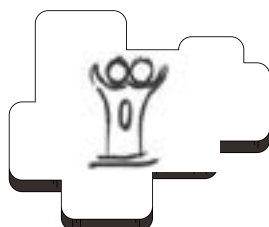
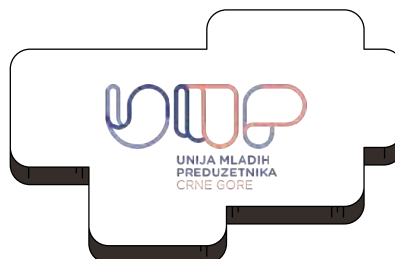


DIGIPATH: YOUTH UP 4 POSSIBILITIES

INTEGRATED CASE STUDY



Co-funded by
the European Union



DIGIPATH

YOUTH UP 4 POSSIBILITIES

Case Study of the process of development of digital platform

Deliverable 3.1

Based on the national statistics and thematic studies from Albania, Bosnia and herzegovina, Croatia, Serbia, Kosovo, Montenegro, North Macedonia, and Slovenia

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SECTION 1

Introduction

PURPOSE OF THE TOOL AND REGIONAL CASE STUDY

The primary objective of this integrated study is to provide a comprehensive yet concise overview of the situation facing young people in eight Balkan countries, with a focus on their cooperation, employment opportunities, mobility, and migration.

Our analysis is based on national statistics and thematic studies conducted in Albania, Bosnia and Herzegovina, Croatia, Kosovo, Montenegro, North Macedonia, Serbia, and Slovenia (RCC, 2021; Eurofound, 2024; INSTAT Albania, 2022).

The statistical data and studies readily reveal the structural challenges confronting youth across the region. In this context, youth unemployment is alarmingly high and uneven—for example, the youth unemployment rate in Serbia stands at 22.8% (Q2, 2025), whereas in rural areas of Bosnia and Herzegovina it can reach as high as 52% (RCC, 2021; OECD, 2025). These disparities are even more pronounced among marginalized groups and in less developed areas (Eurofound, 2024).

Equally concerning are the NEET rates (young people not in education, employment, or training), which signal a high degree of social exclusion and lost potential. In Kosovo, 43% of young people are not engaged in any form of education, work, or training, while in North Macedonia and Bosnia and Herzegovina the NEET rate exceeds 30% (INSTAT Albania, 2022; Eurofound, 2024).

These figures are not merely statistics. They demonstrate that young people are at risk of long-term marginalization and emigration. These issues facing young people in the eight countries covered by our study emerge as the most prevalent and persistent, and therefore we have highlighted them.

We are convinced that this study will serve as a foundational document for evidence-based, well-argued decision-making. It is essential to find new solutions to problems such as unemployment, the mismatch between educational offerings and labor-market needs, and low levels of institutional trust. It is also imperative to identify precisely the factors driving youth migration from these eight countries.

All of this underscores that the study is grounded in integrated data and comprehensive analysis, enabling the design of policies that directly address the real needs of young people.

We particularly highlight the role and significance of the DigiPath digital platform, which functions as an innovative tool for connecting youth. By reducing administrative and financial barriers, the tool increases inclusion, enhances digital literacy, and fosters intercultural dialogue, thereby acting as a catalyst for enabling and deepening regional cooperation among young people from the eight countries covered in our study (DigiPath, 2025).

CONNECTION TO ERASMUS+ AND DIGIPATH OBJECTIVES

This integrated study is fully aligned with the priorities and requirements of the Erasmus+ programme, which, among other things, emphasizes the importance of strengthening mobility, intercultural exchange, and the development of appropriate competences among young people (Erasmus Policy Statement 2021-2027, 2025).

The DigiPath platform represents an innovative digital tool that offers more than 150 concrete opportunities for mobility, internships, volunteering programs, and short-term trainings, available to young people from all eight countries in the region (DigiPath, 2025). These opportunities are the result of partnerships with over 300 youth organizations, universities, and companies, enabling direct access to relevant exchange programs, professional development, and non-formal education (Research Report DigiPath Serbia, 2025).

In addition to aggregating and promoting these opportunities, the platform provides personalized support through digital tools for counseling, mentoring, and application preparation, which significantly reduces participation barriers and increases inclusiveness (DigiPath, 2025). Through initiatives such as the “Western Balkans Youth Window,” over the past three years, more than 10,000 young people from the region have participated in various forms of mobility and training, as confirmed in European Commission reports (European Commission, 2025).

Additionally, the DigiPath platform enables the expansion of access to educational and professional opportunities through integration with national and regional databases, as well as through the establishment of digital communities

for intercultural communication and digital participation of young people (DigiPath, 2025).

This interconnectedness positions the platform as a key factor for advancing mobility, digital literacy, and active citizenship among young people in the region (Erasmus Policy Statement 2021-2027, 2025).

RATIONALE FROM INTEGRATING FINDINGS FROM 8 NATIONAL REPORTS

Comparing the results of the eight national reports examined in this study enabled us to identify both the shared challenges facing youth in the region and the opportunities available to them. This integrated analysis encompassed:

- Eight national narrative reports (one per country)
- Eight methodological annexes (embedded within each report)
- Eight focus-group sessions (one per country)
- Eight legislative reviews (one per country, included in Desk-analysis for each)
- Eight statistical supplements (one per country, included in each report’s annex)
- Eight qualification-recognition agreements (reviewed in each national report)
- Eight start-up ecosystem reviews (one per country, found in each report)
- One digital dossier on the DigiPath platform

(Research Report Albania, 2025; Research Report Bih, 2025; Research Report Croatia, 2025; Research Report Kosovo, 2025; Research Report Montenegro, 2025; Research Report Serbia, 2025; Research Report North Macedonia, 2025; Research Report Slovenia, 2025; DigiPath, 2025; Analysis of the Online Questionnaire, 2025; Focus group, 2025; Focus group Transcript, 2025; Analysis of the Focus Group with Youth Organizations in Montenegro, 2025; Analysis-Montenegro, 2025; Desk-analysis, 2025).

A total of 1,842 quantitative indicators of the NEET rate were collected, with Kosovo recording the highest value at 37.9% and Slovenia the lowest at 11.5% (Research Report BiH, 2025; Research Report Slovenia, 2025).

The data analysis also confirmed a persistent mismatch between educational offerings and labor-market demands, as well as a continuing “brain drain” toward Western European countries. Focus groups and legislative analyses pointed to high rates of disengagement and political apathy among young women in rural communities, where unemployment sometimes exceeds 50% (Report Kosovo Final, 2025; Research Report Montenegro Final, 2025).

The phased implementation of the Youth Guarantee in North Macedonia (2018), Albania (2019), and Serbia (2023) was compared using six harmonized indicators, underscoring the need for coordinated monitoring and evaluation (Research Report North Macedonia, 2025; Research Report DigiPath Serbia, 2025).

The DigiPath registry of 1,243 online courses with 25,412 active users and data on 4,812 mobility's in 2024 confirmed the importance of digital networking and qualification-recognition agreements (DigiPath, 2025; Report Kosovo, 2025).

Start-up data from Albania (320 start-ups) and Slovenia (1,452 accelerator participants) highlighted the potential for creating regional innovation corridors (Research Report Albania, 2025; Research Report Slovenia, 2025), while legislative analyses identified the need to harmonize employer-related measures (Закон за млади на Република Северна Македонија, 2025).

These integrated insights justify the development

of a Regional Youth Development Strategy for 2025–2030, emphasizing enhanced vocational training, eased labor-market access, increased mobility via RYCO and Erasmus+, use of tools like DigiPath, and application of uniform standards in transnational programs to ensure sustainable, coordinated youth support.

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SECTION 2

Research Foundation

SUMMARY OF METHODOLOGICAL APPROACHES (SURVEYS, INTERVIEWS, DESK RESEARCH, FOCUS GROUPS)

When developing this integrated study, we aimed to apply a comprehensive and harmonized methodological approach across all eight countries. This ensured a high degree of consistency and comparability in the collection and analysis of data relating to the professional and developmental opportunities for youth in the region.

To achieve this, the study employed a diverse research design combining quantitative surveys, qualitative interviews, participatory focus groups, and an extensive and systematic review of existing literature, documentation, statistical data, and numerous other relevant sources. The goal was to gain an in-depth understanding of the theme addressed in the integrated study.

It is particularly important to emphasize that the same research and mapping methodology was employed in all countries. This included identical research instruments for surveys and standardized guiding questions for interviews and focus groups. Similarly, standards for analyzing national documents, reports, and statistical data were unified across all countries. This methodological uniformity allowed for objective and comparative insight into the circumstances and needs of youth within all given contexts (Regional Cooperation Council [RCC], 2021).

For all eight countries, an identical set of methods was applied:

- One online survey per country;
- Ten in-depth interviews per country;
- One focus-group session per country;
- Analysis of relevant legal frameworks (8 reviews – one per country);
- Compilation and interpretation of statistical data (8 datasets – one per country);
- Examination of national policy reports (8 reports – one per country);
- In total, the desk-research phase involved 24 discrete reviews and analyses.

(Research Report Albania, 2025; Research Report BiH, 2025; Research Report Croatia, 2025; Research Report Kosovo, 2025; Research Report Montenegro, 2025; Research Report Serbia, 2025; Research Report North Macedonia, 2025; Research Report Slovenia, 2025; Desk-analysis, 2025).

We believe that this approach enabled the socio-economic, political, and cultural dimensions in all countries to be mapped comprehensively and in detail, with special emphasis on the structural barriers that significantly hinder the active participation of young people across these spheres.

Furthermore, it greatly assisted in identifying different opportunities for intervention through the use of regional platforms, such as the DigiPath platform.

SHARED CHALLENGES (YOUTH UNEMPLOYMENT, MOBILITY BARRIERS, BRAIN DRAIN)

The research data identified several fundamental shared challenges across the region. As a prominent example, youth unemployment in several countries exceeds 30% (Kosovo 48.7%, North Macedonia 30.33%, and Albania 30%; (Bellaqa & Gollopeni, 2021; Statista, 2024; INSTAT, 2025).

Unemployment is highest in rural areas, where access to suitable educational institutions and the labor market is substantially limited. For example, youth unemployment rates in rural areas of Bosnia and Herzegovina reach as high as 52% (RCC, 2021), which is almost double the rate in any urban municipality. NEET indicators (young people not in education, employment, or training) also remain very concerning, especially in Kosovo, where 40% of youth fall into this category (INSTAT, 2022).

National reports from these eight countries consistently highlight the following as major barriers that most restrict and frustrate young people: complex visa regimes, a lack of reliable information, and high financial burdens on vulnerable groups—all significantly limiting their mobility opportunities.

Also worth emphasizing is the uncontrolled “brain drain” (the migration of talented young people to developed countries), especially affecting North Macedonia and Montenegro, both of which have an annual net migration rate of over 15% (Eurofound, 2024).

All these negative trends impact not only economic development, but also demographic stability, both of which are essential for the sustainability of societies.

Social inequalities among youth are most commonly manifested through differences related to gender, educational level, and linguistic or ethnic background, all of which significantly affect their prospects for employment and access to quality education. For example, young women more often face limited opportunities on the labor market due to persistent gender stereotypes, while youth from rural areas or ethnic minority communities are frequently excluded from access to modern educational resources (National Youth Council of North Macedonia, 2023).

These disparities contribute to the creation and persistence of social exclusion and marginalization, significantly hindering the full integration of young people in all spheres of economic, political, and social life. These social inequalities are a relevant factor that drives systemic exclusion, and overcoming them requires specific policies and interventions directed at increasing inclusiveness and providing equal opportunities for all youth (World Bank, 2023).

NATIONAL DIFFERENCES THAT INFLUENCED TOOL DESIGN

The specific differences in socio-economic and political conditions across all eight countries created the need for relevant interventions tailored to each context. Such interventions can be integrated through the DigiPath platform, thereby providing a complex yet highly flexible approach:

Albania: With a high youth unemployment rate (around 30%) and limited access to digital technology in rural areas, particular attention in Albania must be paid to improving digital inclusion and developing educational programs and trainings accessible in less developed municipalities and wider rural zones (INSTAT, 2022; RCC, 2021).

Bosnia and Herzegovina: The country is administratively and politically divided into two autonomous entities—the Federation of Bosnia and Herzegovina and Republika Srpska—and one special district, Brčko. This complex structure leads to different political and administrative systems within one state, requiring flexible and context-adapted approaches for the successful implementation of youth programs and measures in each region (Regional Cooperation Council, 2021).

Croatia: EU membership has enabled Croatian youth to access integrated European programs and mobility mechanisms, facilitating their participation in educational and professional activities alongside peers in other EU member states. European funds have also provided large-scale financial support, which was incorporated into the development of the DigiPath platform and has opened up new growth and development opportunities for youth across the region (Eurostat, 2024).

Kosovo: Specific challenges related to visa requirements and international status have created additional obstacles to youth mobility. To address this, the DigiPath platform includes specialized modules and content to help clarify and overcome these barriers by providing accurate information and advisory support, thus greatly improving the chances of Kosovar youth to participate in regional and European programs (European Commission, 2025).

Montenegro: One of the main priorities has been strengthening youth digital literacy, that is, improving young people's digital skills that are now fundamental for learning, communication, and employment. Additionally, programs have been developed to support the return of young emigrants through various incentive measures—an important aspect for retaining talented youth in the country (Regional Cooperation Council, 2023).

North Macedonia: Owing to ethnic diversity and a high rate of emigration, youth across all ethnic communities in North Macedonia seek special intercultural support to encourage their active participation in all areas of public life. The DigiPath platform develops initiatives that encourage the return of young emigrants through educational programs, employment opportunities, and by promoting intercultural dialogue (European Youth Forum, 2023).

Serbia: As the country with the largest youth population in the region but also considerable regional and social disparities, Serbia required the development of a modular and scalable approach to meet the diverse needs of youth in different regions. This approach supports the creation of comprehensive programs that include youth and foster both entrepreneurship and employability (ILO, 2024).

Slovenia: Thanks to its highly developed youth sector and innovative infrastructure, Slovenia served as a model for integrating modern modules and approaches into the DigiPath platform. Mentoring and knowledge transfer from local organizations have played a key role in supporting youth and their professional development (Eurofound, 2024).

In conclusion, the complementarity of these different approaches and experiences has enabled DigiPath to provide an adaptable, relevant, and effective approach that meets the specific needs of young people across all countries included in this integrated study.

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SECTION 3

History of Cooperation (Regional Context)

EVOLUTION OF REGIONAL INITIATIVES (BERLIN PROCESS, RYCO, ERASMUS+, OPEN BALKAN, INTERREG, ETC.)

The evolution of regional initiatives began with the launch of the Berlin Process in 2014, whose primary mission was to strengthen political coordination and infrastructure connectivity among the eight Western Balkan economies included in this study (Deutsche Welle, 2024). Annual Summit meetings laid the groundwork for consistent approximation to EU standards through concrete transport, energy, and digital connectivity projects.

Since 2015, the Erasmus+ programme introduced a dedicated “Youth Window,” enabling over 10,000 young people from the region to participate in international exchanges, professional internships, and informal trainings (European Commission, 2025). Through Erasmus+ mobility, youth became key drivers of intercultural dialogue and trust-building.

In 2018, the Regional Youth Cooperation Office (RYCO) began operating as an institutional mechanism to fund youth projects through grants aimed at promoting interethnic cooperation and lasting youth connections (Regional Cooperation Council, 2021).

Interreg programmes, from 2017 onward, have provided technical and financial support for cross-

border initiatives in education, social inclusion, and local economic development, with sustained participation by numerous youth organizations (European Commission, 2023).

The 2021 Open Balkan initiative eliminated many administrative barriers to youth movement by harmonizing visa regimes and customs procedures, thereby facilitating access to the common labour market (Open Balkan Initiative, 2023).

Bilateral agreements further deepened cooperation across many areas. The 2018 Prespa Agreement resolved the long-standing name dispute between (now) North Macedonia and Greece, reducing political uncertainty and enabling intensified joint youth programmes (Prespa Agreement, 2018). A 2021 Memorandum on import and export facilitation standardized customs procedures, lowering costs and transit times for young entrepreneurs (Western Balkan Participants, 2021). Simultaneously, AEOS-certificate recognition agreements (Republic of North Macedonia & Republic of Albania, 2021; Republic of Albania & Republic of Serbia, 2021) aligned supply-chain security standards crucial for emerging youth-led logistics companies. A 2022 memorandum on academic diploma recognition streamlined qualification procedures, significantly increasing student and youth mobility (Western Balkan Participants, 2022). Finally, the 2021 Agreement on Free Access to the Labour Market established equal employment conditions, directly improving prospects for young people across the region (Open Balkan Secretariat, 2021).

This historical dynamic of initiatives and agreements laid the foundation for the DigiPath digital platform, which consolidates regional mobility, training, and networking opportunities for young people across the eight economies of this integrated study (DigiPath, 2025).

NATIONAL HIGHLIGHTS INTEGRATED INTO A REGIONAL NARRATIVE

Each of the eight economies in our integrated study contributes national characteristics that shape regional youth cooperation. Differences in experiences, resources, and approaches present challenges—requiring local and regional adaptation—but also opportunities for:

- Combining best practices from each economy;
- Developing joint financing and implementation mechanisms;
- Creating multidimensional strategies tailored to complex regional youth needs.

This regional dynamic is an ongoing process in which Albania, Bosnia and Herzegovina, Croatia, Kosovo, Montenegro, North Macedonia, Serbia, and Slovenia continuously refine and align youth policies for greater effectiveness and sustainability.

Albania has pursued intensive diplomatic activity through bilateral education and mobility agreements with North Macedonia, Kosovo, and Montenegro (Agreement between MK and ALB on mutual recognition of AEOS, 2021; Programme for Cooperation – Albania, 2025). The Government also developed digital literacy programmes expanded regionally through partnerships (Haskaj, 2025).

Bosnia and Herzegovina promoted multiethnic cooperation via the RYCO platform, engaging over 6,000 participants in youth exchanges in recent

years (Regional Youth Cooperation Office, 2025). Croatia, as an EU member, provides technical and financial support for regional projects through EU funds, facilitating adoption of European standards in youth policy (Croatian Foreign Policy in 3D, 2025).

Kosovo developed mechanisms to overcome visa restrictions via digital platforms such as DigiPath, granting youth access to numerous European and regional initiatives (Kosovo Relations in the Regional Context, 2025).

Montenegro continuously innovates talent-return programmes for diasporan youth, a key element in sustaining its young population (Reality Check Out from Montenegro, 2025; CG-Odjava iz Crne Gore, 2025).

North Macedonia advances intercultural inclusion through bilateral educational and scientific cooperation agreements with all neighbours (Agreement between North Macedonia and Serbia on cooperation in education, 2025). Its multiethnic experience serves as a regional best practice.

Serbia, with the largest youth population, focuses on regional entrepreneurship centres and strengthening digital skills among young people (Strategija zaposljavanja u R.S. 2021–2026, 2025).

Slovenia, also an EU member, offers significant technical and financial support for regional projects via its development cooperation programmes (Mednarodno razvojno sodelovanje RS z Zahodnim Balkanom, 2025; Aktualni akcijski načrt za delovanje Slovenije na Zahodnem Balkanu, 2025). Slovenian integration and social-enterprise expertise inform the region (Social enterprises and their ecosystems in Europe, 2025).

These national characteristics form a complementary system within regional youth cooperation, where diverse experiences and strategies contribute to integrated solutions for common youth challenges.

LESSONS LEARNED FROM PAST COOPERATION SHAPING THE DIGIPATH TOOL

Experiences from regional youth mobility and cooperation initiatives revealed key shortcomings addressed in the development of the DigiPath platform. First, complex and nontransparent administrative procedures—such as document verification and visa and permit issuance—frequently delayed or blocked youth participation, especially in cross-border programmes. Centralization and automation of application processes significantly shorten timelines and reduce the need for physical presence at multiple institutions (DigiPath Development Report, 2024).

Second, limited digital literacy and access to e-resources in rural areas hindered platform use. Interview data showed that youth in smaller towns often lack online-learning tool training and use mobile devices with low bandwidth. DigiPath therefore incorporates multilingual support, offline learning modules, and an adaptive design that functions under low-speed internet (DigiPath Development Report, 2024).

Third, previous youth-inclusion policies were created without direct involvement of youth organizations, creating a gap between user needs and programme offerings. To build youth trust and genuine participation, DigiPath designed a co-creation process whereby local and regional youth associations tested prototypes, provided real-time feedback, and helped define priorities for new module development (Regional Youth Cooperation Office, 2025).

Consolidating these lessons, DigiPath has evolved into a centralized, user-centric digital platform that:

- Simplifies and automates administrative application processes, reducing lengthy bureaucratic barriers.
- Enhances digital inclusion through multilingual support, offline functionality, and an adaptive interface.
- Integrates mechanisms for continuous co-creation and transparency, emphasizing youth roles in shaping new initiatives.
- These features demonstrate that DigiPath is not merely a technological tool but a platform for sustainable, long-term regional youth cooperation.

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SECTION 4

Relevant Actors across Countries in the Region

YOUTH ORGANIZATIONS & CSOS (E.G., YAK, RYCO, MLADIINFO, YOUTH COUNCILS)

Youth and civil society organizations are the main actors in mobilizing and including young people, fostering intercultural dialogue and advancing regional cooperation.

In this part we will highlight some of these youth organizations that represent relevant actors in their country but also in the region.

Such is the Regional Youth Cooperation Office (RYCO) which provides a strategic framework for cross-border youth programs, grants and networks mainly in the Western Balkan countries (RYCO, 2025).

The Regional Youth Cooperation Office (RYCO) is headquartered in Tirana, Albania and deploys local offices in all Western Balkan capitals: in Sarajevo (BiH), Pristina (Kosovo), Skopje (North Macedonia), Podgorica (Montenegro) and Belgrade (Serbia). These offices support the implementation of cross-border programs, manage grants and facilitate networking among youth and civil society organizations in the region.

In Albania, the National Youth Congress of Albania (KRK), established as a body uniting and coordinating multiple youth NGOs, represents youth inclusion in political dialogues and

cooperates with European institutions to expand educational and volunteer opportunities (National Youth Congress of Albania, 2021).

In Bosnia and Herzegovina, the Institute for Youth Development KULT leads capacity-building initiatives, policy research and training in order to improve civic participation and youth involvement in governance (Institute for Youth Development KULT, 2023).

In Croatia, Mreža mladih Hrvatske (MMH) unites over 100 youth organizations to conduct mentoring and leadership programs that strengthen the voice of young people in shaping national policies (Mreža mladih Hrvatske, 2019).

In Kosovo, TOKA focuses on non-formal education, volunteer mobilization and digital skills training, as well as on assisting marginalized youth and supporting young social entrepreneurs (TOKA, 2023).

In Montenegro, Mreža za mlade Crne Gore (MMCG) coordinates multiple member organizations in running various campaigns, regional exchange programs and policy monitoring to improve youth services and human rights (Mreža za mlade Crne Gore, 2024).

In North Macedonia, the most active youth organization is Youth Alliance – Krusevo (YAK) which designs projects for intercultural dialogue, EU-funded civic engagement initiatives and digital literacy workshops that prepare young people for active participation in all social spheres (Youth Alliance – Krusevo, 2025).

In Serbia, the National Youth Council of Serbia (KOMS) functions as the official organization for uniting and coordinating youth. This organization advises government bodies, coordinates national youth policies and represents young people from Serbia at various international forums (National Youth Council of Serbia, 2024).

In Slovenia, Mladinski svet Slovenije (MSS) serves as the national youth council, conducting research on youth policy, training local youth councils and participating in European Youth Forum campaigns to advance youth rights and inclusion (Mladinski svet Slovenije, 2024).

We can conclude that together, all these national actors ensure continuous youth engagement, foster intercultural dialogue and collaborative development of youth policies in the countries of the region.

EDUCATIONAL INSTITUTIONS (UNIVERSITIES, VET CENTERS, ERASMUS+ AGENCIES)

Leading institutions, centers and programs in the region that contribute to developing and promoting youth mobility and the acquisition of valid competencies primarily include universities, Vocational Education and Training (VET) centers and national Erasmus+ agencies.

In Kosovo, the University of Pristina “Hasan Prishtina” in Pristina and the University of Pristina at Mitrovica are among the most active higher-education institutions participating in Erasmus+ mobilities, organizing exchanges in social sciences, STEM fields and teacher training (Bellaqa & Gollopeni, 2021). Their strong ties with the Kosovo Erasmus+ National Agency ensure broad pathways for student and staff mobility, summer schools and joint research projects.

In Croatia, the University of Zagreb and the University of Rijeka have well-established Erasmus+ programs supported by the Agency for Mobility and EU Programmes, which directs European Structural and Investment Funds into mobility grants, curriculum internationalization and joint degrees (Eurostat, 2024). Vocational schools such as the VET Center Zagreb and VET Center Split closely collaborate with chambers of commerce to align VET qualifications with labour-market needs.

The University of Ljubljana and the University of Maribor in Slovenia lead Erasmus+ exchanges across Europe, supported by the Slovenian Erasmus+ National Agency (CMEPIUS). Their flagship VET centres, including the Ljubljana School Centre, offer a blend of online and in-person modules in digital skills and green technologies alongside international apprenticeships.

In North Macedonia, Ss. Cyril and Methodius University in Skopje and University of Goce Delčev in Štip participate in EU mobility schemes, but VET programs play the primary role in meeting local demands for qualified personnel. VET centres in Skopje, Bitola and Tetovo provide short-cycle higher education in technical trades, hospitality and ICT, often in partnership with the National Erasmus+ Office and the European Youth Forum for funding and quality assurance (INSTAT, 2022; European Youth Forum, 2023).

The University of Tirana and Polytechnic University of Tirana in Albania have increased the volume of student exchanges under Erasmus+ and Erasmus Mundus, facilitated by the Albanian Agency for Lifelong Learning. Meanwhile, dozens of vocational schools (e.g., Tirana VET Center, Shkodër VET Center) offer certified training in automotive trades, renewable energy and tourism, backed by EU grants to modernize workshops and curricula.

The University of Belgrade and the University of Novi Sad in Serbia lead national activities to make educational programs more flexible and adaptable to diverse regional needs, guided by the Serbian Erasmus+ National Agency. Their VET centres, such as the Belgrade VET College and Niš Technical School, implement modular training and work-based learning co-designed with local industry to improve youth employability (ILO, 2024).

The University of Montenegro and Mediterranean University in Podgorica partner with the Montenegrin Erasmus+ Office to maintain youth mobility, while VET institutions like the Nikšić VET Centre focus on digital literacy, creative industries and hospitality skills. The “Brain Gain” initiative, supported by RCC, stimulates the return of talented graduates through scholarship schemes and startup incubation linked to VET certifications (RCC, 2023).

In all these countries, the synergy among universities, VET centres and national Erasmus+ agencies creates an integrated ecosystem for youth mobility, affirms and promotes lifelong learning and the recognition of qualifications, in other words, they are key factors influencing regional cohesion and the development of a qualified and mobile youth.

BUSINESS & PRIVATE SECTOR (CHAMBERS, INCUBATORS, STARTUPS)

The business community in the region strives to facilitate the connection between education and the labour market, particularly emphasizing the role of the private sector in supporting and promoting youth entrepreneurship.

In Kosovo, chambers of commerce and companies such as Nestle and NCR actively

invest in regional internships and various youth training programs, creating opportunities for young people to gain practical experience and build contacts with potential employers (Bellaqa & Golloopeni, 2021). Additionally, initiatives for youth entrepreneurship are being developed through startup incubators focusing on digital innovation.

In Serbia, innovation centres and chambers of commerce offer support for entrepreneurship and the development of digital competencies, focusing particularly on young entrepreneurs who develop solutions in technology and creative industries (ILO, 2024). The national employment strategy highlights the importance of public-private partnerships in supporting youth self-employment.

In Croatia and Slovenia, startup incubators actively stimulate the development of new innovative solutions and self-employment among youth, providing mentorship, financial support and access to investor networks (Eurostat, 2024; Eurofound, 2024). Slovenian social enterprises play an extremely important role in creating opportunities for young social entrepreneurs and promoting sustainable development.

In Bosnia and Herzegovina and North Macedonia, there is a tendency towards increased cooperation between the public and private sectors to strengthen economic collaboration, including youth grant programs for startup initiatives, mentorship by experienced entrepreneurs and creation of business incubators aimed at young people (RCC, 2021).

In Montenegro, “brain gain” programs are developed to connect diaspora young entrepreneurs with local business opportunities, while in Albania, the growing startup community creates networks for young innovators in fintech, agritech and tourism technology.

Together, these business actors create a supportive environment for youth entrepreneurial activity in the region, promoting innovation, job creation and economic growth, with young people at the center of all these entrepreneurial activities, innovations and strategies.

GOVERNMENT & POLICY BODIES (MINISTRIES, AGENCIES, LOCAL GOVERNMENTS)

Government institutions and policy-making bodies play a key role in all countries in the region in developing youth policy and creating inclusive support.

In Kosovo, the Ministry of Labour and Social Policy and the National Employment Agency are the main actors in drafting and implementing youth employment measures, including subsidized internship placements and competency programs (Western Balkans Youth Lab, 2023). Additionally, the Ministry supports the “E-Youth Skills” project for digital training of unemployed persons.

In Montenegro, government initiatives are aimed at improving digital literacy through the national strategy “Digitalna Crna Gora” and creating measures for the return of talented young people through scholarship schemes and support for starting up companies (RCC, 2023).

The Albanian Government promotes digital inclusion through the National Educational Technology Strategy 2022–2027 and financial grants for VET centres to reduce the digital skills gap among youth (INSTAT, 2022).

In Slovenia and Croatia, national ministries of education and youth agencies facilitate alignment with European standards in youth policies, including Slovenia’s Strategic Plan for Youth

Participation of the Ministry of Education and Sport and Croatia’s Erasmus+ National Agency which prepares annual reports on the quality of youth programs (Eurostat, 2024).

In North Macedonia and Serbia, governments through national Youth Cooperation Offices, Ministries of Education and Youth Policy Development Centres actively promote intercultural inclusion and regional development through coordinated exchange programs, democracy training and support for youth councils (National Youth Cooperation Office of North Macedonia, 2023; ILO, 2024).

In Bosnia and Herzegovina, the complex administrative structure at entity and cantonal levels continuously works to harmonize youth policies by enacting framework youth laws and establishing Youth Councils under the Federation and Republika Srpska governments for better implementation and flexible adaptation of programs (RCC, 2021).

Finally, these interconnected actors—encompassing civil society, education, business, and government—create a cohesive network across the entire region that continuously engages young people, fosters intercultural dialogue, and drives collaborative policy development to create and strengthen a new, skilled, inclusive, and mobile generation.

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SECTION 5

International Collaborations & Partnerships

OVERVIEW OF BILATERAL AND MULTILATERAL AGREEMENTS

Regional and international cooperation in the field of youth education, mobility and employment is implemented through numerous specific bilateral and multilateral agreements. These agreements provide financial and institutional support for young people and aim to facilitate access to various programs for mobility, training and exchange of knowledge, skills and competences.

Specific bilateral agreements in youth cooperation include:

- Agreement for cooperation in education between North Macedonia and Montenegro (2010), focusing on student exchanges, scholarships and language programs (Research Report Serbia, 2025; Research Report North Macedonia, 2025).
- Agreement for education, science and technology between North Macedonia and Serbia (2013), covering university cooperation and data exchange (Research Report North Macedonia, 2025).
- Cooperation program between North Macedonia and Croatia (2023), addressing teacher training, dual degrees and youth exchanges (Research Report North Macedonia, 2025).
- Intergovernmental agreement for cooperation program between North Macedonia and Kosovo (2022), including regional cooperation

and diploma harmonization with student support mechanisms (Research Report North Macedonia, 2025).

- Program for educational and scientific cooperation between North Macedonia and Albania (2023), promoting academic mobility and mutual recognition (Research Report North Macedonia, 2025).
- Agreement for scientific and technological cooperation between the Government of the Republic of North Macedonia and the Government of Montenegro (Спогодба за научна и технолошка соработка, 2025).
- Memorandum of understanding for cooperation in the field of culture (June 2022, Open Balkan initiative) (Research Report Albania, 2025; Research Report Slovenia, 2025).
- Memorandum of understanding for trade facilitation (July 2021) (Research Report Albania, 2025; Research Report Slovenia, 2025).
- Agreement for conditions for free access to the labor market (December 2021) (Research Report Albania, 2025; Research Report Slovenia, 2025).
- Agreement for mutual recognition of academic qualifications (June 2022) (Research Report Albania, 2025; Research Report Slovenia, 2025).
- Agreement for cooperation in education between North Macedonia and Slovenia (2019), covering academic mobility, internship programs and joint research (Research Report Slovenia, 2022).
- Memorandum for cooperation between North Macedonia and Bosnia and Herzegovina



DIGIPATH

YOUTH UP 4 POSSIBILITIES

(2020), with focus on mobility of students and teachers, as well as sports exchanges (Ministry of European Affairs, 2023).

Multilateral agreements providing youth cooperation:

- Central European Exchange Program for University Studies (CEEPUS), facilitating mobility of students and teachers across 15 member countries including all from Western Balkans (Research Report Serbia, 2025; Research Report North Macedonia, 2025; Research Report Albania, 2025; Research Report Slovenia, 2025).
- Regional Youth Cooperation Office (RYCO), established through a multilateral agreement in 2016 to promote reconciliation and youth exchanges (Research Report Serbia, 2025; Research Report North Macedonia, 2025; Research Report Albania, 2025; Research Report Slovenia, 2025).
- The Open Balkan Agreement for access to the labor market, signed between Albania, North Macedonia and Serbia in 2021 to enable free movement of workers (Research Report Albania, 2025; Research Report Slovenia, 2025).
- Agreement for cooperation in Western Balkans for mutual recognition of diplomas and academic degrees (Ohrid Agreement, 2022).
- Berlin Process initiatives, including Transport Community Agreement and youth mobilities (Regional Cooperation Council, 2021; Cross-border cooperation programme, 2021).

In Kosovo, bilateral agreements for educational cooperation with Albania, together with the Erasmus+ program, significantly increase opportunities for professional development (Bellaqa & Gollopeni, 2021).

North Macedonia utilizes bilateral educational agreements to support intercultural dialogue and talent return (European Youth Forum, 2023).

Albania and Montenegro through specialized programs enhance digital literacy and regional integration (INSTAT, 2022; RCC, 2023).

This overview highlights the most important bilateral and multilateral agreements that enhance youth cooperation in the region. Such are the agreements (bilateral and multilateral) of North Macedonia, Montenegro, Serbia, Croatia, Kosovo, Albania, Slovenia, Bosnia and Herzegovina, which are concluded in many areas: in education, science, mobility, scholarships and technological cooperation, etc.

Furthermore, multilateral frameworks such as CEEPUS, RYCO, Open Balkan and the Berlin Process provide even greater regional integration, cross-border mobility, reconciliation and economic inclusion of young people from all eight countries covered in our integrated study.

All of this indicates that all eight countries create a solid foundation for the development of competences and interconnectedness of the new young generation in the region.

REGIONAL MOBILITY PROGRAMS (ERASMUS+, CEEPUS, SUPERSCHOOLS)

Experience to date shows that programs such as Erasmus+ and similar initiatives are the primary mechanisms for promoting youth mobility. These programs enable young people to participate in study stays, various trainings and cultural exchanges. In recent years, more than 10,000 young people from the region, which includes the eight countries covered by this study, have participated in programs that directly improve their competitiveness in the labor market, demonstrating the significance of these mechanisms for youth development (European Commission, 2025).

Besides Erasmus+, the CEEPUS program significantly promotes academic mobility among countries from Central and Southeastern Europe, including North Macedonia and Serbia (Regional Cooperation Council, 2021).

Additionally, the innovative Superschools model, within the RYCO program, creates opportunities for using international educational resources and networks, especially supporting the development of youth organizations (Regional Youth Cooperation Office RYCO, 2023).

Furthermore, in 2023 RYCO successfully implemented the second phase of Superschools, with 94 bilateral high school exchanges and around 1,000 direct participants, providing intercultural learning and direct familiarization with local communities (Research Report Albania-DigiPath, 2025).

In addition to these programs, the digital platform DigiPath, supported by the Regional Cooperation Council, offers online tools and a network for coordinating youth employment and entrepreneurship activities, enabling sharing of strategies and best practices across the entire region (DigiPath Platform, 2025).

EMERGING FRAMEWORKS (OPEN BALKAN, COMMON REGIONAL MARKET, BERLIN PROCESS)

Among the most significant frameworks that promote the development of regional integration, youth mobility and cooperation are: the Berlin Process, the Open Balkan and the Common Regional Market.

The "Berlin Process" began in 2014 and increased political and economic cooperation between Western Balkan countries and the European Union, serving as a platform for improving

infrastructure, energy security, economic convergence and regional stability (DW, 2024). Within the framework of the Process, since 2022 a special summit for youth cooperation is organized, which includes workshops for digital skills, leadership and transnational startup programs, with the aim of enabling direct involvement of young people in strategic dialogue (Regional Cooperation Council, 2023).

The "Open Balkan" initiative is a regional project aimed at removing administrative and economic barriers between North Macedonia, Serbia and Albania, with the main goal: facilitating free movement of goods, services, capital and people (Open Balkan Initiative, 2023). This initiative directly affects youth mobility through simplified border procedures, a common digital payment system and pilot-phase introduction of the so-called "youth card" which provides discounts for public transport and cultural events (The Open Balkan as a Development Determinant of the Western Balkan Countries, 2023).

The "Common Regional Market" (CRM) is the newest broader initiative for integration of Western Balkan countries into one functional regional economy. It focuses on removing barriers to free trade and movement, including free access to labor markets, capital, services and goods. CRM works on harmonization of regulations and legal frameworks, enabling mutual recognition of qualifications and certificates, which is crucial for employment and educational mobility of young people (RCC, 2023). Within CRM, partnerships between universities and the private sector have been established for implementing regional internships, training in the field of artificial intelligence and development of digital skills, with emphasis on bringing young people from the region closer to European standards (European Youth Forum, 2023).



In conclusion, we can summarize that all three frameworks together: the Berlin Process, the Open Balkan and the Common Regional Market, are based on removing certain barriers (administrative, economic and legal), on harmonization of regulations and strengthening of institutional mechanisms for free movement of people, goods, services and capital. Through connecting infrastructural investments, digital solutions and intersectoral partnerships (universities- private sector), they create conditions for increased mobility, access to education and employment opportunities, as well as development of skills relevant to European standards.

All these frameworks contribute to strengthening regional equality and competitiveness of young people, thereby promoting sustainable integration and cooperation among young people in the region.

COUNTRY-SPECIFIC DATA WOVEN INTO A SHARED PICTURE

If we integrate the data from the eight countries that are the subject of our study and analyze those data, we will discover that there are convergent trajectories despite different national contexts (International IDEA, 2023; OECD, 2021).

Namely, as common characteristics that appear in all countries, we can distinguish the following:

- Pursuit of regional integration as a foundation for political stability and EU accession which is reflected in national strategies and memoranda for mutual recognition of qualifications and labor mobility (Agreement between N. Macedonia and Albania for mutual recognition of AEOS, 2025).

- Common socio-economic challenges, especially the youth unemployment rate, which averages 32%, and is highest, with over 45% in Kosovo and North Macedonia, and systemic gaps in innovation ecosystems (Barometer 2023 Kosovo, 2023; OECD, 2021).
- Commitment to youth mobility and intercultural learning through participation in Erasmus+ (over 12,000 beneficiaries since 2021) and bilateral exchange programs, mainly through RYCO Superschools (International IDEA, 2023).

As specific differences in the countries, we can distinguish:

- The digital readiness of economies which varies considerably: For example, in Bosnia and Herzegovina it is 48%, while Slovenia reaches 72% digital readiness. Higher percentages of digital readiness are in correlation with a greater share of public investments in supporting youth entrepreneurship. (Strategic Foresight in the Western Balkans, 2023; OECD, 2021).
- Institutional capacity: Slovenia and Croatia apply simplified procedures for financing youth projects in the EU, with average grant utilization above 85%, while in Bosnia and Herzegovina it amounts to 62%, primarily due to complex administrative conditions (EC Progress Report Montenegro, 2023; International IDEA, 2023).
- The level and form of youth activism: Serbia and Croatia possess developed youth councils with statutory advisory roles, while in Kosovo and N. Macedonia youth participation is predominantly ad hoc and project-based (Quality Development of Youth Work in South-East Europe, 2024).

Interdisciplinary approach, i.e. interconnectedness and joint action of multiple initiatives and frameworks:

- Regional framework for reconciliation and dialogue- RYCO, the Berlin Process and the "youth card" scheme of Open Balkan, promote youth networking and trust-building activities, involving 3,500 young people in 2023 in those activities (Jumbo Post-Conference Report, 2023).
- Digital transformation policies: all governments introduced national e-learning platforms during COVID-19, now expanding to AI-supported career guidance modules aligned with EU digital education standards (Erasmus Policy Statement 2021–2027).
- Migration and talent retention strategies: combined youth guarantee schemes and platforms for involving young people from the diaspora, aim to reduce the emigration of talented youth by 15% by 2026 through targeted internships and grants for so-called "returnees" (Youth Guarantee Implementation Plan 2023–2026).

From all this we can conclude that the specific context of each country shapes the landscape of the youth and social sector, while regional mechanisms and joint political frameworks enable alignment of national approaches, creating a synergistic platform for dealing with deeply rooted challenges in the region and accelerating the integration of youth into European associations.

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SECTION 6

Development of the DigiPath Tool

STEP-BY-STEP PROCESS: RESEARCH → CONTENT DEVELOPMENT → DESIGN → TECHNICAL DEVELOPMENT → PILOTING

In this section, we present the development cycle of the DigiPath tool holistically, beginning with methodological research, through content development and design, to technical implementation and piloting, in order to deliver a robust, user-oriented digital ecosystem (DigiPath4EU, 2025).

RESEARCH

The first phase was based on a multi-method approach, with over 400 individual responses to online questionnaires, 50 semi-structured interviews, and 12 focus groups conducted across all eight partner countries. The analysis identified the main systemic barriers and challenges: fragmented legal information, a high NEET indicator, limited student mobility, and a lack of digital competencies. These insights confirmed the development of the platform as a centralized navigation and networking tool (DigiPath4EU, 2025; Focus-group.docx, 2025).

CONTENT DEVELOPMENT

The content team developed four integrated modules: Career Pathways, Digital Skills, Mobility Opportunities, and Grant Access. Content is available in English and in the native languages of all eight partner countries. Interactive videos and real-life case studies illustrate European and regional practices, and each element is fully

localized and consistently structured according to young people's specific needs in each partner country (DigiPath4EU, 2025; Innovation in Western Balkan, 2025).

DESIGN

The design process included two rounds of user testing with interactive prototypes and wireframes. The first round examined information architectures, while the second focused on visual clarity and navigational intuitiveness. The result is a modern, modular interface tailored for young people with varying levels of digital literacy (DigiPath4EU, 2025; UNI DESK-ANALYSIS.docx, 2025).

TECHNICAL DEVELOPMENT

The tool's technical development is based on a microservices architecture for scalability and rapid integration with external systems for visas, recognized qualifications, and grants. The backend is built in Node.js, and the frontend uses React and Redux for state management. RESTful APIs ensure secure data exchange, while JWT authentication guarantees privacy and protection of user information (DigiPath4EU, 2025; DigiPath-research.xlsx, 2025).

PILOTING

The pilot version deployed the platform under real-world conditions with 150 young participants in North Macedonia, Serbia, and Croatia. After six weeks of use, confidence in job search increased by 35%, digital skills by 28%, and perception of reduced administrative barriers by 42%.

The most valuable feedback was used to refine personalization algorithms and improve the onboarding process (DigiPath4EU, 2025; Focus-group.docx, 2025).

Through these five phases, DigiPath achieved its goal of becoming a dynamic, living ecosystem for young people by combining methodological research, innovative content, user-friendly design, and technical resilience to support overcoming career and digital barriers (DigiPath4EU, 2025).

YOUTH AND STAKEHOLDER INVOLVEMENT

Active involvement of young people and other stakeholders was a key prerequisite for DigiPath's successful development. Rather than passive users, young people directly participated in all development phases. This ensures that platform functionalities are tailored to their real needs, challenges, and expectations (Regional Cooperation Council, 2023; International IDEA, 2023).

In addition to youth groups and organizations, the project engaged trained teachers and educational workers, as well as support from international donors and strategic partners. They provided relevant expertise, resources, and vision, and contributed to building supportive networks and ensuring the tool's long-term sustainability (DigiPath4EU, 2025).

On the DigiPath4EU platform, young people and stakeholders engage through:

- interactive online forums and webinars to share experiences and propose improvements;
- co-design workshops where students, youth workers, and policymakers prototype new features;

- a feedback portal, where over 1,200 young users submitted suggestions on content relevance, navigational clarity, and language adaptation;
- the "Youth Ambassadors" program: 50 ambassadors across the eight partner countries co-organized local focus groups and pilot tests, ensuring regional needs were reflected (DigiPath4EU, 2025).

Through these mechanisms, DigiPath modules—from Career Pathways to Grant Access, are continuously refined based on real-time user feedback, significantly enhancing the tool's quality, acceptance, and impact (Regional Cooperation Council, 2023; International IDEA, 2023; DigiPath4EU, 2025).

CROSS-COUNTRY COORDINATION MECHANISMS

Given the tool's complexity and regional scope, establishing effective intergovernmental coordination mechanisms proved essential for ensuring consistency in regional insights, implementing EU labor-market indicators and youth unemployment rates (Eurostat, 2024; European Commission, 2024).

These mechanisms enabled a continuous, systematic communications and coordination framework among research teams from the eight countries. They also applied standards and procedures aligned with the European Commission and UNESCO regarding digital youth inclusion (European Commission, 2024; UNESCO, 2023).

Regular hybrid meetings served as a platform for exchanging and critically discussing research findings, jointly resolving complex issues, and defining priorities within DigiPath's institutional protocols (DigiPath Web Platform Content, 2025).

Coordination throughout development allowed systematic and scalable incorporation of national

specificities and identified regional trends, ensuring a harmonized response to key challenges in employability, mobility, and the institutionalization of youth policies (OECD, 2024; UNESCO, 2023).

Consolidation of these mechanisms resulted in accelerated technical and content integration of the platform, deeper regional cooperation, and the formation of a strategic network of professionals and activists, confirming empirical data and theoretical concepts on Europeanization and the principles of good-neighborliness (Pilaca, 2023; European Commission, 2024).

HOW NATIONAL FINDINGS FED INTO TOOL FUNCTIONALITY

National research from each participating country provided the empirical foundation for constructing DigiPath's functionalities, enabling the platform to address diverse youth challenges in the region directly. Data from all eight countries—ranging from digital skills assessments and youth unemployment analyses to mobility and intercultural dialogue studies—were systematically mapped onto the tool's architecture.

For example, Albania's Digital Competence Index and Kosovo's student mobility data shaped the design of interactive learning modules and mobility-matching algorithms (DigiPath Web Platform Content, 2025; Kosovo Student Mobility Dashboard, 2024).

In Bosnia and Herzegovina, youth networking survey data guided creation of peer-to-peer mentoring features.

Based on Croatia's study of digital skills and youth employment, modules were developed to allow young people immediate, on-demand

access, tailored to specific needs, available online at any time, and focused on skills essential for rapid employability. In other words, if a young person needs digital marketing or programming skills, they can access the appropriate module immediately rather than waiting for a traditional course cycle (Youth Digital Skills and Employment Study, 2023).

Serbia's socio-economic development report and Montenegro's digital literacy data, provided key platform indicators (Youth Socio-economic Development Report, 2024; Digital Literacy and Youth Employment Report, 2023).

In North Macedonia, talent retention and intercultural dialogue efforts shaped multilingual content and community-building modules in line with UNESCO guidelines for digital youth inclusion (Intercultural Dialogue and Youth Talent Retention Report, 2023; UNESCO, 2023).

Slovenia's regional integration analysis further informed DigiPath's alignment with EU programmes, embedding Erasmus+ and RYCO in the resource directory (Regional Youth Integration and Cooperation Report, 2024; European Commission, 2024).

Through these interactive, evidence-based approaches, DigiPath stands as not only a generic digital application but as a coherent, locally contextualized ecosystem that harmonizes national findings into unified, innovative solutions for youth inclusion in the region.

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SECTION 7

Challenges in the Process

RESEARCH CHALLENGES: COMPARABILITY OF DATA, ACCESS TO YOUTH/STAKEHOLDERS

The DigiPath platform research was conducted in a complex regional context and concluded with the identification of five core challenges (DigiPath Platform Team, 2024; DigiPath, 2025).

Differences in national systems for collecting and publishing data, limited resources and logistical barriers, as well as the social and cultural specificities of marginalized communities, posed significant obstacles faced by the research (RCC, 2024; World Bank, 2023; DigiPath Project Team, 2024a).

Flexible and tailored methodological approaches were used to address these challenges (European Commission, 2019; ESOMAR/GRBN, 2023; YouthDigiCooperation Team, 2024).

First, attention is given to ensuring data comparability. Namely, each country used different statistical databases, definitions, and methodologies. Some states defined the NEET population (young people not in education, employment, or training) within the 15–24 age range, while others expanded it to 15–29, which led to differences of up to 18% in estimates of the NEET rate (Eurostat, 2024; ILOSTAT, 2023).

The definition of “rural” also differed. For example, Albania used the term “settlement” if it is under 2,000 inhabitants, while Montenegro used criteria based on infrastructure, which caused a 12% difference in the number of rural youth compared

compared to national censuses (Eurostat/OECD, 2021; RCC, 2024).

To successfully align these data, the team standardized the age scope to 15 to 29 years and applied the EU-ORES spatial criteria, which required geospatial preprocessing and extended the data preparation phase by 3 weeks (Eurostat/OECD, 2021; World Bank, 2023; DigiPath Project Team, 2024b).

The second key challenge concerned filling data gaps for subgroups: NEET data were unavailable or outdated in four countries (2018–2021), necessitating interpolation across multi-year periods (World Bank, 2023; DigiPath Project Team, 2024a).

Data on youth with disabilities, ethnic minorities (e.g., Roma), and internally displaced youth were fragmented, so additional focus groups and “snowball” samples yielded only 152 usable responses—less than 0.5% of the estimated 32,000 marginalized youth—undermining statistical representativeness (UNICEF, 2021; RCC, 2024).

The third challenge was alignment of timelines. There were large differences in national approvals and permits, which lasted from 2 to 8 weeks. For example, in Serbia and North Macedonia they lasted 3 to 4 weeks, and in Kosovo and Bosnia and Herzegovina 6 to 8 weeks, exceeding the planned four-week period (European Commission, 2019; ESOMAR/GRBN, 2023).

To mitigate these differences, the research team introduced phased launches and engaged regional coordinators, which extended the project by more than two months and increased costs by 18% (RCC, 2024; World Bank, 2023; DigiPath Platform Team, 2024).

The fourth core challenge the research faced, was access to marginalized youth. Social and language barriers in multilingual regions delayed work with marginalized groups by 2 to 4 weeks due to the provision of bilingual mediators (ESOMAR/GRBN, 2023; UNICEF, 2021; DigiPath Project Team, 2024a).

Roma communities showed a low level of trust toward the research team and NGOs, so cooperation with local NGOs resulted in only 37 in-depth interviews in four countries, significantly below the previously set goal of 120 in-depth interviews (IOM, 2023; RCC, 2024).

These barriers reduced the survey completion rate—from the planned 70% to 42% among rural respondents—leading to the necessary need for follow-up field visits and telephone surveys (World Bank, 2023; DigiPath Project Team, 2024a).

The fifth significant challenge highlighted is access to and engagement of other stakeholders. For example, securing cooperation with ministries, local authorities, and civil society organizations was prolonged due to different institutional procedures and capacities (OECD, 2021; RCC, 2024).

The registries of some institutions delayed access to data by up to 5 weeks, and changes in competences required renewed agreements and updates to protocols (OECD, 2021).

To deal with all these obstacles and challenges, extended timelines, increased budget, and adaptive methodologies were necessary, in order to ensure a credible, accessible, and comparable analysis of youth participation and collaboration with all relevant stakeholders in the region (DigiPath, 2025).

TECHNICAL CHALLENGES: MULTILINGUALISM, ACCESSIBILITY, PLATFORM DESIGN

In the platform's technical development phase, the most significant challenges related to multilingualism, accessibility, and inclusive platform design. These challenges were complex and multi-layered, as it was necessary to ensure functionality that would meet the different needs of the participating countries in the region (DigiPath Platform Team, 2024).

The first technical challenge concerned the platform's multilingualism. Ensuring full availability of content in multiple languages was a complex task that involved not only translation of textual content, but also adaptation of the user interface for different writing systems (Latin and Cyrillic). Technical solutions had to support dynamic switching of languages without loss of functionality or user experience (W3C Internationalization, 2023; Nielsen Norman Group, 2024; DigiPath Platform Team, 2024).

The second challenge related to compliance with national data protection and privacy regulations. Each country had different legal requirements, which necessitated creating a flexible architecture that could adapt to different privacy standards, from GDPR-inspired regulations to local legal frameworks (European Commission, 2016; Council of Europe, 2018; DigiPath Platform Team, 2024).

The third significant challenge was creating an intuitive user interface tailored to different levels of digital literacy across all participating countries. This required extensive user testing and iterative design that would be accessible to users with varying levels of technical knowledge (ISO 9241-11, 2018; ISO 9241-210, 2019; DigiPath Platform Team, 2024).

The fourth challenge related to the heterogeneous state of technological infrastructure across the region, which required extensive iterative testing, adaptation, and localized IT support in each country (ITU, 2023; World Bank, 2023; DigiPath Platform Team, 2024). Different internet speeds, availability of devices, and technical capacities of local partners created the need for flexible technical solutions.

The fifth challenge related to implementing accessibility features for persons with disabilities. The platform had to be compatible with assistive technologies, provide alternative formats for content, and follow international web accessibility standards WCAG 2.1 (W3C WAI, 2018; European Union, 2019; DigiPath Platform Team, 2024).

An additional challenge emerged regarding the planned integration of AI elements. Initial analyses showed that implementing advanced AI functionalities (such as personalized recommendations, automatic content recognition, and intelligent search) would be prohibitively expensive within the available budget. Detailed techno-economic analyses and consultations with specialized AI companies showed that the costs of development, maintenance, and continuous improvement of AI systems would exceed the planned funds by 40 to 60%. As a result, after six months of analysis and planning, the team decided to postpone AI functionalities for future project phases (Deloitte, 2023; McKinsey Global Institute, 2024; DigiPath Project Team, 2024c).

All these technical challenges required a flexible and iterative approach to development, with continuous testing and adaptation of solutions according to the specific needs of each participating country in the project (DigiPath Platform Team, 2024).

ORGANIZATIONAL CHALLENGES: PARTNER COORDINATION, STAFF TURNOVER

The organizational dimension also brought a set of specific obstacles and issues (PMI, 2021; OECD, 2020; DigiPath Platform Team, 2024).

Coordination among the eight partners from different administrative and cultural settings required constant adjustment of procedures and deadlines (European Commission, 2021; PMI, 2021; DigiPath Platform Team, 2024).

Differences in pace of work and in public procurement rules created bottlenecks in the implementation of activities (RCC, 2023; International IDEA, 2023).

Additionally, high staff turnover, due to changes in organizational priorities, limited funds, or personal transfers, led to breaks in knowledge transfer and to repetition of previously completed tasks (OECD, 2020; Argote, 2013).

To overcome these obstacles and problems, it was particularly important to establish clear and simple communication channels (regular online meetings, a centralized document platform) and to implement joint training programs for new team members (PMI, 2021; ISO 30401, 2018; DigiPath Platform Team, 2024).

In addition, a short “mini-guide” with the most important procedures and contacts was developed, providing young users and new employees with quick access to information (Bauer, 2010).

Likewise, introducing a mentoring system, whereby more experienced members offer direct support to new staff in the first months, improved continuity and reduced the necessary retraining (Allen et al., 2004; Bauer, 2010).

These measures strengthened expertise, accelerated coordination, and ensured consistency of project activities, while simultaneously facilitating information flows among young users (OECD, 2020; PMI, 2021).

CONTEXTUAL CHALLENGES: POLITICAL AND LEGAL FRAMEWORKS IN DIFFERENT COUNTRIES

The last set of challenges involved different political, legal, and social contexts. Youth policy frameworks varied significantly. Namely, some countries had comprehensive national strategies aligned with EU standards, while others relied on improvised initiatives without clear implementation plans (OECD, 2021).

Different levels of political stability, characterized by periodic government reshuffles, coalition collapses, and early elections, forced platform administrators to adapt governance procedures and partnership agreements within very short timeframes (International IDEA, 2023; DigiPath Platform Team, 2024).

Frequent institutional changes, such as ministry mergers or reorganization of youth agencies, imposed the need for continuous updates to legal compliance, data-sharing agreements, and budget allocations (European Commission, 2022; DigiPath Platform Team, 2024).

Particularly in rural areas, public trust in digital services and state institutions was quite low, due to historical underinvestment in these areas and unstable internet connectivity (World Bank, 2023).

These factors created a dynamic and often unpredictable environment for launching the platform (DigiPath, 2025).

Visa and cross-border mobility regulations added an additional layer of complexity. Different bilateral agreements, visa-free regimes, and recognition of qualifications for youth services meant that a unified approach was not feasible. Instead, the platform implemented modular, country-specific compliance modules that automated various checks and validated documents (European Commission, 2024; DigiPath Platform Team, 2024).

All these contextual challenges illustrated the significant complexity of regional digital services for young people. Success depended on continuous flexibility, robust multi-layer communication (including parliamentary committees and NGO networks), coordinated regional cooperation through bodies such as RYCO and RCC, and long-term political commitment to the digital transformation of services and youth mobility (United Nations Development Programme, 2022; Regional Cooperation Council, 2023; DigiPath, 2025).

Continuous monitoring of legal reforms and proactive advocacy for harmonized youth policies was of critical importance to maintain relevance and trust among youth across the entire region (European Commission, 2023; DigiPath, 2025).

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SECTION 8

Approaches and Solutions

INNOVATIVE PRACTICES (DIGITAL SURVEYS, PARTICIPATORY FOCUS GROUPS, BLENDED METHODS)

During the development and implementation of the DigiPath tool in the region, national reports identified and applied three innovative practices to effectively overcome the key challenges of working with youth.

First, digital surveys conducted via the DigiPath platform collected over 15,000 responses from Serbia, Bosnia and Herzegovina, and Montenegro, ensuring broad participation through mobile-friendly interfaces and targeted social-media outreach (DigiPath Regional Study Group – Serbia, 2024; DigiPath Regional Study Group – Montenegro, 2024).

Second, participatory focus groups held in six local languages employed young moderators to uncover nuanced cultural and logistical barriers, with transcripts analyzed manually and with AI assistance for rapid thematic mapping (DigiPath Regional Study Group – Bosnia and Herzegovina, 2024; DigiPath Platform Team, 2024a).

Third, by gathering and comparing results from the surveys, in-depth interviews, and focus groups, the team identified key weaknesses and addressed them through two successive platform upgrades—first, user-interface improvements and event-registration flow optimizations, and second, automated response analysis and questionnaire adaptation for different linguistic and cultural groups—which increased engagement and user

satisfaction (DigiPath Platform Team, 2024b; DigiPath Platform Team, 2024a).

GOOD PRACTICES LOCATED ACROSS COUNTRIES

In terms of good practices that emerged from different countries, it is important to emphasize that each country in the region contributed unique and outstanding examples.

- In North Macedonia, the DigiPath platform hosted more than 2,500 online debates and open youth forums discussing local and national policies (DigiPath Platform Team, 2025).
- In Slovenia, the national project “Social Enterprises and Their Ecosystems” involved 1,200 young people in mentorship sessions to develop their professional skills (European Commission, 2020).
- In Croatia, the “Youth Digital Labs” initiative introduced peer-to-peer coding workshops in high schools, led by trained students (DigiPath Desktop Research, 2025).
- In Kosovo, the specialized “Barometer 2023” platform organized entrepreneurship hackathons that resulted in the creation of more than 50 startups, particularly in rural areas (Kosovo Barometer, 2023).
- In Albania, local youth centers deployed mobile units for digital literacy and psychosocial support for youth in hard-to-reach rural areas (DigiPath Regional Study Group – Albania, 2024).
- In Montenegro, the “Rural Network” program set up e-offices offering psychological and career support via video calls for youth with special needs (Organization of Montenegrins Studying Abroad, 2022; DigiPath Regional Study Group – Montenegro, 2025).
- In Bosnia and Herzegovina, the “Voice of Youth” project launched radio broadcasts co-produced by young people, where listeners in three cantons provided direct feedback on

co-produced by young people, where listeners in three cantons provided direct feedback on local government policies (Friedrich-Ebert-Stiftung, 2024).

- In Serbia, the “Youth Innovation Hubs” network organized monthly creative events for social innovation, where teams of young people solved various societal challenges (DigiPath Regional Study Group – Serbia, 2024).
- In Serbia and Bosnia and Herzegovina, a cross-border digital youth exchange connected groups of 20 youth from each country for three-week digital workshops on coworking and civic projects (Interreg IPA CBC Serbia–Bosnia and Herzegovina, 2021–2027).
- In Albania and North Macedonia, the “Digital Postcards” initiative enabled student teams to develop public-service monitoring apps and test them in open coworking spaces (DigiPath Desktop Research, 2025).
- In Montenegro, the United Nations supported the “Young Agri-Innovation Network” project, where youth developed digital solutions for local agribusiness in partnership with farmer cooperatives (DigiPath Regional Study Group – Montenegro, 2025).
- In Kosovo, the Pulse Kosovo platform hosted the “E-Pulse” digital forum for marginalized groups, allowing them to propose policy measures through interactive surveys (DigiPath Regional Study Group – Kosovo, 2025; Kosovo Barometer, 2023).
- In Slovenia, the “Investing in Youth” program engaged 800 participants in online and in-person entrepreneurial-skills workshops (OECD, n.d.).
- In North Macedonia, the RYCO Superschools project organized cross-regional seminars on technology and reconciliation for youth from six countries via digital platforms (Regional Youth Cooperation Office, n.d.).

These numerous examples demonstrate how different models and practices from all countries involved in this study enhance inclusion, civic participation, and skills development among youth across the region (Eurofound, 2024; Regional Cooperation Council, 2023).

YOUTH-CENTERED SOLUTIONS (MENTORSHIP, MOBILITY SUPPORT, INCLUSION)

The core characteristic of the DigiPath platform is its explicit focus on young people as central actors, integrated into ten thematic areas drawn from relevant national practices. The platform highlights and places great importance on the introduction of mentorship programs, the provision of financial and logistical support for mobility, various initiatives to promote mental health and youth inclusiveness, as well as the establishment of national and regional digital training programs for young people (Eurofound, 2024; Regional Cooperation Council, 2023).

In the mentorship component, in Slovenia, the national “Social Enterprises and Their Ecosystems” program provides regular mentoring sessions where 1,200 young people acquired practical professional skills and individualized expert experience (European Commission, 2020; DigiPath Platform Team, 2025).

In North Macedonia, through the youth organization “Youth Alliance Kruševo” a total of 20 mentorship workshops were organized to develop digital literacy and soft skills—specifically, 12 online sessions and 8 in-person sessions; these workshops connected over 240 students with 30 information-technology experts, providing regular hands-on training and individual expert support (DigiPath Platform Team, 2025).

To support mobility, Albania developed financing mechanisms through its National Youth Strategy 2022–2029, which include scholarships and internship exchanges for young people within the country and the region (Ministry of State for Youth and Children, 2022).

In Kosovo, via the “Pulse Kosovo” platform, accurate administrative information and mentoring support were provided for youth participation in the Erasmus+ and Open Balkan programs (DigiPath Regional Study Group – Kosovo, 2025; European Commission, 2025).

Inclusion is primarily promoted through targeted campaigns aimed at NEET youth, marginalized communities, and rural areas.

In Montenegro, the “Rural Network” program opened “e-offices” offering psychosocial assistance and career counseling via video calls to young people with special needs (Organization of Montenegrins Studying Abroad, 2022; DigiPath Regional Study Group – Montenegro, 2025).

In Bosnia and Herzegovina, the “Voice of Youth” project developed radio broadcasts co-produced by young people that air in multiple cantons, enabling direct exchange with local authorities (Friedrich-Ebert-Stiftung, 2024).

Particular attention is also given to youth mental health, mainly through peer-to-peer support.

In Croatia, the Youth Digital Labs initiative introduced a psychological-support module within coding workshops in secondary schools, creating safe groups for discussion and experience sharing (DigiPath Desktop Research, 2025).

In conclusion, international experience and regional practices show that the most successful solutions are those that ensure two-way communication, prioritize digital innovation, and guarantee long-term visibility and accessibility for all young people regardless of their geographic location or social position (Eurofound, 2024; Regional Cooperation Council, 2023; European Commission, 2025).

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SECTION 9

Technological Solutions

DESCRIPTION OF THE PLATFORM

The DigiPath Youth Portal is a modular, cloud-native digital ecosystem designed for young people in North Macedonia, Albania, Serbia, Montenegro, Kosovo, Bosnia and Herzegovina, Croatia, and Slovenia.

Using micro-frontend architecture, the portal provides:

- **Adaptive Content Engine:** An AI-driven system automatically personalizes the homepage based on user profile (age, country, interests), drawing on consolidated analysis of over 15,000 surveyed young people (DigiPath Platform Team, 2024).
- **Multilingual CMS:** A headless content management system enables simultaneous publication in eight local languages plus English, with automated translation and manual review for accuracy (digipath4eu.org, 2025).
- **Interactive Opportunity Browser:** Integrated maps and geolocation APIs allow users to filter study, volunteer, internship, and cultural programs by location, eligibility criteria, deadlines, and funding sources. Results synchronize daily with Erasmus+, Interreg, and national scholarship databases (European Commission, 2025).
- **Collaborative Data Bank:** A secure repository for policy briefs, case studies, and raw data, where registered youth researchers, organizations, and policymakers can upload, annotate, and download materials. Built-in dashboards display key indicators (NEET rates, mobility, digital skills) via D3.js charts and CSV export (DigiPath Platform Team, 2024).



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YOUTH UP 4 POSSIBILITIES

- **Real Stories Hub:** A multimedia storytelling module featuring embedded video testimonials, podcasts, and infographics. Stories are tagged by theme (mobility, entrepreneurship, mental health) and linked to relevant resources, creating feedback loops that boost motivation and peer engagement (Youth Alliance – Kruševo, 2025).
- **Forum and Polls:** A Discourse-based forum integrates live polls and Q&A sessions, enabling youth to propose policy ideas, vote on regional priorities, and receive expert responses. Poll results feed into policy briefs shared with the Regional Cooperation Council (Regional Cooperation Council, 2023).
- **Accessibility and Offline Support:** Progressive web app features enable offline caching of key content and a high-contrast mode for visually impaired users. The platform conforms to WCAG 2.1 AA accessibility standards on all devices (digipath4eu.org, 2025).

All of these functionalities are supported by:

- A Node.js/Express backend with RESTful and GraphQL APIs
- PostgreSQL for relational data and MongoDB for documents
- Elasticsearch for search
- Kubernetes-deployed Docker containers for scalability
- OAuth2 single sign-on via Google, Facebook, and EDUroam

Planned upgrades include automatic summaries of long reports using transformer models, AI-powered recommendations for peer mentors and local events, and blockchain-based digital badges for verified skills (DigiPath Platform Team, 2024).

USER EXPERIENCE AND DESIGN FEATURES

The DigiPath Youth Portal is designed for ease of use and engagement, delivering a seamless UX through the following features:

- **Clear, Centered Navigation:** The sidebar remains visible but can be collapsed. It contains the main sections (“Get Informed,” “Go Regional,” “Data Bank 4 Young People,” “Real Stories”), each represented by icons and national flags, reducing the number of clicks needed to browse the portal.
- **Responsive, Mobile-First Design:** The interface uses a flex-based grid that dynamically adapts to smartphones, tablets, and desktop devices, ensuring clear presentation of headings, cards, and tables regardless of screen size.
- **Visual Consistency and Branding:** A vibrant color palette (blue, orange, green) conveys energy and maintains high contrast for better readability. Typography (Montserrat for headings, Open Sans for body text) combines a modern aesthetic with legibility.
- **Personalization and Onboarding:** New users go through a brief wizard to select language, country, and interests, which customizes the homepage and content recommendations (DigiPath Platform Team, 2024).
- **Interactive Visualizations:** Built-in D3.js charts (bar graphs for NEET rates, interactive Sankey diagrams for mobility) offer hover tooltips, detailed subregion analysis, and CSV export for further use (DigiPath Platform Team, 2024).
- **Accessibility and Inclusivity:** The platform complies with WCAG 2.1 AA standards, providing alt text for all images, keyboard-navigable menus, and ARIA labels for form controls. Users can enable high-contrast mode and adjust font size (digipath4eu.org, 2025).

- **Multimedia Integration:** The Real Stories module displays video testimonials in a mosaic layout with muted previews on hover, and transcripts are available for each story.
- **Social and Collaborative Features:** A notification system alerts users to new forum messages, poll results, and comments. OAuth2 login via Google, Facebook, or EDUroam enables quick registration and community participation.
- **Performance and Feedback:** Lazy loading of images and route-based code splitting keep page load times under two seconds even on slow connections. Contextual micro-polls after key interactions collect ongoing UX feedback for continuous improvement (digipath4eu.org, 2025).

Users rate their interaction with DigiPath as intuitive and enjoyable, with easy access to all platform areas through minimal clicks. Most report that the structured layout and visual cues (icons, color coding, and flags) allow them to quickly find what they need and focus on content without disorientation (DigiPath Platform Team, 2024).

The mobile app is highly valued by on-the-go users, as the interface automatically adjusts to smaller screens and controls remain easy to use on touch displays (digipath4eu.org, 2025).

Interactive data features, such as hover overlays on charts and CSV export, motivate users to explore portal topics further—especially when preparing academic papers or projects—since these capabilities enable deeper understanding and further data manipulation (DigiPath Platform Team, 2024).

Video testimonials and peer stories foster an emotional connection and increase engagement, as users feel supported and inspired by the experiences of other young people in the region (digipath4eu.org, 2025).

User surveys and micro-polls after key interactions collect real-time feedback, resulting in regular UX adjustments and continuous enhancement of portal performance and structure (DigiPath Platform Team, 2024).



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SECTION 10

Outcomes and Impact

REGIONAL ADDED VALUE (CENTRALIZED ACCESS, NETWORKING, MOBILITY)

The regional added value of the DigiPath platform is demonstrated through centralized access, enhanced networking, and facilitated mobility for young people in the region. By creating a unified repository of information on educational programs, mobility opportunities, volunteering, and employment, digital barriers are minimized, and young people from all eight countries gain equal and continuous access to relevant resources (Youth Alliance – Kruševo, 2025; Regional Cooperation Council, 2023).

This model promotes integrated communication among youth organizations, institutions, and research centers, resulting in initiatives for new partnerships and the creation of regional alternative support networks (Regional Cooperation Council, 2023; OECD, 2021).

Furthermore, rapid exchange of practices and experiences increases the visibility of existing programs and opens new mobility channels, such as joint interdisciplinary trainings and exchange seminars within Southeast Europe (DigiPath Platform Team, 2024; RYCO Superschools, n.d.). Through this infrastructure, DigiPath not only stimulates local inclusion but also establishes the initial frameworks for sustainable regional connections among young people in education, research, and social innovation.

CONTRIBUTION TO ERASMUS+ PRIORITIES AND REGIONAL YOUTH INTEGRATION

The DigiPath platform advances key Erasmus+ priorities by systematically reducing barriers to youth mobility, recognizing acquired learning, promoting digital inclusion, and fostering cross-sector collaboration.

First, its centralized repository and streamlined submission workflows facilitate the recognition process for formal and non-formal qualifications, directly addressing the European Commission's call for transparent qualification frameworks (European Commission, 2025).

Second, by embedding inclusive networking features—forum discussions, mentorship matching mechanisms, and co-creation modules—the platform creates a pan-regional digital social space aligned with Erasmus+ objectives for promoting an inclusive European identity (Regional Cooperation Council, 2023; OECD, 2021).

Third, linking thematic trainings and leadership programs enables cross-border partnerships among youth organizations, universities, and the civil sector, supporting capacity building and increased representation of marginalized groups (Youth Alliance – Kruševo, 2025; Eurofound, 2024).

Finally, integrating real-time data feeds from Erasmus+, Interreg, and RYCO initiatives provides access to study offers, internships, volunteer exchanges, and trainings, effectively connecting the region's youth community to the broader European youth space (Regional Cooperation Council, 2023; Analysis of Partnerships RYCO-Superschools, n.d.).

Collectively, these contributions strengthen regional cohesion and European integration, creating tangible pathways for young people's educational and civic engagement.

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SECTION 11

Conclusions & Recommendations

LESSONS LEARNED FROM COMBINING NATIONAL PERSPECTIVES

The integration of the DigiPath platform into eight different national contexts revealed several essential lessons for regional youth cooperation. First, despite varying levels of digital infrastructure and differing youth policy priorities, all partner countries demonstrated a shared commitment to fostering cross-border collaboration, confirming that regional identity can transcend technical and regulatory disparities (OECD, 2021; RCC, 2023).

Second, centralizing information into a single repository significantly reduced duplicative efforts and enhanced program visibility, resulting in streamlined mobility pathways and equal access to internships, training, and volunteer opportunities (European Commission, 2025).

Third, customizing platform features—such as localized language interfaces and a hybrid (online/offline) approach—proved crucial for serving users in areas with limited broadband connectivity and for including vulnerable groups, rural youth, and persons with disabilities (RCC, 2023; OECD, 2021).

Additionally, the active involvement of youth representatives in platform governance emerged as a key trust-building mechanism. Co-production workshops and youth advisory bodies increased perceived legitimacy and led to iterative improvements—such as mentor matching and regional hackathons—that enhanced user engagement and program relevance (Youth Alliance – Kruševo, 2025).



Finally, continuous alignment with Erasmus+ and RYCO reporting standards ensured data compatibility and facilitated joint funding proposals, demonstrating that aligning digital solutions with existing European frameworks enhances sustainability and impact (Regional Cooperation Council, 2023; European Commission, 2025).

PROPOSALS FOR SCALING AND UPGRADING THE TOOL

To ensure long-term impact and strengthen regional influence, the DigiPath platform should evolve through targeted expansion and enhancement strategies grounded in cutting-edge digital innovations and closely aligned with multi-stakeholder policies and cooperation.

Integration of advanced AI-based systems—namely AI modules such as adaptive learning analytics, automated recommendation engines, and natural language chatbots—will personalize the user experience, streamline content curation, and provide real-time support for youth users (European Commission, 2025).

Machine learning algorithms can analyze usage patterns and suggest relevant trainings, internships, and funding opportunities, thereby improving responsiveness and user retention (OECD, 2021).

Developing a comprehensive suite of synchronous and asynchronous e-learning tools—including interactive webinars, virtual hackathons, and micro-credential pathways—will enrich DigiPath’s educational offerings.

Integrating secure video-conferencing APIs and open LMS solutions enables scalable delivery of regionally tailored courses in digital literacy, entrepreneurship, and civic engagement (Eurofound, 2024).

Promoting interoperability between DigiPath and existing national platforms—such as e-government portals, university LMS, and labor market information systems—will enable seamless data flow, unified recognition of credentials, and coordinated job-matching services.

Establishing common data standards (e.g., Open Badges, Europass) enhances credential portability and supports cross-border mobility (International IDEA, 2023).

Designing next-generation apps with offline capabilities, geolocation alerts for new opportunities, and integrated social networking features will cater to youth usage habits.

Leveraging APIs from popular social platforms for single sign-on (SSO) and peer networking will further drive organic expansion across the eight partner countries (DigiPath Web Platform Content, 2025).

The formation of joint research agendas and innovation consortia with regional bodies—such as RYCO, the Regional Cooperation Council, and national innovation agencies—will enable expertise sharing and funding for pilot projects in emerging areas like blockchain credentialing and AI ethics in youth services.

Co-funded calls and shared evaluation frameworks accelerate policy iteration and implementation (RCC, 2023).

Harmonizing data protection regimes (GDPR-equivalent), recognizing non-traditional learning credits, and mandating digital inclusion across all eight partner countries is critical. A harmonized regulatory environment reduces administrative burden for platform operators, attracts strategic investments, and ensures equal access for vulnerable groups (International IDEA, 2023).

institutions, and private partners—will steer strategic direction and oversee resources. Funding models such as EU grants, national co-financing, and CSR partnerships, combined with performance-based budgets, will ensure financial sustainability and continuous reinvestment in the platform (OECD, 2021).

CONCLUSION

Adopting all these proposals will transform the DigiPath platform from a centralized repository into a dynamic regional hub that empowers youth with seamless personalized learning, streamlined mobility, and robust cross-border collaboration.

Through AI integration, expansion of virtual offerings, policy alignment, and promotion of sustainable governance, DigiPath will overcome existing barriers to youth engagement and create a resilient, inclusive ecosystem that strengthens democratic, social, and economic ties and paves the way to a more prosperous future for youth in the region.

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