GREENING BRI PROJECTS IN THE WESTERN BALKAN COUNTRIES

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FRANKFURT SCHOOL OF FINANCE & MANAGEMENT - UNEP CENTRE

Greening BRI projects

In the Western Balkan countries

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Abbreviations

BiH	Bosnia and Herzegovina
BRI	Belt & Road Initiative
BRIGC	BRI International Green Development Coalition
CBAM	Carbon Border Adjustment Mechanism
CCCC	China Communications Construction Company
CEEC	central and eastern European countries
CEF-E/T	Connecting Europe Facility – Energy / Transport
CF	Cohesion fund
CGIT	China Global Investment Tracker
CO_2	Carbon dioxide
CPPCC	Chinese People's Political Consultative Congress
CRBC	China Road and Bridge Corporation
EBRD	European Bank for Reconstruction and Development
EFSD+	European Fund for Sustainable Development
EFSI	European Fund for Strategic Investment
EIA	Environmental Impact Assessment
EIB	the European Investment Bank
ERDF	European regional development fund
ESG	Environmental, Social, Government
ETS	emissions trading system (EU ETS)
EU	European Union
GIP	Belt and Road Green Investment Principles
GPP	green public procurement
IPA	the Instrument for Pre-Accession Assistance (from EU)
IPSF	EU's International Platform on Sustainable Finance
MDB	multilateral development banks
MNE	Montenegro
MoU	Memorandum of Understanding
MS	Member States (in EU)
MW	Megawatt
NDCs	nationally determined contributions
NDICI	Neighbourhood, Development and International Cooperation Instrument (EU)

NDRC	National Development and Reform Commission (China)
NECP	National energy and climate plan (for EU MS and accession countries)
NGO	non-governmental organization
PBC/PBOC	People's Bank of China
PPIAF	Public Private Infrastructure Advisory Facility
PRI	principles for responsible investments
RE	Renewable Energy
SEA	Strategic Environmental Assessments
SEUSF-WG	Sino-European Sustainable Finance Working Group
TCFD	Task Force on Climate-related Disclosure
TEN-T	EU Trans-European Transport Network
TPP	Thermal Power Plant
WB	Western Balkan
WBIF	EU Western Balkan Investment Framework
WWF	World Wide Fund for Nature

Executive summary

This study analyses options to ensure that Chinese Belt & Road Initiative (BRI) - and in fact all - energy and transport infrastructure investments into the South and Central Eastern European countries are implemented in line with good environmental and sustainable practices.

Sustainable infrastructure is a key pillar of the transformation towards a sustainable economic model. South and Central Eastern European economies have significant infrastructure gaps, which can only be overcome by substantial investments in the coming years. It is of paramount importance to avoid lock-in effects resulting from unsustainable infrastructure investments and build the infrastructure needed for a sustainable future. [1]

The EU supports sustainable infrastructure development in its EU member states and in the WB countries. For EU member states, EU infrastructure support is available through the EU Strategic Investment support and the EU regional development and cohesion instruments. Western Balkan (WB) countries receive EU support from Pre-Accession Assistance (IPA), the EU Western Balkan Investment Framework (WBIF) as well as through EIB and EBRD. The EU provides similar volumes of loans to infrastructure investments in the energy and transport sectors in the region as China, next to grants.

Chinese infrastructure investments under the umbrella of its Belt & Road Initiative (BRI) in the South and Central Eastern European region are gaining importance, as part of the global BRI infrastructure investments. Regional cooperation is framed by the "17+1" cooperation format. Accumulated BRI investments in the 17+ countries in time period 2014-2019 amount to $22.96 billion, and in large parts relate to energy and transport infrastructure investments. Major BRI transport investments in the region include the Piraeus Port in Greece, the Budapest-Belgrade railway as the first stage of the planned Budapest–Belgrade–Skopje–Athens connection as well as highway projects for instance in Albania, Montenegro and Serbia.

BRI energy investments relate to several coal-fired power plants in the region, including the thermal power plant Kolubara B and Kostoloac B3 in Serbia, the Stanari and the Tuzla 7 plant in Bosnia and Herzegovina and the Pljevlja plant reconstruction in Montenegro. BRI investments into coal-fired power plants are of particular environmental concern as these investments are not aligned with decarbonization pathways in accordance with the climate goals of the Paris Agreement. There is, however, also some Chinese involvement in renewable energy projects in the Western Balkan countries.

BRI projects in the WB region are strategic and business driven and overall show and attitude of "passive compliance" to environmental standards of the host countries, next to challenges in the environmental assessments for the projects and transparency and governance issues. There often are mismatches between WB countries' specific infrastructure investments and broader national priorities and obligations resulting from European legislation and obligations such as from the Energy Community Treaty and Transport Community Treaty.

Several barriers hinder a greener and more sustainable approach for BRI and in fact any energy and transport infrastructure investments in the region. This includes knowledge, capacity and awareness barriers in the 17+ countries. Structural barriers such as weak procurement processes hinder

[1] In this study, "green" refers to the environmental factors (including climate related aspects), the term "sustainable" is broader and covers all three dimensions of sustainability (environmental, social and governance).

implementation of green infrastructure projects. Policy-related barriers are reflected in a lack of strong and credible policy signals but promising processes such as NECP formulation are under way; techno-economic barriers arise vis-à-vis the transformation of energy and transport systems while green technologies are still perceived as high risk. Financial barriers include a low awareness of sustainable finance and a lack of liquid local green finance markets, deteriorated by the absence of pro-active green financing attitude.

Drivers for a greener approach exist for China, the EU and the WB countries. They include the strategic relevance of WB countries for the EU and the need to link them with its long-term EU green deal. EU accession perspective and international commitments such as to the Paris Agreement support an increasing case for WB countries to converge with EU climate policies. China's recent carbon neutrality pledge, together with its growing commitment to link its domestic sustainability agenda with the BRI activities, make a case for a greener BRI approach in the region. Post-pandemic resilient recovery efforts reinforce some drivers such as EU-WB support while they add ambiguity to the future strategic positioning of the BRI.

Options for greening energy and transport infrastructure investments in the 17+ countries span EU-China, EU-WB and options for the 17+1 cooperation and have in common that they involve a pro-active green approach by all stakeholders. A green infrastructure approach has to be self-sustained by the WB region's own ambitions and policy agenda, and supported by both EU and China linking it to EU's ambitions in the context of the European green deal and to the Chinese agenda in showing leadership in sustainable development.

A pro-active greening of BRI – and in fact any – energy and transport investment in the WB countries can be moved forward at the policy level. The 17+1 cooperation format offers the opportunity to play the role as a hub for a proactive green and sustainable BRI investment agenda. In parallel, there is a strong case for EU to support clear policy signals and a pro-active green agenda in the WB countries, in order to embrace them in the European green deal. This can be seen as a part of the WB countries EU accession perspective and is thus linked to comprehensive and enforced support through existing EU instruments, programs and institutions during the up-coming EU budget period 2021-2027.

There is potential for the EU and China to show joint leadership for sustainable infrastructure in the WB and the 17+ countries, in particular relation to fostering the WB regional uptake of sustainable finance to support and guide greener energy and transport investments in the region, as both EU and China has proven to be international leaders in this field. The EU's International platform for Sustainable Finance (IPSF) could act as a multilateral forum for this.

This study concludes with five policy recommendations:

1. ***Transform the 17+1 cooperation into a pro-active regional green hub of the BRI***
2. ***Shape a clear and ambitious European green agenda with the Western Balkans***
3. ***Establish a regional centre of excellence for green and sustainable infrastructure in the Western Balkans***
4. ***Build a joint EU-China-WB investment agenda for green and sustainable infrastructure investments***
5. ***Shape a WB sustainable finance agenda through EU-China leadership under the IPSF***

1 Introduction

"Infrastructure is a driver of economic prosperity and provides a solid basis for strong, sustainable, balanced and inclusive growth and sustainable development "(G20, 2019)[2]

Chinese infrastructure investment under the umbrella of China's Belt & Road Initiative (BRI) into Western Balkan (WB) countries and more broadly the 17 South-East-European BRI partner countries under the "17+1" cooperation is gaining importance. In order to support economic development in these countries in line with sustainability and "low-carbon" objectives, this study analyses options to ensure that Chinese – and in fact all - infrastructure investments in the 17+ BRI countries are implemented in line with good environmental and sustainable practices.

Greening infrastructure investments contributes to the EU's objective of ensuring a green and sustainable economic development of its Member States and pre-accession countries while transparency on procurement and implementation of a sustainable financing approach supports China's interest for a significant contribution and positive recognition of the BRI in the global fight against climate change and for sustainable development.

Infrastructure investments can be a key driver for sustainable economic development and refer to sectors such as transportation, water and sanitation, energy or communication networks. Network-bound infrastructure services tend to bear characteristics of natural monopolies which in turn explain a strong public role in providing these good and services. Infrastructure investments are realized through a broad variety of public, private or public-private approaches.[3]

To define *green and sustainable* infrastructure[4] we build on the UNEP Inquiry and use the following definition: infrastructure that "integrates environmental, social and governance (ESG) aspects into a project's planning, building and operating phases while ensuring resilience in the face of climate change or other shocks such as rapid migration, natural disasters or economic downturns. Service needs will be met in a manner that minimizes or reverses environmental damage, improves social equality and does not waste resources."[5] Sustainable infrastructure can for instance be based on renewable energy or energy efficiency technologies, sustainable mobility such as electric-mobility, green hydrogen, or battery technologies, but it also refers to infrastructure that prevents corruption, respects human and labor rights standards and conserves biodiversity.

Green and sustainable finance can play a key enabling role in supporting sustainable infrastructure investments. The way infrastructure is financed can crucially support the implementation of environmental standards. Sustainable finance generally refers to the "process of taking due account of

[2] G20 PRINCIPLES FOR QUALITY INFRASTRUCTURE INVESTMENT (2019), available at https://www.gihub.org/about/g20-infrastructure-outcomes/

[3] OECD (2016): Getting Infrastructure Right – The Ten Key Governance Challenges and Policy Options. Available at: https://www.oecd.org/governance/getting-infrastructure-right-9789264272453-en.htm

[4] Nota bene: The term "green/sustainable infrastructure investments" throughout this study should not be confused with the EU terminology for "green infrastructure" in the context of the Natura 2000 network which refers to green infrastructure as "strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services." Please refer to: https://ec.europa.eu/environment/nature/ecosystems/index_en.htm

[5] UNEP Inquiry Working paper June 2016: „Sustainable Infrastructure and finance - How to Contribute to a Sustainable Future".

environmental and social considerations when making investment decisions, leading to increased investment in longer-term and sustainable activities." (EU Commission)[6] The terms "green" and sustainable" refer to the scope of sustainability factors considered. While "green" refers to the environmental factors (including climate related aspects), the term "sustainable" is broader and covers all three dimensions of sustainability (environmental, social and governance). For the purpose of this study, we will use "green finance" and "sustainable finance" interchangeably, both terms referring to the above cited EU definition of Sustainable Finance with a focus on environmental and climate change related considerations.

Based on this understanding of study focus and key terminologies to capture sustainable infrastructure and sustainable finance, the study's sectoral focus is on the energy and transport sectors, as they are the most relevant in terms of investment volumes under the 17+1 cooperation.

Geographically, we cover BRI investments in the 17+ countries concentrating our analysis on the five Western Balkan countries that are part of the "17+1" BRI cooperation format, namely Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia. Due to some major BRI projects involving the Czech Republic as well as Hungary and Greece, we will include these three countries in our in-depth analysis as well. Consequently, beyond looking at the 17+ cooperation countries, this study will mainly look at these eight "focus countries".

Based on this introduction, chapter 2 provides an overview on the relevant backgrounds related to Chinese infrastructure investments in the 17+ countries by looking into the BRI background, the respective EU frameworks for sustainable infrastructure, the status quo in the WB countries' infrastructure regulatory frameworks as well as the status quo of the EU-China agenda on sustainable infrastructure high-level cooperation. Based on this background, chapter 3 provides an overview on the status quo of Chinese BRI investments in the 17+ partner countries in the energy and transport sectors, based on both external data as well as an own project database, amended by an overview of EU investment support instruments to WB countries' infrastructure. The chapter then provides an in-depth analysis of five BRI projects looking into the model of Chinese involvement, environmental issues and discusses the status quo of greening/sustainability. Based on this analysis, chapter 4 comes up with an approach for greening options by first structuring barriers to green and sustainable infrastructure projects in the region as a basis for formulating five areas of greening options. These options are taken up in the concluding chapter 5, which formulates policy recommendations on how the EU, the WB countries and China could jointly move forward a green and sustainable infrastructure agenda in the 17+ countries and beyond.

[6] European Commission (webpage): https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en

2 BRI, the Western Balkans and the EU vis-à-vis sustainable infrastructure

This chapter first provides an overview on the Belt & Road Initiative (BRI), its main strategic objectives, key priorities as well as positioning towards environmental objectives and sustainability. Next it outlines the relevant EU policy framework related to sustainable infrastructure before concluding with the WB countries' regulatory background on energy and transport investments.

2.1 The Belt & Road Initiative and the 17+1 cooperation

The BRI is as a major Chinese infrastructure financing initiative for a large part of the global economy. The program also serves the purposes of key economic, foreign policy, and security objectives for the Chinese government.[7]

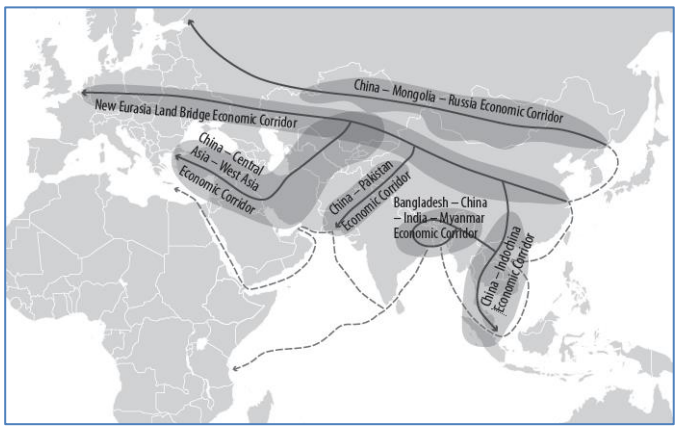

Figure 1: Source: Cornell S. E., Swanström N., SIEPS (2020:1).p 38

The first official mentioning of BRI was when the Chinese President Xi Jinping first spoke about his intention to develop the One Belt, One Road Initiative during a visit to Kazakhstan in September 2013. The main focus then was a trans-Eurasian infrastructure connectivity project spanning from China's coastal provinces though Central Asia and Russia to the Baltic States and the initiative was referred to as the new Silk Road Economic "***Belt***". The "***Road***" part was added a month later, when Xi Jinping proposed a cohesive China–ASEAN cooperation by building a new Maritime Silk Road during his state visit to Indonesia. This sea route aims to connect China's coasts to Europe along one route and to the South Pacific Ocean islands along another.[8]

For China, the BRI serve both economic and geopolitical objectives. From the economic perspective, the primary goal is to boost investment and trade in Eurasia by improving infrastructure and connectivity. The BRI infrastructure projects also allow Chinese enterprises to access new opportunities, propelled by overcapacity and a partly saturated domestic market, e.g. in the steel, cement, and construction sectors.[9]

The geopolitical objective of BRI emerged following the global financial crisis in 2008 with China assuming a more proactive role in shaping global governance. Through the BRI, China has been promoting an alternative set of norms and ideas regarding governance and cooperation, different from the established Western governance model. This "Chinese model" is based on inclusiveness and

[7] Hurley, J., Morris, S., & Porelance, G. (2018). Examining the debt implications of the belt and road initiative from a policy perspective: Center for Global Development (CGD). Policy Paper, 121, Washington DC., page 1

[8] Cornell S. E., Swanström N., SIEPS (2020:1). Compatible Interests? The EU and China's Belt and Road Initiative: www.sieps.se, page 37-38

[9] Cornell S. E., Swanström N., SIEPS (2020:1). page 38-42

connectivity, but it has also been characterized by the EU as "*a systemic rival promoting alternative models of governance*".[10]

In March 2015, the Chinese Government published a "Vision Statement" for the BRI, outlining the general framework and aims of the BRI by specifying 5 goals.[11] President Xi summarizes these goals in 2017 as: "*China will actively promote international co-operation through the Belt and Road Initiative. In doing so, we hope to achieve policy, infrastructure, trade, financial, and people-to-people connectivity and thus build a new platform for international co-operation to create new drivers of shared development.*"[12]

Most countries perceive the BRI as something positive, according to a study in 2019; however there are also significant differences in perception of the BRI across regions and countries.[13] Critics see a risk that the infrastructure investment governments are borrowing for is not accompanied by enough economic growth and revenue generation to fully service the debt.[14] At the second Belt and Road Forum in Beijing 2019, Chinas' President XI Jinping responded to the critics and said BRI was shifting focus to a high quality and sustainable framework for the projects.[15]

In 2012, one year before launching the BRI, China had already initiated a regional cooperation with 16 central and eastern European countries (CEEC). This 16+1 cooperation format included 11 EU Member States and five WB countries (China being the +1). These countries share a communist past but are otherwise fairly heterogeneous in terms of their economic development. China values the region's geostrategic position as a bridgehead to the EU market and as a crucial transit corridor for the BRI program.[16] The 16+1 Cooperation was retrospectively labelled as a BRI-cooperation by China.[17]

The objective of this cooperation platform is to strengthen and expand cooperation in economy and trade, but also for culture, education, agriculture, transport, tourism, science and technology, health, local exchange, youth and other fields between the CEECs and China. The first 16+ Forum was held in Beijing in 2013 and forums have since then been organized every two years in partnering countries.

A Coordination Centre was opened in Skopje, the Republic of North Macedonia, on 1st March 2018, following upon the signing of a Memorandum of Understanding (MoU) between China and CEEC for the cooperation in 2017.[18]

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[10] European Commission and HR/VP contribution to the European Council EU-China – A strategic outlook12 March 2019

[11] Cornell S. E., Swanström N., SIEPS (2020:1). page 38f

[12] OECD (2018). "The Belt and Road Initiative in the global trade, investment and finance landscape", in OECD Business and Finance Outlook 2018, OECD Publishing, Paris, https://doi.org/10.1787/bus_fin_out-2018-6-en Quote on page 4 (Xi, J., 2017b, page 61)

[13] García-Herrero, A., & Xu, J. (2019). Countries' perceptions of China's Belt and Road Initiative: A big data analysis. Bruegel Working Paper Issue 1 6 February 2019. Page 8

[14] Hurley, J., Morris, S., & Porelance, G. (2018). page2-3

[15] Syed Munir Khasru (2019). China tries to win over critics of the new Silk Road, World Economic Forum COVID Action Platform (29 May, 2019)(webpage): https://www.weforum.org/agenda/2019/05/are-concerns-about-the-new-silk-road-justified/

[16] European Parliamentary Research Service (EPRS), Grieger Gisela (2018). China, the 16+1 format and the EU, p 1-2

[17] Rencz, F., EIAS (2019). THE BRI IN EUROPE AND THE BUDAPEST-BELGRADE RAILWAY LINK: http://www.eias.org/briefing-papers/the-bri-in-europe-and-the-budapest-belgrade-railway-link/, page 4

[18] Ministry of Culture of the Republic of Lithuania (2020)."Cooperation framework between China and Central and Eastern European Countries (17+1)": https://lrkm.lrv.lt/en/international-cooperation/international-organizations-and-regional-cooperation/cooperation-framework-between-china-and-central-and-eastern-european-countries-17-1

At the 16+1 annual summit 2019 in Dubrovnik, Greece joined the cooperation, which consequently then became the 17+1 cooperation. Greece differs from the other cooperation members, as it is not a post-Communist state, turning the 17+1 into a Central and South-Eastern European partnership.[19]

2.1.1 BRI and green/sustainable infrastructure investments

There is a growing focus on emphasizing "green" considerations in BRI investment, both locally from e.g. affected population, but also from third parties and from within China.[20] A study by the World Resources Institute (2018) confirmed that the share of fossil energy in BRI projects implemented during 2014-2017 was very high and that most Chinese BRI deals in energy and transportation during this period were anchored in carbon-intensive sectors without alignment with the low-carbon priorities included in the BRI countries' NDCs[21]. A study by the Tsinghua University Centre for Finance and Development (2019) highlights that, the BRI implementation may lead to a significant increase in greenhouse gas emissions by 2050, if no actions are taken. It recommends that green and low-carbon investment becomes a keystone in the BRI in order to facilitate the involved region's transition to sustainable growth and development.[22]

Evidence of stressing the growing relevance of a sustainable economic development and green principles for BRI is anchored in some major documents and has been accompanied by dedicated fora/coalitions since 2017. The Chinese Ministry of Ecology and Environment issued a "**Guidance on Promoting Green Belt and Road**" in 2017 which includes the formulation of main tasks to serve the five major goals of the BRI for a green economic development and the assurance of eco-environmental safety. One of these five goals refers to green infrastructure and states:

"We will boost green infrastructure and prioritize environment quality. We will formulate environmental protection standards and codes for infrastructure construction, increase environment protection service and support for major infrastructure construction projects along the route, popularize energy conservation and environmental protection standards and practice in such sectors as green transport, green building and clean energy, advance environmental protection in areas like water, atmosphere, soil and bio-diversity, promote environmental infrastructure construction and improve green and low-carbon construction and operation."[23]

In 2018, the **Belt and Road Green Investment Principles (GIP)** were developed as non-binding principles for public and commercial banks. The GIP were jointly developed by China's Green Finance Committee and the City of London Corporation's Green Finance Initiative[24] and was signed by several banks during

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[19] China Brief Volume 19 Issue 10, Ciurtin, Horia (2019). The "16+1" Becomes the "17+1": Greece Joins China's Dwindling Cooperation Framework in Central and Eastern Europe: https://jamestown.org/program/the-161-becomes-the-171-greece-joins-chinas-dwindling-cooperation-framework-in-central-and-eastern-europe/ 25.05.2020

[20] Treyer, S. (2019). Greening the Belt and Road Initiative: recent advances in assessing the scale of the challenge, the obstacles and the tools for action: https://www.iddri.org/en/publications-and-events/blog-post/greening-belt-and-road-initiative-recent-advances-assessing-scale

[21] Zhou, L., Gilbert, S., Wang, Y., Cabré, M. M., & Gallagher, K. P. (2018). Moving the green belt and road initiative: From words to actions. World Resources Institute. https://www.wri.org/publication/moving-green-belt-and-road-initiative-from-words-to-actions., page 1

[22] Tsinghua University, Vivid Economics and Climateworks (2019). DECARBONIZING THE BELT AND ROAD - A GREEN FINANCE ROADMAP: https://www.climateworks.org/report/decarbonizing-the-belt-and-road/, page 43ff

[23] Chinese Ministry of Ecology and Environment (2017). Guidance on Promoting Green Belt and Road: https://eng.yidaiyilu.gov.cn/zchj/qwfb/12479.htm

[24] Belt and Road Green Investment Principles (GIP) are available at http://www.gflp.org.cn/public/ueditor/php/upload/file/20181201/1543598660333978.pdf

the second BRI forum. As of 25 April 2019, 27 financial institutions around the world, including China's four major state-owned commercial banks and three major policy banks, have signed the principles.[25] The GIP include seven principles including understanding of ESG risks, ESG integration into governance, environmental disclosure, stakeholder communication, green finance instruments, green supply chain management and joint action for green finance capacity building.

The **BRI International Green Development Coalition (BRIGC**) was established during the BRI Forum 2019 with the purpose of "*promoting international consensus understanding, cooperation and concerted actions to achieve green development of BRI*"[26]. BRIGC both includes governmental organizations (e.g. UNEP) and non-governmental organizations (e.g. ClientEarth). The BRIGC also includes some European ministries such as the Ministry of Environment of the Slovakia, Ministry of the Environment, Land and Sea, Italy, Ministry of the Environment, Energy and Housing, Finland; and the Ministry of the Environment, Estonia. The BRIGC has established ten "thematic partnerships", including one on "green finance and investment" led by Tsinghua National Institute of Financial Research in partnership with IISD and WRI, and further working groups e.g. on sustainable transportation, "Renewable Energy & Energy Efficiency" or on "Environmental Law, Regulation and Standards".[27] So far, little information is publicly available on thematic work and output of the BRIGC and its thematic partnerships.

One first output of the BRIGC is the baseline study for a green light system to evaluate BRI investments in regard to their environmental performance which was announced in October 2019, a first draft of the study presented in March 2020 and in April 2020, with the final study still underway.[28] The study builds on some previous work by HSBC and WWF, introducing heat map approaches for BRI infrastructure investments that may support monitoring of BRI investments at a general technology-based level.

2.2 The EU policy framework for sustainable infrastructure in the 17+ countries

Further to the background on BRI, it is crucial to understand the background for sustainable infrastructure investments from the European perspective. The 17 countries cooperating with China under the "17+1" format fall into two categories: 12 EU Member states and 5 non-EU Member states who are all in the process of EU Accession[29]. The EU policy framework for green and sustainable infrastructure in the 17 countries consequently includes a look both at the EU "internal" framework for infrastructure support in its Member States as well as a look at EU "external" policy instruments towards neighbouring (pre-accession) non-EU countries.

The EU policy for green infrastructure investments links to various EU policy frameworks structured along major sectoral policies.

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[25] Green Belt and Road Initiative Centre (webpage): https://green-bri.org/bri-cooperation-mainstreaming-esg-investments

[26] BRI International Green Development Coalition (webpage): http://eng.greenbr.org.cn/icfgd/aboutus/introduce/

[27] BRI International Green Development Coalition (webpage): http://eng.greenbr.org.cn/icfgd/special/ and Green Belt and Road Initiative Centre (webpage): https://green-bri.org/belt-and-road-initiative-green-coalition-brigc

[28] Belt and Road Portal (in Chinese)(Webpage):https://www.yidaiyilu.gov.cn/xwzx/gnxw/121381.htm and Green Belt and Road Initiative Centre (webpage): https://green-bri.org/green-light-system-for-the-belt-and-road-initiative

[29] Albania, Serbia, North Macedonia and Montenegro are EU-candidates. Bosnia and Herzegovina is a potential EU-candidate. European Commission (webpage): https://ec.europa.eu/neighbourhood-enlargement/policy/glossary/terms/candidate-countries_en

For **energy**, the Energy Union Strategy published in 2015 sets the framework and links energy investments with climate goals.[30] To implement the sustainability dimension of the EU Energy Union, the EU adopted the "Clean Energy for all Europeans" Package in 2019 consisting of eight legislative acts relating for instance to renewable energy, energy efficiency and the Regulation on the Governance of the Energy Union and Climate Action (2018/1999). The latter regulation requires all Member States to come up with a "national energy and climate plan (NECP)" outlining how each country intends to meet the EU's 2030 energy and climate targets. NECPs are to cover countries' planning regarding sustainable energy including energy infrastructure.[31] NECPs include a chapter on investment status and investment needs, including energy infrastructure investments. Next to investment into a low-carbon energy infrastructure, there is dedicated support for the structural transition of some regions to move away from coal (see section 2.2.1).

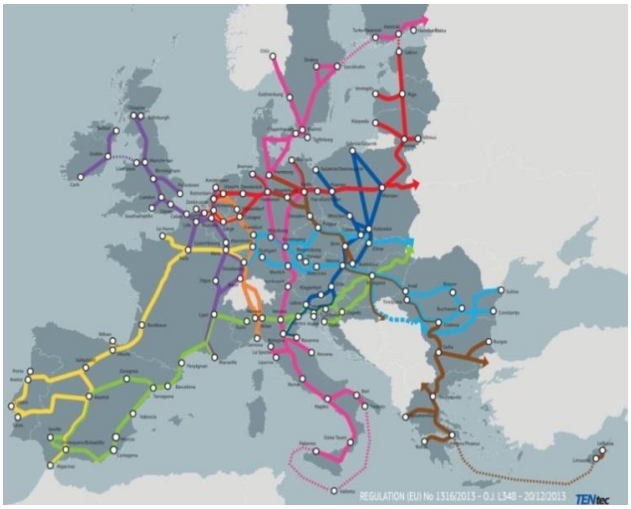

Figure 2 - Core Network Corridors according to TEN-T

For **transport**, the EU Trans-European Transport Network (TEN-T) policy is the guiding policy framework, based on Regulation 1315/2013. The TEN-T aims to strengthen social, economic and territorial cohesion across Europe through a Europe-wide transport network, based on nine key corridors as depicted in Figure 2.[32] The TEN-T further aims to reduce the environmental impact of transport and increase energy efficiency.

The EU provides several funding mechanisms to realize the EU-wide energy & transport infrastructure, including the CEF (see chapter 2.4.1). Under the EU Green Deal, the EU seeks to move forward towards a sustainable transport infrastructure with 90% emission reductions of the sector by 2050 (see chapter 2.2.1).

The **EU's Western Balkan** policy is characterized by the pre-accession role of the WB countries. At the core of energy and transport cooperation is the WB countries' membership in the **Energy Community Treaty** and the **Treaty establishing the Transport Community**, detailed in section 2.3.

Cooperation is furthermore politically framed by the **"Berlin process"** that was set up in 2014 to strengthen regional cooperation between the EU and the Western Balkans, and has led to regular annual high-level summits since then, together with a **connectivity agenda** spanning the economic, social and political dimension.

A major EU strategy framework relevant to infrastructure sectors in the WB countries is the EU's **"Strategy on Connecting Europe and Asia"**.[33] The building blocks for this strategy cover energy, transport

[30] European Commission (webpage): https://ec.europa.eu/energy/topics/energy-strategy/energy-union_en

[31] European Commission (webpage): https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en

[32] European Commission (webpage): https://ec.europa.eu/transport/themes/infrastructure/ten-t_en

[33] JOINT COMMUNICATION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE, THE COMMITTEE OF THE REGIONS AND THE EUROPEAN INVESTMENT BANK, Connecting Europe and Asia – Building blocks for an EU Strategy. Brussels, 19.9.2018, available at https://eeas.europa.eu/headquarters/headquarters-homepage/50699/connecting-europe-asia-eu-strategy_en.

and digital infrastructure as well as social infrastructure. The strategy aims to promote "Sustainable connectivity", i.e. investments are "*to promote de-carbonization of the economy and respect high standards, based on environmental impact assessments*."[34]

In order to strengthen above efforts, EU aims to link its investment support within its Strategy on connecting Europe and Asia with its WB countries' pre-accession policy. The EU further works on implementing its connectivity strategy e.g. via the **EU China Connectivity platform,** which coordinates e.g. the EU's TEN-T and China's BRI activities. At the EU China summit 2019, a joint study on sustainable railway-based transport corridors between Europe and China was agreed upon.[35]

2.2.1 Towards 2050: The EU Green Deal

The **European Green Deal** (Dec. 2019) has been presented as the EU's major long-term strategy and roadmap towards making the EU economy sustainable by 2050.[36] It implies the mainstreaming of sustainability aspects through all EU policies, including for instance that all EU IPA funds have to follow the Green Deal objectives.

For the energy sector, the Green Deal sets the path towards net-zero greenhouse gas emissions in 2050.[37] Regarding the transport sector, the European Green Deal seeks a 90% reduction in transport emissions by 2050.[38]

Tightly linked to the Green Deal are the **European Green Deal Investment Plan**, triggering the required investments, and the **Just Transition Mechanism** for a fair transition of fossil fuel, both presented in January 2020. (See discussions in section 2.4 regarding the budgetary plans for these two instruments in the next EU budget period 2021-2027.)

In light of EU ambitions and efforts to increase funds for sustainable infrastructure development in neighboring countries, there is an ongoing discussion on the role WB countries could play in this European vision. Involving WB countries - already partly integrated through EU energy and transport markets - in the ambitious EU roadmap will be crucial to help achieving EU targets with un-tapped RE potential in these countries, while adding to further convergence in the energy and transport sectors within Europe.[39]

[34] Ibid, Page 2.

[35] European Commission (webpage): https://ec.europa.eu/transport/themes/international/eu-china-connectivity-platform_en

[36] European Commission (webpage): https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

[37] European Commission (webpage): https://ec.europa.eu/commission/presscorner/detail/en/fs_19_6723

[38] European Commission (webpage): https://ec.europa.eu/transport/themes/sustainable_en

[39] European Council on Foreign Relations (ECFR) (webpage): https://www.ecfr.eu/article/commentary_european_green_deal_bring_in_the_western_balkans

Focus: The Czech Republic, Greece and Hungary

This box provides context of the recent assessments of progress towards sustainable infrastructure in three EU Member states (MS) in focus; all committed and obliged to follow EU regulations, directives and polices, including those related to environment and climate change. EU policies strongly influence decisions on large infrastructural projects such as CO_2 emission taxation or Coal phase-out (Hungary by 2030, Greece by 2028, Czech Republic - phase-out under discussion).

Assessments of progress towards sustainable infrastructure investments in EU MS are provided in the EU's regular country reports in the context of the European semester.[40] The Country Reports 2020 look at the challenges and opportunities regarding the green economic transition linked to the infrastructure investment environment.

The country report for the **Czech Republic** points out some progress in investment related economic policy, with the new National Investment plan 2020-2050 allocating investment toward road and rail infrastructure. However, low-carbon investments in the area of energy transition are still rather low. Furthermore, administrative burden is mentioned as a major barrier with a new construction law being under development.[41]

In **Greece** a sizeable investment gap was accumulated following the long recession. Significant environmental rehabilitation efforts in its lignite mining regions will be required, further enforced by the intention of exiting lignite-based generation until 2028. Investment in electricity networks will be vital to fully realise the potential for renewable energy generation. The transport system, largely road-based, is responsible for the largest share of total final energy consumption. The rail network remains incomplete. Greece, supported by EC and EIB, prepared a National Transport Master Plan.[42]

Hungary's economic expansion generates an opportunity to engage in structural and institutional reforms. Hungary's commitment in its NECP is assessed to be unambitious in terms of the 2030 EU energy efficiency targets, mainly achieved by the phasing out of coal-fired power plants. The National Energy Strategy aims to increase electricity generation from low-carbon sources to 90% by 2030. The government intends to address the increasing transport emissions by promoting electric mobility but there is no clear plan on how to do this yet.[43]

The EU Environmental Implementation Review 2019 country reports additionally provide insights on the implementation of the EU Environmental and Energy Efficiency Operational Programme 2014-2020. The 2019 review reports point to challenges in creating effective and legally compliant Environmental Impact Assessment (EIA) process in the Czech Republic[44], challenges in creating the right incentives for sustainable investments in Greece[45] and capacity challenges in introducing green infrastructure in Hungary.[46]

[40] Available for all EU Member States at EU 2020 European Semester: Country Reports (webpage): https://ec.europa.eu/info/publications/2020-european-semester-country-reports_en

[41] Country report Czech Republic at EU 2020 European Semester: Country Reports (webpage): https://ec.europa.eu/info/publications/2020-european-semester-country-reports_en

[42] Country report Greece at EU 2020 European Semester: Country Reports (webpage): https://ec.europa.eu/info/publications/2020-european-semester-country-reports_en

[43] Country report Hungary at EU 2020 European Semester: Country Reports (webpage): https://ec.europa.eu/info/publications/2020-european-semester-country-reports_en

[44] The EU Environmental Implementation Review 2019 - Country Report - CZECH REPUBLIC

[45] The EU Environmental Implementation Review 2019 - Country Report - GREECE

2.3 The WB countries' regulatory background

This section introduces the national policy context in the WB countries for sustainable infrastructure investments in the energy and transport sector.

The WB countries lag behind the EU in terms of infrastructure and economic development, which both represent a key barrier to economic growth.[47] Better infrastructure for transportation, energy and telecommunications networks would help WB countries to increase productivity, deepen their trade and integration and improve their attractiveness for foreign investment.[48]

Especially the WB railway infrastructure is far behind the EU average with the consequence that road transport is rather high in the region. The WB countries also lag behind other European economies in the energy sector. This is to a lesser extent than in the transport sector[49]; however, it is noticeable that among the ten most polluting coal power plants in Europe, seven are located in the Western Balkans.[50] The WB countries' electricity mix, with the exception of Albania, is heavily dependent on coal power production.[51] Albania generates 100% of its electricity supply from hydropower, but the other WB-countries have over 70% of the average regional electricity production coming from coal. Figure 3 illustrates the WB countries' electricity mix compare to the EU average.

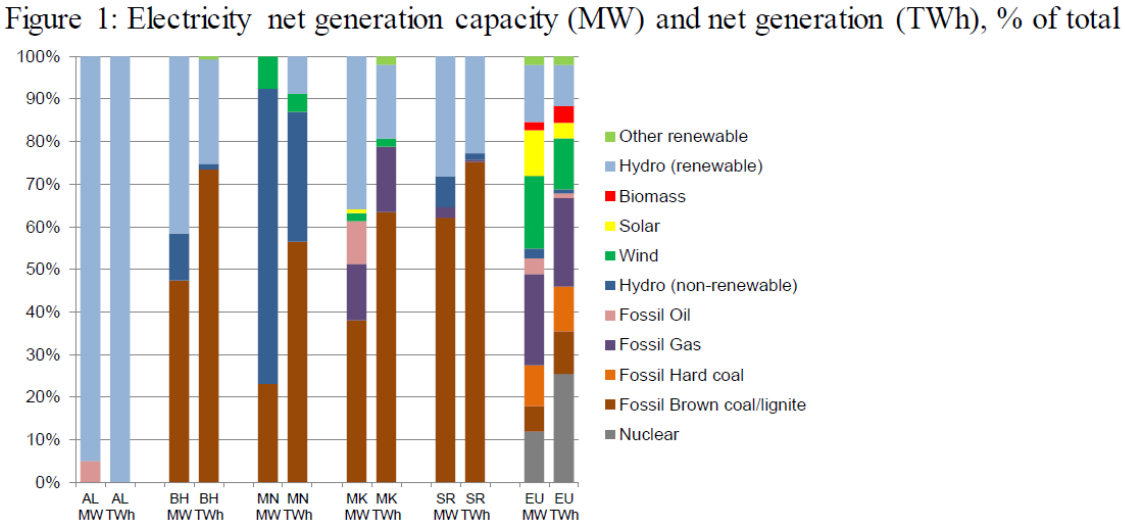

Figure 3 Overview on electricity mix (capacity and generation). Source: Milatovic and Chung (2018)

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[47] Zeneli, V., The Diplomat (2020) "The Western Balkans: Low Hanging Fruit for China?": https://thediplomat.com/2020/02/the-western-balkans-low-hanging-fruit-for-china/

[48] The Economist (2018). Infrastructure and growth in the western Balkans: http://country.eiu.com/article.aspx?articleid=1266569510&Country=Macedonia&topic=Economy&subtopic_1

[49] Grieveson, R., & Holzner, M. (2018). Investment in the Western Balkans (No. 27). Policy Notes and Reports: http://hdl.handle.net/10419/204270 page 16f

[50] Milatovic, J., Chung, D. (2018). Kicking the coal habit in the Western Balkans (EBRD Website): https://www.ebrd.com/news/2018/kicking-the-coal-habit-in-the-western-balkans.html

[51] Kopač, J. (2020). Wakeup call for the Western Balkans: https://balkangreenenergynews.com/wakeup-call-for-the-western-balkans/?fbclid=IwAR1m_mQ07Wu2BNGfmw80UpWJUR4-2fRgmLdgxpbzBNE-ZuQJLraLNxD9CyU

The overall regulatory environment in WB countries relating to the energy and transport infrastructure sectors, including the environmental requirements for these sectors, is associated with the process of adopting the EU *Acquis Communautaire* in these fields. Among other documents, the regulatory environment is presented within the EU's Analytical Reports[52].

The WB countries are partaking in relevant EU-WB treaties, which aim to extend the EU's internal energy and transport market rules to South Eastern Europe. Specifically:

- The Energy Community Treaty,
- The Treaty establishing the Transport Community.

WB countries have so far partly adopted the EU Acquis Communautaire in the accession process. However, there are still many related by-laws missing, in particular in the field of environmental protection and climate change. The low level of implementation of environmental legislation presents a challenge when realising large energy and infrastructure projects.

Energy sector strategies exist for all WB countries, though not fully implemented, and very often lacking scenarios with high shares of renewable energy sources and actions towards zero-emissions.[53] This creates a policy environment that does not stringently promote renewables. In their EU pre-accession role and as Energy Community Treaty signatories, the WB countries also prepare **National Energy and Climate Plans (NECPs)** supporting the countries' commitments towards energy and climate objectives by 2030. [54] According to the Energy Community Policy Guidelines, WB countries should submit their NECPs to the Secretariat of Energy Community by the end of 2020. Several WB countries are in the process of preparations, supported by EU and other partners. Currently, North Macedonia and BiH are most advanced in drafting their NECPs.[55]

The aim of the **Transport Community Treaty[56]** is the creation of a Transport Community for road, rail, inland waterway and maritime transport as well as the development of a transport network between the EU and the South East European Parties (WB countries). The WB countries have committed to implement the relevant environmental acquis with regard to transport, in particular the Strategic Environmental Assessment, Environmental Impact Assessment, nature-related, water-related and air quality related directives. Furthermore, all projects falling under the scope of the Transport Community Treaty are subject to conduct an environmental impact assessment (EIA) in line with EU standards.

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[52] For a short analysis based on most recent reports please refer to the Annex of this study. Analytical reports accompany the document "Communication from the Commission to the European Parliament and the Council Commission Opinion on each of accession countries' application for membership of the European Union".

[53] The respective energy strategies are the following: National Energy Strategy 2018-2030 for **Albania**; Framework Energy Strategy until 2035 for **Bosnia and Herzegovina** with the Energy development strategy of the Republika Srpska until 2030 and the Framework Energy Strategy until 2035 for Federation of Bosnia and Herzegovina; Energy Development Strategy of **Montenegro** by 2030; the strategy for energy development of the Republic **of North Macedonia** until 2040 and the strategy for development of energy in Republic of **Serbia** by 2025 with projections by 2030.

[54] 2018l1IMC-EnG on preparing for the development of integrated national energy and climate plans by the Contracting Parties of the Energy Community, January 2018. And POLICY GUIDELINES by the Energy Community Secretariat on the development of National Energy and Climate Plans under Recommendation 2018/01/MC-EnC, June 2018 at: https://energy-community.org/legal/policy-guidelines.html

[55] Energy Community, NECPs in ENERGY COMMUNITY CPs, April 2020. at: https://energy-community.org/

[56] EUR-Lex: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22017A1027(01)&from=EN

2.4 Overview on EU infrastructure investment support

For EU member states, there are currently two major strands of EU infrastructure support instruments available: first, EU Strategic Investment support through the Connecting Europe Facility (CEF) and the European Fund for Strategic Investment (EFSI) and second, the EU regional development and cohesion instruments.

For the WB countries, the EU is a "natural" major player for supporting infrastructure investments; the region is in the immediate neighborhood and countries are potential member countries. The EU provides similar volumes of loans to infrastructure investments in the energy and transport sector in the region as do China. Further to this, the EU provides grants to the region.[57] WB countries receive EU support from Pre-Accession Assistance (IPA), the EU Western Balkan Investment Framework (WBIF), the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD). The upcoming EU budget 2021-2027 reinforces support both for Member States but also for the WB countries as EU pre-accession countries.

The following sections provide more details on these specific EU investment support for sustainable infrastructure, available for the three EU MS and five WB countries in focus of this study.

2.4.1 EU infrastructure investment support for MS

The **Connecting Europe Facility (CEF)** is a core EU instrument which supports infrastructure investments through co-financing grants (and some other financing instruments), with dedicated sections for transport (CEF-T), energy (CEF-E) and telecommunications/digital services. The budget for each sector is based on the EU multiannual financial framework. For the budget period 2014-2020, the CEF budget included €24.05 billion for transport, €5.35 billion for energy, and € 1.05 billion for telecommunications respectively.[58]

Looking into the details of CEFs projects in the EU member countries Czech Republic, Greece and Hungary, it is noticeable that more projects, in terms of number, are implemented in CEF Transport than through CEF Energy framework. The same is true for the accumulated project funding, as can be seen in the summarizing Table 1 below.

The **European Fund for Strategic Investment (EFSI)** is the EU's strategic instrument to mobilize private investment including into strategic infrastructure in the energy and transport sectors. EFSI works through financial guarantees via the EU-budget (€26 billion) and EIB (€7.5 billion).[59] The Commission works together with the European Investment Bank (EIB) Group as its strategic partner. EFSI has a target that at least 40% of projects need to contribute to climate and sustainability objectives.[60]

[57] Grieveson, R., & Holzner, M. (2018).

[58] European Commission (webpage): https://ec.europa.eu/inea/en/connecting-europe-facility

[59] European Investment Bank (EIB) (webpage): https://www.eib.org/en/efsi/what-is-efsi/index.htm

[60] European Commission (webpage): https://ec.europa.eu/commission/priorities/jobs-growth-and-investment/investment-plan-europe-juncker-plan/european-fund-strategic-investments-efsi_en

Table 1: Project overview CEF Energy & Transport, based on country fact sheets[61]

Country	CEF Energy		CEF Transport	
	No of projects	Funding	No of projects	CEF-T co-Funding
Czech Republic	9	51.7 € million	58 (+5)	956.2 € million
Greece	10	42.3 € million	32 (+3)	574.9 € million
Hungary	4	1.9 € million	45 (+3)	1.1 € billion

EUs regional development and cohesion instruments include 5 European structural and investment funds (ESIF), together channeling over 50% of the EUs funding. Of the five ESIFs, two funds are relevant for energy and transport infrastructure investment support; The **European regional development fund (ERDF)** and the **Cohesion fund (CF).**[62]

The European regional development fund (ERDF) promotes a harmonized and balanced development in the different regions of the EU. Further to this, some ERDF resources must be channelled specifically towards low-carbon economy projects.[63] The Cohesion fund (CF) aims to reduce economic and social disparities and to promote sustainable development in Member States whose Gross National Income (GNI) per inhabitant is less than 90 % of the EU average. The Czech Republic, Greece and Hungary were all eligible for these funding in the 2014-2020 budget period. [64]

2.4.2 EU infrastructure investment support for WB

The EU's Instrument for the Pre-Accession Assistance (IPA) provides technical and financial pre-accession support for EU enlargement countries. The IPA instrument is explicitly linked to the support for sustainable economic development, e.g. for the energy and transport sector. IPA 2 for the EU budget period 2014-2020 has a budget of € 11.7 billion. All five WB countries in the scope of this study are beneficiary countries of the IPA 2.[65]

The EU Western Balkan Investment Framework (WBIF) is EU's major infrastructure investment fund in the WB, and it also coordinates EU and bilateral donor activities in the region. It offers loans and grant-based support for infrastructure investments, including in the energy and transport sectors, and furthermore provides technical assistance to investments. The WBIF is funded by the EU's IPA and by further bilateral donors.[66] The overall track record of the WBIF in the five WB countries in focus of this study show significant volumes for the energy and transport sector, with Serbia leading with €3.3 billion, followed by Bosnia and Herzegovina with €2.5 billion.

[61] European Commission (webpage): CEF Country Fact sheets *Transport* at: https://ec.europa.eu/inea/connecting-europe-facility/cef-transport/projects-by-country and *Energy* at: https://ec.europa.eu/inea/connecting-europe-facility/cef-energy/projects-by-country

[62] European Commission (webpage): https://ec.europa.eu/info/funding-tenders/funding-opportunities/funding-programmes/overview-funding-programmes/european-structural-and-investment-funds_en

[63] European Commission (webpage): https://ec.europa.eu/regional_policy/en/funding/erdf/

[64] European Commission (webpage): https://ec.europa.eu/regional_policy/en/funding/cohesion-fund/

[65] European Commission (webpage): https://ec.europa.eu/neighbourhood-enlargement/instruments/overview_en

[66] Western Balkans Investment Framework (WBIF) (webpage): https://www.wbif.eu/about/about-wbif and Grieveson, R., & Holzner, M. (2018).

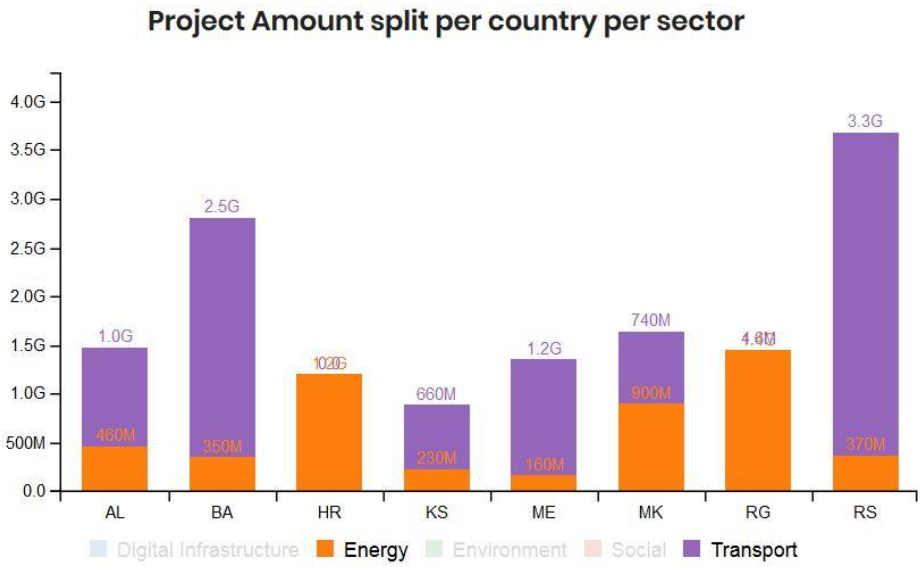

Figure 4 Track record of WBIF projects (loans and grants) as of July 2020. Source: https://www.wbif.eu/wbif-projects

The **European Investment Bank (EIB)** plays a major role in supporting sustainable infrastructure development in WB countries. EIB's track record 2008-2018 in the 5 WB countries adds up to a volume of about €7.4 billion. EIB instruments comprise lending, blending and technical assistance. In EIB's lending, transport has had a share of 29.6% in these years, with the EIB increasingly focusing on railways projects to move to a more sustainable transport system. In terms of energy, lending amounted only to about 5% (compared to higher shares in lending for energy projects within the EU and outside the EU).[67]

EIB has recently stressed its strategic targets of expanding its support to energy and transport connectivity linked to a Green Agenda for the WB.[68] EIB is furthermore committed to continue its strong position in the WB region and has built up a pipeline of currently around €2.3 billion focusing on the sustainable development of the region.[69] As a side-note, it is worthwhile stating that EIB is also an active partner for EU Member States infrastructure investments, including in the Czech Republic, Greece and Hungary.

The **European Bank for Reconstruction and Development (EBRD)** invested over € 3 billion since 2006 in "greening" of WB countries[70] and close to € 12 billion in the WB region overall.[71] Among the EBRD green investments in the region there were several large-scale renewable energy generation projects such as the 158 MW Čibuk and the 104 Kovacica wind project in Serbia (see box below) or the "ESM" solar plant

[67] European Investment Bank (webpage): https://www.eib.org/attachments/country/the_eib_in_the_western_balkans_en.pdf.

[68] European Investment Bank (webpage): https://www.eib.org/en/press/all/2019-170-eib-pledge-for-the-western-balkans-investments-in-competitiveness-innovation-and-climate-are-top-priorities

[69] European Investment Bank (webpage): https://www.eib.org/en/press/all/2020-111-eib-group-to-contribute-eur1-7-billion-to-the-eu-s-covid-19-response-package-for-the-western-balkans

[70] EBRD (webpage): https://www.ebrd.com/news/2020/greening-the-western-balkans-region.html

[71] EBRD (webpage): https://www.ebrd.com/news/events/western-balkans-investment-summit-2020.html

in North Macedonia.[72] Next to the financial volumes, EBRD also carries a strong track record in providing technical assistance to WB countries.

EBRD support for renewables in the WB: The Kovacica Wind Farm in Serbia

Photo 1: New Energy Solutions

The Kovacica Wind Farm is one of the largest wind farm projects in Serbia to date. It officially started its operations in September 2019 after a 2 year construction period. The facility has a capacity of 104 MW, reducing CO_2 emissions by almost 250,000 tonnes per year.

The **EBRD** supported the construction of the wind farm with a €49 million loan. The total project cost of €189 million includes other financiers Erste Group and Erste Bank Serbia, covered by Euler-Hermes ECA. The investor is Enlight Renewable Energies of Israel. [73]

The total Project was financed by equity and up to EUR 140 million in debt finance. Apart from the credit provided by EBRD there were also parallel commercial loans to balance the gap. The Israeli investor Enlight Renewable Energy Ltd is the majority owner but there are also several minority investments by institutional investors. Enlight is part of the Eurocom Group, one of Israel's largest holding companies.

The Kovacica was among the first large scale wind farms in Serbia to reach commercial operations. Apart from a demonstration effect, the wind farm pilots private sector power generation, being among the first privately-owned power plants in Serbia. The Project diversifies the Serbian power sector, adding Wind-Energy to the high concentration of thermal and hydro-power generation. [74]

Just as EIB, EBRD is also active in EU Member States, though with a slightly different focus. The Czech Republic was the first country to graduate from the activities of EBRD at the end of 2007. In line with the EBRD's Post-Graduation Operational Approach, the EBRD's plan for the Czech Republic now includes, amongst other initiatives, activities aimed to facilitate cross-border investments by Czech companies within the EBRD region.[75] Greece is a founding member of EBRD and joined the bank in 1991. Since the financial crisis in 2014, Greece is not only a donor to EBRD, but also a country where the EBRD invests. In the role as an EBRD donor, Greece contributes to, and actively participates in, the Western Balkans Investment Framework (WBIF), contributing EUR 500,000 to the WBIF and hosted the WBIF Steering Committee in Athens in 2013.[76] In Hungary, the transport sector receives EBRD support, e.g. through the

[72] EBRD (webpage): https://www.ebrd.com/news/2020/greening-the-western-balkans-region.html

[73] EBRD (webpages): https://www.ebrd.com/news/2019/serbias-kovaica-windfarm-starts-operations.html and Balkan Green Energy News (webpage): https://balkangreenenergynews.com/kovacica-becomes-serbias-largest-fully-operational-wind-farm/

[74] EBRD (webpage): https://www.ebrd.com/work-with-us/projects/psd/kovacica-wind-farm.html

[75] EBRD (webpage): https://www.ebrd.com/work-with-us/procurement/pn-51317.html

[76] EBRD (webpage): https://www.ebrd.com/where-we-are/greece/overview.html

development and implementation of a modern automated fare collection system for public transport users in Budapest. [77]

It is furthermore important to note that China is a shareholder of EBRD since 2016, not receiving EBRD funding but encouraging Chinese companies in participating in EBRD procurement.[78] This has induced e.g. tenders being awarded to Chinese companies in Serbia.[79] EBRD has provided debt financing to Chinese-sponsored projects, outside of the WB countries, for instance in Kazakhstan and Ukraine.[80]

2.4.3 The EU budget 2021-2027

EU presented its Major Recovery Plan for Europe on 27 May 2020, detailing the budget for European recovery from the COVID-19 crisis, amending its multiannual financial framework for 2021-2027 by the "Next Generation EU" budget.[81] This €1,100 billion[82] budgetary plan includes figures for the major instruments as introduced above, together with additional support instruments that are included for the first time. In particular, the "Next Generation EU" budget of €750 billion aims to respond to the economic recovery due to the on-going COVID-19 pandemic.

For the upcoming EU budget period 2021-2027 the budget for the CEF is proposed to be €12.88 billion for transport, €5.18 billion for energy and €1.83 billion for digital services. Regional development and cohesion funds are complemented by a "REACT EU" facility. The InvestEU Fund builds on the EFSI model and will, next to EFSI, additionally add further EU financial instruments, with €1.3 billion of budget and additional €30.3 bn of budget from the "Next Generation EU" reinforcement budget €15.3billion for economic recovery and €15 billion for Strategic Investment Facility.

The "**Just Transition Fund**"[83] for the transition of coal regions is reinforced with additional €2.5 billion on top of the originally planned €7.5 billion in EU core budget and additional €30 billion from the Next Generation EU budget. According to an initial analysis of "Balkan Green Energy News", around €10 billion of this amount may be directed towards South-Eastern-European EU member countries.[84]

The EU's Major Recovery Plan for Europe further details the budget for the European recovery from the COVID-19 crisis.[85] The budget specifically refers to the following support for Western Balkan countries:

For IPA3 the EU's budget gives specific reference to Western Balkans: "*Supporting our partners in the Western Balkans by bringing the Union's pre-accession assistance to a level of EUR 12.9 billion.*"[86] The

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[77] Wikipedia (webpage): https://en.wikipedia.org/wiki/Budapesti_K%C3%B6zleked%C3%A9si_K%C3%B6zpont

[78] EBRD (webpage): https://www.ebrd.com/who-we-are/structure-and-management/shareholders/china.html

[79] Bastian, Jens, The potential for growth through Chinese infrastructure investments in Central and South-Eastern Europe along the "Balkan Silk Road", Report prepared for EBRD, Athens/London, July 2017.

[80] Compare EBRD webpages: https://www.ebrd.com/news/2018/ebrd-supports-chinas-risen-energy-expansion-in-kazakhstan.html; https://www.ebrd.com/work-with-us/projects/psd/chulakkurgan-solar.html and https://www.ebrd.com/work-with-us/projects/psd/uself-nbt-syvash-wind.html.

[81] EC COM(2020) 442 final. "The EU budget powering the recovery plan for Europe": https://ec.europa.eu/info/sites/info/files/about_the_european_commission/eu_budget/1_en_act_part1_v9.pdf.

[82] EU budget 2021-2027 numbers are in 2018 prices.

[83] Which forms one of the pillars of the EU's Green Deal as announced in January 2020.

[84] Spasić, V. (2020). "Southeastern Europe may get EUR 10 billion as EU boosts Just Transition Fund plan": https://balkangreenenergynews.com/southeastern-europe-may-get-eur-10-billion-as-eu-boosts-just-transition-fund-plan/?utm_source=phplist284&utm_medium=email&utm_content=HTML&utm_campaign=Newsletter+June+3%2C+2020+-+Balkan+Green+Energy+News.

[85] EC COM(2020) 442 final.

budget earmarks €86 billion for the **Neighbourhood, Development and International Cooperation Instrument (NDICI)**. The NDICI contain an investment framework for external action to raise additional financial resources for sustainable development from the private sector. It will consist of the **European Fund for Sustainable Development (EFSD+)** and the **External Action Guarantee**, targeting the post-COVID-19 recovery process in countries covered by NDICI and IPA3. The current EFSD guarantee will expand its scope to the **Western Balkans** (in addition to the Neighbourhood and sub-Saharan Africa). [87]

The EU and the WB region (in their role as enlargement countries) held a virtual EU-Western Balkans Zagreb Summit in May 2020. The summit was characterized by the on-going COVID-19 Crisis and the perspective towards a European recovery from the pandemic. Concluding the meeting, both the EU and the Western Balkan countries stressed their solidarity for an even stronger collaboration in their summit declaration, also highlighting the role of WB countries in the EU's investment plan for a resilient recovery. The Zagreb Declaration also points at the importance to link the region to the EU's climate ambitions.

Figure 5 summarizes the major cooperation formats and infrastructure support instruments or investment programs respectively between the EU, China and the Western Balkan countries, outlining the "double role" of the 12 EU countries which are also partners of the "17+1" format.

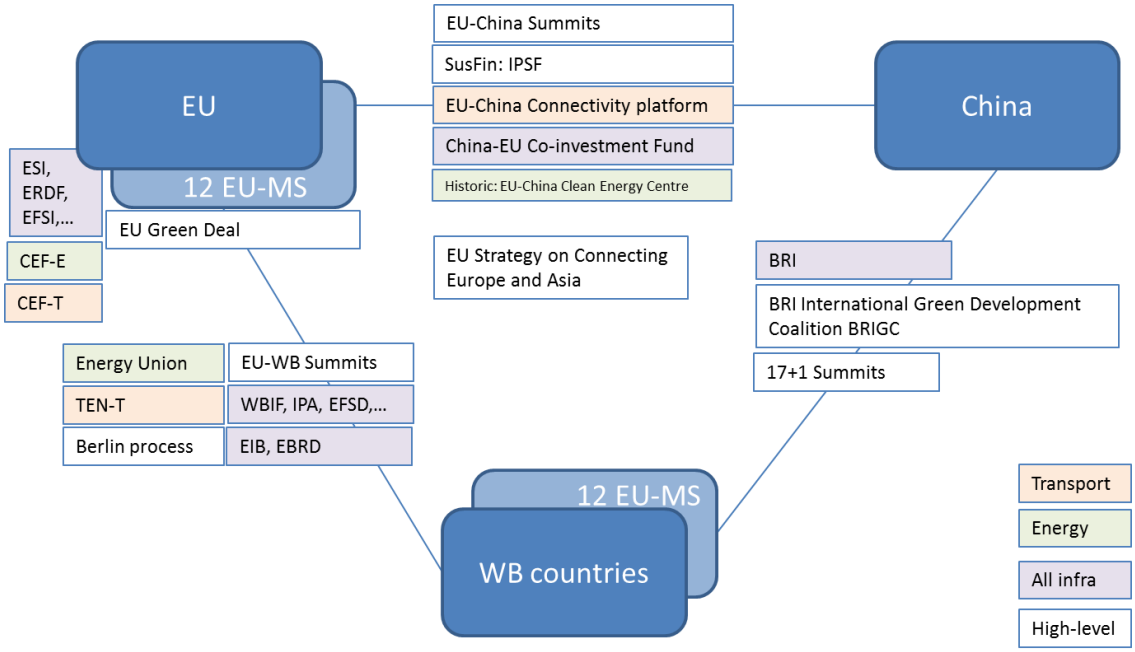

Figure 5 - Summary overview on EU-Chinese-Western Balkan cooperation formats on (green) infrastructure. Source: own compilation.

[86] Ibid

[87] EU Factsheet: "EU Budget for the Future - The Neighbourhood, Development and International Cooperation Instrument": https://ec.europa.eu/international-partnerships/documents/eu-budget-future-neighbourhood-development-and-international-cooperation-instrument_en

3 Investment analysis of BRI investments in 17 + 1, focus on Western Balkans

This chapter takes a detailed look into BRI investments in the 17+1 partner countries, the focus being on the 8 countries as introduced in chapter 1. We provide an overview and compare it with EU activity before we look into specific BRI energy and transport investments for an in-depth analysis and then conclude with a status quo analysis.

Discussing BRI investments in the WB countries requires a definition on which investments should be considered or not. Due to a lack of an "official" BRI project database, this study goes for a broad definition in order to have perspective as comprehensive as possible on relevant Chinese investments in the region. Specifically, this means that

- All Chinese investment or lending since 2014 (after BRI was announced) in the WB region is considered, be it officially labelled as BRI project or not[88]
- Only investments with major Chinese involvement are considered (due to a lack of data on any Chinese minority involvement)
- Completed projects and projects "in progress" are included. Announced projects may be discussed but are not captured in our database
- Projects with any type of Chinese participation are included, including in financing, construction etc.
- In complex infrastructure projects with different project phases (e.g. tendered separately), each phase is treated as a separate project. Thus, projects with Chinese involvements in specific phases are included referring to the specific phase/part of the infrastructure project.

3.1 Overview on Chinese/BRI investments in the 17+ countries

The data basis used for the investment overview in this section is the China Global Investment Tracker (CGIT). The CGIT (or Tracker) is published by the American enterprise institute and the heritage foundation.[89] We complement the tracker data with bottom-up data accumulated through our own desk research, identifying BRI Infrastructure projects in the WB countries.

The accumulated BRI investments (investments + contracts) in the 17+ cooperation countries in the CGIT Database in the time period 2014-2019 amount to $22.96 billion. Detailed figures per country are included in the below Table 2, which also summarizes the countries status in terms of EU and their role in this report (focus country or not).

Serbia, followed by Greece, has received the largest share of BRI investments in the 17+ cooperation so far. This comparison also shows that geographically and population-wise small countries such as Montenegro and Bosnia & Herzegovina have received investments in the same size as Poland and Hungary.

[88] Nota bene: this broad definition explicitly goes **beyond** infrastructure investments that are explicitly labelled as „BRI" investments.

[89] China Global Investment Tracker (webpage): https://www.aei.org/china-global-investment-tracker/

BRI investments in the four Western Balkan countries (Albania is not included in CGIT) amount to 11.53 billion US Dollars, which represents a share of almost 18% of overall regional BRI investments in Europe, which totals to ca 65.7 billion in CGIT. Overall, in the eight focus countries (excl. Albania) of this study, the BRI investment volume is 18.25 billion US Dollars, representing 28% of regional BRI investment.

Table 2 Overview 17+1 format (own compilation)

Nr	Countries * = focus countries in this report	WB	EU	BRI investment 2014-2019 in Millions CGIT
1	Albania*	x		N.N.
2	Bosnia & Hercegovina*	x		$1,510.00
3	Bulgaria		x	$130.00
4	Croatia		x	$690.00
5	Czech Republic*		x	$860.00
6	Estonia		x	N.N.
7	Hungary*		x	$1,360.00
8	Latvia		x	$110.00
9	Lithuania		x	N.N.
10	North Macedonia*	x		$280.00
11	Montenegro*	x		$1,220.00
12	Poland		x	$1,330.00
13	Romania		x	$270.00
14	Serbia*	x		$8,520.00
15	Slovakia		x	N.N.
16	Slovenia		x	$2,180.00
17	Greece*		x	$4,500.00
				$22,960.00

The total global Chinese BRI investments in CGIT during the years 2014-2019 sum up to $702.25 billion. The relative share of BRI investments in the 17+ cooperation countries (as in CGIT) is about 3.3%.

Looking closer at the sectors targeted by BRI investments, based on the data of the CGTI database, it is evident that transport and energy are important sectors for investments, together accounting for 74% of overall BRI investments in this study's focus countries (where data is available).

Figure 6 illustrates the sectoral proportions of transport, energy and "other sectors" in the BRI projects 2014-2019 in each of the study focus countries. Please note that Albania is not included in the CGTI, which is the reason it is also not included in the sector pie-charts.

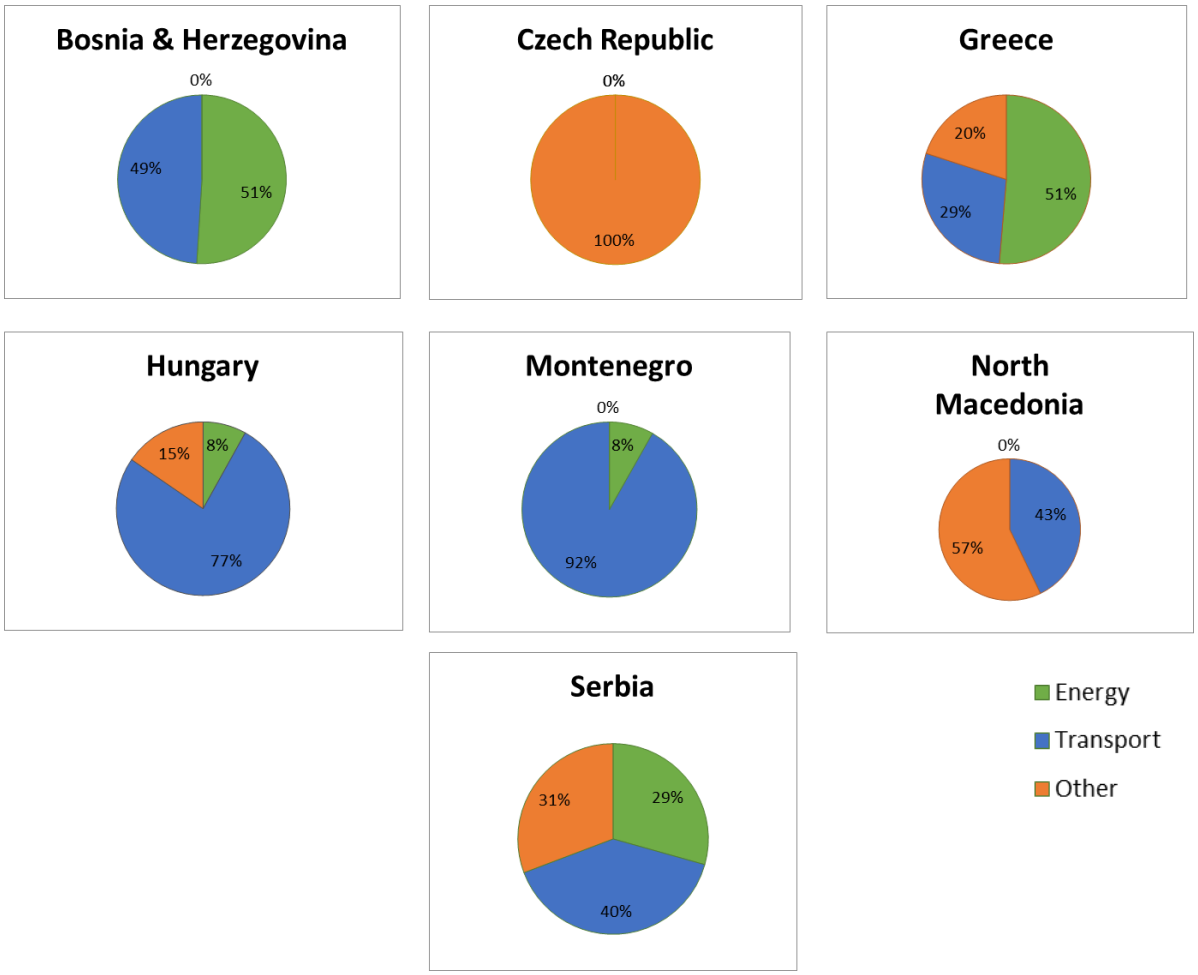

Figure 6 - Sectorial split of BRI investments in focus countries

It is worth pointing out in the sectorial BRI split view is that Czech Republic only had BRI projects in the sectors "Finance" and "Real estate". Greece has large BRI projects in the "other" sectors such as "Metals" and "Technology", whereas Serbia has large share of BRI projects in the "other" sectors: Utilities, Metals, Other and Technology.

Based on this overview, we compare the GCIT investment figures with the project data accumulated in our own project database, which comprises information on 47 projects in total from the years 2011 to 2020. Infrastructure projects in our project database range from "planned/announced" to "ongoing" to "finished" projects in the 17+ cooperation countries, with concentration on identifying projects in our eight focus countries and in the energy and transport sectors. We included 17 different energy projects of which 10 projects relate to coal-fired power plants, while the transport sector counts 25 projects, 16 of which relate to highways, six to railroads, and three to other transport projects.

At a general level, we make the following observations:

- Total BRI investment in the 17+ project identified in the project database (Note: not all projects provided this info) sums up to a total of €82.8 billion, (~ $93 billion). This figure is much higher for the region than in the tracker database (=$23 billion). One reason for this discrepancy might be that the project information collected in our research is not limited to the Chinese investment part only. The CGIT claim to clearly specify the Chinese investment and contracts, not local contributions to the listed projects.

- Serbia is not dominant among the focus countries in terms of investment amounts in the transport and energy sectors in the project database. However, due to a single huge infrastructure project labelled as "other" (cross sectorial: electricity, heat, gas and water production and supply), the total investment amount of Serbia outrun the other countries investments.
- We identified three transport BRI projects in Albania in our project database. Albania has the highest overall investment figure when looking at the transport and energy sector, but the country as such was not represented at all in the CGIT.

Based on the BRI figures we collected for the 17+ projects in our project database, it is safe to assume that other regions might also be under-represented in the tracker data base, when a broader definition of the project investment (such as ours) is used. We conclude this overview outlining some major projects with Chinese involvement as included in the database. This is amended by the project in-depth analysis of five cases that follows in the next section.

In **Albania** we included three **Transport** projects, all for highways, the most prominent in terms of investments being the Albania - Montenegro Highway. This 280km link between Albania and Montenegro will be constructed by the China Pacific Construction Group and was announced after the 16+1 meeting in 2015.[90]

For **Bosnia & Herzegovina** we identified six BRI Coal **Energy** projects, including the 450MW **Tuzla 7** project (see next section) and the 300 MW **Stanari power plant** that is constructed by China's Dongfang, and financed by the China Development Bank. Located in the Republika Srpska part near Doboj, the project has caused environmental as well as political discussions due to the failure to notify neighbouring countries about potential transboundary pollution and the project not compliant with EU pollution standards.[91]

Greece Piraeus Port is the largest port in **Greece** and the second largest in the region. Helped by increasing involvement of Chinese companies, the port has turned into an international hub with improved port facilities and capacity and a major BRI **Transport** project.

The **Montenegro** part of the new **Belgrade–Bar motorway** is a prominent **Transport** project being built and also (mostly) financed by Chinese firms in this country. The project total costs are estimated at more than $1 billion and will comprise 42 tunnels and 92 bridges and viaducts through mountainous terrain. The reconstruction of the Pljevlja thermal power plant is presented in the case analysis.

In **Hungary**, Chinese investment in the **Budapest–Belgrade railway** is the first stage of the planned Budapest–Belgrade–Skopje–Athens railway, a **transport** project that has raised a lot of criticism. Hungary's effort to keep details of this Chinese-funded rail project a state secret has agitated public opinion.[92]

There is one "other" project in **Serbia** which dominates the investment figures in the project database due to an investment size of €62 billion focusing on steel mill renovation and enhancement construction. Beside this project, we identified two large **energy** sector projects in Serbia; **"TPP Kolubara B" and "TPP**

[90] Reconnecting Asia Web (webpage): https://reconnectingasia.csis.org/database/projects/albania-montenegro-highway/c42658b8-33e1-46d9-89ad-38b2247c062d/

[91] CEE Bankwatch Network; Stanari lignite power plant, Bosnia and Herzegovina (webpage): https://bankwatch.org/project/stanari-lignite-power-plant-bosnia-and-herzegovina

[92] Reporting Democracy; Budapest to Belgrade: All Aboard the Secret Express (webpage): https://balkaninsight.com/2020/04/22/budapest-to-belgrade-all-aboard-the-secret-express/

Kostolac B3", the former described in detail in the next section. In the **transport** sector the new **E763 highway project**, which aims to connect Belgrade and Bijelo Polje in Montenegro, is a Serbian infrastructure project built in partnership with Chinese companies. The signed project is the starting section of the highway and will connect the downtown of Belgrade and the Surcin-Obrenovac section of CRBC's E763 Highway project, which is under construction.[93]

3.2 In-depth analysis of selected BRI investments

Based on the investment overview and the project database collection, this section takes a detailed look at specific BRI investments across our eight focus countries. Based on desk research, publicly available information, literature review and expert interviews, and partly based on confidential information made available during these interviews, this section presents a brief case analysis for five BRI investments in different stages of project realization (planned, ongoing, running).

Information about each case is structured along the following logic:

1. Project overview (country, sector, project status)
2. Investment model and Chinese participation/roles
3. Environmental/sustainability and other issues under discussion related to the project
4. Public perception of the investment, level of transparency
5. Use of environmental standards and their fulfilment, including "green BRI" approaches
6. Current status/Outlook/Recommendations as expressed by experts

Selection criteria for the cases have been the sectoral fit to the energy and transport focus, a balanced coverage across the eight focus countries of this study, and the availability and accessibility of detailed project information. According to these criteria, the following project cases were selected for the in-depth analysis:

Country	BRI project (with status)	Sector
Bosnia and Herzegovina (BiH)	Thermal-power plant Tuzla 7 (planned)	Energy (Thermal PP)
Hungary	Railway Belgrade – Budapest (ongoing) – Hungarian section	Transport (Rail)
Montenegro	Thermal Power Plant Pljevlja (reconstruction)	Energy (Thermal PP)
	Highway Bar – Boljare (ongoing)	Transport (Highway)
Serbia	TPP Kolubara B (planned, pre-agreement signed)	Energy (Thermal PP)

Figure 7 - Selection of projects for case analysis

[93] China Communications Construction Company Limited; E763 highway project in Serbia (webpage): http://en.cccltd.cn/newscentre/businessupdate/201911/t20191104_60274.html

3.2.1 Bosnia and Herzegovina - Thermal-power plant Tuzla 7

Project overview: The project Tuzla unit 7 refers to the construction of a 450 Megawatt (MW) planned new unit for the existing coal-fired power plant Tuzla. It is located in Tuzla, Bosnia and Herzegovina, and it is owned and operated by the public company 'Elektroprivreda BiH d.d. – Sarajevo'. The total value of the contract is € 919,210,500 (incl. 17% VAT) for the 450 MW thermal-power plant.

Figure 8 - Preliminary work site for the TPP Tuzla 7, BiH. Source: Tuzla representative.

Investment model and Chinese participation/roles: The Tuzla 7 project includes the Engineering, Procurement and Construction (EPC) of a coal fired power plant unit as replacement of the existing blocks T3 and T4. The EPC contract is signed between 'Elektroprivreda BiH d.d. – Sarajevo' and China Gezhouba Group Company Ltd. (Leader of the Consortium) and Guangdong Electric Power Design Institute (member of the Consortium). The investment is financed by the China Eximbank providing debt for the total investment. The contract foresees engagement of approximately 10% to 30% of the net contracted value within BiH. According to the contract, the investor and contractor are jointly responsible for arrangements and gathering of environmental approvals. For example, there are guaranteed technical parameters of emissions that must be in line with requested standards regulated by legislation in BiH or, if such standards do not exist, must comply with EU standards.

Environmental/sustainability and other issues: There have been several environmental and economic issues with the Tuzla 7 project. A feasibility analysis by the Banja Luka-based Institute for Construction (IG) assumed that Tuzla 7 will start paying a carbon price only in 2034 and that it would then be EUR 7.10 per tonne but rising to EUR 12.12 per tonne in 2061. Considering that the current ETS price is over EUR 25 per ton today[94], the study's' assumption seems a serious underestimation of the plant's generation costs. Additionally, the price at which coal is estimated to be sold to the Tuzla 7 plant by Elektroprivreda

[94] Compare https://ember-climate.org/data/carbon-price-viewer/, it has not dropped below this price since 1 July 2020.

BiH's mines is projected in the study to be €21.87/tonne. This price estimation is questionable, as it is lower than the 2013-2016 coal production price by BiH's mines.

EU legislation on State aid in line with the Energy Community Treaty apply to BiH as an accession county. Despite this, the Government of BiH approved a public loan guarantee for Tuzla 7 in favour of the Export-Import Bank of China for a loan to the public utility Elektroprivreda BiH d.d. Sarajevo. The Tuzla 7 guarantee covers 100% of the loan, though these guarantees have to comply with certain conditions, such as not exceeding 80% of the value of the loan. There are conditions in which covering 100% of the loan could be allowed, but they do not apply here.

Public perception of the investment, level of transparency: After complaints about this guarantee were submitted by the Aarhus Resource Center (Sarajevo) and Bankwatch to the Energy Community Secretariat in September 2018 an infringement process was initiated. The State Aid Council of BiH found this guarantee to not contain any elements of State aid. The Secretariat of the Energy Community on the other hand, preliminarily concluded that the State Aid Council's decision does not comply with the State aid acquis and that the public guarantee indeed constitutes State aid[95].

BiH requested a mediation process with the Energy Community Secretariat to resolve the issue, but no agreement was reached because the Government of BIH went ahead with signing the guarantee. This led the Energy Community Secretariat to break off the mediation process in December 2019 and the infringement process continued in January 2020. The Secretariat commits to supporting a clear and final decision in line with the Energy Community law, which would also restore legal certainty for the project.

Perception of the public towards the Tuzla 7 project is mixed, environmental issues are not transparent though the project environmental and social standards are claimed to be in accordance with BiH legislation.

Environmental standards: There is no reference to the "Guidance on Promoting Green Belt & Road Initiative".

Current status/Outlook/Recommendations: As at the time of writing, preliminary works are underway as part of the pre-conditions that needs be fulfilled prior to a start of a construction. Construction of the power plant is expected to start despite the ongoing infringement process about State aid. The Chinese counter parts are not involved in the infringement process at all.

3.2.2 Hungary: Railway Belgrade – Budapest

Project overview: In November 2013, China, Serbia and Hungary announced their plans to modernise the railway link between Budapest and Belgrade. The overarching train-line from Piraeus to Budapest is to serve as a key freight link once complete and can be seen as BRI's flagship project within the 17+1 cooperation.

The entire railway line Belgrade - Budapest is approximately 350km long, with the Hungarian stretch between Soroksár and Kelebia measuring 152 km.[96] The current typically single-track railway line is to be completely renovated, it was last upgraded in the 1960s and its condition is critical in some places. The project includes upgrading the maximum running speed of trains to more than 160 km/h, and also the construction of a second line track. The project has suffered significant delays. China, Serbia and Hungary

[95] The Energy Community; Case ECS-10/18: Bosnia and Herzegovina / State aid (webpage): https://www.energy-community.org/legal/cases/2018/case1018BH.html

[96] EIAS (2019), The BRI in Europe and the Budapest-Belgrade Railway Link, Briefing paper 10/2019.

signed the original memorandum on the rail route in 2014 but construction in Serbia only started in 2018 and to our knowledge not at all in Hungary yet (2020).

Figure 9 - Railway route and Belgrade – Budapest section. Sources: https://kafkadesk.org/2020/05/15/belgrade-budapest-high-speed-train-highway-to-rail/ and https://www.eias.org/briefing-papers/the-bri-in-europe-and-the-budapest-belgrade-railway-link/

Investment model and Chinese participation/roles: The *Hungarian- Railway Nonprofit Ltd.*, established by the Hungarian State Railways (15%) and the People's Republic of China (85%), issued a tender for the Hungarian section of the new railway corridor. The contract was won by CRE Consortium, 50% of which is owned by RM International, a unit of Hungary's Opus Global. The remaining 50% of the CRE consortium is held by China Tiejiuju Engineering & Construction and China Railway Electrification Engineering Group (Hungary), representing China's state railways company.

In April 2020, Hungary and China signed a 20-year, $1.9 billion loan deal with a 2.5% interest rate for the construction of the railway. The classification bill argued that this was necessary to help secure a loan from the Chinese Export-Import Bank to finance the project. Some 85% of the financing comes from China. Hungary's government later earmarked 82 billion forints ($256 million) from its 2020 budget to complete the finance of the rail link.

Environmental/sustainability and other issues: Hungarian Finance Minister Mihaly Varga called the debt financing agreement "*favourable relative to the currently available debt financing conditions*."[97]

Public perception of the investment, level of transparency: The Budapest - Belgrade railway line has been criticized since the renovation plans were made public. There is a discussion that the upgrade to 160km/h actually does not create a high-speed link but only a speed-link (compared to high-speed train links in China reaching up to 350km/h). Furthermore, the train link is mainly to be used for transporting cargo, not people.[98] Further to this, the cost of the investment is constantly increasing, while its return is

[97] EURACTIV.com with Reuters, Apr 24, 2020; Hungary, China sign classified loan deal for Budapest-Belgrade Chinese rail project (webpage): https://www.euractiv.com/section/china/news/hungary-china-sign-classified-loan-deal-for-budapest-belgrade-chinese-rail-project/

[98] Brînză, A. (2020). China and the Budapest-Belgrade Railway Saga, The Diplomat (webpage): https://thediplomat.com/2020/04/china-and-the-budapest-belgrade-railway-saga/

regularly questioned, leading to a discussion of over-indebtedness in breach of Hungarian law. This is parallel to ongoing discussions on corruption and governance issues.

From the Chinese side, it is argued that the project serves politically strategic objectives in the context of broader BRI goals rather than being purely motivated by major business opportunities. Documentation is closed to the public and not on a satisfactory level of transparency.

Environmental standards: From an environmental point of view, there are no significant obstacles to the project. The reconstruction of the railway will follow existing routes and basic environmental standards required by Hungarian and EU legislation. We could not find any mentioning of Green BRI principles.

Current status/Outlook/Recommendations: The project has now started while we could not confirm that actual preparatory and construction work for the project has already begun.

3.2.3 Montenegro: Ecological reconstruction of thermal-power plant Pljevlja

Project overview: The Thermal-power plant Pljevlja I (TPP Pljevlja I) is the first unit of TPP Pljevlja and has an installed capacity of 225 MW. It is located in the industrial zone of the city of Pljevlja in Montenegro. It is owned by the company *Elektroprivreda Crne Gore* and is designed with two units with a capacity of 210 MW each. However, the second unit was never built and the nominal capacity of the TPP Pljevlja reached 225 MW with reconstruction completed in 2016.

Figure 10 - TPP Pljevlja, Montenegro. Source: https://www.epcg.com/o-nama/termoelektrana-pljevlja

Investment model and Chinese participation/roles: Elektrorprivreda *MonteNegro* signed the Contract on the realisation of ecological reconstruction of thermal- power plant Pljevlja Block 1 with a Chinese-Montenegrin consortium consisting of: *DEC (DONGFANG ELECTRIC) International – Bemax - BB Solar - Permonte*. The value of the contract is €54 million and it will be predominantly financed from Elektrorprivreda Montenegro.

Environmental/sustainability and other issues: As to environmental issues, TPP Pljevlja is currently not within the limit values of emissions (e.g. nitrogen and sulphur oxides) according to the "Impact assessment study - Ecological reconstruction of TPP Pljevlja - Innovated 2"[99], nor does it meet the criteria for the quality of wastewater. It is also not within the emission limits of solid particles. The Environmental Impact Assessment was prepared by the company PAMING in October 2019. The *Elektroprivreda Montenegro* states that the goal of the reconstruction is to ensure compliance with the requirements and adherence to the strictest environmental protection parameters in line with the statutory regulations of Montenegro and the EU directives on emissions from coal-fired power plants. The works will involve building a flue gas desulphurization system and a denitrification system, improving the operation of the electrostatic precipitator as well as developing a wastewater treatment system.

Montenegro has introduced legislation to limit the emission of greenhouse gases as well as an emission trading scheme for large industrial emitters. The legislation specifies the operators participating in emissions trading and also determines the auctioned minimum price of €24 ($26) per ton of CO_2 emission credits. However, one could argue that there is a discrepancy between adopting this legislation and in parallel making investment into the reconstruction of TPP Pljevlja in order to extend its exploitation life until the year 2053.

Public perception of the investment, level of transparency: The legal and contractual transparency as well as access to information is low. It is difficult to gain direct access to relevant documents (e.g. Environmental Impact Assessment, contract, permits) on the EPC and contracting consortium. Due to this, the public perception of the project is two-fold; positive concerning job-security at TPP Pljevlja and the construction of district heating for the Pljevlja municipality; but negative regarding the continuation of pollution and emission in the area, in addition to land-degradation due to coal mining and disposal of ash and slag.

Environmental standards: There are no indications on activities implementing the Guidance on Promoting Green Belt & Road.

Current status/Outlook/Recommendations: The plan is to complete reconstruction by the end of 2023 with the target to expand the exploration life of the plant for another 30 years.

3.2.4 Montenegro: Highway Bar – Boljare

Project overview: The Government of Montenegro (MNE) decided to build a highway from Bar to Boljare in 2008 through a contractual partnership between public and private sectors. The total length of the highway Bar – Boljare is 169km with the first section under construction (Smokovac-Uvac-Matesevo) being 40.5km. It is a very challenging construction with i.e. 11 tunnels (around 14km) and 14 bridges and viaducts (around 4km) only for the first section. However, the project is seen as a very important infrastructure needed for further development of Montenegro.

The initial project proposal included the design, financing, construction, operation and maintenance of one or more sections of the highway, and it was conducted through a competitive and open international public bidding procedure. The intention was to regulate the project implementation by the Concession Agreement concluded between MNE and the private company for a period of 30 years. The Government of Montenegro had intense negotiations with the bidders (and financing institutions) at that time but it failed to agree upon the financial structure, even though various initiatives were evaluated to

[99] The Environmental Protection Agency of Montenegro (EPA Montenegro) (webpage): https://epa.org.me/2019/12/31/31-12-2019/

find a suitable model for the project implementation, including a meeting with representatives from EIB, EBRD and the World Bank.

Figure 11 - River Tara and construction of highway Bar – Boljare[100]

Investment model and Chinese participation/roles: In 2011, potential Chinese investors expressed a major interest in the project and the government of Montenegro signed a memorandum for cooperation in infrastructure construction with China the same year. Later, the parties signed an Agreement on the promotion of cooperation in infrastructure construction, where the highway project was the subject of amendments to this international treaty[101].

A construction offer from the Chinese Companies China Communications Construction Company (CCCC) and China Road and Bridge Corporation (CRBC) was received and evaluated. On 26 February 2014, the Design and Build Contract between the Government of Montenegro and Chinese Companies CCCC/CRBC was signed for this highway section.

In a parallel process, a Preferential Loan Agreement was signed by the Government of Montenegro and the EXIM Bank of China on 30 October 2014. The highway construction cost is around EUR 809.6 million and the Exim Bank's loan provide 85% (€ 687 million) of the total amounts at a 2% interest rate. The remaining 15% (€ 120 million) has to be provided by Montenegro's other sources, mainly public budget. The repayment is due to start in June 2021 with annual debt service volumes of $66.4 million during the 14 years of repayment period. This loan will be approximately one fifth of the total public debt of Montenegro. Companies working on the construction of the Highway Bar – Boljare are excluded from payment of VAT in accordance with a special law (*lex specialis*) next to further tax benefits.[102]

[100] MANS;VIDEO: Obilaskom rijeke Tare utvrđeno još gore stanje (webpage): https://www.mans.co.me/video-obilaskom-rijeke-tare-utvrdeno-jos-gore-stanje

[101] ("Official Gazette of Montenegro – International Treaties" 13/08) and ("Official Gazette of Montenegro – International Treaties", 7/14.

[102] Law on highway Bar - Boljare: Value added tax (VAT) is paid at a rate of 0% on the turnover of products and services intended for the construction of highways which is realized by the contractor, or for the account of the contractor on the construction of the highway

Environmental/sustainability and other issues: The contract with the Contractor (CRBC) foresees reservation of approximately 30% of work for domestic companies. An economic burden was added to the project as some important works were not included into the specifications for the first highway-section construction. This include the costs of electricity and water supply for the highway as well as costs for the construction of an intersection loop at Smokovac, all items which will need to be covered by other sources from the Government of Montenegro.

In accordance with the contract, the Contractor shall take all reasonable steps to protect the environment (both on and off the site). However, it is noticeable that the contracting process did not include the preparation of a strategic environmental assessment for the highway project as a whole; the EIAs are produced for each section separately. This approach leaves room for implementation and challenges potentially also negative environmental impacts. One of the largest environmental impacts of the construction is a significant disturbance on the river Tara, an UNESCO protected area in the Man and Biosphere Programme. There are changes in the water flow and also negative influence on the biodiversity due to digging and disposal of materials.

Public perception of the investment, level of transparency: The first construction priority was the highway section Smokovac-Uvac-Mateševo. The Government of Montenegro did not conduct a tender procedure or any other form of public procurement for the selection of the contractor for this work, supporting their decision with Article 3(2) of the Law on Public Procurement. The law provides exemption from the application of the Public Procurement Law in cases where the project is implemented on the basis of an international agreement. The overall economic effects of the highway construction are not transparent, but are mostly perceived as not profitable.

Environmental standards: There is no evidence of the use of specific international environmental and social standards and/or the Guidance on Promoting Green Belt & Road in the project.

Current status/Outlook/Recommendations: At the time of writing, some project delays occurred since large numbers of Chinese workers could not travel from China to Montenegro following the ongoing COVID 19 pandemic. However, about 400 Chinese workers from CRBC are expected to return to Montenegro to continue their work.

3.2.5 Serbia: Kolubara B

Project overview: The Kolubara B thermal power plant site is situated near the Kalenic village, 60km south-west of Belgrade. The decision to build the 2 x 350 MW coal power plants was taken in 1983 and construction started in 1988 but was suspended in 1992. At this stage, approximately 40% of the facility, owned by *Elektroprivreda Srbije*, had already been constructed, partly with the assistance of a World Bank loan.

Later, this project was mentioned as a potential project in Serbia's 2016 Energy Strategy, but it was not included in the 2017-2023 Implementation Programme. Nevertheless, the Minister of Mining and Energy of Serbia announced that the project proceed in August 2018. In November 2019, the Minister announced that a technical study had been completed, which indicated the feasibility of completing the project Kolubara B. The construction is planned to start in 2020. The state-owned coal miner, power producer and distributor EPS signed a preliminary agreement with partners from China (*Power Construction Corp. of China - POWERCHINA*) to construct the thermal power plant.

Figure 12 - Kolubara B site[103]

Investment model and Chinese participation/roles: The investment volume for this project is approximately € 385 million and includes the construction of a (second) 350 MW coal power plant which EPS aims to get online by the end of 2024. The Power Construction Corp. of China promised to deliver a detailed building proposition by the end of 2020. The two sides agreed to include primary and secondary tools for lowering nitrogen oxide emissions, install a desulfurization system and filters for particle matter and to add protection against the pollution from mercury and halogens. They also plan to build a wastewater treatment plant. The Power Construction Corp. of China claim that the plant will comply with the European Union's environmental standards.

Environmental/sustainability and other issues: From an environmental and sustainable perspective, it must be pointed out that this investment will expand the exploitation of coal in the Kolubara area for a period of 60 years. Further to this, there are serious considerations related to an increase of greenhouse gases and particles emissions, in addition to considerations related to disposal of ash and slag.

Within the development process of the project, the Ministry of Construction, Transport and Infrastructure published both the draft spatial plan for the special purpose area and also the strategic Environmental Impact Assessment report in November 2019.

Public perception of the investment, level of transparency: A public consultation was launched based on this draft and the initial process for preparation of a strategic Environmental Impact Assessment report for Kolubara B. The spatial plan states that the coal-fired thermal power plant complies with very strict domestic and international environmental rules, including EU regulations. However, experts debate whether the developers can make it profitable due to an unclear calculation and cost – benefit analysis.

[103] Wikimedia (webpage): https://upload.wikimedia.org/wikipedia/commons/d/da/Wiki_%C5%A0umadija_III_Rudarski_basen_Kolubara_297.jpg

There might be a need to reconsider parameters used for the investment decision. In particular, appropriate projections of CO_2 emission charges.

Environmental standards: Serbia, as a Contracting Party to the EU Energy Community Treaty, should ensure that reasonable CO_2 emissions charges are taken into account. Although the Contracting Parties to the Treaty establishing the Energy Community are not obliged to apply information on the price of carbon emissions, the estimated calculated price should be used to assist in estimating the likely operating costs of any new capacity.

Current status/Outlook/Recommendations: The signature of the pre-agreement with Chinese contractor as well as starting the new coal exploitation site indicates a positive project implementation decision - prior to finishing the EIA. Thus, there are no strong evidence or guarantees that relevant environmental rules would be respected during project implementation, in particular with regard to sulphur dioxide emissions, which were far over the upper limit. Finally, Serbia will not be able to meet the targets in the Paris Agreement and the EU's 2030 climate goals with the construction of this new coal-fired power plant. The investment model for the construction of the Kolubara B power plant is not fully transparent. It can be assumed that Chinese financial institutions will provide loan investments into a joint venture arrangement with the EPS and Power Construction Corp. of China.

3.3 Status analysis: how green are BRI investments in the Western Balkans?

The investment overview and project-based investment analysis presented above allow for some common observations on BRI investments in the eight focus countries with regards to how green these investments currently are. The focus is on the energy and transport sector; therefore, we will look into sector specifics next to some overarching issues common to the BRI projects.

3.3.1 General environmental, social and governance issues (Energy & Transport)

The analysis of specific investments in WB presented in the previous section reveals some characteristics regarding environmental issues related to these projects:

- There is usually a statement that these **projects comply with national (and as relevant: EU) environmental legislation**. Thus, in principle there is an attitude of "passive compliance" to environmental standards – but the case analysis has also shown that there are in fact often issues of state aid or special treatments. Beyond this, there is generally no pro-active approach of building "green infrastructure", according to our definition. Furthermore, there often is little information on how the environmental standards are being followed or implemented.
- The Strategic Environmental Assessments (SEAs) or Environmental Impact Assessments (EIAs) have been observed to **make assumptions that may not be realistic**, i.e. relating to CO_2 prices. The financial viability of investments is in some cases critically influenced by environmental assumptions (see energy specifics below).
- There is **contradiction between specific investment decisions and the focus countries' national obligations** as signatories to the Paris Agreement and under European regulations e.g. under the Energy Community Treaty and Transport Community Treaty. This contradiction is sometimes cemented by applying special laws regarding some investments.

- This contradiction creates a stranded-asset risk for these investments. This risk is aggravated by a potential that WB might become victims of the "debt-trap diplomacy"[104] being highly indebted towards Chinese investors over these assets that have become financially un-viable or stranded.[105]

In addition, there are further issues related to social sustainability and governance aspects of BRI investments, as briefly discussed in the case analyses. This is important for a comprehensive sustainability perspective of these investments, it is, however, not the focus of this study.

The overall level of transparency (incl. on environmental issues) of the identified BRI investments is low. It is difficult to gain access to more detailed project information, relating to roles and responsibilities in the projects' consortia as well as related to detailed financing conditions.

Common environmental issues specific to BRI investments in the **energy sector** identified in our research are linked to the fact that these investments mainly refer to coal-fired power plants.

- Coal-fired power plant investments are generally not compliant with a decarbonization pathway in accordance with the Paris Agreement or the European Green Deal, even when meeting environmental standards.
- Coal infrastructure investments create lock-in effects of CO_2 emissions that may hinder host governments meeting their NDC targets.
- Coal-fired power plant investments generally cause further environmental issues next to their CO_2 emissions.
- From the perspective of financial viability for these projects, a realistic CO_2 price assumption may often critically influence the overall project's viability, i.e. act as deal-breaker, making it non-viable.

However, it must be taken into account that there is also Chinese involvement in renewable energy projects in the WB countries, such as the below presented Možura Wind Farm in Montenegro. Ways to support a broader uptake of renewable energy investments under BRI will be taken up and discussed in chapter 4.2.

General environmental issues specific to BRI investments in the **transport sector** are more challenging to identify.

- While the highway project in Montenegro is strongly interlinked with environmental issues concerning the river Tara, the Budapest-Belgrade railway link upgrade utilizes existing railway tracks and does not cause any general environmental issue.
- For transport investments there is a mixed public perception: weighing positive effects of upgraded infrastructure and possible employment opportunities against negative aspects from rising cost projections and over-indebtedness, as well as environmental concerns.

In the investments as analyzed, there is generally **no pro-active approach towards pushing the topic of sustainable transport infrastructure**, beyond meeting general environmental requirements. This could

[104] Euractive, Dubrovnik 16+1 summit rolls the red carpet for China (Apr 10, 2019)(webpage): https://www.euractiv.com/section/enlargement/news/dubrovnik-161-summit-rolls-the-red-carpet-for-china/

[105] For instance discussed for the Montenegrin case by IMF in its 2018 consultation, see IMF Montenegro: IMF Executive Board Concludes 2018 Article IV Consultation (May 21, 2018) (webpage): https://www.imf.org/en/News/Articles/2018/05/21/pr18187-montenegro-imf-executive-board-concludes-2018-article-iv-consultation

for instance be addressed in terms of resource efficiency requirements for the materials used as well as in terms of the sustainability of materials used as such. Pro-active sustainability approaches will also be discussed in chapter 4.

The Možura Wind Farm - Montenegro [106]

The Možura, Montenegro's second largest wind farm, was officially inaugurated in November 2019. With an installed capacity of 46 MW, its 23 turbines are provided by Envision, a Chinese leading turbine manufacturer. It is expected to produce 112 GWh of electricity annually, substituting energy imports worth around EUR 6 million. The EUR 90 million wind farm was built by a consortium consisting of the Maltese state-owned power utility Enemalta and China's Shanghai Electric Power Company.

Investors have leased state land for a period of 20 years and will pay a EUR 186,057 fee annually. The state has pledged to guarantee a fixed electricity price of EUR 95.99/MWh and EUR 115 million in incentives over the first 12 years of operation. In Montenegro the legislative framework, foresee Renewable Energy support schemes in three areas: 1) Guaranteed purchase of electricity using 'feed-in-tariffs (FIT)' from privileged producers for a period of 12 years; 2) Priority in delivery of electricity generated into transmission or distribution systems and 3) also exemption from any payment related to imbalances, network charges and electricity losses for SHPPs connected to the distribution system. After the lease period expires, the Možura wind farm will become the property of the Montenegrin state.

3.3.2 Common aspects of BRI/Chinese involvement

The sections above indicate that particularly governments in WB continue to invest in coal-fired power generation, despite (and in contrast to) their public commitment to increase renewable energy power generation. Related to this is that the environmental requirements for all BRI infrastructure investments are based on the host country legislation and regulation, as is the monitoring of their compliance.

In terms of the specific role played by BRI/Chinese involvements in the discussed projects, the following can thus be observed:

- Chinese involvement in financing thermal power plants in the WB region is often a result from other financing institutions (such as EIB) not willing to commit to investing in this segment anymore
- Chinese contractors (both in construction as in financing) tend to take **a passive role regarding underlying environmental requirements**, stating to meet whichever standards are required by the host governments. The dominant explanation approach is that contracted Chinese

[106] Sources for the Možura Wind Farm – Montenegro Box (webpage sources):
https://balkangreenenergynews.com/mozura-wind-farm-montenegros-second-largest-officially-starts-operation/
http://www.gov.me/en/announcements/214785/PMs-of-Montenegro-and-Malta-Markovic-and-Muscat-to-open-Mozura-Wind-Farm-on-Monday.html
https://www.thewindpower.net/windfarm_en_27871_mozura.php
http://www.envision-group.com/en/aboutus.html

companies want to have a clear situation regarding conducting strategic environmental assessment and gathering necessary environmental permits prior to project implementation. In some cases, they are jointly working with the host country representatives on preparation of environmental impact assessment as required (e.g. for the section of the highway in Montenegro). Chinese stakeholders will not apply any environmental standards if they are not required by the legislation or investor (i.e. Government).

- The Chinese **companies' main incentives are strategic business opportunities.** Together with their governmental representatives and financing institutions (e.g. EXIM BANK) they are a coordinated team towards this objective. It is important to note that they are generally progressing slowly in the contract signing process but then act quickly and efficiently in implementation. This is also true for complex infrastructure projects which require specific know-how and experience, e.g. such as the construction of thermal power plants, highway or fast railways.
- There is **no explicit reference that we could find referring to the adherence to Green BRI investment principles** or the Guidance on promoting Green BRI in any of the projects we assessed. Furthermore, following the principle of Guidance for green Belt and Road Initiative is only declarative without clear environmental standards to follow or obligated green financing. Additionally, there are no specific environmental and social standards that have been developed and are applied for any of the assessed BRI investments.
- The Chinese investors are negotiating **acceptable financing arrangements for each project**. The financing structures and conditions are tailored for each project and include preferential loans, government guarantees, establishment of a joint venture company and other structures.
- The **Chinese loans** have some common features, such as relatively low interest rates. Further, a typical loan obligation includes involvement of Chinese construction companies; bringing Chinese workers, equipment and know-how, for the contract implementation. The competitive Chinese financing conditions support the assumption that the general strategic objective for BRI investments is to facilitate European market access for Chinese companies.

Overall, current BRI investments in our eight focus countries cannot be said to support green and sustainable infrastructure. There is not even a pro-active compliance to the own BRI green rules or to any standards going beyond the minimum requirements in the host countries.

There is furthermore a passive (or even less than that) role from the BRI host governments, especially in WB, in ensuring compliance with national (and where relevant EU) regulation in the project. Further to this, there is no broad pro-active support for the WB governments in scaling up their green and sustainable energy and transport investments in cooperation with BRI partners.

Specifically, the WB countries obligations as EU accession countries bring expectations of stronger alignment with the regulation and treaties committed to in this context, e.g. in their choice of energy technology as well as for the requirements of a sound and transparent cost-benefit analysis for infrastructure projects.

This overall status shows the need to analyze the barriers that may hinder a more pro-active green approach supporting sustainable energy and transport infrastructure. We will do this and also discuss options for greening BRI investments in this context in chapter 4.

4 Options for greening BRI

The previous chapter provided an overview of the scope of Chinese BRI investments into the 17+ countries' energy and transport sector as well as an in-depth perspective on the current status regarding environmental and sustainability issues. It concluded that the current status of BRI energy and transport investments in the 17+ countries, and in particular in the eight focus countries of this study, cannot be classed as supporting a green and sustainable pathway. In this chapter, barriers to green and sustainable BRI infrastructure are assessed and structured. This forms the basis for the subsequent analysis of what could drive greening efforts. Based on this, this study discusses options for supporting the greening of BRI investments and more broadly energy and transport infrastructure investments in the eight focus countries.

Before doing so, we will first define what we understand as "greening" of infrastructure investments.

Based on the definition of green and sustainable infrastructure as introduced in chapter 1, "greening" is understood as **any substantial improvement** of a given energy or transport infrastructure investment **towards alignment with the definition of green and sustainable infrastructure**. With "a given investment" we mean a comprehensive perspective on the full project lifecycle including planning, building and operations.

This study looks at substantial improvements of a given energy or transport infrastructure investments in a broader sense; as any improvement that allows for **a credible development pathway** aligned with the European 2050 targets of carbon neutrality and sustainable economic development.[107]

For a more comprehensive perspective on whether an improvement is substantial or not, this study points to the methodology used by the EU sustainability taxonomy, which has introduced a comprehensive approach formulating criteria for substantial contributions to EU environmental objectives while not significantly harming others.[108] However, it is out of the scope of this study to apply this comprehensive approach – which could be a subject to further research.

4.1 Barriers to green BRI investments

We identify barriers to greening BRI investments based on our literature review, our overview on BRI investments in the 17+ countries (section 3.1) and our in-depth analysis of concrete BRI investments (section 3.2). Barriers are structured along five categories, based on similar clustering used in the literature on barrier analysis to climate/green finance.[109]

Acknowledging that barrier categories have overlapping aspects, we use the following categories:

- Knowledge/capacity/awareness barriers

[107] As a consequence, improvements in the environmental performance of coal-fired power plants ("clean coal") are not covered as "greening options" as it will require a technology switch from coal to other energy generation technologies to meet 2050 decarbonization targets.

[108] REGULATION (EU) 2020/852 (2020) in OJ L 198, 22.6.2020, p. 13–43, available at EU LEX: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32020R0852 and final EU TEG Report.

[109] See for instance Hafner et al. (2019), Polzin (2017).

- Structural barriers (project implementation)
- Policy-related barriers
- Techno-economic barriers (real economy)
- Financial (market) barriers

For all the above barrier categories we add the specific angle to our analysis as to whether barriers relate to BRI 17+1 cooperation, EU-Western Balkan cooperation or to the roles of China, the EU, or the WB countries respectively.

4.1.1 Knowledge/capacity/awareness barriers

Knowledge/capacity/awareness barriers refer to a lack of awareness, knowledge or capacities of public institutions or private sector stakeholders on how to implement and support, or alternatively how to find and get advice or support on how to facilitate and implement green infrastructure investments.

Even though the focus countries are officially committed to the Paris Agreement targets[110], **a lack of broad public awareness of the benefit of sustainable and green infrastructure** can be witnessed in most of this study's focus countries. This can be further linked to a lack of broad public awareness of the economic opportunities (in addition to the health and environmental benefits)[111]. Awareness on green and sustainable energy and infrastructure development is mainly driven by NGOs[112] and by International Development Banks active in the region.[113] There also is a specific lack of awareness on the scope and availability of the EU's set of support instruments for sustainable infrastructure in WB countries as compared to the visibility of Chinese involvement through its BRI infrastructure.[114]

The persisting **limited market size of sustainable energy and transport infrastructure** investments also induces a lack of technical knowledge or a skilled workforce such as renewable energy engineers or project developers for RE projects.[115] Furthermore, there is a lack of capacities in public institutions for guiding and implementing a sustainable infrastructure agenda in focus countries[116]. This hinders the implementation of any pro-active green agenda.

Finally, the **awareness of green and sustainable finance** in WB countries is below that of EU countries, who are implementing the EU's action plan on financing sustainable growth.[117]

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[110] For example, illustrated by the RCC study for WB: Vuković, A., & Vujadinović Mandić, M. (2018). Study on climate change in the Western Balkans region. Sarajevo, Bosnia and Herzegovina: Regional Cooperation Council Secretariat. See also the national energy and climate plans (NECPs) provided by EU Member states in the Clean energy for all Europeans package from 2019.

[111] Balkaninsight; Green Politics for the Western Balkans? By Jasmin Mujanovic (2019) (webpage): https://balkaninsight.com/2019/12/05/green-politics-for-the-western-balkans/

[112] Such as Bankwatch; Tuzla 7 lignite power plant, Bosnia and Herzegovina (webpage): https://bankwatch.org/project/tuzla-7-lignite-power-plant-bosnia-and-herzegovina-2 or the Balkaninsight; Balkan Eco-Activists Protest Against Hydro-Power Plants (webpage): https://balkaninsight.com/2019/07/10/balkan-eco-activists-protest-against-hydro-power-plants

[113] World Bank (2018). "It is Time for Action on Climate Risk in the Balkans" by Linda Van Gelder: https://www.worldbank.org/en/news/opinion/2018/09/17/it-is-time-for-action-on-climate-risk-in-the-balkans

[114] Zeneli, V., The Diplomat (2020)

[115] See for instance Agora Energiewende's analysis for the wind sector in Serbia and Greece (Agora (2020)).

[116] EU 2020 European Semester: Country Reports (webpage): https://ec.europa.eu/info/publications/2020-european-semester-country-reports_en and the discussion in chapter 3.2.2. for the WB situation

[117] Ibid, see chapter 3.2.2.

4.1.2 Structural barriers

Structural barriers refer to any structural deficits that hinder green infrastructure project implementation during planning, construction and / or operation phase, including a lack of transparency on sustainability aspects or a lack of technical project management or monitoring capacities.

The low level of transparency on ESG issues (e.g. process of Environmental Impact Assessments, environmental permitting) results in a barrier to green and sustainable energy and transport investments in WB countries. This particularly concerns the flow of information **prior** to decision making on financing, preparation of technical and other documentation and/or project execution (see our case analysis above).

There are also usually **no strong processes for the participation** of local stakeholders in local investments, including also the lack of availability of contractual documents to the public.

Requirements for **Environmental Impact Assessments (EIAs) also often appear to be unclear, unambitious** or not coherently implemented in WB countries. The "strategic slicing" of projects in different separate project phases with separate EIAs further supports avoidance of comprehensive EIA assessments. Added to this is that Chinese investors in WB BRI projects tend to take on a "passive visitor" role, adjusting the project implementation to the local customs and regulations. Specifically – they follow a national law approach which does not support any higher environmental standards than what is required at the host country level. This differs, for instance, from the approach of several multilateral development banks (MDBs) involved in financing, which normally require higher standards (compared to national laws) for infrastructure projects funded by them.

Weak procurement processes and a lack of capacities on green procurement in the focus countries act as a further barrier to greening infrastructure projects. This has already led to dedicated support by the EU through the publication of the "Guidance on the participation of third country bidders and goods in the EU procurement market" to guide public buyers in strategic procurement including green and socially responsible aspects.[118] In particular, as discussed in the case analyses, there have been BRI investments where the negotiation with Chinese counterparties resulted in inadequate tendering processes circumventing competitive procedures, which are in conflicts with existing regulations. The introduction of a *lex specialis* as a model for overriding tendering and public procurement process in WB countries can be seen as a further major hindrance.

Beyond this, **state aid issues** stand in contrast to the legal obligations of WB countries being contracting parties to the Energy Community Treaty. Direct and indirect subsidies to coal-fired power generation do furthermore cause a financial burden for the public and a divergence from decarbonization goals under the Paris Agreement and in relation to European environmental regulation.[119]

Finally, **deficits in governance structures** for managing large energy and transport projects aggravate barriers to sustainable infrastructure investments in the focus countries. Weak governance structures create incentives for bureaucrats to neglect new time-consuming environmental related procedures and transparency requirements for a comparable quick and easy selection of traditional infrastructural

[118] EC C(2019) 5494 final. Guidance on the participation of third country bidders and goods in the EU procurement market: https://ec.europa.eu/transparency/regdoc/rep/3/2019/EN/C-2019-5494-F1-EN-MAIN-PART-1.PDF

[119] Miljević, D., Mumović, M., Kopač, J., Energy Community (2019). Analysis of Direct and Selected Indirect Subsidies to Coal Electricity Production in the Energy Community Contracting Parties: https://www.energy-community.org/dam/jcr:ae19ba53-5066-4705-a274-0be106486d73/Draft_Miljevic_Coal_subsidies_032019.pdf

projects. These kinds of situations function as incubator for possible conflicts of interests, shady deals and corruption opportunities (and this has occurred in some of the cases discussed above in chapter 3.2).

4.1.3 Policy-related barriers

Policy-related barriers cover insufficient levels of clear and stable policy signals, policy coordination or policy implementation at the level of sustainable energy and transport policy as well as sustainable finance policy. They are interlinked with the structural barriers in the previous section but have specific characteristics of its own; Policy-related barriers relate to a lack of policy guidance in structuring transformational change towards low-carbon and sustainable economic development.

The 17+ countries **lack a strong coordinated regional policy signal for sustainable and green infrastructure** development. While the 12 EU member states of the 17+ countries are part of the European green deal agenda and the WB countries are linked to the green deal in their EU accession role, neither the 17+1 cooperation nor a regional policy coordination of the WB countries on their own induce a strong policy signal for a green and sustainable infrastructure agenda. This is partly due to the large stock of carbon intensive natural resources available in the WB region, forming a strong baseline for national economy and energy provision.[120] There are, at the same time, signs of stronger "individual" policy signals in the region, for instance Serbia supporting renewable energy based electricity generation.

There is also no strong policy signal provided from the international level, for example a concrete EU-China policy agenda to support green and sustainable infrastructure in third countries does not exist, in particular for the WB.

As has been discussed in chapter 2, there is furthermore **no strong and specific "greening policies" specifically targeting the energy and transport sectors**. This barrier was in part already addressed through the formulation of NECPs in the WB countries, further complemented by national energy and transport strategies and policies. However, ongoing energy and transport project pipelines are often not consistent with green policy plans (as discussed in the case analysis e.g. for Serbia) and more generally lack a coherent policy implementation (necessary by-laws etc.), which in the end leads to poor implementation of existing regulations (see case analysis above).

A seemingly similar, but still different barrier, in this regard stems from the **non-compliance with International Treaties**. The WB countries signed and committed themselves to international treaties as EU accession countries, just as there are also regulations that the EU Members are legally bound by through their membership (see chapter 3.2). However, these treaties are in some cases simply neglected in reality, as described in our cases in-depth analysis in chapter 3.

Finally; it has to be kept in mind that overall political tensions also form a barrier to greater connectivity between WB countries thus negatively influencing the potential for a joint regional approach towards green and sustainable infrastructure.[121]

4.1.4 Techno-economic barriers (real economy)

Techno-economic barriers (real economy) correspond to actual (or perceived) insufficient technological maturity of green and sustainable energy and transport technologies, actual or perceived unfavorable risk/return profiles of these technologies or a lack of techno-economic understanding of how to

[120] NewClimate Institute (2019): De-risking Onshore Wind Investment – Case Study: South East Europe. Study on behalf of Agora Energiewende. www.agora-energiewende.de

[121] Grieveson, R., & Holzner, M. (2018).

integrate green and sustainable energy and transport into the existing energy and transport systems. These barriers and misperceptions lead to an under-deployment of green technologies and can create path-dependency or lock-in effects for incumbent technologies.

Our investment analysis of energy-related BRI projects has shown deficits in the conducted cost-benefit analysis for coal-fired power plants due to **uncertainties or underestimations of future CO_2 prices**. Investors in the WB region have to include reasonable shadow CO_2 prices into calculations to secure feasibility of the energy projects. If not, this may lead to un-economic decisions related to incumbent energy technologies and could also structurally hinder the take-up of green energy technologies such as renewable energy sources.

Limited awareness for green technology alternatives, in particular renewable energy sources, among decision makers and barriers in the perceived complexity of these technologies conversely hinder their market uptake in the WB countries. Building of turnkey solutions of traditional energy and transport technologies seems the most convenient way for the local governments. Limited understanding and high perceived risk of green technology alternatives increase financing costs and requires stringent policy-measures to de-risk the investment environment for renewables.[122]

There are also **barriers in clearly defining green assets and preparing a pipeline of green energy and transport infrastructure projects** from the financing perspective. This is linked to the financial perspective of creating a market of sufficient scale to become attractive for investors.

It is furthermore challenging to build the techno-economic understanding and **skillset on how to holistically transform energy and transport systems** in the focus countries towards a sustainable pathway, using long-term scenario planning or/and further tools to understand the system costs and benefits of energy transitions. This implies a barrier in advancing in these topics at the implementation level beyond policy targets.

4.1.5 Financial (market) barriers

Financial (market) barriers: include all aspects that hinder green and sustainable financing of infrastructure investments by financial market participants. This may refer to information asymmetries on ESG performance of investments, a lack of a liquid and deep capital market for green financial products, or a lack of understanding or definition of green assets.

A barrier in this sense is that there is **no active discussion on how financial markets could contribute to green infrastructure** investments in the WB countries. There is furthermore no joint understanding on how to define green assets from the financial perspective, e.g. based on a green taxonomy.

The financing of energy and transport infrastructure investments in the 17+ countries is usually done together with international partners, such as the Chinese counterparties in the BRI investments. International investors' commonly link specific requirements with access to financing to ensure a greenness and sustainability of underlying asset (as for instance done by EBRD and EIB).[123]

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[122] Agora Energiewende (2020), Unlocking Low Cost Renewables in South East Europe. Available at https://www.agora-energiewende.de/en/publications/unlocking-low-cost-renewables-in-south-east-europe/

[123] **EBRD** adopted the Green Economy Transition (GET) approach to increase the financing of projects that advance the transition to an environmentally sustainable, low-carbon economy in 2015; https://www.ebrd.com/what-we-do/get.html
EIBs climate action work supports the implementation of EU climate policy objectives and is guided by a climate strategy, see https://www.eib.org/en/about/priorities/climate-and-environment/climate-action/index.htm

The **Chinese lack of a pro-active green position** with regard to putting stringent and transparent requirements to their BRI investments, has been discussed in section 3.3 and can be seen as a barrier to green and sustainable financing of BRI investments in all 17+ countries. While the BRI has initiated several pieces of work on greening the BRI, these are so far not tangible in the ongoing BRI engagement in the 17+ region, to our knowledge.

A pro-active role of Chinese investors would require a **susceptive approach for green and sustainable finance in the 17+ countries[124]. This approach is, however, so far not visible**. While the EU is driving the topic of sustainable finance in the follow-up of its action plan from 2018, neither of the WB countries is for instance a member of the EU's International Platform on Sustainable Finance (IPSF).[125] The UNEP Green Finance Measures Database also does not include any measure from the five WB countries. [126]A lack of a sustainable finance policy agenda towards a coherent sustainable finance policy environment is thus a further barrier in the WB countries.

The implementation of any sustainable finance agenda requires further instruments such as a green taxonomy and the access to underlying ESG data, or incentives to spur market development of e.g. green bonds or other financial instruments.[127] The early stage of awareness on sustainable finance thus also acts as a barrier to adopting these specifications and instruments which in turn hinders a market development for any green financial products that could become available to green energy and transport infrastructure projects.

4.2 Drivers for greening WB energy and transport infrastructure investments

This section looks into how to address the above identified barriers by identifying drivers for greening efforts from the perspective and taking into account the respective roles that China/BRI, the EU and the focus countries including the WB countries could play.

Based on the analysis of BRI investments and related barriers, we have found that green and sustainable infrastructure in the 17+ countries requires a substantial change in awareness and capacities, project implementation and local governance, local policies and policy implementation, techno-economic vision and in the way the transformative role of the financial sector is being exploited.

Change is required not only from the perspective of Chinese involvement in the 17+ countries, but likewise and possibly even more so in the way the Western Balkan countries and the EU act and cooperate related to sustainable energy and transport infrastructure investments.

Drivers for a greener approach by **China** towards its BRI investments in the 17+ countries can be found in the following aspects:

- China has stepped up its ambitions for combating climate change in September 2020 as President Xi pledged the country's ambition to reach carbon neutrality by 2060.[128]

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[124] Tsinghua University, Vivid Economics and Climateworks (2019).

[125] European Commission; International platform on sustainable finance (webpage): https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/international-platform-sustainable-finance_en

[126] See https://greenfinanceplatform.org/financial-measures/browse/, last accessed at 06.10.2020.

[127] Tsinghua University, Vivid Economics and Climateworks (2019).

[128] Harvey, F., The Guardian (22. Sep. 2020) China pledges to become carbon neutral before 2060 (webpage): https://www.theguardian.com/environment/2020/sep/22/china-pledges-to-reach-carbon-neutrality-before-2060

- China may increasingly see their role in spreading its advanced policies and technologies for green infrastructure also through the BRI, thus aligning the BRI with its domestic agenda. This is supported in the advent of its new Five-Year Plan 2021-2025.[129]
- Green BRI principles might get an increasing overall BRI attention and may "trickle down" to Chinese contractors and financing institutions becoming more and more relevant to follow on.
- China may furthermore take on the role of a "systemic rival" in terms of gaining (thought) leadership in the field of green and sustainable infrastructure vis-a-vis the EU (and the US) in the WB countries.
- Complementary to this, a constructive EU-China dialogue on green and sustainable infrastructure and finance might be a mutually attractive opportunity for high-level exchange that can lead to tangible results that are harder to achieve in other topics where more diverging views exist between the two parties.

Drivers for the **EU** to re-enforce its support for the WB for green and sustainable infrastructure can be identified in the following aspects:

- The strategic relevance of the WB countries in the European neighbourhood as EU accession countries is a strong driver for EU to avoid any divergence of these countries from the European climate and sustainability goals. This strongly supports the case for EU stepping up its efforts for supporting WB countries in greening their infrastructure investments. This has, for instance, been expressed in the State of the Union Address by EC President von der Leyen as *"The Western Balkans are part of Europe - and not just a stopover on the Silk Road. We will soon present an economic recovery package for the Western Balkans focusing on a number of regional investment initiatives."*[130]
- European "systemic rivalry" with China reinforces the case of European support to the convergence of WB countries' infrastructure policy with the European standards. This particularly holds true in the challenging times of COVID-19 recovery, where economic stimulus is urgently needed and difficult to handle for countries with relatively high public debt.
- At the same time, as for China, EU-China cooperation on green and sustainable infrastructure offers a sweet spot for constructive dialogue between the EU and China in an overall challenging yet strategically important bilateral relationship.
- This opportunity is linked to the EU's ambition towards multilateral exchange on sustainable finance as a lever for greening energy and transport infrastructure, under the International Platform on Sustainable Finance (IPSF) which ultimately aims at scaling up "*the mobilisation of private capital towards environmentally sustainable investments*" and which includes China as a member.[131]

Drivers for the **WB** countries towards a greener and more sustainable energy and transport infrastructure policy may include the following aspects:

- WB countries are bound by their signature of the Paris Agreement. With impacts of the climate crises being increasingly felt, there might be a growing domestic pressure to step up efforts towards aligning with the commitments from the Paris Agreement.

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[129] Neuweg, I. and Stern, N., (2019), China's 14th Plan, sustainable development and the new era (webpage): http://www.lse.ac.uk/granthaminstitute/publication/chinas-14th-plan-sustainable-development-and-the-new-era/

[130] European Commission (webpage): https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_20_1655

[131] European Commission; International platform on sustainable finance (webpage): https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/international-platform-sustainable-finance_en

- The political vision to become EU member countries is a strong driver for WB countries and issues related to non-compliance to binding regulation may impair the perspectives of EU accession. As put by former EU enlargement Commissioner Hahn in the context of state aid issues with Tuzla 7: "issues like environmental impact assessments, state aid and public procurement procedures will certainly be closely looked at." [132]
- Inversely, in view of the progress of European coal phase-outs, increasing pressure on WB countries might arise in cases of non-compliance with legal obligations from Energy community treaty obligations linked to distorting subsidies in the coal sector (e.g. based on Art. 18).[133]
- Linked to this, there is a strong need for support for meeting this growing challenge of setting up decarbonization pathways while regions continue to heavily rely on coal-fired power generation. In a situation where "*all coal-based electricity generation incumbents would go bankrupt at once*" if they had to respect the EU's ETS[134], WB countries seek support in mastering the transition of their energy infrastructure.

4.3 Greening options

Based on the above outlined set of drivers for EU, China and the WB countries, five areas of greening options are described in the following sections. These greening options are put forward in a factual manner as to what they could comprise or how they could work. They are grouped along the three "actor groups" based on Figure 5 in chapter 2; i.e. China's perspective within the 17+1 cooperation, EU's perspective vis-à-vis the Western Balkans, and the EU-China collaboration perspective vis-à-vis the WB. The greening options concluding chapter 4 are used as basis for the policy recommendations that follow in chapter 5, where we tailor the greening options to concrete actions (policy recommendations) that could be moved forward at the policy level.

Figure 13 below provides an overview on the greening options that will be discussed in the following sections. Starting with the options emerging from the 17+ cooperation connecting China with WB and 12 EU MS, and then continue by moving clockwise through the green options boxes in the figure.

[132] Euractive (Apr 10, 2019)(webpage)

[133] Miljević, D., Mumović, M., Kopač, J., Energy Community (2019).

[134] Miljević, D., Mumović, M., Kopač, J., Energy Community (2019).

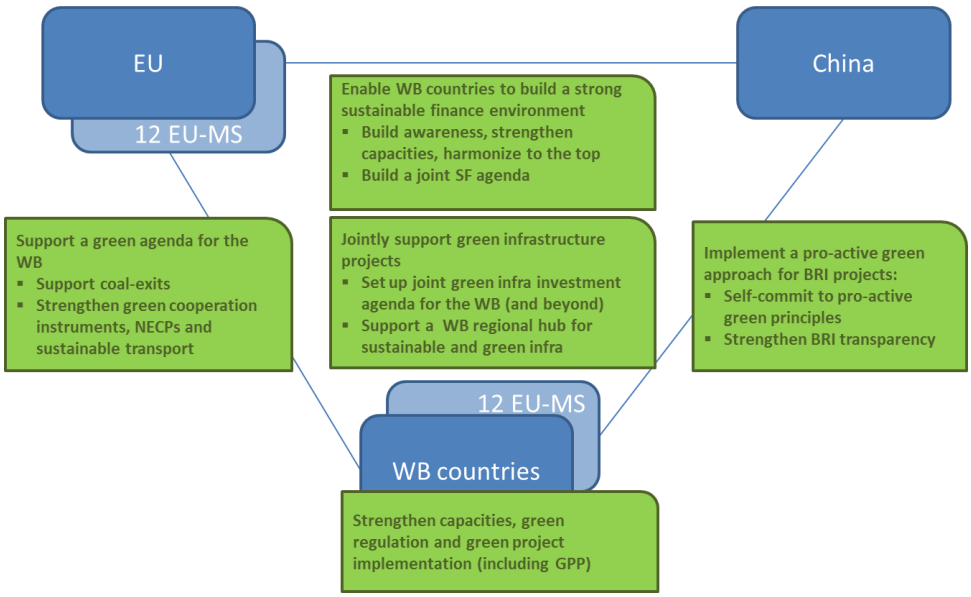

Figure 13 - Summary Greening Options. Source: own illustration.

4.3.1 Greening option for the 17+1 cooperation: Implement a pro-active green approach for BRI projects in the 17+ countries

There are various starting points for a green approach for Chinas' BRI infrastructure investments in third countries, as discussed in chapter 2. They include the BRI International Green Development Coalition (BRIGC), and related work such as the Guidance on Promoting Green Belt and Road" in 2017 and the Belt and Road Green Investment Principles (GIP) in 2018.

At the same time, energy and transport infrastructure investments in the focus countries of this study showed by and large no sign of a pro-active green approach from Chinese investors or contractors involved in these projects. Rather, they tend to take a passive role and state compliance with any local environmental standards. There is thus a clear option to green the 17+1 cooperation format by China taking a pro-active green approach for BRI investments in the 17+ countries, building on the outputs from greening BRI at the global level, or in other regions.

Based on the above discussed drivers and linked to a global green BRI strategy, 17+1 cooperation countries could jointly take a pro-active approach, engaging in a long-term planning of sustainable infrastructure investments in cooperation with China. The 17+1 cooperation could for example promote a broad use of green and sustainable investment principles. Based on the BRI green investment principles, topped-up with further sustainable investment principles of regional relevance, such as the principles for responsible investments (PRI) and the Equator Principles, and of course including or exceeding the requirements of relevant European legislation as, e.g., referring to the EU sustainability taxonomy and disclosure standards (see below).

Further to green investment principles, more specific guidance for implementing green BRI projects could be jointly developed among 17+1 countries. This would support the sharing and building of know-how on practical green project implementation while helping the coordination with respective national (green) energy and transport policies and regulations.

Finally, China could work together with the 17+ countries towards greater transparency on BRI investments implemented in these countries, developing for instance a dedicated website with a comprehensive and complete project database of regional BRI investments, including their "green credentials".[135]

4.3.2 Greening option for the 17+ countries: strengthen green capacities, regulation and green project implementation

Next to a pro-active BRI approach, the analysis in previous chapters has shown that there are major barriers to green energy and transport infrastructure projects originating from the weak regulatory environment and local capacities of the host countries.

It is important to strengthen the overall awareness and capacities for green and sustainable infrastructure projects and sustainable finance in order to build a foundation for any pro-active green policy agenda and green infrastructure investment pipeline in the 17+ countries.

In terms of energy and transport sector planning, supporting capacity building on how to run and interpret ambitious decarbonization scenarios (e.g. 100% renewables) can build trust and knowledge. This could help ramp up the shares of green energy and transport projects in the WB countries' energy and transport systems respectively. Lessons learnt from other European countries on policy, regulatory and accompanying measures to prepare and guide structural change processes could be shared between WB and other 17+ countries, i.e. on how to set and implement ambitious renewable energy policy support schemes, how to structure coal-exit policies etc..

The 17+ countries, and the WB countries in particular, should be supported in implementing existing EU regulations and the common rules of the Energy Community/Transport community treaty respectively. EUs procurement and administrative processes should be reflected in all infrastructure projects including the BRI projects.

WB countries could also be supported in taking a more pro-active role in environmental regulation, including the implementation of environmental impact assessments (EIAs) or strategic environmental assessments (SEAs). Such a pro-active role could be shaped by building better capacities on the importance of sound implementation of environmental regulation, including SEAs and EIAs prior to decision on infrastructure projects and programs, and prior to the start of such projects, to avoid unintended cost escalations and implementation delays. This approach also refers to existing infrastructure facilities in the case of reconstruction or expansion.

Profiting from international standards and aiming at the internationalization of environmental and more broadly sustainability standards would enable WB countries to improve their countries' attractiveness to a wider range of investors.[136] Linked to this, WB countries could be made better aware of the full range of EU funding and assistance available for supporting a sustainable transition in Western Balkan societies.

WBs capacities could furthermore be strengthened in a targeted way related to the implementation of green and sustainable infrastructure projects. These efforts could rely on a general strengthening of capacities for implementing complex infrastructure projects involving public-private partnerships,

[135] Compare [135] Tsinghua University, Vivid Economics and Climateworks (2019).

[136] Grieveson, R., & Holzner, M. (2018).

building for instance on the tools and knowledge provided by the Public Private Infrastructure Advisory Facility (PPIAF).[137]

A major aspect of this can be targeted support for strengthening capacities of green public procurement (GPP) for energy and transport infrastructure, which are usually publicly procured projects.

GPP is defined as public procurement that allows public buyers to integrate environmental requirements into all stages of their procurement process. By that it encourages the purchase of goods, services and works with a reduced environmental impact throughout their life cycle.

With its 2019 guidance on the participation of third country bidders and goods in the EU procurement market EU aims to overcome distortions, including that third country bidder might not always be bound "*by the same, or equivalent, environmental, social or labour standards as those applicable to EU economic operators*"[138]. The involvement of the public sector in procuring infrastructure projects allows for high quality standards to be strategically implemented in the procurement process, this is a powerful tool contributing for instance to environmental targets. Building on EU guidance and public procurement support[139] and empirical work on how to address barriers to GPP in other countries[140], WB countries could be supported in including environmental criteria in technical specifications and tender award criteria for energy and transport procurements. For transport procurements, efficient material-usage and material choices are highly relevant in this regard. In parallel, misperceptions of more costly procuring through GPP could be addressed in dialogue with WB countries.

4.3.3 Greening option for the EU-WB cooperation: Support a green agenda for the WB

The European Green Deal can become a major reference for WB countries' economic development, including its energy and transport policies. The future WB regulatory developments will be characterized by continuous adoption of EU Acquis Communautaire. It is in EU's interest to make the WB countries an integral part of its European Green Deal and to support candidate countries in transforming towards a net-zero economic development.

Supporting a green policy agenda for the WB countries consequently includes a strong policy signal from the EU with regard to its pre-accession support. This includes strengthened infrastructure support instruments, with the WBIF at the core next to other IPA support. With its recent communication on "An Economic and Investment Plan for the Western Balkans"[141], the European Commission has already advanced in this subject.

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[137] The Public – Private Infrastructure Advisory Facility (PPIAF); Knowledge (webpage): https://ppiaf.org/knowledge

[138] European Commission 2019, Guidance on the participation of third country bidders and goods in the EU procurement market

[139] See for instance European Commission; Internal Market, Industry, Entrepreneurship and SMEs (webpage): https://ec.europa.eu/growth/single-market/public-procurement

[140] See sources such as Chiappinelli, O., & Zipperer, V. (2017). Using public procurement as a decarbonisation policy: A look at Germany. DIW Economic Bulletin, 7(49), 523-532. and Chiappinelli, O., Gruner, F., & Weber, G. (2019). Green Public Procurement: Climate provisions in public tenders can help reduce German carbon emissions. DIW Weekly Report, 9(51/52), 433-441.

[141] European Commission COM(2020) 641 final: "An Economic and Investment Plan for the Western Balkans": https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/communication_on_wb_economic_and_investment_plan_october_2020_en.pdf

In parallel, ongoing support for policy processes such as formulating and strengthening NECPs[142] should be maintained and fostered. For all EU support, it will be important to ensure that it is conditioned by implementation of EU policies, in particular the European green deal.

It is also in the WB countries' very own interest to reflect the European green deal in their policy making, for example in view of EU mechanisms such as the Carbon Border Adjustment Mechanism (CBAM) currently in public consultation. CBAM will tax EU imports in order to avoid carbon leakage.[143] Applying a carbon tax at the levels of EU carbon prices would heavily affect the economics of the coal investments as discussed above. It is under discussion that carbon tax revenues remain in the WB region to support a transition away from coal.[144]

WB countries need structural transformation support for greening their energy mix. It could become part of the EU efforts for coal regions, such as being included in the "coal regions in transition" project.[145] This initiative is been taken up in the recent EU communication for a Green Agenda for the Western Balkans, referring to a "Coal regions in transition platform in the Western Balkans and Ukraine" to be set up.[146]

Most importantly, however, WB countries could exploit their renewable energy potential, aligning with European 2030 targets and building on initial solar and wind energy projects that have been successfully implemented – and financed in cooperation with international partners such as EBRD.[147]

Some WB countries are already moving forward on the above recommendations, with Serbia for instance preparing a competitive renewable energy auction scheme with support from EBRD. As pointed out above, unlocking the market for renewable energy generation, however, requires market support policies that provide a lower-risk environment for investors.[148] The EU is in an ideal position to promote renewable energy and energy efficiency investments in WB, or more broadly, to support the WB countries' energy transitions. A further co-benefit of stronger EU-WB cooperation would lie in the private sector opportunities linked with that, such as a closer cooperation between private sector companies, research institutions or public sector stakeholders.[149]

4.3.4 Greening option I for multilateral EU-China-WB cooperation: Jointly support green infrastructure projects

Both China (through BRI) and the EU are major players in the WB countries. Both acknowledge the importance of cooperation to support sustainable development and potential synergies by jointly supporting infrastructure development in third countries.[150]

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[142] See for instance Germanwatch (2020).

[143] European Commission; Commission launches public consultations on energy taxation and a carbon border adjustment mechanism (webpage): https://ec.europa.eu/taxation_customs/news/commission-launches-public-consultations-energy-taxation-and-carbon-border-adjustment-mechanism_en

[144] Balkan Green Energy News; SET 2020: Introduction of carbon tax in Western Balkans is inevitable by V. Berbatović (webpage): https://balkangreenenergynews.com/set-2020-introduction-of-carbon-tax-in-western-balkans-is-inevitable/

[145] European Commission; Coal regions in transition (webpage): https://ec.europa.eu/energy/topics/oil-gas-and-coal/EU-coal-regions/coal-regions-transition_en

[146] European Commission (2020).

[147] Milatovic, J., Chung, D. (2018).

[148] Compare Agora (2020).

[149] Compare Germanwatch (2020).

[150] See for instance the 2019 EU-China Summit Statement.

Joint investments in WB countries (and more broadly the 17+ countries) by EU and China could benefit the greening of the energy and transport sector in the region[151]. Joint EU-China supported infrastructure projects would support the "donor coordination" on the infrastructure pipeline in the region, improve transparency and enforce minimum environmental and social standards, through alignment with the EU green deal. From the Chinese perspective this may reinforce positive reputation for BRI and thus strengthen its market position.

The format for cooperation would need to be further fleshed out, but could relate to the development of green energy and transport infrastructure agenda and building of an investment pipeline co-financed by EU and China. This would be preferable with support tranches for frontier sustainable infrastructure technologies and project implementation.[152]

Such a project pipeline should be developed together with WB countries based on their respective priorities in order to strengthen the domestic green energy and transport policies and capacities. In particular, infrastructure and energy projects should be aligned with existing national strategic documents and action plans. This will be crucial to enable WB countries to take ownership of their infrastructure pipeline and align it with their national plans, including BRI and EU supported projects.[153]

Strengthening WB project ownership could furthermore be supported by a regional infrastructure investment hub in one of the WB countries. That would forge and support the regional agenda for sustainable and green infrastructure development in the energy and transport sector, giving them a strong voice for the regional investment agenda and for the communication and coordination with foreign investors and partners.

In order to allow sufficient scale, a joint EU-China investment pipeline could be conceptualized to be gradually expanded to include further countries beyond the WB countries.

4.3.5 Greening option II for multilateral EU-China-WB cooperation: Enable WB countries to build a strong sustainable finance environment

EU and China hold regular high-level summits, the 21st took place in April 2019. The 22nd summit scheduled for 14 September 2020 has been postponed and been replaced by a high-level videoconference due to the COVID-19 pandemic at the moment of writing of this study. In June 2020, a virtual high-level preparatory meeting was held between the EU and China. A broad range of items were discussed during the day, and even though a common press-statement was not release, the EU concluded that "*It is not possible to shape the world of tomorrow without a strong EU-China*

[151] The EU could also invite some of its EU member states with its public financing institutions to play an active part in such a collaboration.

[152] HSBC (2018).: https://www.sustainablefinance.hsbc.com/mobilising-finance/greening-the-belt-and-road-initiative

[153] An example is Kazakhstan which integrated its national development strategies with the BRI, taking ownership of BRI projects on its territory. See Asia Times; China's Silk Road diplomacy in Kazakhstan by Ahmed Bux Jamali (2020)(webpage): https://asiatimes.com/2020/06/chinas-silk-road-diplomacy-in-kazakhstan/

partnership"[154]. That said, EU leaders were not hiding the fact that the EU-China partnership is both complex and vital.[155]

Global goals for sustainable development and for combating climate change, green and sustainable finance as well as cooperation in the fields of infrastructure and Asia-European connectivity have been addressed as topics of mutual importance to both the EU and China in previous statements of Sino-European summits.

Figure 14 illustrates some examples of the coverage of these topics in joint summit statements and related documents during the last two years. The chart gives an idea of the framing of green and sustainable infrastructure topics in previous EU and/or China statements and is neither meant to be comprehensive in the meaning of including all aspects relevant to the areas of interest for this study, nor is it complete as it is narrowing down to the last two years – leaving out for instance China's leadership in 2016, laying the foundation for the Task Force on Climate-related Disclosure (TCFD) recommendations published in 2017 that have since then played a major roles in global efforts towards sustainable financial systems.

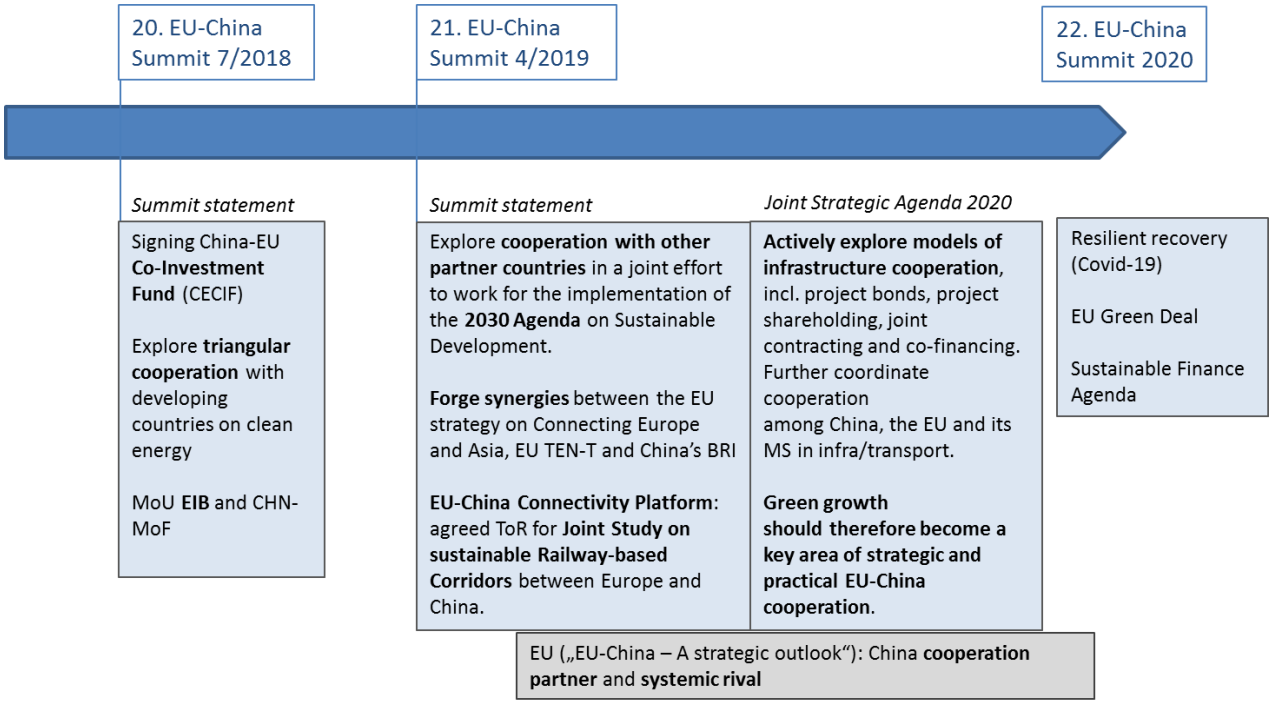

Figure 14 - Overview of EU-China summit statements' coverage of sustainable infrastructure cooperation since 2018. Source: Own compilation.

[154] European Commission; Statement by President von der Leyen at the joint press conference with President Michel, following the EU-China Summit videoconference (2020)(website): https://ec.europa.eu/commission/presscorner/detail/en/statement_20_1162

[155] See for instance Euractiv; No progress on trade, investment, Hong Kong as EU wraps-up tense China summit by Brzozowski and Valero (2020) (webpage): https://www.euractiv.com/section/eu-china/news/no-progress-on-trade-investment-hong-kong-as-eu-wraps-up-tense-china-summit/

Both the EU and China have taken leadership in shaping the global sustainable infrastructure and finance agenda; China's through its G20 presidency in 2016 led to the G20 Sustainable Finance Study group, and Chinas domestic Guidelines for Establishing the Green Financial System, and its Green Bond Endorsed Project Catalogue and Green industry guiding catalogue. The EU has taken leadership in preparing its 2018 EU Action Plan on Financing Sustainable Growth currently under implementation on various levels, including the endorsement of the EU Taxonomy regulation and the development of an EU Green Bond Standard. The EU also is in the process of the development of a renewed sustainable finance strategy.

By using their leadership roles in raising awareness and supporting the up-take of a market for green financial products such as green bonds, the EU and China could jointly address the lack of awareness in the WB countries regarding how green and sustainable finance can support the greening of infrastructure.

4.4 Greening BRI projects in global post-pandemic economic recovery?

In 2020 the world was confronted with COVID-19. China experienced the first recorded economic contraction in decades. For BRI, this means that all partners' priorities are currently on combating the COVID-19 contagion and discussing resilient economic recovery.

COVID-19 has had a strong impact also on the EU and WB countries' economies and at the time of writing, overall economic impact is still subject to strong uncertainty. The pandemic has, as an immediate impact, so far meant a halt for BRI projects under construction in the WB countries (see above), but construction works seem to be slowly taken up again.

At the same time, China stressed at its Chinese People's Political Consultative Congress (CPPCC) an unchanged interest in the BRI and stated that trade with the BRI countries grew by 3.6% since the outbreak of the pandemic, in contrast to the global trend of declining trade.[156]

The global economic recession might also require a re-visit of the risk discussed above that the infrastructure investment the host governments in the WB countries have been borrowing for is, in particular in the current economic context, not accompanied by enough revenue generation to fully service the Chinese debt. Such situations initiate a downward economic spiral.[157] High shares of public debt will furthermore limit the room to manoeuvre for domestic stimulus in the WB countries.[158]

Nevertheless, with pandemic-induced economic retractions also in China, there might be an increasing role for co-financing from Chinese financing institutions and MDBs for infrastructure projects abroad. While typically not doing so, Chinese financing institutions and companies might become more interested in cooperating with multilateral financing institutions such as EBRD as they might want to benefit from their good understanding of local country risk. Such increasing willingness might in

[156] See summary on the CPPCC at Green BRI; What is the future of the Belt and Road Initiative (BRI) after Covid-19 and after the "Two Sessions"? A health silk road? By C. Nedopil Wang (2020) (webpage): https://green-bri.org/what-is-the-future-of-the-belt-and-road-initiative-bri-after-covid-19-and-after-the-two-sessions

[157] Hurley, J., Morris, S., & Porelance, G. (2018). page2-3

[158] Balkans in Europe Policy Advisory Group (BiEPAG)(2020). Policy Brief The Western Balkans in Times of the Global Pandemic: https://biepag.eu/wp-content/uploads/2020/04/BiEPAG-Policy-Brief-The-Western-Balkans-in-Times-of-the-Global-Pandemic.pdf

particular be the case for renewable energy investments with private companies involved. This situation might strengthen the case for a China-EU joint investment agenda for the WB countries and beyond. On the other hand, the economic recession might put pressure on China to relax environmental regulations to support economic stimulus, including the criteria set out for overseas BRI investments.[159]

Furthermore, BRI focus might be broadened to other infrastructure sectors with the roll-out of a "digital silk road" and a "health silk road".[160] It is, however, to be expected that the energy and transport sector as part of "traditional infrastructure" are likely to remain important areas of Chinese BRI investments.

In terms of geographic focus, there is discussion on a potential shift of BRI focus towards the Asian-Pacific region and Africa[161]. However, our investment analysis has shown that these priorities already exist and that major BRI projects in Europe are being further pursued.

Finally, from a global geopolitics' perspective, global post-pandemic recovery and global power politics might add to different perceptions on BRI's infrastructure investments and how to work towards greening them. For instance, diverging point of views on trade and further economic issues between China and the US in the run-up to the 2020 presidential election might cause a change in attitude towards BRI, as the US President candidate Biden's climate plan calls for the US and partners to offer "alternative sources of development financing for lower-carbon energy investments."[162] It will be upon the EU to define in how far cooperation with China for green infrastructure in the WB countries will be a key priority vis-à-vis a more competitive approach of systemic rivalry; balancing Chinese activities in the region with an increased engagement of the EU and its green deal on its own.

[159] China Dialogue; China's energy law could help address the Belt and Road's climate impact (website): https://www.chinadialogue.net/article/show/single/en/12082-China-s-energy-law-could-help-address-the-Belt-and-Road-s-climate-impact

[160] Green BRI; Nedopil Wang (2020)

[161] See for instance: Fitch Solutions; Post Covid-19 Belt And Road Initiative (webpage): https://www.fitchsolutions.com/infrastructure-project-finance/post-covid-19-belt-and-road-initiative-china-focus-efforts-asia-and-africa-01-06-2020 or Xianbai, J. The Diplomate (2020). Will COVID-19 Be a Blessing in Disguise for the Belt and Road?: https://thediplomat.com/2020/05/will-covid-19-be-a-blessing-in-disguise-for-the-belt-and-road/

[162] Joe Biden; The Biden Plan for a Clean Energy Revolution and Environmental Justice (webpage): https://joebiden.com/climate/

5 Policy recommendations

Cooperation between EU and China is "*simultaneously one of the most strategically important and one of the most challenging"*[163] relationships as put by EC President von der Leyen at the EU-China Summit videoconference held on 22nd June, 2020. Finding and building common ground for sustainable infrastructure investments in regional cooperation with the WB countries could benefit and positively strengthen the relationship between EU and China.[164]

This study's analysis showed the relevance and opportunity for EU-China cooperation in areas of possible joint international leadership. The study further showed the crucial relevance of EU-WB cooperation supporting a broad understanding and implementation of the European Green Deal, including the WB countries. By taking such action, EU, China and the WB countries could effectively move forward in taking leadership on sustainable finance and jointly support green and sustainable infrastructure investments in the energy and transport sector.

Recommendation 1: Transform the 17+1 cooperation into a pro-active regional green hub of the BRI

There is a strong case for a clear pro-active green agenda of the BRI, not only in its 17+1 cooperation, but globally. With the upcoming 14th Five-year plan in 2021, China may understand "BRI and 14th Plan" together and use BRI for a push toward sustainable infrastructure.[165]

The 17+1 cooperation format between China and the Central and South Eastern European countries is an established format with regular summits and a local coordination Centre. While it is a challenge for the EU with a multilateral format including parts of its EU member states and driven by China, the 17+1 cooperation format can also be used as an opportunity for an effective multilateral dialogue platform which (already) possess great attention from China. The 17+ countries could indeed also use the 17+1 cooperation format to turn it "into offensive instruments for targeting China with their specific demands", thereby overcoming the "multilateral bilateralism" as currently reflected in the strong hub function that China takes.[166]

Driven by both a clear Chinese rationale for aligning the BRI with its sustainability agenda and by the 17+ countries to shape the 17+1 cooperation, there could be an additional strong focus put on shaping a joint pro-active green approach for BRI projects in the 17+region. This may also include 17+ countries' commitment to green BRI for a, e.g. such as the BRIGC cooperation. This proactive approach could include elements relating to:

[163] European Commission; Statement by President von der Leyen (2020) (webpage): https://ec.europa.eu/commission/presscorner/detail/en/statement_20_1162

[164] EU-China Cooperation is meant to reinforce the EU in initiating a "race to the top" of setting standards that meet at least the EU's level of ambition of a pathway towards a sustainable economy 2050 as anchored in the EU Green Deal.

[165] Isabella Neuweg and Nicholas Stern (2019)

[166] Karásková, I., the Diplomat (2020. "Engaging China in 17+1: Time for the ACT Strategy": https://thediplomat.com/2020/04/engaging-china-in-171-time-for-the-act-strategy/

- green investment principles,
- guidance on implementing green and sustainable infrastructure projects and
- greater transparency on projects and related environmental and social aspects.

At the policy level, momentum could be created via a respective framing of the next regional 17+1 summit.

Recommendation 2: Shape a clear and ambitious European green agenda with the Western Balkans

As stipulated in the "Zagreb Declaration" of 6th May 2020, EU leaders, in consultation with Western Balkan leaders, concluded that "*a prominent role should be given to the association of the region to the EU's climate-related ambitions, in line with the Paris Agreement, to promoting the Green Agenda for the Western Balkans (…)*".[167]

The 17+ countries are either EU member states or in the process of accession to the EU. This naturally links them to the European policy agenda and the existing EU acquis. Consequently, there is a strong role for EU in greening the energy and transport infrastructure of the 17+ countries. This should happen at the levels of EU climate and environmental ambitions and with dedicated EU support for these investments, *beyond* BRI interventions. Both EU's member states and the WB countries need to be an integral part of the European Green Deal.

The EU needs to highlight the economic opportunities for the WB countries in its green deal, but it is equally important to highlight to the WB Governments the potential support already available for these countries. Building blocks for a clear and ambitious green agenda have recently been outlined in the European Commission's communication on an "Economic and Investment Plan for the Western Balkans" and relate to the strengthening of existing investment support.[168] Based on this, elements for a green agenda can refer to:

- The WBIF could be used as a central instrument to support and strengthen green and sustainable infrastructure investments in the energy and transport sector.
- The Connectivity Agenda, as also fostered through the Berlin Process could support further frames for greater energy and transport connectivity and to discuss opportunities by linking existing European programs with regional WB needs, for instance in reference to coal exit policies or renewable energy support policies, as detailed in section 4.3.3.
- From a broader policy perspective, a clear roadmap towards EU membership for the WB countries may also support closer cooperation on green energy and transport infrastructure in these countries.

[167] "Zagreb Declaration" of 6th May 2020 (webpage):https://ec.europa.eu/neighbourhood-enlargement/policy/eu-and-western-balkans_en; or directly at https://www.consilium.europa.eu//media/43776/zagreb-declaration-en-06052020.pdf?utm_source=dsms-auto&utm_medium=email&utm_campaign=Zagreb%20Declaration%2C%206%20May%202020

[168] European Commission (2020)

Efforts in this direction can build on the Zagreb Declaration and could be linked to the existing dialogue under the Berlin process and on sectoral cooperation under the Energy Community and Transport Community.

Recommendation 3: Establish a regional centre of excellence for green and sustainable infrastructure in the Western Balkans

Overcoming knowledge and capacity barriers towards green and sustainable infrastructure project is key for investors or contractors. Both China and EU have an interest in supporting local countries in raising awareness and building skillset and capacities required to effectively implement green and sustainable infrastructure projects. Setting up a regional hub as a centre of excellence for green and sustainable infrastructure in the Western Balkan countries may create an excellent cooperation opportunity for both the EU and China.

A regional centre of excellence for green and sustainable infrastructure in the Western Balkan countries could be a physical regional institution with one or more offices. It should support capacity building measures and stakeholder engagement activities with the goal of raising awareness for and strengthening knowhow on sustainable energy and transport infrastructure in the region. This might involve supporting local governments and strengthening the network between WB (and more broadly EU-Western Balkan-Chinese) sustainable infrastructure communities. The centre could be linked and feed into both the 17+1 cooperation and the Berlin process.

Concrete activities would need to be further specified and could relate to:

- Awareness campaigns for sustainable infrastructure
- The support of transparency and local participation in infrastructure projects
- Support of local knowledge networks and capacity building programs
- Support of the implementation of green investment principles and providing further guidance on green energy and transport projects, green public procurement as well as standard development.

In its upcoming bilateral summit, the EU and China could jointly support and fund a regional centre for green and sustainable infrastructure in the WB countries, entering into a dialogue with WB countries on specifying details. The centre could further be an institutional contact in the region for any locally organized activity in the framework of a potential joint engagement under the IPSF (see below).

Recommendation 4: Build a joint EU-China-WB investment agenda for green and sustainable infrastructure investments

Due to both EU's and Chinese interests in the WB region and given the global economic challenges of the on-going COVID-19 pandemic, there is a case for increased cooperation and coordination in investing in these countries' energy and transport infrastructure to support regional economic prosperity.

Together with WB countries, the EU and China could work towards a joint investment agenda for green and sustainable energy and transport infrastructure at (or above) EU standards in the context of a resilient recovery after COVID-19.

The EU and China could endorse an EU-China-WB working group involving key financing players such as EIB, EBRD and China Development Bank and China Exim Bank to become part of the working group could look into aspects relating to:

- Mutually agreed green and sustainable infrastructure investment principles at (or above) EU standards.
- A roadmap for building of a coordinated pipeline of green and sustainable infrastructure projects together with the WB countries, e.g. specifically relating to renewable energy and sustainable transport.
- Further development of existing cooperation's such as the joint study on sustainable railway-based transport, which was initiated under the EU China connectivity platform. Specifically, the working group could initiate a follow-up joint study on sustainable energy and transport investments with a focus on, and including, the contributions from the WB region.

The working group could be linked to or integrated into existing platforms such as the EU-China Connectivity Platform and/or the IPSF.

Recommendation 5: Shape a WB sustainable finance agenda through EU-China leadership under the IPSF

Sustainable finance cooperation between the EU and China has been endorsed at high-level summits, but so far there are no joint efforts in promoting sustainable finance principles and the transformation towards sustainable financial systems in third countries. China has joined the EU's International Platform on Sustainable Finance (IPSF). The IPSF is a good starting point for multilateral efforts and collaboration on sustainable finance.

EU and Chinese leadership in one (or more) working group(s) under the IPSF could substantiate a larger Sino-European partnership for resilient recovery in the post-pandemic time.

The EU and China could invite and support the WB countries in joining the EU's IPSF. This would provide a forum where 17+ cooperation countries could exchange on various sustainable finance topics relevant to their infrastructure financing. Cooperating in an IPSF working group would allow the WB countries to benefit from the experience of both China and EU in transforming financial system and supporting green financial markets to flank sustainable infrastructure development.

The dialogue under the IPSF working group(s) could relate to:

- Exchange on regulatory good practice on sustainable finance
- Approaches on how to define green infrastructure assets using green/sustainability taxonomies
- Information exchange on scope and potentially harmonized methodologies for transparency and disclosure principles as relevant to infrastructure projects and beyond
- Building knowledge on how to understand and manage sustainability related financial risks and opportunities

- Good practice and towards a scaled-up market and product innovation for green financial products.

EU's International Platform on Sustainable Finance (IPSF) has recently announced that it will establish two working groups, one working group on taxonomies under EU and Chinese co-chairing, and one working group on environmental-related disclosure.[169] The EU and China could, in an upcoming summit statement, endorse the establishment of these and potentially more working group(s)/work streams under the IPSF, with the aim of developing e.g. a "Joint EU-China roadmap on sustainable finance", open for participation of interested third countries – such as the WB countries - to enhance political leverage of the outcome.

Due to the dynamics of the uptake of initial joint actions under the IPSF, this study gives the broad recommendation to foster and substantiate Sino-European and multilateral sustainable finance dialogue focusing on some of the areas as described in this recommendation and in section 4.3.5. The opportunity for the WB countries to become part of the international dynamics for a sustainable financial system, while domestic sustainable finance discussions are at a much earlier stage, would benefit regional development. A detailed assessment on how multilateral sustainable finance cooperation could be moved forward by EU and China, including but not limited to WB country participation, is beyond the scope of this study and subject to further research.

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6.3 Interview List

Semi-structured interviews were held with the regional Western Balkan representatives below:

1. **Denis Zisko**; Energy and climate change program coordinator at the Center for Ecology and Energy **(CEE)**, Bosnia and Herzegovina
2. **Pippa Galop**, Southeast Europe Energy Advisor at **Bankwatch Network** in Zagreb, Croatia
3. **Zvezdan Kalmar**; coordinator for climate change, monitoring of IFIs and alternative economically policy at the Center for Ecology and Sustainable Development (**CEKOR)**, Serbia
4. **N.N**; Environmental expert, Montenegro

Informal Interviews were conducted with the below specific topical experts:

5. **Dr. Olga Chiappinelli**; Research Associate in the Climate Policy Department at DIW (the German Institute for Economic Research) in Berlin, Germany
6. **Dr. Pao-Yu Oei**; Head of Research Group CoalExit at Technical University Berlin (TU Berlin) and DIW (the German Institute for Economic Research) in Berlin, Germany
7. **Prof. Dr. Horst Löchel;** Co-Chairman of Sino-German Center (SGC) at Frankfurt School of Finance & Management gGmbH in Frankfurt am Main, Germany
8. **Richard Jones;** represent the EBRD in China, managing a small team focused on business development with AIIB and high-quality Chinese investors operating in EBRD markets, located in Beijing City, China and in London, UK

6.4 Background on current status quo in the energy and transport sector in the WB countries

In the following, we summarize the current status quo in the energy and transport sector in the five WB according to the EU's analytical reports on pre-accession progress.

Serbia

Energy

Serbia is moderately prepared for adopting the EU energy acquis. It should in particular:

- fully unbundle and certify Srbijagas and Yugorosgaz and develop competition in the gas market;
- fully implement the connectivity reform measures as committed to under the Connectivity Agenda;
- strengthen human resources capacity and promote investment in energy efficiency including through establishing a sustainable financing system and initiate reforms to introduce cost-reflective electricity tariffs fully taking into account investment needs, climate change commitments and social security implications as well as reform electricity price regulation accordingly.

Serbia has significant ongoing projects related to construction of coal – fired power plants. This will be a big hurdle for fulfilment of emission reduction proves and greening of energy sector.

Serbia's energy system in general relies heavily on coal, whereas the supply of natural gas for industry and households shows high import dependence. Some progress was made towards energy efficiency (EE) in industry by the companies in the most energy intensive sectors, which undertook steps towards certification, best available technology introduction, as well as measurement and monitoring of CO_2 emissions at their operations. The overall energy framework in Serbia, both from legal/ policy and market perspectives, is well-developed and positively assessed by the Energy Community, to which Serbia is a Contracting Party.

Transport

Serbia is a modest stage for adopting the EU acquis in the transport sector. According to the Report on the progress of the implementation of Connectivity Reform Measure Management Plan (CRMMP), Serbia has moderate progress in an alignment with EU acquis related to transport. Regarding rail market opening on the pilot basis on the Orient/East Med corridor, Serbia has 2 state owned and 8 private railway companies actively operating on the railway network; the network statement for 2020 was published by Infrastructure Manager (IM); the Regulation on the manner of concluding and content of framework agreements, for allocation of railway infrastructure; progress in adopting EU Regulation (EU) 2017/2177 on access to service facilities and rail related services was transposed through Regulation on the details of the procedure and the criteria applied for access to services provided in service facilities. The Transport community recommends fully transpose the Intelligent Transport System (ITS) Directive and secure implementation of relevant national laws in Serbia.

Bosnia and Herzegovina

Energy

The country is at an early stage of preparations in the energy sector considering the adoption of the EU acquis. A fragmented, inconsistent and uneven legislative framework between different levels of government is hampering overall progress. The energy sector is hindered by political interference,

resulting in an unfavourable investment climate and insufficient regulatory independence. The country needs to increase and implement measures relevant for both energy efficiency and renewable energy sources. Bosnia and Herzegovina should in particular:

- adopt gas and electricity legal frameworks compliant with the third energy package;
- intensify its efforts to implement connectivity reform measures to support the functional operation of the regional market;
- adopt state- and entity-level legislation on renewable energy and energy efficiency in line with obligations stemming from the Energy Community Treaty.

Transport

Bosnia and Herzegovina is an initiating stage for adopting the EU acquis in the transport sector. According to the Report on the progress of the implementation of Connectivity Reform Measure Management Plan (CRMMP)[170], BiH made no significant progress in an alignment with EU acquis related to transport. It is recommended by Transport Community to define the strategic framework for the implementation of the Intelligent Transport System (ITS), including transposition of the relevant EU Directive into national legislation; accelerate the finalisation of negotiations with Croatia on rail border crossing agreement.

Albania

Energy

Albania has aligned its legislation with a number of aspects of the acquis and amendments to the legislative framework are being prepared. However, the fields of energy efficiency, renewable energy and oil stocks as well as ensuring the viability of the electricity market and the development of the gas market require further attention. The role of the electricity and gas regulatory authority needs to be strengthened. Energy diversification is poor and the country is still vulnerable regarding security of electricity supply. Overall, the country will have to undertake additional efforts to align with the acquis and to implement it effectively in the medium term.

Transport

Albania is at a primary stage for adopting the EU acquis in the transport sector. According to the Report on the progress of the implementation of Connectivity Reform Measure Management Plan (CRMMP), Albania has slow progress in an alignment with EU acquis related to transport.

The Transport community recommends to define the strategic framework for the implementation of the Intelligent Transport System (ITS), including transposition of the relevant EU Directive into national legislation; Joint technical committee between Albania and Montenegro needs to hold its next meeting and finalise the joint Action Plan for the Border Crossing points between Republic of Albania and Montenegro.

North Macedonia

[170] The Transport Community. Progress Report (2019). Monitoring Implementation of Connectivity Reform Measures: https://www.transport-community.org/wp-content/uploads/2019/12/CRM-Monitoring-Progress-Report-November-2019.pdf

Energy

The country is moderately prepared in its energy sector for the EU acquis. Good progress was made in aligning the national rules with the third energy package. In the coming year, the country should in particular:

- finish unbundling (certification) the electricity and gas transmission systems;
- increase the number of staff and the technical/engineering capacity of the Energy Department in the Ministry of Economy and the Energy Agency;
- finalise new or updated secondary legislation in compliance with the Energy Law and the third energy package, e.g. adopt the Energy Efficiency Law to align with the Energy Efficiency Directive and the Energy Performance of Buildings Directive.
- continue efforts to align the work under way with the Energy Strategy and the Climate strategy.

Transport

North Macedonia is at an early stage for adopting the EU acquis in the transport sector. According to the Report on the progress of the implementation of Connectivity Reform Measure Management Plan (CRMMP), North Macedonia made no significant progress in an alignment with EU acquis related to transport. Recommendations by Transport Community are: Kosovo and North Macedonian authorities are encouraged to proceed with fulfilment of the necessary steps for the railway border crossing measure without further delays and to define the strategic framework for the implementation of the Intelligent Transport System (ITS), including transposition of the relevant EU Directive into national legislation.

Montenegro

Energy

Montenegro has reached a good level of preparation in its energy sector. Some progress was made on further legislative alignment related to renewable energy. In the coming year Montenegro should, in particular:

- create or join a functioning day-ahead market and couple with neighbouring markets, including Italy;
- move to market-based support schemes for renewable energy production and streamline the permitting and connection procedures;
- adopt the Law on security of supply of oil products and set up the stockholding body for the mandatory oil stocks.

Transport

Montenegro is an initial stage for adopting the EU acquis in the transport sector. According to the Report on the progress of the implementation of Connectivity Reform Measure Management Plan (CRMMP), Montenegro has slow progress in an alignment with EU acquis related to transport. The Government of Montenegro adopted the new Transport Development Strategy 2019-2035 and Action Plan 2019-2020 including considerations on the role of ITS for-network management and operation. Furthermore, it drafted a Law on Roads that has been circulated for opinions from the competent state authorities. It is expected that the Government will approve the Draft Law by the end of 2019 to follow up in 2020 with the adoption by the Parliament.

6.5 Project Database – overview of projects

ID	Project name	Target country	Infrastructure sector	Chinese investment type	Chinese stakeholders
1	E763 Highway: Preljina-Pozega section	Serbia	Roads, highways	credit	China Communications Construction Company (CCCC)
2	A - Budapest–Belgrade railway	Serbia	Railway	credit	China Railway International (CRI) , the Russian company RDZ International
3	B - Budapest–Belgrade railway	Hungary	Railway	credit	China Tiejiuju Engineering & Construction Kft. and China Railway Electrification Engineering Group Kft., representing the Chinese state railways company.
4	C - Budapest–Belgrade–Skopje–Athens railway	North Macedonia	Railway		
5	D - Budapest–Belgrade–Skopje–Athens railway	Greece	Railway		
6	Piraeus port	Greece	Harbour	Acquisitions	Chinese shipping giant Cosco
7	China-Europe land-sea express line	Other	Other		
8	Peljesac bridge	Croatia	Roads, highways		Chinese consortium led by China Road and Bridge Corporation (CRBC)
9	Huta Stalowa Wola	Poland	N.A.	Acquisitions	
10	KFLT Bearings	Poland	N.A.	Acquisitions	
11	Bar-Boljare Motorway (Section of European Motorway XI)	Montenegro	Roads, highways	credit	China Communications Construction Company (CCC), China Road and Bridge Corporation
12	HBIS Serbia Blast Furnace Gas Holder & Auxiliary Facilities Construction Pr	Serbia	Other		
13	Kosice-Vienna Railway (Construction)	Slovakia	Railway		
14	83 M1 - Papa Motorway Avoiding Settlements	Hungary	Roads, highways		
15	A14 Vilnius - Utena Highway Ppp	Lithuania	Roads, highways		
16	Torun-Strykow A1 Motorway	Poland	Roads, highways		
17	A1 Titu-Baldana-Targoviste-Sinaia High Speed Road	Romania	Roads, highways		
18	A5 Motorway Subsection (Beli Manastir - Osijek - Svilaj): Drava Bridge - Os	Croatia	Roads, highways		
19	modernization of tram depots in Lodz	Poland	Tram		
20	Adamclisi Project	Romania	Energy - Wind		
21	Adriatic - Motorway/Blue Corridor	Albania	Roads, highways		
22	Adriatic - Motorway/Blue Corridor	Montenegro	Roads, highways		
23	Adriatic - Motorway/Blue Corridor	Bosnia & Hercegovina	Roads, highways		
24	Adriatic - Motorway/Blue Corridor	Croatia	Roads, highways		
25	Adriatic - Motorway/Blue Corridor	Greece	Roads, highways		
26	Adriatic - Motorway/Blue Corridor	Slovenia	Roads, highways		
27	Albania Local and Regional Roads	Albania	Roads, highways		
28	Albania - Montenegro Highway	Albania	Roads, highways		China Pacific Construction Group
29	Stanari lignite power plant	Bosnia & Hercegovina	Energy - Coal	credit	**China Development Bank** provided a 350 million euro loan to construct the facility. **China's Dongfang Electric Corporation** was engaged to build it
30	TPP Kostolac B3	Serbia	Energy - Coal	credit	China Machinery Engineering Corporation (CMEC)
31	Tuzla 7 lignite power plant	Bosnia & Hercegovina	Energy - Coal	credit	China Exim bank
32	Kamengrad lignite power plant	Bosnia & Hercegovina	Energy - Coal	credit	China Energy Engineering Corp TEPC Overseas Engineering Company
33	Banovici lignite power plant	Bosnia & Hercegovina	Energy - Coal		China's Dongfang Electric Corporation Limited (construction)
34	Gacko Thermal Power Plant	Bosnia & Hercegovina	Energy - Coal	equity	China Investment & Development Company and China Machinery Engineering Corporation (construction) China Machinery and Engineering Corporation (CMEC) and Emerging Markets Power Fund
35	Rovinari unit 7	Romania	Energy - Coal	equity	China Huadian
36	Možura wind farm	Montenegro	Energy - Wind	Acquisitions	Shanghai Electric Power Company
37	Kupres Wind Power Plant	Bosnia & Hercegovina	Energy - Wind		China Machinery Engineering Corporation (CMEC)?
38	Mesihovina wind power plant	Bosnia & Hercegovina	Energy - Wind		
39	Podvelezje wind farm	Bosnia & Hercegovina	Energy - Wind		N.A
40	Senj Wind Farm	Croatia	Energy - Wind	Acquisitions	Norinco International Cooperation
41	UGLJEVIK III Lignite Power Plant	Bosnia & Hercegovina	Energy - Coal		
42	Kolubara B	Serbia	Energy - Coal		China Power
43	HPP Andrijevo, Raslovici, Milunovici und Zlatica am Fluss Moraca	Montenegro	Energy - hydro (M-L)		
44	Borsodchem chemicals manufacturer	Hungary	Other	Acquisitions	China's Wanhua Industrial Group
45	BYD Electric Bus and Truck Hungary Kft	Hungary	Bus	Acquisitions	BYD Co Ltd is a Chinese manufacturer with HQ in Shenzhen. It has two major subsidiaries, BYD Automobile and BYD Electronic.
46	Macedonian Railway modernisation (new trains)	North Macedonia	Railway		Chinese CSR Corporation Ltd China's CRRC company
47	Pljevlja thermal power plant - Block 1 - technical and environmental rehat	Montenegro	Energy - Coal		Dongfang Electric Corporation (DEC)