

In the past decades, the four ECE transport networks became competitors in the battle for the leading market position on the east–west corridors. Furthermore, due to cultural, social, and historical reasons, citizens of the Visegrad countries have developed different travel habits and traditions. As a consequence, these states operate their railway system

---

of the aforementioned entities with special regards to the operation of EU-supported international railway corridors in the region.

according to different technological and operational parameters – with often slightly divergent neighborhood policy orientations. Still, the governments of the four countries regularly look for opportunities for cooperation, reaching for the means of asserting common interests in the decision-making processes taking place within the European Union and in other intergovernmental arenas in order to achieve their constantly changing transport development goals (e.g., modernization, maintenance, development, legal harmonization, and sustainability).

The cutting-edge rail transport technologies have become symbols of modern mobility services. In recent decades, the four countries' governments agreed that in order to promote economic development, cohesion, and cooperation in other policy areas, it was essential to improve the connectivity of the major ECE cities. Therefore, common railway development projects have become high on the V4 agenda as far as environmental, social, economic, and transport policies are considered. The key role of transport integration is clearly elaborated in a joint statement of the V4 prime ministers (visegradgroup 2018c), in which they claimed that regional cooperation has become increasingly important in terms of added value for a united, stable, and prosperous European Union. The political leaders agreed that one of the major challenges was to build and improve physical interconnections, including key energy networks and transportation links between the major cities of the V4 countries, as well as to enhance people-to-people contacts. The V4 governments, consequently, promised to work together to identify and secure the required financial resources in order to achieve the aforementioned goals.

Transport integration addresses many disciplines and policy areas. Besides its axiomatic political basis, transport cooperation has clearly defined economic considerations as well. Mobility policy assumes in many respects strategic and defense functions too. It is enough to take a look at the EU's 2014–2020 and 2021–2027 MFFs. Both Communitarian budgetary frameworks have distinct buckets for the Connecting Europe Facility ("CEF") and the development of defense capabilities of member states (European Defence Fund 2023).

Transport cooperation also has clear social and labor market focuses. The above-noted arguments support the analysis of transport integration from a spillover point of view to Figure out the relationship, interactions, and dynamics between national development policies and the wider conceptual and legal–institutional context of the European Union's relevant policies.

Taking a look at the levels of decision-making in the field of international transport development policies, it can be observed that compared to other modes of transport, international railway integration can be examined in one of the most far-reaching historical perspectives. In terms of regulation, organization, and international standards, rail traffic is at the forefront in the field of transport: one of the oldest global international organizations is the International Union of Railways ("UIC") that was founded back in 1922 and of which Hungary, Poland, and the Czech Republic (at the time as Czechoslovakia) have been members ever since.

The Hungarian–Slovak and Polish–Slovak borders are among the longest internal borders in the European Union.[10] Despite the fact that economic and social conditions in these border regions are highly complex, this area is a homogeneous unity in terms of geographical, economic, social, cultural, historical, and environmental attributes. Numerous multilateral collaborative joint actions contribute to the development of this homogeneous region within the institutional framework of the European Union. V4 cross-border railway investments reflect EU development goals, however, indicators do not necessarily justify the need for deeper V4 railway cooperation. Railway related multilateral decision-making is a clear example of how common values and political will can balance divergent economic interests within the V4. On the Eurasian corridors, the four states' freight operators compete with each other, therefore, governments of the four countries will see immediate economic benefits if they focus their energies and financial resources on developing east–west transportation corridors.

At the same time, the V4s have agreed that the joint construction of north–south rail transport links was critical to their success as far as reaching EU cohesion goals is concerned. Cooperation in this respect is indispensable between governments, ministries, administrative authorities, infrastructure managers, lobby organizations, research centers, etc. Regional railway collaboration is evidence for the viability of the V4 format: policy coordination is only effectuated where strategic interests meet.

Visegrad countries have become vital components of Europe's priority transportation corridors. The organized improvement of these routes, based on holistic and integrated development concepts and appropriate technological, eco-sustainable solutions, may increase the appeal of V4 rail infrastructures, providing cost-effective transportation

[10] With total lengths of *679* and *514 km*, the Hungarian-Slovak and the Polish-Slovak borders are of the European Union's longest internal boundaries.

solutions for customers and thus contributing to the economic performance of the states concerned. Due to their shared interests in developing railway networks, the political leadership of Visegrad Four countries tend to formulate common negotiating and lobbying positions at EU *fora* related to the construction of new international corridors in the region, modernize old lines or deploy the individual national infrastructures with standardized European train control systems in order to have a fast, reliable, and interoperable transport grid in the eastern part of the EU (Tóth 2018b).

The Visegrad format offers ECE governments a platform to agree upon joint lobbying positions concerning financial support mechanisms or international rail transport regulation procedures initiated by different EU bodies and organizations. In addition, the incumbent Czech, the Hungarian, the Polish, and the Slovak governments tend to use V4 meetings as platform to exchange best practices and know-how in order to help each other adopt international railway standards and legislation.[11]

The number and importance of Europe's transport routes were constantly growing in V4 territories, and the development of these infrastructures gave regional connections a special boost. Therefore, in case of transportation programs, these countries must formulate cross-border measures that can be funded by EU financing tools.[12] To this end, the Visegrad Four have launched various initiatives, such as the V4 Rail Roundtable as a platform for expert discussions, or the High Level Working Group on transport connections ("HLWG") to help implement the V4 railway agreements. Consequently, the weakly institutionalized regional intergovernmental negotiating platform of the Czech Republic, Hungary, Poland, and Slovakia proves to be a tool for the endorsement of interests in railway diplomacy, complementing the endeavors of these states in specified EU bodies or organizations to gain favorable positions if railway related reforms, developments strategies, new tendencies, legislation, or regulations are concerned.

[11] State interest advocacy (bi-/multilateral intergovernmental cooperation) necessitates techniques compatible with those used by the partner states, such as using identical communication equipment or transportation system standardization (e.g., railway gauges; Martin 1995).

[12] Close regional cooperation would be difficult to accomplish without cutting-edge quality 21st-century highways, airports, and railway lines, Ferenc Somogyi, former minister of foreign affairs of Hungary claimed in one his essays (2006) on the future of the V4 cooperation. According to Somogyi, the physical infrastructure connecting the Visegrad countries needed to be greatly improved and it was a common obligation to protect East Central Europe's natural environment and to meet the requirements for sustainable growth, relying on EU support.

2.1. The background of the Visegrad Four intergovernmental cooperation

The purpose of this section is to promote thinking on the nature of the intergovernmental relationship between Czechia, Hungary, Poland, and Slovakia and to comprehend the circumstances, interests, and drivers of the inter-state political alliances in the ECE region. The Visegrad Group is a regional political platform without a genuine institutional base (Képviselői Információs Szolgálat 2016). This subchapter seeks to identify the reasons for the absence of an intention on the part of the constituent states to broaden, deepen, or better institutionalize their inter-state cooperation. These countries seemingly prefer not to force the harmonization of their political actions when their interests do not necessarily meet. The four states (and economies), however, may also become competitors in specific fields. The V4s cooperate multilaterally so long as the synchronization of their political moves generates roughly equal benefits for each (Caporaso 1992). Consequently, the V4 format may be interpreted as a political tool for advancing the political interests of its member states and not as a compulsory or permanent negotiating forum.

In May 1990, the Heads of the Republic of Hungary, the Czech and Slovak Federal Republic and the Republic of Poland met for the first time after the regime change to elaborate a new economic and political framework for an intergovernmental foreign policy partnership following the dismantling of the Council for Mutual Economic Assistance ("CMEA") and the Warsaw Pact. It is much easier to dismantle economies than it is to bring them back together, however, restoration was precisely what the former socialist economies must have done. The creation of an institutional structure that provides low transaction costs and dynamic incentives for technological innovation was critical to a successful transition to capitalism (Yeager 1999).[13]

For the first time after long decades of soviet repression, the independent ECE governments entered into negotiations with one another without any external pressure. Representatives of the three governments agreed in a joint approach to the western international institutions at the Visegrad Summit of February 1991. It is important, however, that the centripetal forces outweigh the centrifugal forces.[14] That consensus

[13] The World Bank's Chief Economist, Joseph Stiglitz, claims that knowledge-based economies have strong spillover effects, which can spread rapidly, triggering further creativity and chain reactions for new innovations (Keohane and Nye 2012).

[14] In the case of countries forced into cooperation and mutual trust, normally the converging policy goals will predominate, rather than antagonistic ones, as Ernst Bernard Haas (1961) puts it.

served as a platform and a basis of their future and desired Euro-Atlantic integration. Visegrad countries thus started to develop a system of mutual political interactions to prove their readiness to integrate in advanced international institutions like the European Communities or NATO (Bársony 1998).

Despite minor discrepancies in attitudes and perceptions, after the 1991 Visegrad Summit, the states of the region moved in the same strategic direction (accession to the EU, NATO, EBRD, and so on). These governments were interested in a proactive foreign policy making and in advancing regional security in order to fill in the vacuum left by the dissolution of the Warsaw Pact.[15] On the basis of increasingly close ties and eventual membership, the European Communities developed and intensified relations with Visegrad countries (Smith 2001). The prospect of the enlargement of the European Community was mutually advantageous. ECE countries are normally more vulnerable to negative trends (economic crises, conflicts, migration, environmental degradation) than their primary partner states they are politically and economically dependent on. Foreign interdependence normally rises with regional proximity.[16]

The four states simultaneously adopted to the transnational economic system. V4 countries have similar historical, cultural, economic, political, and military-strategic backgrounds, enabling them to use their comparative advantage of better understanding each other's problems in international decision-making procedures. These similarities allow to see the Visegrad Four as a genuine group of countries. When considering alternative solutions for the integration of EU and ECE economies, the V4 – as a group of allies – had been prioritized, for the number of advantages that outweigh the costs of cooperation. This boosted cooperation and put an end to the race between these countries to gain EU membership on a bilateral basis. The accession process might have increased competition among applicant states, yet it broadened the common market, facilitated greater intergovernmental dialogue, and prepared these economies to enter the EU internal market.[17]

---

[15] After the fall of communism, there was a significant military and economic security vacuum in East Europe and the intention of these countries to join the Euro-Atlantic international organizations was a main driving force behind the partnership of Czechia, Hungary, Poland, and Slovakia (Światłowski 2015).

[16] Enlargement was, for core EU states, a tool for stabilizing the V4s and limiting the negative externalities of the regime changes. Furthermore, regional closeness opens up opportunities for economic benefits from trade and investment, e.g., by lowering transportation and communication costs. As a result, EU member states in the vicinity of the Visegrad countries benefited the most from eastbound market integration. Thus, original member states were particularly interested in the accession of states with which they share a border or are in proximity (Schimmelfennig 2001).

[17] Visegrad Group countries formed the Central European Free Trade Agreement ("CEFTA") in December 1992 as a trade agreement to join efforts integrating into European institutions and join

The main obstacle for Visegrad states has been to use their diverse systems of contacts as a strength despite having typically divergent foreign policy goals. The Czech foreign policy traditionally focuses primarily on Germany.[18] The bohemian political activity primarily focused on identifying individual ways of the Euro-Atlantic integration and supplying development assistance to the Western Balkans region, while the unique position of Poland, Hungary and Slovakia determined their eastern orientation. The Czech Republic, Hungary, and Slovakia have consciously followed pendulum politics between Western Europe (Germany) and Russia, while Poland still gives a great emphasis to protection from Russian influence in Eastern Europe.[19] Moreover, of course, the geopolitical *foci* of each individual V4 country have constantly changed from time to time according to the changes in their governments, as different leaderships have prioritized different key issues. The governments of the V4s, therefore, have had slightly different priorities to reach diverging strategic objectives. Not many years after the foundation of the Visegrad platform, the initial enthusiasm for cooperation slowly started to disappear, and particular individual approaches were born. The desire of ECE countries to join the European integration ahead of others had a sort of disruptive effect that fostered rivalry as opposed to pursuing synergies within the region.[20] During their accession to the European Union, Visegrad countries proved to be unable to agree on a joint negotiating position and to assume the leadership of a bloc of candidates that would be a natural center of gravity (Žantovský 2006).

After entering the EU, the political representatives of Visegrad countries felt compelled to find common grounds in specific Communitarian issues. Until March 2017, the Visegrad Four had a realistic chance of shaping Europe's decision-making if the governments of all the four countries acted proactively and jointly.[21]

---

the Communitarian political, economic, security, and legal structures. With the aim of strengthening democracy and free-market capitalism (CEFTA 2023).

[18] As the country does not border with any of the post-Soviet or post-Yugoslav states, it has different geopolitical ambitions and interests then the rest of the V4 states. Czechia's diplomatic activities have mostly been driven by pragmatism, cost-effectiveness, and particular ideologies (e.g., the Czech opt-out policies related to certain EU regulations).

[19] Poland has close relations to Ukraine, Belarus, and Lithuania, as parts of these states represent former territories and current neighbors of the country.

[20] If one wants to understand the centrifugal forces in the V4 region after the down of the Cold War, the so-called "Four fears of the ECE states" shall be taken into consideration (Lengyel 2006): 1) becoming a buffer zone between the NATO and Russia; 2) forming an alternative to the European integration instead of being a step towards reaching the desired accession to the "Western World"; 3) having less developed partner states as a burden, an obstacle to Euro-Atlantic integration; and 4) putting limits to the liberty of foreign policy making shortly after regaining such sovereignty.

[21] When the Council of the EU voted on proposals by the Commission or the High Representative for Foreign Affairs and Security Policy, *352* votes had been assigned to the member states, each with

From November 2014, however, a new procedure for qualified majority voting, also known as the "double majority" rule, is being used in the Council and the V4 countries did not benefit from the changes – for this group includes *two* medium-sized nations (Czechia and Hungary), *one* larger (Poland) and *one* smaller (Slovakia) country, in European dimensions. In practice, it means that *55%* of member states shall vote in favor and the proposal shall be supported by member states representing at least *65%* of the total population of the EU. The former criterion is beneficial for small-sized member states, while the latter favors larger ones.

Figure 3: Qualified majority weighting prior to March 2017 (Source: Council of the EU 2021a; b)[22]

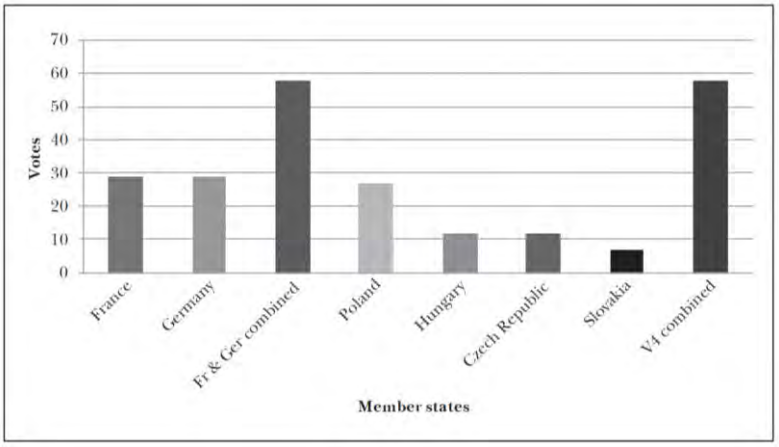
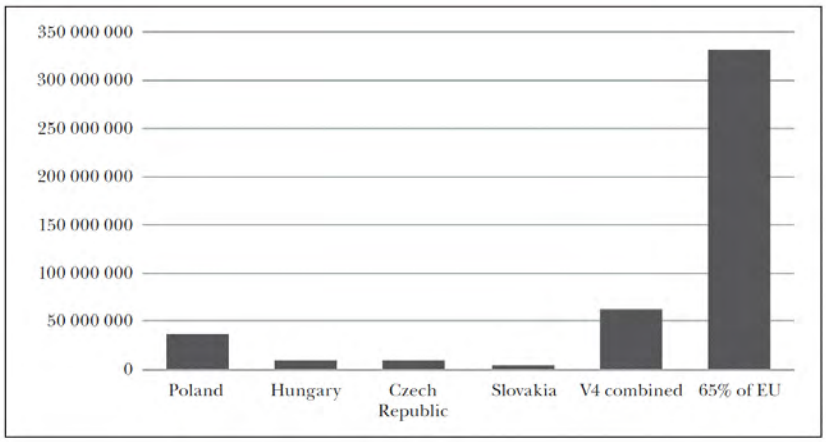


Figure 4: Population of V4 countries as of 2017 (Source: Eurostat 2023)



a certain number of votes weighted to reflect the size of their respective populations: in the aggregate, Visegrad states had the same number of votes *(58)* as France and Germany combined (Council of the European Union 2021a; b).

[22] All figures, tables, diagrams presented in this dissertation are the Author's own representation.

The four states needed to find allies in the Community to be able to enforce their interests related to Commission proposals and foreign affairs.[23] Thus, the V4+ formula (the original Visegrad Group countries plus Slovenia or Croatia, Austria, and so on) became more than crucial in supporting ECE interests within EU institutions. The 2012–2013 Polish Presidency of the Visegrad Group made a stand for the growing potential of their integrative non-formalized intergovernmental cooperation format. According to the official presidency annual report, the high level of participation in the V4+ meetings reflected the V4's increasing international presence. Aside from the V4-France-Germany conference, another example of the creative approach for interest harmonization was the V4+B3+N5 platform that brought together foreign ministers of V4, Baltic, and Nordic states in February 2013.[24] Furthermore, the accession of Western Balkans countries to the EU would be an indisputable advantage for the Visegrad Group. ECE political interests (e.g., regional military and energy security, infrastructure development) in many cases coincide with that of their southeastern neighbors. A joint action would certainly multiply the decision-making power of smaller EU member states (Tóth 2017).[25]

The Europeanization of non-EU member states has been a key factor in regional political partnerships in the ECE area and the related activities have strengthened cohesion between member and candidate states. Moreover, Europeanization may help create regional identity. Supporting EU and NATO enlargement endeavors in the Western Balkans has been one of the top priorities of the Visegrad Group. There are several examples of practical, political and economic assistance (twinning programs, interregional initiatives, EU member states Consortia, Stabilization and Association

[23] As of 2017, *65%* of the total EU population represented approximately *332 673.3 thousand* citizens. This number was more than *five times* higher than the estimated total population of the Visegrad states *(63 784.7 thousand).* According to the most recent available Eurostat data at the time of writing (January 2020), the *65%* of the total EU population means approximately *291 009 thousand* citizens that is more than *4.5 times* higher than the total population of all V4 countries combined (*63 879.4 thousand* people; Eurostat 2023).

[24] *"[Through the Visegrad Plus format] the V4 also becomes an important bridge between the Nordic and the Baltic countries, and countries in the Balkans and at the Black Sea. […] The V4 activity provides an opportunity to build up across-the-board cooperation along the north-south axis in the political, economic, transportation […], and energy dimensions. […] Ministers agreed that growth in Europe can be stimulated by strengthening the single market as well as developing energy and transport infrastructure. […] It was highlighted that in order to better use the potential of such co-operation necessary steps should be taken to improve transport and energy connections between these regions." (visegradgroup 2013e)*

[25] The historical east–west axis in Central European geopolitics might be broadened by developing tighter ties to the non-EU countries of the Western Balkans ("WB"). Therefore, since 2009, each high-ranking Visegrad Four summits have addressed WB related questions, and V4-WB foreign ministerial meetings have been organized on a yearly basis ever since (Tóth 2015).

Process tools, Western Balkans Fund, NATO's "Open-Doors" policy etc.) provided by Visegrad Four states, both individually and collectively, to Post-Yugoslav countries and to Albania in order to facilitate the accession process (visegradgroup 2014a).[26]

Visegrad countries can offer their expertise in deepening cross-border cooperation with future EU member states. Central European countries strive to increase their "soft diplomacy" activities in the Western Balkan region through the International Visegrad Fund ("IVF"; visegradgroup 2017c). The European integration of the Western Balkan region is still underway, and one of the major preconditions for accession is the establishment of stable regional partnerships. Western Balkan states might need to adopt a Visegrad format multilateral negotiating forum for a non-compulsory and non-permanent intergovernmental dialogue. The effectiveness of a regional political cooperation does not necessarily depend on the depth of institutional structures. The outcomes of such partnerships could be the results of mere cost-effectiveness analyses. Through its successful security and economic integration, the Visegrad format has become a model to follow by the countries that recently joined NATO and the EU (Bútora 2011).

The cooperation for the best possible utilization of EU cohesion funds has become, again, a field where the four states' individual interests coincided, so they could achieve absolute gains in concert. Besides, food safety and quality issues, migration crises and the related EU policies (although their positions do not necessarily coincide), Schengen policies, EU–Caucasus bilateral relations, cultural and educational, research and development projects have evolved to be other important fields of intergovernmental cooperation within the V4 region. A 2015 public opinion survey pointed out that, in the V4 residents' mind, the four states' EU integration efforts were supported by this regional cooperation format. The Czech Republic, Slovakia, Poland, and Hungary substantially improved their chances of being admitted to the EU by advocating regional cooperation and assisting each other in their efforts to obtain EU membership (Gyárfášová and Mesežnikov 2016).

[26] The Treaty Creating the Transport Community (July 2017) covers road, rail, inland waterway, and maritime transport, as well as the creation of the transport network between the EU and the Republic of Albania, Bosnia and Herzegovina, Kosovo, Republic of North Macedonia, Montenegro, and Republic of Serbia. The Transport Community is an international organization whose main goal is to use a legally binding mechanism to apply the EU's transport market laws, values, and policies to the Western Balkan region (CER Monitor 2019).

When the Visegrad Forum does not prove to be effective enough anymore, the governments involved may opt for using other intergovernmental political means to achieve their goals (Slavkov and Weimar triangles, CEFTA, CEI,[27] Salzburg Forum,[28] the EU Strategy for the Danube Region, and so on). This shift to other international diplomatic *fora* does not mean, however, that these governments wish to quit the Visegrad format cooperation in other fields of their cooperation. These states do not ignore former common achievements when their governments decide that a specific political issue is not to be approached anymore through the Visegrad formula.

In order to have a more subtle vision about V4 railway policies, one must not forget about the centrifugal forces that prevent the elaboration of a uniform, integrated and strong Visegrad railway cooperation. Visegrad states may have a lot of geopolitical, economic, military-security, and cultural-historical features in common, however, they also have slightly different political rationalities prioritizing different strategic objectives. Since 1989, these states have been in competition with one another for Western financial and security aids and resources (Bársony 1998).[29] These markets have thus become competitors in some economic sectors (steel production, automotive industry, or agricultural areas) and on the east–west freight transport market too.

Once the initial recessionary cycles that transition economies endured were over, Poland became the first country in the region to achieve positive real GDP growth since the beginning of the transition process in 1992. The Czech Republic, Hungary, and Slovakia, all saw growth in 1994. Liberalization of international exchange and foreign investment, according to modern development theory, is the foundation for promoting growth in transition economies.[30] As the V4 countries' heavy reliance

[27] At the time of writing, the Central European Initiative ("CEI") is a *17-nation* forum for regional cooperation that was originally launched by Italy, Austria, Hungary, and the Socialist Federal Republic of Yugoslavia as the "*Quadragonale*" in November 1989. The initiative aimed to break down barriers between countries by re-establishing cooperation between states with different political and economic structures. At the time of writing, Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Hungary, Italy, Moldova, Montenegro, North Macedonia, Poland, Romania, Serbia, Slovakia, Slovenia, and Ukraine participate in the CEI partnership (CEI 2023).

[28] On Austria's initiative, the Salzburg Forum was founded in 2000 as a Central European security partnership. Its formation was a reasonable extension of the region's already established strong and required cooperation. At the time of writing, Austria, Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia are all members of the Salzburg Forum (Salzburg Forum 2023).

[29] Prior to the regime changes, economic relations within the region had been a forced interdependent harmonious system of Moscow's satellite states where individual bilateral connections to the Soviet Union had always been more significant than the multilateral relations with one another (Newnham 2002).

[30] Foreign trade flows in transition economies have caused that, between 1989 and 1993, trade between CMEA countries dropped to half; East Europe's speedily reforming economies shifted rapidly to Western markets (especially to the European Union), and market structures changed dramatically because of the decline of intra-regional trade, which mostly affected capital and manufactured goods (Savic 2018).

on foreign capital inflows has made them competitors in the European market, these states have never harmonized their policies in the field of FDI attraction. Domestic markets have become more liberalized and competitive within the European Union. Tariff and non-tariff barriers have been eliminated thanks to the efforts of EU institutions. It has also helped in the dismantling of legal monopolies at the core of nations, such as telecommunications, electricity, and railways.[31]

In a long-term perspective, any inter-state cooperation may be effective if the participating partners choose their partners carefully and do not force the harmonization of political actions where their interests do not necessarily meet. The more the states think about relative benefits, the more a gain for one is seen as a loss for others, making collaboration more difficult. As for foreign investment attraction, competition, is inherent in the European integration and contributes to the development of ECE market economies which may be considered as an absolute gain for all V4 countries (Balogová 2008). Regions compete with one another to attract public funding and private investment, as well as to shape EU policies that suit their specific interests. As a result, promoting regionalism and pursuing regional concerns are in constant conflict. Depending on the topic and political context, regions have a variety of outlets for pursuing these collective and individual issues, each with varying degrees of effectiveness.

All things considered, the governments of the V4 countries are looking at points of convergence, possibilities to reconcile and express their respective individual positions to formulate a joint one. The Visegrad Group has not become a compulsory negotiating forum, nor has it grown to be a well-institutionalized international organization either. The slightly different geopolitical determinations and the constant competition for foreign investors have been some of the major factors that prevented the political elite of V4 countries from finding the attributes necessary for a predominant regional political entity – a better institutionalized cooperation with more willingness to compromise.

The NATO and EU accession of Visegrad countries required increased government interactions between Poles, Czechs, Hungarians, and Slovaks, however, the competition and discrepancies in geopolitical aims prevented them from finding appropriate ways to handle existing conflicts and tensions (Tóth 2018c). ECE states were competing for EU membership in order to ensure political stability and economic benefits, and each of them

[31] Changing the rules regulating competition and ensuring successful competition in practice has led to the development of competitive markets (Thatcher 2001)

were concerned that its accession would be postponed if the other country enters the Community first. One could observe such rivalry between Hungary and Czechia on the one hand, and Poland and Slovakia on the other. Nevertheless, by its successful security and economic integration, the Visegrad format has become a good example, a model that was followed by the other candidates to join NATO and the EU.

2.2. The evolution of railway policy harmonization in the V4 region

This section provides a comprehensive overview of the railway policies that V4 governments followed since their accession to the European Union in 2004.[32] The four states are represented in a number of international railway organizations where global or regional public transport strategies are discussed and decided – with the related decision-making, standard setting and legislative procedures. Specialized EU bodies may also be used as negotiating *fora* if challenges concerning international rail traffic emerge. Having said that, V4 governments normally address railway related topics also at their quadripartite intergovernmental or professional summits. The four ECE countries tend to harmonize their positions on EU railway policies whenever their interests coincide. This section seeks to find answers on how and to what extent the Visegrad cooperation – as a weakly institutionalized regional intergovernmental negotiating platform – may be a useful means for the support of the European Union's efforts to enhance the connectivity and interoperability of the European railway network.

The February 1991 Declaration of the president of the Czech and Slovak Federal Republic, the president of the Republic of Poland and the prime minister of the Republic of Hungary included transport related targets too. The statesmen decided that expanding infrastructure networks linking Visegrad countries, harmonizing their energy systems, expanding cooperation in the field of ecology, and creating adequate conditions for the exchange of knowledge, press, and cultural values were all equally important aims in the striving for European integration.[33]

---

[32] According to a 2015 public opinion survey, a major part of the adult population in each V4 country believed that the Visegrad Group contributed to increase ECE stability by deepening cooperation among these four states in areas such as the environmental policies, regional cohesion, and transport development, among others. The same report shows that V4 residents considered cooperation on transport and energy infrastructure development as a relatively important area of the Visegrad synergies. In 2015, *34%* of Czechs, *27%* of Hungarians, *21%* of Poles, and *37%* of Slovakians ranked the cooperation on transport and energy infrastructure development as one of the three most important cooperation areas of the V4 (Gyárfášová and Mesežnikov 2016).

[33] The pioneers of the Visegrad cooperation agreed that from that date on, their states "shall focus on the development of the infrastructure in communications, with regard both to links between the three

According to 2018 data (the most recent information at the time of writing), *11%* of the EU's population uses passenger train services on a weekly basis. In Slovakia, such proportion is *15%*; in the Czech Republic, this ratio is *10%*; while in case of both Hungary and Poland, such number is *7%.*[34] However, the Czech, the Hungarian, the Polish, and the Slovakian railway systems are heterogeneous as far as certain technical parameters and organizational attributes are concerned, however, the area is characterized by a relatively dense intertwining of transport networks (Bianchini 2009). After the fall of the "Iron Curtain", freight and passenger transport services have predominantly evolved reflecting the routes of the exchange of commodities between the European Communities and the former Eastern Bloc countries. ECE countries provided optimal transportation facilities and as a consequence, low transaction costs for EU-based companies to implement foreign investments.[35] Rail infrastructure needed to be strengthened after the regime changes of 1989-1990 in order to open up V4 markets and draw trade partners to the region. Visegrad countries have undergone significant economic liberalization as well as considerable political transformations to be able to enter Euro-Atlantic organizations. Investment projects in regional transport links have been initiated by EU institutions, bolstering internal trade within the V4 region and its economic ties to other EU member states.[36] Since the 1990's, railway related reforms in ECE thus have basically followed EU requirements and legislation.[37]

The efficiency of train services still ranks below the Communitarian medium in most of the V4 states. If V4 countries wish to close up with their western neighbors, the frequency, the speed and the quality of train services must improve. In addition, the affordability of train services depends on the level of market liberalization, a policy field where Visegrad countries are lagging behind. It is essential to note, however, that market integration dynamics have resulted in a significant spillover at EU levels.

countries and those with other parts of Europe, mainly in the north–south direction, and shall coordinate the development of their power systems and telecommunication networks" (visegradgroup 1991).

[34] The same statistics show that *15%* of Slovakian citizens use train services for national or regional trips at least once a week; while Hungary reported *6%;* in the Czech case it was *5%;* and for Poland such value was only *1%,* as opposed to the EU average *5%* (European Commission Flash Eurobarometer 2018).

[35] In exchange, such investments offered V4 states access to EU markets (Gyárfášová 2003).

[36] The improvement of rail linkages stimulates economic development by boosting business relations and tourism (Dühr 2014).

[37] Visegrad governments have followed EU tendencies and prioritized the channeling of the growing transport demand into rail (DTCP 2014).

2.3. The legal–institutional pillars of the V4 railway cooperation

At global levels, the United Nations Economic and Social Council ("ECOSOC") oversees a variety of commissions and committees in addition to considering the work of the specialized agencies in a broad sense. Until 1959, there was a universal Transportation and Communications Commission, however, by that time, air and sea transportation got their own specialized agencies, while road and rail remained largely regional issues that were coordinated by the Regional Economic Commissions (Luard 1977).[38] Since the 1970s, several European supranational social organizations and committees were formed (Cram 1999) too, including:

- the Standing Committee on Employment (1970),
- the European Foundation for the Improvement of Living and Working Conditions (Regulation 1365/75),
- the Social Problems of Agricultural Workers (74/442/EEC),
- Inland Navigation (80/991/EEC),
- Equal Opportunities for Men and Women (82/43/EEC),
- Railways (85/13/EEC), and
- Road Transport (85/516/EEC)

However, the European Union can boast of the most detailed and comprehensive railway legislation. The EU's First Railway Package was adopted in 2001 and gave railway operators the right to enter the trans-European network on a non-discriminatory basis. This railway *acquis* consisted of three directives originating from the Commission's 1996 white paper on strategies for revitalizing the Community's railways.[39] The Commission conducted an assessment analysis in 2006 and found that the relative position of railway undertakings *vis-à-vis* business entities that provide services related to other transport modes has stabilized, the expected quality of rail traffic safety has been secured or advanced, and the newly established railway undertakings had successfully contributed to the creation of jobs. The practical implementation of the Package's provisions, however, was quite challenging, especially as far as the new EU member states were considered (Tóth 2018b).

[38] In the early 1950s, many developing countries joined the Special United Nations Fund for Economic Development ("SUNFED"). It proposed the creation of an international development authority that would provide grants and loans at low interest rates for capital projects, especially infrastructure projects such as highways, railways, power plants, and other basic services (Luard 1977).

[39] The following three directives constitute the First Railway Package: 2001/12/EC, 2001/13/EC, and 2001/14/EC.

The Second Railway Package (2004) proposed regulations on the safety of the Community's railways, elaborating in detail the due safety certification procedures. The Package contained a new directive on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure, while adding modifications to the rules on the licensing of railway undertakings too. The new regulation amended rules on the interoperability of the trans-European high-speed and conventional rail systems. The Second Railway Package phrased new rules on the development of the Community's railways, and last but not least, it established the European Railway Agency ("ERA").[40]

Member states passing through difficulties with the implementation of EU legislation aiming at improving the competitive position of the railway sector by enhancing the level of interoperability and traffic safety may opt for requesting professional assistance from the different specialized bodies of the ERA.[41] With the adoption of the Fourth Railway Package in 2016, ERA was officially renamed as the European Union Agency for Railways ("EUAR"). From 2019 onwards, the EUAR became an integrated European authority to issue single EU-wide safety certificates to railway undertakings; vehicle authorizations for operation in more than one country; as well as pre-approvals for the European Rail Traffic Management System ("ERTMS") infrastructure (European Union Agency for Railways 2023).

Adopted in 2007, the Third Railway Package introduced open access rights for the provision of international rail passenger services by 2010. It further gave birth to a special European licensing for locomotive drivers, enabling them to circulate on the entire European rail network if certain basic requirements (educational level, age, physical and mental health, driving skills, and so forth) were met. The new legal material embodied paragraphs concerning the strengthening of rail passengers' rights.[42]

---

[40] The following legal acts constitute the Second Railway Package: 2004/49/EC, 2004/50/EC, 2004/51/EC, and 881/2004

[41] By the 2010s, a considerable amount of *"agencification"* has occurred in many EU policy areas. More than *30* EU agencies have been launched, with responsibilities ranging from pharmaceutical regulation to electricity, food protection, the environment, railways, border control, fundamental rights, and police and judicial cooperation. The growth of EU agencies is strictly linked to the gradual expansion of both the aim and depth of EU competences, which necessitated EU-wide rule enforcement surveillance, as well as information collection, knowledge building, and cooperation facilitation. Since member states did not intend to entrust these responsibilities to the European Commission, they opted to delegate authority to autonomous EU agencies (Pollak and Slominski 2015).

[42] The following legal acts constitute the Third Railway Package: 2007/58/EC, 2007/59/EC, EC Regulation 1370/2007, EC Regulation 1371/2007, and EC Regulation 1372/2007. Based on the most recent available Eurobarometer data (2018), at the time of writing, *66%* of the Community's population is satisfied with the frequency of trains. The Czech and the Slovak satisfaction rates stand above (*72%* and *75%,*

In 2012, the recast of the First Railway Package, the so-called Single European Railway Directive laid down rules regulating the use of railway infrastructure for domestic and international rail services (e.g., the collecting of railway infrastructure charges, capacity allocation, criteria applicable to the issuing, renewal or amendment of licenses, and the management of railway infrastructure).[43] With the aim of revitalizing the sector and making it more competitive *vis-à-vis* other transportation modes by the liberalization of domestic passenger rail markets and long-term maintenance contracts, the Fourth Railway Package (2016) completed the single market for rail services: the Single European Railway Area. By significantly reducing costs and administrative burdens for railway undertakings, the legal package's technical pillar was intended to support the competitiveness of the railway sector (European Commission 2023).[44] Inside the EU, domestic markets have become more liberalized and competitive. Thanks to the efforts of EU organizations, barriers have been removed. It has also aided in the deregulation of legal monopolies like railways. The emergence of competitive markets has resulted from changing the rules governing competition and ensuring effective competition in practice.[45]

The Fourth Railway Package's market pillar meant the final legal step towards market opening, originally initiated in 2004, by the First Railway Package. Once the member states harmonize their national legislation with the new European railway *acquis*, undertakings established in one member state will be allowed to operate all types of passenger services in any other country within the EU. In addition, in order to prevent discrimination, the new set of railway regulations introduced the principle of mandatory tendering for public service contracts.[46] Visegrad governments supported the new legal act, and the document was unanimously adopted in 2016 (visegradgroup 2012).[47]

---

respectively), while the Hungarian and Polish numbers are below EU average in this regard (*51%* and *60%,* respectively; European Commission Flash Eurobarometer 2018)

[43] "In order to render railway transport efficient and competitive with other modes of transport, member states should ensure that railway undertakings have the status of independent operators behaving in a commercial manner and adapting to market needs." (Official Journal of the European Union 2012)

[44] The harmonization of differing national legislations according to the European railway *acquis* makes it possible for business entities established in one member state to operate all types of passenger services in any other EU country.

[45] The European Commission has also helped the multiplication of independent regulatory authorities, provided re-regulation laws, and given impetus to privatization in some cases (Thatcher 2001).

[46] The following legal acts constitute the Fourth Railway Package: EC Regulation 2016/796, EU Directive 2016/797, EU Directive 2016/798, EU Regulation 2016/2338, Directive 2016/2370/EU, and EU Regulation 2016/2337.

[47] As it detailed in *Chapter 3,* the liberal intergovernmentalist integration theory assumes that the principal drivers for the deepening of cooperation among states are more exogenous than endogenous. The pursuit

The European Union's Structural Funds have given an important stimulus to regional policies since the 1990s. The usage of such financial tools of the EU have been linked to strict regulatory requirements that have spilled over into domestic and regional policies (Bachtler *et al.* 2011). Therefore, it is essential to investigate, analyze, and understand the outputs, results and impacts of different EU-funded V4 regional development programs at different stages of the spending cycle. The national and regional authorities managing the Structural Funds and its different projects across the EU have been required to comply with Communitarian evaluation obligations in planning and commissioning assessment studies. If states intend to avoid friction within a certain group of countries, rules are needed for the formation of partnerships. Specific EU bodies would assume responsibilities to monitor the working of the cooperation (Dewatripont *et al.* 1995). In the 1990s, the European Union provided a significant stimulus to evaluation activity in the field of regional policy through the Structural Funds regulations, which allowed EU member states and the European Commission to assess the outputs, outcomes, and impacts of regional development programs at various stages of the spending cycle. These EU regulatory requirements have had spillover effects on domestic regional policy assessment, which has become much more common in Europe especially in those member states that joined the EU in 2004 or afterwards (Bachtler *et al.* 2011).

Furthermore, a number of business entities operating in the railway sectors of Visegrad countries have membership in the International Rail Transport Committee ("CIT"), which is an association of international railway passenger and/or freight services provider enterprises that helps such entities implement international rail transport law.[48] In order to facilitate the provision of international business services, railway infrastructure operators and capacity allocation bodies registered in Visegrad states joined RailNetEurope ("RNE") in 2004.[49] As far as the individual railway undertakings of V4 countries are considered, the major ones became members of the Belgium-based lobby

---

of economic interests (the unification process of the European railway network and the related services) is one of these external fundamental forces underlying integration (Moravcsik 2005).

[48] At the time of finalizing this paper, the following V4 companies have CIT membership: the Czech railway transport company České Dráhy (ČD) and freight services provider IDS Cargo; the Hungary-based railway passenger transport companies MÁV-Start and GySEV, as well as the cargo shipping entities CER Hungary, FLOYD, FOXrail, GySEV Cargo, Magyar Magánvasút (MMV), Metrans Danubia, and Train Hungary Magánvasút, and Train Europe; the Polish PKP and the freight companies CTL Logistics and Koleje Dolnośląskie; as well as the Slovakia-based Retrack Slovakia, Central Railways, Express Group, I.G. Raol, LOKORAIL, LTE Logistika Transport Slovakia, METRANS Danubia, Prvá Slovenská železničná, Railtrans International, ŽSSK and ŽSSK Cargo (CIT 2023).

[49] As an umbrella organization, RNE provides support for its members in the compliance with the European legal framework.

organization, the Community of European Railway and Infrastructure Companies ("CER") that represents the interests of European railway operators and infrastructure companies all through EU policy making procedures.[50]

Figure 3: EU Railway Packages (Source: European Commission 2023)

EU Railway Packages				
	Technical elements	**Market elements**	**Adoption**	**In force until**
1st Railway Package	Development of the Community's railways (2001/12/EC, later replaced by 2012/34/EU)		2001	2015
	Licensing of railway undertakings (2001/13/EC, later replaced by 2012/34/EU)			
	Allocation of railway infrastructure capacity (2001/14/EC)			Present
	Levying of charges for the use of infrastructure (2001/14/EC)			
2nd Railway Package	Railway Safety Directive (2004/49/EC) - Amending 2001/14/EC		2004	
	Interoperability of trans-European high-speed and conventional rail systems (2004/50/EC, replaced by 2008/57/EC)			2010
	Development of the Community's railways (2004/51/EC)			Present
	Establishment of the European Railway Agency (EC Regulation 881/2004)			
3rd Railway Package	Development of the Community's railways (2007/58/EC, replaced by 2012/34/EU)		2007	2015
	Certification of train drivers (2007/59/EC)	Public passenger transport services by rail (EC Regulation 1370/2007)		Present
		Rail passengers' rights and obligations (EC Regulation 1371/2007)		
		Organization of a labor force sample survey (EC Regulation 1372/2007)		
4th Railway Package	Establishment of the European Union Agency for Railways (EU Regulation 2016/796, see EC Regulation 881/2004)	Opening of the market for domestic passenger transport (Regulation 2016/2338, see 1370/2007)	2016	
	Interoperability of the rail system within the EU (Directive 2016/797)	Governance of the railway infrastructure (Regulation 2016/2370, see 2012/34/EU)		
	Railway safety (Directive 2016/798, see 2004/49/EC)			
		Rules for the normalisation of the accounts of railway undertakings (Regulation 2016/2337)		2017

[50] Czechia is represented in CER by ČD and infrastructure manager SŽDC. The Hungarian CER members are the national railway company MÁV, the Hungarian–Austrian GySEV, the railroad capacity allocator VPE, as well as the railway association HUNGRAIL. Poland's CER undertakings include the national railway company PKP and the rail freight business operator Rail Polska. Slovakia is represented by its rail infrastructure manager ŽSR and the national rail passenger operator ŽSSK, as well as the freight services provider ŽSSK Cargo. (CER 2021)

2.4. V4 endeavors to implement the Community's railway *acquis*

Prior to the 2004, responsible V4 ministers have agreed to support all activities aimed at boosting the integration of the region's railways into the European transport network, as they believed it was important to promote the forwarding of trains participating in combined transport with simpler border crossing controls. The ministers decided to make efforts to secure financial contributions from the EU for the completion of railway projects linked to the corridors, and they invited national railway companies to extend their cooperation in this field (Tóth 2018b).

V4 governments encouraged closer partnership between the region's railway companies to enhance the quality of services and cooperation in the areas of tariffs, timetables, and marketing, as well as to establish better conditions for combined transportation. Meetings of transport experts were held during the Slovak Presidency in 2002–2003 with the aim of promoting the forwarding of trains participating in combined transport and establishing border-crossing cooperation, as well as exchanging information on the use of targeted transport EU funds and the introduction of the related *acquis communautaire* (visegradgroup 2003). As far as the post-EU integration V4 policies are concerned, on the Čejkovice Transport Ministers' Summit (February 2004), representatives of the four governments agreed that they would continue the rail experts' cooperation in the field of railway and combined transportation even after entering the European Union. From that date on, joint V4 transport related efforts have focused on the following three priority areas:

- partnership for the gradual implementation of the interoperability of goods and passenger rail transport;
- collaborative process for speeding up goods train forwarding at border stations;
- exchange of knowledge EU Railway Packages

Therefore, the ministers decided to continue the activities of *ad hoc* bilateral expert groups aimed at coordinating the planning and implementation of cross-border projects by V4 states in the field of the Trans-European Transport Network ("TEN-T") project preparation and implementation. Each V4 ministry were asked to nominate cross-border connection experts, to create permanent contact ties between those experts, and to hold meetings to identify actual cross-border corridor problems (visegradgroup 2004c).

The 2004–2005 Polish V4 Presidency gave birth to a railway working experts group introducing regular meetings of professionals. The aim was to boost railway cooperation and combined transport links in the area (visegradgroup 2005). The first expert group

meeting had a particular focus on the gradual implementation of the interoperability of goods and passenger rail transport (Second and Third Railway Packages).[51] In order to strengthen macroeconomic cooperation in the region, V4 railway experts delineated a joint procedure in accelerating the forwarding of goods trains at border stations. Railway professionals from the four countries also exchanged views on the development of appropriate north–south transportation routes and on the European Commission's legislative packages proposed with the aim of constructing an integrated European Railway Area, that was completed by 2016 (visegradgroup 2004c).

Czech, Hungarian, Polish, and Slovak professionals found that by establishing the ERA, as a provider of technical support for railway safety and interoperability, the Second Railway Package would definitely accelerate the liberalization of rail freight services, however, they requested that the opening of the rail freight market to competition, as from January 2007, would happen in line with the interests of their relatively weak economies (visegradgroup 2004c.).[52]

The 2005–2006 Hungarian V4 presidential term arranged expert meetings in the fields of combined transport of goods, traffic safety, and railway transport issues, among others. The results and conclusions of such platform sessions were officially discussed on the annual four-party ministerial meeting. The governments of the four countries acknowledged that sectoral cooperation was primarily aimed at fostering modernization in the region, assisting the growth of often underdeveloped territories along the V4 countries' shared borders, and reducing the dividing effect of state borders, which hindered economic cooperation. Cross-border cooperation schemes and actual projects were further supported using available public resources, including the exploration of EU funds for local government and entrepreneurial initiatives, especially in the field of regional transportation infrastructure financing and investment promotion (visegradgroup 2006).

The focus of the rail sector related endeavors during Slovakia's 2006–2007 V4 presidency was on cooperation related to traffic safety issues, exchanging the experiences about using cohesion and structural funds in the area of infrastructure (including public–private partnership projects), as well as in the field of electronic communication systems.

[51] The removal of border controls has greatly improved the quality of the transportation systems while also lowering prices and delivery times for goods distribution within the Community (Spachis 1998).
[52] As EU member states, V4 countries may opt for requesting professional assistance from the European Union Agency for Railways with regards to the implementation of EU railway legislation.

Therefore, apart from the usual annual meeting of V4 ministers responsible for transport issues, in 2007, informatics and telecommunications ministers also held a high-level negotiation. That presidential term meant a landmark, inasmuch as by that time, one could observe that the railway related cooperative actions started to involve every time more policy areas, above that of employment policy and social affairs. The development of the region's cross-border transport infrastructures became integral part of these four states' endeavors to promote integrated international labor markets, local employment and business initiatives, and the creation of cross-border organizational networks – fulfilling the objectives of the 2007–2013 programming period for EU development funds (visegradgroup 2007a).[53]

The implications of the Third Railway Package (2007) were discussed at the V4 transport ministers' informal meeting during the 2008–2009 Czech Presidency (visegradgroup 2007b). The delegates agreed that the harmonization of the member states' different railway regulations was beneficial for their countries, and they started to cooperate closely in the implementation of such legislative initiatives of the Commission. Cooperation in the development of rail transport, especially high-speed travel, and concerted efforts to link the railway networks of EU's old and new member states were among the Czech Presidency's core transportation priorities. As a result, the four governments have begun consultations on the liberalization of international and, where possible, national rail transport, as well as the transfer of legislative expertise in the field of public transportation (Tóth 2018b).

Quadripartite consultations have been launched on public transportation measures to be introduced by new Communitarian legal structures, particularly with regard to the introduction of competition into public transportation. The V4s continued to promote joint efforts in combined transport policies and the hunt for ways to remove barriers to combined-transport train movement across V4 territory. Further, the Czech Presidency also made it clear that the Visegrad Group's transportation activities would be focused on collaboration with other Central European countries, such as Austria. A sharp shift from old Visegrad mechanisms was that the evergreen topics of joint coordination of activities related to infrastructure construction and insuring interoperability of rail infrastructures and operations were channeled to the European

[53] Further to the broadening of integration areas, in 2007, V4 governments agreed that the EU's environmental policies needed to be significantly amended, with special regards to transportation, agriculture, forestry, and energy policies (visegradgroup 2007c).

Commission's committee on interoperability and safety (visegradgroup 2007b). In order to guarantee the competitiveness of the railway market and the independent status of operators, the Single European Railway Directive (First Railway Package) of 2012 compelled V4 governments to found national authorities (or reorganize excising regulatory bodies) to safeguard the lawful operation of railway entities.[54]

During Czechia's and Poland's 2007–2008 and 2008–2009 V4 presidencies, transport ministers held official negotiations and informal discussions on their positions towards the proposed EU rail legislative proposals. Ministerial transport experts collaborated in the framework of the joint V4 transport working group discussing questions related to rail and combined transport, traffic safety, international goods terminals, pan-European transports corridors, and the revision of TEN-T priorities. Recognizing the importance of strengthening economic ties, the Polish government worked to strengthen economic, commercial, and transportation cooperation within the European Union's Neighborhood Policy (visegradgroup 2008a; b). During the 2007–2013 programming cycles, Poland's Ministry of Regional Development focused on issues related to the programming and future of the Cohesion Policy: conditions of implementing regional programs co-financed from the European Regional Development Fund in the areas of transport, environmental security, rural areas, land re-cultivation, and housing were given special attention (visegradgroup 2009a).

In the field of the railway transportation sector, the 2009–2010 Hungarian presidency focused on continuing consultations on the ERTMS' existing state and future plans. V4 governments maintained the existing system of consultations on draft legal documents developed at EU level. In that period, the platform's cooperation was complemented with joint actions in combating robberies of non-ferrous metals that damage essential railway infrastructure (visegradgroup 2010a).

[54] The Transport Infrastructure Access Authority of the Czech Republic *(Úřad pro přístup k dopravní infrastruktuře)* has been acting as a regulatory body, an independent supervisory authority, and conciliation body (for the European electronic toll services) since April 2017. The Hungarian National Transport Authority's Department of Railway Regulation *(Nemzeti Közlekedési Hatóság Vasúti Hatósági Főosztály, "VHF")* was founded in 2014 as Hungary's railway infrastructure licensing authority responsible for staff training, rail traffic security, urban and national rail infrastructure, as well as mechanical and electrical issues. Poland's Office for Rail Transport *(Urząd Transportu Kolejowego)* was established in 2003 to safeguard the cohesion of the rail system and supervising the technical solutions that may affect rail traffic and rail system safety, regulating and licensing the rail transport market, supervising the operation and maintenance of railway lines and vehicles, ensuring traffic safety, and the observance of passenger rights, as well as issuing train driving licenses and certificates. Slovakia's Transport Authority *(Dopravný úrad)* was established in 2014 as an administrative body responsible for regulations in the area of railways and other guided transport, civil aviation and inland waterway transport.

During the 2010–2011 Slovakian Presidency, the V4 countries' transport ministries pursued further quadripartite coordination to form a common position at the preparation phase of the new EU White Paper on European Transport Policy as they had shared visions and goals as far as the TEN-T regulations and construction plans were considered. They increased their support for the construction of international rail freight corridors within the TEN-T system, and joined forces to fasten the deployment of the ERTMS in the region.[55] V4 ministers also stressed the importance of potential EU funding (Cohesion and Structural Funds) being available for the entire TEN-T network in order to account for various starting points and country specificities, with the aim of establishing an infrastructure development plan for all member states that supported growth for all. More importantly, with the 2011 Bratislava Declaration, V4 prime ministers reaffirmed their commitment to promote the rapid development of the V4 countries' transport infrastructure, boosting growth, accessibility, and cross-border cooperation (visegradgroup 2011c).

In the course of the Visegrad Group's 2014–2015 Slovak and 2015–2016 Czech Presidencies, the Four Countries' railway cooperation – and the related expert's meetings – concentrated mainly on the impacts of the Fourth Railway Package: the application of tariff policies in international and domestic passenger transport, as well as railway infrastructure access fees (visegradgroup 2015e; 2016a). As mentioned above, with the intention of accelerating the integration of the whole European rail network, the Fourth Railway Package introduced measures aimed at removing existing administrative and technical barriers. Visegrad countries in general supported the new legal act, however, in the beginning, they were concerned about the revision of the rules on access to the road haulage market in order to further lift the restrictions to road cabotage in the EU (Council of the European Union 2013). Either way, the EU's Fourth Railway Package was unanimously adopted in 2016.[56]

[55] According to Mikuláš Dzurinda, former foreign affairs minister (2010–2012) and prime minister (1998–2006) of Slovakia, the V4 faced great future in terms of bolstering energy efficiency, building a robust transportation system, and advancing cohesion policies (Balogová 2010). The governments of Visegrad countries shared their complete understanding of the value of the external dimension of European transport policy. They urged special attention to the growth of north–south and west-east multimodal links, as well as the incorporation of eastern and south-eastern neighboring countries into the European Union's main transport network. In their view, the establishment of a cohesive ECE network could promote social and economic stability and establish the foundations for an efficient single market in the region (visegradgroup 2011b).

[56] With the aim of guaranteeing the security of passengers travelling by train, especially on international routes, the national railway companies of all Visegrad states are members of RAILPOL, an international network of organizations responsible for policing the railways in EU member states. RAILPOL was

V4 ministries (responsible for transport policies and state infrastructures) and a number of business entities operating in the railway sectors of Visegrad countries are members of specialized international associations and/or organizations like for example the International Rail Transport Committee or the Intergovernmental Organization for International Carriage by Rail ("OTIF"). Both entities help its members implement international rail transport law. There are two very clear illustrations of railway unification within the EU too. Firstly, it is essential to mention the endeavor to create a network of internationally coordinated transport corridors that run across various member states with differing technical parameters used for rail traffic operation. Secondly, the member states' efforts to introduce standardized and unified traffic management and train control systems (ERTMS and its signaling-command element, the European Train Control System – "ETCS") for train operations on all the major European railway lines also leads towards stronger cohesion among EU regions (by significantly shortening travel times, decreasing operational costs, enhancing traffic security, boosting business relations and tourism, creating stronger social linkages, etc.).[57]

2.5. Intergovernmental efforts to integrate ECE rail networks

Nowadays, the East Central European railway network is characterized by three main common features. Firstly, the railroad network to some extent still represents the transportation planning needs of the former Austro-Hungarian Dual Monarchy ("Austria–Hungary") as the core of the track system of the region was originally laid down in the second half of the 19th century.[58] During that era, economic and trade networks of great significance were born in large numbers primarily due to the expansion of transport possibilities via railways. Prague, Vienna and Budapest became hubs

founded in 2010 in order to enhance and intensify international railway police cooperation to prevent threats and guarantee effective measures against cross-border criminal acts committed on trains or rail routes (Railpol 2023).

[57] At the time of writing, the European Train Control System is in operation on *10 075 km* of railway lines, with *6 859 km* belonging to the core network. In a March 2021 *communiqué*, the lobby organization named Community of European Railway and Infrastructure Companies stated that deploying the entire core network of the EU *(63 715 km)* with safe and reliable infrastructure by 2030, as well as securing the necessary funding, remained a significant challenge (CER 2021).

[58] As a result of the introduction of new manufacturing technology, the Industrial Revolution created new urban cities as opposed to rural village life, new technologies for mass-market delivery of products, and new technologies for organizing and controlling large businesses containing hierarchies of people of varying skills and intellect. These changes culminated in the "second industrial revolution", which took place around the turn of the century and focused on the internal combustion engine, gas and electricity, mass urban transportation by rail, bus, and car, mass media by newspaper and radio, advertisement, and the growth of department stores and chain stores (Johnson 1975).

for connections to the Baltic and the Adriatic ports.[59] ECE has henceforth been characterized by a relatively dense intertwining of transport networks. After the 1840's, Budapest became the railway hub of the Kingdom of Hungary within the Dual Monarchy, covering major part of the Carpathian Basin including the territory of modern days Slovakia (Bianchini 2009). The drawing of new state borders after the First World War interrupted the original evolution of rail infrastructures in the region (Tóth 2018a).[60]

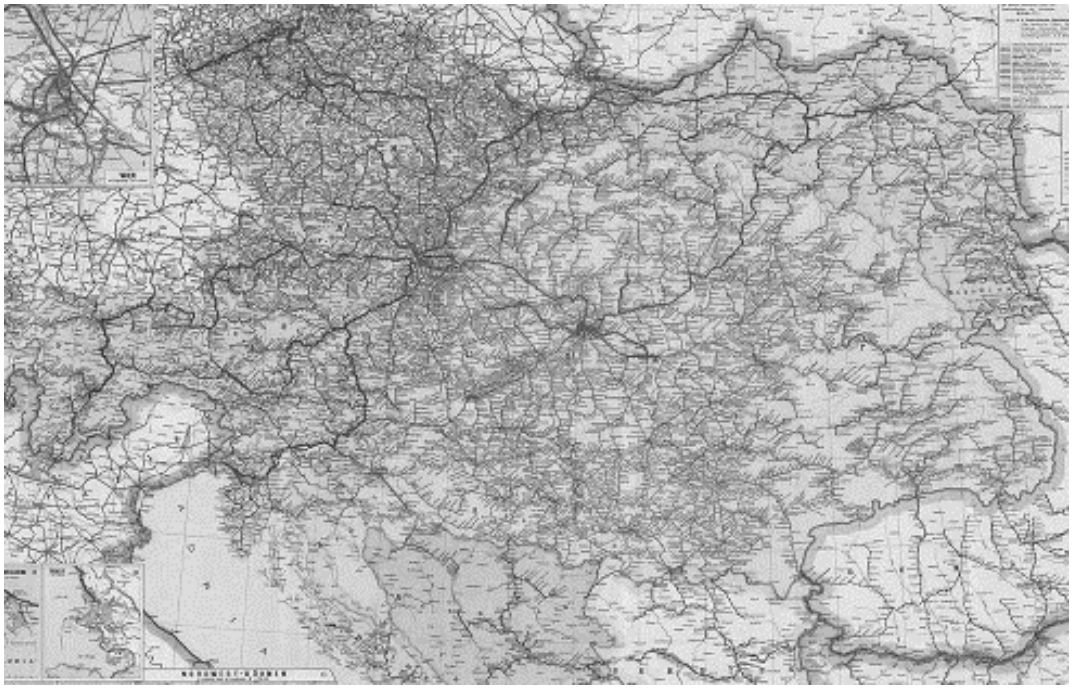


Figure 4: Railway map of Austria–Hungary (1913; Source: BahnMedien Bahnhistorische Publikationen 2023)

Secondly, the heavy industrialization and the socialist type planned political-economic systems coerced on Czechoslovakia, Hungary, and Poland in the Cold War era (1945–1989) forced the development of rail traffic primarily in the direction of the Union of Soviet Socialist Republics ("Soviet Union" or "USSR"), while the railway lines heading towards Western European countries became less prioritized. The post-war relationship among the so-called socialist states in the ECE region was predominantly characterized by isolation: many of the old Austro-Hungarian rail connections had lost of their significance or ceased to be functioning, while most of the relatively busy railway links led exclusively towards the Soviet Union.[61]

[59] Bratislava was important for its position between the Austrian and the Hungarian capital cities, while Warsaw was situated in the so-called "corner of the three empires" where Austria–Hungary, Russia, and Germany shared a common border and became strategically crucial for international carriage.

[60] After the dissolution of Austria–Hungary, successor states nationalized former imperial rail infrastructure's sections located within their freshly-drawn borders (Garber and Spencer 1994). In addition, the railway infrastructure of all the ECE states suffered immense damages during the two World Wars.

[61] Prior to the 1989 regime changes, Hungary and the Czech Republic had well-developed rail manufacturing industries, therefore these states supplied rolling stock material to other Eastern Bloc

And thirdly, after the fall of the "Iron Curtain", all other transportation modes have been developed on a determined east–west axis reflecting the routes of major freight movements between the European Communities and the former Eastern Bloc countries. These *a priori* factors provided the background for the railway policies of ECE countries through the past 100–150 years and still determine the future advancement of the sector.

By the second half of the 2010's, trade links between Europe and the Far East are slowly shifting from road or maritime routes to rail. The roughly *10 000 km* distance between Chinese and EU ports may be covered in *15 days* by train through the Trans-Siberian route, as opposed to an average maritime trip of *30 days* (Farkas *et al.* 2016). Thus, the common V4 goal is to forward more goods on the railways (CER Monitor 2019a).

Because of their advantageous geographic location, the rail networks of the Visegrad countries are important parts of the European transportation market. Given their landlocked positions (with the exception of Poland) and the growing level of Asia–Europe rail traffic, the strengthening of these countries' railway ties with Eastern Asian countries is unquestionably beneficial to the region's international trade balances. To decrease energy consumption and environmental pollution, Visegrad governments follow EU tendencies and adopt new transport policies giving special focus to the channeling of the growing transport demand into more environmentally friendly modes (DTCP 2014). The most important event organized under the 2011–2012 Czech Presidency was the V4+ Transport Ministers meeting in March 2012 attended by the Vice-President of the European Commission and Commissioner for Transport, transport ministers of V4 countries, Slovenia, Romania, Bulgaria, Lithuania, Latvia, and Estonia, where TEN-T revision and Connecting Europe Facility ("CEF")[62] development were the key topics of discussion (visegradgroup 2012). The agenda of the 2012–2013 Polish and the 2014–2015 Slovak Presidencies of the Visegrad Group deepened the railway cooperation by the promotion of exchange of experiences concerning the opening of the market for domestic passenger rail transport services (visegradgroup 2012; 2015a).[63]

countries. In exchange, iron ore transports from the USSR dominated the freight traffic movements in the area, especially after the opening of important metallurgical centers (Savchuk 2014).

[62] CEF is an EU funding instrument promoting growth, jobs creation, and competitiveness through targeted infrastructure investments, including the development of trans-European transport, energy, and digital services networks.

[63] Founded in 2010, LEO Express is the first private passenger train services provider in the Czech Republic. It operates trains also in Austria, Germany, Hungary, Poland, Slovakia, and Ukraine. Since 2011, another

Transport cooperation demonstrates how common ideals and political will can overcome divergent economic interests within the V4. The V4s have determined that the construction of north–south transportation links is critical to achieve EU cohesion policy objectives. The enlargement of the EU to ***25*** members in 2004 reinforced the need for the creation of trustable corridors and logistics terminals. Incumbent Visegrad governments have followed EU tendencies and prioritized the channeling of the growing transport demand into rail (DTCP 2014). By doing so, statespersons had to decide whether to compete or cooperate as far as the creation of freight transport routes in the ECE region was considered. From 2012 on, V4 presidency programs have included general discussions on the construction of future high-speed passenger rail lines ("HSRs") in the region (visegradgroup 2013d; e; f). Given the need for a fast north–south train service, during their February 2016 bilateral negotiations, the prime ministers of Hungary and Poland agreed to improve rail connections between their countries (visegradgroup 2016d).

In 2013–2014, as part of the Polish Presidency programs, the V4s established a shared stance for EU strategic documents on rail transport (revision of the First Railway Package and liberalization of domestic passenger rail markets in accordance with the Fourth Railway Package) and held consultations on the implementation of EU regulation concerning a European rail network for competitive freight. In the same presidential term, V4 governments came up for the first time with the idea of sharing their views on constructing high-speed rail lines in the area. The 2013–2014 Hungarian and the 2014–2015 Slovak Presidencies of the Visegrad Group proposed to examine common opportunities and methods with respect to preserving the 2014–2020 value of EU rail funding.[64]

Grants account for the majority of the funding supported by European structural and investment funds. Cohesion policy was based on 11 thematic priorities in the 2014–2020 Multiannual Financial Framework, with sustainable transport and network infrastructure being one of them. The key sources of funding for this thematic goal were the Cohesion Fund and the European Regional Development Fund ("ERDF").

private entity named RegioJet has also been providing regular passenger railway services in the Czech Republic and Slovakia.

[64] During the 2013–2014 Hungarian V4 presidency, the parties looked into the possibility and method of working together in order to keep the importance of EU rail funding from 2014 to 2020, with special focus on their interests towards the proposed completion schedule of the TEN-T rail network, including the developments of border crossings, connecting sections, technical parameters and line interoperability.

The member states and the European Commission jointly control the Cohesion Fund and the ERDF by cooperation arrangements, with a portion of the Cohesion Fund being channeled directly through the CEF.[65]

The 2013–2014 Hungarian V4 Presidency's annual report claims that the EU-accession did not magically close the development gap between Europe's regions; Visegrad countries were in need for effective cooperation to achieve results at the negotiating tables in Brussels on issues such as cohesion policy, energy and transportation infrastructure development, economy, and shared foreign and security policy (visegradgroup 2014b).[66]

During the 2014–2015 Slovak V4 presidency, the four parties paid attention to solving the problem of the bottlenecks in ECE and promoting the creation of a network of hubs combining road, rail, inland waterway, and air transport. Governments of the Visegrad states have realized that the elimination of bottlenecks in the region's network might be useful in exploiting its potential in terms of mobility. Numerous railway investment programs in Europe seek to eliminate infrastructure bottlenecks, allowing for shorter travel times and more trains (DTCP 2014). Besides continuing the coordination of HLWG, the Slovak Presidency worked to align V4 positions on EU Transport Policy for specific modes of transportation, including the formation of potential joint positions on actual Communitarian legislative initiatives or strategic documents with a focus on

- enhancing collaboration and coordination in the submission of project proposals for effective CEF funding, especially for cross-border transportation projects within the TEN-T core corridors; and
- exchange of the lessons learned from the implementation of EU-funded transport development infrastructure projects during the 2007–2013 and 2014–2020 programming periods.

Another important element in Bratislava's V4 Presidency was a general debate on the future of the high-speed rail network within the V4, where the parties made reference to the importance of north–south high-speed rail links in the region. A future high-speed railway grid connecting V4 countries would contribute to regional integration (amid social and economic development) and to the creation of a sustainable international

[65] When one looks at the distribution of CEF transport funds to rail investments per member state and target, it can be seen that in the given time frame Poland received the lion's share of the funding. Poland receives more financing per line kilometer than any other EU member state (European Commission INEA 2023).

[66] Visegrad Group economies have benefited from EU transfers, however despite the importance of the financial assistance provided to them, the gap between the East Central European member states and the most developed EU countries has not shrunk throughout the years, as far as economic performance is considered (Schmidt 2016).

mobility network. A high level of connectivity increases the standards of living by impeding the emigration of the local workforce from the region, supporting the creation of new workplaces and by attracting new investments (Nagy 2016). The Slovakian government initiated joint V4 cooperation in exploring common possibilities and methods for maintaining the level of railway financing by the European Union in the 2014–2020 budgetary period, with special regards to the development of cross-border line sections and missing links, boosting their technological parameters and the interoperability of the network (visegradgroup 2015a).[67] Visegrad governments agreed that one of their main tasks to reach the global goals set in 2015 by the United Nations General Assembly's "2030 agenda for sustainable development" would be the construction of missing transport links with the aim of contributing to higher regional competitiveness (Statistical Office of the Slovak Republic 2019).

The 2014–2015 Slovak Presidency of the Visegrad Group paid attention to the traffic problems caused by the bottlenecks in the V4 area. In the area of rail transport the Slovak Presidency strived to coordinate the works of the High Level Working Group ("V4 HLWG") on transport connections between the Visegrad Group countries with the aim of implementing the November 2013 V4 agreements facilitating cross-border rail traffic.

As for cross-border traffic, a forum was established for sharing information on the implementation of cross-border transportation projects and the links that go with them, both within the V4 and with neighboring countries (visegradgroup 2016a). The Visegrad Group's Czech Presidency between 2015 and 2016 also dealt with the possibilities of improving the railway transport both with respect to the infrastructure and the quality of lines amongst the V4 countries.[68]

[67] The V4 ministers for transport, growth, and EU funds have requested that the European Commission consider including their HSR project in the updated TEN-T regulation, as it clearly demonstrates European added value corresponding to EU priorities such as boosting cross-border connections. V4 ministers invited the European Commission, the Council, and the European Parliament to a discussion about potential transport project financing mechanisms related to the completion of the TEN-T network's elements that cross the Visegrad area, with the aim of achieving an agreement that would enable them to make the most productive and cost-effective use of the opportunities and financial resources of the EU budget (visegradgroup 2019c).

[68] As far as the TEN-T projects were concerned, several V4 HLWG meetings were held focusing on the progress achieved related to the implementation of cross-border rail traffic agreements set forth under the Hungarian V4 presidency in 2013–2014 (visegradgroup 2015). In their 2014 memorandum of understanding the V4 governments agreed that while major improvements in network efficiency could be achieved during the financial program for 2014–2020, by the end of that budgetary period significant missing links in a coherent transport network between Visegrad countries could still exist (visegradgroup 2014c).

In a 2014 memorandum of understanding, the Visegrad countries' governments acknowledged that a long-term well-functioning effective transportation system was a necessary component of a competitive and expanding economy. They also admitted that the Visegrad Group achieved a much better role in the negotiations on the European Union budget and the rules for using European financial sources for transport development than any of the Visegrad countries might achieve individually. V4 decision-makers stressed that developing transportation links in a harmonized, thorough, and structured manner was more efficient than developing individual transport components. The ECE politicians decided that further measures needed to be taken to coordinate the potential creation of transportation networks, including the region's north–south links, and that solid shared solutions had to be worked out before the EU's financial planning negotiations.[69]

The four countries agreed to create a joint list of high-priority transport infrastructure projects, with the aim of presenting it together during the EU's upcoming financial planning negotiations and the revision of the TEN-T network (visegradgroup 2014c). In addition, the creation of cross-border traffic routes promotes and prioritizes community spirit over national interests, giving rise to European added values. In November 2010, V4 transport ministers affirmed that TEN-T projects should respect the principles of subsidiarity, ensure good quality road and rail infrastructures connecting underdeveloped regions within EU member states to provide geographically balanced access to the major transport corridors of the Community.[70]

Rail Freight Corridors ("RFCs") are another prominent tool of international rail transport cooperation. In 2012–2013, the Visegrad governments elaborated a common position on the implementation of EU regulation N. 913/2010 that created a competitive European rail freight network. The list of initial routes included five RFCs crossing V4 territories responding to concrete operational and market-driven demands. The RFCs are cross-border governance structures involving ministries, infrastructure managers, railway undertakings, and logistics terminals. The RFC network covers routes outside

[69] A multimodal TEN-T system equipped with innovative transport technologies strengthens the internal market, increases competition, generates higher employment rates, reduces congestions, cuts emissions of greenhouse gases and boosts transport safety and speed. Since their accession to the EU, V4 states have supported undertakings designed to strengthen the cooperation in the areas of Pan-European corridors (visegradgroup 2008a; b).

[70] The ministers promised they would act together to strengthen the mobility of citizens and the cross-border cooperation with the European Parliament and the European Council during the process of making operational the initial freight corridors (visegradgroup 2018a).

of the TEN-T network too (Carvalho *et al.* 2018). The Program of the Polish Presidency of the Visegrad Group from 2012 to 2013 included the elaboration of a common V4 position on the implementation of EU regulation n. 913/2010 concerning a European rail network for competitive freight. The creation of an internal rail market, in particular with regard to freight transport was found to be an essential factor in making progress towards sustainable mobility within the European Union.[71] The list of initial freight routes included five RFCs crossing the territories of V4 countries responding to concrete operational and market-driven demands. The creation of cross-border traffic routes promotes and prioritizes community spirit over national interests, giving rise to European added values. However, as opposed to RFCs, TEN-T policies follow top–down tendencies in a sense that initiatives, the elaboration works, and the decisions related to the creation of such lines are all normally made by EU bodies primarily based on community interests. The following chapter provides a theoretical "well-boring" on these top–down and bottom–up directions of international decision-making with special regards on political spillovers.

[71] Therefore, the Commission proposed important steps in the creation of the internal rail market with the regulation n. 913/2010 that was texted in harmony with the Council Directive 91/440/EEC of July 1991 on the development of the Community's railways and the Directive 2001/14/EC of February 2001 on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure.

3. CONCEPTUALIZATION: A THEORETICAL BACKGROUND FOR THE EUROPEAN INTEGRATION'S POLITICAL SPILLOVERS

Through multilateral decision-making, sovereignty transfer, and practical cooperation, integration theories in the academic world of international relations provide the toolkit for the better understanding and conceptualization of interest articulation among states. Multilateral partnerships within international political platforms are considered as a main vehicle for advancing the key foreign policy interests of states with relatively weak decision-making positions, on a global scale. A harmonized cooperation along shared interests might be used in a "smart" way, to compensate for small size and the absence of more effective means of pursuing international policies, thus allowing small states to punch above their real weights (Edis 2007). The interest endorsement system of international organizations forces states with relatively modest political weight to form or join alliances with other less powerful countries that are also in weak positions in comparison to larger powers that can exert higher influence in global or continental policy making (Abbott and Snidal 1998).

The ability of states with relatively weak political positions to shape the political agenda at supranational levels may thus be strengthened, and these governments may gain comparative advantages by harmonizing their actions. Hence, it can be asserted that states in relatively weak political positions shall cooperate more actively than larger powers within international organizations, where the outcomes are products of interactions between actor preferences and institutional rules. In a long-term perspective, intergovernmental cooperation thus might remain effective if the states involved choose their partners carefully, and do not force the harmonization of political actions where their interests do not necessarily meet (Crescenzi *et al.* 2012). According to structural realists, the basic factor in the structure of an international system is the division of power, and not the common goals, shared interests, mutual dependence, or similar positions of the cooperating states (Levy 1998). Neoliberal institutionalism assumes that states focus primarily on their absolute gains and emphasizes the prospects for cooperation while structural realism supposes that states are largely concerned with relative gains and points out the prospects for conflict (Powell 1991): the more states care about relative gains, the more a gain for one state tends to be seen as a loss by others, and the more difficult cooperation will be *(Figure 5).*

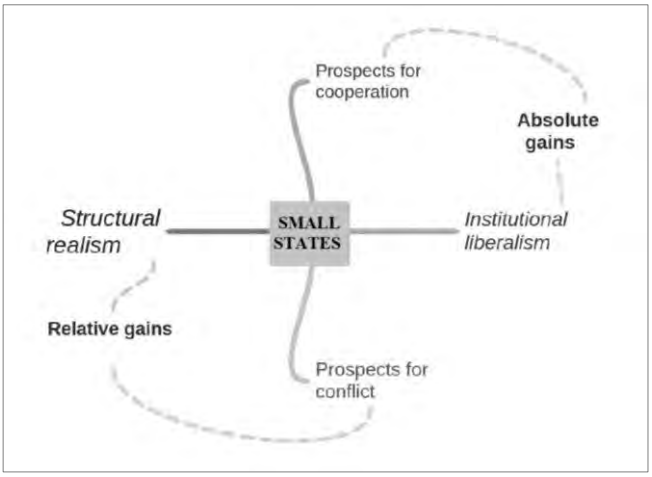


Figure 5: IR theory mind map for interest advocacy of small states

The following pages concentrate on identifying and analyzing the primary effects that anticipate and trigger (or at least have certain effects on) further cooperation and integration between state or sub-state governments, and decision-making entities. Many scholars refer to such phenomenon as spillover: an abstract term that has become an influential concept in international relations studies, creating theoretical and methodological approaches to understand how a foreign presence (originally not concomitant interests or decisions) interferes in intergovernmental political actions and the extent to which such spheres are connected. In the research, the term "spillover" is used for events that occur because of something else that has happened in a seemingly unrelated context. It is to be said, however, that one cannot find a consistently recognized academic definition of the term itself. The spillover phenomenon principally fits in the toolbar of the reasoning of the international relations theoretical schools of neofunctionalism and liberal intergovernmentalism. The former was the first to use the notion of spillover to describe dynamics of European integration, while the latter formulated the first critiques of this theoretical framework.

As far as the conceptual literature research is considered, in order to identify the system of references between the different authors in the topic, the so-called snowball method was followed during the literature researches. As for the authors and scholars, the major keywords for literature research were as follows:

- James A. Caporaso[72]
- Ernst Bernard Haas[73]

[72] Name variations: James Caporaso, and J. A. Caporaso
[73] Name variations: Ernst B. Haas, Ernst Haas, Bernard Haas, E. B. Haas, and Haas

- Simon Hix
- Stanley Hoffmann
- Carsten Strøby Jensen[74]
- Robert Owen Keohane[75]
- Zoe Lefkofridi
- Leon Nord Lindberg[76]
- Walter Mattli
- Sonia Mazey
- Andrew Maitland Moravcsik[77]
- Arne Niemann
- Charles Pentland
- Carolyn Rhodes
- Frank Schimmelfennig
- Philippe C. Schmitter[78]
- Anne-Marie Slaughter[79]
- Jeppe Tranholm-Mikkelsen[80]
- Daniel Wincot

As far as the technical terms and expressions are concerned, the following keywords have been inserted into the search fields of accessible academic online databases:

- spillover and its variants: spill-over, spilling over, spill(s)(ed) over into
- integration and variants: integrated, integrate, integrated
- inter-state and variants: inter-state, inter state
- multi/trans/inter/supranational
- multi/trans/inter/supra-regional and name variants: multi-regional, inter-regional, trans-regional, and multi-regional

[74] Name variations: Carsten Stroby Jensen, Carsten S. Jensen, Carsten Jensen, Strøby Jensen, Stroby Jensen, and C. S. Jensen
[75] Name variations: Robert O. Keohane and R. O. Keohane
[76] Name variations: Leon N. Lindberg, Leon Lindberg, Nord Lindberg, and L. N. Lindberg
[77] Name variations: Andrew M. Moravcsik, Andrew Moravcsik, A. M. Moravcsik, Maitland Moravcsik, and Moravcsik
[78] Name variations: P. C. Schmitter and Philippe Schmitter
[79] Name variations: Anne Slaughter and A. M. Slaughter
[80] Name variations: Jeppe Tranholm and Jeppe Mikkelsen

- complex interdependence
- overlapping membership
- cooperation area
- dependency level
- coalition building
- joint coordination
- multidimensional integration
- practical cooperation
- transport cooperation/coordination/integration
- mobility policy/policies
- regional transport
- path-dependency/dependencies
- infrastructure investment(s)

In order to narrow down the high number of hits in research engines and to identify the relevant articles contextual, so-called *intext* searches have been run.[81] The Web of Science and Scopus are indexing databases showing the whole network of references of each article, therefore, the majority of the materials used for the literature review have been identified through the aforementioned search engines.[82] The research identified the following principal literatures for the neofunctionalist spillover narratives:

- Haas (1958): The Uniting of Europe
- Lindberg (1963): The Political Dynamics of European Economic Integration
- Jensen (2013): Neo-functionalism
- Schmitter and Lefkofridi (2016): Neo-Functionalism as a Theory of Disintegration

[81] As for contextual *intext* searches the following keywords have been utilized: "trigger" AND "phenomenon" AND "catalyst" AND "input" AND "initiative" AND "neofunctionalism" AND "neofunctionalist" AND "incremental" AND "has" AND "Moravcsik" AND "intergovernmentalism" AND "intergovernmentalist" AND "dependency" intext:spillover (and variants).

[82] The following academic databases have been researched: Bielefeld Academic Search Engine, Cognitive Sciences Eprint Archives, COnnecting Repositories, DeepDyve, Directory of Open Access Journals, EconBiz, EBSCO, Google Scholar (Google Research, Google Books), Index Copernicus (ICI), IndraStra Global Open Repository, IARP, JStore, Jurn, Microsoft Academic, MyScienceWork, OAIster (Open Archives Initiative Protocol for Metadata Harvesting), OpenEdition, Paperity, ProQuest, SciELO, Science direct, Science.gov, ScienceOpen, Scopus, Web of Science, and WorldWideScience

In order to shed light upon the neofunctionalist self-criticism, the literature review reflects on the following literature:

- Tranholm-Mikkelsen (1991): Neo-functionalism: Obstinate or Obsolete?
- Haas (2001): Does Constructivism Subsume Neo-functionalism?
- Schmitter (2002): Neo-Neo-Functionalism
- Niemann and Schmitter (2009): Neofunctionalism

The liberal intergovernmentalist critique of neofunctionalism is presented by

- Moravcsik & Schimmelfennig (2009): Liberal Intergovernmentalism
- Moravcsik (1993): Preferences in power in the European Community: A liberal intergovernmentalist approach
- Moravcsik (1995): Liberal Intergovernmentalism and Integration: A Rejoinder
- Moravcsik (1998): The choice for Europe: Social Purpose and state power from Messina to Maastricht

The liberal intergovernmentalist self-critique is offered by the Wincott's 1995 book: Institutional Interaction and European Integration: towards an everyday critique of liberal intergovernmentalism. With the aim of offering a wider contextual framework for regional integration theories, the literature review makes reference to

- Caporaso (1998): Regional Integration Theory: Understanding our past and anticipating our future
- Caporaso and Keeler (1995): The European Union and Regional Integration Theory

To show a more specific, EU-focused regional integration conceptual framework as well, the following literature have been processed:

- Mattli (1999): The Logic of Regional Integration: Europe and Beyond
- Hix (1999): The Political System of the European Union
- Hix (2005): The Political System of the European Union
- Niemann (2006): Explaining Decisions in the European Union
- George and Bache (2001): Politics in the European Union
- Greenwood (1997): Representing Interests in the European Union
- Keohane & Hoffman (1991): The New European Community: Decision-making and Institutional change

If one tries to trace the spillover process, the involvement of both political decision-makers and different stakeholders shall be analyzed. Ernst B. Haas' idea was that spillovers may be seen as "ever-expanding islands of practical cooperation". The political scientist further explains that "policies made pursuant to an initial task and grant of power can be made real only if the task itself is expanded, as reflected in the compromises among the states interested in the task" *(Figure 6).*

Governments do not necessarily exercise control over such integration processes: state authorities normally just react by transferring powers from national to supranational levels rather than proactively shaping cross-border cooperation that has already been initiated by sub-state actors (Mattli and Slaughter 1998).[83] Leon Lindberg cited situations when actions related to specific goals create unique circumstances in which the initial goals can be reached exclusively by taking further steps in other, seemingly unrelated fields of action, which, in turn, create conditions for more and more coordination. This is how spillover works in intergovernmental politics (Rosamond 2005).[84]

According to Haas (1961 p.12), "[t]he more specific the task, the more likely important progress toward political community." Decisions aimed at achieving stronger integration in one field, give rise to unintended multidimensional consequences (involving political, social, economic, and cultural spheres), which, in time, become major forces driving towards stronger regional integration.[85] As Schimmelfennig (2018) puts it, interdependence does not always offer the only way to reach deeper integration.

The most common decision-making level of spillovers is low politics, and the steps towards integration are not always planned or approved by governments, but they smoothly and autonomously lead to tightening cooperation. The decision-making happens at multiple levels, starting from sub-state actors (e.g., regions) via state (government) actors, and arriving to supra-state (regional/functional international

[83] Rail Fright Corridors, for example, are purely freight-focused cross-border integrative mechanisms involving infrastructure managers, railway undertakings, and terminals. Such cooperative governance structures reflect concrete operational and market-driven demands and consequently involve higher decision-making levels (responsible ministries).

[84] The interest articulation among member states in the European Union's Transportation, Telecommunications, and Energy Council made necessary the creation of a Visegrad Four High Level Working group on combined transport and joint consultations were held ever since with the aim of aligning the four states' positions. Similarly, in case of the TEN-T network revisions objectives, V4 cooperation in the High Level Working Group on Transport Connections ("HLWG") format was further boosted to regularly develop short-, medium-, and long-term feasibility plans.

[85] The EU's Cohesion Policy goals with regards to transport development led to more specific technical and professional cooperation at regional levels as far as the deployment of new standardized train control systems (ETCS, ERTMS) were considered. Joint applications to EU funds supporting transport development in the region also resulted in more frequent quadrilateral professional consultations.

organizations or agreements) or global levels. Functional (non *per se* political) spillover is used to explain the way in which integration in one policy area, for example coal and steel, creates pressure for integration in further areas, such as currency exchange rates. The interconnectivity of various policy sectors causes functional spillover.[86] Governments are compelled by the externalities of sectoral integration to take additional, previously unintended actions of sectoral integration to avoid welfare losses (Schimmelfennig and Rittberger 2001).

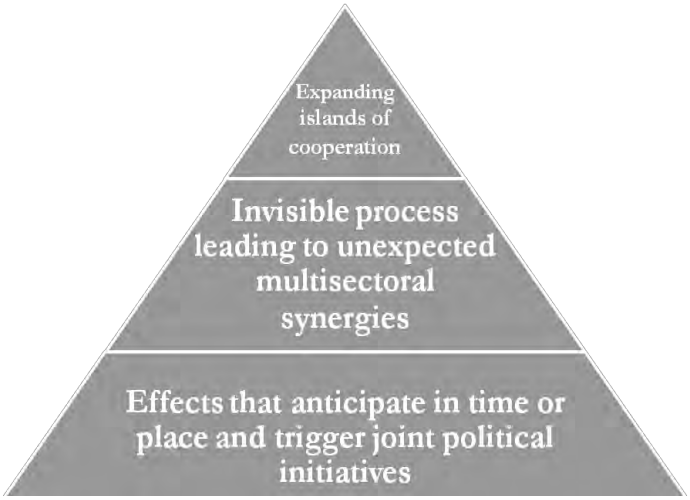


Figure 6: Integration among partner states through spillovers (based on Haas' idea)

Haas claims that regional integration is a self-reinforcing process where spillovers are always present. Automaticity is another important and inherent element of spillovers: international integration is a self-sustaining, rational, and teleological course of actions that are not necessarily reliant on other extraneous factors.[87]

The notion "spillover" has thus been closely, and consequently, attached to regional integration theories (Rosamond 2005). Neofunctionalists incipiently claimed that spillover effects could easily be traced at the low levels of international politics. Later, the example of European integration contradicted this approach (controlled intergovernmental cooperation in the fields of security and national defense). Haas directly states that when local political actors and citizens realize the benefits of the integration process (or steps towards integration) they react to such actions in order to achieve their political goals, and their answers are the so-called political spillovers.

[86] The functional spillover mechanism states that if the benefits from policy sector "A" integration remain sub-optimal unless adjacent policy sectors "B" and "C" are also integrated, or if integration of "A" has negative effects on sectors "B" and "C" unless they are all integrated collectively, there will be a need for further integration.

[87] The topics and intensity of the activities of the various V4 railway working groups have changed in concert with the altering Visegrad Four transport development goals that reflect the evolution of the main mobility, social, and sustainability directives of the European Union.

In other words: political spillover is the way decision-making activities are redirected from national levels to a new, international, or supranational center by the creation of transnational organizations or alliances (Fesel 2015). As Frank Schimmelfennig (2018 p. 19) puts it: "political spillover increases domestic demand for integration". However, it is essential that the centripetal forces outweigh the centrifugal ones. In Haas' words: converging policy aims predominate rather than antagonistic ones (1961 p. 9).

National governments are becoming increasingly embroiled in regional pressures, and resolve their differences by granting a broader mandate and delegating more power to the regional organizations they have formed. Supranational and subnational actors understand the advantages of integration and move their demands, aspirations, and even loyalties from national governments to a new core, as a result of their joint action (Vanhercke 2006). When interest groups, bureaucrats, and other domestic political actors focus their aspirations and practices on supranational decision-making levels, political spillover occurs as a reaction to initial integrative measures.

The emergence of transnational coalitions and the creation of shared problem-solving mechanisms increases the probability that actors can achieve their political goals at the supranational level rather than at the national level.[88] Even if this mechanism does not have to be harmonious, political leaders will establish new loyalties that extend beyond the nation-state over time. Interest groups, bureaucrats, and other domestic players will exert pressure and leverage on governments, urging them to accelerate the integration process, based on these newly acquired personalities, attitudes, and coalitions (Schimmelfennig and Rittberger 2001).

David Mitrany's functionalist emphasis on the idea of "technical self-determination", and the dependence on a rather organic mechanism in which effective cooperation in one field would promote cooperation in another, was replaced by the concept of political spillover of the neofunctionalists. As opposed to neofunctionalism, functionalism was not a philosophy of European integration. Mitrany was, in reality, a staunch opponent of European regional integration. The scholar suggested a universal, rather than a regional, solution for bringing each state's mutual interests together, without interfering too much with their individual ways (Cram 1999). Jack N. Behrman (1987) claims that

[88] Four-party High Level Working groups on transport connections were established to manage the implementation of the pertinent V4 agreements to ease cross-border train traffic, coordinate the growth of regional transportation infrastructure, plan for the EU's MFF negotiations, and form joint positions on actual Communitarian legislative initiatives or strategic documents.

the issues of regional integration are merely a scaled-down version of the issues of international integration. Similarly, regional integration gets just a fraction of the benefits of global integration. Mitrany proposed that tasks must be chosen and arranged separately, according to their nature, the circumstances under which they would work, and the needs of the time. For example, railway systems should be organized on a continental scale, shipping should be coordinated internationally, and broadcasting should be managed globally.[89] In his view, the role defines the appropriate executive instrument for its proper operation and determines the geographic scope, organizational structure, composition, and power (Long and Ashworth 1999).

The functional approach to modern global politics is a wider theoretical orientation. The functional approach rejects blueprints and worldviews in favor of a change-oriented academic view. Cooperation in functionally unique areas occurs naturally under the functional approach. As for the Functionalist theory of integration, Mitrany saw the basic pillars of international cooperation in the technocrats. In this sense, it is not politicians, but experts who develop and manage the conditions for interactions between states (transportation, communication, finance, and so on). Due to the improvement of living standards that takes place as a result of international cooperation, citizens are willing redirect their loyalty from the state towards international (supra-state) levels.

In Haas' neofunctionalism, however, if unification results from positive or negative long-term aspirations of the integration process, a self-interested change in the concentration of decision-making activities by the political elite would increase the dynamic toward the growth of a new political class. The basic element in Haas' neofunctionalist reasoning is the spillover effect, according to which a change in a certain functional area of integration causes a positive effect on the development of integration in other areas. As a result of the spillover, it is in the interest of the political elite to support and to participate in the integration, and consequently to become an active part of it.

[89] Visegrad states have put emphasis on the exchange of experiences in the implementation of railway infrastructure constructions co-financed by EU funding instruments. The complete regional railway integration process is in major part powered by the EU's development funds and motivated by Communitarian transport policy directives. Transport development policies pull states together amid mutual dependencies leading to cooperative decision-making methods among governments). The degree of functional specificities affects the intensity of integration. Besides being sufficiently defined and mutually respected, railway related standards, laws, regulations, unification initiatives shall be economically important for all states considered, in order to have enough potential for spilling over from one decision-making area into others. According to the neofunctionalist logic, such intergovernmental integration is a self-sustaining, rational, and teleological course of actions, where political spillover increases the demand of states for further integration.

Political spillover is therefore an alignment of national elites' (political, business, and cultural) aspirations and desires in reaction to supranational activities. This, in turn, might result in a shift in loyalties or, at the very least, a transfer in national elites' political activities in favor of, or against, new supranational policies. Political spillover may be positive or negative; it was expected to become more prevalent as supranational policies became more relevant to national elites. Haas made a distinction between neofunctionalism and functionalism. Rather than concentrating on the very distinct demands of various functional activities, he concentrated on the potential for cross-sector collaboration. This emphasis on interdependence politics contributed to the picture of political integration as an imperturbable process: a snowball gaining momentum as the integration process progresses (Cram 2001).[90]

Another strand of political spillovers is when supranational players (such as the European Commission) and sub-state actors (interest or expert groups) generate additional motives for further sectoral integration among partner states. Interest groups working in an integrated market, according to Haas, shall negotiate with the international organization in charge of managing their sector at the subnational level. These lobbying initiatives recognize the advantages of integration and move their demands, aspirations, and even loyalties from national governments to a new center, creating a powerful force for further integration.

At the supranational level, common institutions promote this shift in loyalties by supporting European policies and brokering deals between member states in order to achieve common goals. Governments create international regimes to deal with collective-action problems at the regional level. In a common European context, national policy demands and capacities are combined to create collective regimes, the majority of which are then enforced in the member states concerned. EU policy making mechanisms produce a wide range of results with major differences between countries. The emergence of bodies with public policy responsibilities outside of central governments was a striking characteristic of Western Europe in the 2000s, and it was repeated in central and eastern Europe after the 2004 enlargement.[91]

[90] Some argue that global integration is inevitable, relying on the assumption that the phenomenon is primarily motivated by technological advancements in transportation and telecommunications. However, Aryeetey and Dinello (2007) claim that political decisions that encourage interdependence may be reversed, resulting in a disorienting, if not disruptive, impact on global integration.

[91] Neofunctionalists expected that as a result of such sectoral and political spillover, sectoral convergence would become self-sustaining, resulting in the formation of a new political coordinating body: the European Commission (Pollack 2006).

The debate over spillover phenomena between international relations theoreticians emerged primarily in relation to the abstract approaches of regional integration. According to the neofunctionalist logic, intergovernmental cooperation is an incremental process, which is driven by the demands of certain interest groups (political parties, sectoral lobby organizations, financial or business entities, or civil organizations) and supranational institutions (specified bodies, committees, grants, funds, and initiatives of international organizations).

Political spillover explains well the significant role of supra and subnational actors in the integration process. These entities pressurize governments for more integration in order to pursue their own interests. Pressure groups and political parties are therefore also considered to be important actors. This is the way decision-makers transfer their loyalties from the state or sub-state entities towards intergovernmental organizations. Any change in loyalties in reaction to the supranational center's activities does not have to be definite or long-lasting. It is possible that several separate loyalties will continue to coexist. The process of unification and the creation of a new political community is likely to be guided by the convergence of a very diverse collection of interests (Cram 2001).

3.1. Following the neofunctionalist logic: bottom–up spillovers

According to the functionalist theory, from an organizational standpoint, international integration is an unwieldy and bureaucratic process. Functionalists claim that international cooperation cannot be enforced by any global institution but shall be created through cooperation in individual fields, where nations share mutual interests. This standpoint also supports the idea of having separate and largely autonomous organizations – instead of universal ones – to deal with specific subjects (Luard 1977).[92] To get the most out of inter-state cooperation, separate departments must be established to work in each of the major functional fields. Otherwise, political strife within a larger entity will impede even simple functional cooperation. Based on the functionalist idea, the fundamental principle is that tasks shall be chosen and arranged separately, according to their nature, the circumstances under which they must function, and the actual needs.

[92] States can participate in cooperative mechanisms with other nations for a variety of reasons one day and then declaring war on them the next. The problem is that this form of cooperation plays such a minor role in most countries' overall policies that it has little potential to spill over into politics. Functionalists argue that by the 1970s, national aspirations were as high as ever all over the world, despite the fact that specialized international agencies were cooperating on an ever-increasing scale (Luard 1977).

Individual states are unlikely to endorse permanent restrictions of their economic sovereignty by a foreign authority operating across the entire spectrum of cooperation areas; however, the nations might be willing to pass strictly restricted portions of that sovereignty to international executive agencies entrusted with particular and carefully specified activities. Functionalists assert that governments are more likely to grant substantial powers to foreign organizations for unique and restricted purposes than to grant broad powers to all-purpose international bodies. However, keeping the various functional operations in different fields might become difficult as time goes by. They increasingly overlap in a variety of ways, and it is becoming less and less likely that they can be dealt with separately.

Neofunctionalism is the first classical narrative of European integration. Neofunctionalism is a theory of regional integration, primarily building on the ideas of Ernst B. Haas and Leon Lindberg. Neofunctionalism is an eminently political integration theory that asks what kind of strategy politically relevant actors are likely to use in a given situation (Vanhercke 2006). Neofunctionalists claim that governments may but not always exercise control over the integration process. Multi-, trans-, and supranational actors (interest groups, corporations, civil society organizations) are able to shape the integration process in their own interest, creating a variety of path-dependencies that push inter-state cooperation beyond the levels of intergovernmental negotiations and decision-making.

The liberal intergovernmentalist school of thought explains how regional integration results from a direct decision of national governments. In "The Choice for Europe" (1998) Moravcsik emphasize national governments to be key elements in the process of integration. In case of transport integration, the implementation of government projects is manifested in upgraded or freshly constructed infrastructures, newly launched services, and so on.[93] The deeper the initial integration, the more likely spillover and path-dependency are to occur. In the event of intergovernmental contestation and crisis, integrated policies, on the other hand, run a high risk of stagnation and disintegration if they remain at sub-critical levels of transnational interdependence and supranational ability (Schimmelfennig 2018). William Wallace (2006) claims that different actors and policy making trends may be found at each stage of politicization. These sub-

[93] Spillovers in the field of transport materialize in a relatively short time, in a concentrated manner and with clear regional perspective. Such attributes let the observer monitor the decision-making processes leading to the realization of different policies right from the phase of planning.

categories spill over one another. Haas (1961 pp. 9–19) says that: "[…] the upgrading of the parties' common interests relies heavily on the services of an institutionalized mediator, whether a single person or a board of experts with an autonomous range of powers." It thus combines intergovernmental negotiation with the participation of independent experts and spokespersons for interest groups, parliaments, and political parties. It is this combination of interests and institutions which we shall identify as supranational.

Frank Schimmelfennig described neofunctionalism as the predecessor to supranationalism, that does not distinguish between rationalist and constructivist mechanisms; all types of transformative shifts are lumped together as spillover processes (Schimmelfennig and Rittberger 2001).[94] The neofunctionalist snowball effect is not limited to political or functional and/or sectoral spillover, but also included what Haas referred to as geographical spillover. The theoretician recognized that cooperation within a community of member states would inevitably have an impact on excluded states by altering established trade patterns. In turn, non-member states' responses may affect the integration process (Cram 2001). In Haas' view, horizontal integration is triggered by geographical spillover inasmuch as states that are initially hesitant to enter the EU will ultimately feel compelled to do so due to the negative externalities of remaining outside the Group (Schimmelfennig and Rittberger 2001). Nations are limited by their lack of influence over their own political systems, as information about their own goals is exchanged in transnational interactions in exchange for information about others' intentions (Wallace 2006).

In Haas' point of view (1961), political spillover takes place when an intergovernmental coordination in one given policy area constrains decision-makers responsible for coordinating a well-defined specific field of cooperation to become informal advocates of broadening the spectrum of common decision-making in other areas too. Experts and bureaucrats with significant inter-state bargaining positions and influence may therefore become important supranational actors in international organizations or other type of inter-state alliances. Their decisions involve more and more people creating inter-bureaucratic contacts that drive towards consultation-based

[94] In comparison to intergovernmentalism, which is based on an inter-state negotiation theory, supranationalism is based on a pluralism theory, in which groups, not governments, are the primary actors in the integration process. The political process in modern, economically interdependent societies is driven by rivalry among interest groups. Different interest groups exert different pressures on policymakers, resulting in different policy outcomes (Schimmelfennig and Rittberger 2001).

intergovernmental policy making schemes and hijack the decision-making in a pro-community direction.[95] The functioning of specified international sectoral organizations implies the involvement of assistants delegated by member undertakings or government bodies. Such platforms give places to inter-bureaucratic contacts through overlapping memberships.[96]

Haas emphasized the value of functional or technological spillover, which followed a different rationale than political spillover: even in the absence of clear community demands and their associated ideologies, sector integration generates its own momentum for expansion to the entire economy.[97] The move from harmonization to mutual recognition as the framework for policy coordination tends to reduce tensions that would otherwise arise, however, some national policy concepts can have significant negative consequences for others, putting pressure on statesmen to adopt more uniform policies. This is particularly true for policies that have obvious international consequences, such as environmental emissions or technological safety standards (Peters 2001).

The process of multilevel decision-making has two directions. First, there is a so-called inductive or bottom–up chain that starts with a decision taken by a local municipality perhaps on the demand of a local business entity or pressure group. The process may continue at the level of cross-border regions (neighboring sub-state administrative units within neighboring countries) and it can directly go up to national governmental levels where the legislation and administration makes it possible to launch an intergovernmental cooperation in a given filed or to delegate a certain state authority to supra-governmental levels (EU or NATO, for instance).

Second, there is a deductive, up-bottom approach: it is essential to understand the geopolitical constraints, the international organizations present in the given area, including all the political and financing tools these organizations (funds, initiatives, programs, and so on) The next step is the level of cross-border regions, sub-state regional authorities, municipalities. There are cases when government involvement in regional integration leads to results that were previously unexpected but later categorized to be

[95] To coordinate their viewpoints on international mobility policy, the V4 collaboration launched expert group meetings, conferences, and expositions. Furthermore, Visegrad nations might share their knowledge with prospective EU members in order to strengthen cross-border collaboration.

[96] In terms of management, regulation, and standards setting, railway traffic coordination requires a high level of international business-to-business and expert cooperation.

[97] The terms “functional” or “sectoral” spillover are applied to situations in which an effort to achieve a target agreed upon at the start of cooperation, such as harmonization of coal and steel policy, is only feasible if other (unforeseen) cooperative operations, such as harmonization of transport or economic policy, are also carried out.

advantageous. Regional integration serves as a buffer against the challenges of global integration, thanks to the functioning of the European Union. It empowers national governments that can only aspire to minor control over global regimes on their own to achieve greater affect by banding together with like-minded fellow member states, and to create extra-territorially applicable standards and regulations for their dependent neighbors and trading partners (Wallace 2006). Spillover is the way the initial integrative steps taken by civil society groups, lobby organizations, supranational business actors and other cross-border entities give rise to unexpected, yet automatic moves toward regional integration (Moravcsik 2005). Supranational institutions then start to support the delegation of state powers to supranational bodies in order to increase their influence over policy outcomes (Hix 2005). Therefore, it can be stated that spillover is not a decision: it is the consequence of many decisions.

3.2. A liberal intergovernmentalist insight

Liberal intergovernmentalism claims that national governments control the level and dynamics of European integration and rejects the concept for spillover proposed by neofunctionalists questioning the weight of political influence of exogenous pressures and supranational organizations *vis-á-vis* national governments. Andrew Maitland Moravcsik (2005) considers neofunctionalism only as a framework of thinking about regional integration theories. Liberal intergovernmentalism maintains that the deep and overlapping cooperation of governments of different countries is driven by the states, especially those, which are relatively less dependent on others (Wincot 1995). Bigger economies therefore have stronger bargaining power, Moravcsik argues. Liberal intergovernmentalism gives protagonist role to political and state leaders in the process of regional coalition building. Such approach prioritizes the bargaining, the converging preferences between heads of states (or governments) over bottom–up integration initiatives (power-based approach). Such analysis, however, does not really seem to be helpful when someone seeks to understand not concrete decisions but the processes leading to them. Liberal intergovernmentalism rejects the concept of the spillover proposed by neofunctionalists questioning the weight of political influence of exogenous pressures and supranational organizations *vis-á-vis* national governments. Moravcsik

emphasized that national governments are key elements in the process of integration.[98] Liberal intergovernmentalists consider supranational institutions (and exogenous pressures in general) to be of limited importance in the integration process, in contrast to neofunctionalists (Mattli 1999).

In terms of empirical evidence, Moravcsik contends that supranational entrepreneurs, unintended spillovers from earlier integration, or transnational coalitions of interest groups were not *a priori* drivers of the EU's historic intergovernmental agreements, such as the 1957 Treaties of Rome and the 1992 Treaty on European Union (The Maastricht Treaty), but rather a gradual mechanism of preference convergence among the most powerful member states. These countries then made central deals between themselves, gave side payments to smaller member states, and assigned strictly defined powers to supranational bodies that remained devoted helpers of the member states (Pollack 2006). Because of its theoretical soundness, analytical force, and usefulness as a basis for synthesis with other explanations, liberal intergovernmentalism has become a "baseline theory" in the study of regional integration, according to Moravcsik. Revised intergovernmentalism does not pretend to be a revolutionary new regional integration theory, it provides, however, new insights into post-Maastricht European integration, but not a new way of researching it (Bickerton *et al.* 2015).

Via institutional spillovers, supranational entities actively form the integration process. First, supranational entities have an interest in regional integration's success and development. As a result, they assist governments in identifying conflicts and negotiating compromises that favor all parties. Second, they take advantage of their assigned competencies and deficiencies in the multilateral agreements to press for further integration and extend their own powers. Third, they "cultivate" functional and political spillover by creating cross-policy links and assisting in the formation of transnational organizations and coalitions (Schimmelfennig 2018).[99]

The deepening of integration in one policy area creates pressures for further integration within and beyond that decision-making area. Under certain basic conditions (developed market democracies, capitalist economies, rule of law, relatively dense network

[98] As detailed in *Chapter 2,* all important *fora* of professional railway cooperation between the Visegrad states have been established by the incumbent governments and have been entrusted with responsibilities and tasks through intergovernmental decision-making.

[99] Czech, Hungarian, Polish, and Slovak ministries dealing with the modernization of transport systems are required to cooperate in terms of rail traffic operation (technical standardization and development), law (EU legal harmonization efforts), and finance (the application for Communitarian development resources).

of international connections, good neighborly and/or inter-state relations, mutual openness of economies, pluralist business interests, etc.), the preliminary visions of stronger intergovernmental cooperation may be achieved not by concrete decisions or political actions but unintended, collateral events. Charles Pentland describes spillovers as organizing concepts or hypotheses that measure and conceptualize the likelihood of inter-state integration if specific circumstances are met (Rosamond 2005). The cumulative logic of integration says that a deep integration in one policy area will certainly trigger spillovers into other areas too, and the cooperating states will find it worthy to expand the integration process step by step also in other fields of governmental actions (Schimmelfennig 2018). If the governments of two or more states decide to coordinate their decision-making procedures in one given policy area, it is not exclusively or necessarily a mere response to external shocks, global or regional events that have significant ripple effect on the wider international community. The tightening of relationships in one field may occur as the result of an endogenous growth of the jointly coordinated decision-making of states as part of a wider and multidimensional integration process (Moravcsik 2005).

It is worth mentioning that even the initial functionalist thinkers claimed that joint programs and strategies develop their own momentum and dynamic over time. The act of formulating a joint policy becomes a strategy of international government that increase both the degree of commitment of each state and the moral pressures that can be used to push for governments to adopt further cooperative mechanisms. These incentives are, in a way, psychological devices that gradually erode the powerful impulses toward completely autonomous policies that national governments are otherwise subjected to (Luard 1977). Therefore, political spillovers may be confused with path-dependencies. Instead of scrupulously elaborated large jumps, synergies may be intensified with a number of small incremental changes, causal mechanisms. It has to be noted, that according to the neofunctionalist logic, governments do not always have the tools and authority to control the integration process (Schimmelfennig 2018). Moravcsik (2005) assumes there is academic social science consensus claiming that the primarily motives of integration of states have been more exogenous than endogenous. One must not forget about the economic and political pressures arising from the ever changing technological and industrial circumstances. Shifts in trade links, national security concerns, and directions of diplomacy may also push governments for stronger integration on the basis of convergence of state interests.

3.3. A synthesis for spillover theories in international relations

The following pages offer an encounter of the neofunctionalist and the liberal intergovernmentalist approaches as far as the interpretation of spillover phenomena is considered. These two schools of thought put emphasis on how increased transactions and interactions improve perceptions and transnational coalition making opportunities, as well as how institutions contribute to these processes – concentrating on strategic learning processes for decision-makers and the redefinition of national interests. The growth of regional integration theory has outpaced the growth of regional communities.[100]

Intergovernmental collaboration, according to the neofunctionalist idea, is a gradual mechanism motivated by the demands of some interest groups and supranational institutions, while liberal intergovernmentalism prioritizes the role of governmentally intensified synergies in the process of supranational integration. Consequently, the former interpretation gives protagonist role to multi-, trans-, and supranational actors, while the latter one sees political leaders as key actors in transferring decision-making mechanisms from state levels to multilateral international spheres. In other words, neofunctionalists claim that governments do not have enough control over the integration process, whereas liberal intergovernmentalists argue that the more the states are independent the more they can shape international cooperation.

Liberal intergovernmentalism became the leading ideology of European integration in the 1990s, but its fundamental theoretical assumptions were challenged by international relations scholars from two major directions. A first group of academics, grouped under the rubrics of rational choice and historical institutionalism, agreed with Moravcsik's rationalist assumptions but questioned his sparse, institution-free model of intergovernmental bargaining as an exact representation of EU decision-making actions. The other international relations school, building on sociological institutionalism and constructivism, posed more fundamental objections to the rational choice theory's empirical individualism supporting a viewpoint in which EU norms and rules shaped the member states' preferences and identities, in one way or another (Pollack 2006).

All things considered, neither the neofunctionalist, nor the liberal intergovernmentalist framework is fully satisfactory on its own, however, they explain each other's weaknesses (Mattli and Slaughter 1998). The claims of both intergovernmentalism

[100] However, through broadening perceptions of how national priorities are learned and modified, many of the lessons from integration theories could be transferred to the growing and broader dimensions of international economic interdependence (Keohane and Nye 2012).

and neofunctionalism meet in Arne Niemann's view who says that "functional integration of one task inevitably leads to problems which can be only be solved by integrating yet more" (Niemann 2006 p.17). Both frameworks say that functional integration in one field leads to further integration and both neofunctionalism and liberal intergovernmentalism prioritize supranational or national elites and interest groups over the population (Schimmelfennig 2018). Neofunctionalists claim that the dynamics of the integration process makes politics path-dependent and spillovers autonomous often bypassing governmental control. Based on the neofunctionalist logic, intergovernmental negotiations are natural elements of dynamically and ever-changing linkages between states (and different government levels). However, liberal intergovernmentalism rejects the idea that supranational organizations are on an equal level of political influence as national governments *(Figure 7).*

There are cases when the "community spirit" of two or more states cannot be derived from a positivist "sense of belonging" philosophy, nor can it be explained by win-win situations when the governments realize that the shifting of power to supranational levels does not necessarily hurt state interests. Multi-level governance is a newer theory for understanding European integration. It argues that policy coordination within the EU is way too complicated to be explained by static integration theories. All in all, intergovernmental cooperation sometimes evolves from "trial and error situations", as a mere result of many unsuccessful experiments of collective policy making (Kühnhardt 2008).

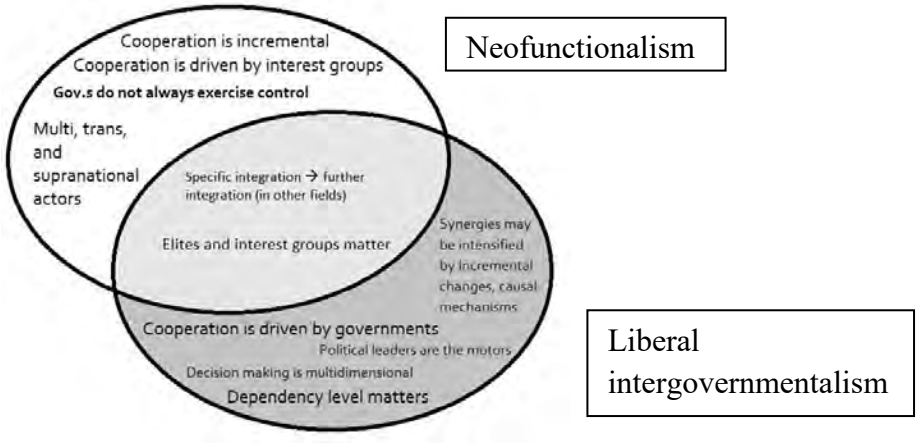


Figure 7: Main findings of Neofunctionalism and Liberal intergovernmentalism

As it has been stated above, governments are not always represented directly in the specialized international railway organizations: the rail transport interests of a region's economy are often articulated by the business actors themselves whether they are state-owned or private entities. Based on the neofunctionalist logic, intergovernmental negotiations are natural elements of dynamically and ever-changing linkages between states (and different government levels). However, changes in trade ties, national security concerns, and diplomatic directions can drive governments toward closer integration based on shared interests. Bigger economies, however, have stronger bargaining power. Liberal intergovernmentalists claim that stronger economies may have more considerable bargaining power seems to materialize.

The functioning of railway organizations like the Belgium-based lobby organization, the Community of European Railway and Infrastructure Companies ("CER"), the Warsaw-based post-CMEA intergovernmental forum called the Organization for Co-operation between Railways ("OSJD"),[101] the Coordinating Council on Trans-Siberian Transportation ("CCTT")[102], or the global railway organization, the International Union of Railways ("UIC")[103] implies the involvement of assistants delegated by member undertakings or government bodies. Such platforms give places to inter-bureaucratic contacts through overlapping memberships. One of the primary roles of such delegates is to be the advocates of the strategic interests of their entities.

According to neofunctionalists, specified EU bodies may become unavoidable overviewing entities of product standard-setting procedures too due to societal expectations and the lobbying of interest groups, as such bodies act as coordinators

[101] The Czech Republic, Hungary, the Republic of Poland and the Slovak Republic are member states in the OSJD, where incumbent transport ministers, railway company general directors and specialized expert committees work on the development and improvement of international railway and combined transportation within the countries that once formed the Warsaw Pact.

[102] ČD Cargo from Czechia, MÁV from Hungary, PKP from Poland and ŽSSK Cargo from Slovakia are all participating railway companies in the CCTT, a Russia-led international organization created with the aim of attracting transit and foreign trade cargo shipments to the Trans-Siberian route by coordinating the activities of the participating companies.

[103] Numerous entities registered in the countries of the V4 cooperation are members of the most important and first-ever global railway organization: the UIC. The institutionalized cooperation was created in 1922 to promote rail transport on a global scale with special focus on standard-setting and network interoperability. The following entities have UIC membership from the Visegrad region: ČD (since 1922), SŽDC (since 2006) and the private regional passenger services provider RegioJET (since 2012) from the Czech Republic; MÁV (since 1922), GySEV (since 1976), VPE (since 2005), GySEV Cargo (since 2009), the Ministry of National Development (since 2012), and the private cargo shipping company FoxRail (affiliate member since 2013) from Hungary; PKP (since 1922) and Instytut Kolejnictwa, the railway research institute of the Ministry of Infrastructure and Construction (affiliate member since 2002) from Poland; ŽSR (since 2002), ŽSSK (since 2002), ŽSSK Cargo (since 2004) and the touristic trains services provider WagonService Travel (since 2012) from Slovakia.

of process standards regulations (Hix 2005). Political spillover explains the significant role of supranational and sub-state actors in the integration process. These entities pressurize governments for more integration in order to pursue their own interests, thus decision-makers transfer their loyalties from state or sub-state entities towards intergovernmental organizations.

The tightening of intergovernmental relationships in one given policy area may occur as the result of an "endogenous growth" of the jointly coordinated decision-making of states as part of a wider and multidimensional integration process (Moravcsik 2005). CER, the Brussels-based railway lobby organization represents the interests of European railway operators and infrastructure companies all through EU policy making procedures.[104] The operation of CER starts at the level of working groups made up of experts and assistants delegated by member companies. Their elaborated draft reports and projects are then discussed and decided at the high-level meetings of chief executives from railway undertakings. As a third phase, CER's general assembly acts as a decision-making body where all member organizations take one seat and are represented by their management (CER 2019). Since their accession, Visegrad countries' railway undertakings have always been active in CER activities.

As discussed earlier, there are cases when government involvement in regional railway integration leads to previously unexpected but surely advantageous results. Initial integrative steps taken by civil society groups, lobby organizations, supranational business actors and other cross-border entities may give rise to unexpected, yet automatic moves toward further regional integration (Moravcsik 2005). The aforementioned behaviors act as linkages that mutually support each other. As it has been set forth earlier on, supranational institutions start to support the delegation of state powers to supranational bodies boosting their influence over policy making. Such actions then mutually support each other. As governments or railway companies join specialized international organizations with the aim of facilitating cross-border railway traffic, their business decision, directly or indirectly, paves the way for further integration at technological, standardization, operational, etc. levels. "Functional specificity,

[104] The Czech Republic is represented in CER by ČD and the infrastructure manager SŽDC. The Hungarian CER members are the national railway company MÁV, the Hungarian-Austrian GySEV, the railway capacity allocator VPE, as well as the railway association HUNGRAIL. Poland's CER undertakings include the national railway company PKP and the rail freight business operator Rail Polska. Slovakia is represented by its rail infrastructure manager ŽSR and the national rail passenger operator ŽSSK as well as the freight services provider ŽSSK Cargo (CER 2019).

however, may be so trivial as to remain outside the stream of human expectations and actions vital for integration. This would seem to be the case with the standardization of railway rolling stock, for example, or the installation of uniform road signs." (Haas 1961 p.12).[105]

The process of widening and expanding co-operation circles can be revealed by monitoring the dynamics of spillovers: the entwined and interdependent integration areas. EU institutions have launched investment initiatives in regional transport connections strengthening the internal trade (tourism, mobility, investments, and so on) within the V4 region and its economic (cultural, educational, technological, business, etc.) connections to other member states. Such projects spilled into the demand for constructing denser rail connections and launching more reliable train services. The next chapter investigates the process of building up a complex regional railway cooperation among by tracing the political will formulated by the actual incumbent governments of Visegrad states in official four-party documents.

[105] A concrete example for such process is the Intergovernmental Organisation for International Carriage by Rail (*Organisation intergouvernementale pour les transports internationaux ferroviaires,* "OTIF") that promotes the improvement and facilitation of international rail traffic by offering a framework for cooperation in order to agree upon uniform legal regimes and systems of technical compatibility and harmonization, as well as by eliminating the barriers to border crossings between its *50* member states. V4 states are represented in OTIF by their respective transport and/ or infrastructure ministries.

4. TRACING THE EU MECHANISMS' POLITICAL SPILLOVERS IN THE DEEPENING OF THE V4 RAILWAY COOPERATION

Reflecting on Moravcsik's integration theory, spillovers of V4 transport policies are to be distinguished from mere path-dependencies. Transport infrastructure development initiatives in V4 countries (high-speed railways, securing interoperability between national networks, technical harmonization, and so on) often have different motivations, are not always interconnected, and consistently designed following coherent strategies. Some of such projects are politically motivated (domestic politics), some of them originate from the needs of the civil society (regional or interregional transport needs of the citizens, lobby organization of carriers, etc.), and there are infrastructure development strategies launched by the European Union or other supra-governmental organizations. Furthermore, following the liberal intergovernmentalist theoretical framework, through the example of a formalized Visegrad railway development cooperation, it is common sense to identify the governmental efforts to strengthen cohesion policy and economic development endeavors by reinforcing their quadripartite infrastructure integration.

Due to their different technological parameters and business structures, the Czech, Polish, Hungarian, and Slovak railway networks do not yet form a single transport area. However, numerous EU directives, white papers, strategic documents, and reports stress the European rail network's need for further integration in the fields of technology, regulation, and operation in order for the member states to create appropriate circumstances for the safe and fast flow of goods, persons, and services. As a reflection of the above, in recent decades, railway co-operation has become an important element in the Visegrad Four countries' regional integration.

Railway policies imply further integration at the politics level, therefore, the evolution of the V4 statespersons' intentions to develop the regional transport system is examined through keyword-based content analysis (co-word occurrence frequency tests) of official documents. The corpus of literature used for the keyword occurrence analysis comprises English-language official documents retrieved from the Visegrad Group's online library of official statements, *communiqués*, declarations, presidency programs, and annual reports. With the help of co-word occurrence frequency analysis of official V4 documents, the following pages concentrate on tracing the communication factors that

imply the deepening and widening of railway integration between the governments of the four Visegrad countries – already cooperating in many fields as member states of the European Union. The research focuses on identifying correlations between the broadening of V4 intergovernmental sectoral decision-making mechanisms on one side, and the legal, political, and financial elements of the European integration on the other. This chapter provides practical explanations on how the intergovernmental platform of the Visegrad Four could remain a viable intergovernmental decision-making forum more than ***30 years*** after its creation with numerous shifts in strategies, priorities, and ideologies. Therefore, this section may be seen as a text mining analysis on the evolution of a sectoral cooperation between the Visegrad countries, galvanized by the spilling over of integrative measures of the EU's political, legal, and financial goals.

4.1. Text mining, as an empirical approach in social science researches

How does text mining help trace spillovers of one integrative measure to other fields of intergovernmental sectoral cooperation? The justification for the use of this multipurpose research method requires a general introduction to text-as-data approaches, such as: data retrieval, content analysis, and co-word occurrence analysis. Making inferences using an inductive train of thought entails going upward from empirical evidence to theoretical generalizations and propositions. By doing so, researchers normally start by evaluating empirical data with their preferred methods, and then let general conclusions emerge spontaneously. Statistically oriented researchers often refer to data mining in seeking support for their premises and hypotheses (Ignatow and Mihalcea 2017). Lately, text mining has gained a considerable popularity in social sciences, being applied in fields as diverse as anthropology, communications, economics, education, political science, psychology, and sociology.[106]

Political texts were among the first contents produced following the introduction of low-cost printing: records of legislative debates, bills, acts, treaties, and *memoranda* of various kinds have emerged since then. Therefore, the practice of text analysis for providing insights into political processes has a long history.[107] Text mining implies

[106] Text mining methods are being used by social science researchers in ambitious initiatives to forecast different phenomena and explain various correlations from stock market evolution to the potential occurrence of certain political actions. The method is also widely utilized in marketing and a variety of other business applications, as well as government and defense operations.

[107] Texts are the most demonstrative and enduring artifacts of political actions. A philological analysis conducted in 1439 by the Italian humanist Lorenzo Valla already used purely textual methods

text-as-data methods encompassing a wide range of content-based research techniques from simple statistical demonstrations to word occurrence forecasts, often through sophisticated context analyses. Such evidence checking approaches have become more common in social sciences, paving the way for new kind of questions a social scientist may successfully answer (Gilardi and Wüest 2018).

4.1.1. Social science approach in keyword-based data retrieval

Information retrieval and statistical, as well as natural language processing techniques (part-of-speech tagging and syntactic parsing) are all common features of text mining. As the aim of this research is to prove that the strengthening and institutionalization of railway development policies among V4 states result (spill over) from the EU's incentives and organizational background, natural language processing methods were considered unnecessary in finding correlations between the accumulation of the selected keywords (all representing the same part of speech: nouns) within a given context.[108] The inductive inference appeals to social scientists for it helps them easily interact with data sets and retrieve convincing results. It also provides a lot of room for maneuver, as analysts may study their data and alter their conclusions accordingly, rather than forcing preset categories and notions onto the research corpus (Ignatow and Mihalcea 2017).

Content analyses focus on a message component (within a given text) as the unit of data collection and measure variables the way they occur naturally. Furthermore, content analysis is not only about counting manifest qualities mechanically, although counting is often at the heart of this type of research. The most important question in text mining is whether the results can prove the research's claims or make any sense at all. Content analysis with a simple keyword-based text mining technique allows the researcher to ignore the rhetoric dimension of official political documents by focusing exclusively on the topic of interest (which, in case of this research is related to railway transport development endeavors sponsored by EU funds and/or triggered by EU policies and legal framework.

with convincing results. Since then, content analysis has become a standard analytical tool in tracing political actions in written communication (Monroe and Schrodt 2008).

[108] The selected keywords methodology used in this paper does not take into account latent meanings, such as irony or sarcasm.

4.1.2. The purpose of the research

As an empirical approach, text mining serves to refine the interpretation of the insights to the Visegrad area's regional rail transport cooperation that is based on the institutional, legal, and financial framework of the European Union. Following the research path of political communication analysis, on the following pages, the text mining technique is used as a content analysis method in exploring correlations between the occurrence of certain keywords. Such methodology also allows to identify with a high level of precision which EU policies and incentives are relevant for the sake of V4 railway projects. Typical applications of co-word occurrence analyses center on research questions that include at least one aspect of political communication theories such as agenda formulation, issue description, or framing.[109] In case of this dissertation's main research question (about the EU's role in V4 railway policy cooperation), all the above three categories could be seen as relevant, from different *foci* of investigation.

By a text-as-data approach and subsequent quantitative analysis, research of the aforementioned corpus focuses on identifying keywords related to V4 rail transport cooperation on one hand, and references to specialized EU funds and policies (that might support such endeavors) on the other. The so-called co-word occurrence tests effectuated within the same contexts can demonstrate possible correlations between dependent (EU mechanisms) and independent variables (railway integration initiatives of the Visegrad countries). By the delineation of the evolution of concrete integrative steps made by the four governments concerned in the field of railway development in the past decades, this research includes explanations for the reason of the simultaneous accumulation of certain keywords at different points on the time scale.

In so far as certain dependent keywords occur (in specific periods and frequency) typically in the vicinity of the selected independent terms, one can rightly conclude that the drafters of the given political text intend to picture a logical (cause-effect) relationship between the two factors. Therefore, if the text detailing the activities aimed at expanding the V4 railway cooperation consistently mentions the relevant supporting mechanisms of the European Union (cause), one can might assume that regional transport integration is but moves towards the expansion and deepening of the EU's already existing cooperative structures (effect). Consequently, by placing the co-word occurrence

[109] While text mining is a young interdisciplinary approach, text analysis approaches in social sciences have a lengthy history from sociology and political science (see, e.g., Ignatow and Mihalcea 2017) to political economy (see, e.g., Hajósi 2020).

indicators on a time scale, the European integration's spillover effects on the Visegrad states' regional transport cooperation become detectable. The changes in the distribution and standard deviation of the numerical values (co-word occurrences) recorded by the examined metrics illustrate the dynamics of the spillover processes.

In short, this chapter employs keyword-based content analysis to understand the characteristics of the correlation between EU incentives and the enhancement of regional rail transport cooperation in the V4 format. Using such research technique to understand the directions and motives of international institutional impacts and constraints is no stranger to social scientific papers, especially in the field of regional studies applying neofunctionalist and liberal intergovernmentalist theoretical approaches (Ríos Camacho 2014). Additionally, text mining techniques are widely used for political science research projects demonstrating that political structures and motivations can be inferred from the analyses of spoken or written texts.[110] Text mining to capture the dynamics of occurrences of searched terms. With the help of data series or diagrams, correlations between variables (simultaneous accumulation of certain keywords) can be quantified and visualized, while the final assessment of the results can be made more understandable by a detailed review of the V4 railway cooperation's different stages and of the various supporting EU mechanisms. The keyword-based content analysis, therefore, quantifies dimensions (variables) of content in official texts (Benoit 2011).[111]

Co-word occurrence researches were conducted on the textual contents dated from October 1999 to March 2021 (earliest and latest available sources at the time of finalizing the investigation). By the research of English language Visegrad Group documents as data sources, this comprehensive approach identifies the role of EU funds, legislation, and policies in the official railway objectives of V4 heads-of-state and -government. Furthermore, this deductive research identifies the main functional characteristics of the term "spillover" in order to understand its function in the deepening of the V4 railway cooperation.

---

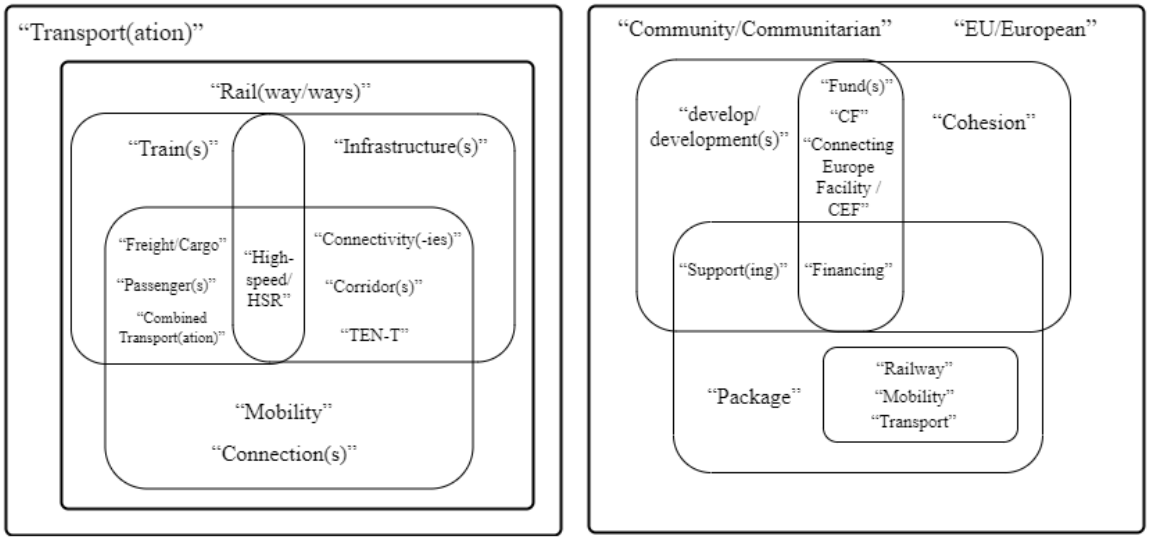
[110] Rybiński (2018) argued that counting the number of times a politician's name appears in the most influential media can reveal the true political power structure, including the formal and informal role that a given politician plays in shaping national agenda. Rauh and Bödeker (2015) showed that for scholars interested in empirical research on public debates about international organizations and the politicization of international politics in general, the use of text mining approaches is a promising tool. Further, Bustikova *et al.* (2019) utilized text mining from a primarily time-series approach to predict partisan responsiveness to various public policy topics.

[111] Quantitative content analysis is the systematic and repeatable examination of communication symbols associated with numeric values according to valid measurement rules, as well as the statistical analysis of relationships involving those values, to describe the communication, draw inferences about its meaning, or infer from the communication to its context, both of production and consumption (Benoit 2011).

4.1.3. The conditions and logical set of the research

The text mining process involves the counting and co-word occurrence indexing of the selected bag-of-words clusters inserting them into Excel sheets so that the collected data corpus can be converted to linear time-scale diagrams, columnar diagrams or simple data charts for visualization and systematization purposes. The bag-of-words containing terms covering railway transport[112] is used as independent variables, while keywords referring to EU supporting mechanisms (funds, policies, directives, institutions) are selected as the dependent ones.[113] Altogether, the co-word analysis is conducted on ***53*** specific terms in the set of ***54*** documents, all mentioning railway transportation or train traffic – dated from October 1999 to March 2021.[114]

Figure 8: Venn diagram of bags-of-words used as research filters



Below is a brief reasoning for the analysis' keywords selection, starting from the primary, secondary filters that helped identify the sources relevant to the topic, and concluding with the thematic bag-of-words clusters that made it possible to specify the textual basis for the demonstration of the relationship between the Visegrad Group's rail transport integration endeavors and the EU's structural mechanisms.

---

[112] Rail(way/ways) + Infrastructure(s), Connectivity(-ies), Connection(s), Corridor(s); TEN-T, High-speed/HSR, Freight/Cargo, Train(s), Mobility, Passenger(s); and Combined Transport(ation)

[113] EU/European + Development(s)/Fund(s/ing)/Financing/Support(ing)/Facility; Railway/Mobility/Transport + Package; Connecting Europe Facility / CEF; Cohesion Fund(s) / CF (Altogether *29* specific terms)

[114] Quantitatively inclined researchers may leverage vast corpora with inductive research approaches. Word frequency is in the focus of the "bag-of-words" approaches, which method might ignore grammatic nuances, although, official high-level documents rarely involve such latent meanings.[114] The bag-of-words method limits the amount of information that can be extracted from a text, still permitting inferential models of huge corpora to be developed using count choice schemes.

Primary filter for text selection: TRANSPORT(ATION). The growing values in transport, trade, and tourism statistics do not necessarily incentivize greater railroad cooperation among Visegrad countries, whose economies compete with one another on the international transportation corridors. Yet the four countries' goal is to make their transport networks mutually permeable – with this endeavor being continually addressed in official V4 communications in the past *20 years.*

Such spoken and written commitments have been materialized in the forms of regular and *ad hoc* negotiations, meetings, summits, and conferences at expert, working group, and political (state secretary, ministerial, prime ministerial, head-of-state) levels. For this reason, any official document of the high-level V4 intergovernmental communication that mentions quadrilateral transport cooperation can serve as a potential reference for demonstrating the impact of the European Union's sectoral mechanisms on regional policy integration.

Secondary filter for text selection: RAIL(WAY) / TRAIN / COMBINED TRANSPORT(ATION). With the aim of maintaining the focus of the investigation, only those documents dealing with transport cooperation were retained for the context analysis that specifically addressed the railway aspects of the issue. The topic of railway cooperation has three sectoral manifestations in the Visegrad Group communication: operation, services provision, and customer aspects. The first one covers issues related to INFRASTRUCTURE (management, modernization, development, and maintenance); the second refers to the organizational and economic side of rail traffic (TRAIN operation); while the latter one delivers the social effects through the end user points of view (MOBILITY-IES, CONNECTION-S).

As demonstrated on the Venn diagram above *(Figure 8),* the three mentioned logical sets are not sharply separated from each other, and content overlaps can often be found between them. CONNECTIVITY issues (e.g., bottlenecks, traffic intersections, and border crossings), as well as international railway lines (rail freight CORRIDORS, TEN-T) formulate the common set of the operational and customer approaches, while references to FREIGHT or CARGO shipments, PASSENGER services, or COMBINED (rail, road, waterway, air traffic) transport of goods and persons are elements of both the customer and services provider sets. The issue of HIGH-SPEED RAIL (HSR) connections serves as a common link between the three logical units.

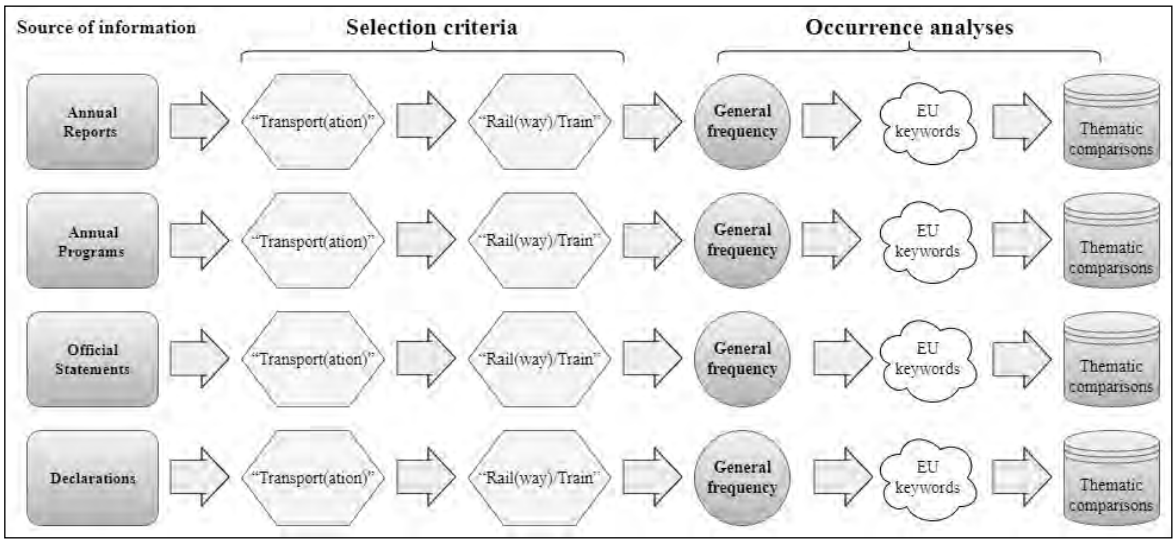
Figure 9: Research corpus, by type of content

	Total number of texts	Number of texts retained for the analysis	Percentage of retained texts
Annual Reports (1999–2021)	20	13	65,00%
Annual Programs (2000–2021)	22	20	90,91%
Visegrad Declarations (1991–2011)	3	1	33,33%
Official Statements & *communiqués* (2004–2021)	235	20	8,51%
Contents of the Visegrad Cooperation (1999)	1	0	0,00%
Annex to the Content of Visegrad Cooperation (2002)	1	0	0,00%
Total	282	54	19,15%

So far, the focus was on the selection criteria for ruling out Visegrad Group annual reports, presidency programs, official statements, *communiqués,* non-papers, and declarations that were considered as irrelevant for spillover tests. As a second step, the occurrence analysis concentrates on the general frequency ratios and accumulation of the selected research terms, in order to demonstrate with quantifiable data sets the intensity (political dimension) of railway development efforts. The third step is to identify the role of EU structures in the deepening of the V4 rail transport integration by making thematic comparisons between the occurrence proportions of EU related terms and of the ones alluding the relevant Visegrad Group endeavors. After the logical organization of the textual sources' content, it becomes clear that it is also worth investigating the effects of the EUROPEAN integration's (COMMUNITY/ COMMUNITARIAN, EU) achievements on V4 railway cooperation from (at least) three different aspects, namely: technical, political, and legal.

Technical cooperation is principally described by terms related to DEVELOP(MENT), the political dimension appears in particular in clauses on the topic of COHESION, while the legal aspects can be traced first and foremost in the mentions of the various railway PACKAGES of the EU *acquis*. References to mechanisms SUPPORTING railway development cooperation form the common set of the technical and legal logical units (bags-of-words), meanwhile the keywords related to the cohesion FUNDS (CF) and their various specialized transport facilities (CEF, CONNECTING EUROPE FACILITY) serve as a logical bridge between the technical and the political aspects. The topic of EU financing (available for railway development purposes) proves to be the linkage between the three logical clusters in the research corpus.

Figure 10: Keyword-based filtering of textual corpus[115]



The spillover tracing practice concludes with a confrontation of the documented references to potential railway collaboration between the governments of the V4 states on one hand, and the concrete integrative steps already materialized as part of the Visegrad Group's quadripartite cooperation on the other (*Figures 9–10*).

To take the official political narrative into account, the analysis involves documents identified in the online archive of the Visegrad Group. The key criteria for text selection are that it shall be issued and/or signed by politicians representing governments of V4 states (ministries, state secretariats, ministerial, prime ministerial and presidential offices) on the one hand, and to explicitly contain transport and/or railway related keywords. Given that the chosen corpus of investigation consists of (often legally binding) official political documents of the same communication genre, text mining practices like disambiguation tests, sentiment and conversation analysis, or vocabulary net building are ruled out for the research focuses on the obvious and manifest meaning of the words instead of their underlying content. For this very reason, the research did not include the use of machine learning algorithms or text mining software packages. Instead, targeted keyword-searches (using various specified bag-of-words clusters) are conducted on the text corpus available in *.pdf or .doc / .docx* formats.[116]

[115] For the tables used for data processing and visualization for content analysis, please see *Appendix 1.*
[116] The research follows the methodology applied in the academic project of Scaini *et al.* (2021), in which the researchers proposed a logical framework to compare the most commonly occurring keywords across academic, newspaper, and regulatory documents (as well as their use) in order to find evidence for the alignment of those texts with the United Nations Sustainable Development Goals and the Sendai Framework for Disaster Risk Reduction.

Figure 11: Presidency Reports in annual breakdown, October 1999 – March 2021

Period	References to "Transport cooperation"	References to "Railway cooperation"	Number of texts retained for the analysis
1999–2000	YES	NO	1
2000–2001	YES	YES	1
2001–2002	NO	NO	0
2002–2003	YES	YES	1
2003–2004	YES	NO	0
2004–2005	NO	NO	0
2005–2006	YES	NO	0
2006–2007	NO	NO	0
2007–2008	YES	YES	1
2008–2009	YES	YES	1
2009–2010	YES	NO	0
2010–2011	YES	YES	1
2011–2012	YES	NO	0
2012–2013	YES	YES	1
2013–2014	YES	YES	1
2014–2015	YES	YES	1
2015–2016	YES	NO	0
2016–2017	YES	YES	1
2017–2018	YES	YES	1
2018–2019	YES	YES	1
2019–2020	NO	NO	0
2020 – March 2021	YES	YES	1
total:			13

As a primary filter, the research corpus retained for further analysis includes only those V4 documents that contain terms (phrases/notions/keywords) related to transport policies or cooperation *(Figure 11).*[117] In order to maintain the focus of the investigation, the set of relevant data sources is further narrowed down to those documents that make statements specifically involving rail or train traffic.[118] Thanks to the above, it is possible to reduce the number of sources relevant to the research to a significant extent: only *one-fifth* of the texts remains at our disposal (*Figures 14–15*). The decrease in the number of available documents is particularly significant in the case of official statements and *communiqués,* for only *8.51%* of those texts meets the research criteria. In particular, annual presidency programs prove to be the most useful sources, since from October 1999

[117] The bag-of-words cluster used as a filter was “Transport(ation)”.
[118] Rail(way/ways) + Infrastructure(s), Connectivity(-ies), Connection(s), Corridor(s); TEN-T, High-speed/HSR, Freight/Cargo, Train(s), Mobility, Passenger(s); and Combined Transport(ation)

to March 2021, almost *91%* of those documents make reference to rail transport cooperation opportunities *(Figure 12).* Whereas in official statements, *communiqués,* and non-papers the research identified a relatively limited number of positive hits – with the 2016–2021 period being the most relevant in light of the research scope *(Figure 13)*.

Figure 12: Presidency Programs in annual breakdown, October 1999 – March 2021

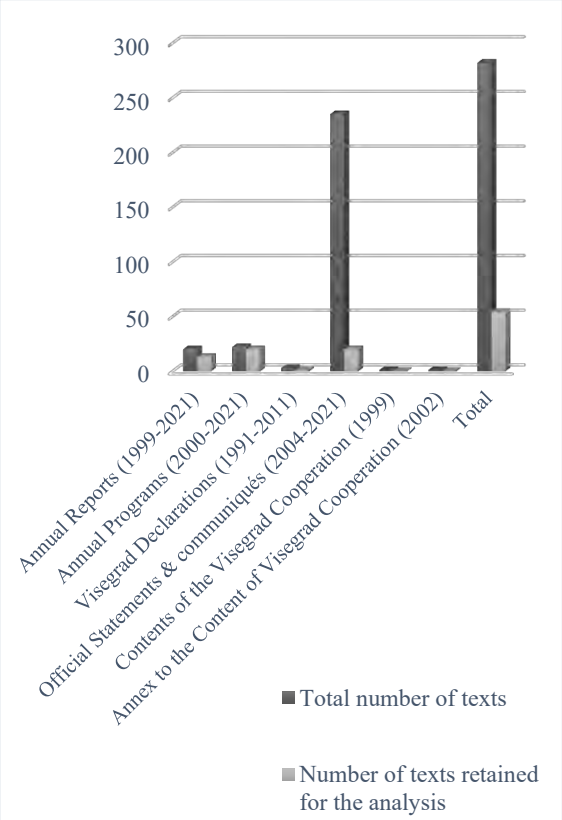
Period	References to "Transport cooperation"	References to "Railway cooperation"	Number of texts retained for the analysis
1999–2000	NO	NO	0
2000–2001	YES	NO	0
2001–2002	YES	YES	1
2002–2003	YES	YES	1
2003–2004	YES	YES	1
2004–2005	YES	YES	1
2005–2006	YES	YES	1
2006–2007	YES	YES	1
2007–2008	YES	YES	1
2008–2009	YES	YES	1
2009–2010	YES	YES	1
2010–2011	YES	YES	1
2011–2012	YES	YES	1
2012–2013	YES	YES	1
2013–2014	YES	YES	1
2014–2015	YES	YES	1
2015–2016	YES	YES	1
2016–2017	YES	YES	1
2017–2018	YES	YES	1
2018–2019	YES	YES	1
2019–2020	YES	YES	1
2020 – March 2021	YES	YES	1
total:			20

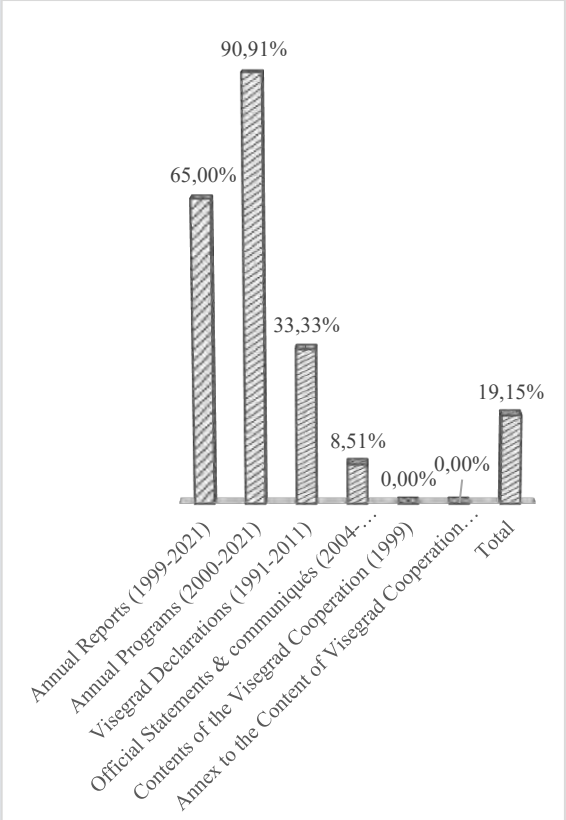
Figure 13: Official statements, *communiqués,* and non-papers in annual breakdown, 2004–2021

Period	References to "Transport cooperation"	References to "Railway cooperation"	Number of texts retained for the analysis
2004–2005	NO	NO	0
2005–2006	NO	NO	0
2006–2007	YES	NO	0
2007–2008	YES	NO	1
2008–2009	YES	NO	0
2009–2010	YES	YES	1
2010–2011	YES	YES	2

2011–2012	YES	NO	0
2012–2013	YES	YES	1
2013–2014	YES	YES	1
2014–2015	YES	YES	1
2015–2016	YES	YES	1
2016–2017	YES	YES	2
2017–2018	YES	YES	2
2018–2019	YES	YES	4
2019–2020	YES	NO	0
2020 –March 2021	YES	YES	4
Total			20

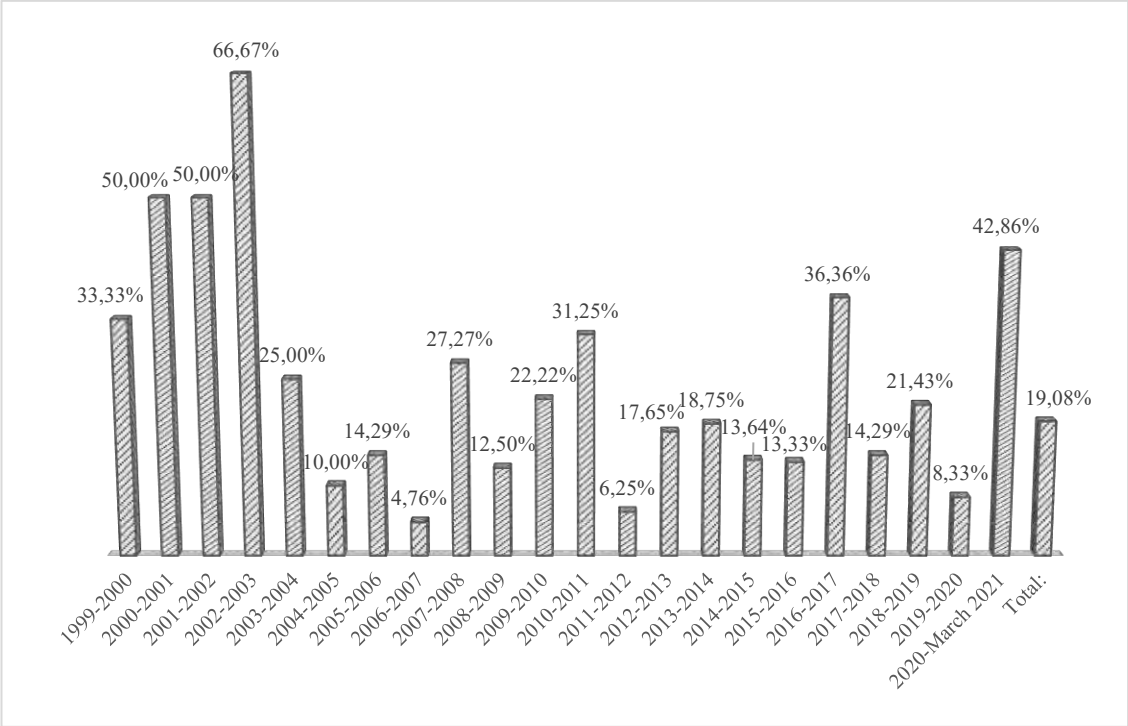
Figures 14–15: The ratio of texts retained for the analysis to all texts, by type of content; Percentage of texts retained for the analysis, by type of content

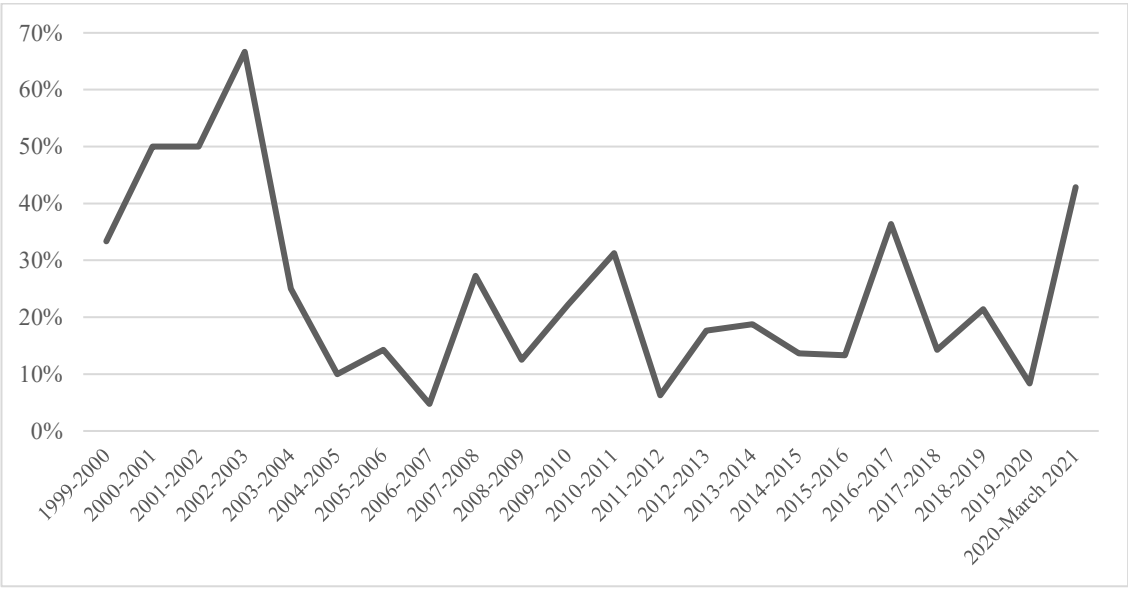




As displayed on *Figures 16* and *17*, the proportion of textual sources relevant to V4 railway cooperation evolved hectically in the *2 decades* under review. The presidencies of 2002–2003, 2010–2011, 2017–2018, and 2020–2021 provide an outstanding proportion of documents on the subject of the Visegrad Group's railway development efforts, while the 2006–2007, the 2011–2012, and the 2019–2020 periods seemingly did not prioritize the topic.

Figures 16–17: Percentage of texts retained for the analysis, annual breakdown





4.2. General frequency tests: mapping co-occurrence of dependent and independent variables

Quantitative content analysis is a process that involves tabulating the occurrences of content units. It is a method for describing the manifest content of communication in an objective, methodical, and quantitative manner. The statistical semantics of political conversation is known as content analysis as its statistical and quantitative aspects are the most distinguishing characteristics of this type of research technique. Quantification

is the result of obtaining frequencies through counting, this method aims to characterize the meanings in a corpus of text in a systematic and quantitative manner (Franzosi 2004). Although, this technique can be easily applied in multiple languages (Monroe and Schrodt 2008), the present research focuses exclusively on English-language resources. When it comes to the application of text-based scientific approaches in social sciences, content analysis employs a quantitative method. Unlike critical discourse analysis, which focuses on the relationships between texts and their social and historical settings, content analysis primarily looks at the data retrieved from the texts themselves. In recent decades, the technique of content analysis has grown in popularity. [119]

Mane and Börner (2004) further argue that co-word occurrence content analysis can be used to measure the strength of associations between keywords based on how often they occur together in the same text. In that sense, the strength of a selected keyword pair (contextual relevance/dimension) varies from *0* for those that never appear together to *1* for the ones that always do so. If the index's numerical value takes on a value higher than *1*, it means that within the associated word pair, the dependent one is even more important for the drafter than the base term since it appears more often than the latter in the given text. The higher this value is, the more the examined text mentions the elements chosen as dependent variables.

As detailed before, in order to trace EU-driven spillover mechanisms in the strengthening of sectoral regional interdependencies among Visegrad Group states, the current analysis focuses on the dynamics of correlations and interactions between the joint V4 cooperative measures for railway development on one hand and the Communitarian financial/political/legal toolkit triggering such joint quadripartite endeavors on the other. To illustrate the evolution of the intertwining and cascading common V4 railway efforts, the total textual sources of complete presidential years are selected as the basic subjects of the investigation instead of the individual documents. More precisely, the frequency test of the selected keywords (co-occurrence analysis) is effectuated in annual breakdowns – comprising all official sources available in the online database of the Visegrad Group. Thus, the co-word occurrence analyses are not conducted within single documents but the whole research corpus for each annual presidential term from 1999 to March 2021.

[119] A content analysis of *486 articles* published in Journalism and Mass Communication Quarterly between 1971 and 1995 discovered evidence of a positive trend in the number of research articles using the aforementioned technique (Franzosi 2004).

Content analysis is, therefore, an important research technique for political communication analysis. Although other methods for understanding texts are also available (qualitative and critical approaches), for the above reasons, content analysis happens to be a suitable means of measuring or quantifying dimensions of the content of the V4 documents' messages.[120]

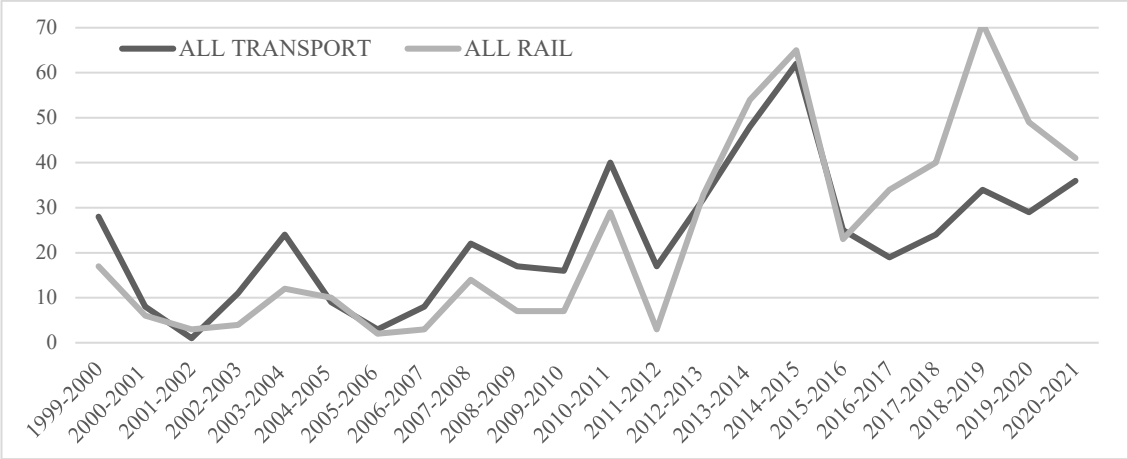
4.2.1. Quantifying variables

If the broadly positivist path outlined on the previous pages is followed, content analysis can be understood as an implicit form of statistical deduction, and it might be incorporated into the methodological framework. This method is beneficial for social science analyses for it sets aside epistemologies, and does not determine the epistemological position of the text under scrutiny. Integrating content analysis into traditional ways of social scientific research provides a broadening of perspective as well as a set of techniques for dealing transparently and systematically with texts. Content analysis involves breaking down texts into relevant bits of information to allow for further categorization. In the following analysis, the two variables are *A:* terms associated with rail transport development and *B:* notions covering the EU's mechanisms applied for transport development.

As mentioned before, the political dimensions of railway cooperation among Visegrad states serve as dependent variables for the analysis. Following the logic detailed earlier on, the first task is to identify the political actions related to the idea of deepening the railway cooperation between the four states concerned. With the aim of understanding the evolution of the integrative decision-making steps, the data-mining scheme goes in chronological order starting from the date of the earliest available official document dealing with transport/railway cooperation between the Visegrad countries. Research of the Visegrad Group's online library identified that from October 1999 to March 2021, the term "transport(ation)" appeared *513 times* altogether in the analyzed texts. The above-noted keywords can be traced in the research corpus every year since 1999, with an average yearly frequency of *23.32%.* As can be seen on *Figure 18*, the research is limited to those official V4 documents in which the statespersons outline the railway aspects of transport policy cooperation.

[120] As the keyword research is conducted manually and it does not include computational linguistics or automated text mining IT tools, for the verification of the results, there was no need for the human coding of the textual corpus to check whether computer and human judgment matched. The exercise of word counting (data mining) is widely used in multiple academic fields to determine how different topics are related or linked to each other (Hansen 2015).

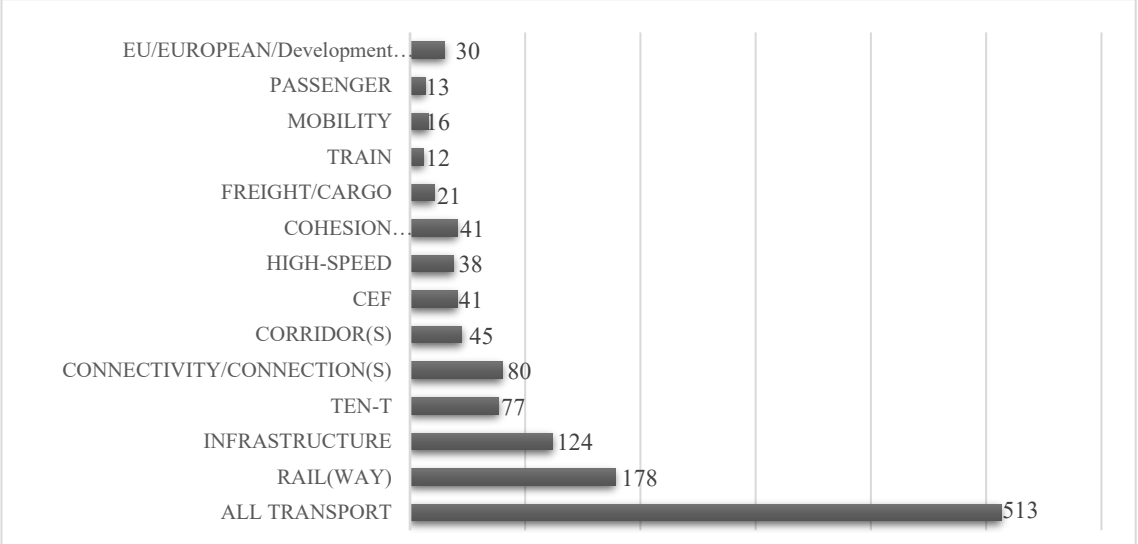
Figure 18: Appearance of transport- and railway related terms, October 1999 – March 2021



In order to have a view on the nature and main directions of the railway policy coordination among V4 states, it is useful to take a look at the proportions of the most commonly used railway related terms in official V4 documents dated from 1999/2000 to 2020/2021.[121] As it is displayed on *Figures 19 and 20* below, in given time frame, the most commonly referenced notions in the official V4 documents' rail transport vocabulary are:

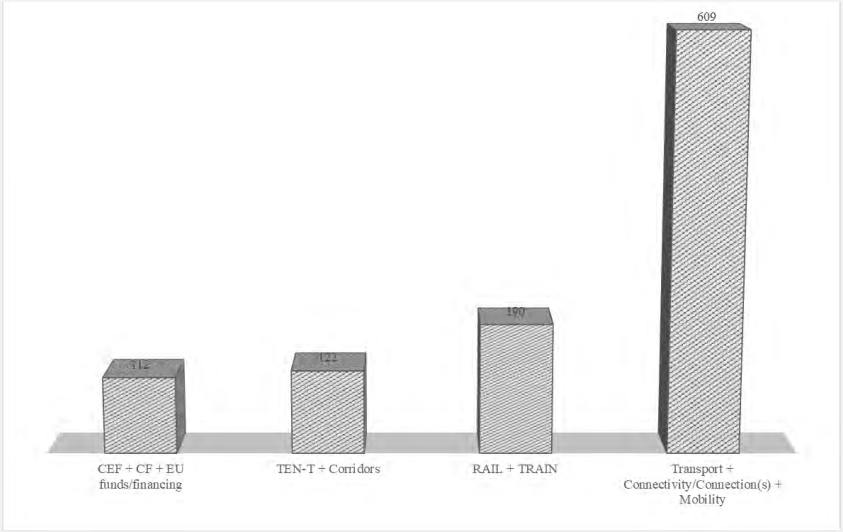
- "transport" *(513 times)*
- "rail(way)" / train *(190 times)*
- "infrastructure" *(124 times)*
- "connectivity/connection(s)" *(80 times),* and
- "TEN-T/Trans-European Transport Network" *(77 times)*

Figure 19: Proportion of railway related keywords, October 1999 – March 2021



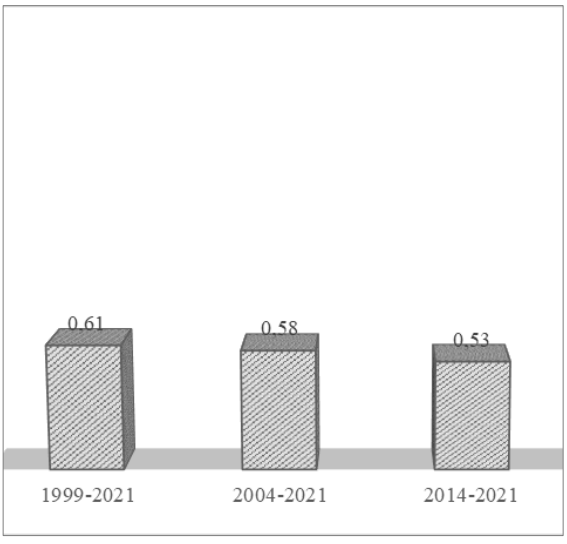
[121] The annual presidential term of the Visegrad Group lasts for *12 months* from July to June. The earliest source available is dated 1999, while the research concludes with a document dated March 2021.

Figure 20: Commonly used railway keywords, October 1999 – March 2021



References to railway infrastructure modernization in official V4 texts quite often occur simultaneously to comments on the EU's legal, political, and financial supporting tools available for transport development: from 1999 to March 2021, around *two-thirds* of all statements connected to railway infrastructure appear in an EU related context. The co-occurrence index *(Ey/Ix)* of terms related to railway infrastructure *(Ix)* and EU mechanisms *(Ey)* in the examined official documents of the specified time illustrates the relationship between the independent and dependent variables in this case. The topic might have lost a bit of importance as years went by, however, as the median value shows, infrastructure related issues emerge every year in the official Visegrad Group documents, normally *two times* more commonly than the references to EU mechanisms (*Figure 21*).

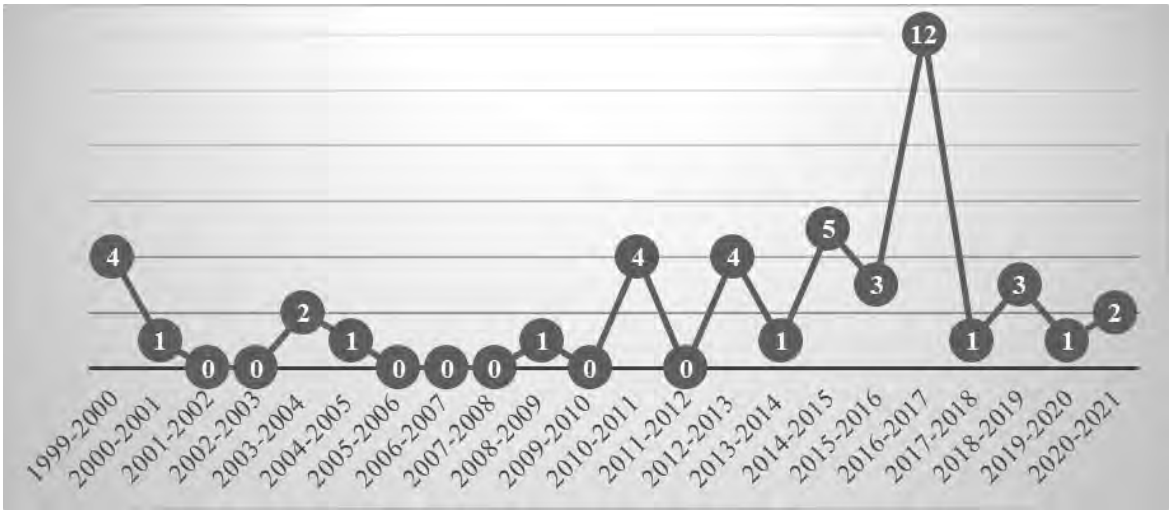
Figure 21: Co-word occurrence index between the "railway infrastructure" bag-of-words and the "all EU related references" bag-of-words, October 1999 – March 2021



When a specific dependent phenomenon is seen together with the first observed occurrence in a latent variable model, deduction includes finding a distribution over values of the first observed phenomenon. According to Mane and Börner (2004), if the co-word occurrence index value is 0, it means that during the selected period, there were no official railway related V4 documents that made any mention to the EU's political, financial, or legal tools (Ey). The associative relationship between the two variables can be traced in the studied texts of the chosen corpus with alternating strength when the numerical value of the aforementioned index is higher than 0 and lower than 1. The value's distance from *zero* indicates how important V4 decision-makers found using EU mechanisms for rail transport infrastructure modernization in the given year.

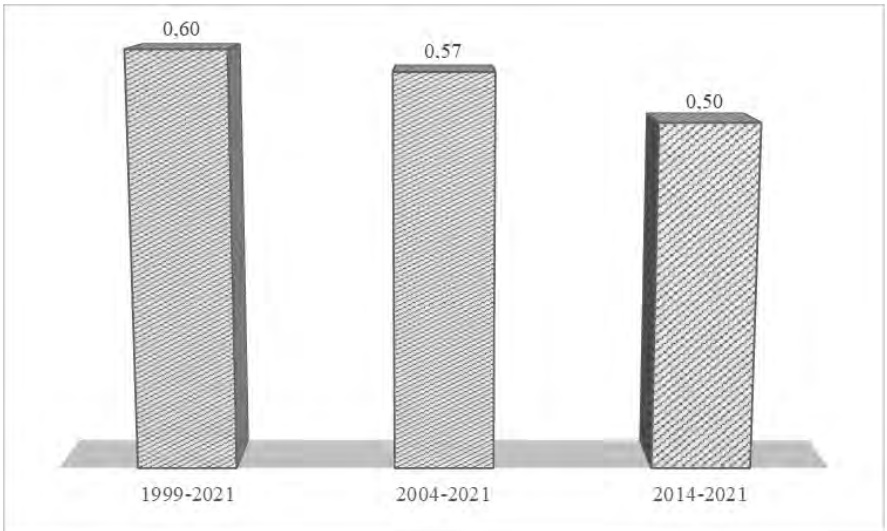
The topic of cross-border railway corridors emerged from 2010–2011 and dominated transport related V4 negotiations from 2016 to 2018 *(Figure 22).*[122] *Figure 23* displays that in the corpus of investigation dated from 1999 to March 2021, *60%* of the references to railway corridors occur simultaneously to comments on the EU's toolkit for transport development, however, the topic appears to have lost some of its importance throughout the years. The co-occurrence index *(Ey/Cx)* of terms linked to railway corridors *(Cx)* and EU mechanisms *(Ey)* in the examined official documents of the selected presidential years demonstrates the relationship between the independent and dependent variables. This value is a measure of how significant V4 decision-makers considered using EU tools to build interoperable international rail transportation routes in a given year (the closer it is to *0*, the less important the issue was for them).

Figure 22: Occurrence of the "RAILWAY" + "CORRIDOR(S)", October 1999 – March 2021



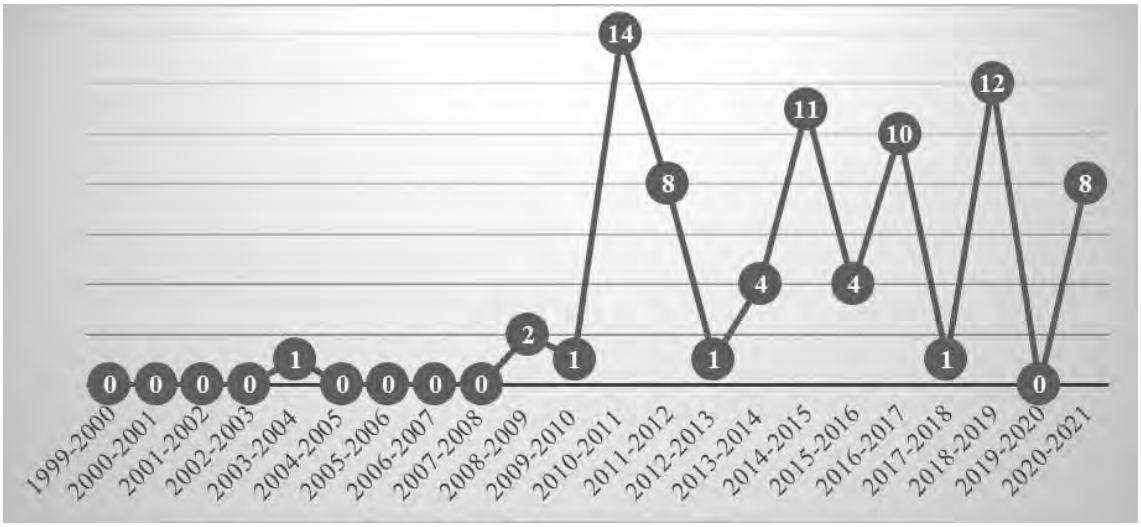
[122] The introduction of smooth V4 intraregional train services is also impeded by the technical heterogeneity of the four countries' railway infrastructures (Tóth 2020b).

Figure 23: Co-word occurrence index between the "Rail(way) Corridor" bag-of-words and the "All EU related references" bag-of-words, October 1999 – March 2021



If the co-word occurrence index value is *0,* there are no references to EU political, financial, or legal tools *(Ey)* in the official V4 papers dealing with railway corridors during the given period. If the index's numerical value stands between *0* and *1,* the association between the variables appears in the texts with varying degrees of intensity. As shown on *Figure 24* below, with varying intensity, the question of TEN-T routes became a permanent topic on the V4 agenda from 2010 onwards, reaching peaks in 2012 and 2019. Railway development and efforts to link the railways of old and new EU member states were among the core V4 transportation priorities.

Figure 24: Appearance of the term "TEN-T", October 1999 – March 2021



As it is displayed on *Figure 25*, issues covering future high-speed rail services go almost "neck and neck" with infrastructural issues, whereas topics associated with freight and passenger corridors represent *12%* of the railway vocabulary in the sources. Cooperation in the field of boosting rail freight and passenger services appeared on the V4 transport agenda mostly in the 2010–2011 and the 2014–2019 periods, respectively. These issues, however, did not get special attention, as such fields of intergovernmental cooperation represented only *7%* and *4%* of the total railway related policy coordination endeavors referenced in official V4 documents in the given time frame.

The co-occurrence index *(Ey/Hx)* of terms related to HSR projects *(Hx)* and EU mechanisms *(Ey)* illustrates the relationship between the independent and dependent variables. If the value of the co-word occurrence index is *0*, it indicates that there are no references to EU tools *(Ey)* in the chosen documents that discuss HSR endeavors. As displayed on *Figure 25*, HSR related V4 endeavors received more importance in official V4 documents in the programming period between 2014 and 2021 (with *23%* of all EU related references being associated with high-speed projects), compared to the text corpus of the years passed since the four countries joined the Community *(19%)*. However, as the median value indicates, the topic emerges quite rarely in official V4 documents dealing with railway cooperation. If the index's numerical value is between *0* and *1*, the relationship between the variables manifests itself with varying degrees of intensity. The more closely the value approaches *1*, the more seriously V4 decision-makers contemplated using EU resources to build a regional high-speed rail link in the specific period.

Figure 25: Co-word occurrence index between the "High-Speed Rail" bag-of-words and the "All EU related References" bag-of-words, July 2004 – March 2021

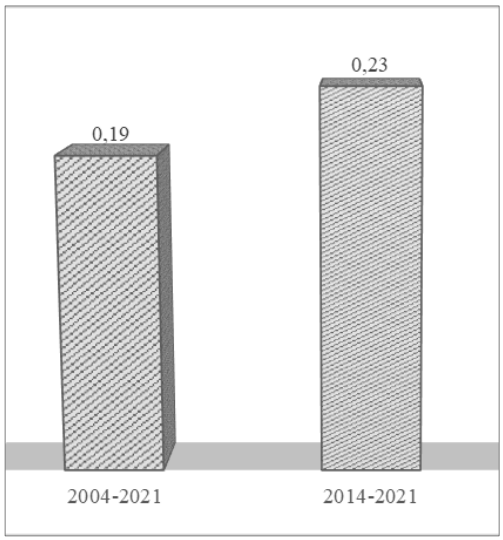


Figure 26: Co-word occurrence index between the "rail freight/cargo" bag-of-words and the "all EU related references" bag-of-words, October 1999 – March 2021

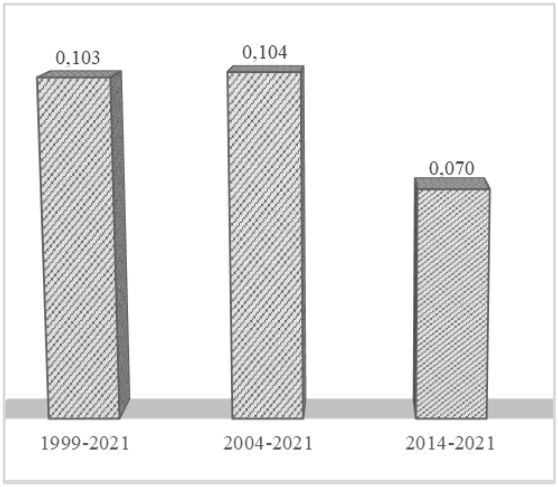


Figure 27: Co-word occurrence index between the "rail passenger transport" bag-of-words and the "all EU related references" bag-of-words, October 1999 – March 2021

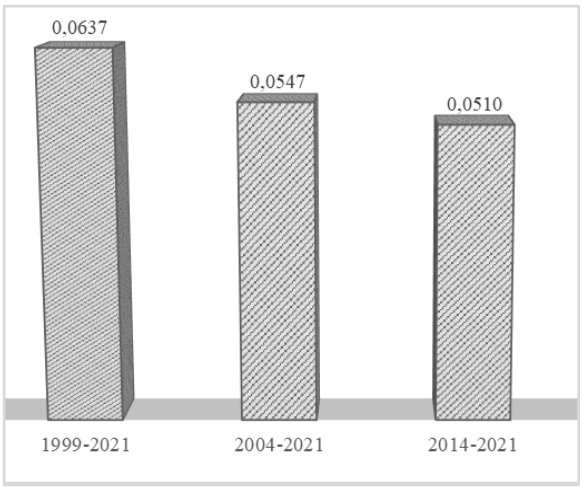


Figure 26 demonstrates that the topic of rail freight traffic did not receive a big deal of attention in the official V4 texts covering the importance of the EU mechanisms in regional railway development: from 2004 to 2021, only around *1* out of every *10* mentions to EU tools were made in connection to rail cargo traffic, and such ratio drops to *7%* if the focus is on the 2014-March 2021 period. In addition, as the median value shows, the topic of cargo shipments appears relatively rarely in the corpus. Rail passenger traffic was followed with even less attention in the V4 format decision-making, as displayed on *Figure 27.* For a comprehensive summary about the representation of the different sectors of railway operation, see *Figures 28 and 29.* The co-occurrence indexes *Ey/Fx* and *Ey/Px* of terms linked to freight and passenger services (*Fx* and *Px*, respectively) and EU mechanisms displays the relationship between the independent and dependent variables *(Ey).*

Figure 28: Occurrence of keywords related to sectors of railway operation, October 1999 – March 2021[123]

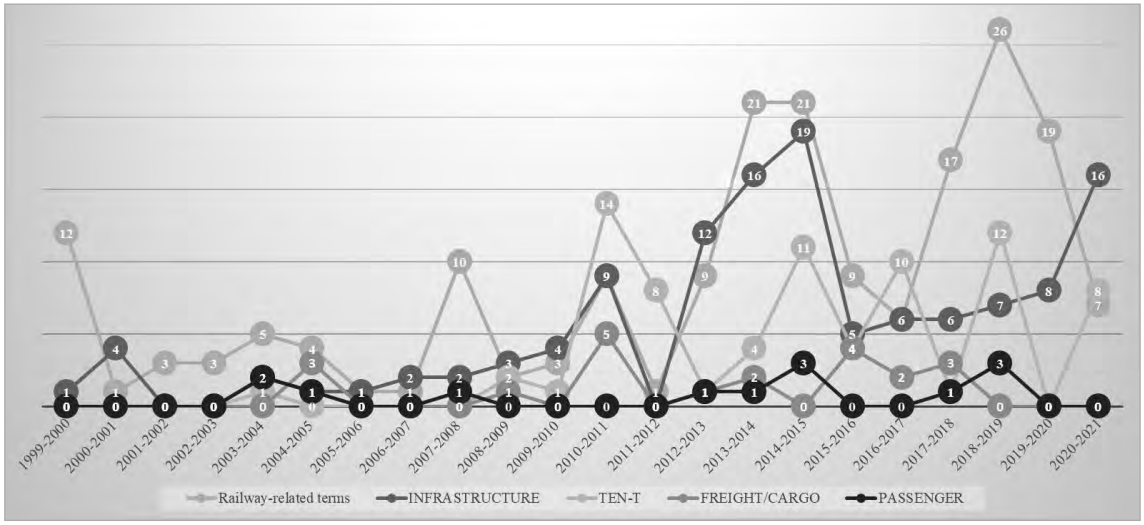
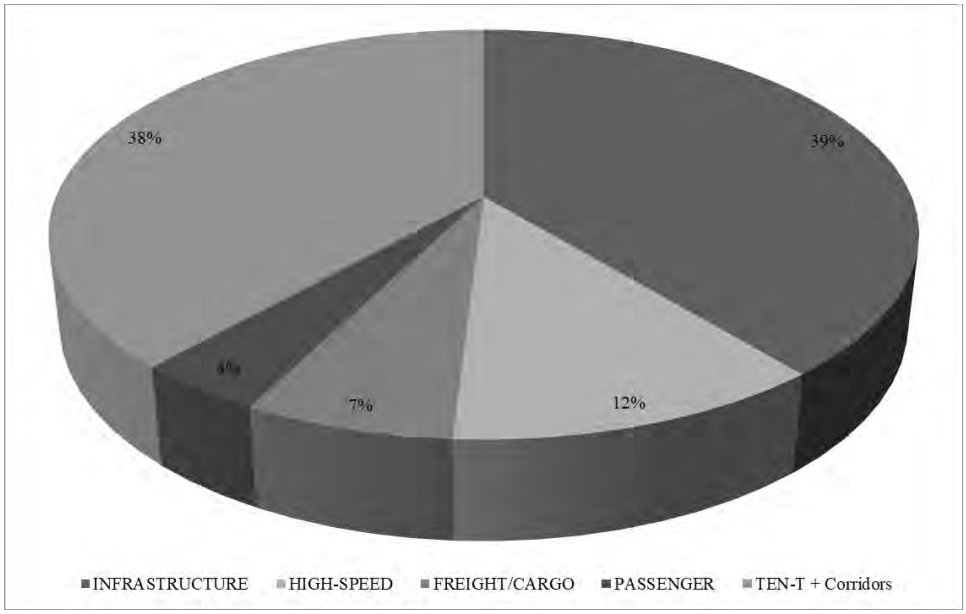


Figure 29: Proportion of keywords related to sectors of railway operation, October 1999 – March 2021

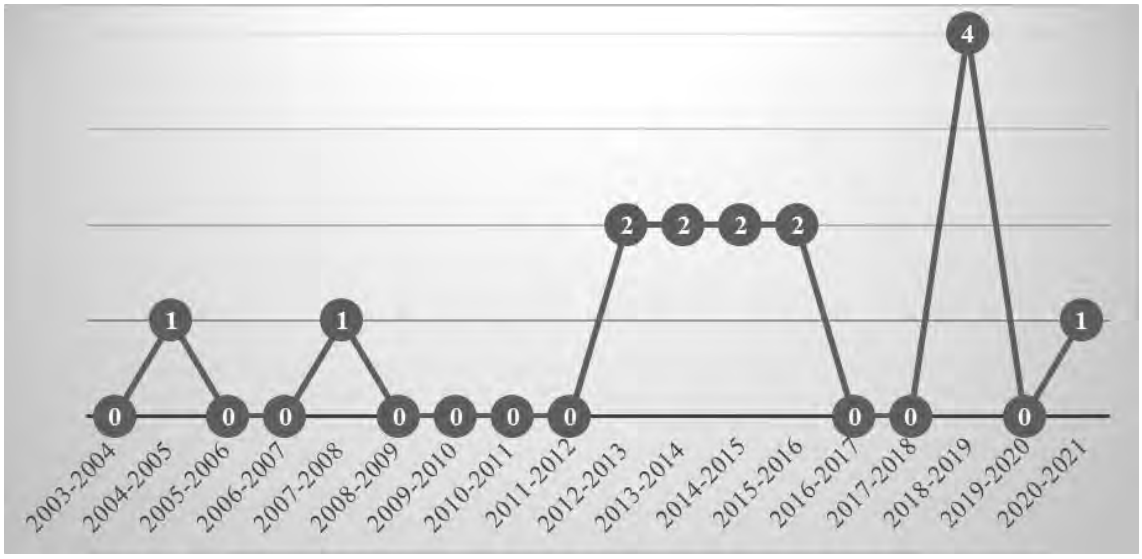


So far, the focus was on the independent variables: the bag-of-words consisting of terms and notions related to rail(way) transport. In the previous section, the bag-of-words frequency analysis helped evaluate the proportion and intensity of various functions related to rail transport that appeared in the official communication of the Visegrad Group during the examined period. All of this helped examine and illustrate the plasticity and constantly changing priorities of the V4 railway policy agenda. It has been revealed from the above that the Visegrad countries do not have permanent, decades-long railway policy objectives in the period under review, although some features of the rail transport

[123] In this specific case, railway related terms cover the following bag-of-words: rail(ways), train(s), trainset(s), combined transport(ation-s)

cooperation constantly appear in the research corpus. The above findings must be taken into account, when the shifts in emphasis between the various EU instruments assigned to the common railway development goals of the four countries is examined. As mentioned earlier, the behavioral implications of content analysis are as follows: *statement X* implies *action Y* (Hopf 2004).[124] Therefore, the following paragraphs delineate the dependent variables of the analysis: the bag-of-words containing keywords covering the European Union's different cooperative mechanisms (funds, regulations, directives, recommendations). The harmonization of the Czech, Hungarian, Polish, and Slovak national approaches towards such legislative proposals of the European Union has received a special attention in the V4 policy coordination since 2012, reflecting the actual transport related legislative proposals (new regulations or recasts of former ones) of the European Commission (*Figure 30).*

Figure 30: Occurrence of the "Railway/Mobility + Package(s)" bag-of-words, July 2004 – March 2021



As displayed on *Figure 31,* issues associated with the "cohesion fund(s)", "CF", "cohesion member state(s)/country(ies)" were primarily discussed during the quadripartite meetings in the 2009–2012 and the post-2018 periods, reaching record intensity during the concluding negotiations on the 2021–2027 long-term EU budget. Research of official V4 documents identified that the accumulation of references to EU financial support mechanisms for railway development largely coincided with that of the agenda items for cohesion policies (see *Figures 31 and 32.*).

[124] Researching politicians' social media coverage (see, e.g., Ernst *et al.* 2017; Machill *et al.* 2006) or officially recorded speeches (see, e.g., Kertzer 2013) is a widely used content analysis method in political science to understand and measure the change in the narratives and interpretations of certain phenomena.

On *Figure 33,* the aggregated accumulation of references to the bags-of-words including terms like "CEF", "CF/Cohesion Fund/Policy(ies)", "EU/European/Development Fund(s)", and "EU/European/Development financing" (associated with railway related topics), one can clearly see that in the examined period, *3 times* out of *5*, the European Union's tools supporting investments in transport infrastructure have been referenced in official V4 documents in the context of regional railway cooperation. Consequently, it might be assumed that railway integration endeavors of V4 states have been strictly related to the availability of EU financial resources for infrastructure development.

Figure 31: Occurrence of the terms "Cohesion Fund/Policy/Countries/member state(s)", 2003–2021

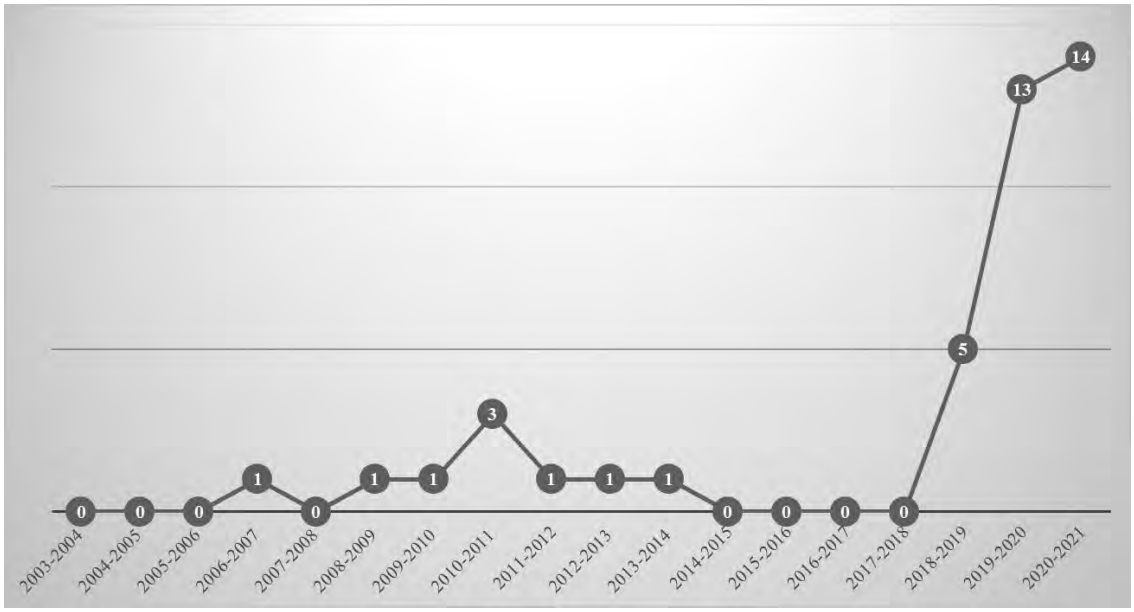


Figure 32: Appearance of the terms "EU/European/Development" + "Funds/Funding/Financing" in relation to transport, 2003–2021

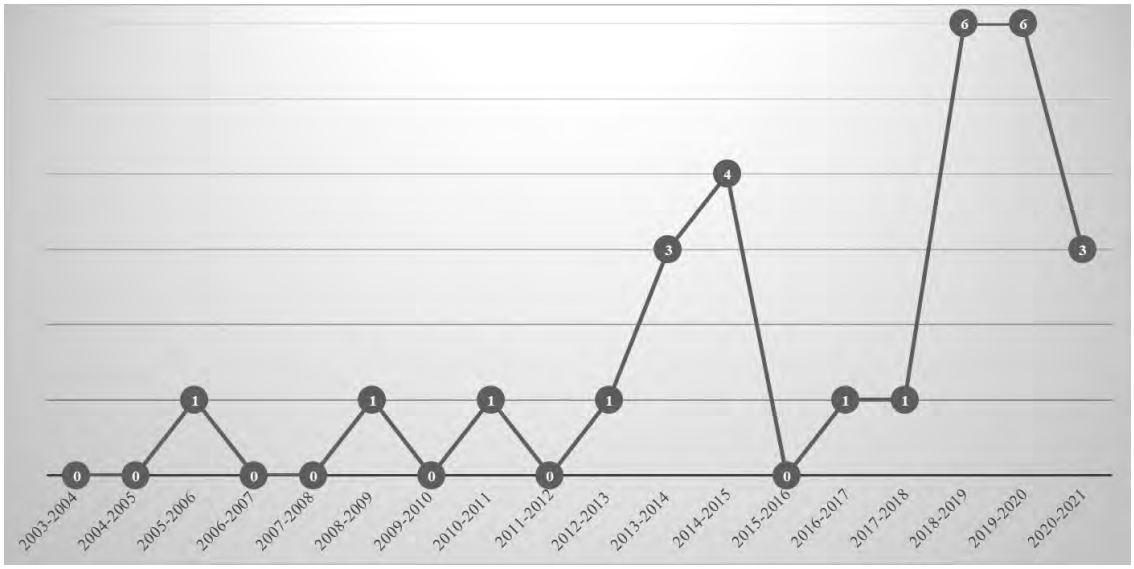
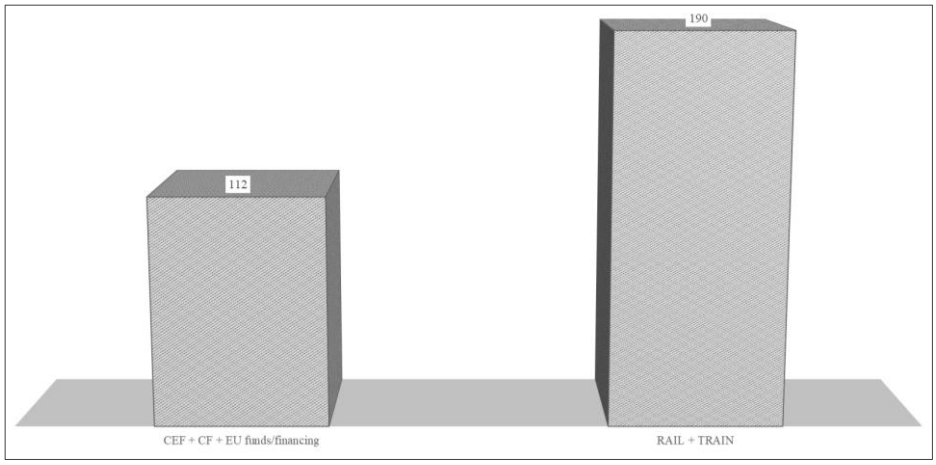
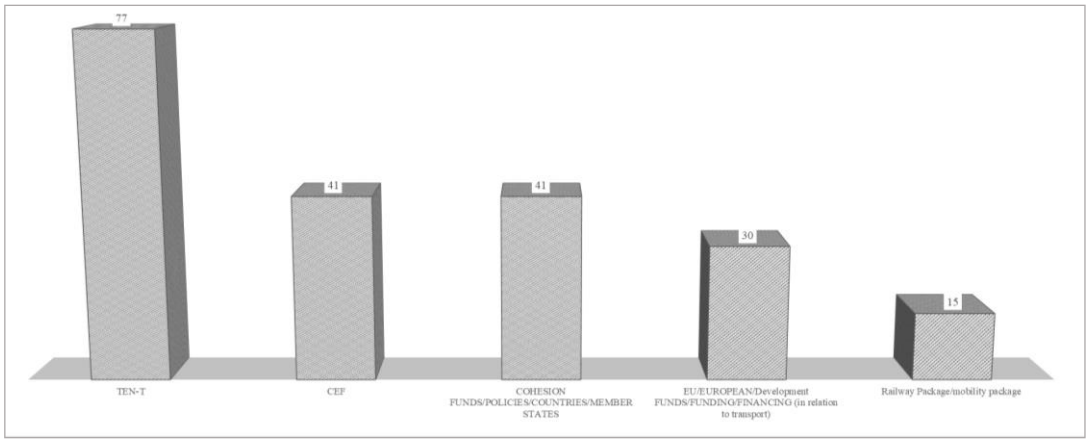


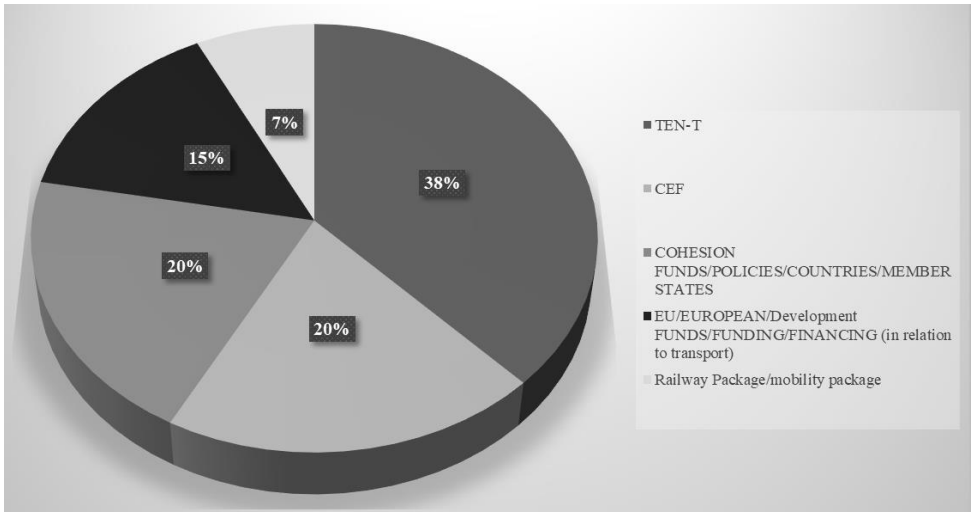
Figure 33: Proportion of references to EU cohesion/development funds for transport and to V4 railway initiatives, 2003–2021



On a *20-year* horizon, TEN-T policies dominate the V4s' transport projects supported by the EU's financial and legislative frameworks, while topics related to the Community's cohesion toolkit (including CEF) are the second most referenced terms in the Visegrad countries' cross-border mobility cooperation, as displayed on *Figures 34 and 35*.

Figures 34–35: Occurrence of EU railway keywords; Proportion of the EU related keywords' occurrence, October 1999 – March 2021





4.2.2. The relationship between EU mechanisms and V4 railway cooperation

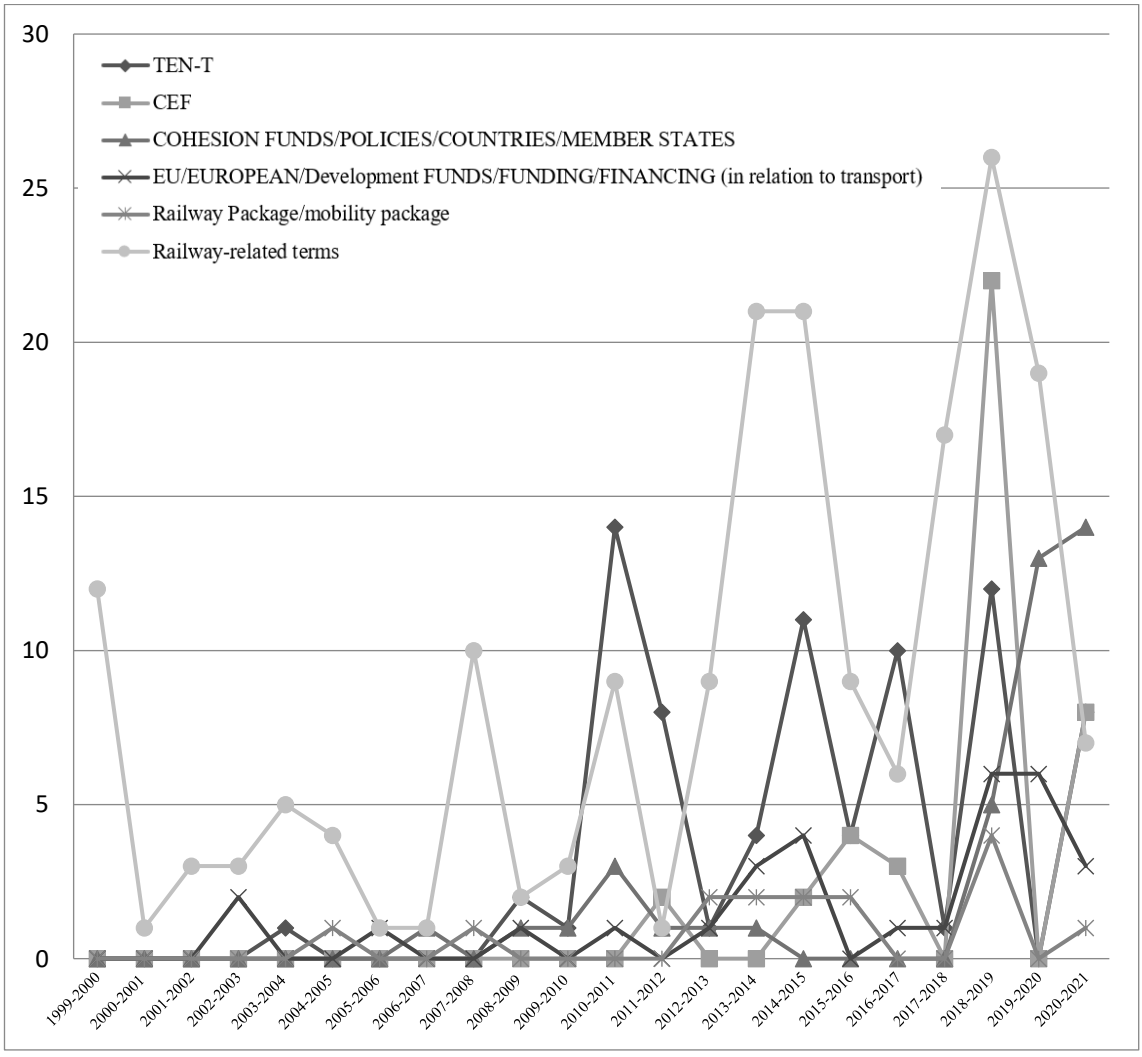
The reliability of a content analysis lies in its precision that demonstrates accurately measured patterns in the content of texts, reflecting reality (Franzosi 2004). To make content analysis work, analyzed actors must be considered as sovereign, autonomous, and independent individuals who choose precisely what they want to say, as if what they intend to express were not mere social products recoverable in the context. Consequently, if the researcher concentrates on accumulation of certain phrases used by politicians over time, a targeted keyword-based content analysis of official V4 documents is a crucial aspect of understanding the evolution of politics level discourse regarding the contribution of EU incentives to the creation of an intertwined and modern transport fabric in the ECE region. By using different statistical methods, the evolution of the selected keywords' occurrence in the official V4 documents could be translated into measurable items.

Due to a relatively limited amount of text in the data set, manually labelling and searching the documents was not time-consuming but essential in identifying the real existing textual relationship between the keywords related to the EU's contribution on the one hand, and the development of the V4 railway infrastructure on the other. So far, the focus of the discussion was primarily on identifying references to cooperative measures among V4 governments in the field of railway transport using the Community's relevant supporting mechanisms. The section to come, however, describes the further institutionalization of the Visegrad countries' related efforts as EU member states.

As displayed on *Figure 36* below, the content analysis reveals that the appearance of terms associated with rail transport ("railway", "rail", "train", "infrastructure", "TEN-T', "connectivity/connection(s)", "corridor(s)", "high-speed", "freight/cargo", "mobility", and "passenger") goes in parallel with expressions related to the European Union's supporting mechanisms for mobility infrastructure development ("CEF" / "Connecting Europe Facility", "Cohesion + funds / policies / countries / member states", "EU / European/ development + funds / funding / financing", "railway / mobility + package"). Since 1999, the words "rail" and "railways" appears in official V4 documents every year, roughly *8 times* per presidential terms, as an average. From the 1999–2000 period to the July 2020 – March 2021 tenure, the terms "rail" and "railways" are identified *178 times* in the documents.

All of this leads to the conclusion that the direction of the Visegrad states' political efforts regarding railway development always adapts to the European Union directives, political and financial resources. In this sense, a system of mutual dependence can be discovered between the decision-making reference points indicated by the dependent and independent variables used for the research. Therefore, the "community spirit" can be caught in the act both directly and indirectly in the expansion and deepening of the sectoral transport policy cooperation mechanisms of the Visegrad Four, inasmuch as the four states use EU resources to implement the V4 railway integration steps *a priori* limited and shaped by the EU structures. Consequently, the railway cooperation taking place in the Visegrad region is based on the institutional system of the European Union (both in terms of its instruments and direction) envisaging the process of spilling over of the Communitarian integrative mechanisms onto a ECE specific sectoral cooperation.

Figure 36: Occurrence of railway- and EU related vocabulary, October 1999 – March 2021



As it is displayed on *Figure 36,* terms associated with rail transport and expressions related to the EU supporting mechanisms were most commonly used from 2012 to 2015 and from 2017 to 2020, coinciding with the European Union's 2014–2020 budgetary period, whose specialized funds contributed largely to the development of the Visegrad countries' railway systems.

Translating the numerical values of co-word occurrence rates into the language of real effective intergovernmental railway cooperation, the following integration process can be delineated. By strengthening their macroeconomic competitiveness, in the 1999–2021 period, Visegrad countries aimed at implementing harmonized transport modernization policies with the most effective utilization of EU cohesion funds. As net recipients of EU structural funds, Czechia, Hungary, Poland, and Slovakia have always been active players in the informal "Friends of Cohesion Policy" club and managed to get the highest amount of funds per capita for the 2014–2020 multiannual financial period (visegradgroup 2013e). Cohesion policies contributed to the improvement of the region's public transport by the purchase of new rolling stock, and the upgrading or constructing of railway infrastructure, etc. By dividing total passenger-kms by total train-kms, one can get an indicator that gives a realistic picture about rolling stock capacities. As of 2018, Poland leads the way among the V4 countries in such ranking, followed by Slovakia, Hungary, and Czechia. Visegrad states, however, rank below the European standard: the trainsets are shorter and / or have less seats (IRG-Rail 2020).

The whole regional railway integration process is in major part powered by the EU's development funds and policies.[125] In the 2014–2020 MFF, cohesion policy was focused on eleven thematic goals, with sustainable transport and network infrastructure being one of them. As the member states and the European Commission jointly manage the cohesion and regional development funds available for railway projects through the Connecting Europe Facility ("CEF") instrument, the research of European Commission database goes on pointing at the funds allocated to rail programs in each V4 state in the given period.

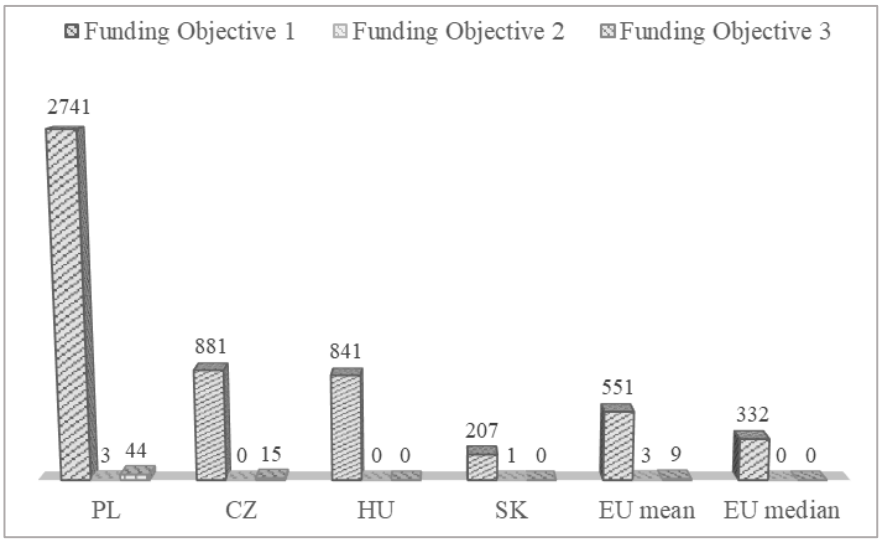
[125] As far as cooperation in infrastructure management is concerned, the Shift2Rail initiative aims at cutting the life-cycle cost of building, operating, maintaining, renewing, and dismantling railway infrastructure and rolling stock by *50%*, doubles railway capacity as well as increases reliability and punctuality by *50%* of the railway services (Europe's Rail 2023). ČD, MÁV, and ŽSSK from Czechia, Hungary, and Slovakia, respectively, are participants in the European Company for the Financing of Railroad Rolling Stock ("EUROFIMA"), a supranational organization that supports the development and modernization of European rail infrastructure. In addition, the 2014–2020 multiannual budget offered *41.6 billion euros* as blended (public and private) financing for the realization of transport development projects. On top of all this, the European Commission set aside *11.3 billion euros* from the CF to boost transportation infrastructure in fifteen less developed EU countries, including V4 states (European Commission 2018b).

Figure 37: ERDF and CF allocated in rail programs per member state (EUR million, May 2020; Source: European Commission INEA 2023)

	CZECHIA	HUNGARY	POLAND	SLOVAKIA
Railways (TEN-T Core)	**212.41**	**480.00**	**1 184.14**	**605.84**
Railways (TEN-T comprehensive)	**926.21**	**230.00**	**2 260.64**	**121.72**
Other railways	**277.44**	**170.00**	**2 452.47**	**72.23**
Mobile rail assets	**286.28**	**300.00**	**939.04**	**210.00**
Total	**1 702.34**	**1 180.00**	**6 836.31**	**1 009.79**
of which: from CF	**1 702.34**	**1 140.00**	**5 009.70**	**745.84**
of which: from ERDF	**0**	**40.00**	**1 826.61**	**263.95**

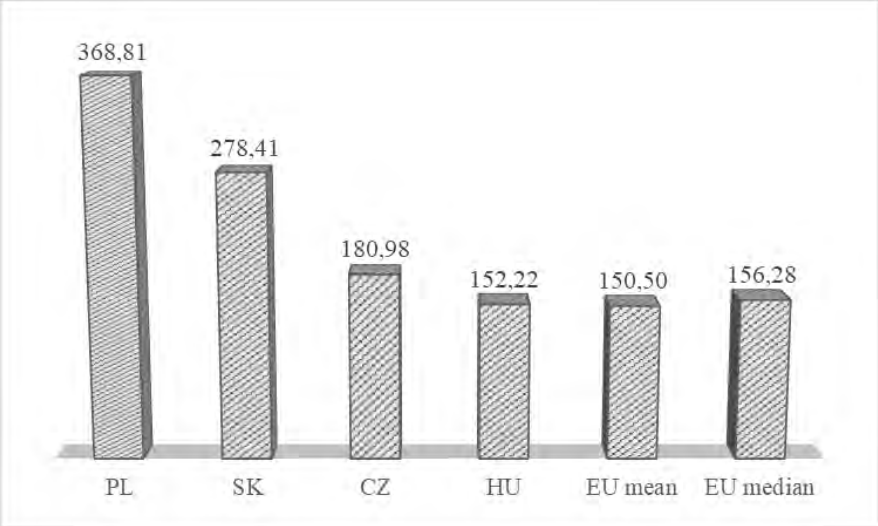
Rail related projects obtained *26%* of overall Cohesion Fund ("CF") and European Regional Development Fund ("ERDF") transportation funding (*18.6 billion* out of *70.7 billion euros*). In the 2014–2020 financial period, the EU contributed around 150 million euros to rail research initiatives, such as the Shift2Rail joint undertaking public-private partnership that was established in 2014 to coordinate scientific research activities. Considering the allocation of such funds among all member states, one can see that Poland and Czechia has benefited the most out of them in the 2014–2020 period. Looking at the allocation of CEF transport funds for railway projects by member state, one can see that Poland is the largest recipient of CEF rail funds (*19%* of total allocated funds). When it comes to CEF funds under the cohesion envelope, Poland is by far the biggest beneficiary, accounting for *54%* of total allocated funds, followed by Czechia and Hungary – reporting shares way beyond EU average and median levels, as seen on *Figures 38–40* below.

Figure 38: Allocation of CEF rail transport funds (April 2020, Source: European Commission INEA 2023)[126]



[126] CEF transport funds – Funding Objective 1 2019 m EUR; Funding Objective 2 2019 m EUR; Funding Objective 3 2019 m EUR

Figure 39: Allocation of CF and ERDF funding per line-km (EUR thousand per line-km, May 2020, Source: European Commission INEA 2023)



For the implementation of intermodal transport projects under the Operational Program "Infrastructure and Environment", Poland allocated an overall budget of approximately *465 million euros*, financed from the Cohesion Fund. From the same financial sources and budgetary period, the Czech government secured state aid of approximately *92 million euros* in order to guarantee rail transport interoperability (European Commission 2017b).[127]

As displayed on *Figures 40–41,* rail has a paramount share in the Czech and the Polish transport infrastructure development activities. During the 2014–2019 programming period, Czech beneficiaries received *1.1 billion euros* co-funding from the Cohesion Fund as part of CEF projects.[128] In the same period, Hungarian bidders were granted *1.1 billion euros* co-funding (primarily from the CF). In the given time frame, Polish beneficiaries were transferred *4.2 billion euros* as "CEF Transport" co-funding (out of which *4.1 billion euros* came directly from the CF). In Slovakia, transport projects were granted *712.4 million euros* CEF co-funding, out of which more than *704.7 million euros* were transferred from the Cohesion envelope (Connecting Europe Facility 2019).[129]

[127] At the time of writing, *943* CEF Transport projects contribute *23 billion euros* to transportation infrastructure programs, totaling *50 billion euros* in spending across all modes of transportation, out of which *70%* goes for railways (CER 2021).

[128] Such grants contributed to investments (concrete constructions, designs, and preliminary studies) of a total value of *1.6 billion euros* in that time frame. As much as *54%* of such initiatives were directly related to railway development, thus the major part of EU funds supported the sector.

[129] Such grants contributed to investments valued at *927.5 million euros*. All things considered, *8%* of the Slovakian CEF projects focused on railways and these initiatives received almost *one-third* of the total contribution. In Slovakia, backed by European Union funds, they modernized the railway

Figure 40: CEF projects in the 2014–2019 programming period (Source: Connecting Europe Facility 2019)

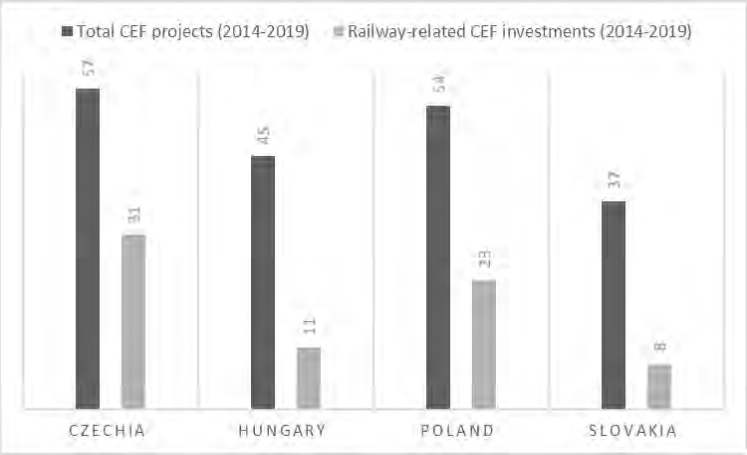
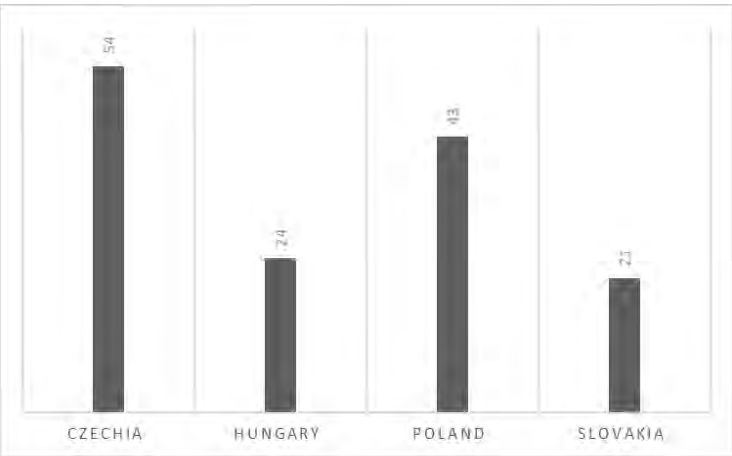


Figure 41: Proportion of railway investments within CEF-funded projects (2014–2019; Source: Connecting Europe Facility 2019)



Going back to the context analysis, it is not a surprise that the proportion of notions for the above-noted financing tools (Cohesion Fund, CEF) or terms related to EU transport policies (TEN-T, corridors, high-speed, mobility) varies to the same extent as railway related terms. This is especially true for the term from 2014 to 2020, as it is demonstrated on *Figure 42*.[130] Furthermore, the most frequent expressions for transport related EU funds in the same documents are: "CEF/Connecting Europe Facility" and "Cohesion + funds/policies/countries/member states". This allows conclusion that

section between Považská Teplá and Žilina in 2018. The refurbishment of four railway lines in Slovakia began in 2018-2020, namely from Malacky to Devinska Nova Ves, from the state border between Slovakia and the Czech Republic to Kúty, from Lučivná to Poprad, and from Žilina via Varin to Strečno; TASR 2018a; 2018b).

[130] In the 2014–2020 Multiannual Financial Framework, EU cohesion policy is based on eleven thematic priorities, with the creation of sustainable transport and network infrastructure being one of them. Cohesion Fund and the European Regional Development Fund ("ERDF") are the key resources. Member states and the European Commission jointly control the Cohesion Fund and the ERDF by cooperation arrangements, with a portion of the Cohesion Fund being channeled directly through the CEF.

the demand for the use of the funds detailed above can be accurately traced in the official V4 documents. In this sense, the observer can assume a clear cause-and-effect relationship between the V4 high-level political declarations and the statistics reporting the effectiveness of the railway developments realized with the help of the EU funds. The joint interest articulation of the four states thus brought tangible results.

Figure 42 shows that through the time since 2004, around *20%* of the references made to European Union cooperation mechanisms in the V4 documents on the subject of railway development referred to the CEF funds. The mentioned funds received an even bigger attention in the 2014–2021 programming period, with about *25%* of all references to Communitarian efforts being related to the Connecting Europe Facility. However, if one takes a look at the median value encompassing each year from October 1999 to March 2021, it can be stated, that elements of the CEF related bag-of-words occur relatively scarcely in V4 documents dealing with railway integration.

Figure 43, on the other hand, illustrates that since 2004, every second comment on EU resources that can be read in the Visegrad Group's official textual sources on the subject of railways, actually refers to the Community's transport development cooperation mechanisms, including CEF. Again, in the period between 2014 and March 2021, more than *60%* of all mentions to the EU in the corpus covered the Communitarian financial resources available for transport modernization purposes.

As seen before, the co-occurrence index *(Ey/Cx)* of phrases associated with the CEF *(Cx)* and EU mechanisms *(Ey)* demonstrates the associative link between the independent and dependent variables. The more closely the co-word occurrence index value stands to *0*, the less weight V4 decision-makers give to using CEF funds *vis-à-vis* all other EU instruments at their disposal in the given period. The same finding applies if we take all EU transport development funds as a basis instead of CEF funds and compare the proportion of their textual references to all EU related clauses in official V4 documents from 1999 to 2021.

Figure 42: CEF / EU mechanisms co-word occurrence index (2004 – March 2021)

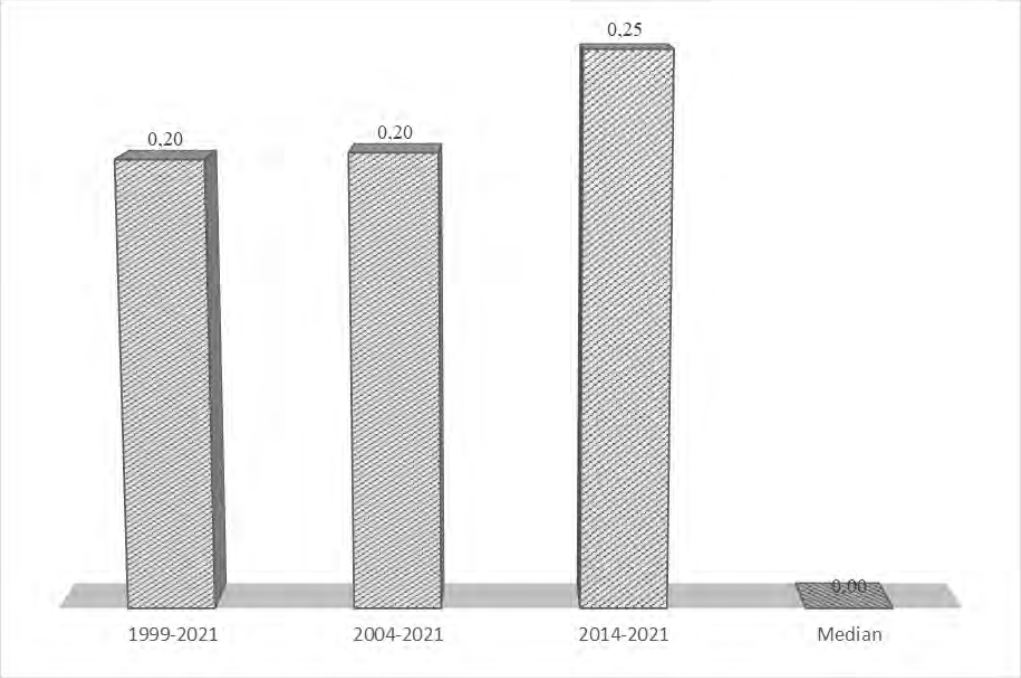
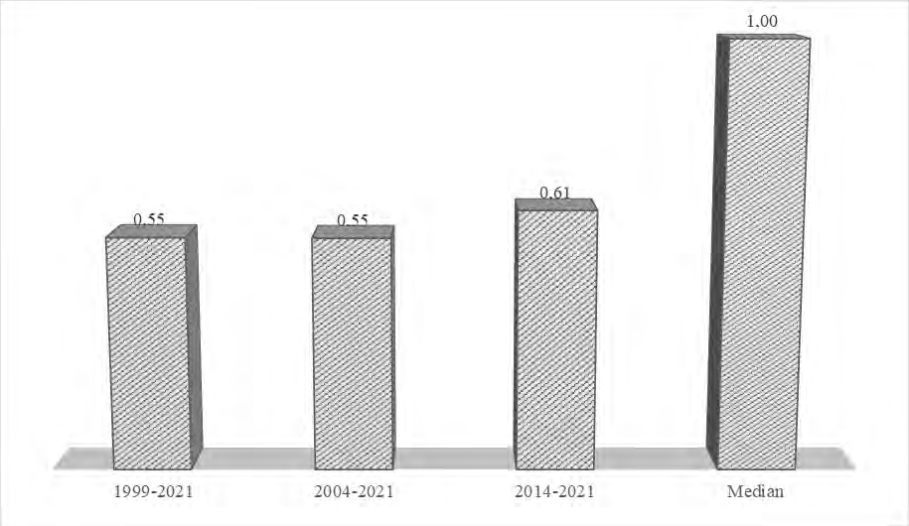


Figure 43: EU financial sources available for railway / all EU mechanisms co-word occurrence index (October 1999 – March 2021)



Political science methodology incorporates content analysis into its statistical apparatus for it is not fundamentally different from any other sort of quantitative method available in their toolkit. The linear regression model is arguably the most commonly used statistical technique among political scientists. A regression, in its most basic form, connects certain observable phenomena to others (in case all research items are accurately measured), assuming that the phenomena observed in the second place are randomly distributed around a mean value deterministically related to the ones noticed in the first place.

In a latent variable model, deduction entails obtaining a probability distribution over values of the first observed phenomenon when a specific other phenomenon is noticed too. For instance, *X* specifies the content of a selected document (in our case: joint V4 railway development) whereas *Y* assesses its observable characteristics, such as particular words and phrases and how often they occur (e.g., frequency of references to different EU tools). By creating a vocabulary (and occurrence statistics) of the researched terms, content analysis assigns the mapping from *X*-s to *Y*-s, explaining how words and phrases express a specific underlying concept. It's a mapping between specific content and observables. The content of a new document is then inferred by inverting this mapping to obtain its likely content.

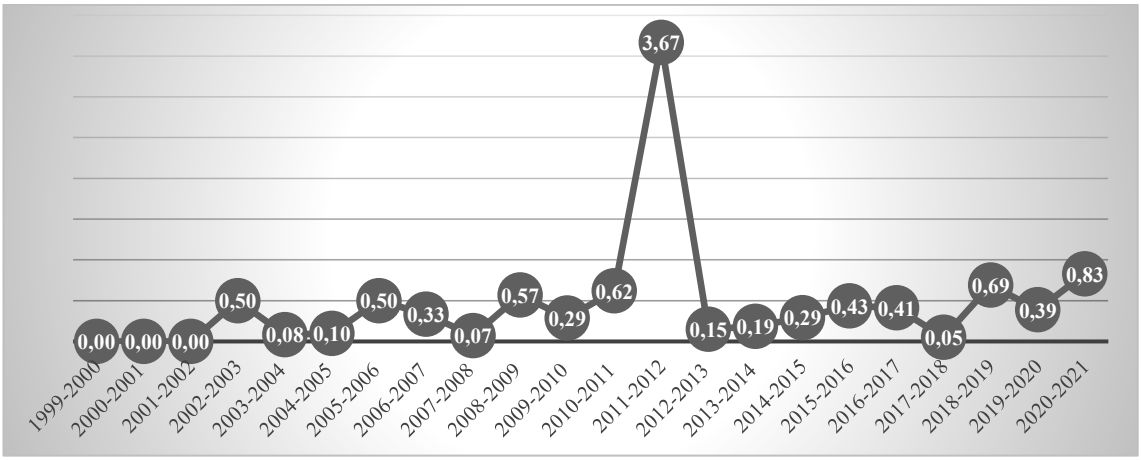
In the specific research proposed in this chapter, the relationship between the independent and dependent variables is shown by the co-occurrence index (E_y/R_x) of terms related to rail transport (R_x) and EU mechanisms (E_y) in the analyzed official documents of the given presidential year. Translating the work of Mane and Börner (2004) to the current analysis, if the value of the co-word occurrence index is *0*, it means that in the selected period there is no reference to EU political, financial, or legal tools (E_y) of any kind in the official V4 documents dealing with regional rail transport cooperation. In case the numerical value of the above index is higher than *0* and lower than *1*, the associative relationship between the dependent and independent variables appears with alternating intensity in the examined texts of the given period.

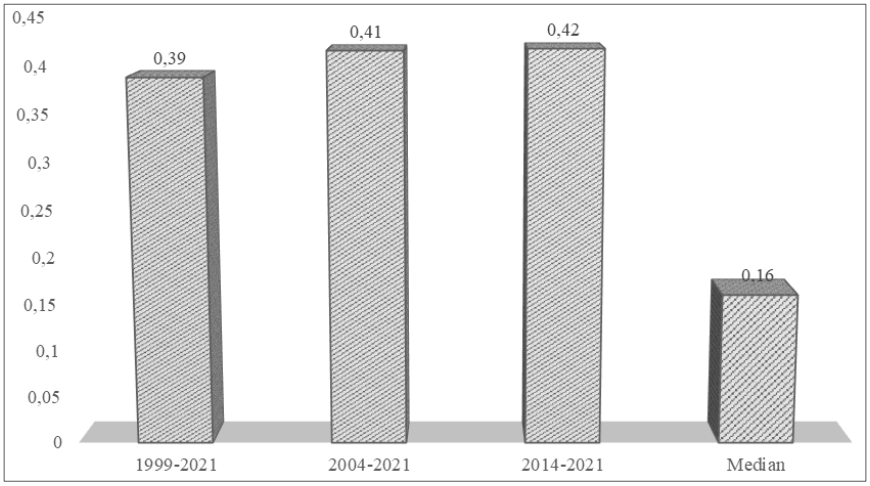
The closer the value is to *0*, the less important V4 decision-makers considered the use of the EU tools to deepen the regional railway integration in the given year. However, if the E_y/R_x index is higher than 1, it means that in the given period, the expressions related to EU mechanisms are mentioned more frequently in the documents with railway policy content than the railway transport itself. In this case, it can be determined that the main intention of the drafters of the examined set of documents was to emphasize the applicability of EU resources, directives, and incentives for the development of the V4 railway cooperation. From all of this, the observer can conclude that the governments' demand for the joint development of railway capacities in the region has grown primarily due to the spillover effects of the European integration, which entails an increase in the intensity of intergovernmental consultation in the V4 format.

With the help of the *Figures 44–45* below, it is possible to see the proportion of parallel references in official V4 documents to EU transport development mechanisms and regional railway cooperation. Looking at the overall average, throughout

the examined *20–22 years*, roughly *39%* of the text sections on V4 railway cooperation contain a reference to adoptable EU mechanisms. If the research focuses exclusively on the period 2014–2021, a somewhat higher ratio emerges *(42%)*. However, as the median value suggests, only *16%* of the research corpus makes reference simultaneously to V4 railway cooperation and the related EU mechanisms. In the period before the four countries joined the EU, the two factors were mentioned at the same time almost exclusively in the official texts created in the last two cycles (2002–2004).[131] After that, significant outliers can only be found in the periods prior to the adoption of the seven-year financial frameworks. The above deduction suggests that the actuality of the topic of the V4 railway development is highly dependent on the interest advocacy concerning disputes over upcoming multiannual EU budgets.

Figures 44–45: The evolution and different stages of the "all EU / all rail" index
(October 1999 – March 2021)





[131] The pre-EU accession Visegrad cooperation on the turn of the millennium primarily concentrated on the area of culture, environment, internal security, defense, science and education. Joint projects in the area of justice, transport, tourism and energetics were among the secondary intergovernmental cooperation targets (visegradgroup 2004b). The engines behind such sectoral integration derived from convergence policies.

It is important to emphasize that these four governments' objective has been to improve the performance of the whole rail transportation. To this end, the four country's governments looked at investing in electrification[132], signaling, safety and traffic control devices, and the modernization of the rolling stock (Tóth 2019). By 2017, railroad infrastructure quality ratings in the Czech Republic and Slovakia have grown above European standards, although, in Hungary and Poland such indexes still ranked below EU average (European Commission 2018a).

Figure 46: Length of railway lines, by category (kms, 1999 and 2020, Source: Eurostat 2023)

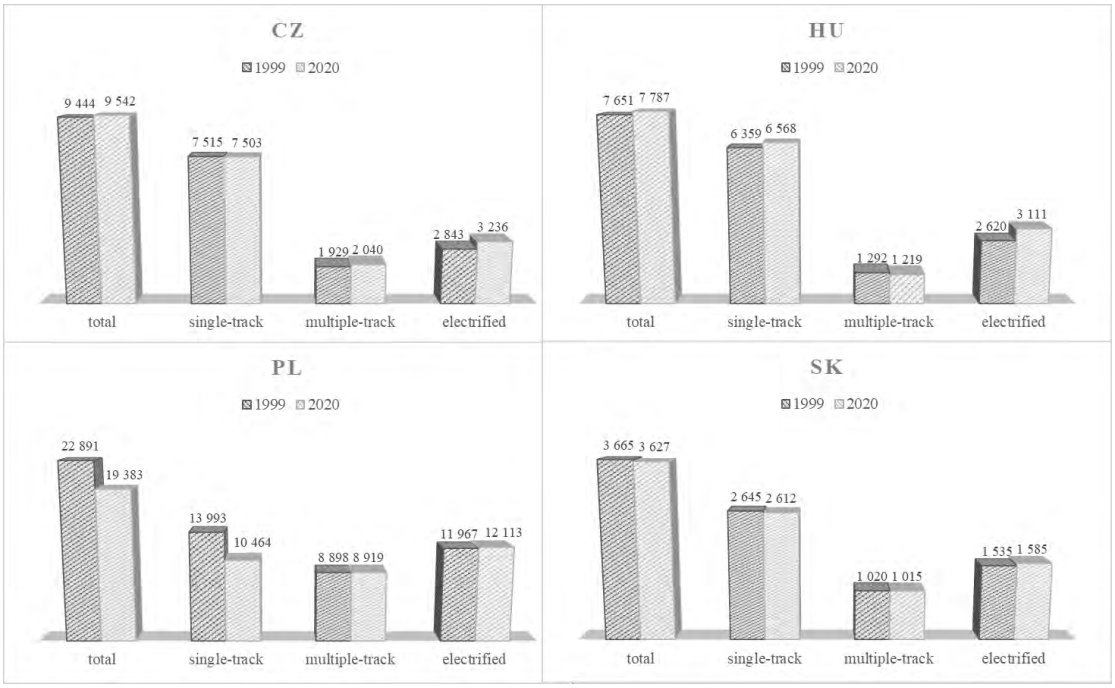


Figure 47: Electrification level of V4 railway lines, as of 2018 (Source: IRG – Rail 2020)[133]

	Functioning railway lines (length)	**Electrified railway lines (%)**
Czech Republic	9,567km	**34%**
Hungary	7,441km	**41%**
Poland	19,307km	**61%**
Slovak Republic	3,627km	**44%**

[132] The Visegrad region is not a homogenous area as far as the railway electrification systems are considered. Hungary predominantly uses alternating current *50 Hz / 25 kV*, while the power supply system in Poland is dominated by direct current *3 kV*. The Czech Republic and Slovakia have mixed electrification systems. The southern regions of the Czech Republic are covered with *50 Hz / 25 kV AC* system *(1 381 km)*, while the rail network of the northern territories is equipped with *3 kV DC (1 816 km)*. Similarly, in the southwestern part of Slovakia *(761 km) 50 Hz / 25 kV AC* system is used, and the northeastern zone *(778 km)* is covered with *3 kV DC* wires (Eurostat 2023).

[133] The average electrification level in Europe (EU 27, Serbia, Kosovo, and North Macedonia, UK) stands at *55%*, while such Figure is around *44%* in the Visegrad states (IRG-Rail 2020).

As demonstrated on *Figures 46–47* above, over the last *20–22 years,* no significant changes have occurred in terms of the expansion of the Czech, Hungarian, Polish, and Slovak railway track network. While the length of the lines intended for general rail traffic in the Czech and Hungarian railway systems have increased somewhat from 1999 to 2020, the observer shall witness a decrease in dimension in the Polish and Slovak cases. It can therefore be seen that the principal goal of railway development in the last two decades was not the construction of new lines, but the development of existing network elements. All of this can be seen mostly in the increase in railway track electrification data, in the case of all four countries.

In order to increase the modal share of railways, it is indispensable ensuring adequate capacity and punctuality in line with market needs by the promotion of intermodality and interoperability.[134] The EU's economic, social, and territorial cohesion strategies have also been used in the V4 region as financial tools and coordinating mechanisms of initiatives aimed at harmonizing technical and safety regulations of the railway network (DTCP 2014).[135] Governments of the Visegrad states have realized that ensuring interoperability between railway lines is essential for the competitiveness of this type of transport mode. In this context, railway lines have started to be upgraded and equipped with the ERTMS (see *Chapter 2*) with EU support. An example for the illustration of supranational EU policies spilling over into further regional integration is the Union's support for the homogenization of traffic management systems in Europe.[136]

Since 2009, thes four states have agreed to intensify their efforts in supporting the development of the ERTMS deployment in the region (visegradgroup 2009a; 2010a). V4 countries participate in EU-funded rail research and innovation projects too. The EU's economic, social, and territorial cohesion strategies have been used in the V4 region as financial tools and coordinating mechanisms of regional initiatives aimed at harmonizing technical and safety regulations of the railway networks (DTCP 2014).

[134] By 2018, the average punctuality of regional and local rail passenger services in the EU decreased marginally in 2018, from *93.1%* in 2015 to *90.2%.* Hungary, Slovenia, and Romania were among the EU's worst performers in this sense (IRG-Rail 2020).

[135] The deployment with the second level of the European Train Control System ("ETCS-2") and various rehabilitation as well as construction projects on key rail corridors have been at the center of the Visegrad countries' infrastructure development strategies supported by EU funds (visegradgroup 2015e).

[136] All V4 countries take part in the cooperation launched in 2005 by the European Commission, manufacturers, infrastructure managers as well as undertakings from the rail industries of EU member states to deploy ERTMS equipment on the key rail network of the Community. Since 2009, the four states have intensified their efforts in supporting ERTMS proliferation in the region (visegradgroup 2010a; 2011a).

4.3. Official statements in light of actual cooperation

At the time of their accession to the EU in 2004, the Czech Republic, Hungary, and Poland had the longest railway network among the new member states, which altogether constituted the *79%* of the new EU Countries' railway system (Office for Official Publications of the European Communities 2004). In the past two decades, the official written commitments regarding the strengthening of the Visegrad Group's railway integration have taken the forms of special negotiations, meetings, summits, and conferences at expert, working group, and political (state secretary, ministerial, prime ministerial, head of state) levels. As a final step in the analysis, the spillover tracing practice ends with a confrontation between the documented mentions of possible professional cooperation between the governments of the V4 states and the actual quadripartite integrative steps already implemented by the country group.

Annual V4 presidencies are built on one another, continuing the endeavors of the previous one to the following term. The 2000–2001 Polish Presidency of the Visegrad Group focused on the "third pillar issues" including boosting sectoral cooperation in transportation, infrastructure, and border crossings, assisting in the construction of north–south transport routes and developing joint projects between the transport and interior ministries.[137] Since 2000, V4 governments regularly assessed cooperation on boosting sectoral coordination with regards to transport infrastructure development including the upgrading of border crossings and the construction of north–south routes (visegradgroup 2001a).[138] In order to promote the region's competitiveness, the four governments took into consideration the importance of the European Union's mobility priorities, including Trans-European Transport Network ("TEN-T") projects, especially those regarding the corridors connecting their countries (Tóth 2020b).

[137] The railway industries have always been relatively concentrated in the countries belonging to the Visegrad Group, and after the fall of the Iron Curtain, the robust structure of the national railway companies have impeded their ability to respond quickly to new challenges and go through extensive structural reforms (Griffin 2007). In the 1990's, Budapest, Bratislava, Prague, and Warsaw reported low average technical efficiency results in terms of national railway company operation (Wetzel 2008). Until their accession to the EU, V4 governments faced difficulties in combining railway assets to deliver promising economic outputs.

[138] During the 2001–2002 Hungarian Presidency, expert and high-level talks were held to discuss strategic issues related to the reform of national railway companies required by EU accession criteria. V4 governments encouraged the promotion of environmentally friendly train movements (visegradgroup 2002).

After the fall of the "Iron Curtain", all other transportation modes have been developed on an east–west axis reflecting the routes of major freight movements between the European Communities and the former Eastern Bloc countries. A dense road-rail network has been built in the ECE region with connections to the main pan-European transport corridors. These *a priori* factors have provided the background for the railway policies of ECE countries through the past *100–150 years* and still determine the future advancement of the sector.[139] Mainly due to the expansion of bilateral trade between Germany and the V4 countries since 1990, supply chains have primarily been formed on the east–west axis in this region.[140] There have been initiatives to create supply chains along the north–south axis too, but so far there is no genuine north–south traffic corridor in the Eastern part of the EU (Lønsetteig 2017; see *Figure 48*.)[141] The V4 region is an ideal laboratory for evaluating the importance of cross-border cooperation since Poland and Hungary are both surrounded by seven neighboring countries, which makes them the European Union's second-largest member states in terms of the number of neighbors, after Austria (Bradley and Zaucha 2017).

In October 2001, transport ministers of Visegrad states issued a joint statement on railways and combined transport, in which they made reference to their desire to promote the growth of economic and commercial ties, with a particular focus on regional issues and the shared belief in the importance of infrastructure development. Their collaboration was motivated by a desire to encourage efficient railway transportation between their countries and the growth of combined traffic, emphasizing the principle of railways without borders.

[139] After the 1989 regime changes, rail traffic has lost a lot of its significance in the Visegrad area, while passenger travel by rail has been notably rising in the western part of the continent.

[140] In October 1999, the V4 countries' state secretaries for transportation met in Bratislava. The construction of transport corridors linking Northern and Southern Europe, as well as cooperation in the field of transportation related to European integration, were among the main topics discussed. Officials expressed their readiness to hold additional consultations, preferably at the ministerial level, from that date on (visegradgroup 2000).

[141] It is presumed that the historical east–west axis in ECE geopolitics can only be altered by closer ties with the Balkans. Given their predetermined geopolitical situation, bargaining position, economical weight, and socio-political experiences, a genuine (non-EU and non-NATO) V4 approach to the Western Balkans may serve as one of the few chances for these states to act deliberately in a non-predetermined way in the European arena. To this end, Budapest, Bratislava, Prague, and Warsaw has made efforts at harmonizing their political actions. Since 2009, each high-ranking Visegrad Four summit has addressed Western Balkans related questions and V4–Western Balkans foreign ministerial meetings have been organized on an annual basis ever since (visegradgroup 2009b).

V4 governments supported all activities aimed at boosting the integration of the region's railways into the European network, as it was important for them to promote combined transportation by simpler border controls. The four governments secured financial contributions from pre-accession EU resources for the completion of railway corridors and invited national railway companies to coordinate actions in the areas of tariffs, timetables, and marketing, as well as to establish better conditions for combined transportation (visegradgroup 2001b; 2001c). Between 2002 and 2003, V4 transport expert meetings focused on promoting combined transport services and establishing border-crossing cooperation, as well as exchanging information on the use of EU funds and on the implementation of the related *acquis communautaire* (visegradgroup 2003, for further details see *Chapter 2* on the legal–institutional pillars of the V4 railway cooperation). The conclusions of combined transportation expert meetings were reaffirmed at ministerial level too.[142]

In practice, one can observe how V4 governments extended cooperation towards harmonizing transport policies in light of European integration from expert to ministerial level. They established the Forum of V4 Transport Ministers, which would be coordinated by the transport minister of the actual Visegrad Group's Presidency holder government, and to make it easier to use environmentally friendly modes of transportation such as railways, inland navigation, and combined transportation. At least one meeting in that format was held each year ever since, to make it easier to use environmentally friendly transportation modes such as railways, inland navigation, and combined solutions. It is worth noting that the emergence of intergovernmental problem-solving mechanisms increases the probability that political leaders establish new loyalties beyond the nation-state, thus spilling the process of inter-state integration over to new cooperative schemes (Schimmelfennig and Rittberger 2001).

Since the 2000s, railway related decision-making among V4 governments primarily concentrated on the infrastructural aspects of cohesion and development policies, while the support of freight or passenger services providers received less attention in the quadripartite cooperation. Since 1999–2000, the term *"infrastructure"* accounts for almost *40%* of the railway related expression identified in official V4 documents. In official V4 documents from the past *20 years*, the European Union tools supporting transportation infrastructure investments have been mentioned *three* out of every

[142] The work of the combined transport expert group (increasing competitiveness and harmonizing the costs for using transport routes), continued during the Czech Presidency in 2003–2004 (visegradgroup 2004a).

five times in the context of regional railroad cooperation.[143] As a result, it is reasonable to presume that the V4 nations' railway integration has been dependent on the availability of EU financial resources for infrastructure development.

The content analysis of official V4 texts revealed that, from 1999 to 2021, roughly two-thirds of all V4 statements referring to railway infrastructure appeared in an EU related context. This is because comments on the EU's legal, political, and financial supporting tools for transport development frequently occur concurrently with references to the modernization of railway infrastructure. As time goes on, the subject may have lost some of its significance, but as the median Figure demonstrates, infrastructure related issues are typically mentioned twice as frequently as references to EU processes in the official Visegrad Group statement each year.

In 2004, the four governments agreed that the expert level negotiations in the field of railway and combined transport must continue even after entering the European Union (visegradgroup 2004a). From that date on, V4 transport related efforts have taken more concrete aims and protocol focusing on the following priority areas:

- partnership for the gradual implementation of the interoperability of goods and passenger rail transport;
- collaborative process for speeding up goods train forwarding at border stations;
- exchange of knowledge on the EU's railway legislation

All this may lead to the conclusion that the EU mechanisms have completed the V4 format's organizational, political, and financial resources, thus deepening railway integration by adding further specifications to it. The V4s continued the activities of *ad hoc* expert groups coordinating the planning and implementation of cross-border TEN-T projects in the post-EU accession period as well. Each government nominated cross-border connection experts, created permanent communication, and held meetings to identify problematic issues (visegradgroup 2004b). Initially, that format did not meet regularly, however, the *ad hoc* expert sessions surely contributed to the trust-building among railway professionals from Visegrad countries. In order to strengthen macroeconomic cooperation, V4 railway experts delineated a joint procedure in accelerating the forwarding of goods trains at border stations (visegradgroup 2005).

[143] The sectoral integration process regarding railway cooperation among V4 states has started in the 1990s, when Visegrad countries held five railway company general directors' meeting of (visegradgroup 2001b; 2001c).

As mentioned in *Chapter 2,* the V4s gave birth to a regular railway working specialists group in 2004–2005, introducing professional meetings on a regular basis. Their objective was to strengthen regional rail cooperation and integrated transportation ties, further institutionalizing the Visegrad Group nations' sectoral integration (visegradgroup 2005).

According to the neofunctionalist reasoning of intergovernmental integration, supranational institutions themselves become motors of integration, and the process results in a highly interdependent net of linkages between different policy areas (Pollack 2006). V4 endeavors for multilateral policy making exemplify the European integration's spillover effects, inasmuch as Visegrad countries decided to create reliable north–south routes as part of an integrated European Railway Area (visegradgroup 2004b).

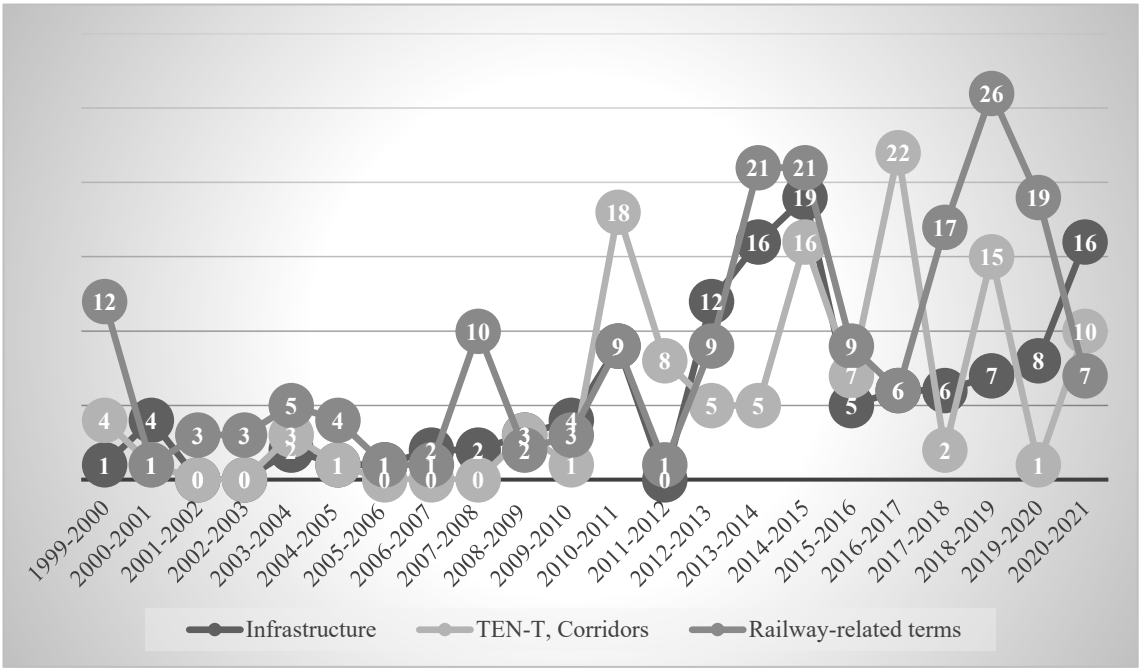
The keyword-based content analysis of the official English-language V4 text corpus shows that transport related issues did not dominate the pre-accession period's V4 negotiations *(Figure 48).* Before joining the EU, the Visegrad Four's intergovernmental negotiations on transport related issues principally concentrated on infrastructure development, freight corridors and combined transportation.[144]

From 1999 onwards, the V4 countries' state secretaries for transport have held consultations on topics related to the construction of corridors linking Northern and Southern Europe, as well as cooperation in the transport related aspects of European integration (visegradgroup 2000). Experts and government representatives from Visegrad countries met to exchange best practices on how to reorganize national railway companies as required by EU accession (visegradgroup 2002).

Intergovernmental endeavors aimed at modernizing international transport corridors, infrastructure, and railway routes started to emerge in the 2007–2013 financial programming period of the European Union. The enlargement of the European Union to *25* members in 2004 gave another impetus to trading links between Eastern and Western European economies. The east–west cargo flows (primarily driven by German, French, Russian and Chinese economic interests) reinforced the creation of trustable freight corridors and logistics terminals.

[144] Combined transport is a type of carriage of goods that brings together road with rail, and inland/maritime waterways.

Figure 48: Occurrence of the terms "rail/railway/train", "infrastructure", and "TEN-T/corridor(s)" in official V4 documents (October 1999 – March 2021)



The four governments acknowledged that transport cooperation was primarily aimed at fostering modernization, assisting the growth of underdeveloped territories along their shared borders, and reducing the dividing effect of frontiers. Cross-border cooperation schemes were supported using available public resources, including EU funds (visegradgroup 2006). The development of the region's cross-border infrastructures became integral part of these four states' endeavors to promote integrated international labor markets, local employment, business initiatives, and cross-border organizational networks.[145] Which implies that spillovers are more likely to happen in deeper original integration (Schimmelfennig 2018, see *Subchapter 3.1.*).

In 2008, V4 transport ministers agreed that the adjustment of the member states' different railway regulations was beneficial, and they started to cooperate closely on the implementation of the EU's related legislation. The four governments began consultations on the liberalization of international and national rail transport, as well as on the transfer of legislative expertise in the field of public transportation. In Haas' point of view (1961), political spillover takes place when an intergovernmental coordination in one given policy area constrains decision-makers responsible for coordinating a well-defined specific field of cooperation to become informal advocates of broadening

[145] By 2006–2007, railway related cooperative actions started to involve other policy areas, including employment and social affairs. (visegradgroup 2007a).

the spectrum of common decision-making in other areas too. In that sense, from 2007 to 2010, V4 transport ministers held discussions on their positions towards EU legislative proposals addressing railways, while the working group of V4 transport experts continued discussing questions related to rail and combined transport, traffic safety, international goods terminals, and pan-European corridors (visegradgroup 2008a; b).

By making investments in rolling stock, safety, and traffic control equipment, as well as signaling, the sector's performance was intended to be further enhanced. By 2010, one of the main V4 transportation priorities was the expansion of the railroad industry and efforts to connect the railway networks of the old and future EU member states. With an emphasis on the TEN-T project, Visegrad Group transport ministries and their state secretaries formulated consensual viewpoints on the region's possible infrastructure development paths (visegradgroup 2010a; b). *Figures 24* and *48* illustrate how, starting in 2010, the issue of TEN-T routes gradually gained prominence on the V4 agenda, peaking in 2012 and 2019. V4 transport ministries and state secretaries worked together to establish a common position on the region's potential transportation infrastructure growth, with a focus on the recast of TEN-T constructions.[146] Visegrad countries seek to introduce harmonized modernization policies with the best possible use of EU cohesion funds in order to improve their macroeconomic competitiveness. This is another area where their individual interests overlap, allowing them to make absolute benefits by working together.[147]

Furthermore, as seen from the analysis above, within the official Visegrad Four documents, specific time frames could be determined by the co-word occurrence tests, in which the accumulation of terms related to EU tools (and legal framework) in relation to railway infrastructure development was more intensive, making it possible for the researcher to identify certain trends. Such trends stressed the importance of the Visegrad countries' lobbying for a solid funding for transport modernization projects in the MFF of the EU.

[146] During the regular meetings of the V4 Working Group on Combined Transport, V4 countries informed each other on their combined transport activities with special regards to statistical data, terminals, future plans, service charges, and state aid (visegradgroup 2010b)

[147] As for regional and cohesion policies, a shared spatial development document of the V4+2 countries was formulated as a result of the cooperation of six countries (Bulgaria, Romania, and the V4s) in the field of regional development. The document's aim was to help with spatial development coordination; specifically, it addressed no-continuations of so-called development poles and development axes, as well as coherent transportation networks. The V4+2 ministers responsible for spatial planning adopted this common document in March 2010 that laid the groundwork for updating national, regional and transportation network development laws. Since then, the adopted document has been used as a foundation for V4+2 countries' activities at EU level (visegradgroup 2010b).

With the 2011 Bratislava Declaration, V4 prime ministers forthrightly reaffirmed their commitment to promote the rapid development of the V4 countries' transport infrastructure to boost growth, accessibility, and cross-border cooperation (visegradgroup 2011a).[148] V4 transport ministries pursued a common position with regards to the preparation of the EU white paper on transport policy. The four states had shared visions as far as the TEN-T regulations and construction plans were considered. The ministers increased their support for the construction of rail freight corridors within the TEN-T system and joined forces to fasten their deployment with standardized European train control systems.[149] V4 ministers stressed the importance of securing EU funding for TEN-T projects, with the aim of establishing infrastructure development plans for all member states.

In the period from 2012 to 2015, the four states returned to the V4s' traditional role of coordinating their positions on the EU Council's transport related legislative initiatives, with the aim of improving infrastructural cooperation. In this context, the V4s identified areas where a shared endorsement of each other's interests in the European Council and the Council of the EU could be achieved (visegradgroup 2013b). Railway related EU regulations, directives, and recommendations are assembled in so-called thematic railway and mobility packages. Since 2012, the V4 policy coordination has focused on harmonizing the Czech, Hungarian, Polish, and Slovak national approaches to the legislative proposals of the European Union, reflecting the actual transportation related proposals (new regulations or recasts) of the European Commission. The Visegrad Group's interest articulation follows the political trends of EU decision-making, while the unique V4 intergovernmental negotiation format gives a special protocolar and informal foreign policy instrument to the four states international relations toolkit, thus deepening the interdependence among them. From 2014 to 2016, the four countries' railway cooperation concentrated on the impacts of the tariff policies' application in passenger transport as well as infrastructure access fees (visegradgroup 2015d; 2016a).[150]

[148] In the 2000s, road accessibility rates in Czechia and Hungary were close to European standards, but rail accessibility was relatively underdeveloped in all the V4 states with the poorest regions being deprived from fast and reliable train services to the capital cities or the local economic centers. At the time of its EU accession, Poland had to deal with accessibility problems with serious regional disparities (Tóth 2020b).

[149] ERTMS is an automatic train protection and safety standard creating an interoperable system amid compliance with speed restrictions and signaling status. The Association of the European Rail Industry ("UNIFE") elaborated ERTMS in close cooperation with the EU, as well as railway and GSM-R industry stakeholders to replace the different national train control and command systems of the EU member states (ERTMS 2023).

[150] The Czech government convened an extended V4 meeting to discuss best practices and support common traffic safety campaigns.

The Hungarian presidency of the V4 and the Danube Region Strategy[151] coincided in the 2017–2018 term and proposed the establishment of the so-called V4 Rail Roundtable to be a platform for railway expert discussions about how to increase competitiveness of rail transport along the north–south freight corridors and exploit railway infrastructure developments through the sharing of experiences and best practices among V4 and ECE terminals, as well as freight services providers. In mapping the railway connections of the Visegrad region, the Hungarian Presidency aimed to define possible transport development directions and related common V4 strategies by removing technical and legislative obstacles in order to have the ECE transport bottlenecks unblocked. In 2017, the newly established V4 Rail Roundtable proposed a joint position concerning the revision of the European Council directive on the establishment of common rules for certain types of combined transport of goods between member states (visegradgroup 2017a).[152] V4 governments saw the increase of the rail freight transport's competitiveness along north–south corridors as a strategic interest. Therefore, statespersons found it important that railways received a better position relative to other transportation modes, and that ECE specificities (relatively small-sized domestic markets, relatively low technical levels of rail traffic operations, etc.) were taken into consideration during the recast of the legal act (visegradgroup 2017a).

Parallel to the process of rail infrastructure modernizations, the modal share of the railways has decreased significantly in the V4 states, for both passenger and freight services. As displayed on *Figures 49–50*, in the case of the Czech Republic, Hungary and Slovakia, there was no significant change in rail freight transport volumes, but in Poland there was a dramatic decrease in 2008–2009, as a result of the negative effects of the global economic crisis on international trade (for that latter country is the most integrated within the Trans-Siberian transportation system).[153]

[151] Introduced in 2011, the European Union Strategy for the Danube Region ("EUSDR") focuses on the improvement of mobility and multimodality, the encouragement of more sustainable energy consumption, and the promotion of culture and tourism. As part of the Danube Region Strategy, the CEF helps to foster growth, employment, and productivity by focusing on smart, sustainable, and fully integrated transportation, energy, and digital networks (Danube Region Strategy 2023).

[152] With such legal act, the Community aimed at optimizing the management of resources using combined transport as an alternative to road transport. The Council intended to solve the increasing problems related to road congestion, environmental issues, and safety, by taking measures to develop transport methods based on intermodality.

[153] While through the past *10 years, 17-18%* of the total cargo shipments has been handled on rails in the European Union, V4 countries have reported more favorable ratios for the sector with data around or above *30%* (IRG-Rail 2020).

In terms of passenger transport statistics, apart from a shorter upward trend between 2014 and 2016, all V4 countries have seen a steady and slow decline in passenger numbers and the distance traveled by passenger trains and train customers (*Figures 51–53*). As a result of rising living standards, more and more people could afford to travel by car, while the railway infrastructure and rolling stock became more and more obsolete. From 1989 to 2004, long-distance rail travel had declined by *36%* in the Czech Republic, by *26%* in Hungary and by *54%* in Poland. The rail share of total freight fell in the Czech Republic from *73%* (1990) to *25%* (2002), and from *67%* (1990) to *39%* (2002) in Poland. (Pucher and Buehler 2004). In terms of the market of passenger rail services, the Slovak Republic has had a *66%* reduction, Poland reported a *51%* decrease, and the Czech Republic has had a *48%* reduction over the period 1990-2006, while Hungary has witnessed a *41%* reduction since the 1970's (Givoni and Banister 2008).

For this reason, it can be concluded that railway development investments are considered long-term projects as far as their commercial and social payoffs are considered. The governments' efforts to modernize this segment of the transport sector therefore serve to achieve long-term goals, although they also have aspects that are useful in the short run too: the inflow of development investments fuels the economy, creates jobs, promotes technology transfer, and so on.

Figure 49: Goods transported by rail in V4 countries (2004–2021, source: Eurostat 2023)

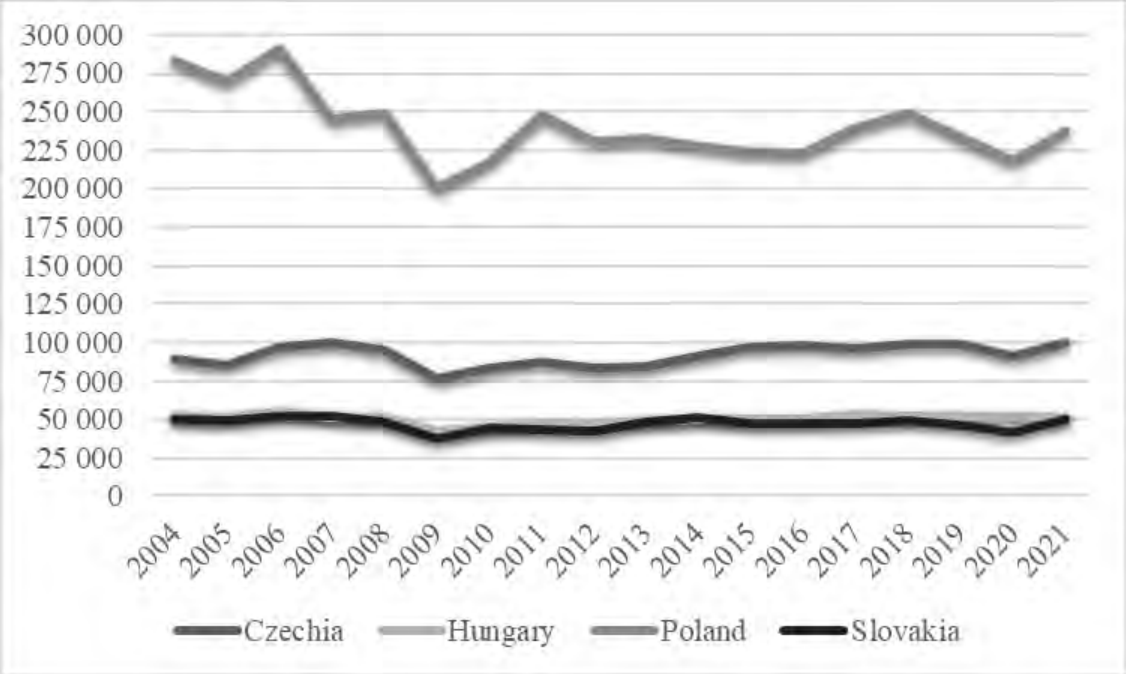


Figure 50: Freight train movements, thousand train-kms in V4 countries (2004–2021, source: Eurostat 2023)

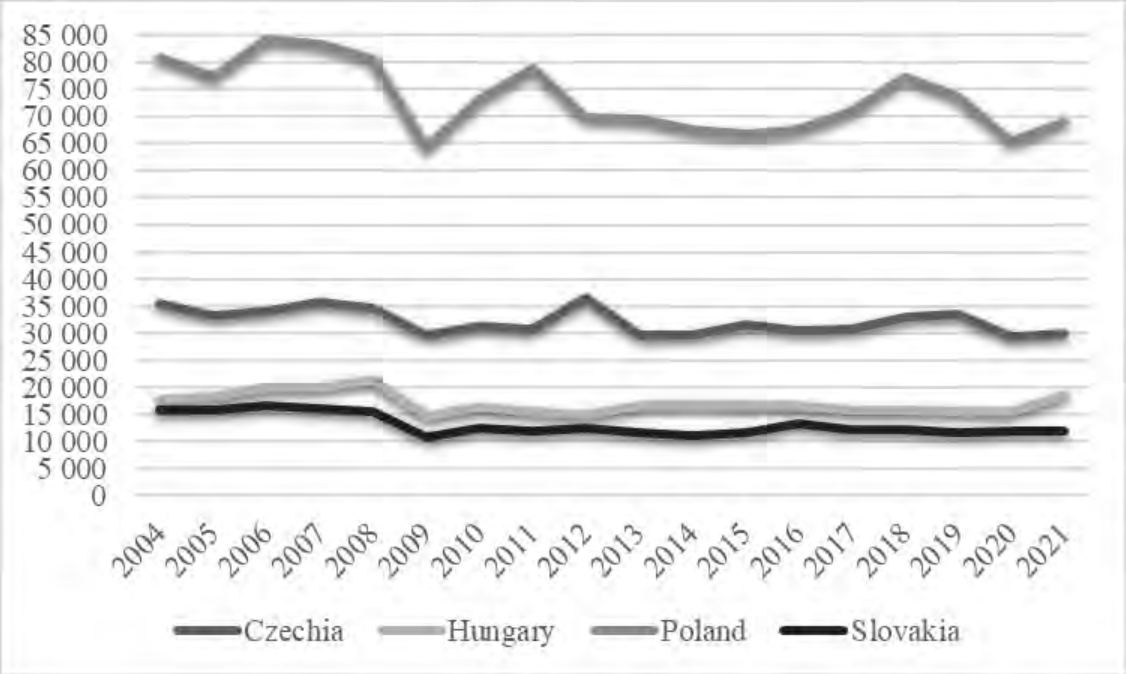
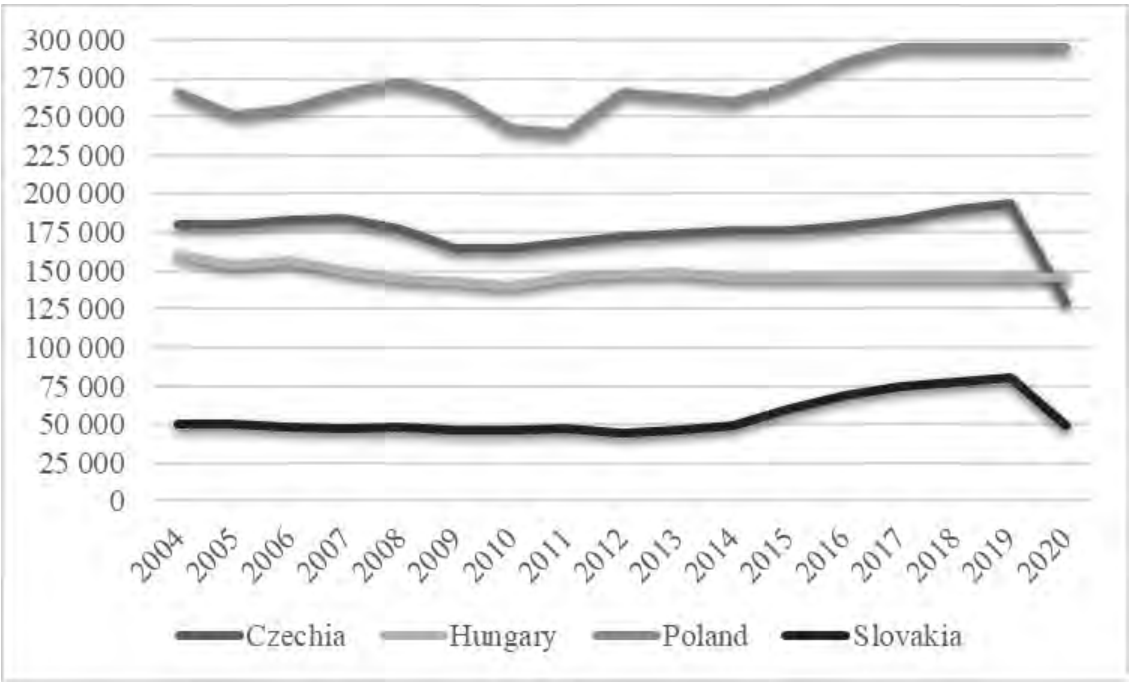


Figure 51: Thousand passengers transported by rail in V4 countries (2004–2020, Source: Eurostat 2023)[154]



[154] No data available for Hungary since 2015 and for Poland since 2018. The notable decrease in passenger numbers for the years 2019 and 2020 is primarily due to the outbreak of the COVID-19 pandemic and the related epidemiological safety measures.

Figure 52: Millions of passenger-kilometers by rail in V4 countries (2004–2020, Source: Eurostat 2023)

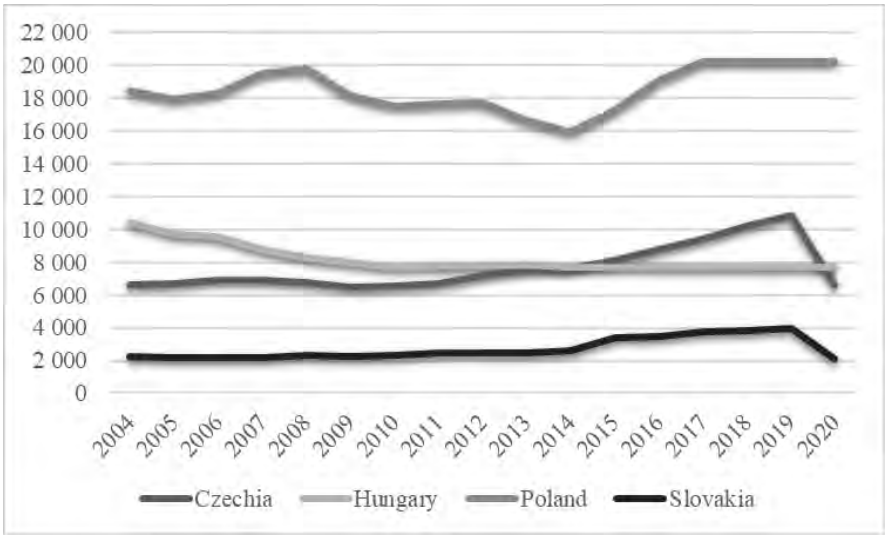
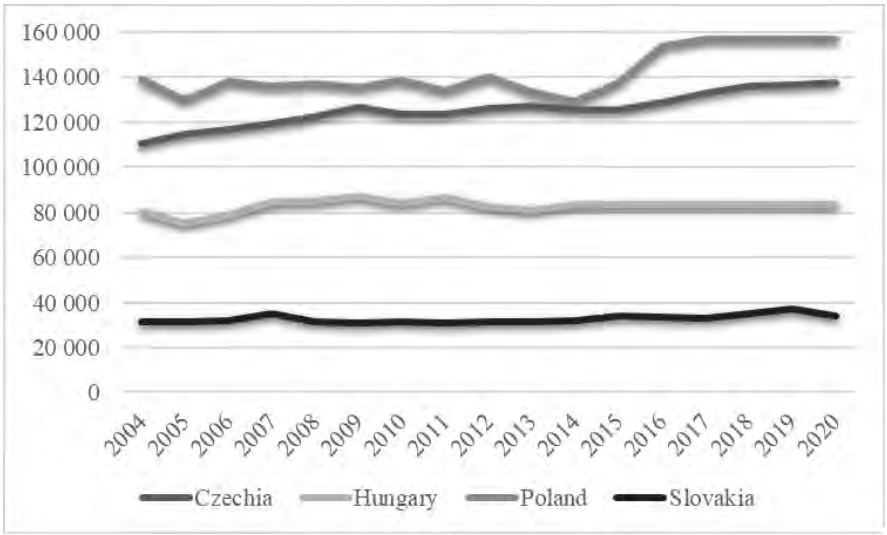


Figure 53: Passenger train movements, thousand train-kms in V4 countries (2004–2020, Source: Eurostat 2023)[155]



Regarding the EU's 2014–2020 cohesion policies, the plenary session of public administration and regional policy committees of the Visegrad countries' parliaments found it necessary to support both innovation and development in order to modernize basic transportation, energy, and environmental infrastructures as a basis for economic growth (visegradgroup 2013a). Between 2013 and 2015, members of the Visegrad Group looked at the possibility of working together to channel EU funding for railway related investments in the 2014–2020 financial period, with a special focus on the completion the TEN-T rail network, including the development of border crossings and technical equipment.

[155] No passenger data available for Hungary since 2015 and for Poland since 2018.

To this end, V4 partners established the High Level Working Group (HLWG) on Transportation, which would be in charge of coordinating the growth of regional transportation infrastructure. The working group has become another institutional element of the public policy cooperation within the Visegrad Group, leading to further sectoral integration.[156] The V4s aligned their positions on actual Communitarian legislative initiatives based on lessons learned from the implementation of EU-funded transport projects during the 2007–2013 programming period. The role of the HLWG on Transportation was to prepare for the EU's MFF negotiations to ensure that the east–west transport system would be properly supplemented by the construction of north–south corridors in the ECE region. Since then, the four states' aim during the negotiations on the EU budget has been to incorporate V4 perspectives, as preserving the main role of the transport sector has become a shared interest of the Visegrad Group. The HLWG on Transportation addressed the possibility of harmonizing the use of CEF funds and preparing EU-supported operational programs for transport.[157]

Visegrad states realized that the elimination of bottlenecks in the region's transport network might be useful in exploiting its potential in terms of mobility. Many investment programs sought to eliminate infrastructure bottlenecks, allowing for shorter travel times and more trains. In 2014, heads of the four countries' national railway companies joined forces to solve the problem of bottlenecks and promoted the creation of a network of hubs combining road, rail, inland waterway, and air transport (visegradgroup 2014b).

Regular meetings of state-owned railroad enterprises have developed into a brand-new institutional component of the Visegrad Group's public policy coordination, further promoting sectoral integration among the four transport markets. Regular professional contacts between state-owned railway companies take place on three levels: annual Permanent Railway Working Group ("PRWG") meetings (with a different host each

[156] It is essential to recall David Mitrany's theory that suggested that tasks be selected and organized individually, based on their purpose, the conditions in which they would be performed, and the demands of the moment. According to this logic, the task determines the geographic reach, organizational structure, composition, and power of the necessary executive instrument for its proper function.

[157] In the framework of the High Level Working Group, joint consultations were held with the aim of aligning V4 positions before the EU's Transportation, Telecommunications, and Energy Council meetings (visegradgroup 2015d). HLWG meetings have also addressed, among other things, the possibility of harmonizing the V4's use of CEF funds, as well as the preparation of EU Transport Operational Programs for 2014-2020. Since then, HLWG has dealt with transportation security, environmental aspects of infrastructure growth, and intelligent transportation systems issues. Before the meetings of related EU bodies (Transport, Telecommunications, and Energy Council), high-level representatives of the V4 ministries responsible for transport held several coordination meetings and reached consensus on issues related to the text of the Fourth Railway Package.

year),[158] regular expert-level meetings, and management negotiations. Expert meetings are about the continuous review and updating of the agreements regulating the operation of border crossings and serve as *fora* for discussions aimed at developing the infrastructures between neighboring railway systems (Vasutasvilág 1995). There are no regular, institutionalized management meetings between the infrastructure manager business branches of the state railway companies of the Visegrad countries, however, they have held numerous quadripartite talks (2001, 2004, 2009, 2013, and 2017) hosted by Slovakia and Hungary. On these negotiations, the partner railway undertakings inform each other about processes, changes, experiences, and results in the infrastructure sector (MÁV 2017).[159]

In December 2014, Presidents of the V4 countries, Austria, and Slovenia addressed plans to boost cooperation for the joint development of road, rail, air, and inland waterway transportation, emphasizing the importance of infrastructural investments (visegradgroup 2015b). Additionally, the heads of state joined efforts to make full use of European financial instruments in order to boost transportation infrastructure, including essential cross-border interconnections. Top-level negotiations do not add any new institutional element to the V4 railway cooperation, however, they further emphasize *a)* the importance of the issue of regional rail transport development; *b)* the mutual interdependence of the states concerned.[160]

In March 2015, transport ministers of the V4 countries and Austria signed a memorandum on the development of transport infrastructure. The ministers stated their willingness to increase the exchange of experiences in achieving the goals of EU transport policies. Cooperation was essential to enhance the region's cohesion by (re)building cross-border routes and missing links, as well as removing bottlenecks

[158] This form of business-to-business international negotiations is primarily a characteristic of the Hungarian-Slovak railway relations, and it entails discussion of results, tasks, and problems at senior management level with the involvement of the relevant professional services (Vasutasvilág 1995).

[159] Another important element of such meetings is the identification of the topics of interest on the part of the partner railways, about which all parties can hold detailed presentations at the following talk. In addition to the high-level consultations, lower level V4 expert meetings have been organized to discuss the results of each sub-area at an expert level and in detail. The most frequently emerging issues of such meetings are related to infrastructure maintenance, technological standardization issues, safety equipment installations, diagnostics, and cross-border traffic.

[160] Liberal intergovernmentalism gives protagonist role to political and state leaders in the process of regional coalition building. Such approach prioritizes the bargaining, the converging preferences between heads of states (or governments) over bottom–up integration initiatives. Andrew Maitland Moravcsik emphasize that national governments are key elements in the process of integration, considering supranational institutions to be of limited importance in the integration process, in contrast to neofunctionalists (Mattli 1999).

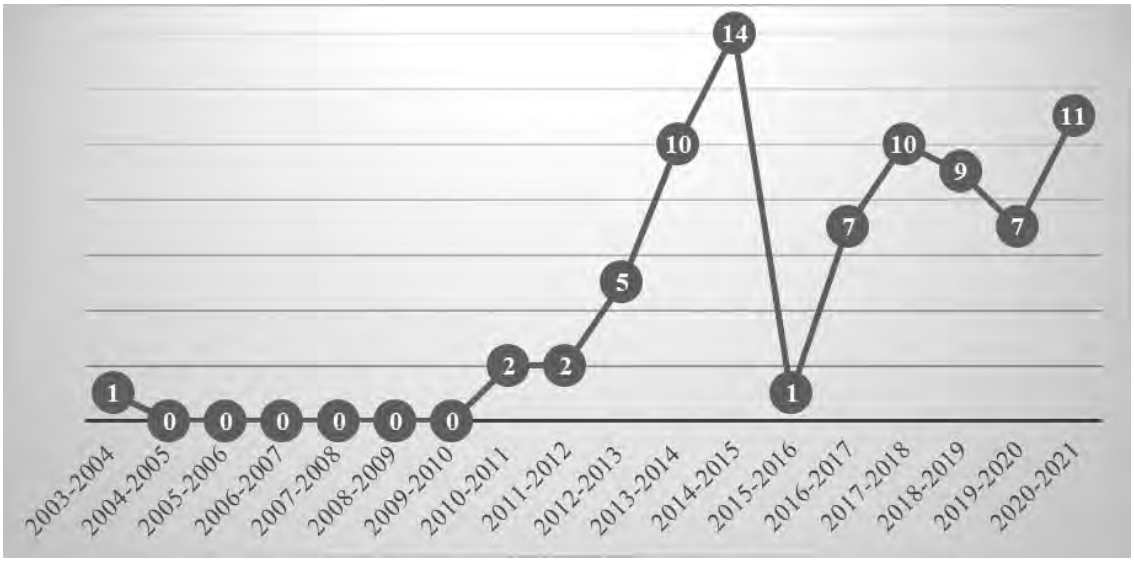
(visegradgroup 2015d).[161] In 2018 and 2019, the V4 format meetings prioritized actions aimed at enhancing railway connectivity within their countries and Austria by creating fair circumstances for competition on the transport market and boosting urban mobility. According to the Research Centre of the Slovak Foreign Policy Association, the Bratislava-Győr-Vienna region has one of the greatest growth potentials in Europe, on the condition that the establishment of cross-border cooperation includes the construction of a sufficient transport infrastructure (The Slovak Spectator 2009).

In 2015, V4 prime ministers reaffirmed their commitment to work together on joint projects involving major transportation corridors, with a particular emphasis on north–south routes, in order to ensure East Central Europe's interconnection with Baltic, Adriatic, and Black Sea ports (visegradgroup 2015c). Such actions might be explained by the cumulative logic of integration, which says that a deep integration in one policy area will certainly trigger spillovers into other areas too, and the cooperating states find it worthy to expand the integration process step by step also in other fields of governmental actions (Schimmelfennig 2018).

As another new institutional element in the V4 format railway cooperation, in 2016, a new Visegrad platform was established for sharing information on the implementation of cross-border projects, both within and out of the V4 area (visegradgroup 2016a). The four states put emphasis on the exchange of experiences with regards to the implementation of railway constructions co-financed by the CEF funds. Special attention was given to cross-border investments among V4 countries, Belarus, and Ukraine (visegradgroup 2016b; 2016c). In July 2017, foreign affairs ministers of the Visegrad Group, Austria, Croatia, and Slovenia recognized the social and economic significance of the transport infrastructure's development and urged dialogue and collaboration so that strategies could be built to fully integrate ECE regions into the EU's transportation systems (visegradgroup 2017b). Research of official V4 documents identified that the accumulation of the expressions "railway connectivity" and "railway connection(s)" on the V4 agenda coincides with the Visegrad states' actions to involve other ECE countries in their transport cooperation (see *Figure 54*).

[161] The ministerial meeting took place in a special train on the route Bratislava-Žilina, with the participation of the EU Commissioner for Transport. Nové Mesto nad Váhom was shown as an example of how EU funds can be used to improve transportation infrastructure. The discussions centered on cross-border interconnections, with a focus on cooperation in the area of railway modernization elevating line speed and efficiency (visegradgroup 2015e).

Figure 54: Appearance of the terms "Railway connectivity/connection(s)", July 2004 – March 2021



In 2014–2015, representatives of the four governments held general debates on the future of high-speed rail (HSR) networks crossing V4 territories. HSR related topics regularly appear on the Visegrad agenda since 2013 (Tóth 2020a). At the same time, they proposed to create a safe and reliable transport system linking Bratislava, Budapest, Prague, Warsaw, and Vienna by upgrading existing infrastructure. As the newest institutional element in the Visegrad Group's rail transport integration, in November 2018, the government of Slovakia initiated V4 format meetings of experts in the field of railway operation and infrastructure management to offer alternatives for a high-speed trail on the intersection of the region's major cities.[162] Joint HSR initiatives were rising in parallel with the aforementioned project. In May 2019, ministers of the Czech Republic, Hungary, the Republic of Poland, and the Slovak Republic responsible for transport, development and EU funds entrusted a joint working group to find solutions for the HSR network's technological criteria and to coordinate the preparation of feasibility studies, project funding and coordination (visegradgroup 2019b). HSR related V4 endeavors received the biggest attention in official V4 documents in the programming period between 2014 and 2021.[163]

[162] As part of the 2018–2019 Slovak Presidency of the Visegrad Group, HRS Experts met in January 2019 to explore the possibilities for developing a HSR network in the region. Experts were asked to solve organizational and technological problems that were important for the project's effective planning (visegradgroup 2019d).

[163] By 2020, there have formed a consensus within EU institutions and member states that railways are a key for the creation of an economically and socially sustainable as well as environmentally friendly international transport network. In November 2018, the EU Parliament voted for a larger transport budget as the CEF funds were considered essential for large-scale HSR projects (European Commission 2018b).

Given that railway corridors in Visegrad countries are usually only suitable for trains traveling at *120–160 km/h* or less, the target of establishing a high-speed railway network appears to be very ambitious.[164] In the Visegrad region, at the time of writing, only Poland operates high-speed trains. The Polish railway network contains a *224-kilometers* long HSR line that partially connects Katowice and Kraków with the capital city.[165] At the time of writing, the Czech Republic is the only other V4 state with intentions to build high-speed railway infrastructures with a planned extension of *810 km* (UIC 2023).[166]

A direct Budapest–Warsaw railway connection leading through the Slovak Tatras and bypassing Czech territories would significantly reduce distance and travel times between the two capital cities. However, at present, such a rail link is not available; therefore, a future HSR passenger service is expected to operate on the Budapest–Bratislava–Brno–Warsaw route (Ekonomika 2018). In addition, the fastest road link between the Hungarian capital and the second largest Polish city is less than *400 km* long and can be covered in six hours (MyDrive Route Planner 2023). The *9–10 hour* average journey time on the *625 km* Budapest–Kraków route reflects the infrastructural challenges provoked by the region's relatively few and underdeveloped north–south rail connections.

The approximately *611 km* Budapest–Prague railway line can be run within just *6 hours.* In 2019, technical and profitability studies were being run related to such a new high-speed passenger train service connecting the capitals and big cities of the Visegrad Group, going up to *250–300 km/h.* Such speed would shorten the Budapest–Bratislava route *(~200 km*) to *1 hour* and the Budapest–Warsaw service *(~900 km*) to *4 hours* (Kester 2018). The four states' aim is to create an alternative to air travel attracting at least 500 thousand passengers a year.

[164] HSR infrastructures are made of newly constructed lines designed for *250 km/h* speed (or above), or upgraded existing tracks that are able to serve trains circulating at *200-220 km/h*. Further key elements of the HSR system are the specially designed rolling stock, high-technology telecommunications and traffic management networks, as well as signaling systems. Apart from its obvious technical aspects, high-speed rail encompasses infrastructure, rolling stock, energy, operations, traffic management and certain cross-sectoral synergies in the fields of finance, investments, economy, social planning, and so on. HSR has become a symbol of modern and innovative transport solutions, while services contribute to the regional integration amid social and economic development. (UIC 2023).

[165] At the time of writing, the Polish Government plans to extend the country's HSR network to *598 km* (visegradgroup 2020b).

[166] Czechia made considerable progress in the implementation of a high-speed line that in time would connect Prague with neighboring capital cities (CER Monitor 2019a). The most important lines would follow historical routes like *Via Caroli* and the Amber Road from Poland through Moravia to Vienna. The Czech government's first intention is to connect the Czech Republic with European cities and second, to connect major cities and regions within the country proper.

At a June 2018 V4 summit in Budapest, the prime ministers of the four countries agreed that the upgrading of their conventional railway lines must follow the guidelines of the European Union; however, the creation of HSRs in ECE is mostly driven by government decisions "[r]ecognizing the importance of improving the connectivity and accessibility of the major cities and regions of Central Europe in order to promote economic development, territorial cohesion and sectoral cooperation in areas such as employment, culture and tourism" (visegradgroup 2018a).[167]

As a particularly important step towards the realization of such project, the 2020–2021 Polish V4 Presidency raised the possibility to hold a multilateral meeting with representatives from Baltic and Visegrad states in order to find points of convergence between the V4's HSR plan and the *Rail Baltica* project (already in the phase of realization at the same time) with special regards to ensuring EU financing for both infrastructural projects (visegradgroup 2020a).

4.4. Results and delimitations

The previous subchapters are examples of the hypothesis-testing potential of keyword-based content analytical research techniques in the field of international political relations. Text analysis is widely seen as a powerful critical theoretical and methodological tool in social sciences (Chouliaraki and Fairclough 2010). Discourse analysis is primarily an inductive approach that can be used to investigate the relationship between language and political will, while the predominantly deductive content analysis presumes a consistency of meaning allowing occurrences of words, terms, expressions, etc. to be assumed equivalent and counted. That is why this method focuses on consistency and stability in the texts that may also be abstracted from their contexts, enabling objective projections. In practical terms, the researcher is not part of the process of interpreting the text under scrutiny, they simply report on objective findings. This is an important feature of this study's methodology selection, as the linear regression model in content analysis is not an ideal framework for understanding latent meanings and intentions because, while words and phrases can be accurately observed, their content remains predominantly extrapolated by the reader.

[167] With regards to the construction of a new double-track HSR link from Budapest to Warsaw, via Bratislava, Brno, and Ostrava, the Visegrad countries have developed a common approach for speeds of up to *300 km/h*. Estimated travel time from Hungary to Poland would be shortened to *3–4 hours*, from the current *12–17 hours*. Trains would only stop in the above-noted cities.

The content analysis presupposition is that a text's meaning is constant, and all researchers may understand it accurately and consistently as long as they use the right analytical methods. In other words: the study of the text itself (rather than its relationship to its context, the intentions of the text's producer, or the reaction of the intended audience) is what the term 'content analysis' stands for.[168] All things considered, content analysis is the study of recorded human communications. Using 'words' as units of the content analysis' focus (instead of broader textual pieces such as books, pages, paragraphs, or lines) is arguably the best practice to identify statistical frequencies of correlated topics (Babbie 2012).[169]

Content analysis can help identify the pragmatic contextual clues of political communication, but it does not necessarily provide a more sophisticated understanding about the analyzed text's real inner meaning. Yet, the method and results of the content analysis could be beneficial not only in a practical, predictive sense, but also in establishing a baseline for further investigation of profound meanings in texts and speeches. In short, content analysis through text mining is a useful empirical approach of understanding international political integration theories in practice.

Content analysis is a quantitative research method that adopts a positivistic approach, whose fundamental methodological contribution is hypothesis-testing using statistical tools. In practice, content analysis entails the creation of analytical categories (logical clusters of different research terms) that are then utilized to create a coding frame that is applied to textual data (specific keyword selection for the various bag-of-words categories). Its endeavor of being objective, methodical, and quantitative characterizes content analysis as a variant of the text-as-data approach

- It is objective in the sense that analytic categories are defined so precisely that peer researchers can use them and get the same results;
- It is systematic in the sense that clear rules are used to include or exclude content or analytic categories; and
- It is quantifiable inasmuch as its results can be analyzed statistically (Franzosi 2004).

[168] Ontologically speaking, content analysis assumes the existence of an independent and discoverable reality, where the meaning of the words is fixed making it possible to determine the reality by using scientific methods.

[169] Themes are also accurately countable units, and they might constitute short sentences, whereas Concepts include words grouped together into cohesive and contiguous notional clusters that, in our case, might be taken as single words, as far as their contextual position is considered.

As Hang (2021) stressed, thematic analysis is a technique that focuses on attempting to explain "why a certain action or phenomena takes place" instead of describing the *"whats"* and *"hows"* of the examined material. Creating stories and identifying patternized meaning are the main components of the process of developing reflexive themes. All things considered, text mining should not be viewed as a reliable reporter of the formal integrative processes that have really manifested and are leading to a deeper level of railway cooperation among the V4 nations. In exchange, the study supports the constructivist idea that language is not merely reflecting the social environment but is actively part of building it with concrete examples from everyday life. Although word frequency or recurrence is not the primary factor to consider when identifying what constitutes a particular decision-making issue in political texts, occurrence statistics can be a useful and significant tool to comprehend the phenomena of interest and contribute to the answering of the research questions. A word frequency count can be used to show how frequently a topic appears in political writing as well as how that frequency evolves over time. This can only be used to support assertions of patterns and discrepancies that have been disclosed. It does not, however, explain directly how ideas are conceptualized or employed in the context of the policy language.

This is why *Chapter 2* provides a detailed summary of the V4 railway integration process by summarizing the evolution of the sectoral priorities and the institutionalization of the quadripartite negotiations. This method is a comprehensive, quantitative study of messages based on the scientific method, which includes adherence to objectivity norms, deductive design, accuracy, validity, generalizability, replicability, and hypothesis-testing. The method and results of the analysis could be valuable not only in a practical, predictive sense for specialists, but also as a starting point for additional research into the fundamental meanings of high-level negotiations.

Turning to more concrete critiques, throughout the current research, the thematic analysis supported by co-word occurrence tests faces difficulties with regards to the keeping of the research focus as the explicit intentions of V4 decision-makers have continuously changed ever since their first statement available in the group's online repository. As for the independent variables of the research, since 1999, the Visegrad Group's decision-making goals have shifted from meeting EU accession criteria (legal, financial, organizational, and so on) to keeping pace with the codification process of the Community's railway packages, and then to fighting on the common transport market with the competitors on the international corridors. As a result, the analysis could

not focus on one single railway agenda, instead, the keyword selection criteria (together with the related co-word occurrence pair) had to follow the changing transport policy priorities of the four states concerned. Therefore, for the first sight it might raise some consistency concern that the parts of the analyzed text selected as 'independent' variables (railway cooperation actions of the V4 states) are constantly changing their public policy objectives. Consequently, it is essential that the research focuses on the regional railway cooperation process itself with all its possible levels and implications without prioritizing among its different political/financial/organizational/societal aspects. To this end, the related decision-making was followed from the state's (government) perspective all through the analysis, instead of using a micro-level approach focusing on the railway business itself or a macro-level approach concentrating on the V4 transport, market as a whole.

As far as the dependent variables (references to the European Union's integrative framework) are considered, the results of the analysis suggest that the concepts related to the EU's financial tools available for railway development have increased in importance. The analysis has also shown a tendency to argue for the increased use of references to EU structures primarily covering cohesion policy issues involving transport development projects in East Central Europe. As stated earlier, the numerical changes of the various textual references to EU structures chosen as dependent variables follow the evolution of the ECE political priorities of the European Union's multiannual financial cycles, with special regards to the cohesion policies. Therefore, it may be concluded that the dependent variables (accumulation of V4 references to EU mechanisms) do not only vary based on the evolution of the independent variables (V4 railway policy objectives), but they are also linked to a third, external factor: the changes in the legal, financial, and political frameworks of the European Union. That is why it is essential stressing that the content of the Visegrad Group's railway cooperation is not a static, *a priori* attribute but a political reality that goes hand-in-hand with the shifts in the EU incentives. In this sense, the reasoning of research conclusions about the evident causal relationship between the intensification of the railway integration among the Visegrad states and the EU's cooperative transport development mechanisms is further strengthened by the Communitarian spirit.

Lost but not least, the hereby presented deduction argues that the lack of clear definitions in the academic literature on what specific integrative features make a regional transport cooperation a formalized intergovernmental mechanism, might risk weakening

the neofunctionalist and liberal intergovernmentalist spillover idea of small integrative steps being used to formulate a joint consistent V4 railway agenda aimed at achieving a stronger and closer sectoral collaboration between the four East Central European EU member states. For all of this, it is very important to clarify that the joint railway policy coordination of the Visegrad Group does not have its own independent structures. On one hand, it is based on the informal and loose protocol elements of the V4 intergovernmental negotiation format as part of the annual presidency programs, on the other hand, it is built on the European Union's organizational and financial framework. In brief, the V4 rail transport integration materializes not in the organizational structures, but in the common objectives, the advocacy mechanisms and joint projects of the governments of Czech Republic, Hungary, Poland, and Slovakia.

While the findings may have limited generalizability to other contexts, they provide a sense of the recent development within V4 transport policy texts. There is a need for further research that extends our understanding of how such complex phenomena as railway transport cooperation are discursively shaped and what assumptions surrounding it are promoted by EU institutions, policies, and funds. The political leadership of Visegrad Four states have initiated a number of formalized quadripartite negotiations, such as the V4 Rail Roundtable or the High Level Working Group on Transportation, in order to create appropriate *fora* for expert debates assisting the implementation of V4 agreements on further sectoral integration. Thus, the intergovernmental negotiating forum of Czechia, Hungary, Poland, and Slovakia serves as a valuable instrument – complementing these states' efforts in EU bodies – in achieving favorable positions when it comes to European decision-making on railway legislation or regulation.

The intention of Visegrad Four governments to upgrade and add new connections to the existing routes have spilled over into an increasingly interconnected railroad network within the area, while the growing market competition with other transportation modes has resulted in the need for reliable and safe high-speed corridors. EU investment initiatives supporting regional transport connections have spilled into the demand for constructing denser rail connections and launching more reliable train services. Politics level decision-making is, therefore, found to be crucial for the spilling over of a particular international partnership into other fields. Since their EU-accession, high-ranking and expert level negotiation *fora* of the four states have given birth to formalized, semi-formalized, regular, and irregular quadripartite consultations in the field of railway transport.

The Visegrad Group's sectoral synergies served as engines to drive the dynamics of the four states' cooperation. These states develop cross-border transport policies with the help of EU financing mechanisms. Thus, the V4 platform may be interpreted as a tool to help ECE countries adopt EU connectivity and interoperability strategies. The context analysis revealed that quadripartite intergovernmental ECE negotiations have contributed to the technological unification of the regional railway system, helped the improvement of the quality of services, and laid down the foundations for the creation of future HSR connections. Governments of V4 states introduced harmonized modernization policies with the best possible use of EU cohesion funds to improve macroeconomic competitiveness. This was a political area where their individual interests overlapped, allowing them to make absolute benefits by working together.

The empirical pillar of the study is founded on the idea that the observer's task is to report on factual findings without attempting to interpret the corpus of texts under examination. Whether the results of text mining can support the claims of the research or even make any sense at all is the most crucial question. By concentrating solely on the research topic (railway related initiatives supported by EU funds and/or prompted by EU policies and legislative framework), keyword-based content analysis enables the observer to overlook unnecessary rhetorical and grammatical features.

Through a keyword-based discourse analysis, the research has confirmed that political spillovers of the EU's transport policies led to the establishment of the Forum of V4 Transport Ministers to support environmentally friendly transportation modes such as railways. After the four countries' EU-accession, V4 transport ministers started to cooperate closely on the implementation of the Communitarian railway regulations. They held regular consultations on the liberalization of railway services and exchanged legislative expertise in the field of public transportation. The V4 railway experts' working group introduced regular meetings with the aim of boosting the safety and interoperability of goods and passenger rail transport. The V4 High Level Working Group on Transportation looked at the possibility to channel EU funding for railway related investments in the 2014–2020 financial period, coordinating the growth of regional transport infrastructure. A new Visegrad format platform was created in 2016 to facilitate information exchange on the execution of cross-border projects inside and outside the region. The V4 Rail Roundtable formulated a joint position concerning the revision of the EU directive on the establishment of common rules for certain types of combined transport of goods.

As discussed above, political science research projects proving that political structures and motivations can be derived from the analysis of spoken or written texts frequently use text mining techniques. The analysis of the research corpus clearly evidenced that the Visegrad platform is a strategic instrument for promoting the political interests of its members. The previous pages explained that the depth of institutional frameworks does not always determine the efficacy of regional political cooperation. United, Visegrad Group states play a more important role during EU negotiations than any of these countries might have done individually.

The assessment of the research findings revealed that during the *2 decades* under evaluation, the percentage of textual materials pertinent to V4 railway cooperation underwent an irregular evolution. A notable percentage of documents on the topic of the Visegrad Group's railroad development activities were provided by the annual presidency terms of 2002–2003, 2010–2011, 2017–2018, and 2020–2021. Keyword searches of official V4 documents demonstrates that the emergence of railway related terms coincides with that of the expressions connected to the EU's mobility development tools. Not surprisingly, the specialized funds of the EU's multiannual financial frameworks are found to be crucial for the (re)construction of railway connections between Visegrad countries. Railway related topics are consequently mentioned in such documents as one of the most important pillars of the V4 transport development aims. From 2007 to 2020, the number of cross-border railway projects in the Visegrad countries increased in tandem with the expansion of the EU's targeted financing mechanisms.

During the financial period 2014–2020, it was possible to see how the Cohesion Funds and other EU financing mechanisms triggered joint member state efforts as independent variables to boost cross-border transportation infrastructures. This is an example of how EU policies influence the functioning of the Visegrad cooperation. The politicians considered infrastructure development (with special focus on the north–south axis) a critical step to increase the region's stability and competitiveness within the single European market. Thus, they urged collaborative solutions to modernize the V4 transport network, with a specific emphasis on building up high-speed and interoperable connections, while encouraging environmentally friendly modes of transportation to meet pollution reduction targets and promote sustainable growth, as well as support the development of new transport technologies (visegradgroup 2018a). Previous sections argued that without the EU's legal–institutional structure, spillovers in the Visegrad zone will be unusual. In reality, the EU's financial and regulatory arrangements

for the development of transportation infrastructure are directly tied to railway integration among the V4 nations. Transport collaboration exemplifies the viability of the V4 formula: the government level policy coordination is effectuated on the condition that the four states' strategic interests meet, and there is enough economic and political motivation (EU tools, financial mechanisms, strategies, marked demand, etc.).

The evolution of this intergovernmental formula is far from being linear: the actual and *ad hoc* sectoral synergies are the engines of the inter-state cooperation's dynamics and intensity. Despite their common historical heritage and features, one can observe divergent emphases and orientations in the Czech, Hungarian, Polish, and Slovak foreign policy strategies. The stability of this group is guaranteed by the fact that the cooperation is primarily carried out on matters that serve the interests of all.

Referring to one of the dissertation's main hypotheses, this section highlights that, as opposed to core EU states, spillovers between two policy areas in the Visegrad countries are primarily driven by high-level governmental intentions, while the automaticity of other spillover directions is less observable. While through the previous chapters the focus was on collecting reasons why the Visegrad Group could be seen as a supporting tool for the implementation of EU connectivity and interoperability strategies in East Central Europe, this section proposes to describe the Visegrad Four as a network of practical "cooperations" where specific joint projects imply further integration through politics-level spillovers, using EU institutional elements and funding. Such process tracing might help find answers as to why Czech, Hungarian, Polish, and Slovak governments still refer to the V4 formula as a means for interest-articulation within international organizations. From a practical approach, it should be emphasized that over the past decade, joint railway development initiatives have constantly been among the priority areas of V4 presidency programs. However, the legal–institutional framework of the EU or inter-state professional working groups established by the governments of the four ECE states make up for the V4 cooperation's lack of institutional–organizational components.

Through research and analysis of official memoranda of understanding, presidency programs, minutes of expert group meetings, panel discussions, EU documents and statistical data, this chapter concludes that cross-border railway projects have multiplied in the Visegrad countries in parallel with the increase of thematic EU financing tools and policies. In addition, the Czech Republic, Hungary, Poland, and Slovakia tend to exchange best practices and know-how also at V4 *fora* in order to help each other adopt

international railway regulations and standards as the V4 cooperation provides an optimal forum to agree upon joint lobbying positions before new railway related regulations are approved by EU bodies or organizations. This section aids the better understanding of the Visegrad Four practical cooperation's real-life functioning, the operation of the European Union's transport policies and funds, as well as the infrastructural needs of a region located in the crossroads of east–west and north–south corridors.

Co-word occurrence tests show potential connections between EU mechanisms and the Visegrad countries' railway integration efforts. Thus, this dissertation provides reasons for the simultaneous accumulation of specific keywords at various moments in time by outlining the evolution of the integrative tangible initiatives taken by the four governments in the area of railway development in the given time frame. The focus of the occurrence analysis is on the frequency ratios and accumulation of the chosen research terms in order to provide concrete evidence of the political motivations of V4 railway development initiatives. Then, by performing thematic comparisons between the occurrence proportions of EU related phrases and of the ones alluding to the Visegrad Group activities, the function of EU structures in the deepening of the four-party transport integration can be determined. Consequences of the European integration on the Visegrad states' regional transport cooperation is shown by plotting the co-word occurrence indicators through time.

5. V4 TRANSPORT INTEGRATION AS SEEN BY RAILWAY EXPERTS: The role of EU funds and national development strategies in the intertwining of the East Central European transport network

As discussed earlier, the field of transport is a natural source for case studies to observe the intertwining of integration circles among Visegrad countries as international infrastructure development projects have clear regional and time focus. Since the time Czechia, Hungary, Poland, and Slovakia joined the EU, spillovers of cross-border cooperative actions between sub-state, state or supra-state actors in the field of labor policies, tourism, trade, investments, and cultural or educational–scientific projects have led to the growing need for a dense, reliable, interoperable, and safe transport network in East Central Europe. As detailed in *Chapter 2,* the Visegrad region is characterized by a dense railway network with connections to main international transport corridors.

Following multiple methodological approaches, the previous chapters primarily dealt with the identification of the principal motives and drivers of the deepening of sectoral intergovernmental cooperation among Visegrad Group states, as far as railway integration is considered. Research of international relations integration theory literature helps understand the logic of creating intergovernmental decision-making mechanisms through sovereignty transfer *(Chapter 3),* while the directions and dimensions of railway policy coordination among Visegrad states is presented by the content analysis of official V4 documents, while a comprehensive systemization as well as analysis of statistical data retrieved from publicly available EU transport databases serves to reaffirm the major conclusions of the text mining *(Chapter 4).*

This chapter serves as the last logical element in the research chain presenting the research results of structured interviews conducted with railway experts and transport specialists working at V4-based state-owned railway undertakings or research institutes. The analysis of standardized interviews provides an additional methodological pillar to the broader investigation of the ever-expanding intergovernmental cooperative circles in ECE. Learning the viewpoints and opinion of professionals working in the field of railway operation makes it possible for the observer to understand the realization of railway integration in the V4 area by developing a global vision on the functioning of spillovers in intergovernmental rail transport cooperation and the high-level regional decision-making as part of the political planning.

The implementation of practical, real-life points of view of rail transport experts gives a bottom–up dimension to the former researches that concentrated on the impact of high-level decision-making on the integration of railway networks in the Visegrad region. In the structured interviews, *sixteen* professionals from different V4 countries expressed their opinion (based on their every-day experiences) about the effectiveness, opportunities, and limits of EU funds in railway development projects in the Visegrad region.

5.1. Methodology

A few words about the justification of the chosen methodological approach. In their international political economy paper on the economic engagements of the People's Republic of China (PRC) in Indonesia, Hong Liu and Guanie Lim (2022) used data retrieved from personal communications with business executives, think tank experts, and academics, to gather information for their research on the role of the PRC's exported railway projects in deepening global economic interdependencies in Southeast Asia. The authors argue that the cited perspectives of the interviewees play a crucial role in unraveling potentially invisible mechanisms that large sample questionnaires might otherwise ignore, linking industrial development with the increasingly important role of national enterprises in the international economic system. These open-ended, semi-structured questions sought to determine how and to what extent various factors come together to form a coherent narrative.[170]

Thus, with the aim of reaffirming, strengthening, and complementing the main claims of the current research on the effectiveness, opportunities, and limits of EU funds in Visegrad format railway integration, this dissertation follows the above-noted methodological logic utilized by Liu and Lim in their 2022 paper. The fine-tuned version of such institutionalist political economy (IPE) approach enriches the empirical and theoretical analysis elaborated in this thesis work with practical and real-life professional perspectives. In order to customize the aforementioned Southeast Asian IPE research to the V4 railway market, the regional focus of the analysis is on Czech, Hungarian, Polish, and Slovak railway companies and institutes.

[170] Liu's and Lim's questions primarily concentrated on *three* topics: the evolution of the Chinese railway sector, Indonesian infrastructure trends, and the expansion of the Chinese economy and its effects on Southeast Asia. Additionally, the questionnaires were divided into two sessions, one for the Chinese and the another for the Indonesian part.

The open-ended and semi-structured interviews were conducted with transport and strategy experts at the time associated with businesses of the aforementioned kind. For the sake of keeping the research focus, it is essential stressing that the interviewees do not represent trade unions, lobby organizations or any other kind of interest articulation platforms, the only common element that links them is that all of them are employees of state-owned railway undertakings.

Infrastructure managers, state-owned companies, private businesses, passenger, and freight operators, regional and long-distance contractors are all doing business under different conditions and often with divergent interests.[171] The simultaneous analysis of the rail transport market's different segments would therefore unreasonably widen the focus of the investigation relative to the purpose of the research, due to the diverse operating systems of the observed actors. Thus, the current analysis reflects on the role of state-owned railway businesses in the development of the ECE transport market.[172] The research focus on national enterprises is another similarity between the aforementioned Chinese–Indonesian paper and the analysis of this dissertation.

As discussed earlier, the referenced research project's questionnaire was divided into *two* sections. The current dissertation's analysis operates with a similar structure, with the first *six* questions covering the EU's role in the transformation of the V4 railway systems and the actual business trends on the market, and the last *four* inquiries addressing potential national development strategies. By the logical division of the questionnaire, the respondents' opinions on infrastructure development and market trends can be separated.[173]

---

[171] From 2009 to 2018, the number of railway operators has doubled in the Czech Republic and increased by *40%* in Poland. The growth has been less notable in Slovakia *(25%),* while Hungary, in exchange, witnessed a quite notable evolution in this field as the number of railway undertakings has multiplied by *26*. In 2018, there were *49* active railway companies registered in Czechia, *52* in Hungary, *78* in Poland and *20* in Slovakia (Eurostat 2023).

[172] As of 2020, across the Visegrad countries, public service obligation ("PSO") services account for *94%* of passenger train movements, which exceeds the European average by *12 percentage points*. In the V4 region, companies with historically leading market positions have a share of *82%* in the passenger rail business, with Hungary reporting the highest proportion *(97%)* and Poland registering the smallest share *(58%)* for domestic incumbent undertakings. By contrast, the European average market share of domestic incumbents is *77%.* The presence of foreign-registered incumbent passenger undertakings is traceable only in Poland with a market proportion of around *1%* as opposed to the European average of *11%* (IRG-Rail 2020).

[173] The IPE approach of the paper of Liu and Lim (2022) on examining the role of railway projects in the deepening of economic interdependencies fits in the trend of numerous historical political economy analyses about the expansion of the rail transport markets, e.g., Goenaga Orrego, 2017; Aspromourgos and Lodewijks, 2004; Haddow, 2005; Penna, 2021; Lloyd, 2008.

Structured interview is a data gathering method that involves asking questions in a specific order in order to obtain information about a well-defined specific topic. In other words, both the topic and the sequence of the questions are predetermined (Young *et al.* 2018). One can compare responses between interviewees in a uniform setting by asking a specific set of questions in a specific order with the aim of reducing potential biases leading to less ambiguous analyses.[174] However, as these strict questionnaires provide little room for maneuver for the researcher and the participant to develop a relationship due to the formal nature of the interview.

This method can be a useful exploratory research tool for it can help the researcher identify trends and highlight areas for additional investigations (Galletta 2013).[175] Structured interviews are frequently used in social science studies, particularly as a survey method. Standardized interviews are regularly employed in quantitative research in academia, but they can also be utilized in a qualitative manner in case the questions are open-ended. The interviewer may combine the two methods by asking semi open-ended questions. In such cases, the interviewee must pick from the *yes/no/don't know* options while giving an explanation (or caveat) for their selection.

In case of a list of closed-ended questions, the scope of the research gets quite limited, because the interviewees are unable to provide enough insight into the reasoning behind their responses and judgements (Young *et al.* 2018). Without such nuances, it is difficult to determine how much a respondent's answer reflects their genuine viewpoints if they do not wish to identify with any of the binary or multiple-choice alternatives. Therefore, in this paper, the structured interview's questionnaire contains both dichotomous and multiple-choice questions, as well as open-ended and semi open-ended questions too, depending on the nature of the subject of interest (Galletta 2013). Besides structuring the questions' list, the selection of individuals to be interviewed is another key element in the planning of standardized interviews. In the research presented in this paper, the choosing of participants for the interviews was guided by *four* criteria.

1. First, the respondents had to have an active involvement in the railway business at the time of answering the questions, because the purpose of the inquiry was to get first-hand information from practicing railway experts.

[174] If the same questions are asked to all participants in the same order, it makes it easier to compare responses, providing a higher level of trustworthiness and legitimacy to the research.
[175] By asking all participants the same questions in the same order, the possibility of bias is reduced due to the order or nature of the questions answered, as well as any environmental influences.

2. Second, due to the geographical parity logic behind the selection of interviewees, *four* railway experts were chosen from each V4 country.
3. Third, in order to maintain the main focus of the research – that was on the political aspects of railway transport integration between V4 states and not the economic or market levels –, the standardized interviewing did not cover the full spectrum of railway undertakings on the V4 market. Instead, the inquiry was limited exclusively to the state-owned sector of the railway business and the questionnaires were not sent to employees of private companies. Thus, all respondents had to be active employees of state-owned railway companies.[176]
4. Last but not least, given that the research covered the *three* main pillars of international railway operation (infrastructure management, passenger services, and freight transport), the list of selected respondents included at least one expert from each of the aforementioned fields from each country, where it was possible.[177]

With the aim of shedding light on the practical aspects of the above statements, structured interviews were conducted with Czech, Hungarian, Polish, and Slovakian railway experts with experience in strategic issues. A number of *sixteen* railway experts were asked to fill the thematic questionnaire as part of the research presented in this paper. The professionals answered the questions via email or direct online messaging. For privacy reasons, names and exact positions of these experts were not included in the findings. However, for a clear separation of the list of answers, the interviewed persons had to provide their nationalities and the name of the company/entity they were affiliated with at the time of filling the questionnaire in *February* and *March 2021*. In the mentioned time frame, all respondents worked as experts, officials, or managers at state-owned railway companies or institutes in the field of infrastructure management, passenger services or freight transport. Namely, these entities are:

- **České dráhy (ČD),** the major railway operator in the Czech Republic providing both long-distance and regional services;
- **ČD Cargo (ČDC),** a state-owned Czech railway operator doing business in the freight sector;

[176] Individuals were invited to participate in the structured interviews via email or direct messaging through the LinkedIn platform, using the Author's professional contact list obtained while serving in the railway business.
[177] In Hungary, rail freight services are provided by either private undertakings or branches of foreign state-owned entities. Therefore, this research's structured interviewing did not include participants from Hungary-based freight services provider companies.

- **Správa železnic, státní organizace (SŽCZ),** the national railway infrastructure manager in the Czech Republic;
- **Polskie Koleje Państwowe (PKP – Polish State Railways),** the dominant railway operator in Poland;
- **PKP Cargo,** the freight branch of the PKP Group;
- **PKP Intercity (PKP-IC)**, PKP Group's division responsible for long-distance passenger transport;
- **Instytut Kolejnictwa (IK – Polish Railway Research Institute**), a research institute subordinated to the Ministry of Infrastructure of Poland and a Notified Body to the EU Directive 2016/797 on the interoperability of the rail system in the European Union;
- **Železnice Slovenskej republiky (ŽSR – Railways of the Slovak Republic),** the state-owned railway infrastructure company of Slovakia;
- **Železničná spoločnosť Slovensko (ŽSSK),** the Slovak state-owned passenger train company;
- **Železničná spoločnosť Cargo (ŽSSK)**, the freight business of the ŽSSK Group;
- **Magyar Államvasutak Zrt.** (MÁV Hungarian State Railways), the Hungarian national railway infrastructure manager company; and
- **MÁV-START Zrt,** the passenger division of the MÁV group.

Since the four countries joined the European Union, railway related reforms in the region have followed EU requirements and legislative measures. The Czech government chose a mixed structure of organizational and institutional separation by establishing distinct entities with strong monetary and operational connections (Wetzel 2008). The vertical restructuring of the business structure of the railway sector in the Czech Republic started in 1994, with the accounting separation of the state-owned company followed by the legal separation in 2003 (Friebel *et al.* 2007). The infrastructure administrator SŽDC was created in 2002 with complex legal relationships to the Czech Railways (České dráhy, ČD).[178] The vertical restructuring of railways in Poland started in 2002 with the accounting separation of the state-owned railway company PKP that was followed by the legal separation in 2003.[179]

[178] Since then, SŽDC owns the infrastructure, but the old vertically integrated monopolist ČD operates it, receiving a management fee for this service from SŽDC as the latter company lacks some of the necessary authorizations to operate the rail infrastructure alone (Friebel *et al.* 2007).

[179] As of 2018, the Polish railway infrastructure manager company is among the top four railway employers in the EU (reporting more than *40 thousand* workers; IRG-Rail 2020)

In the Slovak Republic, the accounting separation was initiated in 1994, while the legal separation process started in 2002. The Slovakian rail network is owned by two state-owned companies. ŽSR and the ŽSSK are together responsible for the administration of the railway infrastructure and the operation of passenger transport respectively (Ilie 2016). In Hungary, the vertical restructuring of the railway operation system started in 2003 with the accounting separation of the incumbent state-owned company MÁV followed by the legal separation in 2004. In Hungary, both the infrastructure charging and path allocation are performed by a separate body.[180] The entire rail transportation system was theoretically opened to foreign railway companies by 2007 when the Hungarian government established a regulatory office and created different legally independent companies to provide passenger and freight services increasing the competition in the freight transportation sector (Allen and Overy 2006; Chirmiciu and Steves 2007).

5.2. Major motives of international railway development in the V4 area

As mentioned earlier above, structured interviews conducted with Czech, Hungarian, Polish, and Slovakian railway experts with experience in strategic issues may help understanding the effectiveness, opportunities, and limits of EU funds and policies in the Visegrad railway development projects, from a practical point of view. In order to identify the role of EU mechanisms, the list of targeted questions[181] starts with a general inquiry about the experts' view on the main driving force behind the expansion of their country's railway network. Interviewees could choose from four options, with multiple choices being allowed:

a) Government transport strategies,
b) EU transport strategies,
c) Passengers' demands, or
d) Freight market demands

Option "A" and "B" covers the political aspect of railway development, while answer "C" and "D" relate to the market impetus. The assessment of the answers *(Figures 55–57)* reveals an obvious disagreement between professionals on the subject matter,

[180] There is reciprocal access between the dominant carrier MÁV and the regional, mostly international services provider Győr–Sopron–Ebenfurti Vasút Railway Company (GySEV), both vertically integrated (Friebel *et al.* 2007). Operations and policy making functions have been separated and core railway functions have been divided into individual business units within MÁV. MÁV-Start started doing business as a separate passenger operator in July 2007.
[181] For the completed questionnaires, please see *Appendix 2.*

inasmuch as *39%* of the interviewees claimed that EU transport strategies are the main drivers behind national railway modernization projects, while according to *29%* of the respondents, it is primarily passengers' demands that give such impetus.[182] Only every *fourth* participant found that railway modernization projects follow predominantly government transport strategies, and only *two* out of the *sixteen* respondents gave importance to freight transport market needs in the planning of railway constructions.

In V4 countries, similarly to most of other European states, railway tracks are primarily used by passenger rather than by freight services. In 2018, *78%* of the network users in Czechia were passenger trains. In Hungary, passenger trains had an *81.6%* share, in Poland and Slovakia such proportions were *63.9%* and *69.2%,* respectively (IRG – Rail 2020). Consequently, it is not a surprise that even some freight transportation experts highlighted passengers' demands as a main stimulus for such investments, even though, ECE freight transport depends highly on rail.[183]

It is worth stressing that in the four Visegrad states, *59.5%* of the rail freight market is covered by the national incumbent operators. Market entrants face the most difficult situation in Slovakia, where the company with a historically dominant national position operates the *70%* of all freight trains, whereas in Hungary, only the *46%* of such services are managed by the domestic incumbent. By contrast, such portion in the European countries stands at around *55%.* In the Slovak Republic, there are no foreign incumbents, in Czechia and Hungary they have a quite modest market representation (*1%* and *2%,* respectively), while in Poland, foreign dominant operators manage as much as *10%* of all freight train services, which number stands quite close to the European average of *13%.* As of 2018, the highest number of active railway undertakings was reported on the Czech market (as much as *102*), while the smallest portion of trading railway companies was registered in Hungary (with *28* active undertakings on the market).[184]

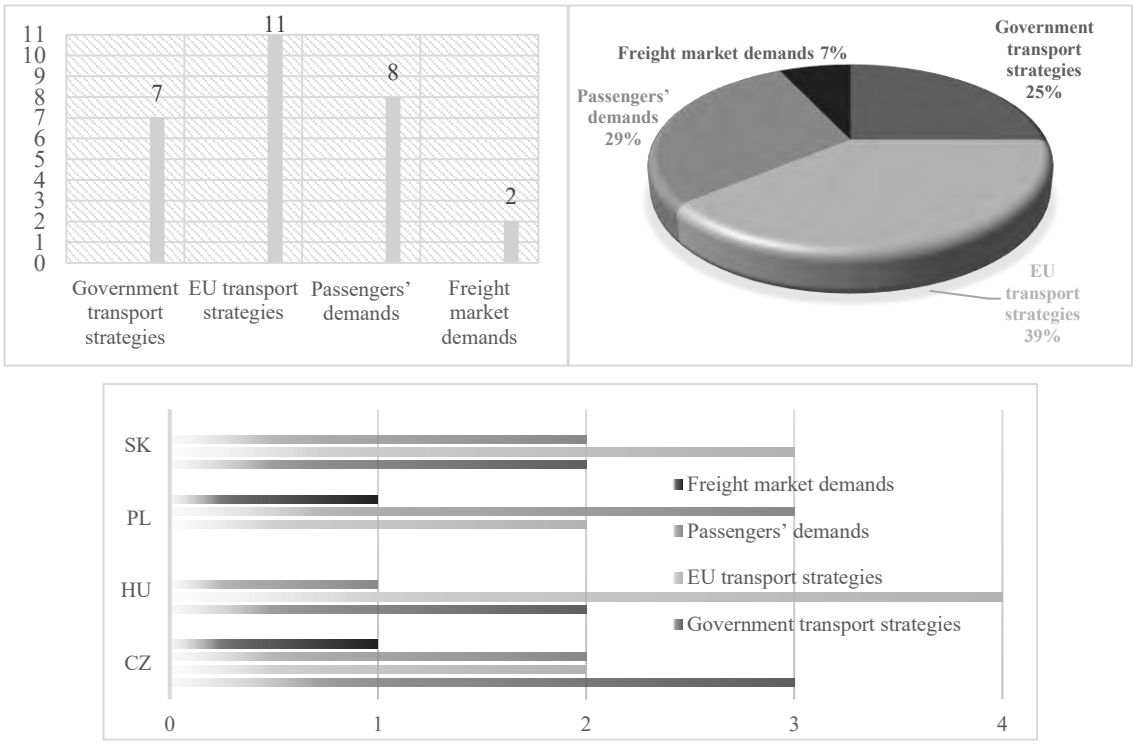
---

[182] In the Visegrad region, passenger trains altogether ran *43 billion km* in 2018, which was equal to the *8.7%* of all European passenger train movements, while the number of inhabitants living in Visegrad countries gave the *12.4%* of the total EU population (EU population 2019). According to a 2018 representative survey, *16%* of the EU's population uses domestic passenger train services, at least once a week. The proportion of weekly train users in Slovakia is almost *2 times* higher than the EU average, while in the rest of the V4 states, such ratio is below the Communitarian medium. As for travel habits, travel habits. Czechia ranks as the first among Visegrad states with *966 passenger-km* per inhabitant in the year 2018, followed by Hungary *(795 passenger-km),* Slovakia *(735 passenger-km),* and Poland *(545 passenger-km),* compared to the European average of *715 passenger-km* a year (IRG-Rail 2020).

[183] In the Czech Republic, *78%* of all train movements is effectuated by passenger trainsets, while in Poland it's "only" *65%.* Altogether, *73%* of the trains circulating on the Visegrad railway lines are operated by passenger undertakings as opposed to the European average of *81%.*

[184] As of 2020, the *88%* of active railway undertakings in the V4 countries provides freight services as opposed to the average European portion of *71.5%.* As far as their proportion is concerned, the biggest

Figures 55–57: Major motives for the development of the railway network



By contrast, an employee of the Slovak national rail freight operator (ŽSSK Cargo) marked exclusively government transport strategies as motors of railway development in his country, whereas experts employed by the Slovakian and the Hungarian railway infrastructure managers (ŽSR and MÁV) highlighted only EU transport strategies as drivers of national railway projects. According to a Czech and a Hungarian professional working for national railway infrastructure manager companies (SŽCZ and MÁV), both the member state and EU transport strategies determine the development of their countries' railway system, whereas the respondent from SŽCZ further stated that passenger and freight market demands equally determine the development of Czechia's railway system; and the respondent did not wish to differentiate among their significance.[185]

difference could be traced on the Slovak market, where the number of freight operators is almost *10 times* higher than that of passenger undertakings. By contrast, in Czechia, the latter operators are around *4 times* more the formers (IRG-Rail 2020).

[185] It is worth noting that the emphasis of rail transport varies by country within the EU. In 2018, Poland had the highest increase in freight services *(+13 million train km)* over the same time. Germany, Poland, and France had the largest rail freight traffic volumes in the year 2018. However, in the European Union, Hungary witnessed the highest decrease as far as the 2015–2018 evolution (most up-to-date data at the time of writing) of railway transport revenues is considered. Among all member states, Slovakia has the lowest unit revenue per passenger kilometer, as of 2018. Additionally, the modal share of rail (compared to other transport modes) decreased significantly in Slovakia and Hungary in the given time frame (IRG-Rail 2020).

The involvement of state actors in regional railway integration is evident since the year 2009, when the Visegrad Group declared its readiness to promote the European integration of countries from the Western Balkans and the Eastern Partnership initiative of the EU also by facilitating the construction of reliable road, rail, and energy networks in the region (visegradgroup 2009a). V4 governments agreed that the future EU member states had to be linked to the Community via fast and reliable transport routes, therefore, they suggested programs for the intensification of the four countries' efforts to support the development of international rail freight corridors and road infrastructure within the TEN-T network (visegradgroup 2010c). Since 2012–2013, V4 governments endeavored to formulate a common position on the implementation of the EU regulation concerning the creation of a competitive European rail freight network. The list of initial freight routes included five rail fright corridors ("RFC") crossing the territories of V4 countries responding to concrete operational and market-driven demands.[186]

However, besides EU transport strategies, some of the member state interests also successfully started determining the future of the ECE railway transport planning. The bargaining power of these four states combined in this case was sufficient to be the advocates and promoters of the extension of the TEN-T core network towards the Western Balkans in order to ensure closer integration of those six states considered with the EU (European Commission 2015).

The second question on the list was intended to shed light on the railway professionals' personal perceptions related to the effectiveness of EU financing instruments as far as the development of their country's railway system was concerned. This point required an elaborative answer without already indicated choices, with the aim of providing a chance to express their reasoning.[187] Asked about their opinion, all respondents replied

[186] RFC 5 crosses Poland, the Czech Republic, Slovakia, Austria, Italy, and Slovenia and has been operational from November 2015. RFC 6 was launched in November 2013 and links the Spanish city of Almería to the Hungarian town of Záhony located by the country's border with Ukraine through France, Italy, and Slovenia (with links to Croatia). RFC 7 was established in November 2013 by the cooperation of the transport ministries, infrastructure manager companies and capacity allocation bodies of the Czech Republic, Slovakia, Austria, Hungary, Romania, Bulgaria, and Greece. RFC 8 was established in November 2015. It connects the most important North Sea ports with Central European and Baltic hubs. The route runs through the Netherlands, Germany, Poland, Belorussia, Lithuania (with links to Sweden). It is intended to be gradually extended towards gauge-changing terminal at the Polish-Ukrainian border. RFC 9 has been operational since November 2013 and formulates a linkage between Prague and Čierna nad Tisou (Slovak–Ukrainian border).

[187] Apart from EU funding, Poland covers important national railway investments also from state and local governmental budget. By its *1.5 billion euros* financial framework, the so-called Kolej Plus scheme approved aims to link communities with reduced access to the country's railway system. The new rail lines would connect towns with populations of over *10 thousand* people that do not have access to train services with their regional capitals (visegradgroup/PAP 2019).

with a clear affirmative positive answer. It is essential mentioning here that since 2014, V4 countries – together with Austria and Slovenia – aim at enhancing joint efforts in the field of road, rail, air, and inland waterway infrastructure development emphasizing the need for mobilizing additional financial instruments – from the EU and other international resources – to that end (visegradgroup 2015a).[188]

Polish nationals working at the National Railway Research Institute and PKP Cargo International, the Slovakian railway experts from ŽSR, ŽSSK, and ŽSSK Cargo, the Czech respondent from SŽCZ, and Hungarian citizens working for MÁV considered EU financial tools as absolutely crucial. The employee of the Czech ČD Cargo found that EU financial instruments were mainly useful for increasing the profitability of consulting, design, and construction. The number of administrative staff has increased in Czechia thanks to the European Union's contribution, the respondent added. A professional from Slovakia's state-owned rail freight operator stressed that without Communitarian financial instruments, the progress of the national rail network would be much slower, and investment in infrastructure programs would be more modest. Some financing would be diverted to other transport initiatives at the expense of the railway system.

A professional from the Hungarian railway infrastructure manager company (MÁV) claimed that EU funds made it possible to implement large-scale developments (e.g., the renovation of complete sections, the purchase of considerable lots of vehicles), while his colleague from the same entity argued that EU financing was essential in upgrading the railway lines with European Rail Traffic Management System equipment and the modernization of passenger areas within railway stations and stops.[189]

[188] In their October 2018 joint declaration, the ministers responsible for transport, development and EU funds invited member states, the European Parliament, and the European Commission to a discussion on the future MFF and transport infrastructure growth, with the aim of achieving an agreement that would enable EU citizens to benefit most efficiently from these financial resources (visegradgroup 2018b). V4 ministers called upon the European Commission to cooperate in updating the proposed CEF regulation to ensure that, besides cross-border sections and missing links, the funding was available for construction projects aimed at solving the issues of existing bottlenecks on national sections on the TEN-T corridors.

[189] As discussed in *Chapter 2*, since 2014, the four states seek to solve the problem of the rail traffic bottlenecks, as they realized that the elimination of congestions might help exploit better the region's mobility potential, allowing for shorter travel times and more trains (EUSDR 2023). In the framework of the V4 High Level Working Group for Transportation, joint consultations were heled with the aim of aligning common "Visegrad" positions before the EU Transportation, Telecommunications, and Energy Council meetings (visegradgroup 2015c).

Figure 58*:* EU financing instruments are useful for the development of my country's railway network

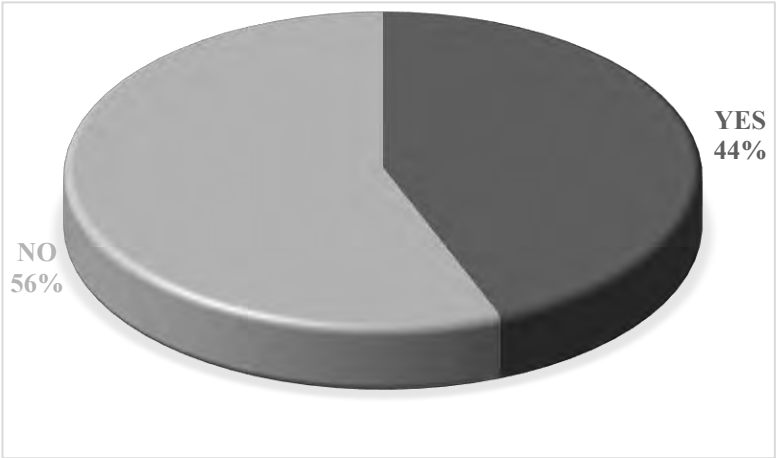
CZECHIA	HUNGARY	POLAND	SLOVAKIA
ČD Cargo: yes	MÁV: yes	Railway Research Inst.: YES	ŽSSK: Yes, absolutely
SŽCZ: yes	MÁV: yes, absolutely	PKP Cargo: yes, definitely	ŽSR: yes
ČD: yes	MÁV: yes, indeed	Railway Research Inst.: YES	ŽSSK: yes
SŽCZ: yes	MÁV-Start: yes	PKP InterCity: yes	ŽSSK Cargo: yes

The questionnaire's third point served to precise the views of the experts on the role of targeted EU funds in the integration of the Visegrad countries' railway networks into the European system. Respondents had to answer to this question in one or two sentences for the same reason as above. In order to determine the correlation between the EU's financing tools for infrastructure development and the transport integration endeavors of the V4 states, the interview continued with the question *"Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds?"* Altogether, *56%* of the interviewees claimed that Communitarian financing is essential for the European integration of the ECE national railway networks, while the rest of the participant did not see a direct logical correlation in this case *(Figure 59).*

The Polish Railway Research Institute's employee's answer to this question was a clear *"no",* whereas, the ŽSSK-workers made it clear that national funding would not be sufficient in itself to finance such investments. The professional from the Czech infrastructure manager company claimed that his country's integration into the European railway area would be very slow and difficult without the use of EU funds. An expert from the MÁV highlighted that Communitarian subsidies were still insufficient, e.g., if one thinks of the comprehensive deployment of ERTMS on main lines. In contrast with the abovementioned viewpoints, the Czech expert working for ČD Cargo gave a more complex insight by saying that EU funds also have impact on the size of administrative capacity. The experts working for the Slovakia-based ŽSR and ŽSSK Cargo argued that the incorporation of Slovakia's railway network into the European system would be possible even without the use of targeted EU funds, however, the integration would take much longer and be more limited, owing to a lack of sufficient financial capital. The same conclusions were drawn by the Czech and Hungarian professionals who work in the rail passenger and infrastructure management businesses, respectively.

Neither the representative of the Polish PKP Cargo International thought that the integration of Poland's railway network into the European transport system depended on targeted EU funds. The interviewee added that it is the geographical position of a country that determines the level of integration.

Figure 59: Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds?



These introductory steps helped the Interviewer understand the respondents' personal considerations and feelings about the involvement of EU funds in their countries' railway investment projects. The following step was the most decisive part in the structured interviews as far as the dissertation's central research topic is considered. With the aim of having a view on the role of EU financing instruments on the number of railway development projects in the V4 countries, experts were asked to answer, *whether they think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in their respective countries.* They could pick from five different options, with multiple choices being allowed *(Figures 60–61):*

a) Yes, the more EU financing is available, the more projects are implemented
b) Yes, the EU launched railway related financing mechanisms on the request of the Member States
c) No, should EU funds not be available, the railway development projects would be financed from other resources
d) No, I don't think that EU transport strategies and railway development projects are related, and
e) I don't know

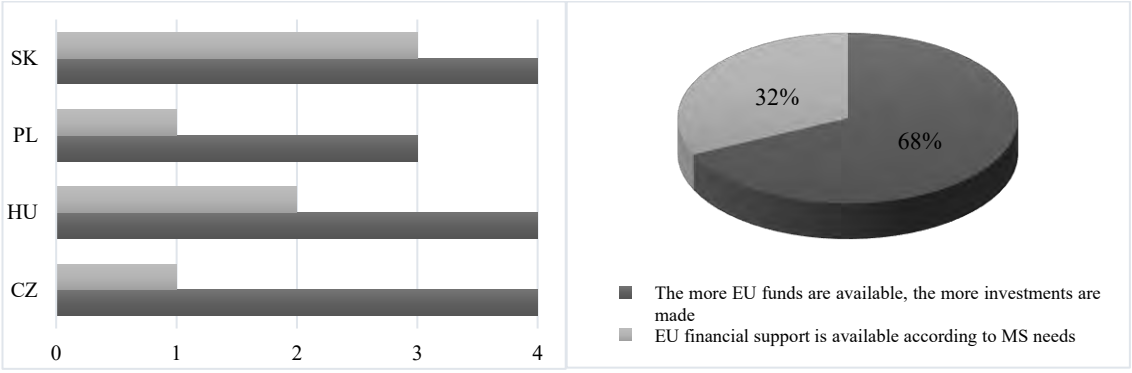
The first two answers both suppose a direct correlation between the available EU funds and the evolution of railway projects in the member states, while the third and the fourth options reject such logical connections. Option *"A"* points at a top–down spillover direction, in which the formalized Communitarian financial (and political) tools give birth to further integration among a group of member states in the field of rail transport. Option *"B",* on the other hand, suggests a bottom–up spillover logic, where the national governments unite their bargaining powers pushing the EU for adopting more thematic financial resources for transport investments. Going forward, option *"C"* excludes the possibility that EU funds might have an impact on the railway development strategies of the member states in the Visegrad region; while answer *"D"* rules out any causal relations between thematic EU funds and the number of railway construction projects in the V4 states.

Around *two-thirds* of the respondents found that more EU financing means more V4 railway development projects. The improvement of transport infrastructure is one of the most significant conditions for sustainable development (visegradgroup 2013). Cross-border railway projects have multiplied in the Visegrad countries in parallel with the increase of thematic EU financing tools and policies. Railway integration in the V4 region is thus an ongoing process driven by spillovers from EU policies and targeted funds – as seen in *Chapter 2.*

However, as it is shown by the answers in the structured interview, the role of politics-level coordination in the member states is essential in the railway integration process, and there is a need for lobbying at EU levels so that national interests could be implemented into Communitarian mobility goals. A high level of connectivity increases the standards of living by impeding the emigration of the local workforce from the region, supporting the creation of new workplaces and by attracting new investments (Nagy 2016). Common railway development projects have been high on the V4 agenda as far as environmental, social, economic, and transport policies are considered.

A ministerial *communiqué* of the 2014–2015 Slovak Presidency of the Visegrad Group made it clear that railway links could not be overlooked, as railway transport was becoming increasingly important due to its relatively high level of safety and low environmental impact as compared to road transport. Therefore, V4 countries strived to explore ways to improve and modernize existing rail links in order to improve Central Europe's connectivity and competitiveness with the rest of the Continent (visegradgroup 2015a).

Figures 60–61: Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?



Questions 5 and *6* served as affirmative steps, where respondents could give a detailed explanation for their pick to *Question 4.* Inquiring about the personal perceptions of the individual V4 countries' own resources for railway development, the interview went on asking: *"Do you think your country would develop cross-border railway services without the financial support of the EU?"* According to the representative of the Polish Railway Research Institute, Poland would adopt investments aimed at boosting cross-border railway services even without the help of the European Union, as in his country, the financing for passenger services comes from state and regional budgets. The same answer came from ČD, ČD Cargo, ŽSSK Cargo, and ŽSSK representatives who did not see a direct correlation between the development of such services and the financial support of the EU. The ŽSSK Cargo's professional further stated that principally it was relevant legislation, market conditions, and entry barriers that influenced the provision of cross-border railway services. The liberalization of the rail freight business in the EU region was more critical than the EU's financial support, according to the respondent.[190]

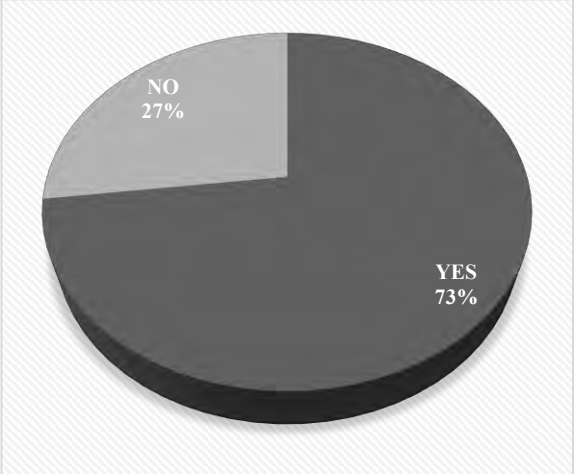
A Hungarian MÁV employee declared that Hungary would develop cross-border services even without EU support, because of the elevated level of traffic at some of the country's border crossings, which generates significant revenues. The interviewee further claimed that many international passengers transport connections (e.g., Budapest-Vienna, Budapest-Prague) of the Hungarian railway system are developing dynamically.

[190] In the Czech Republic and Poland, the rail freight business is categorized as highly concentrated. Apart from the publicly owned ČD Cargo, at the time of writing, there are *78* rail freight companies actively doing business on the Czech network. As of 2020, there were *72* trading rail freight operators on the Polish market. Besides the state-owned PKP Cargo that controls a market proportion of around *40–45%, 20* other undertakings have market shares over *0.5%.* However, all market players are considered to be in competition with each other. In Slovakia, at the time of finalizing the thesis, there are *38* rail fright undertakings besides the publicly owned ŽSSK Cargo. At the time of finalizing the dissertation, only *1* of the *27* active rail freight undertakings in Hungary can be seen as incumbent, whereas about *80%* of the total freight movement on the Hungarian network is international.

By contrast, another ŽSSK-employee and a professional from ŽSR declared that, in general, developing cross-border railway services in Slovakia would be difficult if the EU would not provide financial support, whereas a respondent from the Polish PKP Cargo International answered that his country would certainly not intensify cross-border railway services without the EU's financial background. Additionally, a Hungarian expert from MÁV further found that developing cross-border railway services in Hungary would not be possible without EU financing mechanisms.[191]

As discussed in *Chapter 2,* the lack of sufficient cross-border transport links was considered by V4 governments a great burden on the competitiveness of their economies. With these considerations in mind, for the first time in the Visegrad Group's history, the 2013–2014 Hungarian V4 presidency addressed transportation infrastructure growth as a strategic common goal paving the way for the problem to become an environment where long-term cooperation would yield tangible benefits for all parties involved.[192]

Figures 62–63: Do you think your country would develop cross-border railway services without the financial support of the EU?



	YES	NO
Czechia	3	0
Hungary	3	1
Poland	3	1
Slovakia	2	2

[191] The professional brought the example of the Lőkösháza–Curtici border crossing between Hungary and Romania, where the doubling of railway tracks is finished so far only on the Romanian side.
[192] The Presidency drafted a proposal to implement a program aimed at better harmonizing regional transportation infrastructure growth, finding, and eliminating transportation bottlenecks, and reducing travel times between the V4 countries (visegradgroup 2014b).

If one tries to trace the spillover process, the involvement of both political decision-makers and different stakeholders shall be analyzed. As discussed in *Chapter 3,* Ernst B. Haas' (1961) idea was that spillovers may be seen as "ever-expanding islands of practical cooperation".[193] The political scientist further added that the likelihood of significant political progress increases with task specificity. In practical terms, decisions aimed at achieving stronger integration in one field give rise to unintended multidimensional consequences (involving political, social, economic, and cultural spheres), which, in time, become major forces driving towards stronger regional integration.

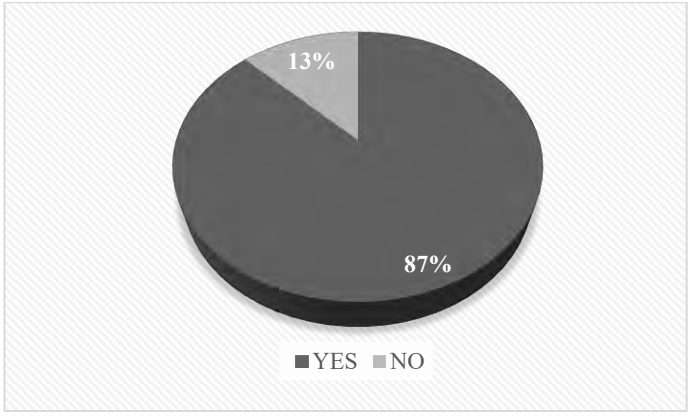
In order to have a vision about the directions of railway development strategies, the interview continued with the question *"Do you think that the railway development projects in your country are in line with the European Union's transport strategies?"* The decisive majority *(87.5%)* of the participants responded to the above question with a clear positive affirmative answer. The Polish nationals from the National Railway Research Institute and PKP Cargo International (together with the Slovak citizens working for the national infrastructure manager, passenger, and freight companies, as well as a Hungarian professional from MÁV) replied that in principle, their governments' endeavors closely follow the EU's line of conduct in this sense.

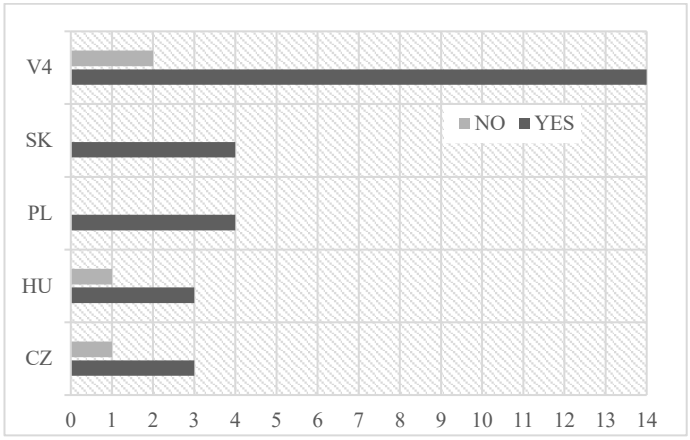
Representatives of the Czech SŽCZ and ČD also claimed that their government's railway development projects were fully in line with that of the European Union, with the latter expert saying that priorities are determined based on the difficulty of the constructions and the business demand. By contrast, the Czech railway expert from ČD Cargo went on specifying that the above statement did not apply for all cases, as there were many projects focusing only on the spending of allocated funds. Another respondent from the Hungarian company MÁV further stated that railway development projects in the country were not entirely in line with the European Union's transport strategies, as local interests often overwrite EU guidelines. As outlined in *Chapter 2,* V4 governments seek to align positions on EU Transport Policy for specific modes of transportation, including the formation of potential joint positions on actual Communitarian legislative initiatives or strategic documents with a focus on

[193] Governments do not necessarily exercise control over such integration processes: state authorities normally just react by transferring powers from national to supranational levels rather than proactively shaping cross-border cooperation that has already been initiated by sub-state actors (Mattli and Slaughter 1998). Leon Lindberg cited situations when actions related to specific goals create unique circumstances in which the initial goals can be reached exclusively by taking further steps in other, seemingly unrelated fields of action, which, in turn, create conditions for more and more coordination. This is how spillover works in intergovernmental politics (Rosamond 2005).

– enhancing collaboration and coordination in the submission of project proposals for effective CEF funding, especially for cross-border transportation projects within the TEN-T core corridors; and
– exchange of the lessons learned from the implementation of EU-funded transport development infrastructure projects during the 2007–2013 and 2014–2020 programming periods (visegradgroup 2015c).

Figures 64–65: Do you think that the railway development projects in your country are in line with the European Union's transport strategies?





5.3. The level of international integration of V4 railway networks

Reflecting upon strategic transformations related to the Eurasian transport integration, Jacopo M. Pepe (2018) argues that the emergence of deeper economic interdependencies among developing countries led to the reconstruction of existing corridors and the exploitation of new trade links on the east–west axis. Governments of Visegrad states are committed to working together on joint projects involving major transportation corridors, especially those that are part of the TEN-T network, with a particular emphasis on north–south transport routes, in order to ensure East Central Europe's interconnection

with Baltic, Adriatic, and Black Sea ports. Additionally, V4 presidents declared their readiness to join efforts to make full use of European financial instruments like CEF in order to significantly boost transportation infrastructure, including essential cross-border interconnections within the V4 area (visegradgroup 2015b).[194] In order for the respondents of the structured interviews to be able to explain in more detail their views about the level of international connectivity of their respective countries' railway networks, the standardized interview proceeded with following questions:

- How much do you think your country is integrated within the European railway network?
- Which foreign railway network do you think is the most interconnected with your country?
- With which neighboring country/countries would you intensify the railway cooperation?
- Towards which neighboring country/countries would you lunch more cross-border railway services?

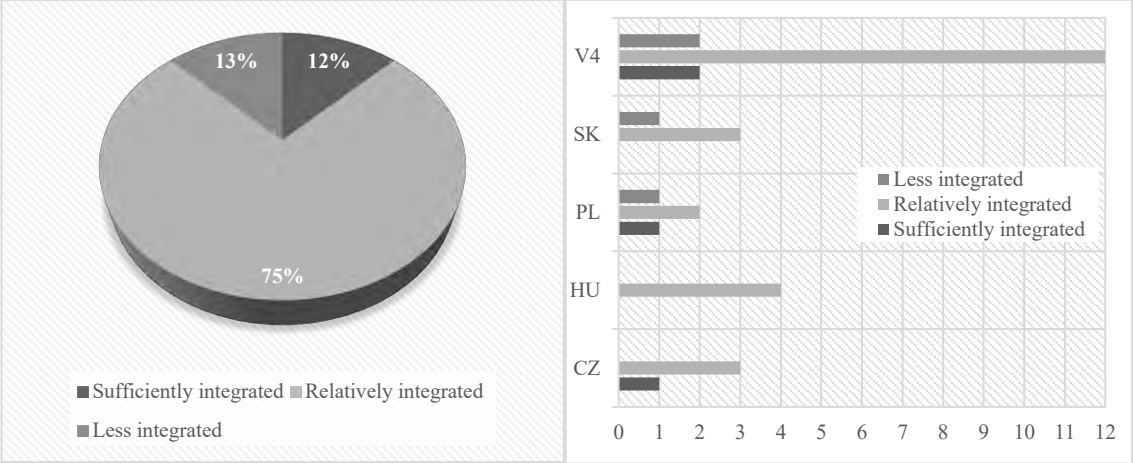
These four questions inquire about the interviewees' personal and professional judgements on the level of integration of their countries' railway network into the European transport system. Respondents were also asked to name the foreign railway networks they think their countries are the most interconnected with, and to mention any neighboring state(s) with which they would intensify initiatives and cross-border services in the field of railway operation. Answers to these questions serve as points of reference in understanding the actual directions of railway cooperation in the Visegrad region.

Therefore, for the sake of identifying the current state-of-the-art of the individual countries' railway integration strategies, respondents shared their opinions by answering the question *"How much do you think your country is integrated within the European railway network?" Three-quarters* of the interviewees believed that their country's railway network was relatively well connected to foreign transport grids at European levels *(Figures 66–67)*. Experts from the Polish Railway Research Institute, the Czech ČD, ČD Cargo and SŽCZ, the Slovak ŽSR, ŽSSK and ŽSSK Cargo, and the Hungarian

[194] The European Union's South–East Transport Axis project's analysis (SETA 2012) on infrastructure development plans and the Valdai Discussion Club's report on the north–south transport corridor (Karavayev and Tishehyar 2019) reaffirmed the increasing potential of railway corridors from Scandinavia to Southeast Europe and Central Asia. The 2010–2011 annual report of the European railway interest advocacy organization CER stressed that the V4s' development concepts to boost the position of the railway sector contributes to the creation of an energy efficient, environmentally friendly, and safe transport network promoting economic growth and regional cohesion. The same conclusions were traced in a recent development potential report of the International Union of Railways (UIC 2023) on Eurasian corridors.

MÁV found their countries' railway networks to be relatively integrated into international transport routes. Another Slovak railway expert from ŽSSK, however, found Slovakia to be less integrated at European levels. The expert working for Slovakia's state-owned rail freight operator further claimed that integration is a gradual process, the implementation of which is time-consuming, and several additional steps and projects would be needed to achieve an adequate uniting. The Polish respondent, who worked for the state-owned PKP Cargo International, was the only interviewed professional to state that Poland is sufficiently integrated into the European system of transport corridors.

Figures 66–67: How much do you think your country is integrated within the European railway network?

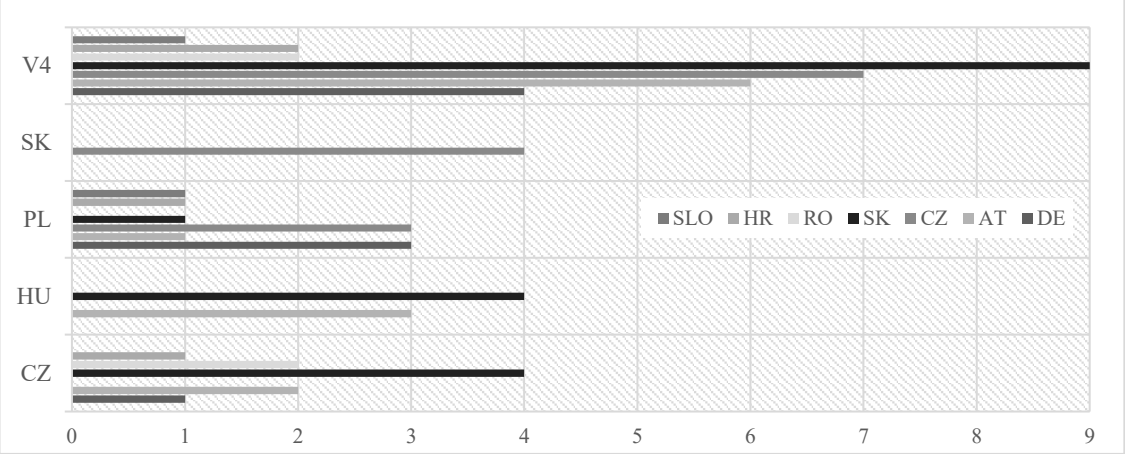


It turned out that among all V4 states, Slovakia ranks the most interconnected in terms of international railway services. According to the Polish expert from the Railway Research Institute, the biggest Visegrad Group country is best interconnected with the German and the Czech rail networks. The respondent would intensify the railway cooperation with the Czech Republic, Slovakia, and Lithuania, because of the existing gaps and missing infrastructure links.[195] The Czech nationals working for ČD, ČD Cargo, and SŽCZ think that the country's railway network is the most interconnected with that of Slovakia and Austria, for historical reasons *(Figure 68)*.

[195] The Pole expert would like to see more cross-border railway services with Slovakia and Lithuania, as at the time of answering, passengers had a very limited offer in those destinations. The sparse and concentrated distribution of major infrastructure investments (motorways, railways), which were due to the natural environment or the legacy of highly formalized political boundaries, resulted in low accessibility rates in Poland, compared to EU average levels. By the 2010s, during cycles of investment and development in transportation, the degree of accessibility became more diverse on European, global, or regional levels. (Bradley and Zaucha 2017)

It is worth recalling that in October 2006, representatives of Lithuania, Poland, Slovakia, and Hungary met at the "One Way – Four Countries" intergovernmental conference in Łańcut, Poland to discuss the demand for an integrated, sustainable and efficient transport infrastructure that would provide connectivity to the Carpathian, the Baltic, as well as the Danube macro-regions.[196] In 2016, the parties signed the second Łańcut Declaration on the extension of the Pan-European corridors by establishing the shortest highway route on the north–south axis connecting Lithuania, Poland, Slovakia, and Hungary. Another important initiative, the *Via Carpathia* includes prospects currently under discussion for the construction of branches to neighboring countries like Belarus, Ukraine, Turkey, Macedonia, Albania.[197]

Figure 68: Which foreign railway network is the most interconnected with your country?



The professionals from ČD and ČD Cargo would intensify cooperation primarily with Germany, as at the time of responding, there is only one functioning border crossing point for railways at Děčín–Bad Schandau, the experts added. According to the Czech state-owned railway passenger company's employee, the existing connections are not

[196] In October 2010, Bulgaria, Romania, and Greece also joined the initiative. In 2013 February, foreign ministers of the Visegrad, Nordic and Baltic states agreed that strengthening the single market, as well as expanding energy and transportation infrastructure, would help Europe expand. It was stressed that in order to maximize the capacity of such cooperation, improvements in transportation and energy links between these regions must be made (visegradgroup 2013c). On a 2013 high-level summit, foreign ministers from the V4, Baltic, and Nordic countries emphasized the importance of the Eastern Partnership in the future integration of the European continent and supported those partners' aspirations for 'Europeanization' (visegradgroup 2013f).

[197] *Via Carpathia* is a planned European cross-border transport route running along the eastern border of the EU, connecting Lithuania, Poland, Slovakia, Hungary, Romania, Bulgaria, and Greece. One of its major advantages is that it would connect the Eastern and less developed economic areas of Poland, Slovakia, and Hungary. The project aims at improving communication and transportation of goods between the Baltic and the Aegean Seas.

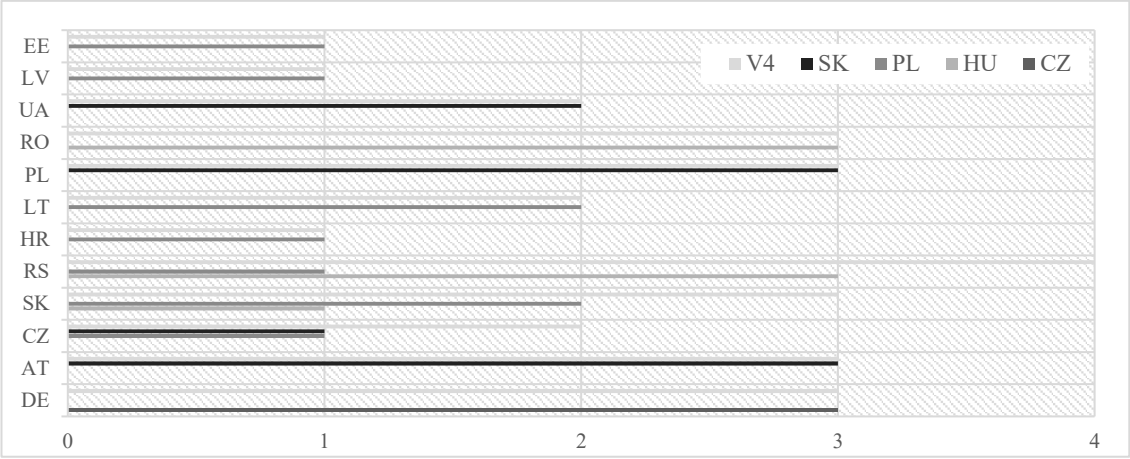
competitive. A railway operator must have access to infrastructure that provides sufficient capacity, reliability, and faster travel times than other modes of transportation, the interviewee stressed. The ČD professional shared a personal vision about making Czechia better connected to the Western European rail network by launching more cross-border services *vis-á-vis* Austria and Germany.

ŽSR, ŽSSK, and ŽSSK Cargo representatives, who also found that Slovakia is the most interconnected with the Czech Republic, underpinned the former opinion. Besides the historical background, they pointed at the similar and even the identical regulations, technical equipment, and the tight business relations. Slovak professionals would intensify the railway cooperation with Poland and Ukraine, because of the growing potential on the passenger market (e.g., commuter workers).[198] They noted that at the time of answering the questionnaire, ŽSSK has the largest volume of passengers as well as the number of connections with the Czech Republic and Austria.

The Slovak respondents from the national railway passenger company would prefer to intensity traffic *vis-á-vis* Austria (due to labor mobility and tourism) and Ukraine (because of the long waits at the Schengen border crossing points on the road network). The ŽSSK Cargo and the ŽSR employees agreed that apart from the Czech Republic, Ukraine, and Austria, it is as much as important to intensify the railway cooperation with other neighboring countries, such as Poland and Hungary. *"These countries are part of the single European transport market and shipments to and from these countries represent a significant part of our company' performance. Hereby the single railway market represents the potential for further development and performance. More intensive cooperation is important for increase a railway performance and competitiveness of rail freight in EU transport market",* the ŽSSK Cargo's professional claimed. As discussed in *Chapter 2,* the lack of sufficient connections, the relatively substandard technical parameters and the concentrated markets are still impeding rail's competitiveness relative to other modes in these countries.

[198] During the 2016–2017 Polish Visegrad Group Presidency a special attention has been given to investments and cross-border projects among V4 countries, Belarus, and Ukraine (including broad-gauge railway routes at the borders; visegradgroup 2016c). In September 2016, Prime Ministers of the Visegrad countries and Ukraine agreed to continue their collaboration in constructing transportation routes that connects the Ukrainian network to the Trans-European one, with the aim of promoting economic cooperation and, as a result, contribute to regional stabilization (visegradgroup 2016d).

Figures 69–70: Towards which state(s) would you intensify your country's railway cooperation?



A Polish national working for the Hungarian division of Poland's PKP Cargo International noted that Hungary is the most interconnected with Austria, Slovenia, Croatia, Slovakia, in terms of railway links. The expert would intensify railway cooperation with Croatia. In the long term, the professional sees huge business opportunities to explore in that relation, because the weight restrictions for freight trains applied by Croatia are more favorable than the Slovenian regulations. All things considered, the respondent would develop new and upgrade existing cross-border connections towards Slovenia, Croatia, and Serbia as well.[199]

[199] It is worth recalling that the involvement of state actors in regional railway integration was also evident in 2009, when the Visegrad Group declared its readiness to promote the European integration of countries from the Western Balkans and the Eastern Partnership initiative of the EU also by facilitating the construction of reliable road, rail and energy networks in the region (visegradgroup 2009a).

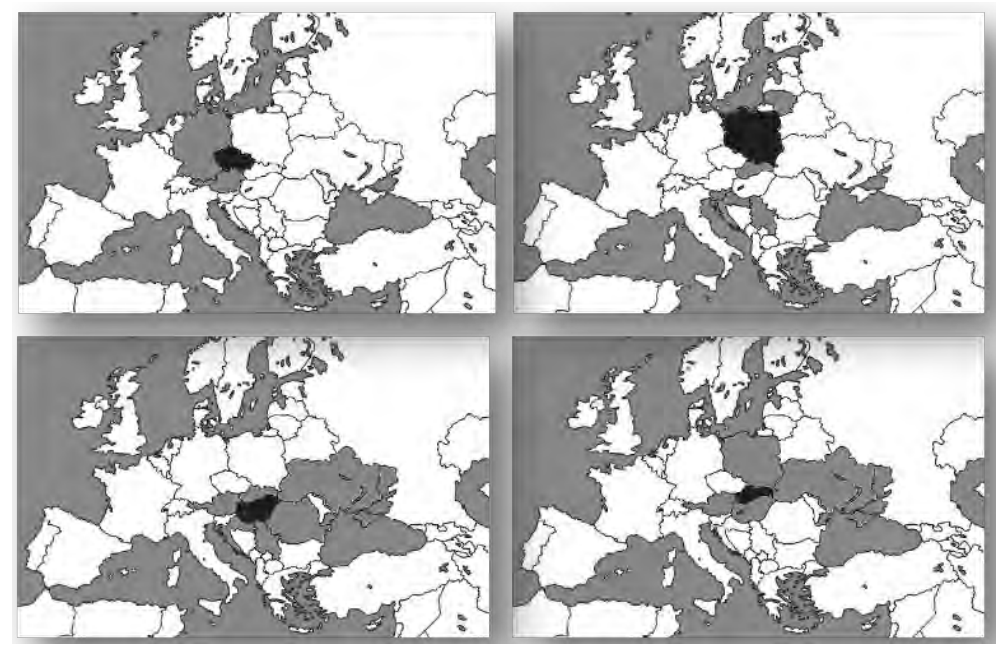
An expert from the Hungarian infrastructure manager MÁV reaffirmed that Hungary is the most connected with the Slovakian railway network. The interviewee would launch more local cross-border services towards Romania[200], develop freight shipments towards Serbia, and construct high-speed connections through the western borders of the country. The question of constructing HSR lines in the region officially arose for the first time during the 2012–2013 Polish Presidency of the Visegrad Group. That time, the four governments aimed at elaborating common concepts for such developments, with respect to the liberalization of domestic passenger rail markets (visegradgroup 2013d). V4 ministers responsible for transport policies have discussed the topic of future HSR network in the region in almost each presidential term ever since.

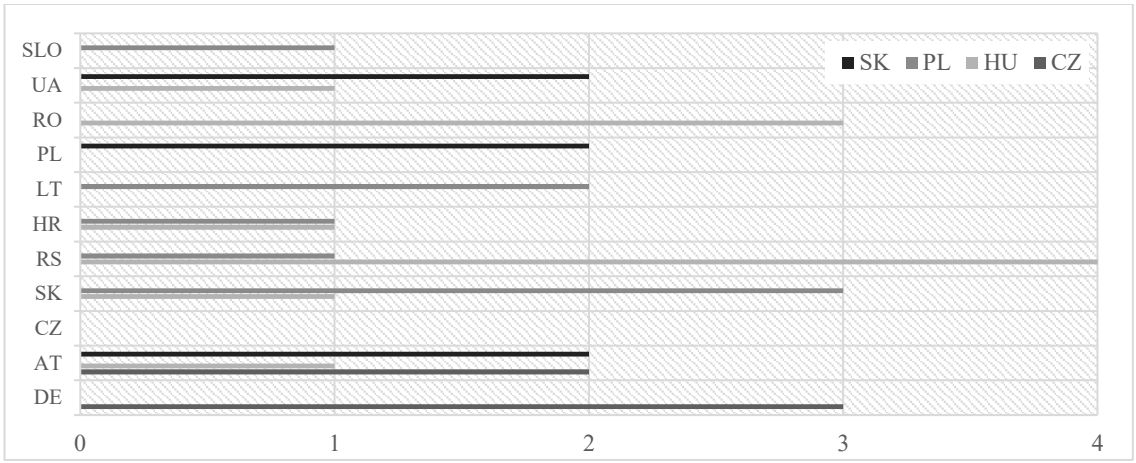
Going back to the structured interview analysis, another professional from MÁV claimed that due to the central position of the country, it is difficult to answer which foreign railway network has the closest connections to the Hungarian railway system. At the time of answering, the Hegyeshalom–Nickelsdorf border crossing towards Austria is the point where passenger and freight transport is the most intensive. In addition, there is a considerable flow of passengers and goods to and from Slovakia (Szob–Štúrovo border crossing), Croatia (Gyékényes–Koprivnica), and Romania (Lőkösháza–Curtici), the professional added. The railway expert from MÁV would definitely lunch more cross-border railway services towards Slovakia, Serbia, Croatia, and Ukraine.[201] In particular, the respondent would develop regional transport at smaller border crossings by improving infrastructure and timetables.

[200] In 2017, EU's Cohesion Fund contributed *39.2 million euros* through the Integrated Transport Operational Program to the reconstruction of Hungary's Budapest–Békéscsaba dual-track railway line, which is part of the TEN-T corridors. The projects included the installation of the ERTMS' signaling and control component (ETCS) along the entire railway line from the Hungarian capital to the Romanian border crossing point, Lőkösháza–Curtici. Journey times were shortened on the aforementioned line by raising track speeds from *100–120 km/h* to *160 km/h* (European Commission 2017a).

[201] In April 2017, the Foreign Ministers of the Visegrad Group discussed the importance of developing transport and infrastructure interconnections between the EU and its Eastern neighbors and welcomed the decision on extending the core and comprehensive TEN-T network to the Eastern Partnership area as it was agreed by the June 2016 Rotterdam Ministerial Declaration. In 2019, the Foreign Affairs Committees of the Visegrad Group Parliaments reaffirmed the four countries' support for enhancing transport links and people's mobility by the eastbound expansion of the TEN-T system – financed by the European Commission and the World Bank's common investment action plan (visegradgroup 2019a).

Figures 71–72: Towards which state(s) would you lunch more cross-border railway services?





Governments of the Visegrad countries declared their readiness to complete the region's TEN-T core network in the course of the 2021–2027 MFF period, however, they also acknowledged the need to further develop the already existing lines. Thus, they urged the strengthening of the cooperation between the European Commission and the member states in the management and implementation of CEF policies, with special regards to the creation of a single and universal eligibility guide for project expenditures funded by the aforementioned instrument (visegradgroup 2018b). Rail freight transport market has started to grow in the region and the improvement of rail linkages stimulates economic development by boosting business relations and tourism. Visegrad economies compete with each other on the Eurasian freight corridors, however, the political leadership of the V4s have decided that the development of north–south transport linkages is also particularly important to them.

5.4. Research results

Structured interviews provide a synthesis and practical explanation for the spillover theories as well. Kerry E. Howell (1997) conducted research using structured interviews to demonstrate the extent to which neofunctional and intergovernmental processes explain integration processes in the EU. According to the neofunctional reasoning, both supranational and majoritarian intergovernmental institutions create endogenous interdependencies: path-dependencies and various types of spillover effects. The effect of path-dependencies in the intertwining of V4 railway infrastructures can be ruled out as the experts' answers to the structured questionnaire showed that international railway development rarely involve institutional constraints for it mainly follows market needs and historical-geopolitical features. Following Howell's logic, and complementing it with the ions of Sadeh *et al.* (2019), the remaining endogenous interdependencies provoking ever-deeper intergovernmental transport cooperation among governments the Visegrad countries are the functional, the political, and the cultivated spillovers, as discussed earlier in the literature review chapter.[202]

The assessment of the structured interviews pointed at that fact that EU contribution is essential but not a must in the planning, financing, and realization of railway infrastructure constructions and the development of passenger/freight services. National railway projects may have slightly differing objectives, however, they are mostly in line with EU strategies. Around *44%* of the interviewed professionals argued that the integration would be possible even without targeted EU funds, but the process would be much slower and more limited in budgetary terms, while the rest of the respondents claimed that the integration mostly would not take place without EU financing. This way, the role of cultivated spillovers in the institutionalization of joint V4 railway coordination proves to be of moderate importance.

The responses of railway experts show that the bottom–up drivers – such as passenger and freight needs – are less important in the political decision-making related to railway development than top–down forces, like the pursuance of EU and/or member state strategies. When asked whether they think there is a correlation between the available

[202] In short, functional spillovers refer to a cooperation in one issue area that motivates integration in other issue areas for greater efficiency. In case of a political spillover, however, it is *élites* and national interest groups to develop cross-border solidarity and common interests. Nevertheless, the notion of cultivated spillover stands for supranational actors – prominently the European Commission – that champion the process of integration to reluctant (or resourceless) member states.

targeted EU financing instruments and the number of railway development projects in their countries, two thirds of the participating V4 railway experts stressed that "the more EU financing is available, the more projects are implemented", whereas one third of the interviewees argued that the EU adopts railway related financing mechanisms upon member states' requests. The first option points at a top–down spillover direction, in which the formalized Communitarian financial (and political) tools give birth to further integration among a group of member states in the field of rail transport. The latter option, however, suggests a bottom–up spillover logic, where the national governments unite their bargaining powers pushing the EU for adopting more thematic financial resources for transport investments. As the railway development projects and plans cited in the structured interviews do not develop to reach the objectives of earlier EU policies (as they all follow the priorities outlined in harmony with the actual MFF), the expert interviews cannot trace the effects of functional spillovers in the expanding of cooperation circles on the Visegrad railway market.

The only endogenous interdependency channel that remained, based on the arguments of Howell and Sadeh, is political spillovers. The analysis of the answers discovered a direct correlation between available EU financing and the number of railway projects, inasmuch as more financial contribution from the European Union means more railway construction (or services modernization). Thanks to their strategic geographical position and long history of enhancing railway connections, V4 infrastructures are relatively integrated into the European railway network, and above all, Slovakia ranks the most interconnected railway network in ECE. Structured interviews showed that railway initiatives in V4 countries are principally shaped (and co-financed) by transnational actors, who pursue their preferences at the supranational level, but relying on the resources, assets, and business interests of local sub-state actors, like railway companies.

Spillovers of government and EU decisions are key factors in understanding the nature of inter-state regional cooperative endeavors. Practical V4 integration generally involves high-level decision-making, so examining spillovers helps keep track of the expansion of collaboration circles. Comprehensive researches of different public policy fields of action are essential in comprehending the directions and dynamics of country alignments within the EU. The conclusions of this chapter are intended to help the better comprehension of politics-level cooperation and the spillover phenomena in ECE while seeking answers on how and to what extent international policies, polities, and lobbies shape the Visegrad cooperation's functioning through spillovers.

6. CONCLUSION

Previous chapters provide a comprehensive analysis of the Visegrad Cooperation's (railway) transport policy aspirations, while looking for answers to how the European Union's integration mechanisms – including Communitarian financial and legal frameworks – have contributed to the implementation of interdependent quadrilateral intergovernmental transport development projects in East Central Europe. Qualitative and quantitative research results presented in the dissertation reinforce each other and point to the importance of the political spillover effects created by the EU's legal, financial, and institutional frameworks in the development and deepening of sectoral regional interdependencies between V4 states in relation to the examined time frame (from October 1999 to March 2021).

Research of the European Commission's white papers, Communitarian railway legislation, Eurostat transport datasets, official V4 documents, and academic papers dealing with the evolution of the East Central European transport network found that **the European Union's transport policies have spilled over into different new forms of policy coordination between the incumbent governments of Czechia, Hungary, Poland, and Slovakia.** The thus formed integrative steps resulted in every time more frequent meetings of prime ministers, ministers, state secretaries, directors, heads of departments, professionals (from state authorities and business entities as well) that led to the creation of denser connections and more reliable railway services in the V4 area.

Political spillovers deriving from the centripetal elements of the European integration – in terms of sectoral policies – are, therefore, key factors in understanding the nature and directions of railway cooperation between the governments of Czech Republic, Hungary, Poland, and Slovakia. Keyword-based content analysis (co-word occurrence tests) of *memoranda* of understanding, presidency programs, *communiqués,* and other official V4 documents discovered that government-level interference between different policy areas result in the integration of railway policies in the V4 region, identifying a direct logical correlation (political spillover) between the availability of incentive EU instruments and the number of railway development projects among Visegrad states.

Based on widely used social science text mining methods, co-occurrence tests displayed in *Chapter 4* pointed out that from October 1999 to March 2021, the railway related terms appear in the investigated corpus regularly and clearly in almost perfect

synchronicity with proposals for greater regional transport policy coordination. Consequently, railways could be considered as one of the most constant and important pillars of the Visegrad format transport development endeavors. However, as demonstrated by the co-occurrence analysis – and confirmed by structured interviews conducted with Czech, Hungarian, Polish, and Slovak railway strategy experts – regional train traffic integration in East Central Europe would be barely possible to achieve without clear governmental intentions and means to exploit the so-called institutional field created and provided by the EU.

Content analysis and structured interviews shed light on the paradoxical situation that while EU institutions contributed to the creation of Visegrad platforms for interest advocacy and decision-making as far as railway policy-making is concerned, the communitarian structures and development goals, in themselves, are not always suitable for implementing the region-specific transport development strategies of East Central Europe (see e.g., the need for north–south transportation routes). As a result, V4 focused policy schemes are being developed by the four states' governmental bodies – sometimes as an integral part of EU strategies, sometimes complementing or even challenging them (see e.g., the creation of high-speed railway infrastructures, involving FDI inflows from third countries). The EU-rooted political spillovers in the Visegrad Cooperation's transport policy integration go beyond the purely financial impact of Communitarian funds: they involve the creation of V4 format intergovernmental and expert-level platforms, which in time eventually lead to the gradual elimination of legal and technological barriers between individual national railway networks. On the other hand, setting up centralized EU strategies may pose a challenge to region-specific V4 interests thus triggering the four governments to form alliances among themselves – besides the institutional/legal framework of the European Union. The European integration's political spillover effects on railway cooperation between the governments of the Czech Republic, Hungary, Poland, and Slovakia are mainly manifested in the following aspects:

1. **Policy coordination between the four states is usually implemented within the EU structures, and there are only occasional examples of sectoral integrative steps that are (partially) independent of community strategies.** The systemizing ideas and organizational background of the railway cooperation is provided by the institutional and legal toolkit of the European Union, at the first place. Focusing on the central topic of this dissertation, the driving force of the regional railway policy coordination among V4 states is the spilling over of newer cooperative mechanisms

deriving from preexisting integrative structures of the EU, such as the four freedoms, sustainability goals, mobility directives, labor/human rights, energy supply chains, tourism, and so on.

2. **The financial resources necessary for the planning and implementation of railway development investments in the ECE region are primarily provided by the cohesion fund of the European Union.** As discussed, the EU's transportation initiatives, legislation, and guidelines led to the need for more modern and reliable train services: over the past decades, a number of railway projects have been implemented (partially or entirely) from available Communitarian funds, which greatly contributed to the integration of the transport infrastructure between the four countries.
3. **The EU's railway *acquis* (packages, directives, regulations, and white papers) provide the starting and reference points for determining the direction of the Visegrad states' development policies as far as the joint coordination of track-based traffic is considered.** Since the time Czechia, Hungary, Poland, and Slovakia joined the EU, spillovers of cooperative actions between sub-state, government, or supranational actors have led to the growing need for a dense, reliable, interoperable, and safe transport network in the ECE region.

   A direct correlation occurs in cases where the EU and V4 development goals completely overlap. In exchange, when the Visegrad Four railway strategies set an – at least partially – new direction for the development of the ECE transport network compared to the related EU policies, the spillover effect of the European policy integration is indirectly identified in the sectoral cooperation of the examined states. The logical connection between the two factors clearly exists even in this latter case, since in such situations, instead of deepening the cooperation at the well-tried EU integration platforms, the Czech, the Hungarian, the Polish, and the Slovak governments achieve their common goals by creating new cooperation structures. In a nutshell: the Visegrad Fours' transport policy cooperation mechanisms can be seen both as direct and indirect manifestations of the European integration.

As for the first point, in order to accomplish their primary transport development goals – such as the modernization, maintenance, and sustainable development of their respective railway networks –, the governments of the four countries needed to adopt

to Communitarian railway *acquis.* As outlined in *Subchapters 2.3* and *2.4,* in their legal harmonization endeavors, representatives of the four states routinely seek opportunities for cooperation to assert their shared interests in the decision-making processes within the European Union. In this sense, the primary goal of the V4 governments has been stressing the unique market and technical characteristics of the ECE transport systems when formulating EU railway legal documents. When it comes to formulating new Communitarian railway *acquis* or regulation, the governments of Czechia, Hungary, Poland, and Slovakia tend to hold preliminary four-party negotiations to harmonize their positions before EU-level decision-making, in order to achieve more favorable positions.

Specific EU agencies, organizations, and legislative packages ensure the legal/institutional criteria for the operation of the single market on the Trans-European transport network. Such collaborative mechanisms bring absolute benefits for the four ECE states inasmuch as cross-border cooperation projects are primarily aimed at upgrading regional transportation infrastructure in order to meet the technological and legislative conditions of the TEN-T Community. In an effort to have a greater say in how specific sectoral policies are implemented, international institutions encourage the transfer of state authority to supranational organizations. International cross-policy ties are thus formed by the integrative measures' political spillovers, strengthening the structures of transnational organizations and supporting the creation of alliances.[203]

Going on to the second point, since the four states joined the EU, the Community's MFFs (through their distinct specialized pockets for mobility development) provided the main budgetary tools for V4 railway cooperation *(Subchapters 2.6* and *4.2.2.).* It became a common interest of the Visegrad countries' governments to coordinate their modernization policies by effectively lobbying for targeted EU funds in order to improve the macroeconomic competitiveness of their transport networks. Intergovernmental policy coordination has strategic relevance as Visegrad countries are net recipients of EU structural and cohesion funds. Co-word occurrence research (presented in *Chapter 4*) evidenced that, from October 1999 to March 2021, regional railroad cooperation was mentioned in official V4 documents predominantly in the context of how to exploit the EU's supporting mechanisms for transport infrastructure. Keyword-based text mining also clearly evidenced that topics related to railroad modernization appear in the examined text corpus primarily during the MFF negotiations.

[203] The practical aspects of such process are detailed in *Chapter 2,* while its theoretical background is outlined in *Chapter 3* of this dissertation.

By comparing the relative share of financial recourses provided by the European Union for railway development, *Chapter 4* of this dissertation concludes that V4 railway integration is in major part powered by the specialized pockets of the EU's development funds. Such conclusion was reaffirmed by structured interviews with railway strategy professionals *(Chapter 5),* as all respondents gave positive answers related to the effectiveness of EU financing instruments as far as the development of their country's railway infrastructure was concerned. The majority of the interviewed railway strategy experts directly claimed that Communitarian financing was necessary for the European integration of the ECE national railway networks. As far as the assessment of the role of EU funds in the integration of the Visegrad countries' railway networks into the European transport grid is concerned, the interviewees did not agree on whether the integration would be possible even without targeted EU funds or not. However, a little over *two-thirds* of those completing the questionnaire believed that an increased volume of EU funding might result in a higher number of railway development projects in the V4 region, based on their experience.

When it comes to the third point, as discussed in *Subchapter 2.4,* the framework of EU transport initiatives is determined by the idea of sustainable mobility, smart connectivity, and interoperability. The different railway related topics are frequently and consequently mentioned in official V4 documents as important pillars of their quadrilateral transport policy endeavors. This attribute is in synchronicity with the European Union's transport strategies, as affirmed by most of the interviewed railway experts. Moreover, the intensity of the activities of thematic V4 format ministerial, managerial, and expert meetings have risen in concert with evolution of the importance of sustainable mobility goals on the EU agenda, as pointed out by the co-occurrence analysis.

The four governments took into account the significance of the European Union's mobility initiatives, particularly the projects involving corridors connecting their nations, in order to enhance the region's competitiveness. Transport ministers of the Visegrad countries expressed a desire to foster the expansion of economic and commercial ties with a particular emphasis on regional issues and a shared belief in the importance of infrastructure development. In order to provide a fast, secure, and interoperable transport grid in the eastern part of the EU, governments of the four Visegrad Group countries tend to formulate common negotiating and lobbying positions at EU *fora* related to the development of new international corridors in the region, the modernization of existing lines, or the upgrading of national infrastructures with interoperable European

technological solutions. Visegrad cooperation offers, this way, a forum for ECE governments to agree on joint interest articulation positions on funding structures or rail transportation regulation procedures initiated by various EU bodies and organizations. Due to the growing volumes of freight traffic on the Asia–Europe transport axis on the one hand, and the European Union's political, legislative, and financial incentives for the creation of an environmentally friendly, sustainable, and fast mobility system on the other, the modernization and development of railway connections has become an essential joint endeavor on the Visegrad Four agenda. In the examined period (1999–2021), Visegrad countries have become integral parts of European priority transport axes, and their governments recognized that a long-term, well-functioning, and reliable transportation system was an important component of a competitive and expanding economy.

EU directives, legal structures, and available political/financial resources influence the direction of the incumbent Visegrad governments' political activities regarding railroad development. In this way, a clear system of interdependence between cause and effect could be identified (the latter results from the former). Therefore, the expansion and strengthening of the Visegrad Fours' transport policy cooperation mechanisms can be seen as an indirect as well as direct manifestation of the Community spirit, given that the four states use EU funds to carry out V4 railway integration steps that were already determined and shaped by the Communitarian structures. Consequently, the Visegrad region's railway cooperation is based on the European Union's institutional system (both its instruments and direction). As demonstrated in *Chapter 5,* the overwhelming majority of the interviewed railway professionals said that, in theory, their governments' actions closely meet the EU's line of conduct when it comes to the design of railway constructions and modernization. Most of the interviewed railway experts stated that the development projects in their country are in line with the European Union's transport strategies. Furthermore, major part of professionals considered their country as already relatively integrated within the European railway network.

The main findings of the paper summarized above were scrutinized during the research within the theoretical framework provided by a collision and synthesis of the spillover narratives belonging to Neofunctionalism and Liberal Intergovernmentalism. So the research provides both theoretical and quantifiable evidence as well as explanations for the existence of the EU mechanisms behind the railway policy integration of the four states.

As discussed in *Chapter 3,* the neofunctionalist and the liberal intergovernmentalist integration theories conclude that the stability of intergovernmental partnerships is guaranteed by cooperation carried out on matters that serve the interests of all members. In case of the Visegrad Group's decision-making mechanisms, permanent organizational structures specialized in intergovernmental cooperation are uneasy to be found – except for the International Visegrad Fund. Nevertheless, since the beginning of the cooperation, numerous quadrilateral initiatives, agreements, and declarations have come to light in the most diverse policy areas, including railway development: regular expert meetings, consultations between ministers, state secretaries, and national authorities testify the realization of sectoral integration in the region. The thesis paper therefore concludes that the V4 states' railway integration endeavors are implemented as a joint result of high-level and sectoral policy focused intergovernmental decision-making: joint initiatives aimed at the development of track-based transport systems have become a stable and recurring element in the annual presidency programs of the Visegrad Group since the four states joined to the European Union.

As elaborated in *Chapter 3,* both neofunctionalists and liberal intergovernmentalists state that integration in one field leads to further centripetal actions at other levels. Yet the liberal intergovernmentalist school of thought seems to better explain V4 format sectoral policy coordination, because in this region, spillovers between two policy areas are principally driven by governmental intentions. While this latter theoretical approach argues that the more the states are independent, the more they can shape international cooperation, the former claims that governments do not have enough control over the integration process. *Chapters 2* and *5* showed that on their own, market stakeholders, professional considerations, and sectoral lobbying initiatives do not necessarily provide reliable vectors for the deepening of the V4 railway cooperation. Consequently, as elaborated in *Chapter 3,* in case of the Visegrad countries, governmental decision-making is essential in the spilling over of a specific area of international cooperation towards other fields of supranational integration. In the railway policy coordination between Czechia, Hungary, Poland, and Slovakia, governmental actions serve as mediators between sectoral actors.

The liberal intergovernmentalist theoretical framework also describes how spillovers between two policy areas are primarily driven by governmental intents the V4 region: it is critical that collective benefits must outweigh individual losses, and that the lack of institutional elements must be balanced by the legal–institutional structure of an international organization or a mutually respected negotiating forum in order to achieve further integration between different policy areas through spillovers.

The Visegrad Four have initiated a range of projects, including the V4 Rail Roundtable (as a forum for expert debate), the High Level Working Group on Transport Links (assisting the implementation of the four states' railway agreements), the Forum of V4 Transport Ministers (promoting environmentally friendly modes of transportation) and other regular and *ad hoc* meetings of experts or government representatives (on future high-speed trails, traffic issues, cargo shipments or transport related decision-making within the EU). Therefore, the poorly institutionalized negotiating forum of the governments of the Czech Republic, Hungary, Poland, and Slovakia serves as a valuable instrument for endorsing interests in railway diplomacy, supporting these states' efforts in certain EU bodies or specialized international organizations to gain an edge when catching up with changes in railway technology, legislation, or regulations. As far as regional railway policy coordination is considered, the governments of the Czech Republic, Hungary, Poland, and Slovakia launch cooperative projects, share common goals, and have advocacy mechanisms in place. These factors together make up the V4 rail transport integration.

BIBLIOGRAPHY

Kenneth W. ABBOTT and Duncan SNIDAL (1998): Why States Act through Formal International Organizations. *The Journal of Conflict Resolution*, *42*(1), 3–32.

ALLEN & OVERY LLP (2006): Foreign Direct Investment in Central and Eastern Europe. visegradgroup.eu/download.php?docID=93 (Accessed: 15-05-2023)

Ernest ARYEETEY and Natalia DINELLO (2007): *Testing Global Interdependence: Issues on Trade, Aid, Migration and Development.* Edward Elgar Publishing Limited, Cheltenham.

Tony ASPROMOURGOS and John LODEWIJKS (2004): *History and Political Economy.* Essays in Honour of P.D. Groenewegan. Routledge, NewYork, US.

Earl BABBIE (2012): *The Basics of Social Research,* Fourth Edition, Thomson Wadsworth, Belmont, US.

John BACHTLER (2011): *The Evaluation of Regional Policy in Europe: Culture, Commitment and Capacity.* In: Karol OLEJNICZAK, Marek KOZAK, Stanisław BIENIAS (editors): Evaluating the effects of regional interventions. A look beyond current Structural Funds' practice. Ministry of Regional Development, Warsaw, Poland

Beata BALOGOVÁ (2010): Visegrad countries – Facing New Challenges. Supplement to the Slovak Spectator (13 December 2010).

Béla BARANYI (2013): Integrated Regional Development – Theoretical Textbook. University of Debrecen Centre for Agricultural and Applied Economic Sciences.

András BÁRSONY (1998): For Debate in the Standing Committee see Rule 47. CEFTA Parliamentary Assembly Committee on Economic Affairs and Development.

Jack N. BEHRMAN (1987): *Integration Through Multinational Enterprises.* In: John H. DUNNING and Mikoto USUI (eds.): Structural Change, Economic Interdependence and World Development. Volume 4 Economic Interdependence. Palgrave Macmillan, New York, US.

William L. BENOIT (2011): Content Analysis in Political Communication. In: Erik P. BUCY and R. Lance HOLBERT (eds): *The Sourcebook for Political Communication Research.* Methods, Measures, and Analytical Techniques. Routledge. New York, US.

Stefano BIANCHINI (2009): *Eastern Europe and the Challenges of Modernity, 1800–2000.* Routledge, Oxon, UK.

Christopher J. BICKERTON, Dermot HODSON, and Uwe PUETTER (2015): The New Intergovernmentalism and the Study of European Integration. In: Christopher J. BICKERTON, Dermot HODSON, and Uwe PUETTER (eds.): *The New Intergovernmentalism: States and Supranational Actors in the Post-Maastricht Era.* Oxford University Press, Oxford, UK.

Lenka BUSTIKOVA, David S. SIROKY, Saud ALASHRI, and Sultan ALZAHRANI (2019): Predicting Partisan Responsiveness: A Probabilistic Text Mining Time-Series Approach. *Political Analysis June 2019,* Cambridge University Press, UK

John BRADLEY and Jacek ZAUCHA (2017): Territorial Cohesion: A missing link between economic growth and welfare Lessons from the Baltic Tiger. Uniwersytet Gdański Katedra Makroekonomii, Gdańsk, Poland.

Martin BÚTORA (2011): A Miracle Called Visegrad, *The Visegrad Book.* visegradgroup.eu/the-visegrad-book/butora-martin-miracle (Accessed: 15-05-2023)

James A. CAPORASO (1992): International Relations Theory and Multilateralism: The Search for Foundations. *International Organization,* 46(3).

CEI (2023): About us. cei.int/about-us (Accessed: 15-05-2023)

CEFTA (2023): Legal Documents. cefta.int/legal-documents/#1463498231136-8f9d234f-15f9 (Accessed: 15-05-2023)

CER (2019): Transport Community: Libor Lochman participates in Rail Committee. CER Monitor, Issue 30 / Week 39.

CER (2021): 2021 CEF ERTMS Actions Workshop. CER Monitor, Issue 10 / Week 10.

CIT (2023): Members list. cit-rail.org/secure-media/files/members_2021-01-01_zkS4yVE.pdf?cid=229245 (Accessed: 15-05-2023)

Alex CHIRMICIU and Franklin STEVES (2007): Progress in transition and macroeconomic performance. In: A. ROUSSO and S. COMMANDER (eds.): EBRD Transition report 2007 – People in transition. Office of the Chief Economist of the EBRD.

Lilie CHOULIARAKI and Norman FAIRCLOUGH (2010): Critical Discourse Analysis in Organizational Studies: Towards an Integrationist Methodology. *Journal of Management Studies*, 47(6) pp. 1213–1218.

Laura CRAM (1999): Policy making in the European Union. Conceptual lenses and the integration process. In: Jeremy RICHARDSON (ed.): *European Public Policy Series.* Routledge, London, UK.

Laura CRAM (2001): Integration theory and the study of the European policy process. Towards a synthesis of approaches. In: Jeremy RICHARDSON (ed.): *European Union: Power and policy making.* Routledge, London, UK.

Mark J.C. CRESCENZI, Jacob D. KATHMAN, Katja B. KLEINBERG, and Reed M. WOOD (2012): Reliability, Reputation, and Alliance Formation. *International Studies Quarterly*, *56*(2), pp. 259–274.

CONNECTING EUROPE FACILITY (2019): CEF Transport grants 2014-2019. European Commission. https://ec.europa.eu/inea/connecting-europe-facility/cef-transport/projects-by-country (Accessed: 15-05-2023)

COUNCIL OF THE EUROPEAN UNION (2013): 3229th Council meeting on Transport, Telecommunications and Energy. consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/trans/136008.pdf (Accessed: 15-05-2023)

COUNCIL OF THE EUROPEAN UNION (2023):

(a) Qualified majority. consilium.europa.eu/en/council-eu/voting-system/qualified-majority (Accessed: 15-05-2023)

(b) Voting calculator. consilium.europa.eu/en/council-eu/voting-system/voting-calculator (Accessed: 15-05-2023)

DANUBE REGION STRATEGY (2023): EU Funding Instruments and Programmes. https://danube-region.eu/projects-and-funding/projects-and-initiatives (Accessed: 15-05-2023)

Mathias DEWATRIPONT (1995): *Flexible Integration: Towards a More Effective and Democratic Europe.* Monitoring European Integration. Centre for Economic Policy Research, London, UK.

DTCP (2014): A stream of cooperation. interreg-danube.eu/media/download/57 (Accessed: 15-05-2023)

Stefanie DÜHR (2014): Are there arguments for a Central European macro-regional strategy? INTERREG IVB Central Europe 'City-Regions' project. Nijmegen, The Netherlands.

Richard EDIS (2007): Punching above their weight: How small developing states operate in the contemporary diplomatic world. *Cambridge Review of International Affairs,* 5(2), pp. 45–53.

EKONOMIKA (2018): Krajiny V4 chcú svoje hlavné mestá prepojiť vysokorýchlostnou sieťou. ekonomika.sme.sk/c/20927004 /krajiny-v4-chcu-svoje-hlavne-mesta-prepojit-vysokorychlostnou-sietou.html#ixzz61wYZbd1c (Accessed: 15-05-2023)

Nicole ERNST, Sven ENGESSER, Florin BÜCHEL, Sina BLASSNIG, and Frank ESSER (2017): Extreme parties and populism: an analysis of Facebook and Twitter across six countries. *Information, Communication & Society,* 20(9), pp. 1347–1364

ERTMS (2023): About – In Brief. The European Traffic Management System. ertms.net/?page_id=40 (Accessed: 15-05-2023)

EUROPEAN COMMISSION (2015): New railway communications system brings multiple benefits. https://ec.europa.eu/regional_policy/en/projects/major/hungary/new-railway-communications-system-brings-multiple-benefits (Accessed: 15-05-2023)

EUROPEAN COMMISSION (2017):

(a) Commission Implementing Regulation (EU) 2017/6 of 5 January 2017 on the European Rail Traffic Management System European deployment plan. *Official Journal of the European Union*. pp. 3/10–3/27. eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0006&from=EN (Accessed: 15-05-2023)
(b) State aid SA.44621 (2016/N) – Czech Republic – Individual subprograms for ensuring interoperability in railway transport.

EUROPEAN COMMISSION (2018):

(a) Railway packages. ec.europa.eu/transport/modes/rail/packages_en (Accessed: 15-05-2023)
(b) State aid SA.51036 (2018/N) – Poland. Modification of scheme SA. 48093 (2017/N) – Aid for the implementation of intermodal transport projects under the Operational Programme Infrastructure and Environment for the years 2014–2020.

EUROPEAN COMMISSION (2021): Sustainable and Smart Mobility Strategy: Putting European transport on track for the future. Mobility and Transport. https://transport.ec.europa.eu/system/files/2021-04/2021-mobility-strategy-and-action-plan.pdf (Accessed: 15-05-2023)

EUROPEAN COMMISSION (2023): Railway packages. https://transport.ec.europa.eu/transport-modes/rail/railway-packages_en (Accessed: 15-05-2023)

EUROPEAN COMMISSION INEA (2023): CEF Transport projects by country. https://wayback.archive-it.org/12090/20221202085642/https://ec.europa.eu/inea/connecting-europe-facility/cef-transport/projects-by-country (Accessed: 15-05-2023)

EUROPEAN DEFENCE FUND (2023): About EDF. https://defence-industry-space.ec.europa.eu/eu-defence-industry/european-defence-fund-edf_en (Accessed: 15-05-2023)

EUROPE'S RAIL (2023): About S2R. https://rail-research.europa.eu/about-shift2rail (Accessed: 15-05-2023)

EUROSTAT (2023): Transport. https://ec.europa.eu/eurostat/databrowser/explore/all/transp?lang=en&display=list&sort=category (Accessed: 15-05-2023)

EUSDR (2023): EU strategy for the Danube region. interreg-danube.eu/about-dtp/eu-strategy-for-the-danube-region#:~:text=The%20European%20Union%20Strategy%20for,pillars%20and%20twelve%20priority%20areas (Accessed: 15-05-2023)

Z. Andrew FARKAS, Norbert PAP, and Péter REMÉNYI (2016): Hungary's place on Eurasian rail land bridges and the eastern opening, *Hungarian Geographical Bulletin,* 65(1) pp. 3–14.

Bernd FESEL (2015): *Spillover Effect of Cultural & Creative Industries – How big is its value added?* European Economic and Social Committee. eesc.europa.eu/sites/default/files/resources/docs/bernd_fesel.pdf (Accessed: 15-05-2023)

Roberto FRANZOSI (2004): Content Analysis: Objective, Systematic, and Quantitative Description of Content. In: Melissa Hardy and Alan Bryman (eds): *Handbook of Data Analysis.* SAGE Research Methods. Thousand Oaks, CA (US).

Guido FRIEBEL, Sergei GURIEV, Russell PITTMAN, Elizaveta SHEVYAKHOVA, and Anna TOMOVÁ (2007): Railroad Restructuring in Russia and Central and Eastern Europe: One Solution for All Problems? In: *Transport Reviews,* 27(3), pp. 251–271.

Anne GALLETTA (2013): *Mastering the semi-structured interview and beyond: From research design to analysis and publication.* New York University Press, US.

Peter M. GARBER and Michael G. SPENCER (1994): The Dissolution of the Austro-Hungarian Empire – Lessons for Currency Reform. In: *Essays in International Finance.* No. 191. International Monetary Fund. New Jersey, US.

Fabrizio GILARDI and Bruno WÜEST (2020): Using text-as-data methods for comparative policy analysis. Department of Political Science, University of Zurich, 10.4337/9781788111195.00019.

Moshe GIVONI and David BANISTER (2008): *Reinventing the Wheel - Planning the Rail Network to Meet Mobility Needs of the 21st Century.* Transport Studies Unit, Oxford University Centre for the Environment, Oxford, UK.

Agustín GOENAGA ORREGO (2017): The Social Origins of State Capacity: Organizations, Institutions and Late Development. *STANCE Working Papers Series;* 2017(1).

Trevor GRIFFIN (2007): *Survey of Competitiveness of the EU Rail Supply Industry (Final Report n. ITLR-T17297-003).* Interfleet Technology, Derby, UK.

Sébastien GUIGNER (2004): Institutionalizing public health in the European Commission – The thrills and spills of politicization. In: Andy SMITH (ed.): *Politics and the European Commission – Actors, interdependence, legitimacy.* Routledge. New York, US.

Oľga GYÁRFÁŠOVÁ (2003): Visegrad Citizens on the Doorstep of European Union. Collection of Contributions, Edition WORKING PAPERS, visegradgroup.eu/download.php?docID=53 (Accessed: 15-05-2023)

Oľga GYÁRFÁŠOVÁ and Grigorij MESEŽNIKOV (2016): 25 Years of the V4 as Seen by the Public. Institute for Public Affairs, Bratislava, Slovakia.

Ernst B. HAAS (1961): International Integration – The European and the Universal Process, *International Organization* 15(3), pp. 366–392.

Rodney HADDOW (2005): Mapping Canadian Political Economy: Lessons from, and for, Comparative Scholarship. Canadian Political Science Association Paper (2 June 2005) academia.edu/71021615/Mapping_Canadian_Political_Economy_Lessons_from_and_for_Comparative_Scholarship (Accessed: 15-05-2023)

Péter HAJÓSI (2020): What is Beyond the Numbers? A Qualitative Text-based Analysis of the Quarterly Report of Hungarian Blue-chip Companies. *Politikatudományi Szemle,* 29(3), pp. 107–130.

Thomas Sørlie HANSEN (2015): Europeanization of tax discourses in Ireland and the United Kingdom 2001–2015 – Content analysis and discourse analysis of newspaper coverage of the CCCTB. Norwegian University of Science and Technology, https://ntnuopen.ntnu.no/ntnu-xmlui/handle/11250/2387977 (Accessed: 15-05-2023)

Ted HOPF (2004): Discourse and Content Analysis: Some Fundamental Incompatibilities. *Qualitative Methods Spring 2004,* https://doi.org/10.5281/zenodo.998661

Kerry E. HOWELL (1997): Integration Processes in the European Union: Some Theoretical Implications. School of Finance and Law, Bournemouth University.

Gabe IGNATOW and Rada MIHALCEA (2017): Research Design Strategies. In: Ignatow and Mihalcea (eds): *Text Mining: A Guidebook for the Social Sciences.* Sage, London, UK.

Elena ILIE (2016): Determined steps towards EU rail connections. Railway Pro. railwaypro.com/wp/determined-steps-towards-eu-rail-connections (Accessed: 15-05-2023)

IRG-RAIL (2023): Eighth Annual Market Monitoring 2020. https://www.irg-rail.eu/irg/documents/market-monitoring/260,2020.html (Accessed: 15-05-2023)

Robert JACKSON and George SØRENSEN (2007): *Introduction to International Relations: Theories and Approaches.* Oxford University Press, Oxford, UK.

Harry G. JOHNSON (1975): *Technology and Economic Interdependence.* Macmillan Press, London, UK.

A. KARAVAYEV and M. TISHEHYAR (2019): International North–South Transport Corridor and Transregional Integration Scenarios, Valdai Discussion Club, Moscow, Russian Federation.

K. KARTAL (2007): Extension of TEN-T into Accession Countries and Turkey, Transport Studies Unit, Oxford University Centre for the Environment, 1021.

Robert O. KEOHANE and Joseph S. NYE (2012): *Power and Interdependence.* Longman, Stoughton, UK.

KÉPVISELŐI INFORMÁCIÓS SZOLGÁLAT (2016): 25 éves a visegrádi együttműködés. Infojegyzet 2016/35.

Joshua David KERTZER (2013): Resolve in International Politics. Ohio State University PhD Dissertation in the Graduate Program in Political Science.

Eddy KESTER (2018): High-speed Rail Link will Make Bratislava Good for a Night out – at a Cost. Budapest Business Journal. https://bbj.hu/budapest/events/city/high-speed-rail-link-will-make-bratislava-good-for-a-night-out-at-a-cost (Accessed: 15-05-2023)

Jorg LACKENBAUER (2004): Catching-up, Regional Disparities and Cohesion Policy: The Case of Hungary. Managing Global Transitions, 2(2) pp. 123–162.

László LENGYEL (2006): *Illeszkedés vagy kiválás.* Osiris Kiadó, Budapest, Hungary.

Jack S. LEVY (1998): The Causes of War and the Conditions of Peace. *Annual Review of Political Science,* 1998(1), pp. 139–165.

Hong LIU and Guanie LIM (2022): When the state goes transnational: The political economy of China's engagement with Indonesia. *SageJournals.* https://journals.sagepub.com/doi/full/10.1177/10245294221103069 (Accessed: 15-05-2023)

Christopher LLOYD (2008): Australian Capitalism Since 1992: A New Regime of Accumulation? *Journal of Australian Political Economy Special Issue,* n 61.

David LONG and Lucian M. ASHWORTH (1999): Working for Peace: The Functional Approach, Functionalism and Beyond. In: Lucian M. ASHWORTH and David LONG: *New Perspectives on International Functionalism.* Macmillan Press Ltd, Houndmills, UK.

Aleya Begum LØNSETTEIG (2017): Poland and Ukraine to build Via Carpatia. *Global Trade Review,* 25.

Evan LUARD (1977): *International Agencies: The Emerging Framework of Interdependence.* Royal Institute of International Affairs. Palgrave Macmillan. London, UK.

Ketan K. MANE and Katy BÖRNER (2004): Mapping topics and topic bursts in PNAS. 101 (suppl_1) 5287-5290. pnas.org/doi/10.1073/pnas.0307626100 (Accessed: 15-05-2023)

Marcel MACHILL, Markus BEILER, and Corinna FISCHER (2006*): Europe-Topics in Europe's Media. The Debate about the European Public Sphere: A Meta-Analysis of Media Content Analyses. European Journal of Communication,* 21(1). pp. 57–88.

Lisa L. MARTIN (1995): Heterogeneity, Linkage and Commons Problems. In: Robert O. KEOHANE and Elinor OSTROM (eds): *Local Commons and Global Interdependence. Heterogeneity and Cooperation in Two Domains.* Sage Publications, London, UK.

Walter MATTLI (1999): *The Logic of Regional Integration: Europe and Beyond.* Cambridge University Press. Cambridge, UK.

Walter MATTLI and Anne-Marie SLAUGHTER, 1998. Revisiting the European Court of Justice. *International Organization,* 52(1).

MÁV (2017): A MÁV Zrt. együttműködései a V4 országok pályahálózat működtetőivel. HUNGRAIL Magyar Vasút konferencia október 3.

Burt L. MONROE and PHILIP A. SCHRODT (2008): Introduction to the Special Issue: The Statistical Analysis of Political Text. *Political Analysis,* vol. 16. pp. 351–355.

Andrew MORAVCSIK (1998): *The Choice for Europe: Social Purpose and State Power from Messina to Maastricht,* Cornell University Press, Ithaca, NY (US).

Andrew MORAVCSIK (2005): The European Constitutional Compromise and the neofunctionalist legacy, Journal of European Public Policy, 12(2), pp. 349–386

MYDRIVE ROUTE PLANNER (2023): Budapest-Warsaw. https://mydrive.tomtom.com/en_gb/ (Accessed: 15-05-2023)

László Nándor NAGY (2016): Utak a sikerhez. Válasz.hu. http://valasz.hu/uzlet/utak-a-sikerhez-120835 (Accessed: 15-05-2023)

Randall Everest NEWNHAM (2002): *Deutsche Mark Diplomacy: Positive Economic Sanctions in German-Russian Relations.* Penn State University Press, Pennsylvania, US.

Arne NIEMANN (2006): *Explaining Decisions in the European Union.* Cambridge University Press. Cambridge, UK.

Office for Official Publications of the European Communities (2004): Energy, transport and environment indicators. Luxembourg.

Caetano C. R. PENNA (2022): Technological Revolutions and the Role of the State in the Governance of Digital Technologies. *Global Cooperation on Digital Governance and the Geoeconomics of New Technologies in a Multi-polar World Essay Series.* cigionline.org/articles/technological-revolutions-and-the-role-of-the-state-in-the-governance-of-digital-technologies (Accessed: 15-05-2023)

Jacopo María PEPE (2018): *Eurasian Transport Integration Beyond Energy: Geoeconomic Transformation and Geostrategic Response", Beyond Energy.* Energiepolitik und Klimaschutz. Springer VS

László PÉTER (2012): *Hungary's Long Nineteenth Century. Constitutional and Democratic Traditions in a European Perspective. Collected Studies.* Brill, Leiden–Boston.

B. Guy PETERS (2001): Agenda-setting in the European Union. In: Jeremy RICHARDSON (ed.): *European Union: Power and policy making.* Routledge, London, UK.

Mark A. POLLACK (2006): Theorizing EU Policy making. In: Helen WALLACE, William WALLACE, and Mark A. POLLACK (eds.): *Policy making in the European Union.* Oxford University Press, Oxford, UK.

Johannes POLLAK and Peter SLOMINSKI (2015): The European Parliament. Adversary or Accomplice of the New Intergovernmentalism? In: Christopher J. BICKERTON, Dermot HODSON, and Uwe PUETTER (eds.): *The New Intergovernmentalism: States and Supranational Actors in the Post-Maastricht Era.* Oxford University Press, Oxford, UK.

Robert POWELL (1991): Absolute and Relative Gains in International Relations Theory. *The American Political Science Review*, 85(4), pp. 1303–1320.

John PUCHER and Ralph BUEHLER (2004): Transport Policies in Central and Eastern Europe. School of Planning and Public Policy Rutgers University, New Brunswick, Canada.

RAILPOL (2023): Members of RAILPOL. railpol.eu/site/members (Accessed: 15-05-2023)

Christian RAUH and Sebastian BÖDEKER (2015): Internationale Organisationen in der deutschen Öffentlichkeit Ein Text-Mining Ansatz. In: M. Lemke and G. Wiedemann (eds.): *Text-Mining in den Sozialwissenschaften.* Grundlagen und Anwendungen zwischen qualitativer und quantitativer Diskursanalyse. Wiesbaden: Springer VS.

Elena RÍOS CAMACHO (2014): The Final Leg of An Ambitious Project: Who decides? Resolving Cross-Border Failed Banks in the European Union – Analysis of the Establishment of the Single Resolution Mechanism (SRM) through a Neofunctionalist and Liberal Intergovernmentalist Lens. University of Twente – Westfälische Wilhelms-Universität Münster.

Ben ROSAMOND (2005): The Uniting of Europe and the Foundation of EU Studies: Revisiting the Neofunctionalism of Ernst B. Haas. *Journal of European Public Policy,* 12(2). pp. 237–254. doi:10.1080/13501760500043928 ISSN 1350-1763.

Krzysztof RYBIŃSKI (2018): Political sentiment analysis of press freedom. *Studia Medioznawcze,* 3(74), pp. 31–48.

Tal SADEH, Yoav RASKIN, and Eyal RUBINSON (2019): Sharing the Gains of European Integration: Are EU Institutions Vehicles of Domination? Working Papers.

SALZBURG FORUM (2023): Our history. Establishment of the Salzburg Forum (SF). salzburgforum.org/Who_are_we/Our_history.html (Accessed: 15-05-2023)

Ivan G. SAVCHUK (2014): Ukraine's window to the West – The role of international railway connection in Transcarpathia (Zakarpattia). *Hungarian Geographical Bulletin.* 63(2).

Nebojsa SAVIC (2018): Macroeconomic Stability and the Transition Process. In: Nicholas C. BALTAS, George DEMOPOULOS, Joseph HASSID (Eds.): *Economic Interdependence and Cooperation in Europe.* Springer-Verlag, Berlin, Germany.

Anna SCAINI, Chiara SCAINI, Jay FRENTRESS, Georgia DESTOUNI, and Stefano MANZONI (2021): Linking the 2030 Agenda for Sustainable Development to Research, Newspapers, and Governance: The Case of the Last Free-Flowing Alpine River. Front. Environ. Sci., February 2021. Sec. Science and Environmental Communication.

Frank SCHIMMELFENNIG (2001): The process off enlargement: Problems, interests, and norms. In: Jeremy RICHARDSON (ed.): *European Union: Power and policy making.* Routledge, London, UK.

Frank SCHIMMELFENNIG (2018): *Regional Integration Theory.* Pre-publication version of article in Oxford Research Encyclopedia of Politics. Oxford University Press, UK.

Frank SCHIMMELFENNIG and Berthold RITTBERGER (2001): Theories off European integration: Assumptions and hypotheses. In: Jeremy RICHARDSON (ed.): *European Union: Power and policy making.* Routledge, London, UK.

Andrea SCHMIDT (2016): Friends forever? The Role of the Visegrad Group and European Integration. *Politics in Central Europe,* ISSN: 1801–3422, 12(3).

Andy SMITH (2004): *Politics and the European Commission – Actors, interdependence, legitimacy.* Routledge. New York, US.

Michael SMITH (2001): The EU as an international actor. In: Jeremy RICHARDSON (ed.): *European Union: Power and policy making.* Routledge, London, UK.

Duncan SNIDAL (1995): The Politics of Scope: Endogenous Actors, Heterogeneity and Institutions. In: Robert O. KEOHANE and Elinor OSTROM (eds.): *Local Commons and Global Interdependence. Heterogeneity and Cooperation in Two Domains.* Sage Publications, London, UK.

Ferenc SOMOGYI (2006): Visegrad 15 years from now. In: Adnrej JAGODZIŃSKI (ed.): *The Visegrad Group – A Central European Constellation.* International Visegrad Fund, Bratislava.

Alexander SPACHIS (1998): The Operation of the Internal Market and Approximation to Internal Market Legislation by ECECs. In: Nicholas C. BALTAS, George DEMOPOULOS, and Joseph HASSID (eds.): *Economic Interdependence and Cooperation in Europe.* Springer-Verlag, Berlin, Germany.

STATISTICAL OFFICE OF THE SLOVAK REPUBLIC (2019): Visegrád Group Countries: Selected indicators of the 2030 agenda for sustainable development. Statistical Products and Services Provision Directorate, Bratislava.

Bartosz ŚWIATŁOWSKI (2015): Unity of the Visegrad Group in the Face of War in Ukraine. Visegrad Plus, 12 March.

TASR (2018):

(a) Slovakia to refurbish four railway lines. visegradgroup.eu/news/slovakia-to-refurbish (Accessed: 15-05-2023)

(b) Slovak minister opens renewed Povazska Tepla-Zilina railway. visegradgroup.eu/news/slovak-minister-opens-180227 (Accessed: 15-05-2023)

Mark THATCHER (2001): European regulation. In: Jeremy RICHARDSON (ed.): *European Union: Power and policy making.* Routledge, London, UK.

THE SLOVAK SPECTATOR (2009): Sharing Visegrad Spirit. *Visegrad countries Special: A supplement to The Slovak Spectator.* visegradgroup.eu/download.php?docID=133 (Accessed: 15-05-2023)

Bálint László TÓTH (2015): A Visegrádi csoport (V4) Nyugat-Balkán-politikája. *Külügyi Szemle*, 14(2), pp. 25–41.

Bálint László TÓTH (2017): A Visegrádi Négyek. Állandó szövetség vagy eseti koalíció? *Szabolcs-Szatmár-Beregi Szemle*, 52(1), pp. 3–20.

Bálint László TÓTH (2018):

(a) The V4 railway cooperation – Is there a homogeneous Visegrád Railway Area? *Köz-Gazdaság,* 13(3), pp. 158–177.

(b) Visegrád: A Tool that Supports the Implementation of EU Strategies to Enhance the Connectivity and Interoperability of the East Central European Railway Network. *Foreign Policy Review,* N. 11, pp. 158–181.

(c) V4: A Political Tool for Advancing State Interest. *Polgári Szemle,* 14(1-3), pp. 330–341.

Bálint László TÓTH (2019): The Visegrád Group and the Railway Development Interest Articulation in East Central Europe. *Eastern Journal of European Studies,* 10(2), pp. 175–194.

Bálint László TÓTH (2020):

(a) HSR Projects in V4 Countries: EU-driven spillovers of East Central European transport development initiatives. *In Statu Nascendi: Journal of Political Philosophy and International Relations,* 3(2), pp. 107–132.

(b) Railway Development in Light of Market Needs: A SWOT Analysis of the Rail Transport Markets in the Visegrád Four Countries. *International Journal of Business and Economic Sciences Applied Research,* 13(3) pp. 33–45.

UIC (2023): High-Speed rail. https://uic.org/passenger/highspeed (Accessed: 15-05-2023)

Bart VANHERCKE (2006): Political Spill-Over, Changing Advocacy Coalition, Path Dependency or Domestic Politics? Theorizing the Emergence of the Social Protection OMC's. Paper presented at the Conference on "Governing Work and Welfare in an Enlarged Europe".

VASUTASVILÁG (1995): MÁV-ZSR Vasúti Állandó Munkacsoport. A Magyar Államvasutak lapja, 45(7–8).

VISEGRADGROUP (1991): Declaration on co-operation between the Czech and Slovak Federal Republic, the Republic of Poland and the Republic of Hungary in striving for European integration (15 February 1991). visegradgroup.eu/documents/visegrad-declarations/visegrad-declaration-110412-2 (Accessed: 15-05-2023)

VISEGRADGROUP (2000): 1999-2000 Czech Presidency (annual report). visegradgroup.eu/documents/annual-reports/1999-2000-czech-110412 (Accessed: 15-05-2023)

VISEGRADGROUP (2001):

(a) 2000/2001 Polish Presidency. visegradgroup.eu/documents/presidency-programs/2000-2001-polish-110412 (Accessed: 15-05-2023)

(b) 2000/2001 Polish Presidency (annual report). visegradgroup.eu/documents/annual-reports/2000-2001-polish-110412 (Accessed: 15-05-2023)

(c) Joint Statement on railways and combined transport, Visegrad. visegradgroup.eu/2001/joint-statement-on (Accessed: 15-05-2023)

VISEGRADGROUP (2002): 2001/2002 Hungarian Presidency. Retrieved from:

visegradgroup.eu/documents/presidency-programs/2001-2002-hungarian-110412 (Accessed: 15-05-2023)

VISEGRADGROUP (2003): 2002/2003 Slovak Presidency (annual report). Retrieved from:

visegradgroup.eu/documents/annual-reports/2002-2003-slovak-110412 (Accessed: 15-05-2023)

VISEGRADGROUP (2004):

(a) 2003/2004 Czech Presidency. Retrieved from:

visegradgroup.eu/documents/presidency-programs/2003-2004-czech-110412 (Accessed: 15-05-2023)

(b) 2003/2004 Czech Presidency (annual report). Retrieved from:

visegradgroup.eu/documents/annual-reports/2003-2004-czech-110412 (Accessed: 15-05-2023)

(c) Joint Declaration of the Ministers Responsible for Transport in the States of the V4 (Čejkovice, Czech Republic). visegradgroup.eu/2004/joint-declaration-of-the (Accessed: 15-05-2023)

VISEGRADGROUP (2005): 2004/2005 Polish Presidency. Retrieved from:

visegradgroup.eu/documents/presidency-programs/2004-2005-polish-110412 (Accessed: 15-05-2023)

VISEGRADGROUP (2006): 2005/2006 Hungarian Presidency. Retrieved from:

visegradgroup.eu/documents/presidency-programs/2005-2006-hungarian-110412 (Accessed: 15-05-2023)

VISEGRADGROUP (2007):

(a) 2006/2007 Slovak Presidency. Retrieved from: visegradgroup.eu/documents/presidency-programs/2006-2007-slovak-110412 (Accessed: 15-05-2023)

(b) 2007/2008 Czech Presidency. Summary of the Objectives of the Czech Presidency of the Visegrad Group. visegradgroup.eu/documents/presidency-programs/2007-2008-czech-110412 (Accessed: 15-05-2023)

(c) Joint Statement of the 14th Meeting of the Environment Ministers of the Visegrad Group Countries. visegradgroup.eu/download.php?docID=107 (Accessed: 15-05-2023)

VISEGRADGROUP (2008):

(a) 2007–2008 Czech Presidency. visegradgroup.eu/documents/annual-reports/2007-2008-czech-110412 (Accessed: 15-05-2023)

(b) 2008–2009 Polish Presidency. Retrieved from:

visegradgroup.eu/documents/presidency-programs/2008-2009-polish-110412 (Accessed: 15-05-2023)

VISEGRADGROUP (2009):

(a) 2008–2009 Polish Presidency (annual report). Retrieved from:

visegradgroup.eu/download.php?docID=132 (Accessed: 15-05-2023)

(b) The Visegrad Group stands ready to promote the integration of the countries of the Western Balkans. www.visegradgroup.eu/2009/the-visegrad-group (Accessed: 15-05-2023)

VISEGRADGROUP (2010):

(a) 2009–2010 Hungarian Presidency. Retrieved from:

visegradgroup.eu/documents/presidency-programs/2009-2010-hungarian-110412 (Accessed: 15-05-2023)

(b) 2009–2010 Hungarian Presidency (annual report). Retrieved from:

visegradgroup.eu/documents/annual-reports/2009-2010-hungarian-110412 (Accessed: 15-05-2023)

(c) Joint Statement of the Foreign Ministers of the Visegrad Group. visegradgroup.eu/2010/joint-statement-of-the (Accessed: 15-05-2023)

VISEGRADGROUP (2011):

(a) 2010–2011 Slovak Presidency. visegradgroup.eu/documents/presidency-programs/2010-2011-slovak-110412 (Accessed: 15-05-2023)

(b) 2010–2011 Slovak Presidency (annual report). Retrieved from:

visegradgroup.eu/download.php?docID=150 (Accessed: 15-05-2023)

(c) The Bratislava Declaration of the Prime Ministers of the Czech Republic, the Republic of Hungary, the Republic of Poland and the Slovak Republic on the occasion of the 20th anniversary of the Visegrad Group. visegradgroup.eu/2011/the-bratislava (Accessed: 15-05-2023)

VISEGRADGROUP (2012): 2011–2012: Czech Presidency (annual report).

VISEGRADGROUP (2013):

(a) 5th meeting of the committees on public administration and regional policy of the parliaments of the Visegrád Group countries with the participation of the relevant committees of the Croatian parliament. visegradgroup.eu/download.php?docID=206 (Accessed: 15-05-2023)

(b) Joint Declaration of the Foreign Ministers of the Visegrad countries and Croatia on the Occasion of the Croatian Accession to the EU. visegradgroup.eu/calendar/2013/joint-declaration-of-the (Accessed: 15-05-2023)

(c) Meeting of Foreign Ministers of the Visegrad, Nordic and Baltic states. visegradgroup.eu/documents/official-statements/meeting-of-foreign (Accessed: 15-05-2023)

(d) Polish Presidency (2012–2013). visegradgroup.eu/documents/presidency-programs/2012-2013-polish (Accessed: 15-05-2023)

(e) Polish Presidency (annual report). visegradgroup.eu/download.php?docID=240 (Accessed: 15-05-2023)

(f) Polish Presidency of the Visegrad Group (Executive summary). visegradgroup.eu/download.php?docID=220 (Accessed: 15-05-2023)

VISEGRADGROUP (2014):

(a) 2013–2014 Hungarian Presidency. visegradgroup.eu/documents/presidency-programs/20132014-hungarian (Accessed: 15-05-2023)

(b) 2013–2014 Hungarian Presidency (annual report). visegradgroup.eu/download.php?docID=277 (Accessed: 15-05-2023)

(c) Memorandum of Understanding concerning the Roadmap for Determining the Future Development of the Transport Networks of the Visegrad Group Countries. visegradgroup.eu/calendar/2014/memorandum-of (Accessed: 15-05-2023)

VISEGRADGROUP (2015):

(a) 2014–2015 Slovak Presidency. visegradgroup.eu/documents/presidency-programs/20142015-slovak (Accessed: 15-05-2023)

(b) Joint Press Statement of Presidents of the Visegrad Group and Austria and Slovenia. visegradgroup.eu/calendar/2014/joint-press-statement-of (Accessed: 15-05-2023)

(c) Joint Statement of the Heads of Government of the Visegrad Group Countries. visegradgroup.eu/calendar/2015/joint-statement-of-the (Accessed: 15-05-2023)

(d) Slovak Presidency (annual report). visegradgroup.eu/download.php?docID=285 (Accessed: 15-05-2023)

(e) Programme of the Slovak Presidency of the Visegrad Group (July 2014 – June 2015). visegradgroup.eu/download.php?docID=285 (Accessed: 15-05-2023)

VISEGRADGROUP (2016):

(a) 2015–2016 Czech Presidency. visegradgroup.eu/documents/presidency-programs/20152016-czech (Accessed: 15-05-2023)

(b) 2015–2016 Czech V4 Presidency (annual report). Retrieved from:

visegradgroup.eu/documents/annual-reports/annual-report-of-the (Accessed: 15-05-2023)

(c) 2016-2017 Program of the Polish Presidency in the Visegrad Group. Retrieved from:

visegradgroup.eu/documents/presidency-programs/program-of-the-polish (Accessed: 15-05-2023)

(d) *Communiqué* of Prime Ministers of the Visegrad Group after the meeting with Prime Minister of Ukraine. visegradgroup.eu/calendar/2016/communique-of-prime (Accessed: 15-05-2023)

VISEGRADGROUP (2017):

(a) 2016-2017 Polish Presidency of the Visegrad Group (annual report). Retrieved from:

visegradgroup.eu/download.php?docID=361 (Accessed: 15-05-2023)

(b) 2017–2018 Hungarian Presidency. Retrieved from:

visegradgroup.eu/documents/2017-2018-hungarian/20172018-hungarian (Accessed: 15-05-2023)

(c) Joint Statement on the Eastern Partnership of the Foreign Ministers of the Visegrad Group. Retrieved from: visegradgroup.eu/calendar/selected-events-in-2017-170203/joint-statement-on-the-180227 (Accessed: 15-05-2023)

VISEGRADGROUP (2018):

(a) Declaration of Intent of the Ministers of the Visegrad Group countries for cooperation to develop a high-speed railway network in Central Europe. Retrieved from:

visegradgroup.eu/documents/official-statements/declaration-of-intent-of
(Accessed: 15-05-2023)

(b) Joint Declaration of Ministers Responsible for Transport, Development and EU Funds Concerning the Future of Transport Financing in the 2021–2027 Financial Perspective. visegradgroup.eu/calendar/2018/joint-declaration-of-181213 (Accessed: 15-05-2023)

(c) "Stronger Together" V4 Joint Statement. visegradgroup.eu/download.php?docID=353 (Accessed: 15-05-2023)

VISEGRADGROUP (2019):

(a) Conclusions of the Meeting of the Foreign Affairs Committees of the Parliaments of the Visegrad Group Countries. visegradgroup.eu/download.php?docID=383 (Accessed: 15-05-2023)

(b) Czech and Slovak transport ministers discuss high-speed railway. visegradgroup.eu/news/czech-and-slovak-191111 (Accessed: 15-05-2023)

(c) Joint Declaration of the Ministers of the Czech Republic, Hungary, the Republic of Poland and the Slovak Republic Responsible for Transport, Development and EU Funds Concerning the Project of High-Speed Railway Network in Central Europe and its Financing. visegradgroup.eu/download.php?docID=407 (Accessed: 15-05-2023)

(d) Review of Major Events Under the Slovak Presidency of the Visegrad Group – Visegrad Bulletin 10 (1/2019). visegradgroup.eu/article-title-190201 (Accessed: 15-05-2023)

VISEGRADGROUP (2020):

(a) 2020/2021 Polish Presidency. visegradgroup.eu/documents/presidency-programs/2020-2021-polish (Accessed: 15-05-2023)

(b) Second Railway Development congress held in Warsaw. Retrieved from:

visegradgroup.eu/news/second-railway (Accessed: 15-05-2023)

VISEGRADGROUP / PAP (2019): Govt approves Railway Plus scheme. visegradgroup.eu/news/govt-approves-railway (Accessed: 15-05-2023)

William WALLACE (2006): Post-sovereign Governance. The EU as a Partial Polity. In: Helen WALLACE, William WALLACE, and Mark A. POLLACK (eds.): *Policy making in the European Union*. Oxford University Press, Oxford, UK.

Heike WETZEL (2008): European Railway Deregulation: The Influence of Regulatory and Environmental Conditions on Efficiency. In: *Working Paper Series in Economics,* University of Lüneburg, No. 86.

Daniel WINCOT (1995): Institutional Interaction and European Integration: Towards an Everyday Critique of Liberal Intergovernmentalism. *Journal of Common Market Studies.* 33(4).

Timothy J. YEAGER (1999): *Institutions, Transition Economies, and Economic Development.* Westview Press. Boulder, US.

Juliette C. YOUNG, David C. ROSE, Hannah S. MUMBY, Francisco BENITEZ-CAPISTROS, Christina J. DERRICK, Tom FINCH, Carolina GARCIA, Chandrima HOME, Esha MARWAHA, Courtney MORGANS, Stephen PARKINSON, Jay SHAH, Kerrie A.

WILSON, and Nibedita MUKHERJEE (2018): *A methodological guide to using and reporting on interviews in conservation science research.* Qualitative Methods for Eliciting Judgements for Decision-making. Methods in Ecology and Evolution. 9. 10-19. 10.1111/2041-210X.12828.

Michael ŽANTOVSKÝ (2006): Visegrad between the Past and the Future. *The Visegrad Book.* visegradgroup.eu/the-visegrad-book/zantovsky-michael (Accessed: 15-05-2023)

APPENDIX 1.

Tables used for data processing and visualization for content analysis

Table 1: Relevant hits for selected keywords (1)

	All transport	Rail(way)	Infrastructure	TEN-T	Connectivity/ Connection(s)	Corridor(s)
1999-2000	28	11	1	0	0	4
2000-2001	8	1	4	0	0	1
2001-2002	1	2	0	0	0	0
2002-2003	11	1	0	0	1	0
2003-2004	24	4	2	1	1	2
2004-2005	9	3	1	0	0	1
2005-2006	3	1	1	0	0	0
2006-2007	8	1	2	0	0	0
2007-2008	22	9	2	0	0	0
2008-2009	17	2	3	2	0	1
2009-2010	16	3	4	1	0	0
2010-2011	40	9	9	14	2	4
2011-2012	17	1	0	8	2	0
2012-2013	32	9	12	1	5	4
2013-2014	48	21	16	4	10	1
2014-2015	62	20	19	11	14	5
2015-2016	25	9	5	4	1	3
2016-2017	19	6	6	10	7	12
2017-2018	24	16	6	1	10	1
2018-2019	34	24	7	12	9	3
2019-2020	29	18	8	0	7	1
2020-2021	36	7	16	8	11	2
1999-2020	509	178	121	77	78	43
2004-2020	437	159	114	76	76	37
2014-2020	273	121	80	50	67	27
1999-2021	513	178	124	77	80	45
2021	4	0	3	0	2	1
2004-2021	441	159	117	76	78	38
2014-2021	277	121	83	50	69	28
Mean	23,3181818	8,0909091	5,636363636	3,5	3,636363636	2,045454545
Median	23	6,5	4	1	1	1

Table 2: Relevant hits for selected keywords (2)

	CEF	High-Speed	Cohesion Funds Policies/Countries Member States	Freight/ Cargo	Train	Mobility
1999-2000	0	0	0	0	1	0
2000-2001	0	0	0	0	0	0
2001-2002	0	0	0	0	1	0

2002-2003	0	0	0	0	2	0
2003-2004	0	0	0	0	1	0
2004-2005	0	0	0	3	1	0
2005-2006	0	0	0	0	0	0
2006-2007	0	0	1	0	0	0
2007-2008	0	1	0	0	1	0
2008-2009	0	0	1	1	0	0
2009-2010	0	0	1	0	0	0
2010-2011	0	0	3	5	0	0
2011-2012	2	0	1	0	0	0
2012-2013	0	1	1	1	0	0
2013-2014	0	2	1	2	0	1
2014-2015	2	2	0	0	1	1
2015-2016	4	0	0	4	0	1
2016-2017	3	0	0	2	0	1
2017-2018	0	1	0	3	1	1
2018-2019	22	15	5	0	2	8
2019-2020	0	11	13	0	1	3
2020-2021	8	5	14	0	0	0
1999-2020	41	38	41	21	12	16
2004-2020	41	38	41	21	7	16
2014-2020	39	36	33	11	5	16
1999-2021	41	38	41	21	12	16
2021	0	0	0	0	0	0
2004-2021	41	38	41	21	7	16
2014-2021	39	36	33	11	5	16
Mean	1,863636	1,727272727	1,863636364	0,954545455	0,5454545	0,727273
Median	0	0	0	0	0	0

Table 3: Relevant hits for selected keywords (3)

	Passenger	**EU/European Development Funds/Funding/Financing (in relation to transport)**	**Railway Package/Mobility Package**	**CEF + CF + EU funds/financing**
1999-2000	0	0	0	0
2000-2001	0	0	0	0
2001-2002	0	0	0	0
2002-2003	0	2	0	2
2003-2004	2	0	0	0
2004-2005	1	0	1	0
2005-2006	0	1	0	1
2006-2007	0	0	0	1
2007-2008	1	0	1	0
2008-2009	0	1	0	2
2009-2010	0	0	0	1
2010-2011	0	1	0	4
2011-2012	0	0	0	3

2012-2013	1	1	2	2
2013-2014	1	3	2	4
2014-2015	3	4	2	6
2015-2016	0	0	2	4
2016-2017	0	1	0	4
2017-2018	1	1	0	1
2018-2019	3	6	4	33
2019-2020	0	6	0	19
2020-2021	0	3	1	25
1999-2020	13	30	40	112
2004-2020	11	28	15	110
2014-2020	8	24	11	96
1999-2021	13	30	15	112
2021	0	0	0	0
2004-2021	11	28	15	110
2014-2021	8	24	11	96
Mean	0,59090909	1,363636364	0,681818	5,090909
Median	0	1	0	2

Table 4: Relevant hits for selected keywords (4)

	TEN-T + Corridors	**Rail + train**	**Transport + Connectivity/Connection(s) + Mobility**	**All EU**	**All rail**
1999-2000	4	12	28	0	17
2000-2001	1	1	8	0	6
2001-2002	0	3	1	0	3
2002-2003	0	3	12	2	4
2003-2004	3	5	25	1	12
2004-2005	1	4	9	1	10
2005-2006	0	1	3	1	2
2006-2007	0	1	8	1	3
2007-2008	0	10	22	1	14
2008-2009	3	2	17	4	7
2009-2010	1	3	16	2	7
2010-2011	18	9	42	18	29
2011-2012	8	1	19	11	3
2012-2013	5	9	37	5	33
2013-2014	5	21	59	10	54
2014-2015	16	21	77	19	65
2015-2016	7	9	27	10	23
2016-2017	22	6	27	14	34
2017-2018	2	17	35	2	40
2018-2019	15	26	51	49	71
2019-2020	1	19	39	19	49
2020-2021	10	7	47	34	41
1999-2020	120	190	603	229	520
2004-2020	113	166	529	201	479

2014-2020	77	126	356	157	371
1999-2021	122	190	609	204	527
2021	1	0	6	0	6
2004-2021	114	166	535	201	485
2014-2021	78	126	362	157	377
Mean	5,545455	8,636364	27,68182	9,272727	23,95455
Median	3	6,5	26	2	12,5

Table 5: Relevant hits for selected keyword co-occurrences (1)

	All EU / All rail	**All rail / Transport**	**CEF / All EU**	**Railway Funds / All EU**	**All corridors / All EU**
1999-2000	0	0,607142857	0	0	0
2000-2001	0	0,75	0	0	0
2001-2002	0	3	0	0	0
2002-2003	0,5	0,363636364	0	1	0
2003-2004	0,083333333	0,5	0	0	3
2004-2005	0,1	1,111111111	0	0	1
2005-2006	0,5	0,666666667	0	1	0
2006-2007	0,333333333	0,375	0	1	0
2007-2008	0,071428571	0,636363636	0	0	0
2008-2009	0,571428571	0,411764706	0	0,5	0,75
2009-2010	0,285714286	0,4375	0	0,5	0,5
2010-2011	0,620689655	0,725	0	0,222222222	1
2011-2012	3,666666667	0,176470588	0,181818182	0,272727273	0,727272727
2012-2013	0,151515152	1,03125	0	0,4	1
2013-2014	0,185185185	1,125	0	0,4	0,5
2014-2015	0,292307692	1,048387097	0,105263158	0,315789474	0,842105263
2015-2016	0,434782609	0,92	0,4	0,4	0,7
2016-2017	0,411764706	1,789473684	0,214285714	0,285714286	1,571428571
2017-2018	0,05	1,666666667	0	0,5	1
2018-2019	0,690140845	2,088235294	0,448979592	0,673469388	0,306122449
2019-2020	0,387755102	1,689655172	0	1	0,052631579
2020-2021	0,829268293	1,138888889	0,235294118	0,735294118	0,294117647
1999-2020	0,440384615	1,021611002	0,179039301	0,489082969	0,524017467
2004-2020	0,419624217	1,09610984	0,2039801	0,547263682	0,562189055
2014-2020	0,423180593	1,358974359	0,248407643	0,611464968	0,49044586
1999-2021	0,387096774	1,027290448	0,200980392	0,549019608	0,598039216
2021	0	1,5	0	0	0
2004-2021	0,41443299	1,099773243	0,2039801	0,547263682	0,567164179
2014-2021	0,416445623	1,36101083	0,248407643	0,611464968	0,496815287
Mean	0,387096774	1,027290448	0,200980392	0,549019608	0,598039216
Median	0,16	0,543478261	0	1	1,5

Table 6: Relevant hits for selected keyword co-occurrences (2)

	All EU / Freight	All EU / Passenger	All EU / Mobility	All EU / HSR	All EU / Infrastructure
1999-2000	0	0	0	0	0
2000-2001	0	0	0	0	0
2001-2002	0	0	0	0	0
2002-2003	0	0	0	0	0
2003-2004	0	2	0	0	2
2004-2005	3	1	0	0	1
2005-2006	0	0	0	0	1
2006-2007	0	0	0	0	2
2007-2008	0	1	0	1	2
2008-2009	0,25	0	0	0	0,75
2009-2010	0	0	0	0	2
2010-2011	0,277777778	0	0	0	0,5
2011-2012	0	0	0	0	0
2012-2013	0,2	0,2	0	0,2	2,4
2013-2014	0,2	0,1	0,1	0,2	1,6
2014-2015	0	0,157894737	0,052631579	0,105263158	1
2015-2016	0,4	0	0,1	0	0,5
2016-2017	0,142857143	0	0,071428571	0	0,428571429
2017-2018	1,5	0,5	0,5	0,5	3
2018-2019	0	0,06122449	0,163265306	0,306122449	0,142857143
2019-2020	0	0	0,157894737	0,578947368	0,421052632
2020-2021	0	0	0	0,147058824	0,470588235
1999-2020	0,091703057	0,056768559	0,069868996	0,165938865	0,528384279
2004-2020	0,104477612	0,054726368	0,07960199	0,189054726	0,567164179
2014-2020	0,070063694	0,050955414	0,101910828	0,229299363	0,50955414
1999-2021	0,102941176	0,06372549	0,078431373	0,18627451	0,607843137
2021	0	0	0	0	0
2004-2021	0,104477612	0,054726368	0,07960199	0,189054726	0,582089552
2014-2021	0,070063694	0,050955414	0,101910828	0,229299363	0,52866242
Mean	0,102941176	0,06372549	0,078431373	0,18627451	0,607843137
Median	0	0	0	0	2

APPENDIX 2.
STRUCTURED INTERVIEWS

Questionnaire n. 1.

Nationality: POLISH_____

Company / entity name: INSTYTUT KOLEJNICTWA/RAILWAY RESEARCH INSTITUTE

1. What is the major motive for the development of your country's railway network?
    a. Government transport strategies
    b. EU transport strategies
    c. Passengers' demands
    d. Freight market demands

2. Do you think EU financing instruments are useful for the development of your country's railway network? YES, they are crucial

3. Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds? NO

4. Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?
    a. Yes, the more EU financing is available, the more projects are implemented.
    b. Yes, the EU launched railway related financing mechanisms on the request of the Member States
    c. No, should EU funds not be available, the railway development projects would be financed from other resources.
    d. No, I don't think that EU transport strategies and railway development projects are related.
    e. I don't know

5. Do you think your country would develop crossborder railway services without the financial support of the EU? YES (as a rule the financing of passenger services comes from the state budget and from regional budgets)

6. Do you think that the railway development projects in your country are in line with the European Union's transport strategies? In principle, YES

7. How much do you think your country is integrated within the European railway network?
    a. It is sufficiently integrated
    b. It is relatively integrated
    c. It is less integrated
    d. It is not integrated
    e. I don't know

8. Which foreign railway network do you think is the most interconnected with your country? German and Czech networks

9. With which neighboring country/countries would you intensify the railway cooperation? Why? With Czech Republic, with Slovakia and with Lithuania (main reason: still existing gaps and missing infrastructure links)

10. Towards which neighboring country/countries would you lunch more crossborder railway services? Why? Slovakia, Lithuania (at the moment a very limited offer exists)

Questionnaire n. 2.

Nationality: Czech

Company / entity name: Railway expert personal opinion

1. What is the major motive for the development of your country's railway network?
    a. Government transport strategies
    b. EU transport strategies
    c. Passengers' demands
    d. Freight market demands

2. Do you think EU financing instruments are useful for the development of your country's railway network?
    EU financial instruments are mainly useful for increasing of profitability of consulting, design and construction sector. Also the number of administrative staff has increased.

3. Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds?
    It has also impact on size of administrative capacity.
    In general, railways in Europe are connected since their establishing in 19th century. The connection is mainly depend on will of the respective States.

4. Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?
    a. Yes, the more EU financing is available, the more projects are implemented.
    b. Yes, the EU launched railway related financing mechanisms on the request of the Member States
    c. No, should EU funds not be available, the railway development projects would be financed from other resources.
    d. No, I don't think that EU transport strategies and railway development projects are related.
    e. I don't know

5. Do you think your country would develop crossborder railway services without the financial support of the EU?

   Yes, the existing services are operated without EU funding.

6. Do you think that the railway development projects in your country are in line with the European Union's transport strategies?

   Not in all cases, there are many projects focusing only on spending of allocated funds.

7. How much do you think your country is integrated within the European railway network?

   a. It is sufficiently integrated
   b. It is relatively integrated
   c. It is less integrated
   d. It is not integrated
   e. I don't know

   Problem is Germany with only one useful broder crossing at Děčín/Bad Schandau.

8. Which foreign railway network do you think is the most interconnected with your country?

   Slovakia! On historical basis, and also Austria, the same reason.

9. With which neighboring country/countries would you intensify the railway cooperation? Why?

   Germany, see question 7

10. Towards which neighboring country/countries would you lunch more crossborder railway services? Why?

    Germany, also see question 7

Questionnaire n. 3.

203

Nationality: Slovak

Company / entity name: ZSSK (Slovak National Passenger RU)

1. What is the major motive for the development of your country's railway network?
   a. Government transport strategies
   b. EU transport strategies
   c. Passengers' demands
   d. Freight market demands

2. Do you think EU financing instruments are useful for the development of your country's railway network?
   Yes, absolutely

3. Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds?
   Not really, national funding would be not sufficient without using EU funds.

4. Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?
   a. Yes, the more EU financing is available, the more projects are implemented.
   b. Yes, the EU launched railway-related financing mechanisms on the request of the Member States
   c. No, should EU funds not be available, the railway development projects would be financed from other resources.
   d. No, I don't think that EU transport strategies and railway development projects are related.
   e. I don't know

5. Do you think your country would develop crossborder railway services without the financial support of the EU?

   Yes, from our point of view this is not in direct relation

6. Do you think that the railway development projects in your country are in line with the European Union's transport strategies?

   In general yes

7. How much do you think your country is integrated within the European railway network?

   a. It is sufficiently integrated
   b. It is relatively integrated
   c. It is less integrated
   d. It is not integrated
   e. I don't know

8. Which foreign railway network do you think is the most interconnected with your country?

   Czech Republic

9. With which neighboring country/countries would you intensify the railway cooperation? Why?

   Probably Ukraine and Poland, because of potential new customers in passenger transport (esp. workers)

10. Towards which neighboring country/countries would you lunch more crossborder railway services? Why?

    Ukraine - see answer 9.

Questionnaire n. 4.

Nationality: ____Slovak_____

Company / entity name: _____ZSSK_____

1. What is the major motive for the development of your country's railway network?
   a. Government transport strategies
   b. EU transport strategies
   c. Passengers' demands
   d. Freight market demands

2. Do you think EU financing instruments are useful for the development of your country's railway network?
   Yes.

3. Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds?
   Mostly not.

4. Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?
   a. Yes, the more EU financing is available, the more projects are implemented.
   b. Yes, the EU launched railway related financing mechanisms on the request of the Member States
   c. No, should EU funds not be available, the railway development projects would be financed from other resources.
   d. No, I don't think that EU transport strategies and railway development projects are related.
   e. I don't know

5. Do you think your country would develop crossborder railway services without the financial support of the EU?
   Mostly not.

6. Do you think that the railway development projects in your country are in line with the European Union's transport strategies?
   Yes.

7. How much do you think your country is integrated within the European railway network?
   a. It is sufficiently integrated
   b. It is relatively integrated
   c. It is less integrated
   d. It is not integrated
   e. I don't know

8. Which foreign railway network do you think is the most interconnected with your country?
   Railway network of Czech republic.

9. With which neighboring country/countries would you intensify the railway cooperation? Why?
   ZSSK currently has the largest volume of passengers as well as the number of connections with the Czech Republic and Austria. We see large reserves due to migration and labor and the development of tourism, especially in the further intensification of passenger transport with Austria, and we see large reserves in the expansion of passenger transport with Ukraine.

10. Towards which neighboring country/countries would you lunch more crossborder railway services? Why?
    Clearly Austria (increase in traffic intensity) and Ukraine (large reserves in road passengers, long waits at the Schengen border, etc.)

Questionnaire n. 5.

Nationality: Czech Republic

Company / entity name: Správe železnic, státní organizace (hereinafter "SZCZ")

1. What is the major motive for the development of your country's railway network?
   a. Government transport strategies
   b. EU transport strategies
   c. Passengers' demands
   d. Freight market demands

2. Do you think EU financing instruments are useful for the development of your country's railway network?
   Yes

3. Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds?
   Hardly and very slowly.

4. Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?
   a. Yes, the more EU financing is available, the more projects are implemented.
   b. Yes, the EU launched railway related financing mechanisms on the request of the Member States
   c. No, should EU funds not be available, the railway development projects would be financed from other resources.
   d. No, I don't think that EU transport strategies and railway development projects are related.
   e. I don't know

5. Do you think your country would develop crossborder railway services without the financial support of the EU?

This question is not relevant for SZCZ – services are subject of the CZ Ministry of transport and railway operators as the international services are under PSO.

6. Do you think that the railway development projects in your country are in line with the European Union's transport strategies?

   Fully

7. How much do you think your country is integrated within the European railway network?

   a. It is sufficiently integrated
   b. It is relatively integrated
   c. It is less integrated
   d. It is not integrated
   e. I don't know

8. Which foreign railway network do you think is the most interconnected with your country?

   Networks of ÖBB-Infrastruktur and ŽSR.

9. With which neighboring country/countries would you intensify the railway cooperation? Why?

   The cooperation with all partners is running smooth.

10. Towards which neighboring country/countries would you lunch more crossborder railway services? Why?

    This question is not relevant for SZCZ, please see answer to question 5.

Questionnaire n. 6.

Nationality: Slovak

Company / entity name: Zeleznicna spolocnost Cargo Slovakia, a.s.

1. What is the major motive for the development of your country's railway network?
    a. Government transport strategies
    b. EU transport strategies
    c. Passengers' demands
    d. Freight market demands

2. Do you think EU financing instruments are useful for the development of your country's railway network?

Yes. The development of the national rail network without EU financial instruments would be much slower and would be realized much lower investment projects in the field of railway infrastructure. Some investments would be concentrated in other projects at the expense of development of railway infrastructure and international railway transport.

3. Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds?

Yes, but the integration would be much slower and smaller. It would be invested much fewer financial resources for the integration of Slovak railway network and the integration process would be run by much longer time.

4. Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?
    a. Yes, the more EU financing is available, the more projects are implemented.
    b. Yes, the EU launched railway related financing mechanisms on the request of the Member States
    c. No, should EU funds not be available, the railway development projects would be financed from other resources.
    d. No, I don't think that EU transport strategies and railway development projects are related.
    e. I don't know

5. Do you think your country would develop crossborder railway services without the financial support of the EU?

Yes, the development of cross-border railway services would depend on the applicable legislation, conditions and barriers to entry into the foreign market. More important than the financial support of the EU is the liberalisation of rail freight business in the EU area.

6. Do you think that the railway development projects in your country are in line with the European Union's transport strategies?

Yes, the projects are being implemented in line with the EU's transport strategies.

7. How much do you think your country is integrated within the European railway network?
    a. It is sufficiently integrated
    b. It is relatively integrated
    c. It is less integrated
    d. It is not integrated
    e. I don't know

The integration process is gradually being implemented, this process is time-consuming and it will be necessary to implement many another measures and projects to achievement of the sufficient integration.

8. Which foreign railway network do you think is the most interconnected with your country?

In our opinion is the Czech railway network the most interconnected with the Slovak railway network. It is given by historical reasons (similar and even the same regulations, technical equipment, business relations etc.).

9. With which neighboring country/countries would you intensify the railway cooperation? Why?

It is important to intensify the railway cooperation with another neighbouring countries, especially with Poland, Hungary, Czech Republic and with Austria. These countries are part of the single European transport market and shipments to and from these countries represent a significant part of our company's performance. Hereby the single railway market represents the potential for further development and performance. More intensive cooperation is important for increase a railway performance and competitiveness of rail freight in EU transport market.
It is impossible to forget the Ukraine. Our company carries out many shipments of goods imported from Ukraine, Russia and other countries of former East Bloc. The more intense cooperation is very important.

10. Towards which neighboring country/countries would you lunch more crossborder railway services? Why?

The instantiation of our strategic intentions is not appropriate in regard to business secrets. According to EU strategy documents will intensify the international transport. Current railway undertakings will have to adapt to new trends and new competition. It will be necessary the more intense involvement in realisation of international transport.

Questionnaire n. 7.

Nationality: Czech

Company / entity name: České dráhy, a.s.

1. What is the major motive for the development of your country's railway network?
    a. Government transport strategies
    b. EU transport strategies
    c. Passengers' demands
    d. Freight market demands

2. Do you think EU financing instruments are useful for the development of your country's railway network?
   Yes, they are. However, this question is more related to the infrastructure manager and Ministry of Transport as they define the development of domestic railway network.

3. Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds?
   It would be possible, but development plans would probably not be fulfilled in the same time range.

4. Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?
    a. Yes, the more EU financing is available, the more projects are implemented.
    b. Yes, the EU launched railway related financing mechanisms on the request of the Member States
    c. No, should EU funds not be available, the railway development projects would be financed from other resources.
    d. No, I don't think that EU transport strategies and railway development projects are related.
    e. I don't know

5. Do you think your country would develop crossborder railway services without the financial support of the EU?
   At this moment, cross-border rail services in Czechia are based on business plans of railway operators and orders by regions. No financial support for services (not infrastructure) is implemented.

6. Do you think that the railway development projects in your country are in line with the European Union's transport strategies?
   Yes, they are. But priorities are determined on ease of construction and demand.
   The railway development projects in Czechia mainly depend on the Transport Sector Strategy developed by Ministry of Transport and approved by EU Institutions.

7. How much do you think your country is integrated within the European railway network?
   a. It is sufficiently integrated
   b. It is relatively integrated
   c. It is less integrated
   d. It is not integrated
   e. I don't know

8. Which foreign railway network do you think is the most interconnected with your country?
   Slovakia

9. With which neighboring country/countries would you intensify the railway cooperation? Why?
   Germany. Not all current connections are competitive. It is important for railway operator to have access to infrastructure which offers sufficient capacity, reliability and faster travel times in compare with other transport modes.

10. Towards which neighboring country/countries would you lunch more crossborder railway services? Why?

Germany/Austria. To make Czechia better connected to the Western European rail network.

Questionnaire n. 8.

Nationality: _____

Company / entity name: _____

1. What is the major motive for the development of your country's railway network?
    a. Government transport strategies
    b. EU transport strategies
    c. Passengers' demands
    d. Freight market demands

2. Do you think EU financing instruments are useful for the development of your country's railway network?
    Yes, it is definitely useful for the railway tracks.

3. Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds?
    I don't think it depends on that, much more on the geographical location.

4. Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?
    a. Yes, the more EU financing is available, the more projects are implemented.
    b. Yes, the EU launched railway related financing mechanisms on the request of the Member States
    c. No, should EU funds not be available, the railway development projects would be financed from other resources.
    d. No, I don't think that EU transport strategies and railway development projects are related.
    e. I don't know

5. Do you think your country would develop crossborder railway services without the financial support of the EU?
    Certainly not.

6. Do you think that the railway development projects in your country are in line with the European Union's transport strategies?
   They are closely related.

7. How much do you think your country is integrated within the European railway network?
   a. It is sufficiently integrated
   b. It is relatively integrated
   c. It is less integrated
   d. It is not integrated
   e. I don't know

8. Which foreign railway network do you think is the most interconnected with your country?
   Austria, Slovenia, Croatia, Slovakia.

9. With which neighboring country/countries would you intensify the railway cooperation? Why?
   Croatia, because I see a lot more opportunities in it, and the weight restrictions are also more favorable than for Slovenia.
   It would also be a good idea for Serbia not to have to worry about the migrant situation all the time.

10. Towards which neighboring country/countries would you lunch more crossborder railway services? Why?
    A developed and upgraded crossborder option towards Slovenia, Croatia and Serbia as well.

Questionnaire n. 9.

Állampolgársága: Magyar

Vállalata / intézménye neve: ŽSR

1. Az alábbiak közül Ön szerint mely tényező(k) áll(nak) hazája vasúti fejlesztéseinek hátterében? (több opció is választható)
    a. Kormányzati közlekedésfejlesztési stratégiák
    b. Európai Uniós közlekedésfejlesztési stratégiák √
    c. A személyszállítási piac igényeinek alakulása
    d. Az árufuvarozás keresletének alakulása

2. Hasznosnak tartja-e az európai uniós támogatási eszközöket hazája vasúti hálózatának fejlesztése szempontjából? Miért?
    Igen.

3. Ön szerint hazája vasúti hálózatának integrációja az európai vasúti térségbe megvalósulhatna-e a célzott uniós források felhasználása nélkül?
    Biztosan, de sokkal hosszabb időbe kerülne a megvalósítása.

4. Ön szerint van-e összefüggés a rendelkezésre álló célzott uniós pénzeszközök nagysága és a hazájában megvalósuló vasútfejlesztési beruházások száma között? (több opció is választható)
    a. Igen, minél több uniós finanszírozási lehetőség áll rendelkezésre, annál több projekt valósul meg. √
    b. Igen, hiszen az EU a tagállamok kérésére indít célzottan a vasúttal kapcsolatos támogatási mechanizmusokat.√
    c. Nem, ha nem állnának rendelkezésre uniós források, más forrásokból finanszíroznák a vasútfejlesztési projekteket a hazámban.
    d. Nem, nem hiszem, hogy az uniós közlekedési stratégiák és a hazai vasútfejlesztési projektek összefüggésben állnának egymással.
    e. Nem tudom.

5. Ön szerint az országában fejlesztenék-e a határokon átnyúló vasúti szolgáltatásokat az EU pénzügyi támogatása nélkül? Miért?
   Nem. A költségvetést látom a legnagyobb gondnak.

6. Ön szerint a hazájában végbemenő vasútfejlesztési beruházások összhangban vannak-e az Európai Unió közlekedési stratégiáival?
   Igen.

7. Mennyire tekinti hazája kötöttpályás hálózatát az európai vasúti rendszer integrált részének?
   a. Kellő mértékben integráltnak tartom
   b. Viszonylag integráltnak tartom √
   c. Kevésbé integráltnak tartom
   d. Nem tartom integráltnak
   e. Nem tudom

8. Ön szerint melyik külföldi vasúti hálózat(ok)hoz fűzik a legszorosabb kapcsolatok hazája vasúti rendszerét?
   Csehország.

9. Mely szomszédos országgal/országokkal erősítené hazája vasútfejlesztési együttműködését? Miért?
   Magyarország, Osztrák Köztársaság és Lengyelország, mivel a közös jövő érdekében fontosnak tartom a szomszédok vasútfejlesztési együttműködésének megerősítését.

10. Mely szomszédos ország(ok) viszonylatában növelné a határokon átnyúló vasúti szolgáltatások számát? Miért?
    Magyarország, Osztrák Köztársaság és Lengyelország. A vasúti szolgáltatások száma mindig nagy odafigyelésre szorul.

Questionnaire n. 10.

Állampolgársága: magyar
Vállalata / intézménye neve: MÁV Zrt.

1. Az alábbiak közül Ön szerint mely tényező(k) áll(nak) hazája vasúti fejlesztéseinek hátterében? (több opció is választható)
   a. **Kormányzati közlekedésfejlesztési stratégiák**
   b. **Európai Uniós közlekedésfejlesztési stratégiák**
   c. A személyszállítási piac igényeinek alakulása
   d. Az árufuvarozás keresletének alakulása

2. Hasznosnak tartja-e az európai uniós támogatási eszközöket hazája vasúti hálózatának fejlesztése szempontjából? Miért?
   Mindenképpen. Ezek által van lehetőség jelentős léptékű fejlesztések megvalósítására (pl. komplett vonalak felújítása, járműbeszerzések jelentős tételben).

3. Ön szerint hazája vasúti hálózatának integrációja az európai vasúti térségbe megvalósulhatna-e a célzott uniós források felhasználása nélkül?
   Megvalósulhatna, de jóval nehézkesebben és valószínűleg nem teljeskörűen.

4. Ön szerint van-e összefüggés a rendelkezésre álló célzott uniós pénzeszközök nagysága és a hazájában megvalósuló vasútfejlesztési beruházások száma között? (több opció is választható)
   a. **Igen, minél több uniós finanszírozási lehetőség áll rendelkezésre, annál több projekt valósul meg.**
   b. Igen, hiszen az EU a tagállamok kérésére indít célzottan a vasúttal kapcsolatos támogatási mechanizmusokat.
   c. Nem, ha nem állnának rendelkezésre uniós források, más forrásokból finanszíroznák a vasútfejlesztési projekteket a hazámban.
   d. Nem, nem hiszem, hogy az uniós közlekedési stratégiák és a hazai vasútfejlesztési projektek összefüggésben állnának egymással.
   e. Nem tudom.

5. Ön szerint az országában fejlesztenék-e a határokon átnyúló vasúti szolgáltatásokat az EU pénzügyi támogatása nélkül? Miért?
   Fejlesztenék, mert jelentős forgalmakat bonyolítunk le egyes határátmeneteinken, mely jelentős bevételeket generál számunkra, ezen felül számos nemzetközi személyszállítási kapcsolat (pl. Bp. – Wien, Bp. – Prága) is dinamikus fejlődésben van, melyekre szintén fontos és érdemes fejlesztési eszközöket fordítani.

6. Ön szerint a hazájában végbemenő vasútfejlesztési beruházások összhangban vannak-e az Európai Unió közlekedési stratégiáival?
   Igen.

7. Mennyire tekinti hazája kötöttpályás hálózatát az európai vasúti rendszer integrált részének?
   a. Kellő mértékben integráltnak tartom
   b. Viszonylag integráltnak tartom
   c. Kevésbé integráltnak tartom
   d. Nem tartom integráltnak
   e. Nem tudom

8. Ön szerint melyik külföldi vasúti hálózat(ok)hoz fűzik a legszorosabb kapcsolatok hazája vasúti rendszerét?
   *Országunk centrális helyzete miatt ez nehéz kérdés. Ahol a legintenzívebb a személy-és áruszállítás, az a Hegyeshalom – Nickelsdorf határátmenet **Ausztria** irányába.*
   *Ezen felül élénk a személy-és áruforgalom **Szlovákia** irányába (Szob – Štúrovo), jelentős az áruforgalom **Horvátország** valamint **Románia** (Lőkösháza – Curtici) felé.*

9. Mely szomszédos országgal/országokkal erősítené hazája vasútfejlesztési együttműködését? Miért?
   ***Szlovákiával** mindenképpen, különösen a kishatárfogalmi közlekedést, az egyes kisebb regionális vonalak infrastruktúrájának és menetrendjének fejlesztésével. Az Ipoly-völgyi vasút Drégelypalánk – Ipolyság (Šahy) közötti hiányzó*

szakaszának (~6km) visszaépítésével és a kapcsolódó vonalak felújításával például egy új kelet-nyugati irányú vasúti tengely éledhetne újra. A térség közlekedését alapvetően rendezhetnénk át, a tengely áruszállítási (lsd. jelenlegi peage-vonal) és személyszállítási szempontból is érdekes lehet.

***Szerbiával** mindenképpen, Szeged és Szabadka (Subotica) között – tekintve a városok méretét és jelentőségét – van létjogosultsága a vasúti szállításnak. Ezen felül a Bácsalmás – Csikéria – Szabadka vonal visszaépítése is jelentős lehetőségeket rejt magában.*

10. Mely szomszédos ország(ok) viszonylatában növelné a határokon átnyúló vasúti szolgáltatások számát? Miért?

***Horvátország** felé, elsősorban idegenforgalmi szempontok miatt.*

***Szerbia** felé, itt az idegenforgalom mellett figyelemre méltó lehet a hivatásforgalom is a határmenti területeket illetően.*

***Ukrajna** irányába, itt főként a regionális forgalom erősítése lenne indokolt a nagy számban a határ mentén élő magyarsággal való kapcsolattartás megkönnyítése érdekében.*

***Szlovákia** felé az említett Losonc (Lučenec) – Ipolytarnóc – Nógrádszakál – Balassagyarmat – Drégelypalánk – Ipolyság (Šahy) – Csata (Čata) tengely közös újjáélesztésével. (A II. világháború előtt ez egy létező útvonal volt.) A szakasz Szlovákia számára egy régi-új kelet-nyugati személy-és áruszállítási útvonalat jelenthetne Magyarországon keresztül, melyből a magyar vasút is jelentős mértékben profitálhatna a pályahasználati díjbevételek kapcsán, valamint figyelemreméltó új bel-és külföldi személyszállítási viszonylatok létrehozásához is jó alap.*

Questionnaire n. 11.

Állampolgársága: __magyar_____

Vállalata / intézménye neve: ____MÁV Zrt._____

1. Az alábbiak közül Ön szerint mely tényező(k) áll(nak) hazája vasúti fejlesztéseinek hátterében? (több opció is választható)
    a. Kormányzati közlekedésfejlesztési stratégiák
    b. Európai Uniós közlekedésfejlesztési stratégiák
    c. A személyszállítási piac igényeinek alakulása
    d. Az árufuvarozás keresletének alakulása

2. Hasznosnak tartja-e az európai uniós támogatási eszközöket hazája vasúti hálózatának fejlesztése szempontjából? Miért?
   Igen, mert uniós forrásból számos vasúti területen sikerült beruházásokat megvalósítani (pl. ERTMS telepítés, gördülőállomány beszerzés, utasforgalmi területek fejlesztése).

3. Ön szerint hazája vasúti hálózatának integrációja az európai vasúti térségbe megvalósulhatna-e a célzott uniós források felhasználása nélkül?
   Nem, mert még a támogatások most sem elégségesek pl. ha az ERTMS fővonalakon történő teljeskörű kiépítésére gondolunk.

4. Ön szerint van-e összefüggés a rendelkezésre álló célzott uniós pénzeszközök nagysága és a hazájában megvalósuló vasútfejlesztési beruházások száma között? (több opció is választható)
    a. Igen, minél több uniós finanszírozási lehetőség áll rendelkezésre, annál több projekt valósul meg.
    b. Igen, hiszen az EU a tagállamok kérésére indít célzottan a vasúttal kapcsolatos támogatási mechanizmusokat.
    c. Nem, ha nem állnának rendelkezésre uniós források, más forrásokból finanszíroznák a vasútfejlesztési projekteket a hazámban.
    d. Nem, nem hiszem, hogy az uniós közlekedési stratégiák és a hazai vasútfejlesztési projektek összefüggésben állnának egymással.

e. Nem tudom.

5. Ön szerint az országában fejlesztenék-e a határokon átnyúló vasúti szolgáltatásokat az EU pénzügyi támogatása nélkül? Miért?
   Nem, példa erre, hogy Kürtösig kiépítették a dupla vágányt Romániai oldalon és a magyarországi szakaszon már évek óta halogatják. Így sohasem lesznek összekötve az olyan fontos csomópontok, amelyeket határok választanak el egymástól.

6. Ön szerint a hazájában végbemenő vasútfejlesztési beruházások összhangban vannak-e az Európai Unió közlekedési stratégiáival?

   Nem teljesen, sokszor a helyi érdekek felülírják az uniós vezérelveket.

7. Mennyire tekinti hazája kötöttpályás hálózatát az európai vasúti rendszer integrált részének?
   a. Kellő mértékben integráltnak tartom
   b. Viszonylag integráltnak tartom
   c. Kevésbé integráltnak tartom
   d. Nem tartom integráltnak
   e. Nem tudom

8. Ön szerint melyik külföldi vasúti hálózat(ok)hoz fűzik a legszorosabb kapcsolatok hazája vasúti rendszerét?
   Szlovákia

9. Mely szomszédos országgal/országokkal erősítené hazája vasútfejlesztési együttműködését? Miért?
   Pl. Romániával, lásd válaszomat feljebb

10. Mely szomszédos ország(ok) viszonylatában növelné a határokon átnyúló vasúti szolgáltatások számát? Miért?
    Szerbia felé a fontos árufuvarozási korridor kiépítése miatt. Nagysebességű hálózat tekintetében inkább a nyugati irányba.

Questionnaire n. 12.

Nationality: Czech

Company / entity name: SZDC

1. What is the major motive for the development of your country's railway network?
   (a.) Government transport strategies
   b. EU transport strategies
   c. Passengers' demands
   d. Freight market demands

2. Do you think EU financing instruments are useful for the development of your country's railway network? Yes, absolutely

3. Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds? No, or just very cumbersomely.

4. Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?
   (a.) Yes, the more EU financing is available, the more projects are implemented.
   (b.) Yes, the EU launched railway-related financing mechanisms on the request of the Member States
   c. No, should EU funds not be available, the railway development projects would be financed from other resources.
   d. No, I don't think that EU transport strategies and railway development projects are related.
   e. I don't know

5. Do you think your country would develop crossborder railway services without the financial support of the EU? Yes, following local needs

6. Do you think that the railway development projects in your country are in line with the European Union's transport strategies? Yes, they have to be.

7. How much do you think your country is integrated within the European railway network?
   a. It is sufficiently integrated
   b. It is relatively integrated
   c. It is less integrated
   d. It is not integrated
   e. I don't know

8. Which foreign railway network do you think is the most interconnected with your country? Sk, De

9. With which neighboring country/countries would you intensify the railway cooperation? Why? DE, because of the freight / HSR potential

10. Towards which neighboring country/countries would you lunch more crossborder railway services? Why? See n. 9. + AT, for the same reasons

Questionnaire n. 13.

Nationality: POLAND

Company / entity name: PKP INTERCITY

1. What is the major motive for the development of your country's railway network?
    a. Government transport strategies
    b. EU transport strategies
    c. Passengers' demands
    d. Freight market demands

2. Do you think EU financing instruments are useful for the development of your country's railway network? YES, BUT NOT AS AN EXCLUSIVE CONDITION.

3. Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds? NO, IN ADDITION TO CROSS-BORDER SERVICES, EU COOPERATION IS DEFINITELY NEEDED.

4. Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?
    a. Yes, the more EU financing is available, the more projects are implemented.
    b. Yes, the EU launched railway related financing mechanisms on the request of the Member States
    c. No, should EU funds not be available, the railway development projects would be financed from other resources.
    d. No, I don't think that EU transport strategies and railway development projects are related.
    e. I don't know

5. Do you think your country would develop crossborder railway services without the financial support of the EU? YES, THEY ARE ALWAYS IMPLEMENTED ACCORDING TO LOCAL NEEDS.

6. Do you think that the railway development projects in your country are in line with the European Union's transport strategies? YES, IN PRINCIPLE

7. How much do you think your country is integrated within the European railway network?
    a. It is sufficiently integrated
    b. It is relatively integrated
    c. It is less integrated
    d. It is not integrated
    e. I don't know

8. Which foreign railway network do you think is the most interconnected with your country? GERMANY, CZECH REPUBLIC

9. With which neighboring country/countries would you intensify the railway cooperation? Why? LITHUANIA, LATVIA, AND ESTONIA, DUE TO THE RAIL BALTICA PROJECT.

10. Towards which neighboring country/countries would you lunch more crossborder railway services? Why? SLOVAKIA, DUE TO THE LACK OF CURRENT PERMANENT SERVICES.

Questionnaire n. 14.

Állampolgársága: _____magyar_____

Vállalata / intézménye neve: _____MÁV-Start Zrt._____

1. Az alábbiak közül Ön szerint mely tényező(k) áll(nak) hazája vasúti fejlesztéseinek hátterében? (több opció is választható)
    a. Kormányzati közlekedésfejlesztési stratégiák
    b. Európai Uniós közlekedésfejlesztési stratégiák
    c. A személyszállítási piac igényeinek alakulása
    d. Az árufuvarozás keresletének alakulása

2. Hasznosnak tartja-e az európai uniós támogatási eszközöket hazája vasúti hálózatának fejlesztése szempontjából? Miért? Igen, az uniós közlekedési stratégiák összhangban vannak a vasúti személyforgalom ösztönzését célzó magyar kezdeményezésekkel.

3. Ön szerint hazája vasúti hálózatának integrációja az európai vasúti térségbe megvalósulhatna-e a célzott uniós források felhasználása nélkül? Nem, a rendelkezésre álló hazai források mindenképp kiegészítésre szorulnak.

4. Ön szerint van-e összefüggés a rendelkezésre álló célzott uniós pénzeszközök nagysága és a hazájában megvalósuló vasútfejlesztési beruházások száma között? (több opció is választható)
    a. Igen, minél több uniós finanszírozási lehetőség áll rendelkezésre, annál több projekt valósul meg.
    b. Igen, hiszen az EU a tagállamok kérésére indít célzottan a vasúttal kapcsolatos támogatási mechanizmusokat.
    c. Nem, ha nem állnának rendelkezésre uniós források, más forrásokból finanszíroznák a vasútfejlesztési projekteket a hazámban.
    d. Nem, nem hiszem, hogy az uniós közlekedési stratégiák és a hazai vasútfejlesztési projektek összefüggésben állnának egymással.
    e. Nem tudom.

5. Ön szerint az országában fejlesztenék-e a határokon átnyúló vasúti szolgáltatásokat az EU pénzügyi támogatása nélkül? Miért? Igen, mert számos esetben a helyi határforgalmi közlekedési igényeket kell figyelembe venni.

6. Ön szerint a hazájában végbemenő vasútfejlesztési beruházások összhangban vannak-e az Európai Unió közlekedési stratégiáival? Igen, lásd a 2. pontot.

7. Mennyire tekinti hazája kötöttpályás hálózatát az európai vasúti rendszer integrált részének?
    a. Kellő mértékben integráltnak tartom
    b. Viszonylag integráltnak tartom
    c. Kevésbé integráltnak tartom
    d. Nem tartom integráltnak
    e. Nem tudom

8. Ön szerint melyik külföldi vasúti hálózat(ok)hoz fűzik a legszorosabb kapcsolatok hazája vasúti rendszerét? Ausztria és Szlovákia

9. Mely szomszédos országgal/országokkal erősítené hazája vasútfejlesztési együttműködését? Miért? Érdemes lenne a Románia és Szerbia viszonylatában megvalósuló személyforgalmat fejleszteni, akár nagysebességű szolgáltatások jövőbeni beindításával.

10. Mely szomszédos ország(ok) viszonylatában növelné a határokon átnyúló vasúti szolgáltatások számát? Miért? Lásd 9. pont.

Questionnaire n. 15.

Research funded by the Hungarian Human Resource Development Operational Programme (EFOP-3.6.3-VEKOP-16-2017-00007)[1]

Contact details: Bálint L. TOTH, email: balint.toth6@stud.uni-corvinus.hu

Nationality: Poland

Company / entity name: IK

1. What is the major motive for the development of your country's railway network?
   a. Government transport strategies
   b. EU transport strategies
   c. Passengers' demands
   d. Freight market demands

2. Do you think EU financing instruments are useful for the development of your country's railway network? yes

3. Do you think that the integration of your country's railway network into the European railway area would be possible without the use of targeted EU funds?
   Not really, and not entirely

4. Do you think there is a correlation between the available targeted EU financing instruments and the number of railway development projects in your country?
   a. Yes, the more EU financing is available, the more projects are implemented.
   b. Yes, the EU launched railway-related financing mechanisms on the request of the Member States
   c. No, should EU funds not be available, the railway development projects would be financed from other resources.
   d. No, I don't think that EU transport strategies and railway development projects are related.
   e. I don't know

5. Do you think your country would develop crossborder railway services without the financial support of the EU? Yes, see Three Seas Initiative

6. Do you think that the railway development projects in your country are in line with the European Union's transport strategies? Yes, see ERA

7. How much do you think your country is integrated within the European railway network?
   a. It is sufficiently integrated
   b. It is relatively integrated
   c. It is less integrated
   d. It is not integrated
   e. I don't know

8. Which foreign railway network do you think is the most interconnected with your country? Germany, Czech Republic

9. With which neighboring country/countries would you intensify the railway cooperation? Why?

Czech Republic: freight + tourism
Slovak Republic: tourism, 3 Seas Initiative
Lithuania: 3 Seas Initiative

10. Towards which neighboring country/countries would you lunch more crossborder railway services? Why?

Slovak Republic, Lithuania (see above)

Questionnaire n. 15.

KÉRDŐÍV

Vasútfejlesztési együttműködés a visegrádi országok között: A funkcionális *spillover*ek szerepe az EU-tagállamok közötti szakpolitikai integráció kiszélesedésében[204]

Tóth Bálint László, email: balint.toth6@stud.uni-corvinus.hu

Állampolgársága: magyar

Vállalata / intézménye neve: MÁV Zrt.

1. Az alábbiak közül Ön szerint mely tényező(k) áll(nak) hazája vasúti fejlesztéseinek hátterében? (több opció is választható)
   a. Kormányzati közlekedésfejlesztési stratégiák
   b. Európai Uniós közlekedésfejlesztési stratégiák
   c. A személyszállítási piac igényeinek alakulása
   d. Az árufuvarozás keresletének alakulása

2. Hasznosnak tartja-e az európai uniós támogatási eszközöket hazája vasúti hálózatának fejlesztése szempontjából? Miért?
   Igen, feltétlenül: pályamenti létesítmények felújítása, karbantartása, al- és felépítmények modernizációja, gördülőállomány (Eurofima), nemzetközi szállítási folyosók működtetése stb.

3. Ön szerint hazája vasúti hálózatának integrációja az európai vasúti térségbe megvalósulhatna-e a célzott uniós források felhasználása nélkül?
   Nem, de a források mellett a tudás- és a technológiatranszfer legalább olyan fontos.

4. Ön szerint van-e összefüggés a rendelkezésre álló célzott uniós pénzeszközök nagysága és a hazájában megvalósuló vasútfejlesztési beruházások száma között? (több opció is választható)

[204] A kutatást az Emberi Erőforrás Fejlesztési Operatív Program (EFOP) támogatja. További tudnivalók az EFOP-3.6.3-VEKOP-16-2017-00007 projektről: www.uni-corvinus.hu/main-page/research/research-and-development-projects/szechenyi2020-2/efop-3-6-3-vekop-16-2017-00007/?lang=en

a. Igen, minél több uniós finanszírozási lehetőség áll rendelkezésre, annál több projekt valósul meg.
b. Igen, hiszen az EU a tagállamok kérésére indít célzottan a vasúttal kapcsolatos támogatási mechanizmusokat.
c. Nem, ha nem állnának rendelkezésre uniós források, más forrásokból finanszíroznák a vasútfejlesztési projekteket a hazámban.
d. Nem, nem hiszem, hogy az uniós közlekedési stratégiák és a hazai vasútfejlesztési projektek összefüggésben állnának egymással.
e. Nem tudom.

5. Ön szerint az országában fejlesztenék-e a határokon átnyúló vasúti szolgáltatásokat az EU pénzügyi támogatása nélkül? Miért?
   Igen, lásd a Budapest-Belgrád emelt pályasebességű vasút projektet

6. Ön szerint a hazájában végbemenő vasútfejlesztési beruházások összhangban vannak-e az Európai Unió közlekedési stratégiáival?
   Igen: ERA, Eurofima, CER, RNE tagságok.

7. Mennyire tekinti hazája kötöttpályás hálózatát az európai vasúti rendszer integrált részének?
   a. Kellő mértékben integráltnak tartom
   b. Viszonylag integráltnak tartom
   c. Kevésbé integráltnak tartom
   d. Nem tartom integráltnak
   e. Nem tudom

8. Ön szerint melyik külföldi vasúti hálózat(ok)hoz fűzik a legszorosabb kapcsolatok hazája vasúti rendszerét?
   Hegyeshalom/Nickelsdorf (Ausztria), Szob/Sturovo (Szlovákia) + Komárom/Komarno, Rajka/Rusovce, Hidasnémeti/Cana

9. Mely szomszédos országgal/országokkal erősítené hazája vasútfejlesztési együttműködését? Miért?

Románia (Biharkeresztes/Episcopia Bihor kapcsolat villamosítása, Lőkösháza/Curtici kétvágányúsítás), Szerbia (Röszke/Horgos korszerűsítés, visszaállítás, Kelebia/Szabadka kétvágányúsítás, modernizáció)

10. Mely szomszédos ország(ok) viszonylatában növelné a határokon átnyúló vasúti szolgáltatások számát? Miért?
    Lásd az előző választ + Szlovákia: Sátoraljaújhely/Kisújhely határátkelő újranyitása, Nógrádszakál/Busnice személyforgalom indítása, stb.

APPENDIX 3.

LIST OF OWN PUBLICATIONS RELATED TO THE TOPIC

1. English language publications

1.1. Peer-reviewed journal articles

Bálint László TÓTH (2018):

a) *The V4 railway cooperation – Is there a homogeneous Visegrád Railway Area?* Köz-Gazdaság, 13(3), pp. 158–177.
b) *Visegrád: A Tool that Supports the Implementation of EU Strategies to Enhance the Connectivity and Interoperability of the East Central European Railway Network.* Foreign Policy Review, 11, pp. 158–181.
c) *V4: A Political Tool for Advancing State Interest.* Polgári Szemle, 14(1–3), pp. 330–341.

Bálint László TÓTH (2019): *The Visegrád Group and the Railway Development Interest Articulation in East Central Europe.* Eastern Journal of European Studies, 10(2), pp. 175–194.

Bálint László TÓTH (2020):

a) *HSR Projects in V4 Countries: EU-driven spillovers of East Central European transport development initiatives.* In Statu Nascendi: Journal of Political Philosophy and International Relations, 3(2), pp. 107–132.
b) *Railway Development in Light of Market Needs: A SWOT Analysis of the Rail Transport Markets in the Visegrád Four Countries.* International Journal of Business and Economic Sciences Applied Research, 13(3) pp. 33–45.

Bálint László TÓTH (2021): Spillover-effects in International Railway Cooperation. *In Statu Nascendi: Journal of Political Philosophy and International Relations*, 4(2), pp. 115–140.

1.2. Publications of other kind

Bálint László TÓTH (2022): Transport Integration as seen by Railway Experts and Professionals. Abstract, In *Book of Abstracts 14th International Conference Economies of the Balkan and Eastern European Countries,* Florence, Italy.

Tóth, B.L., 2021. Is it still early for a V4 high-speed railway network (or are we already late)? Article/analysis, *Corvinák.*

2. Hungarian language publications

2.1. Book chapters

Bálint László TÓTH (2022): Visegrádi négyek. In *Demkó Attila & Szeghő Patrik (szerk.): A világ 2022-ben*. MCC PRESS, Budapest, pp. 42–45.

Bálint László TÓTH (2023): Visegrádi négyek. In *Demkó Attila & Szeghő Patrik (szerk.): A világ 2023-ben*. MCC PRESS, Budapest (accepted manuscript)

2.2. Peer-reviewed journal articles

Bálint László TÓTH (2015): A Visegrádi csoport (V4) Nyugat-Balkán-politikája. *Külügyi Szemle*, 14(2), pp.25-41.

Bálint László TÓTH (2017): A Visegrádi Négyek. Állandó szövetség vagy eseti koalíció? *Szabolcs-Szatmár-Beregi Szemle*, 52(1), pp.3–20.

Bálint László TÓTH (2019): Visegrádi vasútpolitikák. Együttműködés vagy verseny? *Külügyi Szemle*, 18(1), pp.107–128.

2.3. Publications of other kind

Bálint László TÓTH (2017): V4: költség–haszon elvű törékeny egység az Orbán-kormány kezében. Cikk/elemzés, *Atlatszo.*

Bálint László TÓTH (2021): Visegrádi „Ki Mit Tud". Cikk/elemzés, *Corvinák.*

Bálint László TÓTH (2022): Mit várhatunk idén a Visegrádi Együttműködéstől? Újságcikk/elemzés, *Index.*

Bálint László TÓTH (2022): Gazdaságilag is összefonódtak a V4-ek. Világgazdaság Online, 2022(3).

Bálint László TÓTH (2022): A lengyel–magyar viszony alakulása az ukrajnai háború árnyékában, Újságcikk/elemzés, *A Szív,* 2022(6).