

# The Impact of Digital Transformation on the Western Balkan – Tackling the Challenges towards Political Stability and Economic Prosperity<sup>i</sup>



## ABSTRACT

*By most accounts, the economies of the Western Balkans are lagging behind the EU's digital transformation. If the region does not actively seek to close the gap, the economies risk being left behind and becoming a victim of the global forces of digital transformation. However, if properly supported and managed, the digital transformation in the Western Balkans can have clear benefits, as the accompanying study finds. From an economic perspective, this includes higher growth and greater levels of employment. Furthermore, it can have political repercussions by contributing to lower discretion, more rule-based administration, greater regional connectivity and harmonization, and accelerated EU integration. This policy brief provides guidance on how to achieve these goals. The respective recommendations are inferred from evidence provided by the study and draw on the assumption that the digital transformation is not a goal in itself, but serves societies at large. The task is thus to maximize the benefits, reduce costs, and seek to avoid the emergence of an insurmountable digital gap.*

## INTRODUCTION

The digital transformation is an opportunity for the Western Balkans to address some of the region's structural, economic, political and social challenges of the region. This policy brief is based on an in depth study<sup>ii</sup> that outlines how the region can substantially benefit from digital transformation to ensure greater economic development and better, rule-of-law based governance. In the near future, the global digital transformation will profoundly affect the Western Balkans. Job losses, brain drain and increasing economic divergences from the EU are likely to be aggravated if no adequate response is found. On the other hand, if it is prepared for, digital transformation may be a tool to catch up economically and socially and to significantly facilitate the path towards EU membership.

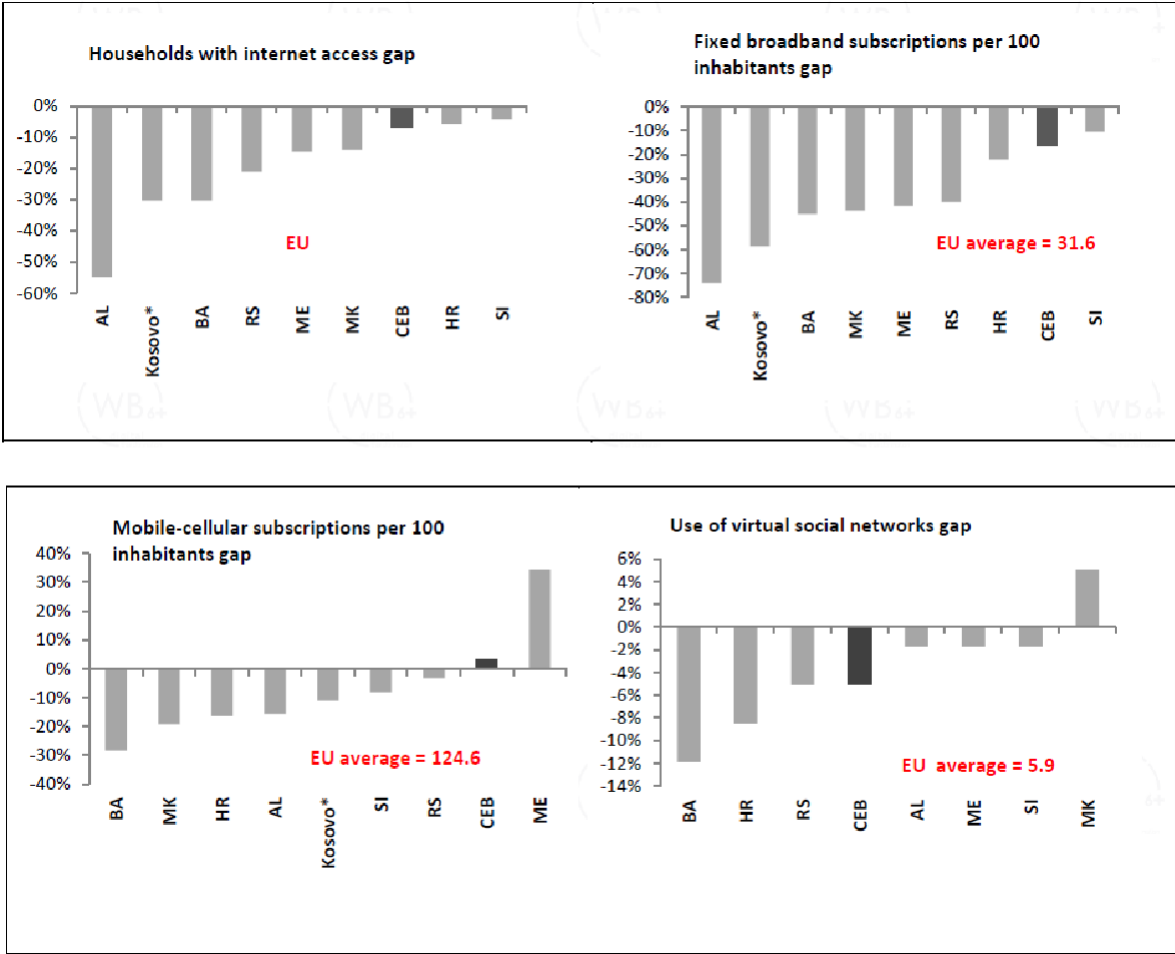
Embracing digital transformation, ensuring a regulatory framework that is future proof and encouraging regional cooperation, can have an important impact on economic growth and employment. Fostering the digital transformation of the region will not solve all the challenges it is facing. Yet, if it is not tackled diligently and accurately, it

will make these challenges even more difficult to overcome. If managed based on a regional approach that utilizes the cooperation of multiple relevant stakeholders, i.e. governments, the EU, regional organizations, citizens, and businesses, digital transformation will help the Western Balkans find a new path towards economic, democratic and social convergence with the EU.

Currently, the state of digitization of the Western Balkans is lagging behind the EU in all measures (see Graph 1). A regional digitalization index suggests that Slovenia is digitally the most advanced economy, followed by Croatia, Montenegro, Serbia, The Former Yugoslav Republic of Macedonia, Bosnia and Herzegovina, Albania, and then Kosovo\*. This gap from the EU average is reflected across multiple indicators, from access to the Internet to social media usage and e-governance.

With a regional commitment to embracing the digital transformation, this gap can be closed and significant economic, political and social benefits reaped, contributing to regional cooperation and, most importantly, to more rapid and sustainable EU integration.

Graph 1: Digital transformation gaps in the Western Balkans in 2016



Notes: The indicators are derived from the World Economic Forum, *Global information technology report 2016: Innovating in the digital economy*. Geneva: World Economic Forum and INSEAD Executive Opinion Survey, Scale from 1–7 (how widely are virtual social networks used [e.g., Facebook, Twitter, LinkedIn])? [1 = not at all used; 7 = used extensively]; CEB stands for Central Europe and the Baltics; MK stands for The Former Yugoslav Republic of Macedonia.

### THE ECONOMIC, POLITICAL AND SOCIETAL IMPACT AND POTENTIAL OF THE DIGITAL TRANSFORMATION

The results of the study suggest that the process of the digital transformation creates economic growth, as a 10-percent increase in the digitization index is associated with a 0.63 percent GDP growth in Western Balkans. Therefore, adopting

policies that intensify digital transformation could boost regional economic performance and speed up the income convergence between the region and the EU

Table 1: Impact of digital transformation on firm performance and employment, key findings

Sector	Manufacturing		Services	
	Productivity	Employment	Productivity	Employment
<b>Digitalization index</b>	+2.12%	+1.16%	+0.67%	Not significant

Source: Authors' calculations.



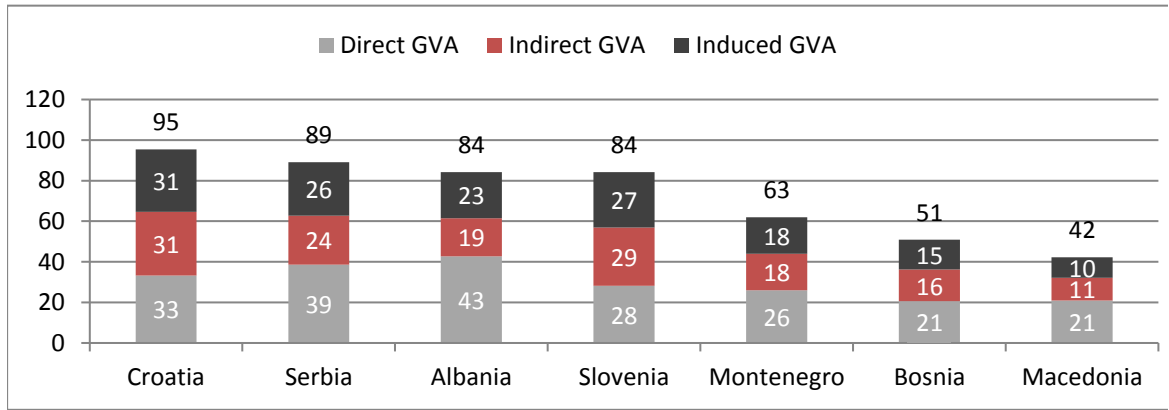
From a more granular perspective, the digital transformation also has the potential to boost productivity and employment in the Western Balkans, especially in the manufacturing sector (see Table 1) and in rural areas, thus closing the urban-rural development gap. Digital transformation could therefore be used as an important element in a policy mix aimed at the reindustrialization of Western Balkan economies.

Investments in Electronic Communication Infrastructure (ECI) induce positive short-run spillover

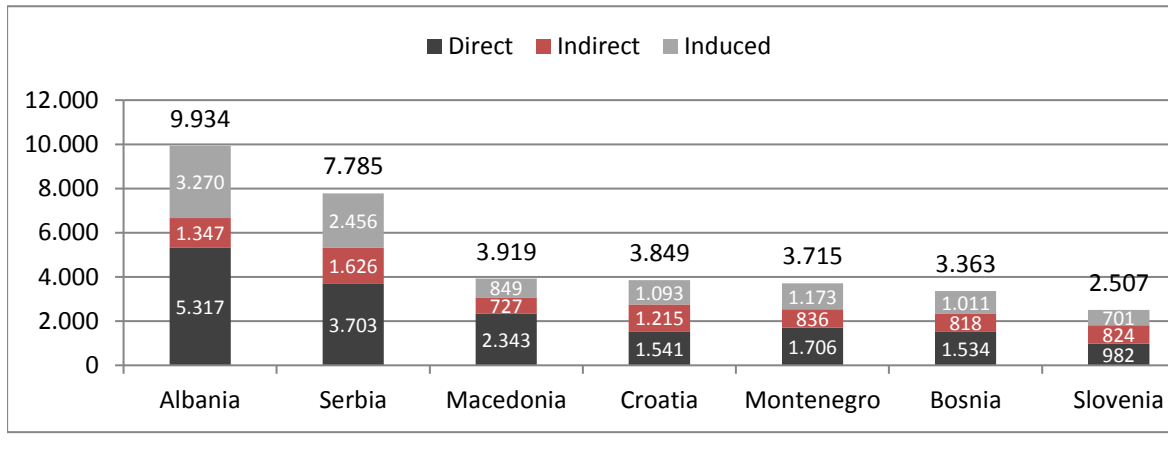
effects for economic sectors that participate in the investment's supply chain. They also create sizeable short-run macroeconomic gains in terms of increased gross value added, employment and tax revenues (see Graphs 2 & 3).

More harmonized digital transformation across the Western Balkan region could potentially also improve the region's investment attractiveness and increase funding from the private sector as well as from international financial institutions, thereby decreasing the savings gap experienced in the entire region.

Graph 2: Gross value added (in million euro) induced by broadband investment of 100 million euro



Graph 3: Number of individuals employed (jobs per year) induced by 100 million euro broadband investment



Notes: Bosnia stands for Bosnia and Herzegovina; Macedonia stands for The Former Yugoslav Republic of Macedonia.

From a labor market perspective, digital transformation can promote social inclusion and reduce economic inequalities by increasing participation of more disadvantaged social groups, such as women, persons with disabilities or those living in remote areas. Politically, the digital transformation can have a transformative impact if it is

embedded in a government e-governance. E-governance is a key tool to facilitate administrative procedures for the benefit of citizens and businesses. Furthermore, it can provide for greater transparency and remove, or at least reduce, points for corruption in the judiciary, health care system, local government and other sectors. Thus, embracing e-governance can tackle key

weaknesses in the rule of law and corruption in the Western Balkans.

Socially, the digital transformation can help including vulnerable populations in the workforce

and providing incentives to reduce brain drain. If combined with innovation in education, it can contribute to reforming training and education in the region, enhancing preparedness for the workplace (see Table 2).

Table 2: Impact of increased digitalization in the Western Balkans

Dimensions of Digital Transformation	Direct	Indirect
Governance	e-governance	Transparency and corruption
	Online media	Empowering agents of good governance
Society	Education	Inclusion of disadvantaged and marginalized groups
		Support brain circulation
Regional cooperation	Cross-border e-governance cooperation	Improved citizen-citizen contacts
	Cross-border business clusters	
European integration	Joining the digital single market	Preparedness for competitive pressure and market forces in the EU
		Greater preparedness in the field of rule through e-governance
		Support regional cooperation, including a regional economic area

Crucially, regional cooperation and EU integration are essential pillars of a successful digital transformation. If the economies tackle the digital transformation individually, in a fragmented fashion, substantial benefits will be left on the table. With regional convergence in the digital sectors underway, coordination, harmonization and interoperability with each other and with the EU will reduce costs and encourage the emergence of transnational business and government cooperation that can mitigate the small size of the

economies and administrations. European integration is the generational project of the Western Balkan societies. Joining the EU is the tool to ensure functioning democracies, prospering economies and open societies in the region. While the promise is there, and has been recently restated by the EU, the challenges remain formidable, requiring substantial changes in terms of the rule of law, the elimination of state capture, and creating functional market economies that can sustain the markets of the EU as well as societies that are prepared for the challenges of membership.

## RECOMMENDATIONS

As the European Commission has clearly outlined in its 2018 Strategy for the Western Balkans, digital transformation is not just part of the European project in the Western Balkans, but can be a crosscutting boost to transform the region. Reaping the benefits of digital transformation for the Western Balkans requires the active involvement and cooperation of multiple stakeholders at the regional level, including governments, businesses, civil society and the EU.

The following recommendations are drawn on the basis of the evidence provided by the study. They constitute key measures to be taken by governments, regional organizations, and the EU, in cooperation with businesses and civil society, for the region to take full advantage of the digital transformation in the economies, politics and societies of the Western Balkans:

- **Establishing permanent regional working groups** based on a multi-stakeholder approach can provide regional advice on issues of digital transformation and expertise that will facilitate and enhance the process. Such groups should be anchored within the Regional Cooperation Council and include representatives from the EU, governments, the business sector, civil society and experts.
- **Faster permits granting procedures for electronic communication infrastructure (ECI) deployment and decreasing the size and scale of parafiscal charges** on ECI investments are needed to boost ECI investments in Western Balkans economies.
- **Facilitating the use of public land** for ECI deployment and the provision of public funds aimed at upgrading existing and deploying new ECI in rural (white) areas is needed in order to promote balanced a geographical development of digital infrastructure.
- **Future-proof regulation that is fit-for-purpose and removes** national barriers to facilitating faster digital transformation and boosting investment incentives.
- **Facilitating the deployment of ECI in rural regions** via investment friendly regulation and the allocation of public funds to compensate for low or even negative returns on ECI investment.
- **Standardizing and harmonizing rules governing digital transformation at a regional level.** This can provide economies of scale and ensure cross-country interoperability where synergies from cooperation and cross-border access would be enabled.
- **Adapting Labor Market regulation to the needs of digital transformation.** The regulatory framework in these economies has to be flexible enough in order to allow new types of labor contracts. It also has to promote on-the-job training and the requalification of workers in order to prevent the polarization of the labor market.
- **Integrating digital aspects into curricula and education.** In order to prepare the labor force for the digital age and seize the full benefits of digitalization, educational and labor market policies need to introduce modern ICT curricula in schools; directing students to enroll more into the STEM areas at higher education level; increasing both the number and the portion of the population with higher education in general, as highly skilled workers are those who benefit most from digitalization; improving both the quality and the quantity of on-the-job training for the existing workforce, which would be more specialized and directed to the use of and adaptability to new technologies.
- **Providing retraining programs** and anticipating sectors which are threatened by job destruction through digital transformation. Retraining will help citizens employed in vulnerable sectors prepare for new jobs, and some to be able to work in digital sectors.
- **Adopting a regional e-governance strategy.** This strategy needs to ensure interoperability with the EU and cover efficient and convenient e-health and business registration, as well as citizens' documentation. Furthermore, it needs to implement **systematic and unified e-budgeting and e-procurement** for all levels of mechanisms aiming at

reducing corruption opportunities and establishing transparency.

- **Committing to a clear timetable to abolish roaming charges** within the Western Balkans and between the Western Balkans and the EU. This would reduce both costs for business and individuals in the region and encourage the economic integration of the region with the EU.
- **Supporting the development of cross-national e-commerce** to improve regional trade and encourage new businesses. This can be best achieved through compatible standards and increasing trust in transnational e-commerce.
- **Providing support for the digital preparedness of SMEs and start-ups.** This includes training, supporting technology acquisition, financial support and facilitating teleworking.
- **Supporting digital start-ups** and other frameworks for digital transformation, such as shared workspaces with high-speed broadband and other incubators. This can be achieved both by choice of accurate regulatory design and by enhancing the availability
- of funds, especially in rural communities, when these are able to involve vulnerable or marginalized groups.
- **Targeting EU funding through IPA and twinning** to promote digital transformation and learning from digital frontrunners in EU, as well as support mechanism for SMEs and startups.
- **Establishing twinning projects** to pair up digital frontrunners in the EU with WB economies on digital lighthouse projects, such as Estonia on e-governance. These can help the transfer between member states and digital front-runners and WB economies.
- **Integrating the WB6 into the European Digital Single Market,** even if WB economies cannot yet join the European Single Market. This would help ensure unified standards and interoperability to ease the way towards full EU membership.
- **Mainstreaming a digital dimension** into other fields of integration and the promotion of regional cooperation. This includes assessing the state of e-government in Rule of Law chapters (23&24) and other aspects of EU integration.

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<sup>i</sup> The primary author of the policy brief is Florian Bieber (Centre for Southeast European Studies, University of Graz). It includes substantial contributions by Maruška Vizek (Institute of Economics, Zagreb) and Vladimir Gligorov (Vienna Institute for International Economic Studies). The policy brief was commissioned by the digital WB6+ initiative. The views, findings, and conclusions or recommendations are strictly those of the authors.

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

<sup>ii</sup> Tajana Barbić Florian Bieber, Tanja Broz, Goran Buturac, Davor Mikulić, Marina Tkalec, Iva Tomić, Nebojša Stojčić, Maruška Vizek, The Digital Transformation of the Western Balkans, Institute of Economics, Zagreb (Croatia) and Centre for Southeast European Studies, University of Graz (Austria), April 2018. The study was commissioned by the digital WB6+ initiative (<http://www.wb6.digital>). The findings reflect the research conducted by the team of researchers of the Center for Southeast European Studies of the University of Graz and The Institute of Economic, Zagreb. The findings and conclusions are strictly those of the authors.

*The digital WB6+ initiative was established in April 2017 by Deutsche Telekom, Telenor, Telekom Austria, EY, SAP as well as the Committee on Eastern European Economic Relations, Chambers Investment Forum, German-Croatian Chamber of Commerce, German-Serbian Chamber of Commerce, Chamber of Commerce and Industry of Serbia, Economic Chamber of Macedonia, Croatian Chamber of Economy, and Hrvatska Udruga Poslodavaca to foster digital transformation in the Western Balkans and facilitate the path towards the EU.*