

Western Balkans Policy Hackathon: Youth and Eco-Digital Futures

Executive Summary

The Policy Hackathon was organized within the framework of the RECAS project and brought together RECAS Fellows and Alumni, alongside participants who had previously taken part in the deliberative workshops held across the capitals of the Western Balkan. Conducted over two full days, the Hackathon created a collaborative space for participants to engage not only with the fears, hopes and visions that had emerged through the deliberative process but also with the underlying theories of change informing both the project's strategic framework and their own understandings of pathways toward transformation. Building on the outcomes of the earlier workshops, the discussions sought to deepen and connect participants' perspectives across three interrelated dimensions that consistently emerged throughout the process: social and political transformation, ecological sustainability, and technological change. Through this interdisciplinary exchange, the Hackathon aimed to translate diverse perspectives into a more coherent understanding of the opportunities, challenges, and governance approaches required to shape inclusive and sustainable eco-digital futures for the Western Balkans.

While each working group approached eco-digital futures from a distinct perspective—*social, ecological, or technological*—a number of converging themes consistently emerged across the discussions. Despite their different entry points, participants repeatedly returned to shared concerns regarding gov-

ernance, democratic participation, inclusion, education, and regional cooperation. These areas of convergence suggest that the social, ecological, and technological dimensions of transformation cannot be addressed in isolation but instead require integrated approaches capable of responding to their growing interdependence. Rather than representing separate policy agendas, the discussions revealed a common vision of eco-digital futures built upon democratic institutions, responsible innovation, and collaborative governance.

A central premise of the Hackathon was that meaningful participation should extend beyond commenting on predefined policy proposals or contributing to their technical implementation. Participants were invited to deliberate on the underlying assumptions, values, and visions that shape public policy, exploring not only which measures should be adopted but also what kinds of futures those measures seek to create. This approach recognizes that effective policymaking begins long before drafting legislation or designing implementation mechanisms. It requires inclusive deliberation about priorities, trade-offs, and theories of change, enabling citizens, researchers, and practitioners to collectively imagine alternative pathways and co-create policy agendas that are both democratically legitimate and responsive to complex social, ecological, and technological challenges.

The following convergence points synthesize the principal themes that connected the

discussions across all three working groups and represent the common ground for future policy development in the Western Balkans tackling social, green and technological transformations.

1. Democratic and Accountable Governance as the Nexus of Eco-digital Futures

Across all three dimensions, participants agreed that neither technological innovation, environmental sustainability, nor social transformation can succeed without transparent, accountable, and participatory institutions. Democratic governance was consistently identified as the enabling condition that allows technological development, environmental protection, and social innovation to reinforce rather than undermine one another.

2. Digital Technologies as Enablers Rather than Ends

Participants consistently emphasized that digital technologies, including artificial intelligence, should be understood as enabling tools rather than objectives in themselves. Whether discussing democratic participation, environmental monitoring, education, or regional cooperation, the groups agreed that technology creates public value only when embedded within ethical governance frameworks and aligned with broader societal goals. The investments in AI and digital technologies should have clearly articulated public value which goes beyond profitability.

3. Inclusion and Participation as Preconditions for Resilient Societies

All three groups stressed that eco-digital transformation must be socially inclusive. Young people, local communities, marginalized groups, and civil society organizations were repeatedly identified as essential actors whose participation strengthens both democratic legitimacy and policy effectiveness. Participants agreed that long-term resilience depends upon broad societal engagement rather than top-down implementation alone.

4. Education and Capability Development as Long-Term Investments

Participants across the workshop identified education as a strategic investment in future resilience. Beyond formal schooling, discussions emphasized digital literacy, AI literacy, vocational education, civic education, and lifelong learning as essential capacities for enabling citizens to participate effectively in rapidly changing technological, ecological, and democratic environments.

5. Regional Cooperation for Shared Eco-Digital Challenges

A recurring conclusion throughout the workshop was that the principal challenges facing the Western Balkans transcend national borders. Environmental protection, digital governance, AI regulation, mobility, and institutional modernization all require regional cooperation, shared standards, and continuous exchange of knowledge and good practices. Participants viewed cooperation not only as an instrument for European integration but also as a prerequisite for addressing common ecological, technological, and social challenges.

Social Dimension

OVERVIEW

The Soc Working Group explored the governance dimensions of eco-digital futures, emphasizing that democratic resilience, freedom of movement, innovation, education, European integration, and environmental governance should be understood as mutually reinforcing components of systemic transformation. Rather than approaching these policy areas separately, participants consistently argued that governance frameworks need to move beyond fragmented interventions toward integrated and future-oriented approaches capable of responding to increasingly complex social, technological, and environmental challenges. Throughout the discussion, participants emphasized that

institutional reform should not only support alignment with European standards but also strengthen democratic legitimacy, resilience, and citizens' capacity to participate in shaping public policy.

Democratic Participation and Institutional Resilience

Participants agreed that strengthening democratic institutions requires moving beyond formal electoral processes toward cultivating a genuinely participatory political culture. Discussions emphasized that citizen engagement should become an integral part of everyday governance practices rather than being limited to periodic elections. This implies embedding participation across local, regional, and national levels of governance and ensuring that the principle of subsidiarity becomes operational rather than merely declarative.

The group devoted considerable attention to innovative mechanisms capable of expanding participation. Deliberative assemblies, participatory budgeting, digital consultations, and other participatory instruments were discussed as promising approaches for strengthening legitimacy and rebuilding public trust, particularly in contexts where institutional credibility remains fragile. Participants consistently viewed digital platforms not simply as technological tools but as foundational democratic infrastructure capable of facilitating continuous dialogue, feedback loops, and deliberation between citizens and public institutions.

Freedom of Movement and Regional Cooperation

The discussion highlighted freedom of movement as both a governance and administrative challenge. Participants noted that effective mobility depends not only on legal guarantees but equally on the capacity of institutions to coordinate across jurisdictions and provide interoperable public services.

Regional and multilateral cooperation emerged as essential preconditions for re-

ducing administrative barriers and ensuring the mutual recognition of rights, qualifications, and procedures. Participants emphasized that digital solutions can significantly improve interoperability between administrative systems by standardizing procedures and facilitating access to cross-border services. Without such institutional and technological support, freedom of movement risks remaining a formal entitlement rather than becoming a practical reality experienced by citizens.

Innovation, Education and Adaptive Governance

Participants repeatedly emphasized that no governance system can remain resilient without investing in its capacity to adapt to technological, economic, and social change. Innovation and education therefore emerged as central pillars of long-term governance reform.

The discussion stressed the importance of developing regional systems for recognizing skills and vocational qualifications while strengthening vocational education and training as a means of improving labour market adaptability. Participants also highlighted the importance of local innovation hubs capable of bringing together municipalities, higher education institutions, civil society organizations, and the private sector. Such hubs were seen as collaborative environments where innovation emerges through interaction rather than hierarchy.

Digital platforms were again identified as important enabling tools capable of facilitating knowledge exchange, stakeholder match-making, and the scaling of successful local initiatives across the region. Participants argued that this combination of decentralized innovation and regional connectivity creates stronger adaptive capacity for future governance challenges.

European Integration and Multi-level Governance

Participants discussed alignment with European Union standards as a governance pro-

cess extending well beyond legislative harmonization. While top-down policymaking remains necessary for establishing common frameworks, ensuring legal compliance, and maintaining institutional coherence, the discussion emphasized that implementation ultimately depends on bottom-up engagement from municipalities, civil society organizations, and local communities.

The group stressed that successful European integration requires balancing these two dynamics. Excessive reliance on centralized implementation risks generating alienation and resistance, while fragmented bottom-up initiatives may weaken overall policy coherence. Participants therefore highlighted the importance of developing mechanisms capable of connecting different governance levels while strengthening local ownership of reform processes.

Digital platforms were repeatedly identified as effective bridging mechanisms capable of improving communication between stakeholders, monitoring implementation, facilitating policy coordination, and supporting the exchange of good practices throughout the region.

Environmental Governance and Public Awareness

Environmental governance emerged as an important testing ground for institutional effectiveness. Participants agreed that while legal and regulatory frameworks remain indispensable, successful implementation depends equally on public awareness, civic engagement, and transparent governance.

The discussion highlighted the role of media in shaping public understanding of environmental issues and emphasized the importance of consistent public communication capable of moving beyond one-way information campaigns toward fostering shared responsibility for environmental protection.

Participants also identified digital monitoring platforms as valuable tools for increasing transparency and accountability by providing

real-time environmental information, supporting evidence-based policymaking, and enabling citizens to participate more actively in environmental oversight. These tools were viewed as strengthening both environmental governance and broader democratic participation.

Structural Barriers to Reform

Throughout the discussion, participants identified two persistent structural obstacles that continue to limit governance transformation across the Western Balkans.

The first concerns cultural nationalism, which may reduce openness to regional cooperation, complicate the adoption of common standards, and weaken collaborative approaches to governance. The second relates to entrenched bureaucratic structures that often limit institutional flexibility and slow the implementation of otherwise well-designed policies.

Participants emphasized that overcoming these structural constraints requires both political leadership and institutional innovation. Administrative reform should prioritize flexibility, accountability, and service orientation, while broader democratic transformation depends on cultivating a more open, inclusive, and participatory political culture capable of sustaining long-term reform.

KEY PERSPECTIVE CHANGE

Rather than proposing isolated policy interventions, participants converged around the need for an integrated democratic governance approach capable of connecting democratic participation, mobility, innovation, education, environmental sustainability, and European integration within a coherent institutional framework. Digital platforms emerged as important cross-cutting enablers supporting participation, coordination, innovation, implementation, and monitoring. At the same time, participants stressed that technology cannot substitute for political leadership, institutional accountability, and meaningful citizen engagement. Long-term transformation

therefore depends on balancing top-down institutional capacity with bottom-up democratic participation while addressing the structural constraints that continue to shape governance across the region.

Ecological Dimension

OVERVIEW

The Eco Working Group approached ecological futures as an issue that extends well beyond environmental protection. Discussions consistently emphasized that ecological challenges are inseparable from questions of democracy, social cohesion, public health, technological change, and economic governance. Rather than treating environmental degradation as an isolated policy problem, participants framed it as a systemic issue that shapes the resilience of communities and the quality of democratic governance.

Environmental Security as Human Security

Participants argued for a broad understanding of security that moves beyond traditional military concerns. Environmental degradation, pollution, and the legacy of war were identified as long-term threats to public health, community resilience, and social stability. Ecological security was therefore understood as a prerequisite for human security, linking environmental quality directly to physical and mental well-being.

The discussion also highlighted the growing impact of environmental risks on mental health, particularly among young people, who increasingly experience the combined effects of environmental anxiety, social isolation, and intensive exposure to digital technologies.

Democracy, Communities and Environmental Justice

A recurring theme was the unequal distribution of environmental risks and decision-making power. Participants noted that

marginalized communities often bear a disproportionate share of environmental burdens while having limited influence over decisions affecting their lives. Roma communities were repeatedly mentioned as an example of historically excluded groups facing multiple layers of vulnerability.

The group emphasized that ecological governance should be understood as a question of democratic inclusion. Local communities possess valuable knowledge about their environments and should play a far greater role in shaping development decisions. Participants also noted that many local natural assets remain underutilized for sustainable tourism and community development, while investment-driven projects frequently prioritize short-term economic interests over long-term public benefit.

Youth as Drivers of Ecological Change

Young people were consistently identified as the principal agents of ecological transformation. Participants argued that environmental issues often provide an entry point into broader civic engagement, particularly because many young people approach ecological questions outside established party structures.

At the same time, participants observed that online activism frequently fails to translate into sustained collective action. While digital platforms enable rapid mobilization and awareness raising, meaningful environmental change ultimately depends on long-term engagement within local communities and democratic institutions.

Technology as Both Risk and Opportunity

Technology emerged as one of the most contested themes. On the one hand, participants pointed to the ecological footprint of emerging technologies, including concerns over data centres and their demands on water and energy resources. These projects were seen as potential catalysts for local mobilization where communities perceive immediate threats to shared resources.

On the other hand, digital technologies were recognized as powerful instruments for communication, networking, and civic organization. The discussion therefore focused less on technology itself than on the institutional conditions under which technological development either strengthens or weakens democratic participation.

Political Economy of Ecological Transition

Participants repeatedly questioned development models based on the commercialization of natural resources. The sale of land and natural assets to external investors was presented as a pattern in which economic benefits are concentrated among political and economic elites, while environmental and social costs are borne by local communities.

Rather than viewing nature primarily as an economic asset, the group emphasized its role as a common good whose value extends across generations. Participants argued that environmental governance should balance economic development with the long-term wellbeing of communities and future generations.

Media, Information and Public Awareness

The discussion highlighted the importance of information ecosystems in shaping public engagement with ecological issues. Participants expressed concern that media agendas are often influenced by powerful political and economic interests, limiting public understanding of the structural causes of environmental conflicts.

Improving access to reliable information and strengthening public awareness were therefore seen as essential preconditions for meaningful democratic participation in environmental decision-making.

Cross-border Ecological Challenges

Participants noted that many environmental conflicts transcend national borders. Local

struggles often involve transnational actors and shared environmental resources, making regional cooperation and the exchange of experiences increasingly important. Successful examples of local resistance were viewed as valuable sources of inspiration for communities facing similar challenges elsewhere in the region.

KEY PERSPECTIVE CHANGE

Rather than proposing isolated policy interventions, the group converged around a broader institutional recommendation. Participants agreed that durable ecological transformation requires transparent, accountable, and participatory institutions capable of embedding environmental protection into long-term governance structures. Such institutional safeguards should reduce dependence on changing political cycles while ensuring that young people and local communities become active participants in shaping eco-digital futures.

Technology Dimension

OVERVIEW

The Tech Working Group explored the role of artificial intelligence in shaping eco-digital futures in the Western Balkans, approaching AI not simply as a technological innovation but as a societal transformation that requires democratic governance, ethical safeguards, and public accountability. Participants were invited to envision pathways toward 2050, reflecting on how artificial intelligence could contribute to social development while minimizing its risks. Throughout the discussion, participants emphasized that the future of AI depends less on technological progress itself than on the institutional, political, and ethical frameworks that govern its development and deployment.

Artificial Intelligence as a Governance Challenge

Participants consistently framed artificial intelligence as a governance issue rather than a

purely technological one. The discussion emphasized that AI increasingly influences the relationship between governments, companies, and citizens, creating new opportunities for innovation while simultaneously raising concerns regarding accountability, transparency, and democratic oversight.

Privacy and transparency emerged as recurring themes. Participants discussed the extensive collection of personal data through AI-enabled platforms, questioning how governments and private companies use such information and whether existing institutional safeguards are sufficient to protect citizens. The growing reliance on AI systems for decision-making was viewed as creating new security risks, particularly where institutional accountability and public oversight remain limited.

Social Impacts and Digital Inclusion

The group devoted significant attention to the broader social consequences of AI. Participants noted that algorithmic systems increasingly shape access to information, visibility on digital platforms, and opportunities for participation in public life. Concerns were raised about the potential exclusion of marginalized and minority communities whose voices may be disadvantaged through automated content moderation, recommendation systems, or unequal access to emerging technologies.

The discussion also highlighted generational differences in AI literacy. While younger generations are rapidly adopting AI-powered technologies, participants observed that educational systems have yet to provide the knowledge and critical skills necessary for their responsible use. At the same time, older generations often lack sufficient understanding of AI technologies, creating new forms of digital inequality that may further widen existing social divides.

Ethics, Human Rights and Democratic Accountability

Ethical considerations occupied a central place throughout the discussion. Participants

repeatedly emphasized that artificial intelligence should remain subordinate to democratic values and human rights rather than being treated as an autonomous technological solution.

The group discussed the ethical principles that should guide AI development, stressing the shared responsibility of governments, technology companies, educational institutions, and citizens. Particular attention was devoted to the risks associated with AI deployment in security and military applications, where advanced technologies may enable forms of surveillance, automated decision-making, and the potential violation of fundamental rights if left without effective democratic oversight.

Participants agreed that policymaking has an essential role in defining the limits of acceptable AI deployment and ensuring that technological innovation remains compatible with democratic governance and public interest.

A Vision for Responsible Artificial Intelligence

Building upon these discussions, participants articulated a common vision for the role of AI in society through the “Be and Do” principle. Rather than focusing exclusively on technological performance, this vision emphasized the normative qualities that AI systems should embody.

Participants agreed that artificial intelligence should be developed and used by governments, companies, and citizens in ways that are responsible, ethical, safe, reliable, transparent, inclusive, and subject to democratic control. Diversity, accountability, and public oversight were consistently identified as fundamental principles for the future governance of AI.

Risks and Limits of AI Development

The discussion also focused on identifying areas where the expansion of AI should be approached with particular caution. Partic-

ipants expressed concern over the growing militarization of artificial intelligence, including the development of autonomous weapons systems and advanced surveillance technologies. Such applications were viewed as posing significant ethical and security challenges that require strong regulatory responses.

Economic concerns also featured prominently. Participants discussed the potential disruption of labour markets through automation, particularly the displacement of white-collar professions, and emphasized the importance of preparing societies for these structural changes through education and reskilling.

The group additionally identified mass surveillance, extensive data harvesting, and the production and dissemination of AI-generated disinformation as major risks capable of undermining democratic processes, public trust, and social cohesion.

Pathways Towards Responsible AI Governance

On the second day of the workshop, participants focused on identifying practical pathways through which Western Balkan countries could promote the responsible development of AI while advancing their broader European integration processes.

Regulation emerged as the first major pathway. Participants emphasized the importance of comprehensive legal frameworks supported by independent oversight mechanisms involving civil society organizations and other third-party actors. Such governance arrangements were viewed as essential for ensuring ethical AI deployment, protecting individual rights, limiting the expansion of AI within military and security sectors, and increasing transparency across AI-enabled digital platforms.

Education represented a second strategic priority. Participants argued that AI literacy should become a permanent component of education systems, beginning in primary

education and continuing throughout professional life. Preparing future generations for AI-driven societies requires not only introducing AI into school curricula but also restructuring education systems to place greater emphasis on lifelong and informal learning capable of adapting to rapidly changing technological environments.

The third pathway focused on social innovation. Participants highlighted the importance of strengthening community resilience, preventing the exclusion of vulnerable groups unable to keep pace with technological change, and supporting the democratization of digital transformation. Greater digital inclusion and community participation were considered necessary for ensuring that technological development benefits society as a whole rather than reinforcing existing inequalities.

Institutional Challenges and Regional Cooperation

Participants observed that all proposed pathways depend upon capable institutions and sustained political commitment. A recurring concern throughout the discussion was that governments may fail to adequately cooperate with civil society organizations or provide sufficient institutional support for implementing responsible AI governance.

The group also discussed the importance of securing the cooperation of technology companies and ensuring their compliance with both domestic and international legal standards. Without effective institutional coordination, participants noted that even well-designed regulatory and educational initiatives may prove difficult to implement.

Regional cooperation emerged as another critical condition for long-term success. Participants argued that the absence of coordinated AI governance across the Western Balkans would significantly reduce the region's capacity to address common technological challenges, establish shared standards, and negotiate effectively within broader European regulatory frameworks.

KEY PERSPECTIVE CHANGE

Rather than proposing a single policy intervention, participants converged around the need for a comprehensive governance framework that combines ethical regulation, education, democratic oversight, and regional cooperation. Artificial intelligence should be governed through transparent and accountable institutions capable of protecting fundamental rights while enabling technological innovation. Participants emphasized that AI must remain subject to democratic control and serve the broader public interest, ensuring that technological progress contributes to inclusive, secure, and sustainable eco-digital futures across the Western Balkans.

About RECAS network

The Regional Network of Centers for Advanced Studies (RECAS) is a collaborative academic network bringing together research centers across Southeast Europe. It aims to strengthen regional cooperation, support early-career researchers, and promote high-quality, interdisciplinary research on key societal challenges. Through fellowships, joint research activities, and policy-oriented initiatives, RECAS fosters knowledge exchange within the region and between Southeast Europe and wider European and global academic and policy communities.

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