Funded by
the European Union

Digital
Inclusion
Initiative

Digital Inclusion Initiative

NATIONAL REPORT FOR KOSOVO

Publisher
Kosova Education Center / Qendra për Arsim e Kosovës (KEC)
"Mileniumi i Tretë" School Complex
Qëndresa Street No. 48, Matiçan, Prishtina, Kosovo
www.kec-ks.org

For the publisher
Petrit Tahiri

Author
Dukagjin Pupovci

KEC support team:
Hana Zylfiu-Haziri
Kërkesë Zogjani
Fjolla Xharra Bejtullahu

Prishtina, June 2025

Funded by the European Union

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of the author and do not necessarily reflect the views of the European Union.

CONTENTS

LIST OF ABBREVIATIONS

ARKEP	Regulatory Authority of Electronic and Postal Communications
ASHI	Agency for Information Society
CIL	Computer and Information Literacy
CSA	Cyber-Security Agency
CSO	Civil Society Organization
DAK	Digital Agenda of Kosovo
DESI	Digital Economy and Society Index
DII	Digital Inclusion Initiative
EdTech	Educational Technology
eID	Electronic Identification
eIDAS	Electronic Identification, Authentication and Trust Services
EU	European Union
GDP	Gross Domestic Product
ICILS	International Computer and Information Literacy Study
ICK	Innovation Centre Kosovo
ICT	Information and Communications Technology
KAS	Kosovo Agency of Statistics
KCDE	Kosova Center for Digital Education
KEC	Kosova Education Center
KFOS	Kosovo Foundation for Open Society
KODE	Kosovo Digital Economy Project
KOSTT	Transmission System and Market Operator J.S.C
KREN	Kosovo Research and Education Network
MESTI	Ministry of Education, Science, Technology, and Innovation
MTEF	Medium-Term Expenditure Framework
ODK	Open Data Kosovo
RCC	Regional Cooperation Council
SHPIK	Kosovo Informatics Society
SME	Small and Medium Enterprise
STIKK	Kosovo Association of Information and Communication Technology
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
VET	Vocational Education and Training
VHCN	Very High Capacity Network
VoRAE	Voice of Roma, Ashkali and Egyptians
WB	Western Balkans

INTRODUCTION

The national report was created within the project Digital Inclusion Initiative (DII[1]), a regional project implemented in Albania, Bosnia and Herzegovina, Kosovo, North Macedonia and Serbia funded by the European Commission. The goal of the project is to enhance the role of civil society organizations (CSOs) from the Western Balkans in advocating for participatory democracies and the EU accession process by strengthening their capacities for policy development and advocacy for digital inclusion.

Data and information presented in the national report are collected through a policy questionnaire fulfilled after the analysis of digitalization and digital inclusion policy documents. Consultations with relevant institutions, experts, users of digital services, members of vulnerable groups and civil society organizations, as well as focus groups, were used to complement desk research and to obtain stakeholders' perspective on equity-related issues in the process of digitalization and to formulate recommendations for policy improvement. The list of stakeholders consulted is provided in Annex 4.

1 www.diiproject.net

1. CONCEPTUALIZING DIGITAL INCLUSION

Digital inclusion in Kosovo is a complex and evolving concept, shaped by national strategic frameworks, legislative developments, and stakeholder perceptions. Whereas there is no specific definition of digital inclusion in the Kosovo strategic and legislative framework, the term itself is mentioned in two important national strategic documents:

- Digital Agenda for Kosovo 2030, a cross-sectoral horizontal agenda that defines the policy and priorities of Kosovo in the context of the ongoing digital transformation of the economy and society, refers to "digital inclusion" in the context of advancing the digitalization of state services through e-government and e-commerce initiatives, enhancing citizens' digital skills and lifelong learning, and fostering public-private partnerships in line with evolving EU policies (GoK, 2023a).
- In the Reform Agenda of Kosovo under the EU Reform and Growth Facility for the Western Balkans, digital inclusion is referenced as a key outcome of the planned digital infrastructure investments (GoK, 2024).

National policies in Kosovo reference digital inclusion broadly, highlighting general objectives related to infrastructure and digital transformation rather than defining specific dimensions or groups. Kosovo legislative and strategic acts **acknowledges the importance of inclusiveness but do not precisely define vulnerable or at-risk groups** beyond broad references. The emphasis of digital transformation measures at national level is largely on overall improvements in digital infrastructure and capacity building, leaving a gap in tailored policies that address the unique challenges faced by marginalized communities, such as those in rural areas or with limited socioeconomic resources.

Stakeholders interviewed during field data collection provided a broader and more nuanced understanding of digital inclusion, highlighting that the issue extends beyond mere access to digital infrastructure. Key informants identified several vulnerable groups frequently at risk of digital exclusion, notably Roma, Ashkali, and Egyptian communities, elderly populations, individuals with disabilities, and people from rural and socioeconomically disadvantaged backgrounds (interviews with representatives of VoRAE, HANDIKOS, KFOS, and UNICEF; focus groups with Roma, Ashkali, and Egyptian students, and educational staff).

Interviewees emphasized practical barriers such as limited availability of digital devices, insufficient digital literacy among adults and elderly users, and inadequate institutional support for people with disabilities, including the absence of accessible digital interfaces and assistive technologies (interview with HANDIKOS representative). Specific examples cited include Roma, Ashkali, and Egyptian communities struggling with basic online tasks such as registering for educational sub-

sidies or social assistance via e-government platforms, often due to complicated authentication processes (focus group with Roma, Ashkali, and Egyptian students). Additionally, students from rural areas face challenges due to inconsistent internet availability and outdated equipment in schools, significantly restricting their educational opportunities (interview with UNICEF representative).

Stakeholders consistently noted shortcomings in the design and implementation of digitalization policies, expressing concerns that current initiatives inadequately address the unique needs of marginalized groups, thus reinforcing rather than reducing existing inequalities. Institutional stakeholders acknowledged issues related to fragmented coordination among public agencies, resulting in delayed or incomplete digital projects and inadequate targeting of digital skill-building initiatives (interviews with ASHI, Ministry of Economy, and Prime Minister's Office representatives).

2. NATIONAL CONTEXT FOR DIGITAL INCLUSION

2.1. General contextual data

Kosovo's current economic and socio-demographic context is characterized by moderate economic development, reflected in a GDP of €9.65 billion in 2023. The average monthly salary of €639 contrasts with an unemployment rate of 10.9%, which has been rapidly declining in the last couple of years, primarily due to ageing of the population and migration. Illiteracy remains relatively low at 2.27%, whereas around 17% of the population aged 10 years and older possess higher education qualifications. Socio-economic vulnerabilities persist, with 21.4% of the population at risk of poverty and social exclusion. Demographically, the elderly (65+ years) constitute 10.97% of the population, and nearly half of the population resides in rural areas.

Table 1. Contextual Data Relating to the Country's Economic Development, Socio-Economic Status, and Demographics

No.	Indicator	Value	Year of data	Notes
1.	Gross Domestic Product (GDP)	€ 9,652.89 mil.	2023	MTEF 2025-2027, p. 37 (Ministry of Finance, 2024)
2.	Average salary or household income expressed in EUR	€ 639	2024	KAS Database – https://askdata.rks-gov.net/pxweb/en/ASKdata/
3.	Unemployment rate	10.9%	2024	KAS Database – https://askdata.rks-gov.net/pxweb/en/ASKdata/
4.	% of the population with completed primary or lower secondary education	42.17%	2024	Population aged 10 years and older (Source: Census 2024)
5.	% of the population with completed upper-secondary education	34.97%	2024	Population aged 10 years and older (Source: Census 2024)
6.	% of the population with completed higher education	17.17%	2024	Population aged 10 years and older (Source: Census 2024)
7.	% of the illiterate population	2.27%	2024	Population aged 10 years and older (Source: Census 2024)
8.	% of the population at risk of poverty and social exclusion	19.5%	2023	Poverty & Equity Brief Kosovo 2025 (World Bank, 2025)
9.	% of the population over 65 years old	10.97%	2024	173,875 of 1,585,566 (Source: Census 2024)
10.	% of the population in rural areas	49.82%	2024	789,939 of 1,585,566 (Source: Census 2024)

2.2. Data concerning digital skills and habits in using digital technologies[2].

Kosovo exhibits high internet penetration, with approximately 99% of the population regularly using the internet, with minimal differences between urban and rural settings. However, significant disparities persist among specific groups, especially older adults (65-74 years), of whom only about 91.8% use the internet, and those with minimal education, where usage drops to 76%. Despite widespread mobile access (around 95% smartphone usage), engagement with e-government services is notably lower at approximately 69%, particularly among elderly (24.4%) and retired individuals (22.1%). High social media use (94%) contrasts sharply with relatively low levels of digital skills, where only 28% possess basic skills and just 14% demonstrate above-basic proficiency, highlighting a critical gap between general internet access and effective digital literacy.

Insights from field data collection underline these gaps, revealing that older adults and low-educated individuals frequently encounter practical challenges with digital platforms, particularly when accessing e-government services. Stakeholders pointed to the complexity of interfaces, password management difficulties, and inadequate institutional support, as primary obstacles. For instance, Roma, Ashkali, and Egyptian students highlighted difficulties in navigating platforms like eKosova, particularly concerning password recovery and administrative inefficiencies (Focus group with Roma, Ashkali and Egyptian students). Representatives from HANDIKOS emphasized that persons with disabilities face severe limitations due to inaccessible digital services and the high costs of assistive technology, which remains out of reach for most individuals needing them (Interview with HANDIKOS Project Manager). Additionally, educational professionals noted persistent gaps in digital infrastructure within schools, insufficient technical support, and limited training opportunities for teachers, further compounding digital literacy issues among rural and marginalized populations (Focus group with educational staff). Overall, stakeholders emphasized the critical need for tailored support mechanisms, such as dedicated help centers, simplified interfaces designed specifically for elderly and disabled users, and proactive training sessions tailored explicitly to enhance digital competencies among vulnerable populations.

2 The so-called DESI indicators used by the European Commission, which is in charge of monitoring the digital progress of EU member states, have been selected for these purposes.

Table 2. Indicators for monitoring digital inclusion-population

No.	Indicator	Population groups						If there is data for other vulnerable groups, please add	Notes
		Male	Female	Old people (65-74 y.o.)	Education (less than secondary school)	Unemployed people	Total population		
1.	% of the population that uses the internet	98.64%	99.29%	91.77%	Elementary: 89% Less than elementary: 76% (STIKK, 2019)	99.49%	98.97%	Housewives: 98.74% Retired: 90.16%	(UNDP, 2025)
2.	% of the population that uses e-government services	70.89%	67.45%	24.37%		76.39%	69.17%	Housewives: 54.14% Retired: 22.06% UNDP	(UNDP, 2025)
3.	% of the population that actively uses social media	94.50%	93.2%	74.24%		98.21%	93.85%	Housewives: 95.38% Retired: 74.10% UNDP	(UNDP, 2025)
4	% of the population with basic, intermediate, and advanced digital skills						Basic: 28% Above basic: 14% (2019)		(RCC, 2022)
5	% of the population that uses smartphones or other mobile devices to access the internet	96.33%	95.39%	89.34%		91.40%	95.39%		(UNDP, 2025)

The following table provides detailed insight into the specific technological skills of the Kosovo population, illustrating the generally limited advanced digital competencies, with notably low proficiency in complex tasks such as coding, spreadsheet management, and multimedia editing–confirming the critical skills gap identified in broader population-level indicators. The table presents the distribution of individuals aged 16–74, expressed as percentages, based on technological and computer-related skills exercised "in the last three months".

Table 3. Technological Skills in percentage 2021

	Writing / coding in a programming language (SAS. SQL etc.)	Editing photos, videos or audio files	Use of advanced features of spreadsheet software (formulas, functions)	Using spreadsheet software (excel)	Creating presentations	Word processing programs (word)	Changing the options of a software	Download or install software / applications	Copy / move files / folders
2021	3.0	16.6	2.1	2.9	17.1	17.0	12.8	22.8	22.4

(Source: ASK Database)

2.3. Overview of relevant strategic-legislative framework

Kosovo has developed a solid legislative and strategic framework aimed at promoting digital transformation and inclusion, encompassing several laws and policy documents that set the direction for digital advancements. The following overview provides an analysis of key legislative instruments and national strategies, highlighting their main objectives and identifying the gaps pointed out by stakeholders regarding effective implementation and inclusive practices.

The **Law on Electronic Communications** regulates telecom networks and services in Kosovo, promoting market competition and ensuring universal service (RKS, 2012a). The **Law on Information Society Services** facilitates e-services by ensuring electronic documentation equivalency with traditional documents, supporting digital transactions, electronic payments, and cybercrime prevention (RKS, 2012b). The **Law on Electronic Identification and Trust Services** creates a framework for digital identification, electronic signatures, and secure e-transactions, aligning closely with EU standards (RKS, 2021a). The **Law on Reducing Deployment Costs for High-Speed Networks** aims to facilitate affordable broadband through shared infrastructure and streamlined procedures (RKS, 2021b). The recent **Law on Cyber Security** establishes robust mechanisms for cybersecurity and digital resilience, creating the Cyber Security Agency (CSA) as the coordinating body (RKS, 2023).

Despite the comprehensive coverage, stakeholders from the field research **indicate significant gaps remain**. Public officials and CSO representatives emphasized that legislation lacks sufficient focus on developing digital skills and targeted support for vulnerable groups, such as elderly and marginalized communities who face challenges accessing and using digital services effectively.

There are two key strategic documents on digital transformation:

- **Digital Agenda of Kosovo 2030** is a comprehensive national strategy aimed at transforming Kosovo into a digitally advanced society

by 2030. The agenda outlines five strategic objectives: 1) Developing advanced secure digital infrastructure; 2) Driving the digital transformation of businesses; 3) Digitalizing public services; 4) Fostering a digitally skilled population and an innovative R&D ecosystem; and 5) Establishing a sustainable cybersecurity ecosystem. The total estimated budget for the agenda is EUR 152 million, funded through 65% from the State Budget and 35% from donor contributions (GoK, 2023a).

- **The e-Government Strategy of Kosovo 2023–2027** is a strategic framework designed to accelerate the digital transformation of public administration in Kosovo, aligning with the vision of the Digital Agenda Kosovo 2030 to create a digitally modern, citizen-centric government. It focuses on six strategic objectives: 1) Enhancing e-government coordination and management; 2) Boosting digital competencies among public officials; 3) Establishing a unified, interoperable "whole of government" enterprise architecture; 4) Delivering user-centric and inclusive digital public services; 5) Strengthening cybersecurity resilience; and 6) Fostering innovation through public–private partnerships. It is set to be implemented over a five-year period with a total estimated budget of approximately EUR 48.46 million, financed through a combination of the State Budget and donor contributions (GoK, 2023b).

Both strategies incorporate key measures aimed at expanding access to digital technologies and enhancing digital skills. However, while the strategies promote infrastructure development and skill enhancement, there is a perception that certain areas-particularly tailored support for marginalized groups and remote communities-are insufficiently covered. Field insights indicate that stakeholders generally support these strategies' objectives but highlight implementation challenges. Educational professionals and community representatives noted insufficient practical support and tailored initiatives for marginalized groups, including rural populations, older adults, and those with limited educational backgrounds. Public officials recognized the need for improved coordination among ministries, clearer implementation pathways such as precisely defined institutional responsibilities and timelines for specific actions (e.g., procurement of educational equipment and digital skills training programs), and stronger support mechanisms involving expanded geographic coverage, sustained duration, and diverse delivery methods (including tailored assistance for elderly and marginalized populations) to effectively address persistent digital inclusion gaps.

2.4. Governance

Digitalization and digital technologies in Kosovo are primarily under the purview of the Ministry of Economy, which directs the telecommunications sector through the Regulatory Authority of Electronic and Postal Communications (RKS, 2012a). In parallel, the Ministry of Internal Affairs and Public Administration is responsible for

advancing e-government initiatives, managed through its subordinate Agency for Information Society (ASHI) that coordinates digital transformation across public institutions (RKS, 2013), while the Cyber Security Agency-also under the Ministry of Internal Affairs-focuses on protecting digital infrastructures (RKS, 2023). Moreover, the strategic framework mandates the establishment of a high-level commission, led by the Prime Minister and comprising representatives from an extensive range of government ministries (including Economy, Education, Internal Affairs, Justice, Finance, Local Government, Health, Agriculture, Environment, Trade, and Foreign Affairs), specialized regulatory and executive agencies and public companies (such as ARKEP, ASHI, and KOSTT), as well as academia (represented by the University of Prishtina), to coordinate, implement, and monitor the national digital transformation agenda, thereby ensuring a comprehensive and integrated approach to digital access and inclusion (GoK, 2023a).

However, insights from field data collection indicate that the actual implementation of these strategic frameworks is hindered by weak inter-institutional coordination, insufficient funding, and the lack of systematically integrated inclusion measures. Public officials and civil society representatives specifically voiced concerns about fragmented institutional responsibilities and inadequate collaboration between ministries, particularly highlighting persistent challenges in aligning the digital inclusion efforts. Stakeholders emphasized that these coordination issues significantly limit the effectiveness of national policies aimed at digital inclusion.

2.5. Financing of digital inclusion policies

Strategic measures for digital inclusion in Kosovo have been supported by substantial investments, mainly targeting broadband infrastructure, cybersecurity, digital public services, and educational technology. Major national investments include the KODE project (€20.7 million), financed by the World Bank loan, which has explicitly allocated €18.6 million to expand broadband access and digital skills training in rural and underserved areas. The European Union, through the EU Reform Agenda (€40 million), supports advanced broadband and cybersecurity infrastructure initiatives, though a dedicated budget for digital inclusion within this total is not specified.

At the national level, the Kosovo Budget has allocated funds across various sectors, with significant investments directed at the Agency for Information Society (€23.7 million) to improve digital public service infrastructure and cybersecurity. Additionally, the Ministry of Education has dedicated €15 million specifically for digital equipment in pre-university education, directly promoting digital inclusion.

Field research indicates concerns about the transparency and efficiency of spending, particularly highlighting gaps in clearly defined funding streams for vulnerable groups and digital skills development. Stakeholders provided examples such as delays and under-utilization of allocated funds in the Ministry of Education for digital equipment procurement, which remained largely unspent, despite identified needs at the school level.

Additionally, limited targeted support was highlighted for marginalized communities like Roma, Ashkali, and Egyptians, who often rely heavily on donor-funded initiatives rather than consistent government funding. Stakeholders emphasized the necessity for improved tracking mechanisms and transparent reporting to ensure that allocated resources effectively reach and benefit the intended beneficiaries.

(See Annex 1 for detailed funding overview).

2.6. Alignment between EU and national legislation (gap analysis)

According to the EU Progress Reports 2023 and 2024 for Kosovo, the country's strategic-legislative framework shows partial alignment with the EU acquis in the telecommunications sector. Notable progress has been made in broadband cost reduction and pilot 5G access. However, significant gaps remain-Kosovo still needs to fully harmonize its legislation with the European Electronic Communications Code, the EU Gigabit Infrastructure Act, and the Digital Services and Digital Markets Acts. In the digital public services sphere, Kosovo's progress has been acknowledged with the operational e-Kosovo portal and high levels of broadband coverage, yet only a small fraction of public services is available online. Further alignment with EU frameworks on open data, the European Interoperability Framework, and the Interoperable Europe Act is required. The EU-sponsored Reform Agenda of Kosovo 2024–2027 envisions a comprehensive digital transformation that integrates advanced ICT infrastructures to drive improvements in public service delivery, administrative efficiency, and overall economic competitiveness. Central initiatives include upgrading broadband and 5G networks, implementing a unified digital identity system, and streamlining government operations through interoperability platforms and the "once-only" principle. These measures aim to reduce administrative burdens, foster innovation, and enhance cybersecurity, with the intent of creating a more resilient and digitally enabled public sector across urban and rural areas (European Comission, 2023) (European Commission, 2024a).

In terms of digital inclusion, the Digital Agenda emphasizes increasing online service availability and ensuring high-speed connectivity for all citizens and businesses, thereby narrowing the digital divide between regions. However, while the framework supports broad access to digital technologies, it does not specifically target the improvement of digital skills or tailored support for vulnerable groups. In other words, although efforts are made to create a more accessible digital environment, there is limited emphasis on specialized interventions to enhance the technological capabilities and digital literacy of at-risk or marginalized populations (GoK, 2024).

2.7. Monitoring and evaluation mechanisms for relevant policies

The Digital Agenda of Kosovo 2030 and the e-Government Strategy incorporate performance indicators that are periodically reviewed and updated, facilitating the

monitoring of progress towards their strategic objectives. The Commission for Digital Transformation, coordinated by the Office of the Prime Minister, along with relevant ministries, notably the Ministry of Economy and the Ministry of Internal Affairs and Public Administration, are responsible for overseeing and evaluating developments within specific digital sectors. Additionally, legislative implementation related to digital inclusion is periodically assessed by the Kosovo Assembly, ensuring parliamentary oversight.

However, field research indicates that current monitoring and evaluation mechanisms face critical shortcomings. Stakeholders from public institutions and civil society have expressed concerns regarding the adequacy and transparency of existing evaluation frameworks. They noted the absence of publicly available detailed monitoring reports, highlighting a lack of clear and accessible feedback on policy effectiveness and impacts. Stakeholders emphasized the necessity for enhanced transparency and public accountability, particularly regarding targeted outcomes for vulnerable groups and rural communities. Moreover, a need was identified for more systematic collection and analysis of data to measure the tangible impacts of digital policies, especially those addressing digital literacy and the specific needs of marginalized populations.

3. KEY SECTORS - ROLE AND CONTRIBUTION TO DIGITAL INCLUSION

3.1 Intersectoral cooperation

The Digital Agenda of Kosovo (DAK) 2030 foresees structured intersectoral cooperation as essential for its implementation, particularly through a high-level commission led by the Prime Minister and composed of representatives from all ministries and agencies responsible for specific strategic objectives (GoK, 2023a). This commission is tasked with coordinating actions across sectors such as infrastructure, business, public services, education, and cybersecurity. Implementation is decentralized, with each objective assigned to relevant institutions, ensuring cross-ministerial alignment. Monitoring and reporting responsibilities lie with the Office of the Prime Minister and the Ministry of Economy, supported by annual progress reports and two external evaluations. While the framework enables coordinated action, DAK 2030 does not explicitly mention intersectoral programs targeting populations at risk of digital exclusion. Field data suggest that intersectoral cooperation, although planned, faces practical barriers due to unclear mandates, limited responsiveness among ministries, and fragmented actions, particularly impacting vulnerable groups.

3.2. Contribution of specific sectors

The following table summarizes the progress and gaps in digitalization across key public and service sectors in Kosovo, based on desk research and field interviews. While several sectors have made measurable strides in digital service provision, the integration of inclusive, accessible, and tailored services for vulnerable populations remains limited. Special services for these groups are either minimal or dependent on sporadic donor-funded projects, rather than being systematically embedded in sectoral strategies or supported through sustainable public funding.

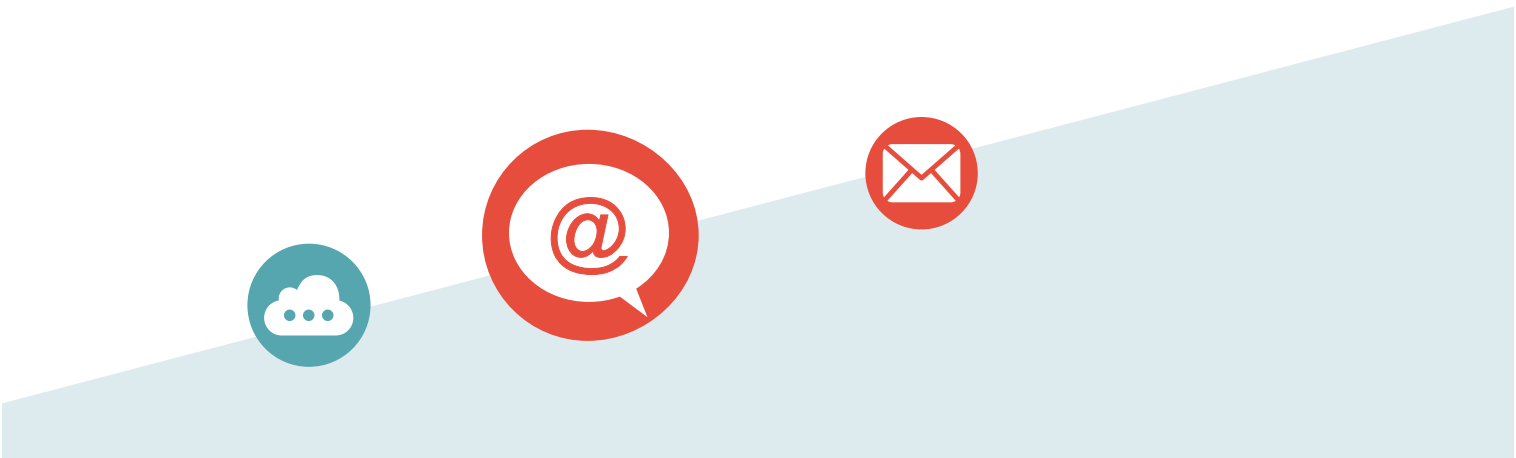

Table 4. Sectoral Contribution to Digital Inclusion in Kosovo

Sector	Are there digital services, if yes which?	Is there monitoring of quality of and satisfaction with these services? (Y/N)	Are there special services for vulnerable groups, if yes which?	Are there identified barriers for vulnerable groups related to digital services, if yes which?
Education	Yes: eKosova portal (higher education & teacher services); limited use of digital learning platforms and assistive technologies	No systematic monitoring	Limited and inconsistent; mostly donor-funded, lacks national support	Lack of equipment, limited training, minimal assistive tech
Telecommunications	Yes: High internet & mobile penetration, multiple private providers	Yes (monitored by ARKEP)	No systematic special services; some private-led digital literacy programs	Limited digital literacy investment; rural affordability concerns
Health	Limited: Few e-services via eKosova (family doctor selection, lab results); basic telemedicine infrastructure	No systematic monitoring or evaluation reports identified	No explicit accessibility features	Underdeveloped digital services, low usability for elderly/marginalized groups
Financial services	Yes: E-banking, mobile banking, electronic payments, eKosova financial services	Monitored internally by banks, no public reports	Multilingual services available; accessibility for disabled unclear	Digital literacy issues, user-unfriendly interfaces for elderly and rural users
Social welfare	No significant digital services available	N/A (no services to monitor)	N/A	Lack of any digital access to services
Research and innovation	No systematic digital services available; minimal digital innovation efforts	N/A	No systemic initiatives targeting vulnerable groups	Lack of funding, systemic focus; sporadic academia-industry cooperation
Administration	Yes: Certificates issuance (civil status, property), document verification, licenses, judicial case tracking via eKosova	Partial monitoring (internal, limited transparency)	Services in official languages, basic accessibility; lacks tailored disability support	Access issues (password recovery, unclear processes), no proactive support
Economy	Vocational Training Centers offer digital skills training as part of active labor market measures	No detailed public reporting	No specialized programs for vulnerable groups; limited targeting	Lack of outreach and customization of training; low participation from marginalized populations due to lack of awareness or prerequisites

3.3. Role of the civil society sector and CSO-led initiatives

Civil society organizations (CSOs) in Kosovo have become increasingly active in the field of digital inclusion, implementing targeted interventions that support marginalized groups, advocate for digital equity, and complement public efforts through community-based education and skills development. Drawing on both field research and desk review, the contribution of CSOs can be categorized into three primary areas: advancing digital literacy, addressing access gaps, and promoting inclusive digital education.

Kosovo Informatics Society (SHPIK), a professional association of informaticians, has focused on the integration of digital competencies into school curricula and the upskilling of teachers in public education, often filling gaps in state-led efforts. The association also highlighted during interviews that the Ministry of Education has limited capacity for managing digital innovation and that curricular updates have not kept pace with technological advancement, including the integration of AI.

The **Kosova Education Center (KEC)** has implemented multiple initiatives aimed at promoting equitable access to digital learning. These include projects to strengthen the digital competencies of teachers, develop inclusive digital content, and empower students to become digitally literate and civically engaged. The organization has also worked to improve the practical use of blended learning platforms and supported community involvement through mentorship clubs.

The **Kosova Center for Digital Education (KCDE)** has prioritized digital inclusion for marginalized youth, particularly girls and minority groups. Through training programs in digital skills and media literacy, and by distributing devices during the COVID-19 pandemic, KCDE has supported vulnerable learners' participation in education and the labor market.

Other organizations like **Open Data Kosovo (ODK)** and **Innovation Centre Kosovo (ICK)** contribute by fostering digital entrepreneurship and transparency in governance through civic-tech applications and support for ICT startups. These actors focus more on systemic transformation and innovation, complementing grassroots educational efforts.

Despite their proactive role, CSO representatives have expressed concern about the fragmented nature of public digital inclusion policies and the insufficient attention paid to vulnerable populations, including rural residents, elderly citizens, and ethnic minorities. Many CSOs see their role as essential not only in-service delivery but also in advocacy, piloting scalable models, and providing feedback on policy gaps. While donor funding has enabled impactful programming, the sustainability of these initiatives remains dependent on more structured collaboration with state institutions and long-term public investment in digital equity.

3.4. General conclusion on intersectoral cooperation

Intersectoral cooperation in Kosovo to enhance digital inclusion remains underdeveloped and fragmented, despite strategic ambitions outlined in the DAK 2030 and the existence of a high-level commission to coordinate digital transformation. Although several sectors–education, economy, health, and civil society are independently implementing initiatives to improve access and digital competencies, these efforts often lack coordination and mutual alignment.

Field interviews reveal important gaps and perceptions. From the perspective of the Office of the Prime Minister, while cross-ministerial collaboration exists in theory, it is described as "uneven and overly dependent on the initiative of individual institutions." Stakeholders from the Ministry of Economy noted positive experiences working with the education sector on the KODE project, but also expressed frustration at the lack of responsiveness from the Ministry of Education, particularly in relation to unused budget allocations for digital equipment. SHPIK echoed concerns about a reserved approach, emphasizing the need for stronger collaboration between public institutions, industry actors, and civil society, especially in the areas of digital skills training and the integration of new technologies in education and healthcare.

4. RELEVANT RESEARCH ON THE TOPIC OF DIGITAL INCLUSION

4.1. Overview of research findings

Research addressing digital inclusion in Kosovo remains extremely limited, and there is no known national research dedicated exclusively to this topic. Most available evidence comes from international or regional organizations, such as the World Bank, UNICEF, and the Regional Cooperation Council (RCC), which have conducted assessments as part of broader efforts to monitor digital transformation and inclusion across the Western Balkans. These studies tend to focus on digital infrastructure, skills gaps, and digital education, often using Kosovo as a case example within regional comparisons. Although several reports do touch on factors leading to digital exclusion and mention vulnerable groups-such as rural populations, socioeconomically disadvantaged youth, and ethnic minorities-systematic national research or policy evaluations specific to digital inclusion remain absent. In what follows, we present conclusions from five research reports that provide the most relevant evidence available on digital exclusion and inclusion in Kosovo.

1) Western Balkans Digital Economy Society Index – WB DESI 2022 Report (RCC, 2022)

The report identifies several **key factors contributing to digital exclusion** in Kosovo. Low levels of digital skills represent a major exclusion factor, with only 28% of individuals having at least basic digital skills, compared to an EU average of 54%. More advanced digital skills are significantly lacking, with just 14% of individuals possessing above-basic digital skills. Women remain underrepresented among ICT specialists (20.2%), though slightly above the EU average. The report does not explicitly name **vulnerable groups** beyond gender disparities but implicitly suggests youth and rural populations might face greater exclusion, given lower broadband infrastructure coverage in certain regions and limited digital literacy. Conversely, the report highlights **factors that support digital inclusion** in Kosovo. Broadband connectivity stands out positively, with almost universal household broadband access at 99.7%, significantly surpassing the EU average (77.8%). Around 45% of households enjoy high-speed broadband (≥100Mbps). Additionally, Kosovo has the lowest broadband prices in the region, making internet access financially accessible.

2) Digital Learning Landscape in Bosnia and Herzegovina, Kosovo, Montenegro, and North Macedonia (UNICEF, 2022)

Despite high household connectivity, Kosovo faces significant **digital exclusion among marginalized groups**, particularly the Roma, Ashkali, and Egyptian youth, with notable gender disparities. For example, only 75% of young Roma, Ashkali, and Egyptian women use computers, compared to 90% of their male counterparts. Additionally, the lack of sufficient ICT infrastructure in schools and limited teacher competencies further contribute to exclusion, especially impacting vulnerable children who lack adequate support systems.

Key inclusion initiatives include the establishment of the national digital platform "Shkollat.org," providing curriculum-aligned content in multiple languages, thus significantly enhancing access to quality digital education. During the COVID-19 pandemic, 2,500 teachers received training in basic digital skills, facilitating the transition to remote and blended learning. Furthermore, UNICEF supported connectivity improvements in schools and device provision specifically targeting marginalized youth, including children with disabilities.

3) Digital skills needs and gaps in the Western Balkans - scope and objectives for a fully-fledged assessment (RCC, 2021)

Digital Exclusion Factors: The report highlights a digital divide in Kosovo, pointing to a significant skills mismatch in the labor market, with digital literacy and competencies lacking, particularly among older generations and rural populations. There are noted disparities in digital skills between urban and rural areas, leading to exclusion of rural communities from digital services and opportunities. Women, especially in rural areas, are identified as vulnerable groups facing greater risks of digital exclusion due to lower access to digital training and ICT resources.

Digital Inclusion Factors: Digital skills development is increasingly integrated into national education strategies, particularly emphasizing vocational education and training (VET) and ICT-oriented curricula aimed at youth. The presence of donor-funded projects and initiatives focused on improving digital literacy in schools, VET centers, and higher education institutions contributes to digital inclusion. Start-up ecosystems and ICT training centers, such as Innovation Centers and ICT hubs, are emerging as important drivers of digital inclusion by providing accessible training and networking opportunities for youth and entrepreneurs.

4) Policy Brief: The role of digitalization in transforming Western Balkan societies (Mrdovic, 2023)

The policy brief does not specifically address Kosovo's context in detail, but it does highlight general challenges relevant to Kosovo as part of the Western Balkans. It emphasizes **factors leading to digital exclusion**, such as low digital literacy, significant urban-rural divides, insufficient digital infrastructure, and limited citizen trust in digital services. It also identifies factors contributing to digital inclusion, including EU and regional support, improvements in broadband connectivity, efforts to enhance digital skills and literacy, and initiatives promoting e-government services and cybersecurity. Although not explicitly mentioning Kosovo in depth, the general observations on the challenges and opportunities of digital transformation clearly apply to the Kosovo context.

5) Transforming Education in Kosovo with the Learning Passport - The case of Shkollat.org - Policy Brief (Cárceles Martínez-Lozano & Dreesen, 2023)

The policy brief presents early findings from a comprehensive mixed-methods study on the implementation and impact of Shkollat.org, Kosovo's national digital learning platform. The research confirms the platform's significant role in promoting digital inclusion, particu-

larly during and after the COVID-19 pandemic, by ensuring equitable access to curriculum-aligned content in both Albanian and Serbian. The study draws on quantitative data from 1,212 teachers and qualitative interviews across seven municipalities, revealing widespread use of the platform for blended and remedial learning, as well as notable improvements in teacher digital competence. Crucially, the brief identifies six enablers for scaling digital inclusion: platform enhancement, teacher training, localized content, device access, school connectivity, and institutional coordination, emphasizing that while Shkollat.org offers a strong foundation, broader systemic efforts are required to overcome barriers faced by vulnerable students and rural schools. The research underscores that digital learning platforms like Shkollat.org can be powerful tools for equity if accompanied by sustained investment in infrastructure, pedagogical support, and cross-sectoral collaboration.

6) Kosovo: Digital Readiness Assessment of the Education System (World Bank, 2024a)

The assessment identifies several critical factors contributing to **digital exclusion** within Kosovo's education system. A pronounced **urban-rural divide** significantly restricts digital infrastructure in rural schools, which frequently lack adequate internet connectivity and necessary digital equipment, consequently diminishing both teaching quality and students' learning opportunities. Moreover, **economic disparities** exacerbate this situation, as students from socioeconomically disadvantaged families often have limited access to digital resources at home, resulting in comparatively lower digital competencies. Additionally, Kosovo faces challenges related to teachers' **limited digital skills**, with many educators possessing insufficient digital literacy and experience in applying digital pedagogical methods. This gap further excludes students from engaging in comprehensive digital learning experiences. Despite some general improvements, the overall **infrastructure remains inadequate**, characterized by persistent issues related to the quality, affordability, and availability of reliable internet and digital facilities in schools, thereby also hindering effective administrative management and educational data governance.

The report, however, also highlights promising efforts and opportunities promoting **digital inclusion**. Kosovo has adopted several **policy initiatives**, including the Draft Strategy for Digitalization of Education, the Digital Agenda of Kosovo 2030, and the National Development Strategy, all of which emphasize digital skills development and inclusion. Initiatives aiming at the development of a localized **digital competence framework** for both students and teachers represent important systematic efforts to improve digital literacy comprehensively across the education sector. Furthermore, an emerging market for **educational technology (EdTech)** in Kosovo has been recognized, with government support for innovative digital solutions to advance inclusive educational practices.

Specific recommendations are proposed to further enhance digital inclusion. First, prioritizing targeted investments to significantly upgrade **digital infrastructure**, especially in rural schools, is essential to reducing

the existing urban-rural gap. Second, implementing a comprehensive and localized **digital skills framework** for students, educators, and school administrators would universally strengthen digital literacy. Lastly, it is recommended to foster a robust **EdTech ecosystem** through increased collaboration between government bodies, the private sector, and academia to develop sustainable, affordable, and contextually relevant educational technologies.

7) Assessing Digital Competence of K1-12 Teachers in Kosovo: A Study through the Lens of DigCompEdu and TPACK (Pireva-Nuçi, 2025)

This study evaluates the digital competence of 441 K–12 teachers in Kosovo using the EU's DigCompEdu framework through the SELFIE for Teachers tool. Although the research is specific to Kosovo, its findings are broadly relevant to national digital inclusion efforts in education. It reveals that teachers generally feel confident in using digital tools, especially for managing resources and engaging students, but show weaker competence in integrating these tools into teaching and assessment practices. The highest scores were recorded in areas related to accessing and using digital resources, while the lowest were in pedagogical integration of technology. Age and experience played a role–teachers aged 30–49 and those with 10–19 years of experience demonstrated the strongest digital competence. The study underscores the need to shift from purely technical digital skills training toward pedagogical applications of digital tools in teaching. It also suggests adopting a blended approach combining the DigCompEdu framework with TPACK (Technological Pedagogical Content Knowledge) to strengthen teacher development. Although not focused on digital inclusion per se, the study highlights the importance of professional development in building meaningful digital capacity in schools, which is essential for reducing digital divides in education.

8) An International Perspective on Digital Literacy - Results from ICILS 2023 (Fraillon, 2024)

The International Computer and Information Literacy Study (ICILS) assesses how well students are prepared to use digital technology for learning, communication, and information management. In ICILS 2023, Kosovo performed significantly below the international average in computer and information literacy (CIL), with an average student score of 356–placing it second to last among the 34 participating education systems, ahead only of Azerbaijan. Only 30% of students in Kosovo reached Level 2 or above on the CIL proficiency scale, compared to the international average of 49%, while about 70% remained at Level 1 or below, indicating limited digital competencies. Kosovo's results also show a significant digital divide based on access to technology. Students who reported always having access to a computer for schoolwork scored on average 67 points higher than their peers without consistent access, a disparity far greater than the international average. Furthermore, only 16% of students in Kosovo attend schools that report using a learning management system–among the lowest in the study–highlighting the limited integration of digital tools in everyday schooling.

9) Economic Reform Programs of Albania, Bosnia and Herzegovina, Georgia, Kosovo*, Moldova, Montenegro, North Macedonia, Serbia and Türkiye: The Commission's overview & country assessments (European Commission, 2004b)

The assessment indicates that Kosovo is gradually progressing towards digital transformation, although significant disparities persist. On the one hand, Kosovo demonstrates strong foundations for digital inclusion, with universal fixed broadband infrastructure coverage reaching 100% of households nationwide. Additionally, Kosovo has developed a modest yet rapidly growing ICT sector, notably excelling in software development, smartphone app creation, and web design, particularly targeting export markets. However, the report underscores ongoing **barriers to digital inclusion**, particularly noting the limited advancement in digitalization of public services, which remains at an initial stage. Moreover, despite some progress in introducing e-commerce initiatives, the actual uptake of e-commerce by SMEs is limited, reflecting an underlying gap in digital adoption among smaller enterprises. The recently approved Digital Agenda 2030 is recognized as a positive development, providing a comprehensive strategic framework aimed at accelerating digital transformation.

10) EU Progress Report -Kosovo 2024 (European Commission, 2024a)

The EU Progress Report 2024 highlights important developments and ongoing challenges for Kosovo in the field of digital transformation, emphasizing aspects of digital trust and cybersecurity. Kosovo has strengthened its cybersecurity framework by adopting a new cybersecurity strategy (2023-2027) and partially aligning its legislation with the EU's NIS Directive, though further alignment with the NIS2 Directive remains necessary. The report underscores the urgency of developing robust policies to ensure internet safety, particularly protecting children from online abuse. While Kosovo has made strides toward aligning with the eIDAS Regulation and advancing national electronic identification (eID), further alignment with the EU's new Digital Identity Framework and implementation of a national digital identity wallet are essential to enhance trust and secure digital engagement.

4.2. Summary of research findings

The review of available research and field data suggests several consistent findings regarding the state of digital inclusion in Kosovo. **First**, while national broadband coverage is nearly universal, **access to digital technologies remains uneven**, particularly for rural communities and marginalized socioeconomic groups. This is reinforced by both the World Bank's 2024 education system assessment and ICILS 2023, which highlight structural disadvantages in rural schools, including weak connectivity and lack of digital devices. Field interviews confirm these patterns, pointing to ongoing barriers in access among rural and low-income households.

Second, limited digital skills across all segments of the population–especially among older adults, individuals with lower education levels, and even teachers–rep-

resent a persistent barrier to effective digital participation. According to RCC (2022), just 28% of the population possesses basic digital skills, and ICILS 2023 shows that only 30% of grade 8 students meet the minimum international standard for computer and information literacy. The study by Pireva-Nuçi (2025) adds that even among educators, the pedagogical use of digital tools remains underdeveloped, suggesting systemic gaps in digital competence at multiple levels of the education system. Additionally, report from UNICEF (2022) emphasizes significant gender disparities, notably among Roma, Ashkali, and Egyptian youth, where digital participation among young women is markedly lower compared to their male counterparts, further deepening the digital divide.

Third, the education system has made some strides toward digitalization–particularly through platforms like Shkollat.org and training initiatives launched during the COVID-19 pandemic–but **is still not fully prepared to support equitable digital learning**. Investments in infrastructure and capacity building remain insufficient and fragmented. Field data consistently point to poor internet access in schools, lack of technical support, and insufficiently adapted digital content, particularly affecting vulnerable student groups.

Finally, while digital literacy programs do exist, they are limited in scope and sustainability. Most initiatives are donor-driven, targeting youth and educators during or shortly after the pandemic. However, field interviews and civil society inputs underline the absence of structured, state-led training opportunities for other vulnerable groups such as older adults, people with disabilities, rural communities, and women - particularly those from marginalized communities such as the Roma, Ashkali, and Egyptian populations, who face compounded barriers due to lower access and fewer opportunities for digital skills development. This leaves significant portions of the population without adequate support to participate in digital life.

(For detailed alignment with research evidence, see Annex 2.)

5. EXAMPLES OF NATIONAL PRACTICES

5.1. Identification and description of the three most effective initiatives/projects led by the government or civil sector

In recent years, several governmental and civil society initiatives in Kosovo have effectively contributed to digital inclusion. Among these, three projects stand out due to their significant scale, targeted objectives, and positive impact on various population groups. These initiatives have focused primarily on enhancing broadband connectivity in underserved areas, digitizing public services, and strengthening digital education.

1. **The Kosovo Digital Economy Project (KODE)**, implemented from 2014-2024 by the Ministry of Economy with World Bank support, aimed to enhance digital inclusion by expanding high-speed broadband in underserved rural areas, strengthening digital connectivity in primary and secondary schools, and delivering youth-oriented digital skills training. The project successfully deployed broadband infrastructure in 203 villages, significantly improving internet penetration and connectivity. It provided advanced internal wiring in 197 schools and established the Kosovo Research and Education Network (KREN), ensuring reliable connectivity for academic institutions. Additionally, the project trained 2,190 youth, including 881 women, achieving promising employment outcomes (World Bank, 2024b). Stakeholders emphasized that while the infrastructure improvements are substantial, challenges persist regarding the productive use of digital resources. They pointed out significant gaps in digital skills among the broader population, particularly affecting elderly individuals, people with disabilities, and communities with lower educational backgrounds.

2. **The eKosova platform**, launched in 2020 and managed by the Agency for Information Society (ASHI), serves as a centralized digital hub providing online access to 230 state services, including civil status certificates, property documents, tax payments, and social benefit applications. By 2024, eKosova surpassed one million registered users, marking a milestone in Kosovo's digital transformation. Recently, the platform expanded through the e-Komuna component, enabling citizens to engage directly with municipal services. However, stakeholders highlighted ongoing challenges, notably low public awareness of available services and financial constraints impeding promotional activities. They also noted significant delays and limited technological adoption by certain ministries, especially Social Welfare and Education, which hinder comprehensive digital service delivery. Future plans involve advanced accessibility enhancements, such as voice recognition, and the establishment of physical "One-Stop-Shop" assistance centers to better serve digitally excluded groups.

3. **Shkollat.org**, Kosovo's national digital learning platform initiated by the Ministry of Education, Science, Technology, and Innovation (MESTI) in partnership with UNICEF, was launched in 2021 to facilitate inclusive, equitable, and student-centered digital education. The platform provides

extensive curriculum-aligned multimedia content and integrates essential digital tools like Microsoft Teams and Office 365. Shkollat.org has significantly increased nationwide teacher engagement and student access to quality educational resources, especially benefiting underserved communities. Continuous professional development for teachers and dedicated support for vulnerable student groups were recommended as critical priorities for improving digital education (Cárceles Martínez-Lozano & Dreesen, 2023). Despite these successes, stakeholders pointed out substantial barriers, including outdated or insufficient technological infrastructure in schools, limited internet access outside administrative offices, and insufficient digital competencies among teachers. They also highlighted administrative delays at the Ministry level and the absence of a robust regulatory framework to guide digital content development and use.

For more detailed information on these projects, please see Annex 3.

5.2. Identification and brief description of additional initiatives/projects that had potential but faced challenges

While some initiatives have demonstrated considerable success, others have encountered significant challenges that limited their potential impact. Such projects are critical to analyze, as they provide valuable insights into implementation gaps, coordination issues, and barriers hindering digital transformation. One prominent example is the procurement of digital equipment for pre-university education institutions, led by the Ministry of Education, Science, Technology, and Innovation (MESTI). This three-year project was designed to support the implementation of Kosovo's Education Strategy 2022–2026, particularly measures related to equipping pre-university institutions with digital tools. The initiative was aligned closely with the Ministry of Economy's KODE project, which provided internet connectivity and internal LAN infrastructure in schools, while the MESTI project aimed to supply the necessary digital devices. Although municipalities completed the needs assessment forms between late 2022 and March 2023, and a dedicated budget totaling EUR 18 million was secured for the period 2023–2025, no procurement procedures have yet been initiated in 2023 and 2024, and in the 2025 Budget Law, this amount was subsequently reduced to 15 million euros for the period 2025–2027. This lack of follow-up, despite thorough preparation and confirmed financing, represents a serious implementation failure, significantly limiting the project's ability to achieve its intended objectives and improve digital inclusion within Kosovo's education sector.

6. KEY CHALLENGES AND AREAS FOR IMPROVEMENT

6.1. Challenges in ensuring digital inclusion

Despite the progress outlined in national strategies and donor-supported interventions, Kosovo faces several systemic challenges in ensuring digital inclusion for all citizens:

1. **Urban-Rural Digital Divide**

   A substantial disparity persists between urban and rural areas in terms of internet connectivity quality, infrastructure availability, and access to digital tools. Rural schools, particularly smaller and remote ones, suffer from poor digital infrastructure, resulting in lower-quality digital education experiences and limited opportunities for students and teachers in these areas.

2. **Low Levels of Digital Skills Across Population Groups**

   Kosovo faces a significant deficit in digital skills among various population groups, especially older adults, individuals with lower education levels, and marginalized ethnic communities such as Roma, Ashkali, and Egyptians. For instance, only 28% of the population possesses basic digital skills, compared to the EU average of 54%, highlighting an urgent need for widespread digital literacy interventions. Even those with adequate internet access often lack essential competencies for meaningful engagement with digital services.

3. **Limited Focus on Vulnerable Groups**

   While Kosovo has general strategic documents promoting digital transformation and digital inclusion, there is a notable absence of targeted policies and measures explicitly supporting vulnerable populations. Current national strategies fail to adequately address the unique digital exclusion challenges faced by rural residents, socioeconomically disadvantaged communities, older individuals, persons with disabilities, and ethnic minorities.

4. **Insufficient Coordination and Implementation of Digital Policies**

   Although Kosovo has developed ambitious strategies such as the Digital Agenda Kosovo 2030 and the e-Government Strategy, the effective implementation of these policies is hampered by weak inter-institutional coordination, limited resources, and over-reliance on donor funding. Consequently, progress toward achieving digital inclusion goals remains slow and fragmented. Institutional responsibilities remain unclear, causing gaps and inefficiencies.

5. **Underdeveloped Digital Education Ecosystem**

   Despite recent investments and initiatives to boost digital education (e.g., platforms like Shkollat.org), Kosovo's education system remains inadequately adapted to fully integrate digital tools into teaching and learning practices. Key barriers include insufficient ICT infrastructure in schools, limited digital competencies among educators, and the lack of sustained investment in continuous professional development and support systems for digital education. Administrative bottlenecks and inconsistent implementation further weaken the effectiveness of current initiatives.

6.2. Areas for improvement

Based on the identified challenges, the following key areas for improvement are essential prerequisites for further progress in digital inclusion in Kosovo:

1. **Expanding and Modernizing Digital Infrastructure in Rural and Underserved Areas**

   Additional investment is needed to upgrade digital infrastructure in rural municipalities, schools, and public institutions, ensuring reliable internet connectivity and access to digital devices. This includes continued support for initiatives like the KODE Project, alongside transparent and timely implementation of the planned digital equipment procurement in education. **Accelerating infrastructure projects and ensuring effective deployment of resources should be prioritized.** *(Addresses Challenges 1 and 5)*

2. **Promoting Inclusive and Accessible Digital Public Services**

   Digital services should be designed with inclusivity in mind, ensuring accessibility for persons with disabilities, availability in all official languages, and simplified procedures for users with low digital literacy. Awareness campaigns and support services (e.g., helpdesks, digital navigators, **and physical assistance points**) can further facilitate usage by vulnerable groups. **Proactive outreach and user-friendly design are essential for improving engagement among underserved populations.** *(Addresses Challenges 1 and 3)*

3. **Scaling Up Digital Skills Development through Lifelong Learning**

   A national approach to digital skills development is needed, extending beyond formal education to include community-based training, adult learning, and digital upskilling initiatives targeting older adults, low-educated individuals, and women. Integration of digital competence frameworks in all education and training levels, combined with outreach efforts, is necessary to close the skills gap. **Structured and sustained state-funded programs are necessary to complement donor-supported initiatives.** *(Addresses Challenges 2 and 5)*

4. **Enhancing Digital Pedagogy and School-Level Digital Transformation**

   Further investment in digital education is needed, particularly in professional development for teachers, integration of digital tools in classroom practice, and provision of assistive technologies for students with special needs. School-level initiatives should be supported with sustainable funding, technical assistance, and alignment with national digital education frameworks. **Focused teacher training programs and continuous pedagogical support are crucial for effective digital integration in education.** *(Addresses Challenges 2 and 5)*

5. P**rioritizing Digital Inclusion within the Implementation of Existing Strategies**

   Digital inclusion should be explicitly prioritized within the action plans and monitoring frameworks of the Digital Agenda Kosovo 2030 and the e-Government Strategy 2023–2027. This would involve defining specific objectives, indicators, and measures aimed at reducing digital disparities for marginalized groups, such as rural populations, persons with disabilities, economically disadvantaged communities, and ethnic minorities. **Explicitly addressing vulnerable groups within strategic frameworks can ensure targeted actions and clearer accountability.** *(Addresses Challenges 2 and 3)*

6. **Strengthening Intersectoral Coordination and Governance Mechanisms**

Improving digital inclusion requires enhanced cooperation between ministries and agencies responsible for digital infrastructure, education, employment, and social inclusion. Establishing a centralized coordination body or strengthening existing mechanisms is essential to ensure effective policy implementation, prevent duplication of efforts, and facilitate cross-sectoral synergies. **Clearly defined governance structures and accountability mechanisms are essential to ensure coherent policy implementation.** *(Addresses Challenge 4)*

7. **Institutionalizing Monitoring, Evaluation, and Transparency Mechanisms**

To ensure effective implementation of digital inclusion initiatives, Kosovo needs robust systems for performance monitoring, public reporting, and impact assessment. This includes disaggregated data collection on access and usage across demographic groups and regular reviews of digital inclusion targets. **Transparent monitoring systems and accessible public reporting are vital for measuring impacts, ensuring accountability, and supporting evidence-based policy improvements.** *(Addresses Challenge 4)*

7. RECOMMENDATIONS FOR POLICY IMPROVEMENT

Building on the analysis of systemic challenges and identified areas for improvement, the following targeted policy recommendations are proposed. These recommendations are directly informed by both extensive desk research and the rich insights collected during field data collection, including interviews and focus groups with relevant stakeholders. Recommendations are divided into two categories: general recommendations addressing digital inclusion needs of the overall population, and specific recommendations designed to support vulnerable groups at risk of digital exclusion.

7.1. Recommendations concerning general population

1. **Mainstream Digital Literacy into Formal and Non-Formal Education**

   Integrate digital literacy systematically across the national curriculum at all education levels and ensure that lifelong learning programs–offered by public institutions and CSOs–are aligned with the national digital competence framework. Update both initial teacher training programs and continuous professional development to equip teachers and adult educators with the pedagogical skills needed to effectively integrate digital literacy into their teaching practices, going beyond purely technical training. Specifically, prioritize pedagogical use of digital tools rather than purely technical training.

2. **Ensure Full Accessibility and User-Friendliness of e-Government Services**

   Government institutions should enforce common design standards to ensure digital public services are available in all official languages and accessible to persons with disabilities. Simplifying access procedures and developing mobile-friendly platforms would increase usability for the broader public. Enhancing mobile-friendly platforms and incorporating simplified authentication processes (such as digital identity wallets or voice recognition) should be prioritized to improve usability.

3. **Expand Public Access Points for Digital Services and Learning**

   Establish or revitalize public access points (e.g., municipal digital hubs, school ICT labs with community access after-hours) to enable citizens, particularly those without personal devices or internet, to benefit from online services, digital skills programs, and e-learning platforms. These hubs should also provide physical support through dedicated digital assistance staff, particularly targeting elderly users or those unfamiliar with digital technologies.

4. **Invest in Evidence-Based Policy through Regular Digital Inclusion Assessments**

   Mandate periodic national-level assessments of digital access, skills, and usage habits, disaggregated by gender, age, geography, and socioeconomic status. Findings should guide the prioritization of interventions across sectors. Regular public dissemination of these assessments will enhance transparency, accountability, and stakeholder engagement.

5. **Promote Cross-Sectoral Partnerships for Digital Transformation**

   Encourage joint initiatives between public institutions, the private sector, and civil society to de-

velop inclusive digital solutions, share digital infrastructure (e.g., underused broadband capacity in schools), and pilot innovations that benefit the general population. Develop incentives and clear regulatory frameworks to foster sustainable public-private-civil society partnerships, focusing on scalable and impactful digital inclusion projects.

7.2. Recommendations relating to vulnerable groups at risk of digital exclusion

1. **Develop and Implement Targeted Outreach Programs for Vulnerable Groups**

   Design and implement community-based digital inclusion programs targeting older adults, marginalized ethnic communities, persons with disabilities, low-income families, and in particular, women from these groups, who often face compounded barriers. These programs should be co-designed with local CSOs and delivered in familiar community settings, such as community centers or local NGOs, incorporating culturally relevant content and accessible methods, including face-to-face mentorship and community workshops that explicitly address the compounded barriers faced by women and girls in marginalized communities.

2. **Subsidize Connectivity and Devices for Marginalized Households**

   Introduce subsidy schemes or co-financing models for internet access and digital devices for vulnerable households, possibly through social welfare criteria. Public-private partnerships can be leveraged to reduce costs and improve coverage. Specifically, ensure that eligibility criteria and application procedures for subsidies are streamlined, transparent, and accessible to avoid exclusion through administrative complexity.

3. **Include Accessibility and Inclusion Requirements in Public Procurement**

   Make accessibility and usability mandatory criteria in all public procurement of ICT, educational technologies, and e-service platforms–ensuring assistive technologies and adaptive solutions are available from the outset, not as retrofits. Additionally, require regular audits to verify compliance and practical functionality of these accessibility features.

4. **Strengthen CSO Capacity to Deliver Inclusive Digital Programs**

   Provide institutional support to CSOs working with vulnerable groups to enable them to scale up digital skills programs, facilitate access to services, and act as intermediaries between excluded communities and public digital services. Specifically, establish dedicated grant schemes or sustainable financing mechanisms supporting CSO-led digital inclusion initiatives that have demonstrated effectiveness.

5. **Embed Inclusive Digital Education in Vocational and Alternative Learning Tracks**

   Ensure that non-traditional education pathways (e.g., VET, adult learning, second-chance education) include strong digital components adapted to learners' needs. Support mobile training units and blended formats to reach remote and underserved populations. Support mobile training units, blended learning formats, and personalized learning pathways designed specifically for remote communities and marginalized groups, enhancing their practical relevance and accessibility, ensuring gender-sensitive approaches and outreach to girls and women in rural and marginalized groups.

REFERENCES

ARKEP. (2019). Rregullore Nr. 36 për Kualitetin e Shërbimeve të Komunikimeve Elektronike. Retrieved from https://arkep-rks.org/desk/inc/media/02A53338-D6CD-4503-BFEF-844A899DFA5F.pdf

ARKEP. (2025). Përmbledhje e indikatorëve kryesorë të komunikimeve elektronike TM4-2024. Retrieved from https://arkep-rks.org/desk/inc/media/14d9f124-9634-4261-a14e-82cc982e142f.pdf

Cárceles Martínez-Lozano, J., & Dreesen, T. (2023). *Transforming Education in Kosovo with the Learning Passport - The case of Shkollat.org - Policy Brief.* Retrieved from https://www.unicef.org/innocenti/reports/transforming-education-kosovo-learning-passport

European Comission. (2023). EU Progress Report 2023 - Kosovo. Retrieved from https://enlargement.ec.europa.eu/kosovo-report-2023_en

European Commission. (2004b). *Economic Reform Programmes of Albania, Bosnia and Herzegovina, Georgia, Kosovo*, Moldova, Montenegro, North Macedonia, Serbia and Türkiye: The Commission's overview & country assessments.* Retrieved from https://economy-finance.ec.europa.eu/publications/2024-economic-reform-programmes_en

European Commission. (2024a). EU Progress Report 2024 - Kosovo. Retrieved from https://enlargement.ec.europa.eu/kosovo-report-2024_en

Fraillon, J. (2024). *An International Perspective on Digital Literacy - Results from ICILS 2023.* Amsterdam: International Association for the Evaluation of Educational Achievement (IEA). Retrieved from https://www.iea.nl/sites/default/files/2024-11/ICILS_2023_International_Report_0.pdf

GoK. (2023a). Digital Agenda for Kosovo 2030. Retrieved from https://me.rks-gov.net/wp-content/uploads/2023/07/Digital-Agenda-of-Kosovo-2030.docx

GoK. (2023b). e-Government Strategy of Kosovo 2023–2027. Retrieved from https://mpb.rks-gov.net/Uploads/Documents/Pdf/EN/2700/e-Government%20Strategy%20Kosovo%202023-2027.pdf

GoK. (2024). Reform and Growth Facility for the Western Balkans - Reform Agenda of Kosovo. Retrieved from https://kryeministri.rks-gov.net/wp-content/uploads/2024/10/RGF-Kosovo-Reform-Agenda.pdf

KCDE. (2025). Retrieved from https://kcde-ks.org/

Ministry of Finance. (2024). *Medium-Term Expenditure Framework 2025-2027*. Retrieved from https://mfpt.rks-gov.net/desk/content/media/5078e7a8-b123-49e3-bf7e-71031217df5c.pdf

Mrdovic, P. (2023). *The role of digitalisation in transforming Western Balkan societies*. Vienna: Österreichische Gesellschaft für Europapolitik (ÖGfE). Retrieved from https://www.oegfe.at/wp-content/uploads/2000/12/PB-142023.pdf

Pireva-Nuçi, K. (2025). Assessing Digital Competence of K1-12 Teachers in Kosovo: A Study through the Lens of DigCompEdu and TPACK . *Manuscript submitted for publication*.

RCC. (2021). *Digital skills needs and gaps in the Western Balkans - scope and objectives for a fully-fledged assessment.* Retrieved from https://www.rcc.int/pubs/129/digital-skills-needs-and-gaps-in-the-western-balkans--scope-and-objectives-for-a-fully-fledged-assessment

RCC. (2022). *Western Balkans Digital Economy Society Index – WB DESI 2022 Report*. Retrieved from https://www.rcc.int/pubs/159/western-balkans-digital-economy-society-index-wb-desi-2022-report

RKS. (2012a). Law No. 04/L-109 on Electronic Communications. Retrieved from https://gzk.rks-gov.net/ActDetail.aspx?ActID=2851&langid=2

RKS. (2012b). Law No.04/L-094 on Information Society Services. Retrieved from https://gzk.rks-gov.net/ActDetail.aspx?ActID=2811&langid=2

RKS. (2013). Law No. 04/l-145 on Information Society Government Bodies. Retrieved from https://gzk.rks-gov.net/ActDetail.aspx?ActID=8669&langid=2

RKS. (2021a). Law No. 08/L-022 on Electronic Identification and Trust Services in Electronic Transactions. Retrieved from https://gzk.rks-gov.net/ActDetail.aspx?ActID=51618&langid=2

RKS. (2021b). Law No. 08/L-007 on Measures to Reduce the Cost of Deploying High-Speed Electronic Communications Networks. Retrieved from https://gzk.rks-gov.net/ActDetail.aspx?ActID=51135&langid=2

RKS. (2023). Law No. 08/L-173 on Cyber Security. Retrieved from https://gzk.rks-gov.net/ActDetail.aspx?ActID=70933

RKS. (2024). *Law No. 08/l -332 on budget appropriations for the Budget of the Republic of Kosovo for year 2025.* Retrieved from https://mfpt.rks-gov.net/desk/content/media/c47f8415-0761-4ae3-8ddb-0ae74ac0e9a4.pdf

STIKK. (2019). *Internet Penetration and Usage in Kosovo - National Quantitative Survey.* Retrieved from https://stikk.org/wp-content/uploads/2019/11/STIKK_IK_Report_Internet_Penetration_V3-final-1.pdf

The Foundation House. (2025). Retrieved from https://thefoundationhouse.org/

UNDP. (2025). *UNDP - Digital Kosovo*. Retrieved from Digital Household Survey: https://www.undp.org/kosovo/digital

UNICEF. (2022). *Digital Learning Landscape in Bosnia and Herzegovina, Kosovo, Montenegro, and North Macedonia.* Retrieved from https://www.unicef.org/innocenti/reports/digital-learning-landscape-western-balkans

World Bank. (2018). *KODE-Combined Project Information Documents/Integrated Safeguards Datasheet (PID/ISDS).* Retrieved from https://documents1.worldbank.org/curated/en/741671525415353771/pdf/Project-Information-Document-Integrated-Safeguards-Data-Sheet-Kosovo-Digital-Economy-KODE-P164188.pdf

World Bank. (2024a). *Kosovo: Education Digital Readiness Assessment 2024.* Retrieved from https://hdl.handle.net/10986/42761

World Bank. (2024b). *Republic of Kosovo Implementation Support Mission for Kosovo Digital Economy (KODE) Project (P164188) & Digital analytical support for the Western Balkans Technical Assistance (P502126), October 21-25, 2024, Aide-Mémoire.* Retrieved from https://documents1.worldbank.org/curated/en/099122024102027067/pdf/P164188-8d6dad2f-4c38-49f7-a3ee-8c8028a07fb1.pdf

World Bank. (2025). *Poverty & Equity Brief Kosovo 2025*. Retrieved from https://documents1.worldbank.org/curated/en/099538504222572520/pdf/IDU-7d7b6dfd-6f2d-4db0-a21f-40a5065eabc3.pdf

ANNEX 1.
FINANCING OF DIGITAL INCLUSION POLICIES

Funding Source	Beneficiary	Description of objectives	Digital inclusion	Overall budget (EUR)	Dedicated Digital inclusion budget (EUR)
European Union (GoK, 2024)	Government of Kosovo (Reform Agenda of Kosovo)	1) Upgrade fixed broadband infrastructure to Very High Capacity Networks (VHCN); 2) Develop advanced infrastructure supporting data services and Artificial Intelligence (AI); 3) Obtain Kosovo's Country Code Top-Level Domain (ccTLD); 4) Establish an Information Sharing and Analysis Center (ISAC) for improved cybersecurity; 5) Promote extensive broadband infrastructure rollout; 6) Deploy 5G infrastructure along key transport corridors connecting Kosovo with neighboring countries.	Enhanced digital connectivity, broadband access, cybersecurity improvements, and regional integration initiatives significantly contributing to digital inclusion.	40,000,000	Not specified
The World Bank (Ministry of Finance, 2024)	Government of Kosovo (Strengthening Digital Governance Project)	Strengthen Kosovo's digital governance through: (1) Digital transformation of government, including support for digital development and improving resilience to digital risks; (2) Digital transformation of public services to reduce administrative burden and align services with citizens' life events; (3) Innovation, change management, and capacity building, including establishment of an innovation center at the Agency for Information Society (ASHI).	Indirectly contributes to digital inclusion by improving access to digital public services and enhancing institutional capacity.	18,600,000	Not specified

Funding Source	Beneficiary	Description of objectives	Digital inclusion	Overall budget (EUR)	Dedicated Digital inclusion budget (EUR)
The World Bank (World Bank, 2018)	Ministry of Economy (KODE Project)	Improve access to fast and high-quality internet in underdeveloped regions and provide training for young people to empower them for online work.	The digital inclusion component of the KODE Project focuses on expanding high-speed broadband access in underserved areas, particularly rural settlements and public institutions. It supports co-financing for private providers to connect unserved communities and includes capacity building for regulatory bodies to strengthen the policy and legal environment. Additionally, it introduces a National Spectrum Management System to improve mobile service quality and ensure efficient spectrum use, fostering more inclusive digital connectivity across Kosovo.	20,700,000	18,600,000
Kosovo Budget (RKS, 2024)	Ministry of Economy	Establishing Center for Digital Excellence in the Innovation Park-Prizren.	Potential to support digital inclusion through skills development and access to digital innovation resources, depending on implementation design.	1,736,528	Not specified
Kosovo Budget (RKS, 2024)	Agency for Information Society	Investments in e-governance infrastructure, interoperability systems, hardware, cybersecurity, government computer network, and recovery center.	Indirect contribution to digital inclusion by enabling more accessible and secure public e-services.	23,773,062	Not specified
Kosovo Budget (RKS, 2024)	Ministry of Education	Procurement of digital equipment for Pre-University Education institutions to improve digital learning environments.	Directly contributes to digital inclusion by enhancing access to digital tools for students and teachers across Kosovo.	15,000,000	Not specified

ANNEX 2.
SUMMARY OF RESEARCH FINDINGS

TOPIC	CLAIMS	AVAILABLE ANSWERS				
		This finding is not at all consistent with the research findings in my country	This finding is partially consistent with the research findings in my country	This finding is very consistent with the research findings in my country	This finding is completely consistent with the research findings in my country	Assessment is not possible due to a lack of research or other reasons
EQUALITY OF ACCESS TO THE INTERNET AND DIGITAL TECHNOLOGIES	Research shows a significant difference in access to the Internet and digital technologies between urban and rural areas. People from rural areas often have limited access to the internet and technology.	1	2	**3**	4	5
This finding is very consistent with the research findings in Kosovo. Several sources confirm that while Kosovo has almost universal broadband coverage at the household level (99%), there is a clear urban–rural divide in infrastructure quality and digital access (RCC, 2022). Rural schools in particular lack adequate internet connectivity and digital equipment, which significantly hinders both teaching quality and student learning outcomes (World Bank, 2024a). The digital divide between urban and rural areas is also documented, affecting both access and infrastructure (RCC, 2021) (European Commission, 2004b). Field interviews support these findings, highlighting ongoing gaps in broadband reliability and availability of devices in rural schools and communities.					
EQUALITY OF ACCESS TO THE INTERNET AND DIGITAL TECHNOLOGIES	Research shows a significant difference in access to the Internet and digital technologies among different socioeconomic groups. Older people, people with disabilities, people with lower levels of education, etc., have limited access to the internet and technology.	1	2	**3**	4	5
Multiple sources confirm that individuals from lower-income households, marginalized ethnic communities, and rural areas have limited access and lower digital skills. For example, only 75% of Roma, Ashkali, and Egyptian girls use computers, compared to 90% of boys from the same communities (UNICEF, 2022), indicating both socioeconomic and gender-related disparities. Similarly, students from economically disadvantaged families demonstrate lower digital competence due to a lack of home access to devices and the internet (World Bank, 2024a). The digital divide is further reinforced by lower levels of digital competence among rural populations, women, and socioeconomically disadvantaged groups (UNICEF, 2022). ICILS 2023 (Fraillon, 2024) further reinforces these findings by showing that students in Kosovo who always have access to a computer for schoolwork score, on average, 67 points higher than their peers without such access, one of the largest gaps internationally, demonstrating how household resources shape digital outcomes. However, national data on older adults and persons with disabilities remains limited, and their specific access barriers are not yet systematically studied.					

TOPIC	CLAIMS	AVAILABLE ANSWERS				
		This finding is not at all consistent with the research findings in my country	This finding is partially consistent with the research findings in my country	This finding is very consistent with the research findings in my country	This finding is completely consistent with the research findings in my country	Assessment is not possible due to a lack of research or other reasons
DIGITAL SKILLS	Many studies indicate that a significant part of the population (especially older people and people with low levels of education) lacks basic digital skills, significantly hindering their use of digital tools and access to important information.	1	2	3	**4**	5
According to RCC (2022), only 28% of individuals in Kosovo have at least basic digital skills, far below the EU average of 54%, while 14% possess above-basic skills. Additionally, RCC (2021) further highlights that older adults and people with lower educational attainment show particularly limited digital readiness. ICILS 2023 confirms this pattern among students: only 30% of grade 8 students in Kosovo reached Level 2 or above in computer and information literacy, compared to 49% internationally, indicating very limited competencies (Fraillon, 2024). Similarly, the Pireva-Nuçi et al. (2025) study on teachers found uneven digital competence, especially in integrating technology into teaching and assessment, despite confidence in using digital tools. These findings collectively indicate that limited digital skills are a widespread barrier, not only among vulnerable populations but also across different sectors of society, including education professionals.						
IMPACT OF THE COVID-19 PANDEMIC	The pandemic accelerated the transition to digital services in education, work, and everyday life. Research indicates that many individuals have become more aware of the importance of digital skills and tools during this period; however, significant disparities remain in their ability to adapt.	1	**2**	3	**4**	5
The World Bank (2024) and UNICEF (2022) document how the COVID-19 pandemic accelerated the transition to digital services in education, prompted capacity-building efforts (e.g., teacher training), and highlighted digital disparities, particularly for marginalized groups. The UNICEF policy brief on Shkollat.org further shows that while the platform supported inclusive learning and teacher upskilling, challenges in infrastructure and equitable access persisted, reinforcing disparities despite increased awareness of digital skills. (Cárceles Martínez-Lozano & Dreesen, 2023)						
TRUST IN TECHNOLOGY	Research indicates that citizens' concerns about the privacy and security of data when using digital services can also impact their willingness to engage in the digital world.	1	2	**3**	4	5
The EU Progress Report (European Commission, 2024a) highlights ongoing challenges related to cybersecurity and digital trust in Kosovo. It emphasizes the need to enhance alignment with EU standards, particularly the NIS2 Directive and the EU Digital Identity Framework. It emphasizes the importance of developing robust policies to ensure safer internet use, particularly in protecting children online. Although the report does not explicitly measure citizen concerns, these highlighted cybersecurity gaps and delays in aligning with comprehensive EU regulations strongly imply potential public unease regarding data privacy and digital security. Furthermore, the regional policy brief (Mrdović, 2023) confirms a general lack of trust in digital services across the Western Balkans, reinforcing the validity of this concern within Kosovo's context.						

TOPIC	CLAIMS	AVAILABLE ANSWERS				
		This finding is not at all consistent with the research findings in my country	This finding is partially consistent with the research findings in my country	This finding is very consistent with the research findings in my country	This finding is completely consistent with the research findings in my country	Assessment is not possible due to a lack of research or other reasons
TRAINING INITIATIVES	There are a growing number of programs and initiatives that focus on increasing digital literacy, especially among vulnerable groups, such as older adults, women, and people with disabilities. Research often emphasizes the need for continuous education and training in this area, along with the need to enrich the offer.	1	2	**3**	4	5
Multiple reports indicate that Kosovo has initiated several digital literacy programs, some of which specifically target vulnerable groups, though these remain limited in scope and coverage. According to UNICEF (2022), targeted efforts were made during the COVID-19 pandemic to train 2,500 teachers in digital skills and to provide devices and connectivity to marginalized youth, including children with disabilities. RCC (2021) also highlights donor-supported programs focused on improving digital literacy among rural populations and women, primarily through ICT training centers, vocational education, and innovation hubs. However, field interviews indicate that such initiatives are fragmented and largely unsustainable, with no systemic state-led digital literacy program in place for older adults, persons with disabilities, or low-income rural populations. CSO representatives stressed that while civil society has led important projects, such as digital skills training for girls, Roma, Ashkali, and Egyptian youth, these remain isolated and dependent on external funding.					
CHALLENGES IN EDUCATION	Research shows that the education system in our country is still not fully adapted to digital learning. Additional investments in infrastructure and teacher training are needed to enable the integration of digital tools into teaching.	1	2	3	**4**	5
Multiple reports, including World Bank (2024), UNICEF (2022), and RCC (2021), provide clear evidence that Kosovo's education system is not yet fully adapted to digital learning. According to the World Bank's assessment, rural schools often lack basic digital infrastructure, and many teachers have limited digital skills, which significantly hinders effective digital pedagogy. UNICEF (2022) similarly underscores insufficient ICT capacity in schools and limited teacher preparation as key barriers to digital inclusion. Although platforms like Shkollat.org have been developed to support digital education, they require sustained investment in teacher training and infrastructure upgrades to be effectively integrated into classroom practice. RCC (2021) also notes a mismatch between digital skill development in education and labor market needs, reinforcing the need for systemic improvements. These structural gaps were echoed in field interviews, where school representatives noted the lack of technical support, poor internet access, and inadequate adaptation of digital content. The Pireva-Nuçi (2025) study further reveals that while teachers are confident using digital tools for administrative tasks and student engagement, they struggle with integrating them into teaching and assessment processes, indicating a need for more pedagogically oriented digital training.					

TOPIC	CLAIMS	AVAILABLE ANSWERS				
		This finding is not at all consistent with the research findings in my country	This finding is partially consistent with the research findings in my country	This finding is very consistent with the research findings in my country	This finding is completely consistent with the research findings in my country	Assessment is not possible due to a lack of research or other reasons
POLITICAL AND INSTITUTIONAL SUPPORT	Research indicates the need for stronger policies and strategies at the national level to improve digital inclusion. There are initiatives at the government level, but more coordination and resources are needed.	1	2	3	4	5
Multiple reports confirm that while Kosovo has taken important steps toward digital inclusion-such as drafting the Digital Agenda 2030, the Draft Strategy for Digitalization of Education, and integrating digital skills into broader national strategies (World Bank, 2024; RCC, 2021), there is still a notable lack of systemic coordination, implementation mechanisms, and adequate resources. The RCC (2021) assessment highlights that, although digital skills and the digital economy are recognized as policy priorities, national coordination remains weak and funding is limited, often relying on donor support. Similarly, the UNICEF (2022) report notes the absence of comprehensive national guidelines for schools, teachers, and parents and stresses the need for more robust, inclusive policies. During field interviews, stakeholders described policy implementation as fragmented, with minimal collaboration between key ministries. For example, the Ministry of Economy has progressed with broadband expansion under the KODE project, whereas the Ministry of Education has not yet disbursed the funds allocated for school digital equipment. Civil society actors also emphasized the absence of structured engagement mechanisms with the government and limited attention to vulnerable groups in digital inclusion policies.					

ANNEX 3.
SELECTED INITIATIVES FOR DIGITAL INCLUSION

Name of action	Implementing org/ins.	Partners (if applicable)	Description of action (objectives/ goals/activities)	Target groups/ beneficiaries	Results	Budget (EUR)
Kosovo Digital Economy (KODE) Project	Ministry of Economy	World Bank	Improve access to high-speed broadband in underserved areas, enhance school connectivity, train youth in digital skills, and strengthen the enabling environment for digital services. Activities include broadband rollout in rural villages, internal school wiring, 5G-ready infrastructure, the YOU training program for online work, and operationalization of Kosovo Research and Education Network (KREN).	Citizens in rural areas, primary and secondary schools, youth, public institutions, mobile network operators.	Broadband deployed in 203 villages; 197 schools connected with advanced internal wiring and KREN backbone; 2,190 youth trained (incl. 881 women) with high satisfaction and promising employment outcomes; KREN established as Kosovo's national education and research network, ensuring reliable digital connectivity for academia.	20.7 mil
eKosova	Agency for Information Society (ASHI)	Central and local government organizational units, businesses	Launched in 2020, eKosova provides centralized online access to 230 government services (civil status certificates, tax payments, property documents, traffic fines, benefit applications, utility invoices). Objectives include digitizing all 650 state services, enhancing local service interactions through the e-Komuna extension, improving accessibility (including for visually impaired users), and establishing physical "One-Stop-Shop" assistance points for digitally excluded groups. Future activities also include integration of advanced accessibility features (e.g., voice recognition) and awareness campaigns to promote digital services among underserved populations.	General population, municipalities, businesses.	Over 1 million registered users by 2024, significantly improving citizen engagement and digital interaction with government services; successfully launched e-Komuna extension facilitating local government interactions.	ASHI has a budget of 23.77 mil EUR. Budget for eKosova is not specified.

Name of action	Implementing org/ins.	Partners (if applicable)	Description of action (objectives/ goals/activities)	Target groups/ beneficiaries	Results	Budget (EUR)
Shkollat.org – National Digital Learning Platform	Ministry of Education, Science, Technology and Innovation (MESTI)	UNICEF	Launched in 2021, Shkollat.org is Kosovo's national digital learning platform, offering the largest repository of curriculum-aligned video content, integrated with tools like Microsoft Teams and Office 365. The platform supports remote and blended learning, and aims to promote equitable, inclusive, and student-centered digital education. Activities focus on content development, teacher upskilling, improving school connectivity, and institutional coordination.	Primary and secondary school students and teachers, especially in underserved municipalities.	Platform in use nationwide; increased teacher engagement and access to learning materials; supports digital learning integration in formal education.	N/A

ANNEX 4.
LIST OF STAKEHOLDERS CONSULTED

Individual Interviews

1. Vesa Batalli – Program Director, Voice of Roma, Ashkali and Egyptians (VoRAE)
2. Granit Brajshori – Project Manager, Kosovo Education Center (KEC)
3. Arben Shala – Program Manager, Kosovo Foundation for Open Society (KFOS)
4. Gresa Stublla – Project Manager, Handikos
5. Kozeta Imami – Program Lead – Education, UNICEF
6. Krenare Pireva-Nuçi – Assistant Professor, Faculty of Education, University of Prishtina
7. Antigona Uka – Executive Director, Kosovo Center for Digital Education (KCDE)
8. Genc Hamzaj – Acting Director, Agency for Information Society (ASHI)
9. Agim Kukaj – Director of the Department of PT/ICT, Ministry of Economy
10. Bekim Kasumi – Executive Director, Kosovo Informatics Society (SHPIK)
11. Lulezon Jagxhiu – Advisor to the Prime Minister on Information Technology, Office of the Prime Minister

Focus Groups

1. Focus Group with Roma, Ashkali and Egyptian students – 9 participants
2. Focus Group with Educational Staff – 4 participants