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## Research Report

# Towards effective industrial policy in the Western Balkans

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# Towards Effective Industrial Policy in the Western Balkans

Branimir Jovanović and Nina Vujanović

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# Towards Effective Industrial Policy in the Western Balkans

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# Abstract

Industrial policy has been largely overlooked in the Western Balkans for the past three decades. However, the region's economic struggles and the adoption of smart specialisation strategies have led to renewed interest in the topic. Promising industrial sectors in the Western Balkans include agri-food, textiles, automotive, energy, IT and tourism. The agri-food industry should aim for premium goods, the textile sector for high-quality final products, the automotive industry for advanced technologies, the energy sector for renewable energy, the tourism industry for unique alternative experiences and the IT industry for fostering greater innovation. The EU and Austria can play a valuable role in supporting the industrial policies of the Western Balkan countries. The EU can provide technical assistance and funding for the implementation of smart specialisation strategies. Austria can contribute its expertise to the development and implementation of specific industrial measures, promote the use of its social partnership model, and share its experience with the dual education system.

**Keywords:** Industrial policy, Western Balkans, smart specialisation, development

**JEL classification:** L50, L60, L80, O10



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# Towards effective industrial policy in the Western Balkans

## 1. A BRIEF HISTORY OF INDUSTRIAL POLICY

There is no single widely accepted definition of industrial policy, but the opening chapter of *The Oxford Handbook of Industrial Policy* defines it as ‘a strategy that includes a range of implicit or explicit policy actions and instruments selectively focused on specific industrial sectors and new activities for the purpose of shaping structural change and promoting catch-up in line with a broader national vision and development strategy’ (Oqubay, 2020, p. 44).

This definition has three major points. First, industrial policy is a *strategy*, that is, a broad and longer-term set of policy measures. Second, industrial policy is *selectively focused* on specific sectors, that is, it does not refer to all the sectors of the economy. And third, the aim of industrial strategy is to lead to a *structural change* in the economy, not to keep the status quo.

The origins of industrial policy can be traced back to medieval times. Some Italian city-states and late medieval England had some practices that can be classified as industrial policy (Oqubay et al., 2020). More recent and better-known examples are the writings of Alexander Hamilton and Friedrich List from the late eighteenth and early nineteenth centuries. But industrial policy became mainstream in economic policy and theory only in the interwar period, and especially after the second world war. The best-known examples are the successes of the East Asian economies, whose impressive economic results from the second half of the twentieth century stemmed primarily from the industrial policy that they had adopted (Amsden, 1989; Wade, 1990; Chang, 2002).

Nevertheless, in the last few decades industrial policy came to be seen as controversial by many economists. In a highly influential recent paper entitled ‘The Return of the Policy That Shall Not Be Named: Principles of Industrial Policy’, Cherif and Hasanov (2019, p. 1) state that: ‘[i]ndustrial policy is tainted with bad reputation among policymakers and academics and is often viewed as the road to perdition for developing economies’.

The two main arguments that have been used against it are that governments are bad at picking winners, and that industrial policy breeds corruption and rent-seeking (Rodrik, 2009). These arguments have often been illustrated by industrial policy failures in certain Latin American countries (Moreno, 2015). As a result, industrial policy had been falling out of favour since the late 1970s, both in academia and in policy making. This coincided with the rise of neoliberalism and the adoption of policies associated with the Washington Consensus (Williamson, 1989), for example those aimed at supporting ‘market freedom’ and a small role of the state in the economy (Saad-Filho, 2005).

With the demise of the Washington Consensus after the 2007-08 global financial crisis, industrial policy has again come to the fore. According to UNCTAD (2018), between 2013 and 2018 at least 84 countries – both developed and developing, accounting for about 90% of global GDP – adopted formal industrial

development strategies. This is also evident in the case of the EU, which, since 2010, has been publishing a new or adopted industrial policy strategy every second year or so (Landesmann and Stöllinger, 2020).

Eastern European economies, in general, have been shying away from industrial policy after the collapse of socialism (Popov, 2020). This can be explained by the radical turnaround in economic policies in those countries after 1990 – until then, they all had (to a greater or lesser extent) centrally planned economies, which can be seen as an extreme form of industrial policy. After 1990, as a kind of a revolt against the previous system, they all adopted economic models based on neoliberal premises, with minimal states and deregulated markets. An additional reason why industrial policy has not been very popular in Eastern Europe in the past three decades is that virtually all these countries had some kind of an arrangement during the 1990s with the IMF, which was advocating Washington Consensus type of policies at that time and was very much against industrial policy.

## 2. INDUSTRIAL POLICY IN THE WESTERN BALKANS

All that has been said so far applies equally to the Western Balkans. The six economies – Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia – had rather extreme forms of industrial policies after the second world war, as both socialist Yugoslavia and socialist Albania had regular five-year economic plans with strong focus on industrialisation. After the collapse of socialism, they saw a radical turnaround in economic policies, with virtually no government intervention in the economy for the next couple of decades. Then, as things started to change globally during the last decade and industrial policy became attractive once again, the Western Balkan economies started to rediscover it as well.

The first attempt at systematic government intervention in the economy in the Western Balkans occurred in the second half of the 2000s, with the special economic zones. Although this was not really industrial policy, it was the first post-communist attempt by the governments to actively steer the development of the economy. The governments realised that their economies were not achieving the desired results and tried to change this. In establishing these special economic zones, the idea was to provide a more hospitable environment for investors, especially foreign investors, by giving them all kind of benefits if they would invest there. Some of the benefits included exemptions from taxes and customs, but also ready-to-use infrastructure and good connection to highways (Bartlett et al., 2019; Uvalić, 2021). Serbia was the first country in the region to create these zones, adopting the necessary legislation in 2006, followed by North Macedonia, in 2007. Other countries followed suit, and by 2021, all of them had some form of free economic zone (see Jovanović et al., 2021).

Although the zones succeeded in bringing substantial foreign direct investment (FDI) to the region, they fell short of yielding high growth rates for the economies overall, and did not reduce poverty and inequality. Because of this, some of the Western Balkan countries began to think of expanding the government support to the other parts of their economies and adopted formal country-wide industrial policy strategies. The first to do so was North Macedonia, in 2009 (Government of the Republic of Macedonia, 2009), followed by Serbia in 2011 (Government of the Republic of Serbia, 2011), and Montenegro, in 2016 (Government of Montenegro, 2016). The other three countries lack such strategies on a national level and relating to the whole economy, although certain narrower strategies have been

adopted. Albania has a strategy for the non-food industry (Ministry of Energy and Industry of the Republic of Albania, 2016) and Kosovo has a strategy for the IT sector (Ministry of Economic Development of Kosovo, 2016), while in Bosnia and Herzegovina, Republika Srpska has an industrial policy strategy in relation to its entity (Government of Republika Srpska, 2000).

Nevertheless, the mere adoption of these industrial policy strategies does not mean that the Western Balkan economies de facto started to implement industrial policies. All these strategies were explicitly defined as horizontal, relating to all the sectors of the economy, which goes against one of the defining features of industrial policy – that it has to be focused on specific sectors. Moreover, even though the three governments did formally adopt these strategies, implementation was always poor, and none of the governments managed to introduce a substantial set of policy measures that would lead to a real structural change in their economies.

The first real attempts at industrial policy in the Western Balkans started only in the last few years, with the smart specialisation strategies. These strategies identify and select a limited number of priority areas, and use industrial, educational and innovation policies to support these, focusing on their strengths and comparative advantages (OECD, 2022). They are part of the Innovation Union initiative of the EU, which was adopted in 2010 (Bartlett et al., 2019). Adopting a national smart specialisation strategy has become an *ex ante* conditionality for EU member states to access EU Structural Funds (European Commission, 2012).

Even though the Western Balkan economies are not obliged to adopt smart specialisation strategies to secure access to the EU Instrument for Pre-accession Assistance (IPA) funds, they all started working on them in recent years, with the support of the Joint Research Centre of the European Commission, through its Smart Specialisation Platform. The first to adopt a smart specialisation strategy was Montenegro in 2019, followed by Serbia in 2020. Albania, Kosovo and North Macedonia are currently preparing their strategies, while Bosnia and Herzegovina is preparing to start the process (JRC, 2022).

Montenegro adopted its smart specialisation strategy in June 2019 (Montenegro Ministry of Science, 2019). The strategy refers to the 2019-2024 period and identifies four priorities:

1. Sustainable agriculture and food value chain;
2. Energy and sustainable environment;
3. Sustainable and health tourism;
4. ICT.

The Serbian strategy was adopted by the government in February 2020 and refers to the 2020-2027 period (Government of the Republic of Serbia, 2020). It too identifies four priority areas:

1. Information and communication technologies;
2. Food for future;
3. Creative industries;
4. Future machines and manufacturing systems.

Both Montenegro and Serbia adopted action plans for the implementation of the strategies, but it is still too early to say if these have yielded any notable effects.

### 3. PROMISING INDUSTRIAL AREAS IN THE WESTERN BALKANS

To support the preparation and implementation of the smart specialisation strategies in the Western Balkan economies, the Vienna Institute for International Economic Studies prepared a study, entitled 'Analysis of Value Chains in the Western Balkan Economies - Enriching the Potential for Regional Cooperation in Priority Areas', which was published by the Joint Research Centre of the European Commission in 2022 (Matusiak et al., 2022). Although the study is based on data prior to the Covid-19 pandemic and the Russian invasion of Ukraine, its main points and messages are still relevant.

The aim of the study is to identify promising industrial areas in the Western Balkans, in which the region as a whole, or its individual economies, has the potential to upgrade its current position in the global value chains. Furthermore, the study also devised a set of policy options that policy makers in the region can use to support these industrial areas.

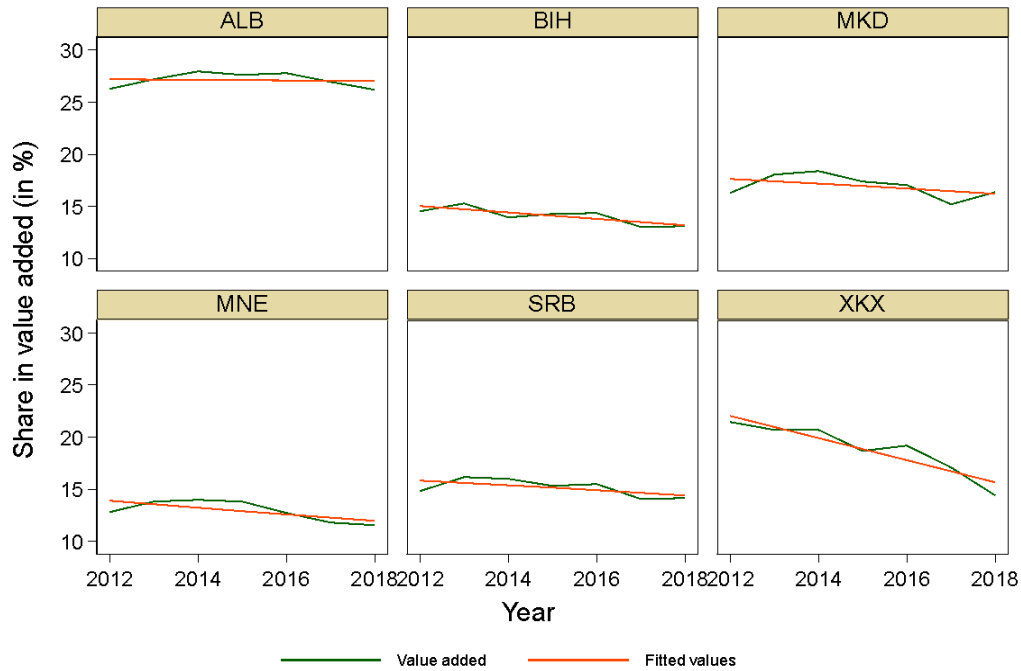
The study selected the following 6 industrial areas:

1. Agri-food (NACE codes A and CA);
2. Textiles (NACE code CB);
3. Automotive (NACE code CL);
4. Energy (NACE code D);
5. Tourism (NACE code I);
6. IT (NACE code JC).

The selection took into account a wide range of criteria, including: 1) the share of the industries in GDP; 2) the number of people employed in the industries; 3) the revealed comparative advantage of the Western Balkan economies in these industries; 4) the relative position of the Western Balkan economies in the global value chains in these industries; 5) the share of domestic value added in the industries' exports; 6) the share of value added in the industries that comes from the Western Balkan economies; 7) the number of patents in the industries; 8) the number of scientific citations; 9) the existence of export and innovation promotion programmes; 10) the existence of business support organisations; 11) the compatibility with existing EU agendas.

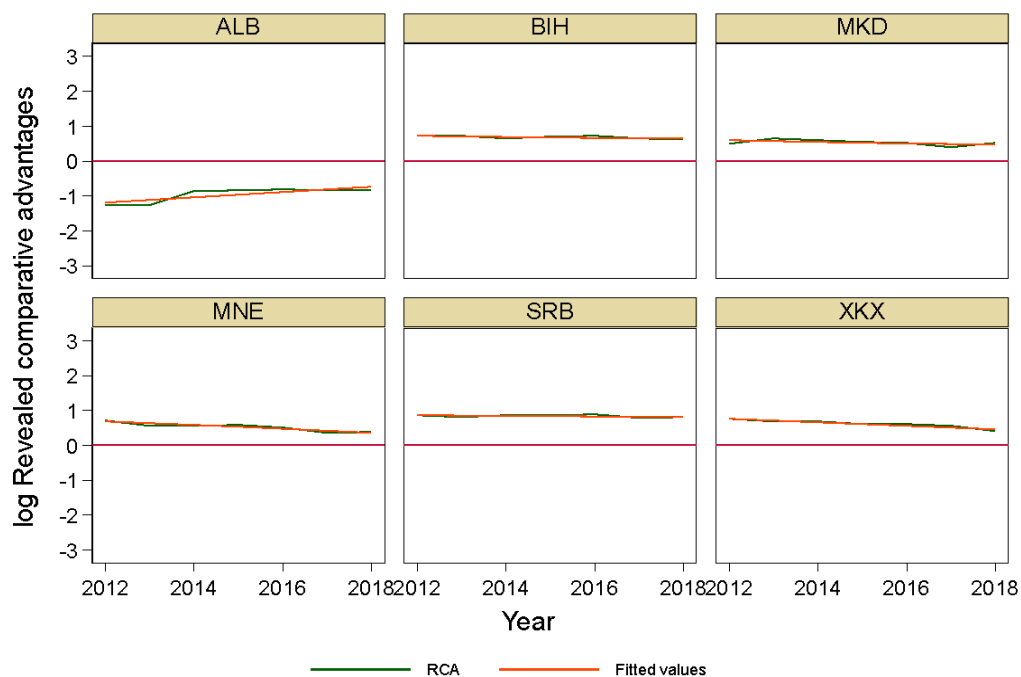
In turn, we summarise the main reasons for the selection of each of the six industries.

**The agri-food industry** is characterised by a large share in most economies of the Western Balkans, both in terms of GDP and in terms of employment. In terms of GDP, the share of agri-food varies from 25% in Albania to slightly above 10% in Montenegro and Bosnia and Herzegovina (Figure 1). All economies in the region (except Albania) have a revealed comparative advantage in this sector (Figure 2). In addition, the industry is supported by various public or government programmes. It aligns with the agenda outlined in the European Green Deal, primarily in terms of ecological and sustainable food production. Scientific potential in agricultural and biological sciences is one of the strongest in the region, with several regional institutions having a high reputation even in the EU (e.g. Serbia's BioSense Institute).

**Figure 1 / Value added share of the agri-food sector in the Western Balkan economies**

Note: Fitted values are calculated as a linear trend.

Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

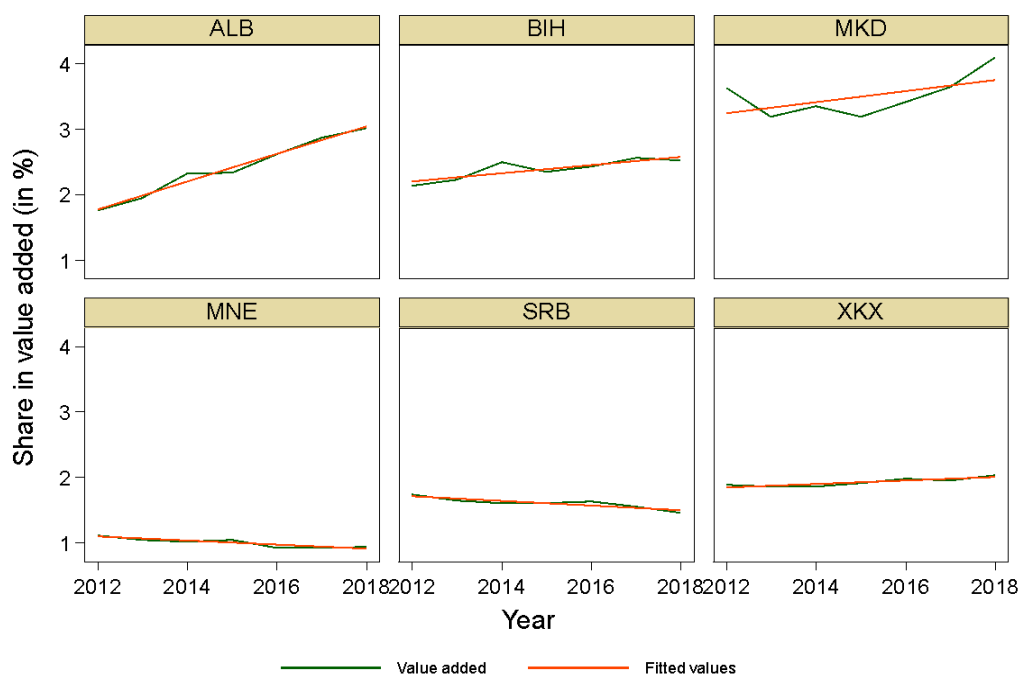
**Figure 2 / Revealed comparative advantage of the agri-food sector in the Western Balkan economies**

Note: Fitted values are calculated as a linear trend.

Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

The share of the **textile sector** in GDP is not very high in the Western Balkans – it accounts for up to 4% of value added in North Macedonia, for around 3% in Albania and Bosnia and Herzegovina, and for 2% or less in the remaining economies (Figure 3). Even so, the sector is important because it employs a large number of people in the region, despite being low-value-added and labour-intensive. For Albania, Bosnia and Herzegovina, and North Macedonia, the data indicate that the industry has a revealed comparative advantage (Figure 4). The industry is also important for social cohesion, as it is mainly located in poorer or even deprived areas with fewer opportunities and thus helps to reduce poverty and inequalities. The industry also employs predominantly female workers, contributing in this way towards gender equality and emancipation. Furthermore, the industry has a strong tradition in the Western Balkan economies, whose workforce is skilled in such activities. It also has great potential for inter-industry linkages (e.g. connections with the automotive industry, agriculture and food) as well as intra-regional linkages (i.e. connections between different companies from different Western Balkan economies), thus offering scope for intra-regional co-operation.

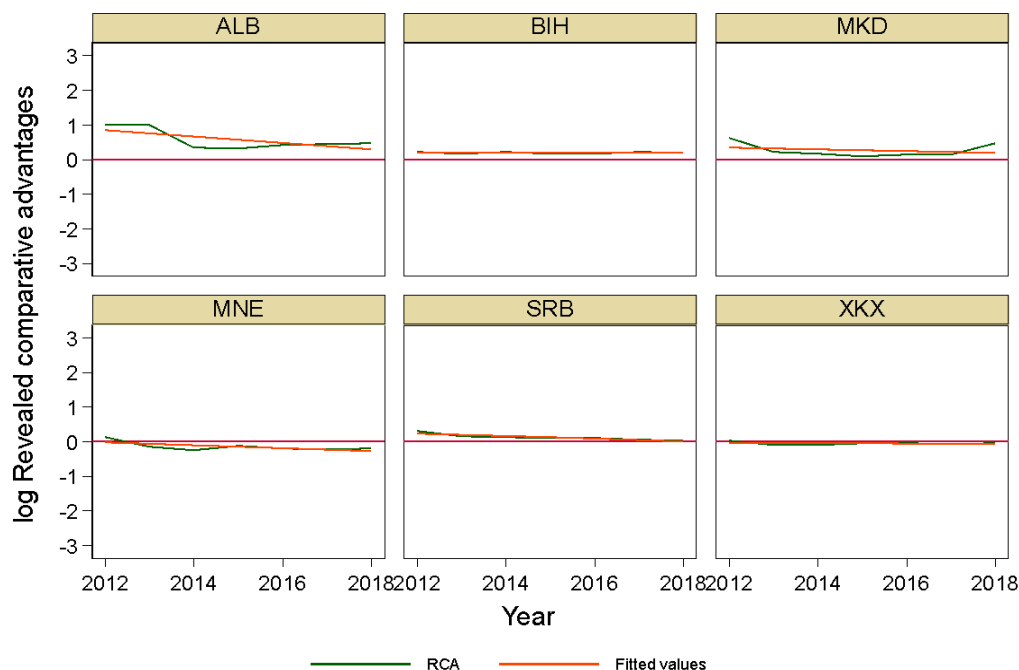
**Figure 3 / Value added share of the textile sector in the Western Balkan economies**



Note: Fitted values are calculated as a linear trend.

Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

**Figure 4 / Revealed comparative advantage of the textile sector in the Western Balkan economies**



Note: Fitted values are calculated as a linear trend.

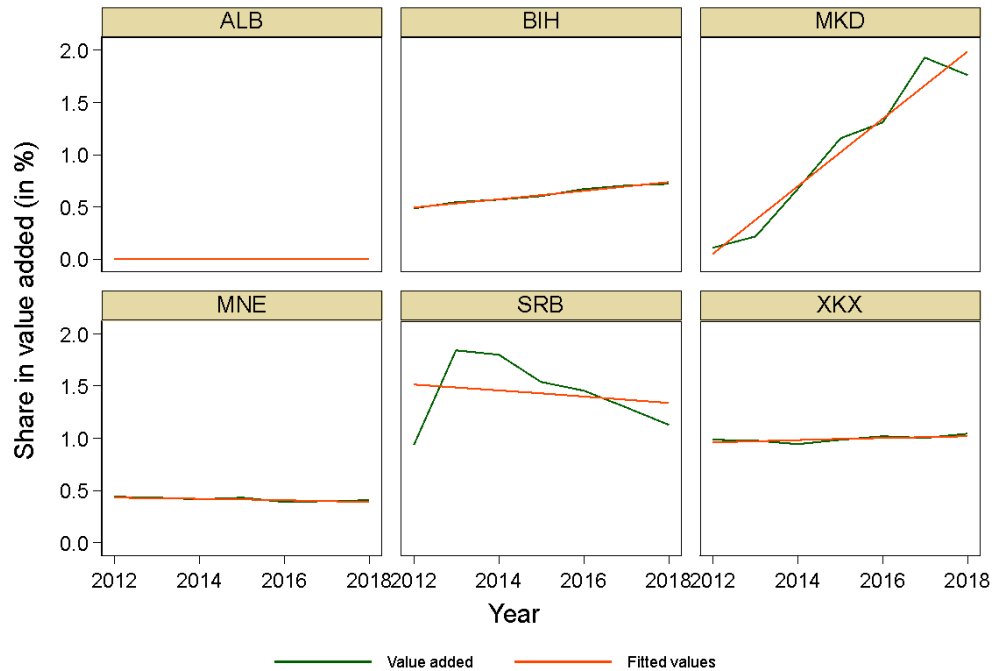
Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

The **automotive** sector accounts for a relatively small share of value added in most Western Balkan economies – the share is highest in Serbia and North Macedonia, at around 1.5% of GDP (Figure 5). Of the six economies, only Serbia and North Macedonia have a slight revealed comparative advantage in the sector (Figure 6). The main reason why this industry was selected is because it has the greatest potential for catch-up and technological upgrading. It is highly integrated into global supply chains, and although at the moment the backward linkages dominate (i.e. it has a high share of imports), over time it is expected that the forward linkages will grow (i.e. the share of exports will increase), as the companies that are active in this area are rather new, having been established only in the past few years, and are expected to upgrade in the coming years. The industry is continuing to attract strong inflows of FDI into the region. It is also characterised by a pronounced scope for linkages to other technology-intensive industries. Finally, it has a direct connection to the European Green Deal agenda.

The **energy sector** is rather large in the Western Balkans, with shares of value added ranging between 3% and 6% in all the economies (Figure 7). All the economies show strong revealed comparative advantages, in most cases even with an increasing trend (Figure 8). Moreover, in all the Western Balkan economies the sector has an 'upstream' position in the global value chains (i.e. high share of exports), which is another positive feature. The industry is supported by various government initiatives in the region and is also very relevant for the European Green Deal. The scientific potential of the region in the energy field is also strong, with a number of educational, scientific and research organisations that may support and improve industry competitiveness through innovation and research and development (R&D). Finally, Western Balkan economies possess rich and unused natural resources for the production of energy from renewable sources.



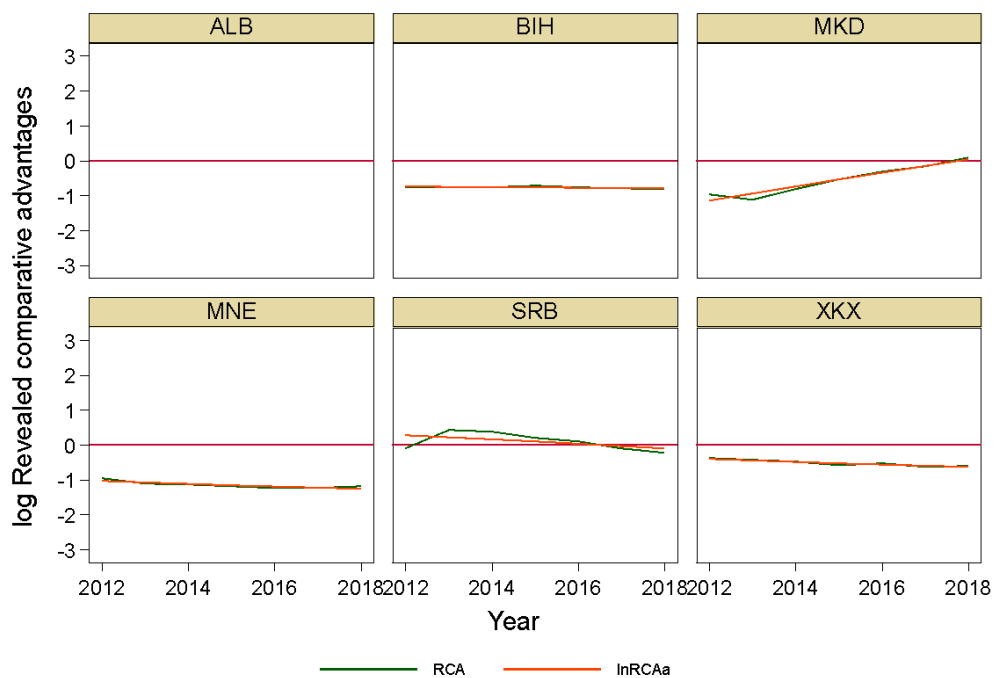
Figure 5 / Value added share of the automotive sector in the Western Balkan economies



Note: Fitted values are calculated as a linear trend.

Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

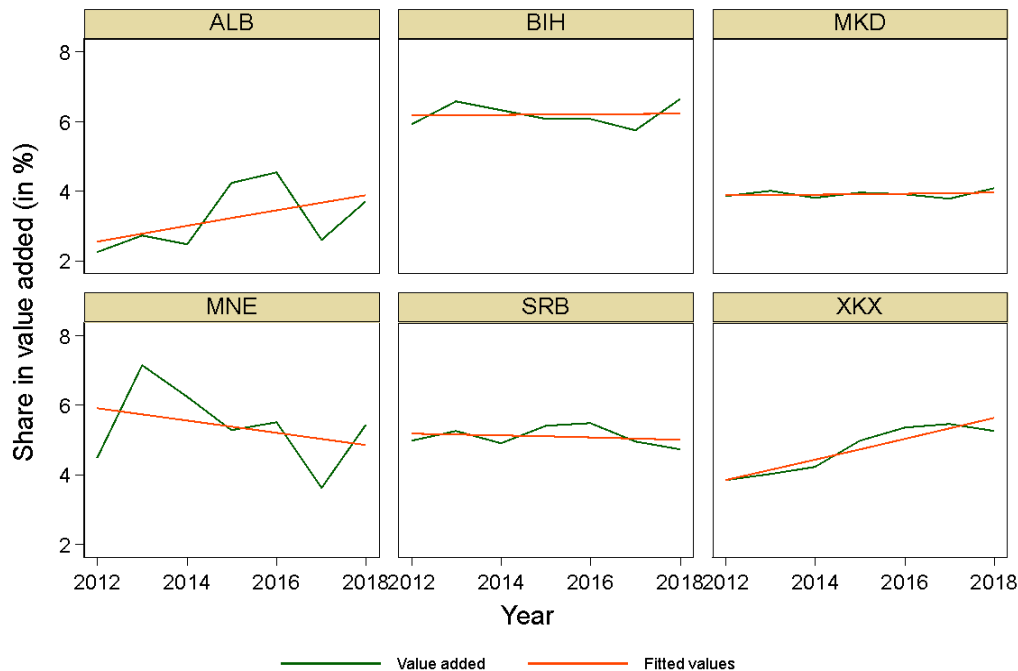
Figure 6 / Revealed comparative advantage of the automotive sector in the Western Balkan economies



Note: Fitted values are calculated as a linear trend.

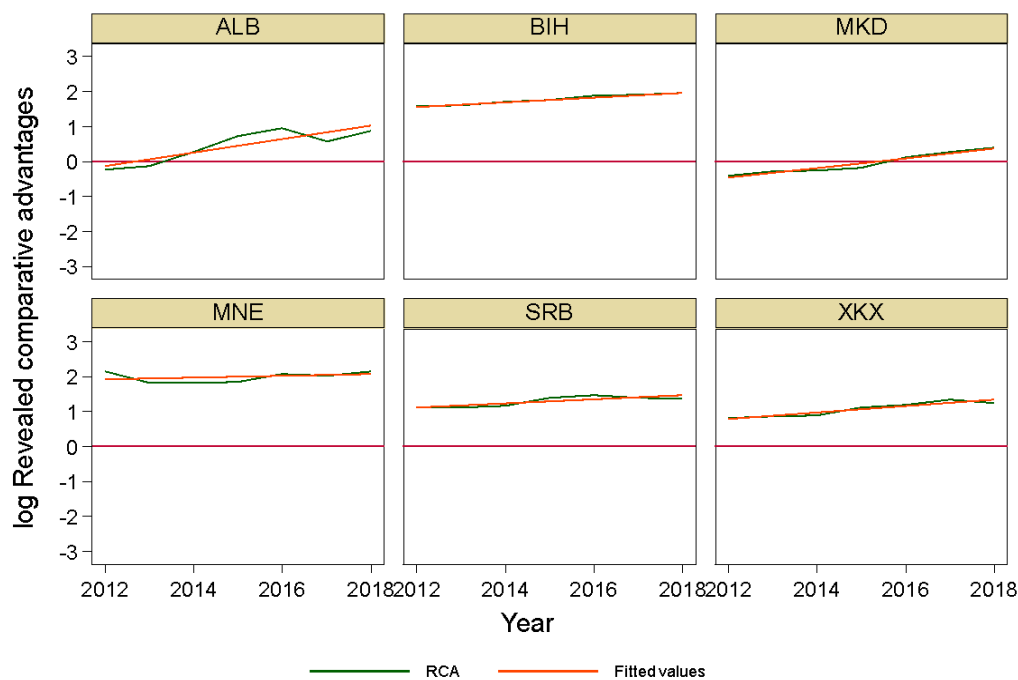
Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

**Figure 7 / Value added share of the energy sector in the Western Balkan economies**



Note: Fitted values are calculated as a linear trend.  
Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

**Figure 8 / Revealed comparative advantage of the energy sector in the Western Balkan economies**

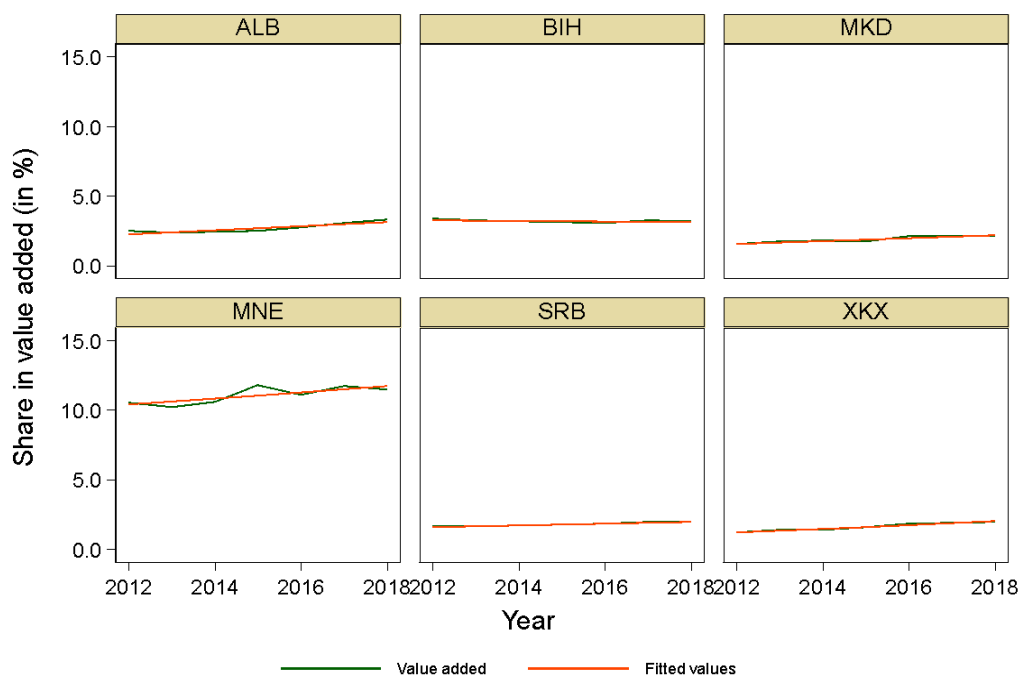


Note: Fitted values are calculated as a linear trend.  
Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

The share of the **tourism sector** in total value added varies between 1% in Kosovo to just above 10% in Montenegro (Figure 9). In all economies with the exception of Bosnia and Herzegovina, these shares have shown a slight upward trend since 2012. Albania and Montenegro have a revealed comparative advantage in this sector, which is to be expected because they are recognised tourist destinations. The other economies do not have this advantage, but their prospects are improving (Figure 10), as all economies from the region have a high potential for tourism development, including winter, spa, rural, historical and health tourism, for example. Tourism has also many linkages to other industries, such as agriculture and food, as well as to future goals for preserving and restoring ecosystems and biodiversity, which are directly related to the European Green Deal agenda. Finally, tourism can have positive implications for social outcomes, as it contributes to balanced regional development and employs many people, especially from socially disadvantaged groups, such as women and youth.

Finally, the **IT industry** accounts for almost 3% of value added in Serbia and almost 2% in Bosnia and Herzegovina and North Macedonia, although only around 1% in Montenegro, Albania and Kosovo (Figure 11). In all economies (with the exception of Montenegro) the shares are increasing. Data for Serbia and North Macedonia indicate a slight revealed comparative advantage with an increasing trend. Such a trend can also be seen for Bosnia and Herzegovina and Albania, albeit from a lower level (Figure 12). The industry is linked to the EU digital agenda, and also has support from the regional governments through various initiatives. It has a strong business community in the region, and links with global players from the industry already exist and increase the potential for employability and competitiveness.

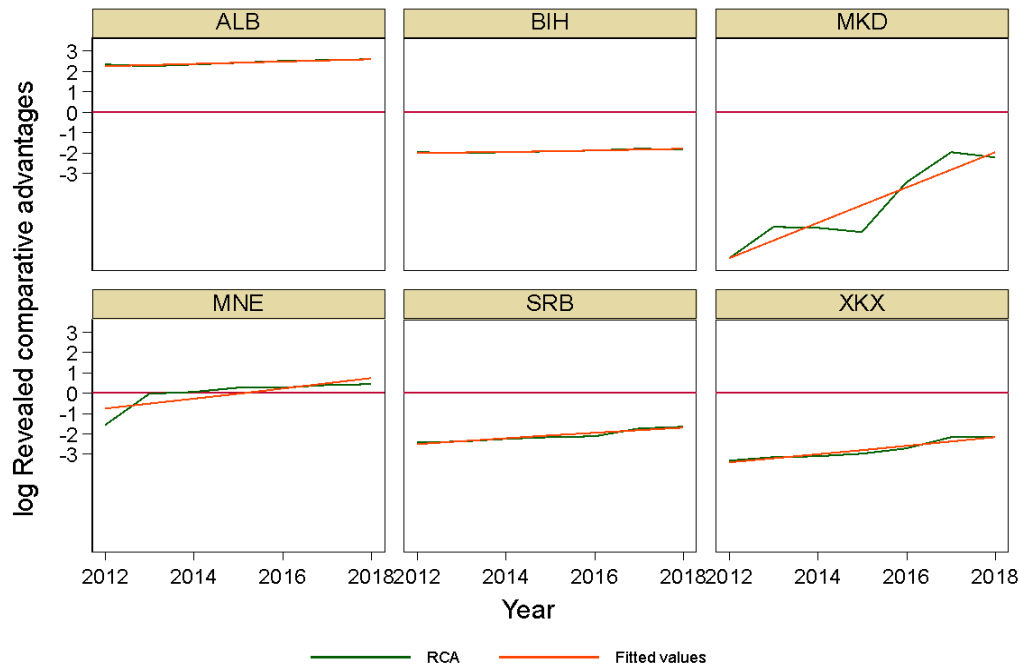
**Figure 9 / Value added share of the tourism sector in the Western Balkan economies**



Note: Fitted values are calculated as a linear trend.

Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

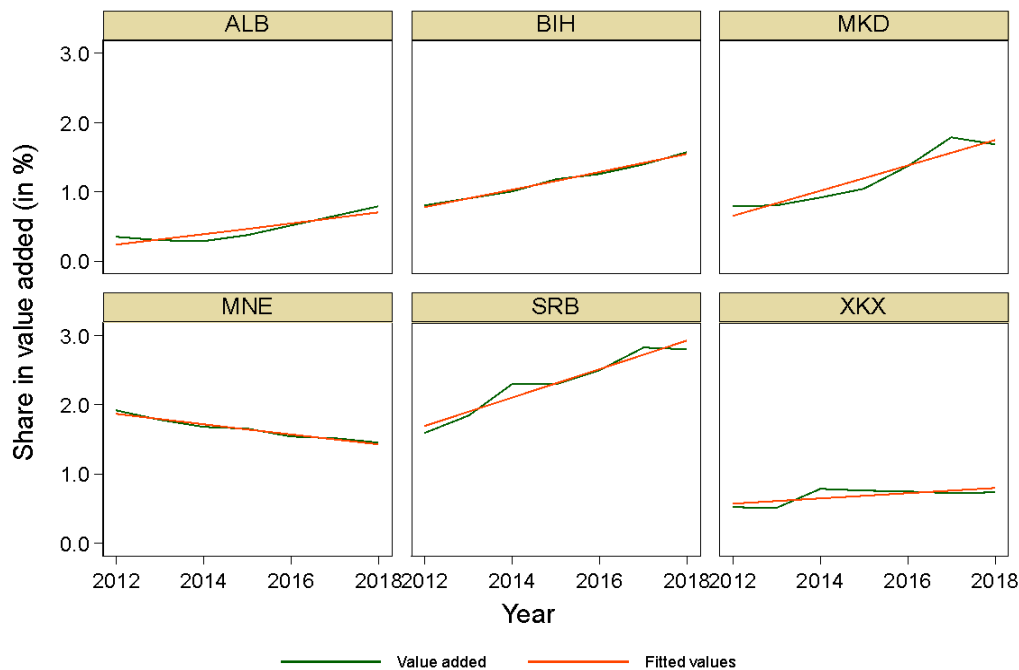
**Figure 10 / Revealed comparative advantage of the tourism sector in the Western Balkan economies**



Note: Fitted values are calculated as a linear trend.

Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

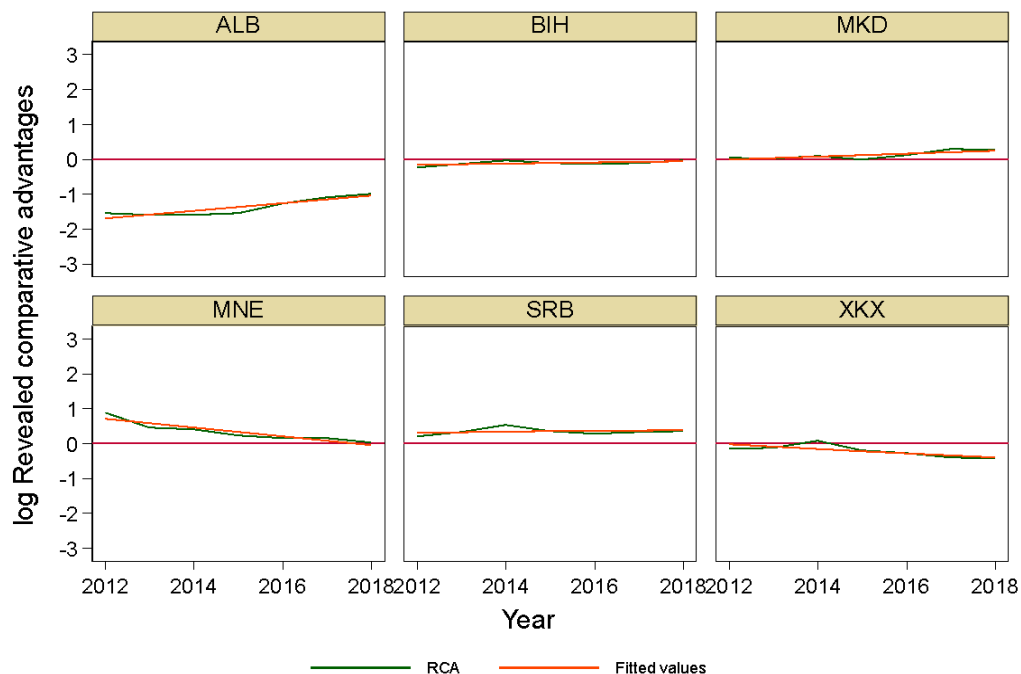
**Figure 11 / Value added share of the IT sector in the Western Balkan economies**



Note: Fitted values are calculated as a linear trend.

Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

**Figure 12 / Revealed comparative advantage of the IT sector in the Western Balkan economies**



Note: Fitted values are calculated as a linear trend.

Sources: wiiw MC IOD (Reiter and Stehrer, 2021); own calculations.

#### 4. HOW TO SUPPORT THESE INDUSTRIAL AREAS?

In Matusiak et al. (2022), we provide general guidelines, as well as some more specific policy options, that policy makers in the Western Balkans can use to support the selected industries.

The general strategy for the **agri-food sector** should be to focus on providing premium rather than cheap products. The Western Balkan economies have the potential to provide high-quality, ecologically friendly products that can be competitive even with a relatively high selling price, and should thus try to capitalise on this advantage. This would have certain positive social effects as well, such as reducing poverty and inequality, as individual agricultural producers in the Western Balkans often tend to come from poorer backgrounds. In addition, future policies should bring about more environmentally friendly production strategies in agriculture.

Some of the actions that policy makers in the Western Balkans could undertake in order to achieve this would be:

- › Providing support for adopting new, modern and clean production technology;
- › Providing support for introducing new premium products and own brands;
- › Designing special financing schemes for individual agricultural producers and the food industry, such as favourable loans or loan guarantee schemes;
- › Providing direct support to producers and firms for adopting quality standards required in EU countries;

- › Assisting with the transportation of final goods, especially for small producers;
- › Investment in agricultural infrastructure (irrigation, sewerage etc.);
- › Fostering networking between producers through clusters, for example, in order to improve co-operation between them.

The overall strategy for the development of the **textile industry** should be to transform the sector from its current low-value, low-cost position to a high-value position, where local firms would provide high-quality final products, under their own brands, that will compete not only on price but also on quality.

Some options that policy makers in the Western Balkans could undertake for this sector would be:

- › Providing special support, both in finance and in knowledge, for developing own clothing brands;
- › Support for technological upgrading of the firms operating in the sector in order to improve productivity and competitiveness and to increase production capacities;
- › Ensuring that there is enough skilled labour for the industry for the coming period by improving vocational education in this area and by improving the existing professional schools;
- › Increasing the attractiveness of the industry by improving the working conditions and ensuring that the level of wages corresponds to them;
- › Repairing the broken linkages between agricultural production from the region and the textile industry by promoting sheep and cattle breeding in order to improve the availability of cheaper and higher-quality raw materials.

**The automotive sector**, which has been dominated by foreign companies recently, should turn towards higher-value-added activities that are based on high technology, instead of relying only on cheap labour. Additionally, efforts should be made to improve co-operation between local and foreign companies in this area.

Some options that policy makers from the region could pursue would be:

- › Focusing efforts to attract foreign investors in technologically more advanced companies at the higher-value-added end of the supply chains;
- › Enhancing co-operation between foreign investors specialising in this area and local educational institutions (i.e. universities and high schools) by opening research centres, technological parks and the like;
- › Enhancing co-operation between local and foreign companies through B2B events, fairs, expos and other similar events, so that local companies become parts of value chains in this area;
- › Ensuring that raw materials are sourced locally as much as possible by helping local companies to adopt international standards;
- › Providing financial support to local companies for investment in new technologies and innovation so that they could co-operate more closely with foreign companies.

The overall strategy for the **energy sector** should be to focus on renewable energy, energy efficiency, reduction of emissions and reduction of pollution in accordance with the Green Agenda for the Western Balkans and the European Green Deal.

Some possible policy options for this industry could be:

- › Increasing public investment in renewable energy, energy efficiency, ecological transportation, reduction of CO2 emissions and reduction of pollution;
- › Improving access to finance for companies willing to invest in this area by designing special favourable credit lines and providing credit guarantee schemes;
- › Enhancing co-operation between higher education institutions and companies through opening technology parks, innovation centres etc.;
- › Fostering the adoption of new technologies by companies from this field through direct financial measures;
- › Providing subsidies to citizens and firms for use of renewable energy and energy efficiency.

The overall strategy for the **tourism industry** should be to transform the sector into an industry that offers a unique and premium experience, based on alternative tourism.

Policy recommendations could look at:

- › Developing alternative tourism activities by focusing on the areas in which the region is rich, such as ecotourism, rural tourism, heritage tourism, religion tourism, spa tourism, hiking tourism, culinary tourism, wine tourism etc.;
- › Increasing public investment in infrastructure related to tourism;
- › Improving the promotion of the region to clients from the big global markets (the EU, the US and Asia) with the purpose of entering those markets and establishing the region as an alternative to conventional tourist destinations;
- › Upgrading the skills of tourism workers by improving existing vocational education and providing special tailor-made professional education.

Finally, the overall strategy for **the IT industry** should be to focus on greater innovation while supporting the successful development of the sector in general.

Some policy options for this industry could be:

- › Providing special support for innovation activities through financial aid and guarantees, so that local innovative companies can become leaders in their fields of operation;
- › Providing an attractive ecosystem for the development of the sector by supporting start-ups, opening technological parks etc.;
- › Increasing the availability of IT workers by expanding the capacity of the educational institutions in this field;
- › Providing favourable financing opportunities for firms that want to invest in this area and expand their activities.

## 5. FURTHER POLICIES TO INCREASE TECHNOLOGICAL CAPABILITIES

The analysis in Matusiak et al. (2022) also points out that a major problem in the Western Balkans is the poor innovation capacity of the manufacturing sector, as these economies are technologically lagging behind their more advanced peers. One way to increase innovation and technological potential is through the attraction of FDI, which can have positive spillovers and induce innovation and technological upgrade of local firms. However, as argued in Vujanović et al. (2022), FDI on its own is not sufficient and needs to be complemented with R&D policies. According to this study, FDI in Serbia prompts domestic firms' innovative activities, but not via R&D spending<sup>1</sup> – which is what would help the Western Balkan economies to catch up technologically – but instead via purchase of machinery and equipment, which is used for the imitation of products existing elsewhere. These more incremental innovative activities are not sufficient to improve firms' production systems and productivity further, even with the help of FDI.

In addition, the innovation process in these economies is also unsuccessful in the sense that the innovation output is not well marketed, i.e. sold to the public. Therefore, policy makers should also devise measures that would help firms find the market niche for their innovation output. This could be accomplished by organising market fairs and exhibitions, and other similar activities.

Finally, branding is also very important, not just for products, but also for innovation activity. In the context of innovation, branding can increase awareness and attract potential partners, investors and talent. Effective branding and marketing are necessary for the success of an innovation process, as they help to reach a wider audience and increase productivity.

## 6. THE ROLE OF INDUSTRIAL POLICY IN THE GREEN TRANSITION

The Green Agenda for the Western Balkans was prepared by the European Commission (2020) and is aligned with the European Green Deal, which aims to reduce greenhouse emissions by 55% by 2030. In November 2020, at the Western Balkans summit in Sofia, Western Balkan leaders agreed to fully endorse the Agenda and committed to implement its actions, which are organised around five pillars:

- i) decarbonisation,
- ii) circular economy,
- iii) biodiversity,
- iv) pollution-fighting, and
- v) sustainable food systems and rural areas.

The implementation of the Agenda will be challenging for Western Balkan policy makers, given that the Western Balkans stands far behind the EU in terms of environmental progress. The policies needed to achieve the Agenda, and the main points of the Agenda itself are summarised in Table 1. As can be seen, most of the policies relate to the agricultural sector, although some relate to energy, transport, sewerage and manufacturing.

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<sup>1</sup> Innovation spending can take many forms: spending on R&D, purchasing of machinery necessary for innovation, employees' training, and purchasing of know-how, among other means. Only R&D is considered as 'knowledge creation' (as it expands the current state of knowledge), while other forms of innovative activities are classed as 'knowledge-using' innovative activities.



The rest of this section elaborates more fully on each pillar separately, assessing where the Western Balkans stand in relation to it, what more should be done, and how this relates to industrial policy. The challenges of the green transition identified here underline the need for a more active and strategic industrial policy in the Western Balkans.

**Table 1 / Policies related to fulfilling the Green Agenda in the Western Balkans**

Five pillars	Energy	Transport	Policies related to		
			Agriculture	Sewerage	Manufacturing
Decarbonisation	Carbon pricing; energy investment and infrastructure; clean energy transition	Revitalisation of the rail network; employing intelligent transport system; improving transport logistics			
Circular economy	Alignment with the EU industrial supply-chain policy				
Depollution			Wastewater treatment; reuse of water in agriculture	Urban wastewater collection and treatment	
Sustainable food systems and rural areas			Agri-food and primary production alignment with EU standards; organic farming, sustainable food consumption		Food processing
Biodiversity			Preventing deforestation and illegal logging		

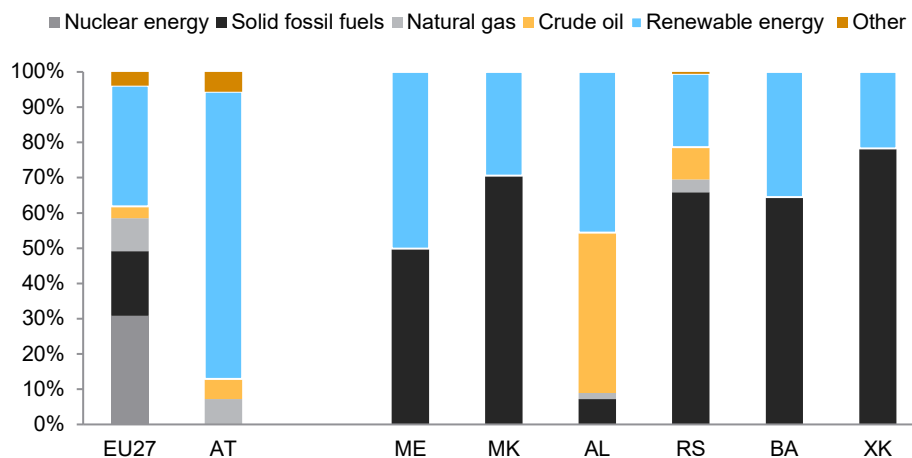
Source: Table drafted based on the Western Balkans Green Agenda.

The first pillar tackles **decarbonisation**, which mainly relates to climate change issues and energy sectors. Much of this transition can be linked to a change towards more sustainable, green energy. At present, the energy mix in the Western Balkans is dominated by coal and other fossil fuels (Figure 13). One way of reaching this goal is by phasing out coal and enhancing sustainable energy infrastructure and investment. At a ministerial meeting in Podgorica in February 2019, the countries agreed to pursue a clean energy transition: this should lead to the reduction of energy imports, the development of renewable energy sources, the strengthening of regional economies' security, the fostering of further growth potential, and the implementation of measures to address pollution.

Despite the heavy use of coal and other fossil fuels, some of the Western Balkan economies also have a significant share of renewable energy in their energy mixes. Most of this renewable energy is based on hydropower, which although not polluting, can in some cases endanger river systems. For some

Western Balkan economies, such as Montenegro, Albania, and Bosnia and Herzegovina, energy production via renewable sources is close to or even higher than the EU average. However, Serbia, North Macedonia and Kosovo rely heavily on coal, and hence they will face greater challenges to reach the decarbonisation goal. In the wake of the energy crisis stemming from the cut of the supply of Russian gas to Europe, the energy transition is gaining importance.

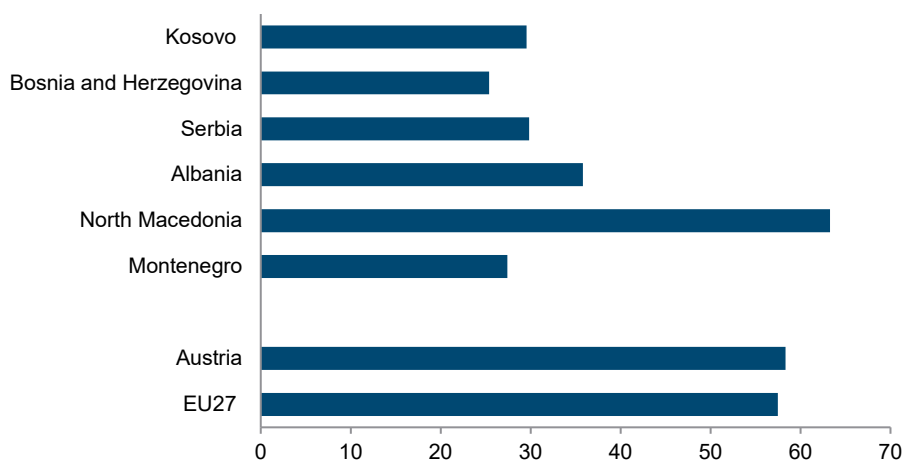
**Figure 13 / Energy production mix in the EU, Austria and the Western Balkan economies, 2018**



Source: Eurostat (2020).

Western Balkan economies are on average smaller importers of energy than the EU countries. Energy imports in the EU stand at 57% of energy production (Eurostat, 2020), which is higher than in most of the Western Balkan countries (Figure 14). For most of the Western Balkan economies, energy imports stand at around 30% of energy production. North Macedonia is a clear outlier, with imports equal to 63% of the total produced energy; the energy transition will be particularly challenging for this country, given its relative lack of energy production.

**Figure 14 / Total gross energy imports as % of total production, 2020**

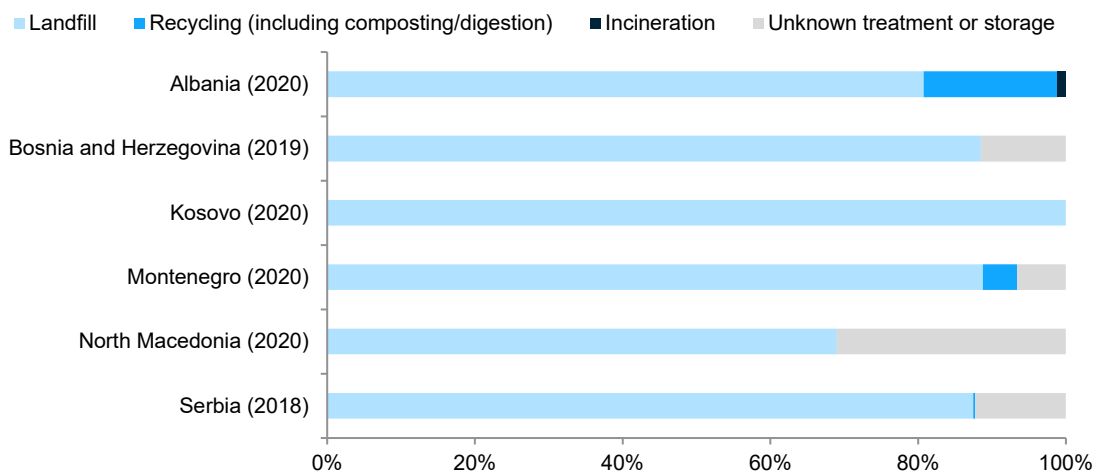


Source: Eurostat (2020).

In view of all these factors, it is clear that the decarbonisation goal in the Western Balkans can be achieved only by strong public investment in renewable energy, as well as government support for private initiatives in the same direction, through appropriate industrial policy measures, such as those elaborated above.

The second pillar of the Green Agenda is on **circular economy**, which entails reuse, recycling, sharing and repairing of the existing products to the greatest extent possible. The Western Balkan economies still stand at a low level of resource productivity (i.e. quantity of output that is produced with a given unit of resources), which equals EUR 0.35/kg, and is six times lower than the EU average (Matusiak et al., 2022). They have very low recycling rates of only 3% of waste, compared with 44% in the EU. Even this low figure is driven up by Albania, where 18% of waste gets recycled, while in other countries recycling is virtually non-existent (see Figure 15). This clearly points out the need for government intervention through appropriate industrial policies directed at supporting companies that deal with recycling, especially those that rely on innovative and cutting-edge technologies.

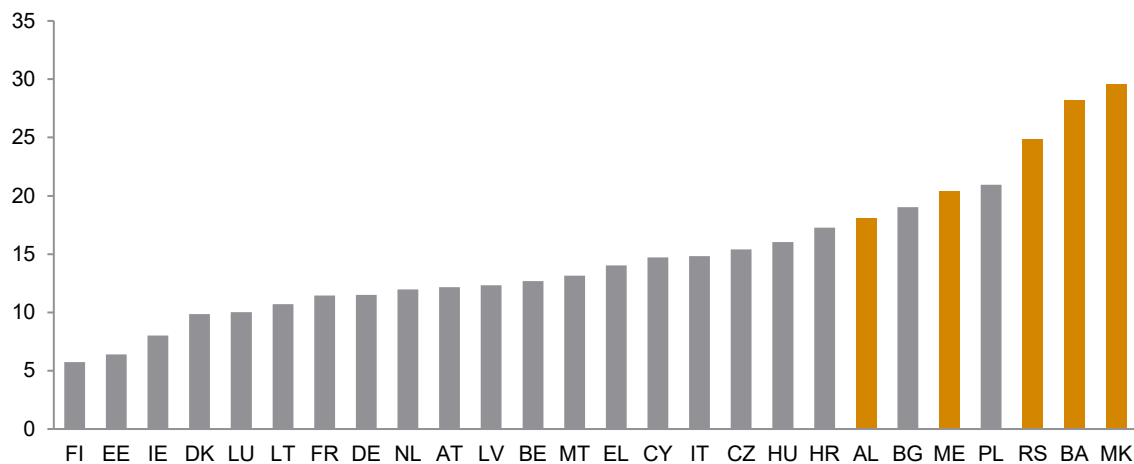
**Figure 15 / Waste management in the Western Balkans**



Source: European Environment Agency.

The third pillar relates to **depollution**, which is one of the biggest issues in the Western Balkans, where air pollution is among the highest in Europe, owing to emissions from older coal plants inherited from the communist era, as well as heavy reliance on private transportation. Besides the environmental issues, air pollution is causing serious health issues (European Commission, 2022). Figure 16 shows that Western Balkan economies are far more polluted than the EU27 member states. Only Poland and Bulgaria have levels of air pollution close to those of some less polluted Western Balkan countries, such as Montenegro and Albania. Pollution is particularly problematic for Serbia, Bosnia and Herzegovina, and North Macedonia, which have average concentrations of PM<sub>2.5</sub> particles twice as high as the level in Austria, for example. Montenegro is defined as an ecological state in its constitution, but evidently only on paper, as it also has a very high level of air pollution.

**Figure 16 / Air pollution as measured by concentration of fine particulate matter (PM2.5), mean annual exposure (micrograms per cubic metre), 2016**



Note: The data show concentrations of fine particulate matter (PM2.5). The higher the values, the greater the level of pollution. Data for Kosovo are not available.

Source: World Health Organization.

River pollution has also been a significant issue in the Western Balkans, owing to inadequate sewerage and wastewater treatment systems. Last but not least, soil degradation is a serious environmental issue, especially in Serbia and Montenegro, where around 20% of soil is at risk.

These issues related to depollution clearly call for industrial policies aimed at a transformation of the energy sectors in the Western Balkan countries, improvement of public transportation systems, enhancement of waste management, investment in wastewater treatment plants for the reuse of water in agriculture and urban wastewater collection, and support for sustainable agricultural and food production.

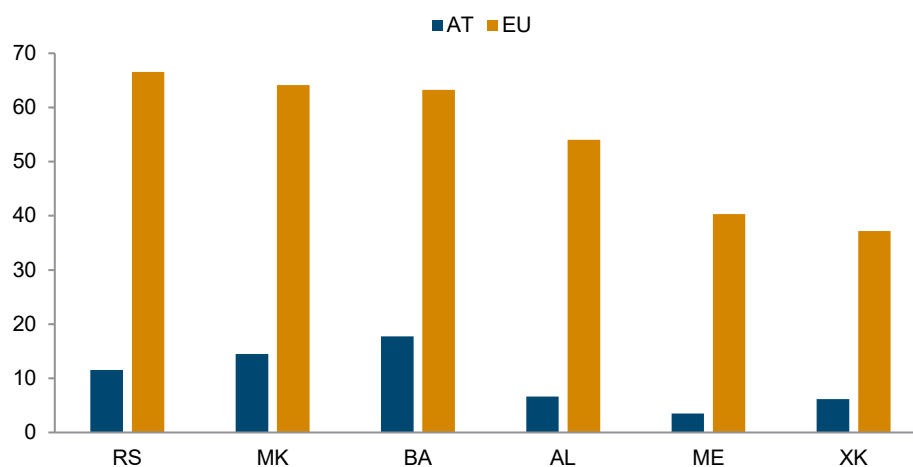
The fourth pillar of the Green Agenda focuses on **sustainable food systems** and rural areas and calls for the implementation of a series of agricultural-related policies that should align food-processing establishments with EU standards, improve sanitary controls, promote environmentally friendly and organic farming, employ environmentally friendly technologies, and reduce waste in rural areas. All these goals can be achieved only through industrial policy measures for the agriculture and food sectors, such as those explained previously in this note.

The last pillar of the Green Agenda relates to **biodiversity**, which is the protection and restoration of ecosystems. Tackling this pillar requires a broad-based set of action plans that require boosting knowledge on this topic, forest landscape restoration, strengthening regional co-operation, and better engagement with international organisations and the EU for future co-operation. Although these aspects may at first seem outside of the scope of industrial policy, they are also likely to benefit from measures designed to ensure sustainable agricultural production and tourism, and renewable energy production.

## 7. POLICY RECOMMENDATIONS: HOW THE EU AND AUSTRIA CAN SUPPORT INDUSTRIAL POLICY IN THE WESTERN BALKANS

Around 60% of the FDI stocks in the Western Balkans come from the EU, with Austria one of the largest individual investors in the region. This means that industrial policy measures in the Western Balkans will have significant implications for Austrian and EU companies operating there. In Serbia, North Macedonia, and Bosnia and Herzegovina, the EU's share of total FDI stocks stands at around 65%, in Albania it is 54%, and in Montenegro and Kosovo, it is around 40% (see Figure 17).

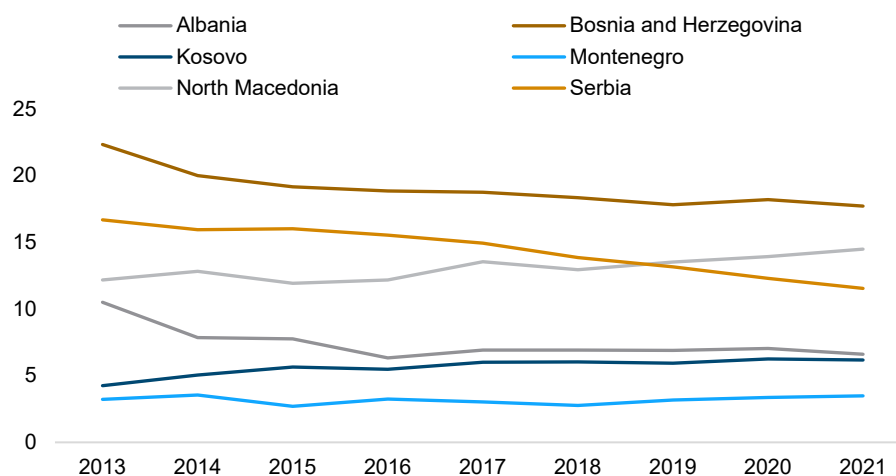
**Figure 17 / Austrian and EU stock of FDI to Western Balkans as % of total, 2021**



Source: wiiw FDI database.

Austria is the biggest individual investor in Bosnia and Herzegovina, with 18% of the total FDI stocks, and North Macedonia, with 14%. It is the second-biggest investor in Serbia, with 12% of the FDI. Its presence is somewhat smaller in the other three economies – 7% of the FDI in Albania, 6% in Kosovo, and 3% in Montenegro, although it is still among the top 10 investors there. In some of the countries, the share of Austrian FDI has been declining over the past decade – in Bosnia and Herzegovina, Serbia, and Albania. In others, such as North Macedonia and Kosovo, it has been increasing. It has been stable in Montenegro (Figure 18).

Both the EU and Austria can act as a helping hand to the Western Balkans in reaching the end goals of industrial policies. The EU is already providing substantial support, through its Smart Specialisation Platform, which is helping the Western Balkan economies to develop their smart specialisation strategies. The support so far has been mostly technical, but it can expand and become financial in nature too. Specifically, the EU could devise a special financial support line for industrial policy in the Western Balkans. This would be a special fund to offer financial support to governments and companies (both local and foreign), for implementing measures defined under the industrial policy and smart specialisation strategies. The fund could also offer seed capital for innovative start-ups that will work in the areas these cover. It could also bring on board the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD), which could provide additional financing in the form of loans for bigger projects related to the adopted industrial policy areas and measures.

**Figure 18 / Trend in Austrian stock of FDI to the EU in 2013-2021, % of total**

Source: wiiw FDI database.

In addition to financial support, the EU can also provide more technical support to help Western Balkan governments effectively implement their smart specialisation strategies. Currently, the EU's technical support is limited to preparing the strategies, but it should also include defining specific measures and supporting their implementation. Without this support, the strategies may remain just words on paper. This should refer also to the Green Agenda for the Western Balkans, which the Western Balkan governments have been slow to implement, also because of a lack of the required knowledge.

Another way in which the EU can support the Western Balkans (which will not relate only to industrial policy) is by opening local offices to help local actors, such as municipalities, apply for EU funds. These new institutions would provide the technical support and knowledge that is often lacking in the various layers of the region's public administration, making it easier to access EU funds and improving the take-up rate. These 'Administrative Support Offices' would be funded and equipped by the EU, employing to a large extent local experts with experience in international organisations.

Another way the EU can support the Western Balkans is by partnering with Japan under the EU-Japan Strategic Partnership Agreement's Partnership on Sustainable Connectivity and Quality Infrastructure ('Connectivity Partnership') to provide resources, technology and technical expertise in industrial policy and connectivity, as outlined in Dadabaev et al. (2021). Financial co-operation may prove difficult, as EU and Japanese procurement practices differ, but workarounds are possible and bolder solutions, such as new investment funds, can be considered. The EU and Japan can also work together to identify business opportunities in the region and encourage private investment. Here, the EU-Japan Centre for Industrial Cooperation could be a useful partner. With China also showing interest in the Western Balkans, especially in terms of connectivity, the EU should seize this opportunity to take the lead.

In addition to the EU's support, Austria can also play a significant role in supporting the Western Balkans. As one of the region's biggest economic and political partners, Austria can continue to advocate faster accession to the EU. In the meantime, Austria can support the inclusion of the Western Balkans in the EU budget, as proposed by Grieveson et al. (2020) and Jovanović et al. (2022). This would significantly increase the funds available to the region, improving income and living standards, at

a negligible cost to existing EU member states. These funds could finance major upgrading of infrastructure – which is currently a relative weakness of the Western Balkans and is one of the factors that is holding back industrial development in the region – contributing in that way to improving the effectiveness of industrial policy.

As a country with a strong tradition in industrial policy, Austria can also provide technical support to the Western Balkans to help them to develop and implement their industrial policy strategies. This can include not only the preparation of the strategies, but also the definition of specific measures and support for their implementation. Moreover, institutions from the Austrian social partnership, such as the Austrian Chamber of Commerce and the Austrian Chamber of Labour, could actively promote the Austrian system of social partnership in the region in order to inform local actors about, for example, responsible wage-bargaining systems and their macroeconomic functions and effects.

Another way in which Austria can support the region is by sharing its experience with the dual education system. The Austrian dual education system combines practical work experience with classroom instruction. Students learn a trade or profession by spending part of their time in a company or organisation, where they receive on-the-job training, and part of their time in a vocational school, where they receive theoretical and technical instruction. This allows students to gain hands-on experience and knowledge, and provides employers with a well-trained workforce. The Austrian dual education system is highly regarded and has been adopted by other countries. The Western Balkan economies are often criticised as lagging behind in terms of vocational education. Despite the progress in recent years (see Mara and Landesmann, 2022), there is still considerable scope for improvement, and Austria, with its strong tradition in vocational training, can play a key role in helping the region to catch up.

Industrial policy in the Western Balkans offers many potential benefits for Austrian companies, both those that are already operating in the region and those that are not. Future government measures will create many opportunities for companies to take advantage of. Therefore, it is important for Austrian companies to monitor the industrial policies that are being developed and look for ways to capitalise on the benefits they offer. Here, the network of foreign trade offices of the Austrian Chamber of Commerce in the region could be of great help.

Austrian foreign trade offices, together with Austrian companies, can also support the implementation of industrial policy in the Western Balkans by increasing the number of business delegation visits from various industries in the region. These delegations can meet with local companies and officials to explore opportunities for co-operation and support. This will improve economic co-operation between Austria and the region, and create new opportunities for Austrian businesses to expand their presence, while also helping local companies to grow and transform.

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