

## **Chapter 11.**

### **Transport policy and performance in South East Europe**

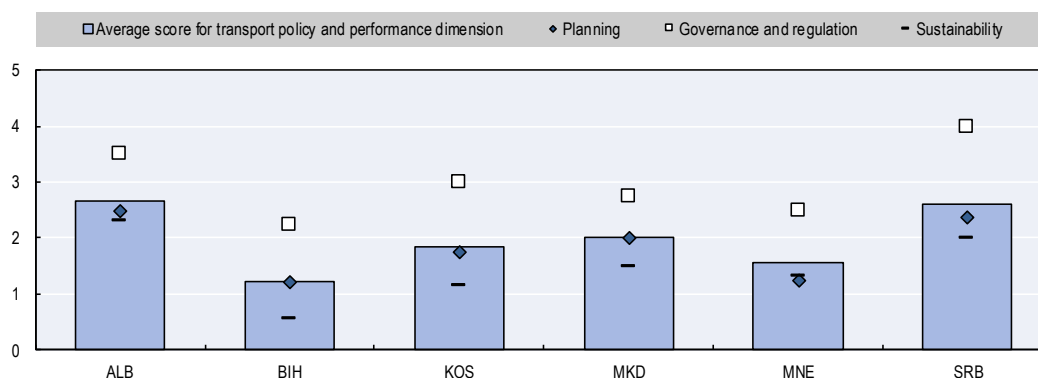
*This chapter on transport policy and performance assesses the policy settings, strategies, processes and institutions in six South East European economies. After a brief overview of transport competitiveness outcomes in South East Europe (SEE), including the economies' performance against various global indicators, this chapter then focuses on three essential sub-dimensions that contribute to overall transport performance. The first sub-dimension, planning, measures the extent to which an orderly, coherent, consistent and transparent process is in place for developing transport policy and infrastructure. The second, governance and regulation, determines how well transport infrastructure and networks are regulated and operated, with a focus on rail, aviation and roads. The final sub-dimension, sustainability, measures progress towards resource efficiency, environmental protection, reduction of health impacts and increased road safety. The chapter includes suggestions for enhancing policies in each of these sub-dimensions, in order to improve transport performance and in turn foster the competitiveness of these economies.*

## Main findings

Measuring the performance of transport in South East Europe (SEE) requires a multi-dimensional approach that encompasses planning, governance and sustainability. The SEE economies assessed in this report – Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Kosovo,\* Montenegro, and Serbia – have made some progress towards improving the competitiveness of transport systems in recent years. However, the results across the six economies for the three sub-dimensions are mixed, with average scores ranging between 1.2 and 2.7 (Figure 11.1).

In the planning sub-dimension, the SEE economies have made significant efforts to adopt national and sectoral strategies which help to align investment and maintenance spending with common long-term goals, but they have made slow progress on operational aspects such as procurement and asset management. Most of the progress has been made in the area of governance, thanks to wide-ranging legislative and regulatory efforts in recent years. On sustainability, the economies have made the most promising advances in road safety; additional efforts are needed to formulate and implement policies geared towards improving environmental and logistics performance.

Figure 11.1. Transport policy and performance: Dimension and sub-dimension average scores



Note: See the methodology chapter for information on the *Competitiveness Outlook* assessment and scoring process.

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### Comparison with the 2016 assessment

Transport scores between the *Competitiveness Outlook 2016* and 2018 are not directly comparable, as the 2018 assessment now uses the International Transport Forum (ITF) assessment framework, which is more advanced than the 2016 framework, and in some cases sets higher standards. Overall, the main improvements across the economies have been in wide-ranging regulatory reforms in rail and aviation. Moreover, the economies have approved national transport visions and road safety strategies since the 2016 assessment. The slowest progress has been in the fields of procurement, asset management and sustainability.

\* This designation is without prejudice to positions on status, and is in line with United Nations Security Council Resolution 1244/99 and the Advisory Opinion of the International Court of Justice on Kosovo's declaration of independence.

## *Achievements*

**The six SEE economies have developed long-term transport strategies and established high-level project selection processes.** The latter apply mainly to investment funded by the European Union (EU), and enable decision makers to have an overview of the infrastructure projects pipeline over time.

**Regulatory reforms of transport sectors have continued.** There has been substantial progress in introducing and updating legislation to improve the efficiency of the rail, aviation and road sectors, further promoting harmonisation with the EU *acquis*.

**Growing interest from private investors is leading to more transport projects considering alternative procurement methods.** There are examples of successful public-private partnerships (PPPs) in the aviation and maritime sectors and international consortia are increasingly involved in road and rail projects.

**Institutional mechanisms for road safety measures and their implementation have improved.** Co-ordinated efforts through national road safety councils and the implementation of stricter policies have led to road deaths falling across the SEE economies.

## *Remaining challenges and key recommendations*

- **Strengthen the effectiveness of both the new transport strategies and the project selection processes.** Many of the economies' strategies currently lack monitoring and implementation plans. A number of large-scale projects fall outside the scrutiny of formal prioritisation processes and have gone ahead despite the lack of public evidence on costs and benefits.
- **Complete transport market reforms.** Although progress has been made, the assessed economies still need to make final yet important harmonisation efforts, such as reforms to open rail markets and airspace management plans. Implementing the large body of legislation and regulations needed will also be a significant challenge for newly formed and at times understaffed authorities and government departments.
- **Address the drivers of logistics performance, a key enabler of trade competitiveness, in a co-ordinated way.** The SEE economies need to enhance their public policy efforts to reduce logistics costs and make freight movements faster and smoother across the region, at both national and international levels.
- **Make the resilience of key transport infrastructure assets a policy priority.** The lack of systematic asset management plans and related maintenance budgets could lead to key assets deteriorating over time. This risk is heightened by growing pressure on existing infrastructure from economic growth and from the impact of climate change.
- **Integrate key aspects of sustainability, such as environmental quality, into transport strategies.** Existing strategies often fail to encompass key aspects of sustainability. The lack of co-ordination between infrastructure investment, regulatory regimes and sustainability goals results in high environmental costs.

## Context

The performance of transport infrastructure and markets can play a critical role in improving the competitiveness of the SEE economies. Theoretical and empirical studies have underscored the positive relationship between high-quality infrastructure and economy-wide productivity (IMF, 2015). This relationship is underpinned by a number of mechanisms triggered by improvements in performance for both passenger and freight transport, including the following:

- Good passenger transport connectivity enhances the productive capacity of the economy by improving the functioning of labour markets and facilitating specialisation (Graham, 2014).
- Well-functioning logistics systems facilitate trade by lowering the cost of access to international markets and improving the competitiveness of domestic firms (Arvis et al., 2014).
- High-quality transport infrastructure underpins both the success of firms operating in international markets and an economy's attractiveness to foreign investors (Yeaple and Golub, 2007).

Analysis of transport policy and performance in SEE reveals significant links with other policy areas. Therefore, this chapter builds on information presented in the following chapters:

- **Chapter 1. Investment policy and promotion**, as investment (including in transport infrastructure) is central to economic growth through its contribution to the capital stock and improved access to international markets. The quality of transport infrastructure affects an economy's investment attractiveness and can also determine the destination for foreign direct investment. Since financial resources are limited, policy makers are increasingly interested in the productivity effect of transport investments and cost-benefit analyses take into account the wider economic impacts of transport investments (Melo et al., 2013).
- **Chapter 2. Trade policy and facilitation**, as the transport sector is a key factor in determining the volumes and the direction of trade, while trade policies and facilitation are key factors in the decisions about investment in transport infrastructure. Policy makers should understand how trade will evolve in the future in order to ensure adequate and timely investment in transport infrastructure (ITF, 2016a). Transport logistics can boost trade performance by making the delivery of goods easier, faster and safer. Manufacturing, agriculture and sectors with high export intensity depend on being able to ship goods to consumers quickly, cost-effectively and reliably.
- **Chapter 10. Digital society**: while digitalisation has facilitated supplying services over distance – including across borders – being able to physically deliver goods and services largely depends on physical connectivity, including transport networks, transport service markets, and intermodal connections (OECD/WTO, 2017). Information and communications technology (ICT) can offer solutions to managing the increasing complexity of supply chains, as well as reducing costs and administrative procedures (Arvis et al., 2014);
- **Chapter 13. Environmental Policy**, as the transport sector can play a critical role in reducing emissions across the region and should be a major component of any sustainability strategy. Older vehicle fleets and an inefficient use of fuels lead

to higher levels of pollution, thus increasing the costs to both society and the environment. However, emissions from transport could be reduced by adequate transport policies, e.g. by more stringent regulations on fuel and car models. Simulations for the city of Lisbon show that the introduction of a system of shared mobility could reduce traffic emissions by one-third (ITF, 2016b).

### ***Transport policy and performance assessment framework***

Measuring the policy and performance of transport in SEE requires a multi-faceted approach looking at three key sub-dimensions, each of which is linked to different aspects of competitiveness:

1. Planning: are transport policy objectives clearly stated in a coherent vision? Is this vision supported by appropriate project selection, procurement and asset management strategies?
2. Governance and regulation: are stable and transparent regulatory measures in place in order to facilitate and attract investment and the operation of transport systems safely and efficiently? Is harmonisation with the EU *acquis* progressing?
3. Sustainability: as transport activities generate a range of external costs, are SEE economies building resilience and long-term competitiveness as central policy objectives? To what extent are public policies promoting and monitoring progress in this field?

The transport policy and performance assessment framework is presented in Figure 11.2. Each sub-dimension is assessed using both qualitative and quantitative information. Quantitative indicators are based on national or international statistics. Qualitative indicators have been collected from local stakeholders using a questionnaire and, following deliberation, scored in ascending order on a scale of 0 to 5. The results are summarised in Annex 11.A1.<sup>1</sup> On this scale, level 5 represents in most cases an ideal scenario, which is rarely attained by ITF member countries. It thus provides ambitious targets for the SEE economies. For more details on the methodology underpinning this assessment please refer to the methodology chapter.

The framework captures numerous aspects of transport performance; it has been developed based on international good practice and inputs from ITF and sectoral experts. Nonetheless it was not possible to assess all aspects of competitiveness; issues such as urban and waterborne transport could be included in the next review.

### ***Transport policy and performance in SEE economies***

This section sets the scene by giving an overview of the six economies' outcome indicators for transport performance (drawing on the Logistics Performance Index, the Global Competitiveness Index and DHL Global Connectedness Index; Figure 11.2). Measuring and analysing outcomes of transport policy and performance means moving beyond a narrow focus on specific sectors at the national level, for two main reasons. First, although each part of the national transport network contributes to economic development, the benefits of transport systems as a whole are greater than the sum of their parts. Second, combined regional efforts in infrastructure investment and administrative reforms can lead to greater improvements than economies acting on their own.

Figure 11.2. Transport policy and performance assessment framework

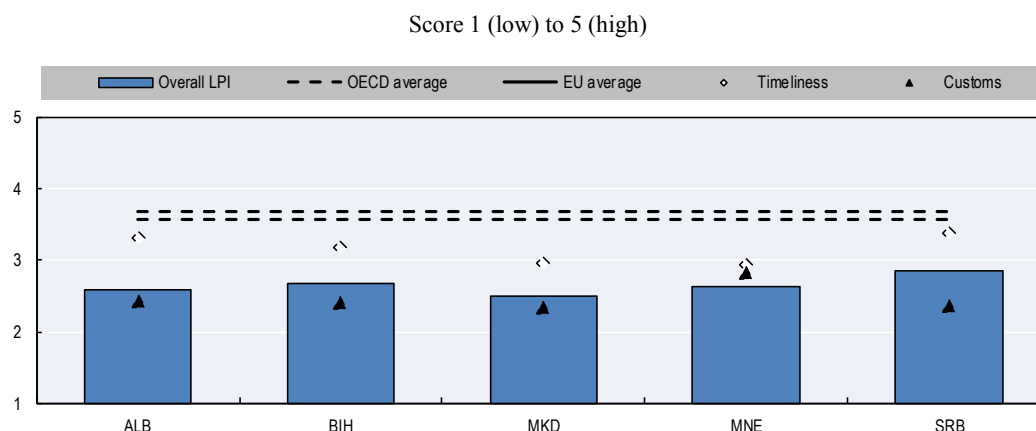
Transport policy and performance dimension		
<b>Outcome indicators</b> <ul style="list-style-type: none"> <li>Logistics Performance Index (timeliness and customs)</li> <li>Global Competitiveness Index</li> <li>Availability and use of ICTs (score 1-7)</li> <li>DHL Connectedness Index</li> </ul>		
Sub-dimension 1 Planning	Sub-dimension 2 Governance and regulation	Sub-dimension 3 Sustainability
<b>Qualitative indicators</b> <ul style="list-style-type: none"> <li>15. Transport vision</li> <li>16. Transport project selection</li> <li>17. Implementation and procurement</li> <li>18. Asset management</li> </ul>	<b>Qualitative indicators</b> <ul style="list-style-type: none"> <li>19. Rail regulation</li> <li>20. Aviation regulation</li> <li>21. Road market regulation</li> </ul>	<b>Qualitative indicators</b> <ul style="list-style-type: none"> <li>22. Road safety strategy</li> <li>23. Environmental sustainability strategy</li> <li>24. Logistics strategy</li> </ul>
<b>Quantitative indicators</b> <ul style="list-style-type: none"> <li>13. Road freight transport volumes</li> <li>14. Number of private concessions or PPPs in the transport sector</li> <li>15. Historical road transport infrastructure investment</li> <li>16. Historical rail transport infrastructure investment</li> <li>17. Historical road transport infrastructure maintenance</li> <li>18. Historical rail transport infrastructure maintenance</li> <li>19. Total value of planned investment for the next budget period(s)</li> <li>20. Total value of planned maintenance for the next budget period(s)</li> </ul>	<b>Quantitative indicators</b> <ul style="list-style-type: none"> <li>21. Rail network utilisation</li> <li>22. Modal share of rail freight transport</li> <li>23. Average age of private motorised vehicles</li> </ul>	<b>Quantitative indicators</b> <ul style="list-style-type: none"> <li>24. Number of road fatalities</li> <li>25. Transport-related greenhouse gas emissions</li> <li>26. Mean population exposure to PM<sub>2.5</sub></li> </ul>

The World Bank's Logistics Performance Index (LPI) is a multi-dimensional assessment and international benchmarking tool focused on trade facilitation (World Bank, 2017a). The LPI is based on surveys of port operators, shippers and freight forwarders, producing a composite index that reflects their responses to the questionnaire. The LPI is oriented towards assessing the transport of manufactured goods rather than bulk commodities, and it is more applicable to higher-value goods. It is most useful when employed in conjunction with an in-depth assessment of trade and transport performance, and it has been used successfully in several countries to instigate discussions of the drivers of logistics performance and the areas where barriers hinder performance (for example, see ITF/OECD, 2016)

The five SEE economies for which data are available perform below both the OECD and the EU averages (Figure 11.3). Over the period 2014-16, their LPI scores averaged between 2.5 and 3.0, with Serbia receiving a marginally higher score than its neighbours. Two components of the LPI, chosen for, among other things, their importance in determining logistics performance, reveal some of the key areas for improvement. The economies perform worst on customs procedures, reflecting the large number of administrative procedures for shippers, and negatively affecting export and import performance. Delays and unexpected costs are perceived as slightly less problematic;

Albania, Bosnia and Herzegovina, and Serbia score over 3 for timeliness of clearance and delivery. Reliability is a key factor for encouraging leading firms in global value chains to invest in the region, so the economies will need to make further improvements in logistics performance to enhance their competitiveness.

Figure 11.3. **Logistics Performance Index (average 2014-16)**



Note: For Albania the average covers 2012-16. Data for Kosovo not available.

Source: World Bank (2017a), *Logistics Performance Index Dataset* (database), <http://lpi.worldbank.org>.

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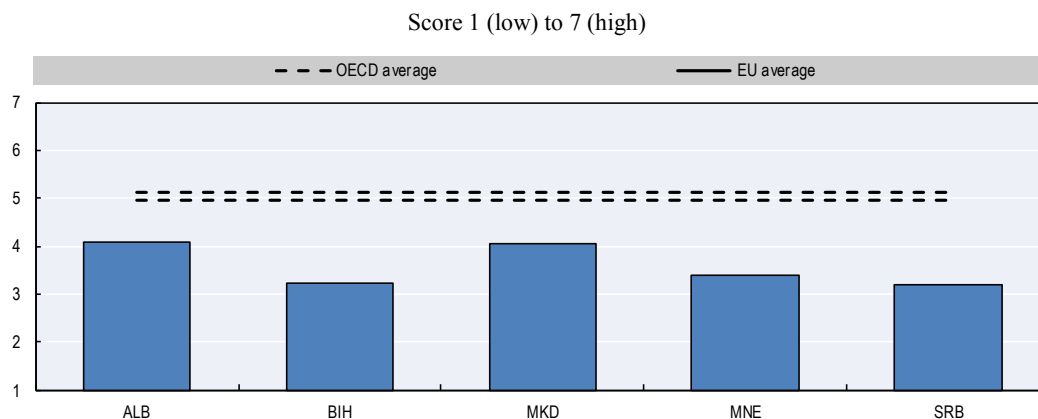
Like the LPI, the Global Competitiveness Index (GCI) of the World Economic Forum measures perceptions rather than physical availability or performance (WEF, 2017). The GCI draws on unique data from the Executive Opinion Survey, which surveys top business executives in all the countries covered by the index. Figure 11.4 shows the most recent scores for the 5 participating SEE economies in the infrastructure domain, the most relevant of the 12 pillars of competitiveness covered by the index. Albania and the Former Yugoslav Republic of Macedonia receive the highest scores, although these are still below both OECD and EU averages. In contrast with the LPI, Serbia received the lowest scores in the GCI among the SEE economies taking part.

However, Serbia is the top performer in areas such as the availability and use of information and communications technology (ICT) (Figure 11.5).<sup>2</sup> ICT can provide solutions to managing the growing complexity of supply chains, as well as reducing costs and administrative procedures (Arvis et al., 2014). Average scores in the SEE economies for this indicator have increased from 3.4 in 2010 to 4.7 in 2016, and are converging with the top scorers for this measure. This offers encouraging prospects for the removal of non-physical barriers to infrastructure, which are in many cases a key pillar of their recently approved national transport strategies.

In addition to indicators such as the LPI and the GCI, the DHL Global Connectedness Index is an output indicator which assesses the integration of economies in global trade flows (DHL, 2016). The DHL Index identifies four specific categories of flows: 1) trade flows (products and services); 2) investment flows (capital); 3) information flows; and 4) people flows. “Depth” refers to the size of an economy’s international flows compared to a relevant measure of the size of its domestic economy. It reflects how important or pervasive interactions with the rest of the world are. “Breadth” measures how closely an economy’s distribution of international flows with its partner economies matches the

global distribution of the same flows in the opposite direction.<sup>3</sup> The five SEE economies covered by the index fare well for their economic internationalisation (depth) but, given their small size, less so for trade diversification (breadth) (Figure 11.6).

Figure 11.4. **Global Competitiveness Index: Quality of overall infrastructure (2016-17)**

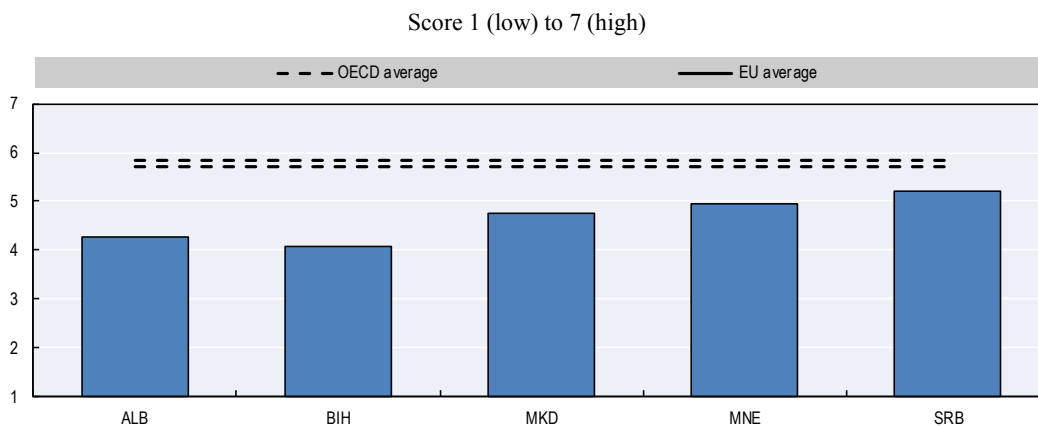


Note: Data for Kosovo not available.

Source: WEF (2017), *Global Competitiveness Index Dataset* (database), <http://reports.weforum.org/global-competitiveness-index>.

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Figure 11.5. **Availability and use of information and communications technology (2016)**



Note: Data for Kosovo not available.

Source: WEF (2016), *The Global Enabling Trade Report 2016*, <http://reports.weforum.org/global-enabling-trade-report-2016>.

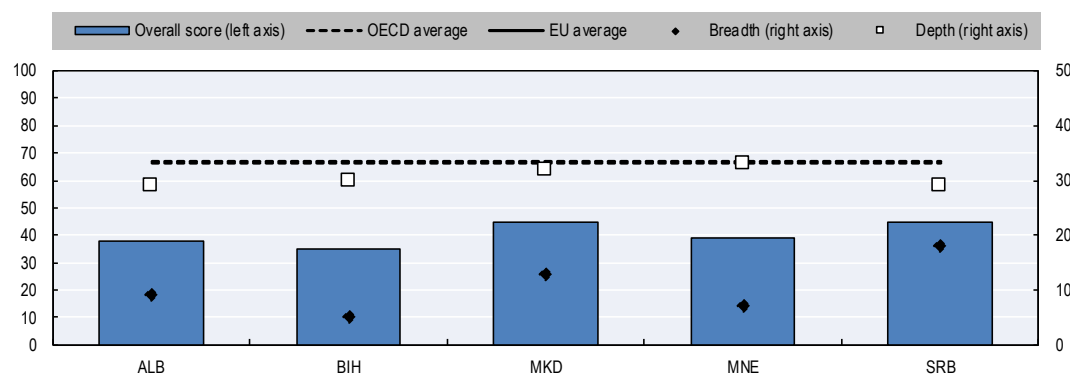
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The multi-dimensional approach to assessing competitiveness through outcome indicators provides a mixed picture. The top performers are different for each specific aspect of competitiveness, but the performance gap between the SEE economies and OECD/EU averages persists.



Figure 11.6. DHL Connectedness Index (2015)

Score 0 (low) to 100 (high) for overall score, score 0 (low) to 50 (high) for breadth and depth



Note: Data for Kosovo not available.

Source: DHL (2016), *Global Connectedness Index 2016: The State of Globalization in an Age of Ambiguity*, [www.dhl.com/en/about\\_us/logistics\\_insights/studies\\_research/global\\_connectedness\\_index/global\\_connectedness\\_index.html#.VFff5MkpXuM](http://www.dhl.com/en/about_us/logistics_insights/studies_research/global_connectedness_index/global_connectedness_index.html#.VFff5MkpXuM).

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Outcome indicators suffer from year-on-year variations that depend on external factors (e.g. strikes, weather) as well as infrastructure quality and regulatory changes. In order to fully assess transport competitiveness, these indicators need to be used in conjunction with an analysis of what determines competitiveness across all transport sectors. The next sections provide this analysis.

## Planning

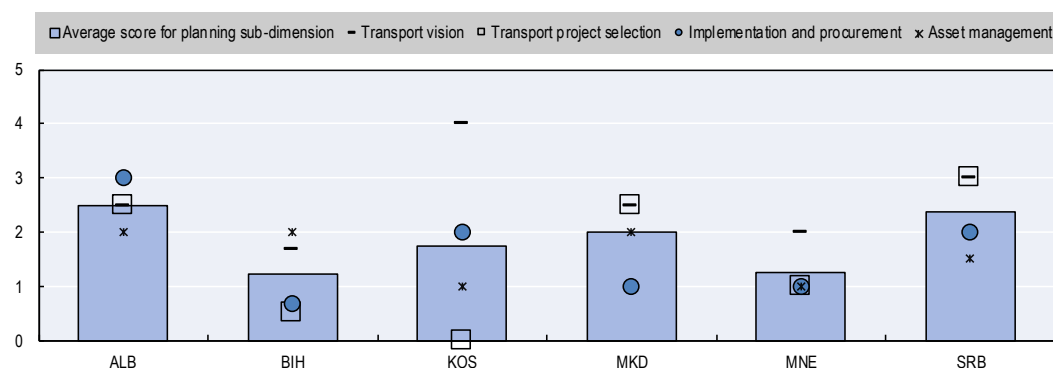
Good planning is essential for ensuring that transport spending, including investment and maintenance, contributes to achieving national goals. Without a clear and transparent process for identifying, prioritising and delivering projects, the SEE economies risk implementing projects that do not provide good value for money from the limited funds available and may jeopardise future investment by institutional and private investors (ITF, 2011a). Regular maintenance, enshrined in asset management plans and budgetary commitments, is essential for protecting the resilience of key networks against the threats of deterioration and structural damage (ITF, 2016c).

The planning sub-dimension measures the extent to which an orderly, coherent, consistent and transparent process is in place for developing transport policy and infrastructure. It does so through four qualitative indicators: 1) transport vision, as expressed in transport strategies; 2) transport project selection, through any project prioritisation frameworks; 3) implementation and procurement; and 4) asset management (Figure 11.7).

The six SEE economies are most advanced in developing their national transport visions and strategies, and establishing high-level processes for project selection, at least for projects co-financed by the EU. However, substantial differences exist between the economies. Albania, Kosovo and Serbia score over 2.5 for transport vision, having adopted and implemented transport strategies, whereas project selection processes are most advanced in Albania, the Former Yugoslav Republic of Macedonia and Serbia. Scores for asset management range between 0 and 2. These are the result of a rapidly changing

environment, as most economies have only recently adopted key documents in the area of planning. The two indicators with the lowest scores are those that typically follow the approval of a strategy, namely implementation and procurement, and asset management.

Figure 11.7. **Planning: Sub-dimension average score and indicator scores**



Note: See the methodology chapter for information on the *Competitiveness Outlook* assessment and scoring process.

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### *The SEE economies have recently developed new transport strategies*

Economies need a clear and coherent transport vision – i.e. a planning framework at the national level to ensure that the transport sector contributes to the overall vision and ultimately the aspirations of each economy. Each part of the national transport network contributes to economic development, but the benefits of transport systems as a whole are greater than the sum of their parts. Therefore the best strategies focus on intermodal interfaces (road-rail, road-port and rail-port) within a network-wide planning approach with horizontal co-ordination across planning bodies.

All six SEE economies have recently adopted their national transport strategies in an effort to align with international standards (Table 11.1). At the time of writing, the Former Yugoslav Republic of Macedonia and Serbia were completing the final updates to their strategies and Albania has carried out a sustainability impact assessment of its new strategy.

Table 11.1. **Current transport strategies in the SEE economies**

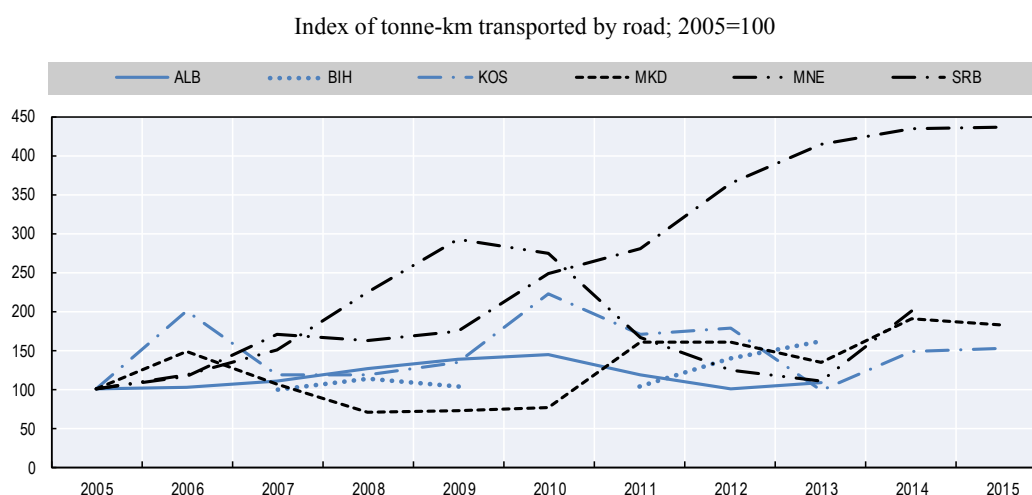
Current transport strategies		Period covered by strategy
ALB	National Transport Strategy	2016-20
BIH	Framework Transport Strategy	2016-30
KOS	Sectorial Strategy and Multimodal Transport	2015-25
MKD	National Transport Strategy (draft)	2017-30
MNE	Transport Development Strategy	2008
SRB	Transport Strategy (draft) <sup>1</sup>	2016-25

Note: <sup>1</sup> Serbia adopted the Plan for the Development of Rail, Road, IWW, Air and Intermodal Transport in the Republic of Serbia for the period 2015-20.

It is too early to evaluate the impact and hence the effectiveness of any of these strategies in the region. Our analysis shows that all of the strategies have a common focus on removing network bottlenecks such as road congestion and barriers to international transport, harmonising legislation with EU standards, and attracting investment from both

foreign and institutional investors. In light of growing transport volumes, especially on roads (Figure 11.8), removing bottlenecks will be critical to enhancing competitiveness. Harmonising regulations to meet EU standards will also ensure greater integration of the SEE economies into the Single European Transport Area.

Figure 11.8. Evolution of road freight transport volumes (2005-15)



Note: Reference year for Bosnia and Herzegovina is 2007. SEE statistical offices and ministries provided economy-specific data as part of the *Competitiveness Outlook* assessment conducted in 2016-17.

Source: OECD (2017a), "Transport measurement: Freight transport", *Transport* (database) [http://stats.oecd.org/Index.aspx?DataSetCode=ITF\\_GOODS\\_TRANSPORT](http://stats.oecd.org/Index.aspx?DataSetCode=ITF_GOODS_TRANSPORT); Kosovo Ministry of Infrastructure.

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Kosovo's strategy, developed with support from the EU and the South East Europe Transport Observatory (SEETO), is a good example of a multi-modal approach to transport planning. It identifies strategic and operational objectives and measures to address them, and has a series of progress indicators for monitoring and evaluation. At the other end of the spectrum, Montenegro has an older strategy which is still in place but its impact has been limited due to its lack of specific targets and the paucity of data to monitor and assess measures.

While most of the recently approved strategies aim to attract investment in transport infrastructure, with the exception of Albania's, none of them explicitly outline how projects will be selected and prioritised, nor procured. Albania not only requires the economic benefits of projects to be identified, but they also need to be linked to the overall transport vision and meet national objectives.

### ***High-level project prioritisation frameworks have been established***

The transport project selection indicator measures the extent to which transport projects are proposed and assessed consistently, realistically and rigorously. On average, the six SEE economies achieve a score of 1.6 for this indicator, ranging from 0 for Kosovo to 3 for Serbia (Figure 11.7). Kosovo's low score for project selection reflects its lack of implementation despite having adopted a formal framework (as confirmed by IMF, 2016). The first step in the process of selecting viable projects is to generate a range of options to address the problems or needs identified. A consistent framework should

then include a clear methodology for decision making, such as socio-economic analysis resulting in a cost-benefit analysis (CBA). In addition to identifying their economic benefits, policy makers should ensure that projects are linked to the overall transport vision and that they fulfil national objectives. Once the project is implemented, the assessment cycle should then involve monitoring and evaluation to ensure that the expected outcomes were achieved.

In the context of the Western Balkans Investment Framework, all six SEE economies have recently established a high-level project selection process, as promoted by the European Commission and SEETO (EC, 2015). This has involved the creation of a National Investment Committee (NIC) in each SEE economy, responsible for defining and managing the prioritised single project pipelines (SPPs) and for programming all available financing sources. Projects are prioritised based on their technical and financial maturity, their alignment with national transport and connectivity agendas, and their adherence to EU standards.

The adoption of this high-level process for project selection has both positive and negative aspects. On the one hand, it promotes a coherent approach to investment planning, including across sectors, since it means in most economies transport projects are assessed alongside energy and environmental projects. The SPP also fosters co-operation across levels of governments both horizontally and vertically. For instance, representatives of all sub-national entities sit on the NIC of Bosnia and Herzegovina.<sup>4</sup> Thirdly, by making the criteria for investment prioritisation publicly available, they are a step towards greater transparency.

These new prioritisation frameworks still have limitations which reduce their effectiveness, however. First, the framework only covers projects that are co-financed by the EU and related agencies. At the moment, co-financing is prevalent and a large number of projects are included in the SPP. However, as project financing is further diversified, infrastructure projects with large impacts on transport networks could be excluded from the SPP and go ahead without formal NIC approval. A notable example is the construction of the Bar-Boljare motorway by a Chinese consortium in Montenegro, which falls outside national prioritisation frameworks.

The second limitation relates to criteria for assessing projects. Currently most transport investment projects are not widely subject to CBA and their relative value for money compared to other options is not taken into account, although Serbia has approved a CBA guideline to be applied to road transport infrastructure projects. Good CBAs should be underpinned by simulations for the transport sector which also model other projects and a do-nothing scenario (see Box 11.1 for an example from the United Kingdom). There are some cases where CBAs have been used, which show how valuable such modelling can be. In the Former Yugoslav Republic of Macedonia, for example, a detailed CBA of proposed upgrades to the rail network (for a total of 56 km of track) revealed that it was not advisable to increase the maximum speed for freight trains to 120 km/h, so an upgrade to support a maximum speed of 100 km/h was sufficient to generate the expected economic benefits at lower cost.

### ***Successful implementation requires complementary efforts in procurement and asset management***

Following coherent planning and systematic prioritisation, it is crucial for the SEE economies to have a rigorous process for the **implementation and procurement** of transport projects in order to meet planned outcomes and spend funds efficiently. The

most advanced processes for implementation consider a variety of procurement methods and tailor how they procure a project to its characteristics and financial considerations.

On average, the six SEE economies achieve a score of 1.6 for the implementation and procurement indicator, ranging from a score of 0.7 for Bosnia and Herzegovina to a score of 3 for Albania (Figure 11.7). Although the SEE economies have not adopted integrated policy frameworks for the procurement of transport infrastructure projects, they have all approved national public procurement laws. These cover transport projects that are funded at least in part by the government. However, the SEE economies do not systematically follow dedicated guidelines for the procurement of large transport projects, despite efforts to attract private investors to the region and to accelerate infrastructure investment.

Public-private partnerships (PPPs) are a potential avenue for delivering infrastructure more efficiently than traditional public procurement and to relieve public budgets (ITF, 2017). However, the SEE economies have had mixed experience with PPPs; successful bidders have been able to deliver on time and within budget in port and airport projects, but tenders for road projects have often failed. For example, during the first attempt to tender out the Milot-Morine motorway in Albania, projections of capital expenditure exceeded the bidder's estimates. In the Bar-Boljare motorway in Montenegro, the winning consortium failed to secure finance amidst global financial turmoil. These examples confirm that PPPs are not always the most efficient investment vehicle for road investment, depending on both the project characteristics and financial market conditions. Even if it is not possible to definitively state the conditions under which PPPs are recommended, recent studies show that attracting successful PPP investment in infrastructure is highly sensitive to governance issues, such as freedom from corruption, the rule of law, high-quality regulations and low numbers of disputes in the sector (ITF, 2017).

As Table 11.2 shows, Albania has the most active transport PPPs among the assessed economies. This will be further facilitated by a recently updated legal framework (Parliament's Amendments to Law 125/2013 on Procurement) giving further powers to grant concessions and PPPs to the existing PPP Unit in central government. Serbia recently approved a five-year action roll-out plan as part of the EU Twinning Project on strengthening administrative capacity, which should also result in improved procurement processes as concessions are tendered, starting with Belgrade Airport.

Table 11.2. **Active public-private partnerships by transport sector**

	PPPs
ALB	Ongoing: 1 in road, 1 in rail, 4 in maritime, 1 in aviation
BIH	In preparation: 1 in road
KOS	Ongoing: 1 in aviation
MKD	Ongoing: 1 in aviation
MNE	Ongoing: 2 in maritime Under consideration: 1 in aviation
SRB	In preparation: 1 in aviation

*Note:* PPP – public-private partnership. Active PPPs refers to concessions that have reached financial closure as of May 2017. SEE statistical offices and ministries provided economy-specific data as part of the *Competitiveness Outlook* assessment conducted in 2016-17.

A specific issue is the number of large transport projects in the SEE economies which fall outside rigorous procurement processes and are covered by special laws approved by parliaments. Unsurprisingly, these often are not thoroughly assessed at the project

selection stage. Examples include the aforementioned motorway in Montenegro, the Skopje-Stip and Kicevo-Ohrid motorways in the Former Yugoslav Republic of Macedonia and the R7 motorway in Kosovo. Projects that are not fully scrutinised may encounter a number of obstacles such as partial implementation, unclear monitoring responsibility among government bodies and corruption.

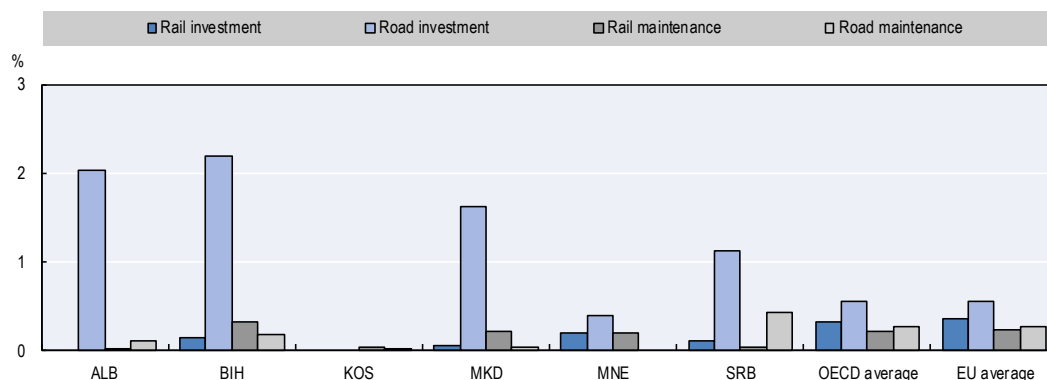
Introducing an **asset management plan** for road and rail network management with explicit links to strategic budgets is essential (Crist et al., 2013). Future budgets should clearly take into account the future needs and vulnerabilities of the road and rail network, and trade-offs with other priorities. If budgets are not fixed in advance then when resources are tight funding for maintenance is often postponed, but deferred maintenance makes transport assets and networks more vulnerable to local or systemic disruptions. In contrast, good plans should aim to optimise the service delivered by infrastructure over its life cycle at an acceptable cost.

The SEE economies are only partially implementing asset management plans. On average, the six economies achieve a score of 1.6 for this indicator, ranging from a score of 2 for Albania, Bosnia and Herzegovina and the Former Yugoslav Republic of Macedonia to a score of 1 for Montenegro (Figure 11.7). Figure 11.9 illustrates the level of investment and maintenance spending for road and rail networks over a three-year period in the SEE economies, showing that road investment has received the largest share of funding. Levels of investment in Albania and Bosnia and Herzegovina have been particularly high in recent years, at around 2% of gross domestic product (GDP). Stakeholder interviews during the assessment process confirmed that the road budget is also significantly higher than the rail budget in Kosovo. This reflects major road building and rehabilitation programmes being completed across the region. Investment in rail is considerably lower than in roads, and also smaller than OECD and EU averages. Between 2013 and 2015, the SEE economies spent on average between 0.01% (Albania) and 0.32% (Bosnia and Herzegovina) of GDP on rail maintenance, while they spent between 0.02% (Kosovo) and 0.43% (Serbia) of GDP on road maintenance over the same period (Figure 11.9).

Sectoral asset management plans are the exception rather than the norm. The economies with the most advanced plans (Serbia and Albania for the road sector and the Former Yugoslav Republic of Macedonia for the rail sector) have been collecting some performance data on a regular basis and have earmarked maintenance budgets until 2019 (Albania and Serbia for both road and rail, the Federation of Bosnia and Herzegovina for road, and the Former Yugoslav Republic of Macedonia for rail) to address the needs identified. They also link asset management to procurement. Best-in-class procurement should incorporate future maintenance and renewal needs in concession agreements. New airport PPPs across the region represent examples of good practice in this field, linking maintenance and investment budgets to service levels.

Figure 11.9. **Rail and road transport infrastructure investment and maintenance (average 2013-15)**

Spending as % of GDP



*Note:* Road investment data for Kosovo and road maintenance data for Montenegro were not available. Major rail investment in Albania is due to start in 2017. SEE statistical offices and ministries provided economy-specific data as part of the *Competitiveness Outlook* assessment conducted in 2016-17.

*Source:* SEE statistical offices and ministries; OECD (2017b), “Transport infrastructure: Transport infrastructure investment and maintenance spending”, [http://stats.oecd.org/Index.aspx?DataSetCode=ITF\\_INV-MTN\\_DATA](http://stats.oecd.org/Index.aspx?DataSetCode=ITF_INV-MTN_DATA).

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### *The way forward for transport planning*

Looking ahead, the SEE economies should consider the following potential improvements to their transport planning framework.

All six SEE economies should **monitor the implementation of their recently approved transport strategies**. This requires establishing progress indicators and collecting data at regular intervals to assess progress. Bosnia and Herzegovina, and Montenegro might want to step up their efforts in this field. The economies will then need to update their strategies based on the results of their monitoring activities.

**Frameworks for project selection and prioritisation, as well as comprehensive procurement guidelines, could be extended to all large transport infrastructure projects**, especially to road building programmes in Kosovo, the Former Yugoslav Republic of Macedonia and Montenegro. In addition to feasibility and alignment with policies, a key criterion for prioritisation is value for money. This is best assessed through CBAs, the customary decision-making tool in many ITF/OECD economies (see Box 11.1 for an example of using CBAs in the United Kingdom).

As private investment in the transport sector continues to increase, **independent authorities such as national audit offices could be given further oversight roles in the procurement and monitoring of PPPs**. Lessons learnt from existing PPPs should be incorporated when procurement frameworks are updated, especially where a larger evidence base exists, as in Albania.

**All of the economies could consider introducing compulsory asset management plans** – the success or failure of existing plans currently depends upon the good will of individual agencies and/or government departments. Plans should be linked to earmarked

budgets and be monitored through performance indicators; concerns about maintenance budgets were raised, in particular in Kosovo and the Republika Srpska.

**The SEE economies could enhance co-operation in order to have a common approach to transport planning.** Across all aspects of transport planning, international co-operation will be critical. Such co-operation could encompass the improvement of data collection and analysis as well as the exchange of good practice. Organisations such as the ITF and SEETO aim to offer a platform for such collaboration.

#### Box 11.1. Good practice: Transport project appraisal in the United Kingdom

Infrastructure projects requiring public approval need to undergo a cost-benefit analysis (CBA) test, as part of the established process of socio-economic appraisal of transport investment in the United Kingdom. The UK government provides detailed guidance for project managers and funders, outlining the phases of each assessment: option development, linking proposed projects to desired national/local outcomes; appraisal of sifted options, using CBA to estimate the likely impact of each option; implementation, developing a business case for the preferred option; and monitoring and evaluation, ensuring that the expected cost and benefits materialise.

CBA is a key component of this process. It is important for the CBA to build on inputs from transport models and forecasts – i.e. a reliable evidence base. CBAs should be based on a set of standard values which are either provided by the government or estimated at the local level. Costs and benefits need to be estimated over the life of the project and discounted to an equivalent present value using finance ministry rules. The results need to be presented in suitable form to decision makers, the public and other stakeholders to inform public consultations and debate.

According to the key principles to be followed in the United Kingdom, the appraisal process should include

- a clear rationale for any proposal which must be based on a clear presentation of the problems and challenges that establish the “need” for a project
- consideration of genuine alternatives across networks and modes, not just an assessment of a previously selected option against some clearly inferior alternatives
- a documented process which identifies the best-performing options to be taken forward for further appraisal
- an appropriate level of public and stakeholder participation and engagement during the process.

The transport appraisal process in the United Kingdom is an example of international good practice for establishing a rigorous system of project assessment and prioritisation. Crucially, the process has evolved over time. Starting from a narrow model which traded time and operating costs against capital and maintenance costs, the appraisal process has progressively developed to incorporate wider economic benefits, behavioural responses and environmental externalities linked to transport infrastructure.

*Source:* Adapted from MacKie (2010), “Cost-benefit analysis in transport: A UK perspective”, <http://dx.doi.org/10.1787/5km4q8j8m2f6-en>; Department for Transport (2014), *TAG UNIT A1.1: Cost-Benefit Analysis*, [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/427086/TAG\\_Unit\\_A1.1 - Cost Benefit Analysis November2014.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/427086/TAG_Unit_A1.1_-_Cost_Benefit_Analysis_November2014.pdf).

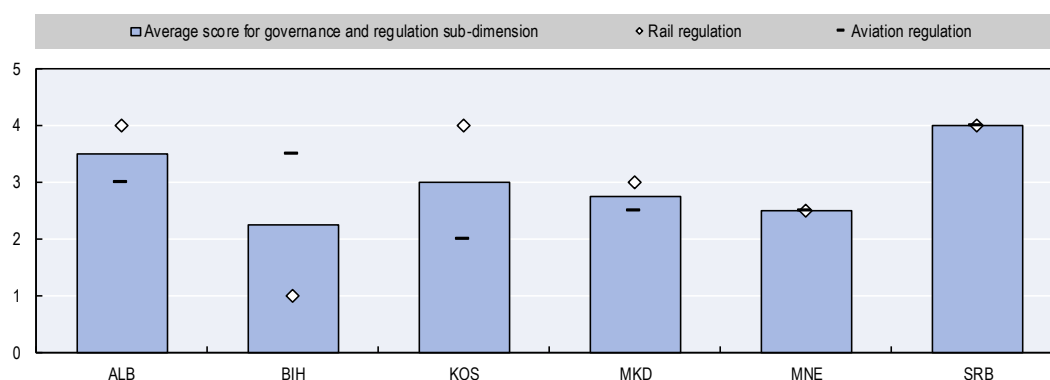


## Governance and regulation

The transport governance and regulation sub-dimension measures how well transport infrastructure and networks are regulated and operated, with a focus on rail, aviation and roads. Good governance is critical for transport policy and performance. Stable and transparent governance frameworks provide the certainty needed to plan investment and implement strategies and visions. Appropriate regulatory intervention ensures that transport markets operate efficiently and safely.

The governance and regulation sub-dimension comprises three qualitative indicators to analyse progress in rail, aviation and road regulation reforms: 1) rail regulation; 2) aviation regulation; and 3) road market regulation, particularly in the road haulage sector. Of these, only the first two indicators are scored (Figure 11.10). Given the complexity of assessing these rules and the coexistence of regulations at different level, this assessment does not provide a score for the indicator on road market regulation. Although not scored, this indicator is included in order to assess achievements in the road sector.

Figure 11.10. **Governance and regulation: Sub-dimension average scores and indicator scores**



Note: See the methodology chapter for information on the *Competitiveness Outlook* assessment and scoring process.

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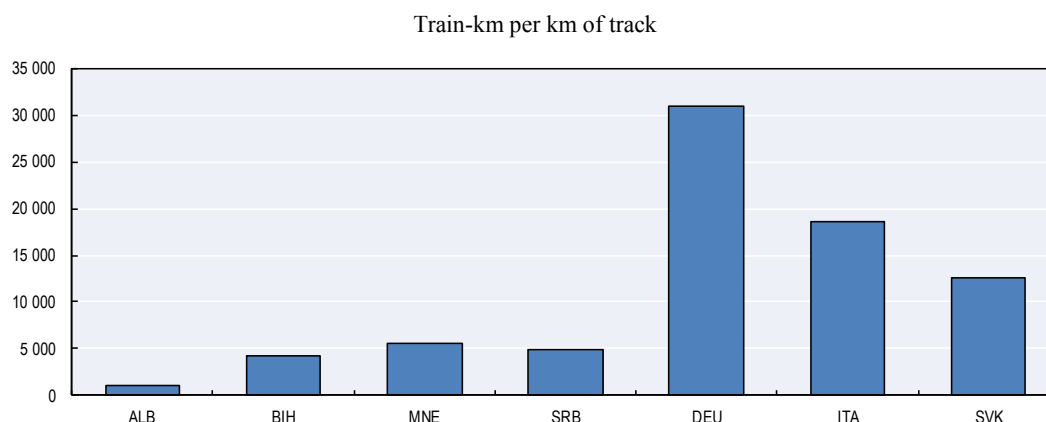
A specific goal of transport reforms in the SEE economies is harmonisation with EU rules to create common market conditions. Harmonisation is a precondition for further regulatory advances, such as ensuring that infrastructure charges are related to costs across all modes, providing market access opportunities for new entrants to promote competition, and addressing environmental and health externalities.

The scores shown in Figure 11.10 highlight the achievements of the SEE economies in the field of governance and regulation. Albania, Kosovo and Serbia have achieved scores of over 3 in rail regulation since they are implementing their rail reforms and the process of opening their rail markets is well advanced. Aviation reforms are most advanced in Bosnia and Herzegovina, and Serbia. Further progress is particularly needed in the area of rail regulation in Bosnia and Herzegovina, while Kosovo, the Former Yugoslav Republic of Macedonia and Montenegro would benefit from further aviation reforms.

### ***Rail use is lagging***

The need for effective implementation of structural rail reforms is evident when looking at the performance of the SEE economies in rail. Figure 11.11 shows that the availability of historical rail networks is not enough to ensure that rail is a competitive and attractive transport mode. The level of investment and maintenance in rail transport infrastructure compared to that in road transport infrastructure confirms the predominance of the road sector (Figure 11.9). The quality of the network and the demand by passengers and shippers determines network utilisation. All of the SEE rail networks would benefit from reaching the levels of use achieved by countries such as Germany, Italy and the Slovak Republic. Network utilisation is determined by the quality of the network and demand among passengers and shippers. More use could be achieved by reforming charging regimes and providing incentives for shippers to use rail transport. This would also translate into greater financial sustainability as there would be more train operators to help cover infrastructure costs.

Figure 11.11. **Rail network utilisation (2015)**



*Note:* Data for Kosovo and the Former Yugoslav Republic of Macedonia not available. SEE statistical offices and ministries provided economy-specific data as part of the *Competitiveness Outlook* assessment conducted in 2016-17.

*Source:* SEE statistical offices and ministries. Steer Davies Gleave (2015), *Study on the Cost and Contribution of the Rail Sector*, <https://ec.europa.eu/transport/sites/transport/files/modes/rail/studies/doc/2015-09-study-on-the-cost-and-contribution-of-the-rail-sector.pdf>.

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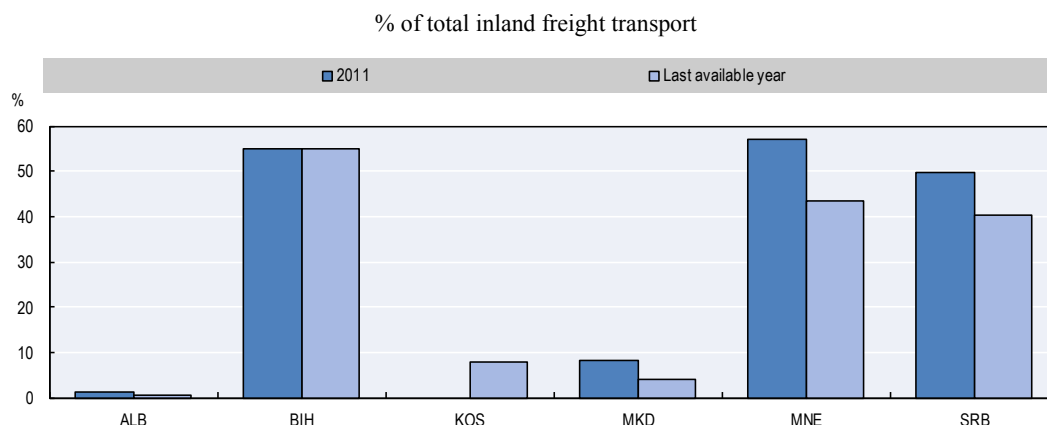
Rail's modal share of freight transport is falling in most of the SEE economies (Figure 11.12), even though rail freight transport is still more important in the region than in most EU Member States, where the average is around 20% (OECD, 2017a). For that situation to change, more resources would need to be directed to the maintenance of rail transport infrastructure. The evolution of rail modal share will be a useful indicator to understand the competitiveness of rail and the SEE economies' ability to cater for growing demand in a sustainable manner.

### ***Structural reforms to rail regulation are progressing***

Reforms in rail regulation are crucial to achieving harmonisation with EU policies on interoperability, market access, safety and investment in line with the EU's 2011 White Paper goals of creating a "true internal market for rail services" (EC, 2011). Reforms

should encompass two main areas: legislative advances to enshrine key principles in national laws, and administrative progress in creating the appropriate institutional settings to implement those principles. A key long-term outcome of rail reforms is the completion of international rail corridors connecting the SEE economies with export markets across the EU and along neighbouring Eurasian corridors.

Figure 11.12. **Modal share of rail freight transport (2011 and most recent year)**



*Note:* The most recent year for Albania was 2013, and for Montenegro 2014 from OECD (2017a). The SEE statistical offices and ministries that participated in the *Competitiveness Outlook* assessments conducted in 2016-17 provided data for Serbia (latest year 2015), and for Kosovo and Bosnia and Herzegovina (latest year 2016).

*Source:* SEE statistical offices and ministries; OECD (2017a), “Transport measurement: Freight transport”, [http://stats.oecd.org/Index.aspx?DataSetCode=ITF\\_GOODS\\_TRANSPORT](http://stats.oecd.org/Index.aspx?DataSetCode=ITF_GOODS_TRANSPORT).

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On average, the six SEE economies achieve a score of 3.1 on the rail regulation indicator, ranging between 1 for Bosnia and Herzegovina and 4 for Albania and Serbia (Figure 11.10). The SEE economies have made considerable progress in advancing structural rail reforms to bring them in line with the EU *acquis*. They have also progressed in fulfilling the obligations set out in the SEETO memorandum of understanding for a SEE Railway Transport Area and the SEETO Addendum. The most recent reforms have been in Serbia, which adopted comprehensive rail reforms in 2016, and in Albania in 2017. These completed a number of reforms undertaken in the other SEE economies in recent years. Bosnia and Herzegovina has not yet harmonised reforms at the national level, but both entities have made progress in parallel. Thanks to these reforms, all of the economies have completed the vertical and horizontal separation (unbundling) of their rail markets: their infrastructure managers, passenger rail operators and freight operators are independent, at least as far as accounting rules are concerned.

Unbundling and clear rules contained in a transparent Network Statement are preconditions for opening an economy’s rail market. Competition in the sector could lead to more efficient operation and in turn lower prices and increase innovation, as seen in EU Member States (Casullo and Zhivov, 2017). Five economies and the Federation of Bosnia and Herzegovina have published a Network Statement, building on common work as part of SEETO’s activities to standardise Network Statements. However, liberalisation is proceeding slowly; even where markets are legally open to competition, only a handful of non-incumbent operators have entered, notably in Albania and Serbia. Bosnia and

Herzegovina and the Former Yugoslav Republic of Macedonia have decided to only open their markets fully once they become EU members. Decisions on opening markets should typically be based on market conditions.

Rail will become more attractive to both existing and new operators provided reforms are effectively implemented. However, some barriers will only be lifted through infrastructure upgrades to improve average speeds, including at border crossings. International co-operation, such as along Corridor X (running through Serbia, Kosovo and the Former Yugoslav Republic of Macedonia and part of the One Belt-One Road initiative led by the People's Republic of China) will be key. The completion of works on Corridor X on the Serbian side of the border in 2017 represents an important step forward, and similar efforts will be required in Kosovo and the Former Yugoslav Republic of Macedonia (as well as in Greece) in order to complete this strategic piece of infrastructure.

### ***Aviation reforms are advancing but closer international co-operation is needed***

Harmonisation with EU legislation – including cross-border co-operation, performance schemes, the promotion of safety and transparent airport regulations – could promote more efficient aviation services in the SEE economies. The Single European Sky (SES) is part of the European Common Aviation Area Agreement signed in 2006, in which the six SEE economies committed to align some of their aviation regulation with the EU *acquis* in exchange for full access to the single European aviation market. In addition, Directive 2009/12/EC (the Airport Charges Directive, ACD) provides principles and guidelines for airport charges and the interface between airports and their users. Table 11.3 shows progress on four key features of aviation reform in each economy.

Table 11.3. **Key features of aviation reforms in the SEE economies**

	National supervisory authority	Air traffic management plan	Airport Charges Directive 2009/12 adopted	Functional airspace block
ALB	Yes	In preparation	No	Associated member of BLUEMED FAB
BIH	Yes	Yes	Yes	Member of Central European FAB
KOS	Yes	No	Yes	No
MKD	Yes	No	No	Observer in Danube FAB and BLUEMED FAB
MNE	Yes	No	No	Mini-FAB with Serbia
SRB	Yes	Yes	Yes	Mini-FAB with Montenegro

*Note:* Information reflects progress as of May 2017. FAB – functional airspace block.

The relatively high scores achieved on the aviation regulation indicator reflect the advances made (see Figure 11.10). The process of implementing SES in the SEE economies is supported by specific programmes. Starting with the Implementation of SES in South East Europe (ISIS I) programme (2010-12), progress has been made in transposing EU law into national legislation, as well as capacity building of national supervisory authorities. ISIS II (2013-17) built on this progress and focused on facilitating and monitoring implementation. The final step of the integration project will be the inclusion of the SEE economies, except Bosnia and Herzegovina, in the existing EU FAB.

All of the SEE economies have established a national supervisory authority in charge of market monitoring, with a special focus on air navigation service providers. Their goal is to promote a culture of safety and transparency in the aviation sector. In some cases the

civil aviation authority has taken on these functions, doing away with the need for an additional authority. In most of the SEE economies stakeholders highlighted the importance of international support and capacity building in order to fund and streamline operations, including support from the European Aviation Safety Agency (EASA), the European Organisation for the Safety of Air Navigation (EUROCONTROL) and the European Commission's Directorate-General for Mobility and Transport (DG MOVE).

Air traffic management plans are operational in Serbia and Bosnia and Herzegovina, and are being prepared in Albania. All three economies have some form of cross-border co-operation in place; Bosnia and Herzegovina has the most advanced co-operation as a full member of the Central European functional airspace block. This allows it to enhance safety, optimise airspace management and promote emissions reductions. Kosovo and the Former Yugoslav Republic of Macedonia have been partly hindered from progressing in this area by international disputes. Kosovo is working to establish arrangements with EASA and implement the law on the Air Navigation Service Agency.

Only Bosnia and Herzegovina, Kosovo, and Serbia have transposed the ACD into national legislation. The other three SEE economies have set their airport charges to strike a balance between meeting revenue requirements and attracting air carriers, but have not consulted with users over their levels, and charges do not reflect congestion or environmental costs. In Albania and the Former Yugoslav Republic of Macedonia, charges are or will be set at the network level (i.e. across all of their airports), which does not promote transparency. In recent years, there have been fundamental changes in airport ownership and management, including the introduction of new long-term airport concessions (Table 11.2). New concessions and PPPs also provide an opportunity to review charging regimes.

### ***Road regulations are being aligned with European standards***

Further integration of the standards and framework conditions for road freight transport is an important step towards the creation of a Single European Transport Area. This integration will be best attained through the promotion of common European economic, social and environmental rules. These include: 1) effective controls, including at borders; 2) harmonisation of employment conditions in the road transport profession (social *acquis*); 3) cabotage rules allowing freight vehicles to operate across borders to guarantee equal market access opportunities to road haulage companies and reduce empty runs; 4) introduction and modulation of road user charges; and 5) safety legislation.

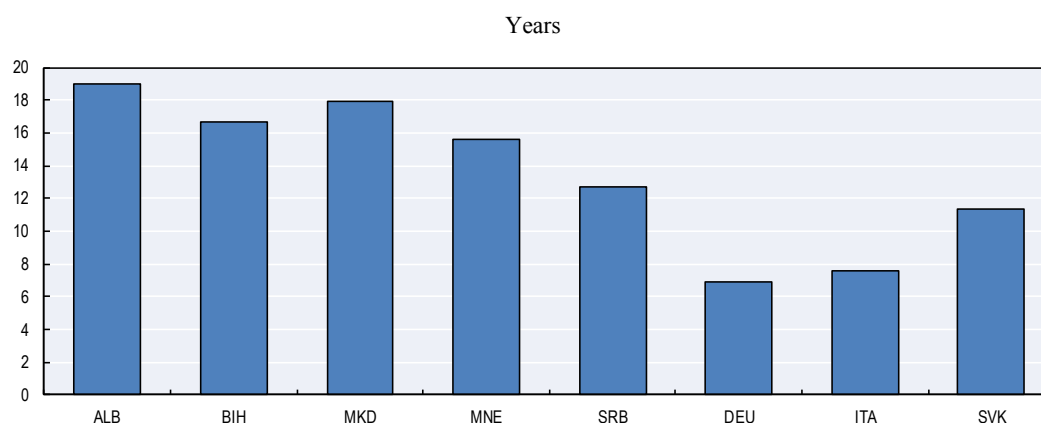
Given the complexity of assessing these rules, and the coexistence of regulations at different levels, this assessment does not provide a score for the indicator on road market regulation.

Overall, the SEE economies have made progress by aligning their national rules with the EU *acquis* on important issues such as working hours, safety standards and the licensing of truck drivers. For what concerns the European road haulage markets, the EU regulates access to the international market through Regulation (EC) No 1072/2009. For non-EU members, the European Conference of Ministers of Transport (ECMT) Multilateral Quota System offers a complementary option to bilateral agreements. This system is managed by the International Transport Forum, which distributes licences<sup>5</sup> to the member countries and monitors the quota rules through the Road Transport Group. Further implementation of the latest ECMT Quality Charter, which entered into force in 2016, will allow the SEE economies to harmonise quality requirements with the EU.

Two specific aspects of regulation are critical to promoting efficiency and safety in the road sector. First, the economies have not sufficiently developed their data collection systems to monitor the road transport market. Second, even where data are collected regularly, the various organisations collecting information do not necessarily consolidate it at the national level. For example, in Albania, private concessionaires, the road authority, the Institute of Transport, the police and the statistical office do not yet combine their road transport data into a single repository.

Data on registration fees for newly registered cars are a prime example of the importance of data collection for improving policies. They show that car fleets in the SEE economies are substantially older than in EU countries such as Germany, Italy and the Slovak Republic (Figure 11.13). Recognising this, the national authorities have introduced changes in registration fees, in order to update car fleets to improve their safety and environmental performance. These changes include incentives and discounts for new vehicles in an attempt to reduce imports of second-hand cars. Decision makers can use detailed car registration data, which are generally available across the region, to estimate the impacts of these incentive schemes on public budgets.

Figure 11.13. Average age of private motorised vehicles (2016)



*Note:* Data from Kosovo not available. Due to unavailability of data, the average age of privatised motorised vehicles in BIH does not include data for the Federation of Bosnia and Herzegovina and the Brčko District and refers only to the Republika Srpska. SEE statistical offices and ministries provided economy-specific data as part of the *Competitiveness Outlook* assessment conducted in 2016-17 (national statistical offices for Albania, Former Yugoslav Republic of Macedonia, Montenegro and Serbia; Ministry of Transport and Communication of the Republika Srpska). DEU – Germany; ITA – Italy; SVK – Slovak Republic.

*Source:* SEE statistical offices and ministries; EEA (2017), *Average Age of Road Vehicles per Country* (database), [www.eea.europa.eu/data-and-maps/daviz/average-age-of-road-vehicles-6#tab-chart\\_1](http://www.eea.europa.eu/data-and-maps/daviz/average-age-of-road-vehicles-6#tab-chart_1).

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### *The way forward for governance and regulation*

Over the last few years, the SEE economies have made considerable progress in reforming the rail, aviation and road sectors, and they should continue their efforts in this sub-dimension.

International co-operation has been and will remain crucial. SEETO's role in supporting rail reforms, the ISIS programme in aviation and the ECMT quota for road transport have all resulted in successful co-operation. **International co-operation will**

**continue to be needed to tackle the remaining challenges, which will require more complex regulatory approaches and increased governance capacity.** The recent approval of the Transport Community Treaty between the EU and the Western Balkans (Box 11.2) is a positive step in this direction.

#### Box 11.2. The Transport Community Treaty between the EU and the Western Balkan Six economies

Transport connectivity was high on the agenda of the 2017 Western Balkans Summit that took place in July 2017 in Trieste, Italy. Notably, Western Balkans partners signed the Transport Community Treaty, which will help integrate transport networks in the region and with the EU and guide related reform measures in the transport sector – building on the positive experience of the 2006 Energy Community Treaty (see Chapter 12, Energy policy).

The ultimate objective of the treaty is to establish an integrated market for infrastructure and land, inland waterways and maritime transport and to align relevant legislation in the SEE economies with EU legislation. The aim of the treaty is also to generate favourable conditions to make transport sector more efficient with a net positive impact on growth and job creation. The region has already benefitted from EU co operation through the introduction of new assessment frameworks for transport projects, and through dedicated co-financing from transport infrastructure. In Trieste, the EU agreed to grant more than EUR 500 million for transport investment in the region.

The Transport Community Treaty will provide impetus for further connectivity reform measures. In a joint ministerial statement, the SEE economies reinforced their commitment to “open markets, create transparent regulatory frameworks, improve safety and reduce costs for businesses and citizens, as well as attract further investments, make further progress to improve border crossing procedures and infrastructure facilities”. The expectation is that the treaty will benefit to the accession framework for the Western Balkans by speeding up the alignment of national legislation with the EU *acquis* on transport and other relevant areas.

Source: EC (2017a), *Establishing a Transport Community between the European Union and the Western Balkans*, <https://ec.europa.eu/transport/sites/transport/files/2017-factsheet-communitytreaty-wb.pdf>; EC (2017b), “Joint statement – Western Balkans Six Prime Ministers meeting”, [https://ec.europa.eu/commission/commissioners/2014-2019/hahn/announcements/joint-statement-western-balkans-six-prime-ministers-meeting\\_en](https://ec.europa.eu/commission/commissioners/2014-2019/hahn/announcements/joint-statement-western-balkans-six-prime-ministers-meeting_en).

In the rail sector, **co-ordinated corridor management plans will be necessary** once cross-border infrastructure is in place, notably along Corridor X. As the SEE economies build on effective reforms in the unbundling, access and safety of rail systems, they should consider using competition as an additional lever to stimulate efficiency and increase rail network utilisation.

In the aviation sector, **new and updated legislative packages will provide the appropriate basis for further harmonisation with EU rules.** Further reforms within the ISIS II programme will support the introduction of air traffic management systems in all the SEE economies, making air transport more competitive. Albania, Serbia and the Former Yugoslav Republic of Macedonia could consider accelerating their integration into their respective FABs.

In the road sector, **full implementation of the recently approved Quality Charter as part of the ECMT system** would help to support alignment with EU rules. The Quality Charter establishes qualification standards for companies, managers and drivers.



**Stronger evidence through regular data surveys and consolidated road transport models** would help the SEE economies identify congestion hotspots and cross-border issues more easily, as well as identifying lower-cost solutions to improving the competitiveness of the road sector, such as reforms in road charges and vehicle taxation.

As recommended by the EC (2016a, 2016b, 2016c, 2016d, 2016e, 2016f) and the ITF (ITF, 2011b), **stepping up administrative capacity through more human, financial and technical resources** will be fundamental to ensuring the effective implementation and relative stability of regulatory regimes in the future. Across all sectors, introducing and updating legislation represents a significant challenge for newly formed and at times understaffed authorities and government departments.

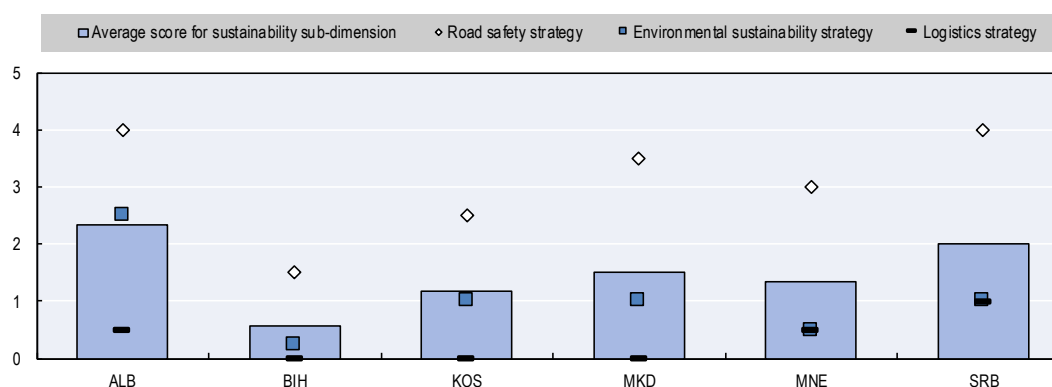
## Sustainability

Green transport plays an increasing role in policy formulation in OECD countries, driven by environmental concerns and sustainability objectives (OECD, 2012). As seen above, the six SEE economies have witnessed a rise in motorisation rates and road traffic volumes (Figure 11.8) and a decline in rail modal share (Figure 11.12) in recent years. In the few cases where economies have set modal shift targets, they have not been achieved.

While increasing road transport volumes through better infrastructure allows considerable productivity gains, environmental and safety externalities eventually worsen as volumes continue to grow, with negative effects for both quality of life and competitiveness. The long-term competitiveness of the SEE economies heavily depends on their ability to keep logistics costs down. In addition, environmentally friendly supply chains are associated with better logistics performance in terms of both lower costs and faster deliveries (Arvis et al., 2014) thanks to modal shift, reductions in inefficient cargo movements and consolidation of flows.

The transport sustainability sub-dimension measures progress towards resource efficiency, environmental protection, reduction of health impacts and increased transport safety. It uses three qualitative indicators to analyse the presence and implementation of: 1) road safety strategies; 2) environmental sustainability strategies; and 3) logistics strategies (Figure 11.14).

Figure 11.14. Sustainability: Sub-dimension average scores and indicator scores



Note: See the methodology chapter for information on the *Competitiveness Outlook* assessment and scoring process.

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Scores vary widely, with those for road safety strategies consistently higher than other indicators. The worst-performing indicator is logistics strategy, for which only Serbia achieves a score above 1. Environmental strategies are most advanced in Albania, which achieved a score of 2.5 for this indicator. The other economies only achieve scores between 0.5 and 2 in this field. This is in line with the global assessment of environmental strategies presented in Chapter 13.

### ***Road safety is a policy priority across the region***

Road safety is a priority of EU transport policy; the EU White Paper on transport envisions the harmonisation of road safety technology, improved roadworthiness tests, a comprehensive strategy of action on road injuries and emergency services, promotion of the use of safety equipment, and policies to protect more vulnerable transport users (EC, 2011). The road safety strategy indicator tracks progress in adopting and implementing comprehensive strategies on road safety.

The South East Europe 2020 strategy emphasises alignment with the EU *acquis* in the area of road safety, and road safety is also a priority in the SEETO Multi Annual Plan 2014 (SEETO, 2014). SEETO carries out a variety of activities to support the SEE economies in their struggle to improve road safety. These include the Road Safety Working Group which has drafted Road Safety Audit Regulations and Action Plans for implementation, and provides training and guidelines for road safety auditors in the region.

On average, SEE economies achieve a score of 3.1 on the road safety strategy indicator, ranging between 1.5 for Bosnia and Herzegovina and 4 for Albania and Serbia (Figure 11.14). All of the SEE economies have adopted a national road safety strategy, either as a stand-alone document or as a key component of their national transport strategy. Most strategies provide targets and envisage monitoring reports, but Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, and Kosovo are yet to publish annual updates.

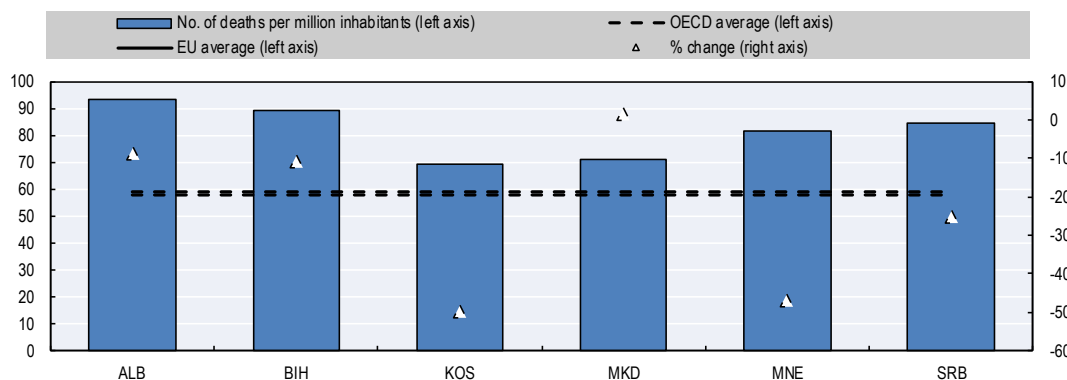
The effectiveness of road safety policies to date can be gauged by the number and reduction of road deaths (Figure 11.15). In 2015, the numbers of road fatalities per million inhabitants were higher in the SEE economies than the EU and OECD averages. Kosovo and the Former Yugoslav Republic of Macedonia performed better than the other economies, while Albania continues to have the highest fatality rate. However, all of the SEE economies except the Former Yugoslav Republic of Macedonia recorded improvements over the period 2005-15, with Kosovo and Montenegro achieving the largest reductions in fatalities.

The economic cost of road crashes at the national level remains high. For example, national estimates place this cost at 4% of GDP in Bosnia and Herzegovina (Ministry of Communication and Transport, 2016). These socio-economic losses were calculated using the gross output or human capital method (World Bank, 2012). According to a recent study by SafetyCube, a European Commission-supported Horizon 2020 project, the cost of road crashes in European countries range from 0.4% of GDP in Ireland to 4.1% of GDP in Latvia depending on the model used (Wijnen et al., 2017).

Two main barriers need to be overcome before road safety strategies can be more effectively implemented. First, responsibilities at the national level are not always clear, particularly over enforcement at roadside checks and vehicle inspections. The creation of national road safety councils, as in Montenegro and Kosovo, could be useful for promoting co-ordination. Such co-ordination is necessary, as safety is the result of

decisions at both national and local level in areas such as regulations, road maintenance and promotion campaigns.

Figure 11.15. **Road fatalities (2015) and percentage change over 2005-15**



Note: Data for Kosovo refer to the period 2005-14. SEE statistical offices and ministries provided economy-specific data as part of the *Competitiveness Outlook* assessment conducted in 2016-17.

Source: SEE statistical offices; Ministry of Infrastructure of Kosovo (2015), *Sectorial Strategy and Multimodal Transport 2015-2025 and the Action Plan for 5 Years*, [www.kryeministri-ks.net/repository/docs/SECTORIAL\\_STRATEGY\\_AND\\_MULTIMODAL\\_TRANSPORT\\_2015-2025\\_AND\\_ACTION\\_PLAN\\_FOR\\_5\\_YEARS.pdf](http://www.kryeministri-ks.net/repository/docs/SECTORIAL_STRATEGY_AND_MULTIMODAL_TRANSPORT_2015-2025_AND_ACTION_PLAN_FOR_5_YEARS.pdf); OECD (2017c), "Transport safety: Road injury accidents", [http://stats.oecd.org/Index.aspx?DataSetCode=ITF\\_ROAD\\_ACCIDENTS](http://stats.oecd.org/Index.aspx?DataSetCode=ITF_ROAD_ACCIDENTS).

StatLink <http://dx.doi.org/10.1787/888933705670>

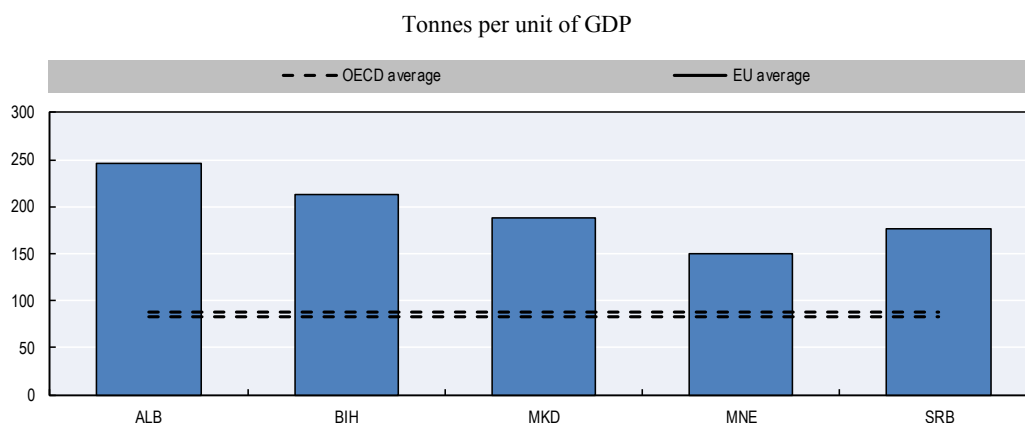
Second, insufficient budgets are often blamed for poor enforcement and data analysis. Currently road safety projects do not typically undergo efficiency analysis as part of national prioritisation frameworks (see the planning sub-dimension), meaning economies might miss out on opportunities to make better use of the limited resources available.

### **High environmental impacts of transport undermine its sustainability**

The sustainability of transport heavily depends on its environmental performance; reducing congestion, dependence on fossil fuels and energy consumption would all promote competitiveness as well as improve the quality of the environment. Overlooking today's environmental impacts risks jeopardising future efforts to improve competitiveness across the region.

The environmental performance of the SEE economies in the transport sector is worse than the EU and OECD averages. Figure 11.16 tracks carbon dioxide (CO<sub>2</sub>) emissions from transport activities. CO<sub>2</sub> emissions do not just have an impact on global climate change, but also illustrate the dependence of an economy on fossil fuels. When weighted by GDP, emissions are particularly high in Albania and Bosnia and Herzegovina. The economy with the least carbon-intensive transport sector is Montenegro.

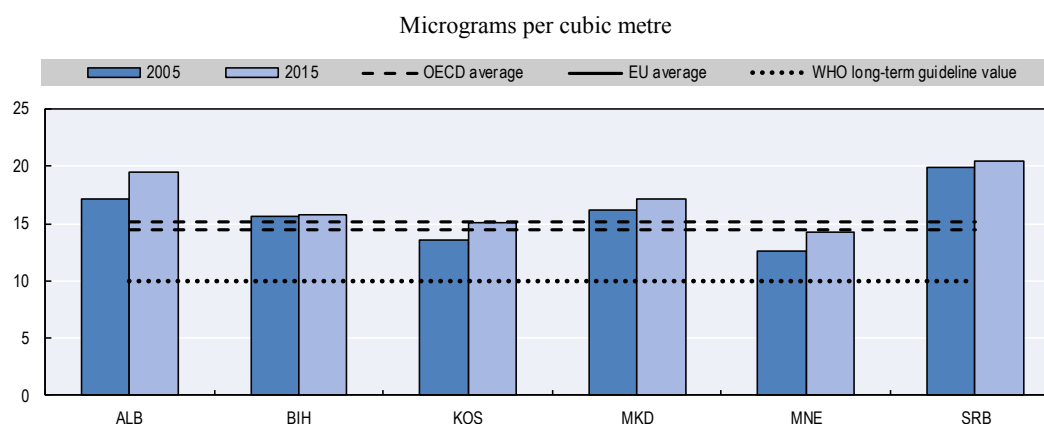
Figure 11.17 shows exposure levels to ambient fine particulate matter (PM<sub>2.5</sub>). These are defined as the average level of exposure to concentrations of micro particles which are capable of penetrating into the respiratory tract and causing severe health damage. Exposure is calculated by weighting mean annual concentrations of PM<sub>2.5</sub> by population in both urban and rural areas. PM<sub>2.5</sub> is a by-product of transport activity – the high levels of pollution recorded in metropolitan areas in the SEE economies raise questions about the long-term health impacts of urban transport systems.

Figure 11.16. CO<sub>2</sub> emissions from transport per unit of GDP (2014)

Note: Data for Kosovo not available.

Source: IEA (2016) “CO<sub>2</sub> emissions by product and flow”, <http://dx.doi.org/10.1787/data-00430-en>; World Bank (2017b), *World Development Indicators* (database), <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators>.

StatLink <http://dx.doi.org/10.1787/888933705689>

Figure 11.17. Exposure to PM<sub>2.5</sub> in metropolitan areas (2005 and 2015)

Note: Data refer to the macro-region of the capital; PM<sub>2.5</sub> – fine particulate matter.

Source: OECD (2017d), “Air quality and health: Exposure to air pollution”, [http://stats.oecd.org/Index.aspx?DataSetCode=EXP\\_PM2\\_5\\_FUA](http://stats.oecd.org/Index.aspx?DataSetCode=EXP_PM2_5_FUA); WHO (2006), *WHO Air Quality Guidelines for Particulate Matter, Ozone, Nitrogen Dioxide and Sulfur Dioxide: Summary of Risk Assessment*, [http://apps.who.int/iris/bitstream/10665/69477/1/WHO\\_SDE\\_PHE\\_OEH\\_06.02\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/69477/1/WHO_SDE_PHE_OEH_06.02_eng.pdf).

StatLink <http://dx.doi.org/10.1787/888933705708>

On average, SEE economies achieved a score of 1 for the environmental sustainability strategy indicator, with scores ranging between 0.3 (Bosnia and Herzegovina) and 2.5 (Albania) (Figure 11.14). The SEE economies have not yet developed comprehensive environmental sustainability strategies to reduce the environmental impact of their transport systems. Nonetheless, there are examples of policies to improve environmental performance across the region. Albania has drafted a cross-sector Environmental Strategy (to be adopted by the end of 2017) which contains emission targets (such as reducing

PM<sub>2.5</sub> concentrations by 12% in the medium term) and enforcement measures (such as vehicle emissions controls). Bosnia and Herzegovina has approved a State Action Plan on emission reductions from aviation, launching four environmental research projects in 2016, while Serbia plans to increase the use of electric vehicles. Cities are also taking action: Belgrade city council in Serbia has launched a new Action Plan for the Development of Transport Infrastructure in Belgrade accompanied by a strategic environmental assessment, and Albania's capital Tirana has laid out similar goals in its long-term plans.

### ***Long-term competitiveness needs efficient logistics chains***

Well-functioning logistics, both domestically and internationally, are a precondition for national competitiveness (Arvis et al., 2014). Physical, administrative and informal restrictions can be obstacles to the movement of goods, and congestion causes bottlenecks which hinder the expansion of international trade across the SEE economies. Removing these barriers would have a positive impact on long-term economic growth and competitiveness while contributing to environmental and safety goals.

The logistics strategy indicator measures whether the SEE economies are developing and implementing integrated logistics strategies that promote an international corridor approach and intermodal solutions. On average, SEE economies score 0.3 for this indicator, ranging between 0 (Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, and Kosovo) and 1 (Serbia) (Figure 11.14). While none of the SEE economies have a dedicated, comprehensive logistics strategy, the majority of national transport strategies include elements of logistics performance improvements, such as:

- Co-modality: there are promising plans to enhance transshipment facilities in the region, for example the creation of new intermodal terminals in the Former Yugoslav Republic of Macedonia (Trubarevo), Albania (Durrës terminal), Bosnia and Herzegovina (Tuzla), Kosovo (Fushe Kosove) and Serbia (Batajnica, Belgrade).
- Technology and regulation: Serbia leads the way in this field, for instance having reached a high level of interoperability in inland waterways including by actively participating in the EU Strategy for the Development of the Danube Region and signing relevant agreements with its neighbours.
- Corridor approach: Albania is working on enhancing logistics performance along the Durrës-Tirana corridor which has been identified as a priority for road investment, rail rehabilitation and terminal development.

A growing number of countries in the OECD are developing comprehensive logistics strategies, but reforms in this area are slow and complex – the low scores in the SEE economies should be viewed as a starting point which can be improved upon over time, following good practices such as those described in Box 11.3. Logistics strategies that promote co-modal solutions are most effective when applied to key corridors that host large freight volumes.

### Box 11.3. Good practice: Dedicated logistics strategies in International Transport Forum member countries

Several ITF member countries have made efforts to develop dedicated national logistics strategies, extending beyond freight transport policies.

Germany is the reference case in this area, given its industrial and commercially leading position in Europe and the prominence given to its freight transport and logistics system, a key element of its competitiveness. Three of the six biggest global logistics providers are based in Germany (DHL, DB Schenker, and Kuehne and Nagel), and the country is first in the World Bank's LPI ranking. After developing a strategic Freight Transport and Logistics Masterplan, building on a dialogue phase that involved all stakeholders, Germany adopted its Freight Transport and Logistics Action Plan – Logistics Initiative in 2010. Its key objectives are to:

- strengthen Germany's position as a logistics centre
- enhance the efficiency of all modes of transport
- interconnect different transport infrastructure modes in an optimum manner
- ensure that transport growth is compatible with environmental protection and climate change mitigation
- support good working and training conditions in the freight transport industry.

In France, following an initiative by parliament, a national conference on logistics was organised in 2015. This was prepared by a scientific committee and established the current situation and future developments. The government has approved France's first strategic plan for logistics (France Logistique 2025), centred around six main topics and A dedicated steering committee has been established.

1. workforce skills and education
2. compatibility of logistics chains in regional and urban areas
3. research and innovation in logistics technology and management
4. optimising infrastructure usage
5. harmonising and simplifying regulation
6. performance measurements.

Morocco is a significant example of an emerging country that considers logistics as a key factor in its development. The Ministry of Transport is also named the Ministry of Logistics, and has a dedicated agency, the Moroccan Agency for the Development of Logistics, in charge of implementing a national strategy approved at the highest state level. The strategy includes the development of a network of logistics centres in Morocco's main regions, as well as new infrastructure necessary to modernise the sector.

The International Transport Forum also supports the creation of national logistics observatories alongside the development of logistics strategies, for example supporting the Turkish and Chilean governments in this area. In order to evaluate the impact of logistics sector on social and economic development, logistics observatories need to be able to access and disseminate meaningful activity data and develop key performance indicators to track the competitiveness of freight transport services and logistics operations. Observatories should also develop robust statistical and analytical methodologies in collaboration with international and national experts.

Source: Adapted from Savy (2016), *Logistics as a Political Issue*, <http://dx.doi.org/10.1080/01441647.2016.1182793>; ITF/OECD (2016a), *Logistics Development Strategies and Performance Measurement*, [www.itf-oecd.org/sites/default/files/docs/logistics-strategy-performance-management.pdf](http://www.itf-oecd.org/sites/default/files/docs/logistics-strategy-performance-management.pdf).

### *The way forward for sustainability*

As the growth in transport generates a range of external costs and can raise logistics costs, the six SEE economies need to make sustainability, resilience and long-term competitiveness part of their central policy objectives.

**Full implementation of road safety strategies will require further efforts to co-ordinate enforcement actions and policies at the national level**, building on the progress made to date. The Former Yugoslav Republic of Macedonia in particular should aim to start reducing road fatalities and collisions. International co-operation can also be extremely helpful in this field, through dedicated fora such as SEETO and the International Road Traffic and Accident Database (IRTAD). Serbia's involvement in IRTAD has helped it to benchmark its safety legislation against OECD/ITF countries and to identify the most vulnerable users through in-depth data analysis.

The environmental costs of transport activity are high across the region and **the SEE economies may wish to adopt new instruments and policies at the national, sectoral and sub-national levels to reduce negative impacts such as pollution**. These could include reformed schemes to charge polluters for their emissions to internalise environmental costs. The SEE economies should consider promoting data collection efforts and impact assessment studies to identify the most efficient path towards reducing emissions from transport. Renewing the vehicle fleet, promoting a modal shift away from roads and introducing cleaner technologies should be key elements of any strategy, in line with EU goals to reduce CO<sub>2</sub> emissions and break the transport system's dependence on oil.

There is room to **improve logistics strategies further across the region**. Logistics costs can be brought down through co-ordinated efforts focusing on co-modal solutions along international corridors. As greener logistics not only promote better environmental performance, but also improve competitiveness, this offers the SEE economies a win-win opportunity, building on international best practice.

## **Conclusions**

The six SEE economies have made good progress towards improving their transport competitiveness. New strategies at the national level, if effectively implemented, will provide high-level guidance for infrastructure planning and regulatory harmonisation. Recently approved frameworks for project selection enable decision makers to prioritise projects in a more transparent way. Legislative and regulatory advances (in rail, aviation and road markets) are set to accelerate harmonisation with EU rules and to provide more certainty to private investors. Better institutional mechanisms and stricter policies for road safety have helped to reduce road fatalities across the region.

A number of challenges lie ahead in the transport sector. The economies should align their plans for infrastructure development, sustainability and logistics performance more closely to exploit synergies. They ought to apply new frameworks for economic scrutiny of investment projects, and recommended procurement guidelines, to all major transport projects. In addition, they need to factor in maintenance needs to all decision making at the early stages to ensure that, over time, they rebalance their public budgets away from new investment and towards making their infrastructure more resilient. Appropriate human, financial and technical resources will be fundamental for ensuring effective implementation of newly approved policies and strategies – including better data and simulation models.

Across all aspects of transport policy, international co-operation will be critical and the SEE economies should aim to make the most of existing programmes as well as the Transport Community Treaty.

## Notes

1. A score of 0 denotes absence or minimal policy development while a 5 indicates alignment with what is considered best practices. Each level of scoring is updated for the individual indicator under consideration, but they all follow the same score scale: a score of 1 denotes a weak pilot framework, 2 means the framework has been adopted as is standard, 3 that is operational and effective, 4 that some monitoring and adjustment has been carried out, and 5 that monitoring and improvement practices are systematic.
2. The indicator on the availability and use of ICT is not specific to transport. It evaluates the availability and quality of information and communications technology as approximated by the use of mobile telephones and the Internet by the population at large, by companies, for business transactions and by the government to interact with citizens. It also takes into account the quality of Internet access, as broadband access has become the norm, to fully leverage the potential of the Internet and hence also promote ICT in the infrastructure sector.
3. The breadth of an economy's merchandise exports, for example, is measured by the difference between the distribution of its exports across destination countries and the rest of the world's distribution of merchandise imports.
4. There are four main administrative levels in Bosnia and Herzegovina: the State, the Federation of Bosnia and Herzegovina, the Republika Srpska and the Brčko District. The administrative levels of the State, the Federation of Bosnia and Herzegovina and the Republika Srpska are taken into account in the *Competitiveness Outlook 2018* assessment, when relevant. The Brčko District is not assessed separately.
5. These licenses enable hauliers to undertake an unlimited number of multilateral freight operations in the 43 European states participating in the system.

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***Annex 11.A1.***  
**Transport policy and performance: Indicator scores**

Table 11.A1.1. Transport policy and performance: Indicator scores

	ALB	BIH	KOS	MKD	MNE	SRB
<b>Planning</b>						
Transport vision	2.5	1.7	4.0	2.5	2.0	3.0
Transport project selection	2.5	0.5	0.0	2.5	1.0	3.0
Implementation and procurement	3.0	0.7	2.0	1.0	1.0	2.0
Asset management	2.0	2.0	1.0	2.0	1.0	1.5
<b>Governance and regulation</b>						
Rail regulation	4.0	1.0	4.0	3.0	2.5	4.0
Aviation regulation	3.0	3.5	2.0	2.5	2.5	4.0
Road market regulation <sup>1</sup>	X	X	X	X	X	X
<b>Sustainability</b>						
Road safety strategy	4.0	1.5	2.5	3.5	3.0	4.0
Environmental sustainability strategy	2.5	0.3	1.0	1.0	0.5	1.0
Logistics strategy	0.5	0.0	0.0	0.0	0.5	1.0

*Note:* 1. Given the complexity of assessing these rules and the coexistence of regulations at different level, this assessment does not provide a score for the indicator on road market regulation. X – this indicator was assessed and not scored.

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