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7 ORIENT/EAST-MED CORRIDOR: CHALLENGES AND DEMANDS FOR THE RAIL NETWORK POLICIES

Resume

Abstract
As rail represents an efficient and sustainable transport system, the Trans-European railway network has become subject to special attention from European transport policy. The political objectives are to shift 30% of freight to rail by 2030, 50% by 2050, and to reduce passenger trips on road and in the air. These make it necessary to develop the defined TEN-T core network rail corridors as a priority, which means eliminating bottlenecks along the corridors and increasing capacities and operation quality. This concerns the Orient/East-Med (OEM) Core Network Corridor as well. Considerable parts of the infrastructure of the railway network along the OEM Corridor is not compliant with some of the technical thresholds set out by EU-Regulation 1315/2013.

In the meanwhile the EU and the affected states have established activities for extending the core network corridors to the Western Balkans states. In 2015, the European Commission adopted a Joint Statement of the Prime Ministers of six Western Balkans states (WB6), which contains a list of specified Core Network links and Priority Projects for the extension of the TEN-T network to the Western Balkans. During additional common summits of the EU and the WB6, an indicative extension network has been more and more concretized. To date the process has led to the establishment of a common EU-Western Balkans Transport Community signed in 2017, which aims to help WB6 countries integrate into the EU by creating closer transport ties or connections. A continuing aspect is the importance of the OEM Corridor for the Chinese Belt and Road Initiative as a hinterland connection between the sea port of Piraeus (GR) and the central and eastern European countries.

Keywords
TEN-T – railway network – rail infrastructure – rail freight transport – Western Balkans States – New Silk Road

Orient/East-Med Corridor: Herausforderungen und Ansprüche an Netz-Policies

Kurzfassung
Als effizienter und nachhaltiger Verkehrsträger hat die Schiene auch in der europäischen Verkehrspolitik und somit auch im transeuropäischen Eisenbahnnetz besondere Aufmerksamkeit bekommen. So sind als verkehrspolitische Ziele die Verlagerung von 30% des Güterverkehrs auf die Schiene bis 2030, von 50% bis 2050 und die Reduzierung des Personentransportes auf der Straße und in der Luft formuliert. Diese Ziele erfordern die vorrangige Entwicklung definierter TEN-V-Kernnetz-Eisenbahnkorridore. Dies umfasst die Beseitigung von Engpässen entlang der Korridore, sowie die Steigerung von Kapazitäten und Betriebsqualitäten. Dies betrifft auch den Orient/East-Med (OEM) Core Network Corridor. Große Teile der Infrastruktur des Eisenbahnnetzes entlang des OEM Corridors entsprechen nicht den technischen Standards der EU-Verordnung 1315/2013.

Mittlerweile haben die EU und die betroffenen Staaten Maßnahmen zur Ausweitung der Kernnetzkorridore auf die Westbalkanstaaten eingeleitet. Im Jahr 2015 verabschiedete die Europäische Kommission eine Gemeinsame Erklärung der Premierminister von sechs Westbalkanstaaten (WB6), die eine Liste spezifischer Kernnetzwerkverbindungen und prioritärer Projekte für die Ausdehnung des TEN-V-Netzes auf den Westbalkan beinhaltet. Bei weiteren gemeinsamen Gipfeltreffen der EU und der WB6 wurde ein indikatives Erweiterungsnetz zunehmend konkreter. Dieser Prozess hat bisher zur Gründung einer gemeinsamen Verkehrsgemeinschaft EU-Westbalkan geführt, die 2017 unterzeichnet wurde und darauf abzielt, die Integration der WB6-Länder in die EU durch engere Verkehrsbeziehungen oder -verbindungen zu unterstützen. Ein weiterer Aspekt ist die Bedeutung des OEM Corridors für die Chinese Belt and Road Initiative als Hinterlandverbindung zwischen dem Seehafen Piräus (GR) und den mittel- und osteuropäischen Ländern.

Schlüsselwörter
TEN-V – Eisenbahnnetz – Schieneninfrastruktur – Schienengüterverkehr – Westliche Balkanstaaten – Neue Seidenstraße

1 European policy and the TEN-T Orient/East-Med Core Network Corridor

The EU is backing the railway as an integral part of an efficient and sustainable European transport system. The political objectives are ambitious: by 2030 30% of road freight transport over 300 km should shift to rail, and this proportion should even rise to 50% by 2050 (European Commission 2011). Evidently, substantial improvements are still necessary to reach these objectives and rail traffic must become a more European and hence cross-border issue than it is today. Major impetus to achieving these targets has already been provided by the liberalization of freight transport in 2007, the stipulation of the TEN-T (Trans-European Transport Network) corridors in 2009, when Corridor 22 as the pre-stage of the later Orient/East-Med Corridor was given its original designation as one of the priority projects, and then the modification in 2012 under the name Orient/East-Med (OEM) Corridor (Corridor No. 3 of the nine TEN-T core network corridors).

Fig.1: The OEM TEN-T Core Network Corridor, alignment and nodes / Source: European Commission 2016

The OEM Corridor is a long north-west to south-east oriented corridor which connects central and southeast Europe with the maritime interfaces of the North, Baltic, Black and Mediterranean Seas. It runs from the German ports of Hamburg, Bremerhaven, Wilhelmshaven and Rostock in the north via the Czech Republic and Slovakia, with a branch through Austria, further via Hungary and Romania towards the Bulgarian capital of Sofia (with links to the port of Burgas and to the Turkish border at Svilengrad), then to the Greek ports of Thessaloniki, Igoumenitsa, Patras and Athens/Piraeus and has a Motorway of the Sea link to Cyprus (Fig. 1). Maritime sea port infrastructure exists in four countries, namely Bulgaria, Cyprus, Germany and Greece.

The medium section between Vienna (Austria) and Craiova (Romania) superposes the 'Rhine-Danube' core network corridor Strasbourg–Constanta/Sulina which comprises the Danube inland waterway. So, the Danube waterway section between the river port of Vidin (BG) and the river port of Vienna (AT) is to be regarded as a supplementary transportation route along the corridor although it is not part of the OEM. As the Rhine-Danube Corridor for rail and road runs exclusively through EU territory, the Danube waterway transits the exterritorial area of Serbia.

Numerous missing links exist along the OEM with most of the multimodal connections between Hungary, Romania, Bulgaria and Greece yet to be constructed or substantially upgraded. The Elbe also requires important upgrades if it is to facilitate increased traffic flows. Cross-border traffic management systems on rail and inland waterways are still to be implemented on many sections (European Commission 2017a).

2 Rail infrastructure along the Orient/East-Med Corridor

The rail infrastructure on the TEN-T core network shall meet all the requirements set out for the comprehensive TEN-T network, defined in Chapter II of the TEN-T Guidelines (Regulation 1315/2013/EU). In addition, the following requirements shall be met by the railway transport infrastructure of the core network:

> Full electrification of the line tracks

> At least 22.5 t axle load, 100 km/h line speed and the possibility of running trains with a length of 740 m on freight lines

> Full deployment of ERTMS (European Rail Traffic Management System)

> Nominal track gauge for new railway lines: 1435 mm

The infrastructure of the railway network along the OEM Corridor is in considerable parts of the alignment not compliant with some of the technical thresholds set out by Regulation 1315/2013, in particular regarding the key infrastructure parameters: train length and control system (ERTMS). For other technical characteristics such as operational speed (line speed), axle load and electrification, non-compliance along the corridor is around or below 20% (European Commission 2016: 5 f. and European Commission 2017b: 16). The following information is based on European Commission 2016 and European Commission 2017b:

Gauge and number of tracks
Concerning gauge and number of tracks, all OEM Corridor lines have a gauge of 1435 mm (except Kiato-Patras which will be replaced by a 1435 mm gauge in the future). Most lines are at least double-tracked (approx. 71%).

Operational speed

A maximum operating speed of lower than 100 km/h is a barrier for freight trains along a total length of 1198 km (21%). In detail there are small sections along the OEM Corridor in the Czech Republic (freight link Děčín–Ústí nad Labem), in Slovakia (Bratislava main station–Rajka, SK/HU border), in Hungary (Kelenföld–Köbanya–Kispest within Budapest node) and a few sections in Greece, where line speed is between 60 and 90 km/h. Low maximum operating speed is particularly an issue if this occurs on longer sections, as in Bulgaria, where 75% of the sections only permit operational speeds lower than 100 km/h and the weighted average operational speed is 90 km/h. Specifically along the section Vidin–Sofia, the speed is 70–80 km/h, while part of the lines Sofia–Kulata has speed limits of only 60 km/h (Pernik–Radomir). Along the Bulgarian rail section Mihaylovo–Dimitrovgrad the operational speed is only 40 km/h. In further sections, the speed is restricted temporarily due to ongoing modernization works. Romania is, except for the section Craiova–Calafat, deemed to be fully compliant for this particular technical characteristic. In total, approx. 25% of the OEM rail network is not compliant with the requirements of the regulation.

Train length

Train length is a major issue along the entire corridor. On 2815 km (50%) a train length of 740 m is not allowed due to infrastructural, administrative or timetable-related/operational reasons. Non-compliant with this parameter are all corridor sections in the Czech Republic, Slovakia and Austria. On the Hungarian network only one section is not compliant, Hegyeshalom–Rajka, while in Greece several short sections do not match this criterion: Thessaloniki–Promahonas, Domokos–Tithorea, SKA–Piraeus and Korinthos–Thriasio–SKA. In Romania only the sections HU/RO border–Arad, Filiaşi–Craiova and Golenti–RO/BG border are compliant, the same applies to the Bulgarian sections RO/BG border–Vidin, Plovdiv–Burgas and Svilengrad–Turkish border. Longer parts of the Bulgarian and Romanian OEM rail network are non-compliant with this parameter. Germany complies fully with this technical requirement. In total approx. 53% of the OEM rail network is not compliant.

Axle load

The minimum axle load of 22.5 t is a major problem for Hungary, Romania and Greece, summing up to 952 km (17%) of the OEM rail network, in detail the entire rail network in Romania, and a number of line sections in Greece (Promahonas–Thessaloniki, Domokos–Tithorea and Inoi–SKA–Piraeus) and in Hungary (Kelenföld–Köbanya–Kispest and Békéscsaba–Lökösháza). Additionally, in Hungary, there is a special situation on the line Budapest–Hegyeshalom, where an axle load of 22.5 t is permitted with a speed restriction of 120 km/h (above the limit of 100 km/h). In contrast, the bigger part of the rail network along the OEM Corridor is compliant with the minimum axle load threshold of 22.5 t.

Electrification

Most of the OEM rail network is electrified (approx. 86%), with three different current systems in use: AC 15 kV / 16.7 Hz (Germany and Austria), AC 25 kV / 50 Hz (southern Czech Republic, Slovakia, Hungary, Romania, Bulgaria and Greece) and DC 3 kV (northern Czechia). Diesel traction is required only on the sections Oldenburg–Sande–Wilhelmshaven in Germany, Craiova–Calafat in Romania, and Promahonas–Thessaloniki, Domokos–Tithorea–Inoi, Tris Gefyres–Piraeus and Palaiofarsalos–Kalambaka in Greece.

Railway control systems

Regarding railway control systems, at present, the national systems are still predominantly used on the OEM rail network. There is a considerable lack of ERTMS implementation, with differences between Member States. Regarding ERTMS, currently only 12% of the OEM network is compliant with the required characteristics.

Cross-border issues

Some of the most challenging issues for seamless rail transport along the OEM Corridor occur at borders. Technical, operational and administrative rules generate disproportionally long waiting times here. To improve the situation and to discuss possible options for improvement, a working group on OEM Cross-Border Issues in Rail Transport has been set up by the European Coordinator.

3 Strengthening the corridor for rail freight

No comprehensive statistics are available for rail transport along the corridor routes. As a substitute and to get a picture about the rail freight situation in the countries involved, Table 1 shows a compilation of the performance of rail freight transport up to 2016 for each country.

		1970	1980	1990	2000	2010	2014	2015	2016	change 15/16 %		
Sum of RFC7		*256,1*	*306,2*	*253,7*	*159,1*	173,9	*182,7*	*188,2*	*189,3*	*0,6*	Sum of RFC7	
RFC7	BG	13,7	17,7	14,1	5,5	3,1	3,4	3,7	3,4	-5,9	BG	RFC7
	CZ				17,5	13,8	14,6	15,3	15,6	2,3	CZ	
	DE	113,0	121,3	101,7	82,7	107,3	112,6	116,6	116,2	-0,4	DE	
	EL	*0,7*	*0,8*	*0,6*	*0,4*	0,6	0,3	0,3	0,3	-13,6	EL	
	HU	19,8	24,4	16,8	8,8	8,8	10,2	10,0	10,5	5,2	HU	
	AT	9,9	11,0	12,2	*16,6*	19,8	20,5	20,3	21,4	5,4	AT	
	RO	43,1	64,8	48,9	*16,4*	12,4	12,3	13,7	13,5	-1,0	RO	
	SK				11,2	8,1	8,8	8,4	8,4	-0,8	SK	
Neighbours	SI	3,3	3,8	4,2	2,9	3,4	4,1	4,2	4,4	4,4	SI	Neighbours
	HR				1,8	2,6	2,1	2,2	2,2	-1,1	HR	
	AL	0,2	0,5	0,6	0,0	0,1	0,0	0,0	0,0	-60,9	AL	
	ME					0,2	0,1	0,1	0,1	0,4	ME	
	MK				0,5	0,5	0,4	0,3	0,2	-20,1	MK	
	RS					3,5	3,0	3,2	3,1	-5,0	RS	
	TR	5,50	5,00	7,9	9,8	11,3	11,6	10,2	11,4	12,2	TR	

Tab. 1: Performance of rail freight transport (billion tkm) in countries along the Rail Freight Corridor 7 and Western Balkans 1970–2016 / Source: European Commission, Mobility and Transport 2018; Data: Eurostat, International Transport Forum, Union Internationale des Chemins de Fer, national statistics

It can be seen that the transport performance on rail between 1970 and 1990 could not be equaled in the last 20 years, but has recovered since about the year 2000 on a lower level. It is conspicuous that – comparing the years 2000 and 2016 – in some countries smaller losses are registered, especially for Bulgaria, the Czech Republic, Romania and Slovakia. These countries are on the way to recovering the freight performance on rail, but cannot yet equal the level of the year 2000. In the same period Germany, Hungary, Austria, Slovenia and Turkey raised their rail freight performance continuously and now exceed the level of the year 2000 considerably. Hence on the rail freight sector the challenges concerning the improvement of the OEM Corridor arise out of the following situation: on the one hand the corridor upgrading has to utilize and stimulate the recovering and slowly growing rail freight volume of the region and on the other hand it has to prevent slumps in particular countries along the corridor.

Although the services of national and international freight transport were opened up to economic competition from 1 January 2007, elimination of 'barriers' between individual countries has not yet been achieved sufficiently. These barriers relate to border coordination, common investment plans concerning border stations and lines, compliance with terms of delivery, reliability, coordination between the terminals etc. (RFC 7 Orient Corridor 2016b: Book V, Annex 5: 9).

The schematic map (Fig. 2) of the OEM Rail Freight Corridor 7 document shows important 'interfaces' for rail freight activities along the corridor. It shows clearly that the number of border crossings and handover points could generate delays and other imponderables on the train flow.

In normal daily business, the trains run according to their timetable, and there is no need for coordination or communication between the Train Control Centers (TCCs) on the corridor. If there is any significant deviation from the timetable or in case of disruption regardless of the cause, communication and coordination between the related TCCs is necessary. The main tool to perform these tasks is the 'TCCCom', which is an internet-based multilingual communication application. The infrastructure managers of the freight corridor and the advisory group of the RFC set up Train Performance Management Coordination to ensure optimal coordination between the operation of the railway infrastructure and the customers (RFC 7 Orient Corridor 2016a: Book IV).

By means of the South East European Transport Observatory based in Belgrade, seven regional partners cooperate in the transport domain to prepare for accession to the EU. The platform COSMOS (Cooperative Solutions for Managing Optimized Services) deals with the market needs for improved cooperative intermodal freight services in southeast Europe (COSMOS 2018). These measures are important steps but only some of the tesserae necessary to enable the OEM core network corridor to meet the future demands of international and transcontinental rail freight flows.

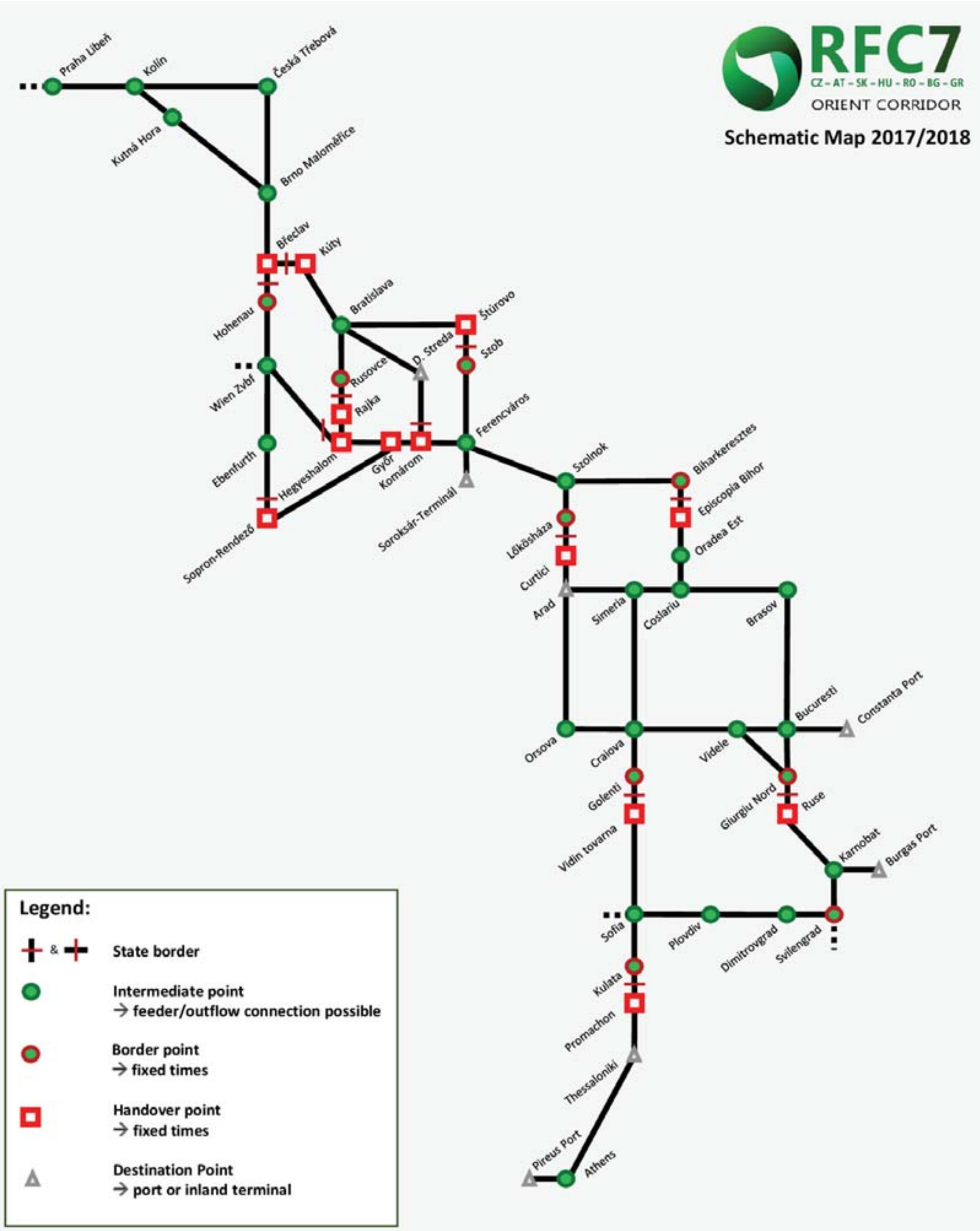

Fig. 2: Schematic map of 'interfaces' along the Orient/East-Med rail freight corridor (RFC 7) / Source: RFC 7 Orient Corridor 2016a: Book IV

4 TEN-T extension in the Western Balkans

On EU territory, the Commission has given its backing to a study to assess the need for a rail link between Budapest and Athens via Timisoara (RO)–Calafat (RO)–Vidin (BG)–Thessaloniki (GR). Currently this link is not fully operational and support is needed to develop the link to the necessary extent.

Fig. 3: Indicative extension of the TEN-T Comprehensive Rail Network for the Western Balkans region published in Regulation 2013/1315/EU / Source: Regulation 1315/2013/EU, Annex III

As an alternative, a shorter rail link between Budapest and Skopje–Athens on the territory of Serbia and the Republic of North Macedonia is included in the indicative maps of the TEN-T extension (Regulation 1315/2013/EU, Annex III). This document presents indicative extension maps to specific third countries inter alia for six states of the Western Balkans Region: Albania, Bosnia and Herzegovina, Republic of North Macedonia, Kosovo,[1] Montenegro and Serbia (Fig. 3). The rail connections in the document are considered as conventional rail links. They are not designated as links of the TEN- T core network but some of the links are on the way to becoming such. Nevertheless, the link between Budapest and Thessaloniki via Serbian territory could reduce the rail distance between Greece and Hungary by about 262 km (Endemann 2017).

In 2015, the European Commission adopted a Joint Statement of the Prime Ministers of the WB6, which contains a list of specified Core Network links and Priority Projects for the extension of the TEN-T network to the Western Balkans (European Commission 2015). Within the framework of the Connectivity Agenda during the Western Balkans Summit in Vienna 2015, the proposed alignment for the core network within the Western Balkans region was presented (Western Balkans Summit Vienna 2015). The addendum of the Final Declaration contains a list of links as 'pre-identified projects' (Western Balkans Summit Vienna 2015, Annex 1). It is remarkable that the rail link between Nis and Sofia via Dimitrovgrad is not included in the core network proposal for the OEM Corridor but is set as a pre-identified project on 'other sections on the core network'. In the final report of the Study on Orient/East-Med TEN-T Core Network Corridor, 2nd phase 2017 (European Commission 2017c), the proposed core rail network comprises the sections (Fig. 4):

> Budapest–Subotica–Beograd–Niš–Skopje–Gevgelija–Thessaloniki

> Stalać–Kraljevo–Prishtine/Priština–Skopje (Trubarevo)

> Beograd (Resnik)–Podgorica–Bar

In 2017, the EU-Western Balkans Transport Community Treaty (TCT) was signed and a common Transport Community of the EU and the WB6 was founded. The TCT's goal is to help WB6 countries integrate into the EU by creating closer transport ties or connections (Balkans Policy Research Group 2018: 10). For the Balkans, the TCT offers increased efficiency and competitiveness of transport and tourism, reduced travel time and costs, and increased attractiveness for investments. Its purpose in the transport sector is 1) the ongoing development of the TEN-T indicative extension, by developing a 5-year rolling work plan every 2 years; 2) to promote necessary studies and analyses; and 3) to put in place an information system (European Union 2017 and 2018; Niedermaier 2018).

1 This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

Fig. 4: Alignment of the OEM Corridor related to the Western Balkans core network (Rail) / Source: European Commission 2017c

5 Function of the Orient/East-Med Corridor for the New Silk Road

In relation to the transport connection between Europe and the central Asian countries, the Republic of China launched the 'Belt and Road Initiative' (BRI). Based on the ancient silk road it aims at enhancing overall connectivity between China and Europe by both building new and modernizing existing – overland as well as maritime – infrastructures (Barisitz/Radzyner 2017a: 8–10). The motivations and drivers of China's BRI initiative are mostly of an economic or geopolitical nature: improvement of transport links; reduction of trade costs; reutilization of domestic overcapacities; diversification of investments, markets and suppliers; development of peripheral domestic regions (e.g. Xinjiang); contribution to the internationalization of the renminbi-yuan; enhancement of security of access to strategic energy and resource supplies; hedging against possible trade wars, etc. (Barisitz/Radzyner 2017a: 27).

One strategic line of the initiative is – in addition to several Eurasia land corridors between China and Europe – the 21st Century Maritime Silk Road (MSR) as a complementary seaborne trading network going from China's coast to Europe, connecting China with Southeast Asia, South Asia, East Africa and the Mediterranean area. Accordingly, about 95% of EU trade with China and 80% of China's total exports were carried out on this maritime route in 2015 (Barisitz/Radzyner 2017a: 16). Geographically, southeast Europe (particularly Greece and the Western Balkans states) constitutes the final section of China's new Maritime Silk Road (MSR), reaching Europe via the Suez Canal and the port of Piraeus (Fig. 5).

The relevance of the Belt and Road Initiative for the OEM Corridor is set by Chinese investment in the sea port of Piraeus, where the Chinese shipping giant COSCO (China Ocean Shipping Group Company) Pacific holds a 35-year concession to upgrade and run two container cargo piers (Vasovic 2014) – as the first major European container port for ships entering the Mediterranean from the Suez Canal and the connected rail corridor leading from the port of Piraeus via Skopje (Republic of North Macedonia) and Belgrade (Serbia) to Budapest (Hungary). Ultimately under the BRI initiative, the rail upgrade helps the Chinese plan to turn Piraeus (Greece) into a regional hub for trade with central and eastern Europe. By actuating the port of Piraeus the transit time between Shanghai and Piraeus is about 22 days, which is 10 days shorter than the route between Shanghai and the northwest European ports of Rotterdam and Hamburg (Levitin 2016). In view of this cut in transit time, China has already announced its plans to buy into other sea ports such as Thessaloniki (Greece), or Bar (Montenegro) (Barisitz/Radzyner 2017b: 75).

In a roundabout way, the Piraeus development could possibly be seen as the beginning of developing Mediterranean ports as entrance ports for Asia–Europe sea trade routes in Europe. It can be assumed that more Hellenic and Adriatic ports, like for example Patras, Piraeus, Thessaloniki, Bar, Rijeka, Koper and Trieste, will become more important in comparison with the northern European ports of Rotterdam, Hamburg and Antwerp. In this context, the Hellenic and Adriatic ports could be able to relieve pressure on the seaports-hinterland network in central Europe. The example of Piraeus gives a first impression of the associated demands of a modified sea-port setting for the OEM Corridor. Nevertheless, a rerouting of hinterland connections on such a European dimension requires fully developed hinterland corridors. The seaports of Piraeus, Patras and Thessaloniki are considered part of the OEM core network corridor and the seaport of Bar in its proposed extension is in Western Balkan territory, but the ports of Rijeka, Koper and Trieste are not part of the OEM Corridor, although their feeder function of sea freight flows to central and eastern European countries could be similar.

Fig. 5: The 21st Century Maritime Silk Road (MSR)-Corridor (Mediterranean section: Suez-Canal-Piraeus-Belgrade-Budapest) of China's Belt and Road Initiative (BRI) / Source: Barisitz/Radzyner 2017b: 76; Original map from Google maps

Related to the hinterland corridor of the sea port of Piraeus but also intended to improve the transport exchanges between Hungary and the Western Balkan region, Hungary, Serbia, the Republic of North Macedonia and China signed an agreement on the modernization of the Budapest–Belgrade railroad in December 2014. The Belgrade–Budapest rail line is a 370-km modernization project implemented by Chinese companies with planned speeds of 200 km/h (CIP 2017). The project was proposed in early 2013, with an estimated cost of $2.9 billion, while the construction works started in 2017 for the first section of the line in Serbia (eKapija 2018). The project includes electrification of the existing rail to have both passenger and cargo train services. The project is expected to shorten travel time from both ends of the line from 8 hours to 2.5 hours. The railroad will be constructed with the financial and technical support of China (Hungary Today 2014).

Usually, projects like this, where the Republic of China is involved, are funded with loans from the state-owned Export-Import Bank of China (China EXIM Bank) that cover about 85% of the required capital, with the rest being financed by the local government or other local investors. Loans typically have a long maturity of about 20 years and low interest rates (at approximately 2%) (Barisitz/Radzyner 2017b: 76). Due to Chinese financing, it is understandable that management is also often in Chinese hands and construction work is frequently carried out by Chinese firms and their workers, sourcing Chinese equipment, which is not always appreciated by local project partners (Barisitz/Radzyner 2017a: 10).

However, the project is not seen as profitable, as it was estimated that at least 6 million passengers annually are needed for the two countries to repay the Chinese loan for the project, while the combined populations of Belgrade and Budapest is only 3.1 million, with fewer than 100,000 rail commuters in the regions yearly (B92 2015; People's Daily Online 2016; Vasovic 2014). Despite the questionable profitability, Serbia has reason to support this project. The new transport infrastructure can help its economic growth, in particular logistically. In this regard, Serbia is more inclined to downgrade the project to a less expensive, medium-speed one (Kratz/Pavlićević 2016).

In October 2016, a Chinese-Hungarian joint venture company was established to start construction work. But in February 2017 the European Commission started investigating whether the project for the construction of the high-speed railway in any way violated European laws concerning financial feasibility and public procurement (Forbes 2017; Global Times 2017). Nevertheless, from the Chinese point of view the project also provides a market for China's rail technology and rolling stock for high speed railways (Rogers 2016).

Another possible future influencing factor on the OEM Corridor could be the alignment of the central branch of the New Silk Road rail freight corridor through the central Asian countries Kazakhstan, Uzbekistan, Turkmenistan via the Caucasus countries and Turkey to Europe (Müller/Winter 2018: 3 and 7). The gateway interface to the OEM core network corridor is Edirne (TR)/Svilengrad (BG). From there the rail route via Sofia enables an already expanding rail freight exchange between Turkey and the central and eastern European countries. In this context it is remarkable that the rail link between Sofia (BG) and Nis (RS) via Dimitrovgrad (RS) is not designated as part of the TEN-T OEM related Western Balkans core network, though this rail link is in bad condition (operational speed is only 40 km/h). So, the rail route from Sofia via Romania to Hungary seems to be favored for these transport flows.

The northern branch of the New Silk Road rail link contacts the OEM Corridor in the node of Budapest. It is important to mention that in the node of Budapest branches of three New Silk Road corridors (north, central and southern course) converge. Related to an agreement by the Russian, the Slovakian and the Austrian railways for an extension of the Russian broad gauge from the Ukrainian/Slovakian border to the Vienna region by a particular broad-gauge rail passage the operative conjunction of the branches will be a challenge in adapting the OEM Corridor for freight distribution and feeder functions to/from Europe to Russia as well as to central and East Asia.

Another approach to improving the transport connection of Greece to the central and eastern European region is worth mentioning. In 2017 the transport ministers of Greece and Bulgaria signed a memorandum of understanding for a rail freight corridor between Thessaloniki (Greece) and the Danube port of Ruse (Bulgaria), connecting also the sea ports of Kavala and Alexandroupoli in Greece as well as the Black Sea ports Burgas and Varna in Bulgaria. The time frame for realization is aimed (optimistically) to within 10 years and investment costs are approximately 5 billion euros (Eisenbahn-Revue International 2017). The proposition for this project shows that the OEM Corridor is not limited to a few axes but needs to be conceived more broadly.

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