Opportunities and risks of Triangular Cooperation in Artificial Intelligence between the European Union and Latin America and the Caribbean

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ACRONYMS

AECID (for its acronym in Spanish)	Spanish International Cooperation Agency for Development
AFD (for its acronym in French)	French Development Agency
AI	Artificial Intelligence
CAF	Development Bank of Latin America and the Caribbean
ECLAC	Economic Commission for Latin America and the Caribbean
EU	European Union
GGIA	Global Gateway Investment Agenda
GIZ (for its acronym in German)	German Society for International Cooperation
IDB	Inter-American Development Bank
ILO	International Labour Organisation
LAC	Latin America and the Caribbean
SDGs	Sustainable Development Goals
SEGIB	Ibero-American General Secretariat
SIDICSS	Ibero-American Integrated Data System on South-South and Triangular Cooperation
SSC	South-South Cooperation
TC	Triangular Cooperation
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation

TABLE OF CONTENTS

Executive Summary

This study aims to analyse the opportunities and risks presented by triangular cooperation (TC) in the field of artificial intelligence (AI) between the European Union (EU) and Latin America and the Caribbean (LAC), in a global context marked by profound technological transformations and challenges for sustainable development. Using a qualitative and comparative approach, the report examines the current state of bi-regional cooperation, governmental priorities on the AI agenda, and current capacities in the region. This document is organised into six main sections: a first part dedicated to the conceptual and methodological framework; a second section that characterises current triangular cooperation between the EU and LAC; a third section that analyses governmental strategies and progress in AI in the region; followed by a chapter on illustrative examples of South-South and triangular cooperation in action. Then, it features a roadmap with recommendations for strengthening TC in AI, and finally, the main risks that could compromise the transformative potential of this agenda in Latin America and the Caribbean are identified.

AI as a tool for well-being

1 Methodological and conceptual framework

Artificial Intelligence (AI) is redefining international development and cooperation in a transversal manner. It cannot solely be perceived as disruptive technology: is also a power structure that transforms global relations, knowledge circuits, and regulatory frameworks. From this perspective, the study adopts a qualitative and comparative methodology to map strategic opportunities, emerging tensions, and replicable experiences in triangular cooperation (TC) between Latin America and the Caribbean (LAC) and the European Union (EU).

The methodological approach is based on five complementary pillars. Firstly, a conceptual review that makes it possible to understand how AI alters the traditional logics of cooperation, giving way to new frameworks of technological diplomacy and digital governance. To this is added the analysis of primary and secondary sources that reconstruct shared agendas between the EU and LAC. A third component consisted of mapping governmental priorities in the witness countries, combining official documents with semi-structured interviews. In addition, an analysis of specific examples of TC linked to AI was carried out using databases such as the Ibero-American Integrated Data System on South-South Cooperation (SIDICSS), the ADELANTE Programme, and pilot projects. Finally, a transversal approach integrating technological, institutional, regulatory, and geopolitical variables was applied to identify risks and windows of opportunity.

For this analysis, one key consideration is that AI operates on a complex global value chain, and LAC is predominantly extractive. From lithium and rare-earth mining to precarious work on data annotation platforms, the region supports global technological advances with strategic resources and digital services, without fully participating in higher value-added stages such as chip manufacturing, algorithmic design, or governance of standards. This peripheral position is rooted in historical patterns of dependency, but is not set in stone.

However, there are windows of opportunity that can change the role of the region in the AI ecosystem. Its young population, growing developer communities, and linguistic and social diversity are valuable assets. If articulated with ambitious public policies and cooperation mechanisms such as TC, Latin America could go from being a passive provider to a co-author of AI models adapted to its realities. The EU partnership, in particular, offers an alternative path to the paradigm of technological dominance, as it promotes open source, digital rights, and interoperability.

However, the current deployment of AI also generates adverse effects that are difficult to ignore. Promises of a productive revolution do not translate into significant improvements at the macroeconomic level. In LAC, the low level of business digitalisation, labour informality, and weak infrastructure limit the possibilities for technological absorption. Gains tend to be concentrated in modern service sectors, with no spillovers to the rest of the economy, while productivity gaps widen between those who can adapt technology and those who only consume it.

At the same time, the employment impacts of AI reveal patterns of structural inequality. While the region is less exposed to automation than developed countries, it is also less able to convert this exposure into employment opportunities. A recent study by the International Labour Organisation (ILO) shows that between 30% and 40% of jobs are potentially affected by generative AI, with a significant proportion in an "area of uncertainty", especially in customer services. Women and young people, over-represented in routine occupations, face higher risks of automation, while new AI jobs require high levels of technical skills, generating a double social and economic displacement.

Moreover, AI poses profound ethical, social, and epistemic challenges. Algorithms are far from neutral: they reflect human biases and inequality structures
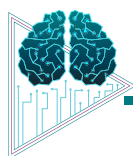
in their training data and architecture. This can result in discriminatory decisions, especially in contexts such as education, recruitment, or access to credit. In turn, the opacity of algorithmic systems, the "black box", and the errors generated by models that "trick" us with plausible but false results, undermine fundamental principles such as transparency, traceability, or due process.

These risks are compounded by a critical environmental dimension: AI depends on energy-intensive infrastructure and minerals whose extraction generates disproportionate impacts on territories in the Global South. This new digital extractivism overlaps with traditional forms of exploitation, especially affecting indigenous communities and vulnerable ecosystems. In parallel, the expansion of models trained on homogeneous linguistic and cultural bases reinforces a type of "cognitive bombardment" that threatens epistemic diversity and cultural sovereignty.

In this scenario, TC is a strategic tool for channelling resources, designing shared policies, and building capacities for inclusion and sustainability. Its value lies not only in the transfer of technologies, but also in the possibility of generating normative convergence, mutual learning, and collaborative governance. TC can be the bridge for Latin America not only to access critical technologies, but also to actively participate in their design, regulation, and contextualised application.

Technological diplomacy completes this strategic architecture, allowing the region to influence global debates on digital governance. Through accumulated experiences in open governance, public innovation, and platform regulation, countries such as Brazil, Mexico, and Uruguay have already proven their capacity to propose their own regulatory frameworks. When integrated with TC, this diplomacy not only responds to present-day challenges, but also anticipates a more democratic, inclusive, and rights-based digital future.

In summary, the future of AI is not an inevitable destiny, but rather a battleground that can be tilted towards human development if fair partnerships, sound regulatory frameworks, and collective transformative projects are built.

Using technology as a positive strategy

2 Current Status of EU-LAC Triangular Cooperation

EU-LAC TC is undergoing a period of strategic consolidation. What started as an experimental approach has been transformed into a structural tool to address shared challenges, integrating technical assistance, funding, and policy innovation into a coherent bi-regional ecosystem. This evolution reflects a **growing institutional maturity** and a political commitment to build horizontal partnerships, focused on human development, digital inclusion, and democratic sustainability.

An ambitious **political architecture** underpins this process. Initiatives such as the Global Gateway, the EU-LAC Investment Agenda (GGIA), and the EU-LAC Digital Alliance form a network of instruments that transcend the logic of traditional aid to project a strategic cooperation based on common principles.

The **Global Gateway**, with a financial ambition of up to €300 billion, sets out the overall policy framework and redefines the global presence of the EU from a normative and sustainable perspective. In Latin America, the **GGIA** translates this vision into a roadmap of structuring investments of over €45 billion, integrating pillars such as green transition, inclusive digital transformation, and human development.

In this framework, the **EU-LAC Digital Alliance** functions as a key operational platform for channelling the technological dimension of cooperation. With an initial budget of €172 million, it articulates actions in cybersecurity, algorithmic ethics, data governance, and AI. Its multi-stakeholder approach, incorporating governments, research centres, businesses, and civil society, allows for ethical principles to be translated into concrete interventions. Bi-regional dialogues on AI, climate monitoring programmes, and digital accelerators are proof of its practical and transformative vocation.
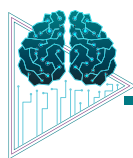
The region has also begun to build its own reference frameworks. The adoption of the **Ibero-American Charter of Principles and Rights in Digital Environments** in 2023, promoted by the SEGIB, is a milestone in the affirmation of a digital agenda with a rights-based approach in Latin America. The charter, which converges with EU values, defines ten priority axes, from data protection to ethics in emerging technologies, and explicitly recognises TC as a strategic way to ensure inclusion and technological sovereignty. This policy synergy creates favourable conditions for a more symmetrical cooperation, based on shared principles, but also on individual agendas.

The **institutional architecture** underpinning this TC is complex and multi-level, but also flexible and results-oriented. On the European side, the European Commission (DG INTPA) leads the strategic coordination, while bilateral agencies such as the Spanish International Cooperation Agency for Development (AECID), the German Society for International Cooperation (GIZ), or the French Development Agency (AFD) transfer specific technical capacities. In LAC, national agencies, sectoral ministries, and sub-national governments participate actively as providers or beneficiaries, and multilateral organisations such as the ECLAC, IDB and OEI reinforce the process with technical and financial resources and knowledge.

The EU **ADELANTE programme** has established itself as the main operational instrument for structuring TC with LAC. Since its creation in 2016, it has evolved into an agile, decentralised, and demand-driven platform that funds projects co-designed by tri-national consortia. In its second phase, ADELANTE has funded 47 initiatives in sectors such as digital health, inclusive technologies, and interoperability, mobilising over 250 organisations in 27 countries. Its value lies in its ability to translate abstract principles into specific solutions that are replicable and adapted to local contexts, leaving behind capacities that exist beyond the project cycle.

ADELANTE also feeds into the **Digital Alliance**, providing use cases and practical learning that reinforce its regulatory dimension. Projects in telemedicine, institutional digital transformation, or educational inclusion illustrate how to articulate democratic values with cutting-edge technology from a logic of local appropriation. This interaction

between instruments creates a coherent ecosystem where each component fulfils a specific function, but all move towards the same horizon: structural digital cooperation, aimed at bridging gaps and enhancing capacities.

The **D4D Hub**, launched in 2021, acts as a platform for technical convergence between these instruments. Its role is to connect stakeholders, align agendas, and facilitate regulatory interoperability between Europe and Latin America. Operating as an institutional partnering space, the D4D Hub ensures that projects respond to local priorities but are also aligned with European standards, promoting the creation of open, resilient, and inclusive digital ecosystems. Its multi-stakeholder vocation and ability to integrate instruments such as ADELANTE, the GGIA, and the Digital Alliance make it a hinge between the technical, the political, and the institutional.

The **operational mechanisms of TC** combine flexible formalisation with clear requirements for horizontality, co-creation, and sustainability. The ADELANTE Window operates under two main components: operational support, which finances projects selected through public calls for proposals; and institutional support, which articulates specific funds between European and Latin American partners. Countries such as Brazil, Chile, Colombia, and Uruguay participate as providers in schemes that promote public innovation, knowledge transfer, and regulatory adaptation. In parallel, the AECID has launched its own TC programme for the region (2024–2028) with a focus on knowledge generation, institutional strengthening, and democratic governance of digital transformation.

Digital infrastructure and **access to data** emerge as strategic enabling conditions for AI-oriented TC.

Projects such as **BELLA** and **BELLA-T** have connected Europe to Latin America via high-speed fibre optics, extending connectivity to academic and scientific networks in Brazil, Argentina, Chile, Colombia, and Ecuador. This infrastructure facilitates the transmission of data while creating the conditions for joint initiatives in AI applied to health, education, or the environment.

In parallel, projects such as **Amazonía Verde** and the **electrification of rural schools in Colombia** illustrate how connectivity can enable AI-based public services in historically excluded territories. These interventions reduce digital divides and promote new models of educational inclusion, environmental monitoring, and epidemiological surveillance supported by smart technologies.

The expansion of the **Copernicus** programme in the region and the **digitalisation of the civil registry in El Salvador** reinforce this logic. By enabling the use of open satellite data and robust population bases, these projects pave the way for the application of algorithms in public policy planning, social protection, or climate response; boosting data sovereignty, regulatory autonomy, and the ability to integrate AI based on national priorities.

Far from isolated interventions, these structuring initiatives shape **a shared digital architecture** on which a new generation of triangular AI-oriented projects can be built. They also constitute the technical and regulatory layer that enables more ambitious digital cooperation, aligned with the challenges of the 21st century.

In summary, EU-LAC TC has a clear roadmap for the future, where AI, ethical governance, and digital sovereignty are shared and strategically achievable horizons.

Strengthening projects with the use of AI

3 Governmental Priorities and Progress in AI in LAC

The progress of AI in LAC represents a duality of strategic challenges and opportunities for regional development. Countries in the region recognise the importance of AI for productivity, competitiveness, and social welfare, but face the need to strengthen institutional capacities, infrastructure, and talent. International cooperation, in particular South-South and Triangular Cooperation, has been identified as a crucial mechanism to foster ethical, inclusive, and sovereign AI development in the region.

The main findings are described below:

3.1. Vision and Strategy: between global aspiration and national fragmentation

In the region, the formulation of national artificial intelligence strategies has been consolidated as a necessary political gesture to order priorities and align capacities, albeit with very disparate levels of concreteness and commitment. Between 2018 and 2019 the first national plans emerged (Argentina, Chile, Colombia, Mexico), but the disruptions associated with the breakthrough of generative AI forced several countries to update or reformulate their strategies (Uruguay, Chile, Brazil, Costa Rica), in many cases following the methodologies promoted by UNESCO.

Brazil is the most robust and differentiated case: the country not only renewed its plan with the launch of the Brazilian AI Plan in 2024, but also allocated an exceptional budget of R$23 billion for the 2024-2028 period. It is the only project in the region that explicitly prioritises the adoption of AI in the productive sector, allocating 60% of these resources to encouraging business innovation. In contrast, other countries have global aspirations — such as Argentina, which seeks to position itself as the "fourth pole of AI" — but lack specific budgets or suffer from institutional discontinuities that limit effective implementation. Chile, for example, stands out for the methodological soundness of its strategic update, being the first country in the region to apply the UNESCO RAM assessment to strengthen ethical governance.

There is therefore a regional shift from fragmented and declarative visions towards more transversal approaches that link AI with productive transformation, energy transition, and territorial equity. However, with the exception of Brazil, there is still a lack of sustained financial commitment and specific industrial policies to make AI a real driver of economic and social development.

3.2. Regulation: between European inspiration and implementation challenges

Since 2023, the parliamentary debate on the regulation of artificial intelligence has intensified in several countries in the region, driven by the rise of generative AI and its more visible social effects. In this context, there is notable legislative dynamism: multiple bills have been introduced in Argentina, Brazil, Chile, Colombia, and Mexico. However, so far, none of these countries has managed to pass a comprehensive AI-specific regulation.

The initiatives under discussion reflect a legislative agenda that is starting to structure itself around common concerns: the impact of automation on employment, the use of AI in education, the circulation of false or manipulated content — particularly of a sexual nature affecting teenagers — the protection of personal data and intellectual property of works generated by algorithms.

A common thread running through the projects is the proposal to create specialised bodies — such as observatories, centres, or councils — to promote and regulate the development of AI in key areas such as education, science, production, and social challenges. Ethical and transparency provisions are also included, with initiatives aimed at preventing algorithmic discrimination, ensuring the explainability of systems, and establishing national registries of algorithms or AI-based solutions, in line with international standards.

In this debate, the influence of the European model is clear. Brazil, Chile, and Colombia have designed

their regulatory frameworks inspired by the risk classification proposed by the European Union. Brazil leads with Bill 2338/2023, which establishes a graduated risk approach and introduces standards of accountability and protection of rights. Chile moved in the same direction with its draft law presented in 2024, which also strengthens public institutions in this area. In turn, Colombia presented a comprehensive regulation project in 2025 that complements three previous proposals under parliamentary discussion.

However, the main regional challenge remains the same: although there is a lot of legislative movement, no country has yet enacted a specific regulatory framework for AI. Added to this is the institutional weaknesses in terms of technical capacities, budgets, and human resources to effectively enforce eventual regulation. The risk is that the region will be trapped in a stage of policy design without being able to actually consolidate the institutions needed to govern AI in practice.

3.3. Algorithmic Transparency: selective progress in the public sector

Transparency in the use of algorithms in public management is beginning to establish itself as a shared principle, although its implementation is incipient. However, this progress is mainly sectoral and concentrated at the state level (except in Brazil and Chile) with little regulation or incentives for the private sector. Moreover, the debate on transparency is often limited to a superficial exposure of the systems, without yet guaranteeing the explainability and effective auditability of the models applied in decisions that affect the rights of citizens.

Brazil and Chile are making progress with projects such as the "Catalogue of public algorithms" and recommendations on algorithmic transparency respectively, while Argentina, Colombia, and Mexico are promoting ethical guidelines and dashboards in public administration. The region faces the challenge of institutionalising algorithmic transparency as a state policy, going beyond the logic of pilot schemes or isolated good practices.

3.4. Infrastructure: a strategic commitment conditioned by territorial inequality

Countries in the region are allocating public resources to enhance their connectivity networks, expand computing capacity, and develop data storage systems. The development of critical infrastructure — supercomputing, data centres, connectivity networks — is widely recognised as a prerequisite for

the sovereign and sustainable deployment of artificial intelligence.

Brazil is leading with multi-million public investments in computing infrastructure and energy sustainability, including supercomputer upgrades and the domestic development of AI accelerator chips. In turn, Chile is seeking to position itself as a regional data centre hub with its 2024-2030 National Data Centre Plan, while Argentina is trying to utilise Patagonia as a natural enclave for sustainable data centres, although its efforts remain more discursive than effective.

In parallel, some countries are beginning to attract large-scale private investment. One case in point is Brazil, where Microsoft announced a historic investment to expand its cloud and artificial intelligence infrastructure, setting a precedent for the strategic involvement of the private sector in strengthening regional technology capabilities.

Despite this progress, a significant gap persists between countries with installed capacities and those facing serious connectivity limitations, as is the case in much of the Caribbean and rural South America. Although the regional infrastructure is growing, it is not always happening under criteria of territorial equity and planned environmental sustainability, which could deepen inequalities in AI access and use.

3.5. Talent development: a shared urgency with disparate strategies

Training talent in artificial intelligence has become an unavoidable pillar of national strategies in Latin America and the Caribbean. All countries surveyed agree that human capacity building is key to inclusive AI adoption, although strategies vary in scale, depth, and continuity. The policies implemented span multiple levels and approaches:

- **Digital literacy and public awareness:** dissemination and outreach programmes are being promoted to foster a critical understanding of AI in society. A prominent example is the **AI Olympiad in Brazil**, which aims to provide 85% of the population with a basic knowledge of artificial intelligence in two years.

- **Inclusive formal education:** countries like **Chile** are making progress in updating school curriculums to include computational, critical, and ethical thinking, while **Colombia** is considering integrating AI training at all educational levels, from basic to higher education.

- **Training of specialised professionals:** priority is being given to training highly qualified talent through scholarships and

undergraduate and postgraduate programmes. **Brazil, Chile and Colombia** are leading the way, and **the Dominican Republic** took an important step by launching its first Masters and PhD degrees in AI at local universities in 2024.

• **Training and retraining:** in view of the risks of labour displacement due to automation, practical courses and AI skills certification programmes are being implemented, aimed at both active workers and those that are retraining. Here, Brazil and Chile stand out for developing specific programmes in this direction.

• **Creation of educational infrastructure:** in **Colombia**, the creation of the first Faculty of Artificial Intelligence and Engineering at the University of Caldas stands out, a milestone in the region that links higher education with the emerging demands of the technology market.

In terms of national initiatives, **Brazil** has the most ambitious plan, with a dedicated budget for talent development that includes the **AI Olympiad**, national and international scholarships, and pilot projects such as **Plu**, developed by SOMOS Educação and AWS, which uses generative AI to optimise teaching in public schools. In turn, **Chile** is promoting ethics in higher education, updating lesson plans at basic levels, and expanding the **Chile Scholarships** to cover interdisciplinary postgraduate studies in AI. **Colombia** is complementing its policies with large-scale programmes such as **Colombia Programa**, **SenaTic** and **Talento Tech**, which train children, technologists, and young professionals, respectively.

At the regional level, the **AI Policy Roadmap for the Caribbean** promoted by UNESCO emphasises the training of local talent, while the **AprendeIA** platform, led by the Colombian AI Expert Mission with support from the CAF and the Harvard Berkman Klein Center, represents a successful model of regional and triangular cooperation to democratise access to technological knowledge.

In short, Latin America and the Caribbean have recognised that talent development is a non-negotiable requirement for making progress in the AI era. Training and capacity-building policies and programmes show increasing dynamism, albeit with mixed results and sustainability. While some countries are deploying ambitious and robustly funded strategies, others face budgetary constraints or lack of continuity. This panorama highlights the need to intensify and coordinate efforts across the region to close talent gaps and ensure inclusive, ethical, and welfare-oriented AI development.

## 3.6. International Cooperation: regulatory convergence with no clear regional leadership

All the countries analysed participate actively in international forums such as the OECD, UNESCO or the GPAI, and are aligned with global ethical principles. Chile and Brazil stand out for their leadership in multilateral forums, while Argentina shows inconsistent diplomacy, participating without fully committing to regional declarations such as that of Montevideo.

International cooperation on AI in the region remains more reactive than proactive: while seeking to harmonise with global standards, there is a lack of a particular Global South agenda that prioritises social inclusion, sustainable development, and technological sovereignty. Brazil is the only country proposing effective technical cooperation with other countries in the South, allocating resources for joint R&D projects with Africa and Latin America.

In short, the region is making progress with its AI agenda, albeit with fragmented but declaratively convergent efforts. The big challenge is to move from principles to actual institutional and productive capacities, so that AI does not reproduce historical gaps but instead contributes to reducing them.

Ease of communication thanks to technology
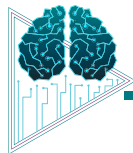
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Lessons from the field: cases of South-South and Triangular Cooperation in action

Building an AI ecosystem in LAC cannot happen without **strong enabling conditions** that are adapted to the local context. South-South cooperation and TC have begun to operate as catalysts for these conditions, mobilising capacities, knowledge, and resources among countries and different stakeholders. Through the SIDICSS analysis and the survey of recent experiences, initiatives were identified that, although not formally labelled as AI projects, are already laying the foundations for their ethical, inclusive, and sovereign development.

Access to energy and connectivity in marginalised areas emerges as an inescapable condition for truly inclusive digitalisation. In Bolivia, a project between Argentina, Germany, and the Bolivian government improved rural connectivity by installing interconnection nodes and regional data centres, expanding broadband coverage. In Honduras, an initiative led by Panama and the UNEP deployed solar thermal solutions in hospitals and micro-enterprises to reduce dependence on fossil fuels and ensure access to energy during health crises. Both cases show how cooperation can reduce the structural gaps that hinder the expansion of disruptive technologies.

Strengthening computing and data processing capabilities allows countries to develop solutions adapted to their realities. In Peru, with support from Uruguay and the UNFPA, the technological infrastructure for national censuses was redesigned, including information security protocols and hardware modernisation. In the Dominican Republic and Cuba, together with Germany, solar technologies were installed to power small, self-sustainable computer centres, while integrating local training for their maintenance. These experiences show how digital infrastructure must be considered part of a framework for community resilience and knowledge transfer.

Data governance configures itself as a transversal axis for training contextualised AI models and evidence-based decision making. In the Dominican Republic, with support from Uruguay and Spain, an ICT Observatory was created to generate and disseminate digital transformation indicators. In Peru and Brazil, the Food and Agriculture Organisation

of the United Nations (FAO) enhanced the network of weather stations in the Amazon using sensors and real-time data transmission. Bolivia and Spain modernised energy data management at the El Mutún plant, while Colombia and Costa Rica, together with the EU, boosted the interoperability of hospital bases. Other cases included the creation of biodiversity repositories in Cuba and Mexico, urban data platforms in Argentina and Japan, and integrated statistics in Ecuador, Luxembourg, and El Salvador.

The **development of talent and digital skills** is another structural condition for taking advantage of AI opportunities. Mozambique, Argentina, and Japan trained digital manufacturing specialists between 2018 and 2020. El Salvador, Argentina, and Japan offered intensive training on *big data* for the public sector. Chile and Korea have been promoting e-government since 2011, and Bolivia, Uruguay, and Spain have been working on digital project management in public administration. In Venezuela and Bolivia, the World Bank fostered training in statistical analysis; in Guatemala, Chile, and Mexico they brought digital literacy to rural areas; and in El Salvador, Peru, and the US they trained instructors in cybersecurity. All this in addition to programmes in school robotics, training in public innovation in Peru, and multiple initiatives that strengthen the human ecosystem for a fairer digitalisation.

Fostering **innovation and entrepreneurship ecosystems** accelerates the adoption of emerging technologies. Colombia, Mexico, and Germany created a *soft landing* programme for impactful *startups*, which included mentoring and an immersion in Germany. In the tourism sector, Colombia, Argentina, Costa Rica, and Spain organised courses on ICT applied to smart destinations. Costa Rica, Peru, and Spain promoted biotechnology in artisanal fishing. Paraguay and Uruguay, with support from Spain and Chile, developed a model of workshop schools for youth employment and entrepreneurship.

Inclusion and equality are considered guiding principles for digital development. In Brazil, a replicable telemedicine model was designed for vulnerable municipalities, with the participation of

Panama, ISGlobal, and IILA. In Uruguay, Mexico, and Spain they promoted educational tools for inclusion and sustainability. Paraguay made progress in accessibility for deaf people together with Colombia and Spain; and Argentina, Ecuador, and Panama promoted digital transformation among indigenous communities. In addition, the Dominican Republic implemented media literacy programmes with institutions in Bolivia, Ecuador, and Spain.

In parallel, **cities** are emerging as key experimentation spaces for citizen-driven technological development. Colombia, Costa Rica, Guatemala, and Uruguay implemented smart city projects led by the Ministry of Science and Technology of Cordoba and CIVES Solutions. In Costa Rica and Colombia, the Instituto Tecnológico de Costa Rica, together with cities such as Medellín and Buenos Aires, trained over 600 people in the design of digital tourism solutions. In turn, Buenos Aires is leading the "Connected Destinations" initiative together with Madrid, Bogota, and Microsoft, aimed at the use of AI in public administration through *chatbots* and diagnostic tools.

The **LatamGPT project**, led by CENIA in Chile, is one of the most ambitious plans for regional technological cooperation. With the participation of over 30 institutions from 12 countries, it seeks to build an open language model trained with Latin American linguistic and cultural data. The project includes ethical governance mechanisms, data licensing, protection from big tech, and commitment to open source. Although it does not entirely fit the formal definition of triangular cooperation, it has characteristics that approximate it by encouraging collaboration between countries with different technological capacities and technical partners, such as Spain and France.

The lessons from the field, far from mere examples, constitute a concrete basis from which to consider and scale up a regional AI that is inclusive, sovereign, and serves the common good. The systematised initiatives show that TC and SSC are already having tangible impacts on multiple strategic dimensions for the development of AI in LAC. Their alignment with emerging regulatory frameworks and national strategies can avoid fragmentation and enhance synergies.

Data governance
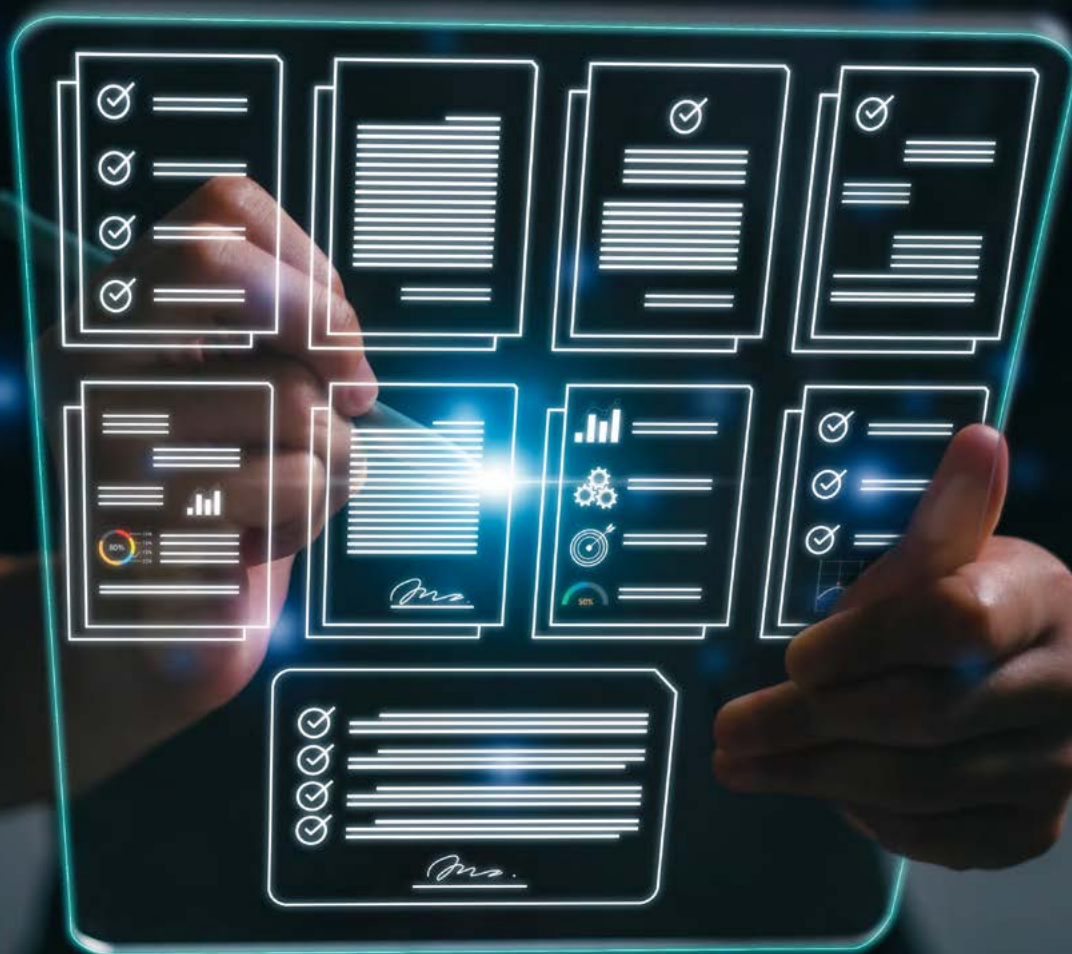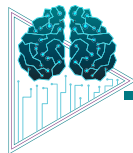
5 From Potential to Action: Roadmap for Strengthening EU-LAC TC

In a region marked by fragmented information systems and a lack of common standards, **data interoperability** is an enabling condition for the ethical and effective development of AI. Experience in the EU — with initiatives such as the European Data Space, AgriDataSpace, or the Mobility Data Space — shows that it is possible to create interoperable digital environments that foster both innovation and social inclusion. For its part, LAC has stakeholders such as the ECLAC, IDB, GEALC Network, and PAHO that already promote regional agendas in health, agriculture, and mobility, but face obstacles such as the technical and semantic dispersion of data. TC has the potential to articulate these capacities through the creation of common frameworks, exchange protocols, and unified standards, creating conditions for the development of AI solutions that improve public health, agricultural production, and urban mobility in the region.

Enhancing algorithmic transparency is another strategic priority to ensure ethical use of AI in public services. Building inventories of algorithms used by governments is an essential step in promoting accountability, assessing impacts, and detecting bias. Countries such as Chile, Brazil, Colombia, and Uruguay have already initiated pioneering experiences in this field, which could be scaled up through triangular cooperation schemes. The EU-LAC Digital Alliance provides an ideal framework to facilitate the exchange of methodologies, regulatory frameworks, and best practices, taking advantage of tools such as the European AI Regulation. Faced with the secrecy of the large global technology companies, the intermediate option of promoting *open weight* models presents itself as a pragmatic solution for LAC, allowing for the auditing, adapting, and training of local capacities without depending on entirely opaque systems. Therefore, TC would not only favour transparency, but would also enable the region to position itself as a co-creator of ethical frameworks for algorithmic governance.

Advancing **regulatory frameworks and institutional capacities** through gradual and experimental approaches is another key line of action. While the EU is making progress with comprehensive regulatory schemes such as the AI Act and its regulatory *sandboxes*, regulatory gaps and institutional limitations persist in LAC. The European *sandboxes*, from the pioneering Spanish pilot to the living laboratories in Germany and the sectoral environments in France or Norway, make it possible to experiment with AI in real conditions, generating evidence to adjust standards and strengthen state control. The European experience offers a wide menu of solutions that could be adapted to the capacities and priorities of the region. Through TC, it would be possible not only to launch regional pilots of *sandboxes* focused on strategic sectors, but also to upgrade existing agencies instead of creating new bureaucratic structures, relying on contextualised, flexible, and evidence-based regulation.

In parallel, redirecting technical incentives through the **creation of socially relevant** *benchmarks* can steer the direction of AI innovation towards concrete development challenges. Today, the *benchmarks* that guide the advance of AI are designed around technical metrics that are disconnected from the needs of the Global South. TC would allow for the development of regional *benchmarks*, co-designed by LAC governments, civil society, and technical stakeholders, focused on real problems such as public health, poverty, or food security. Under this scheme, the EU could act as a methodological and financial coordinator, taking advantage of resources such as the AI Office or assessment centres such as Fsas Technologies. The triangular approach would make it possible to launch thematic pilots where countries in the region collaborate and learn from each other, not only generating useful evidence for regulation and accountability, but also strengthening local institutional and technical capacities from a logic of appropriation.

The **development of a robust and interoperable digital identity infrastructure** presents itself as a lever for social inclusion and economic growth. In a context where millions of people in LAC lack formal

documentation, digital identity can expand access to services, reduce corruption, and facilitate interaction with the State. AI can play a key role in secure verification and authentication, while EU regulatory experience, such as the eIDAS 2.0 Regulation or the AI Law, offers replicable models. Countries such as Uruguay are already benchmarks, and projects such as "Ciudadano Digital Mercosur" showcase the potential of regional schemes. TC can accelerate this agenda, articulating institutional developments, legal frameworks, and secure rights-based technological solutions, with the aim of building an interoperable and trusted digital identity architecture in the region.

In this context, **cybersecurity** emerges as a prerequisite for building digital trust and enabling the sustainable deployment of AI. The region faces high levels of cybercrime, low institutional maturity, and large asymmetries in capacities. However, AI can also be part of the solution when applied to threat detection, the anticipation of attacks, and system resilience. The EU has deployed a robust cybersecurity ecosystem, with regulations like NIS2, investments like Digital Europe and centres such as LAC4, in collaboration with LAC. Through TC, it would be possible to close gaps in talent, governance, and critical infrastructure protection, articulating training programmes, technical assistance, and technology transfer, with the aim of building a secure digital environment that enables regional digital transformation.

Building a **shared AI processing infrastructure in LAC** could turn the current fragmentation into a cooperative advantage. Under a coordinated specialisation approach, each country could contribute its strengths — be they human, technical, or institutional — to an articulated regional ecosystem. The European experience with the EuroHPC programme and centres such as the Barcelona Supercomputing Center offers a replicable model. The RISC2 initiative already connects European and Latin American stakeholders in this field, and could be scaled up through TC schemes promoting interoperable networks and regional competence centres. The EU, with its technical and political capacity, can coordinate these shared capacities, ensuring policy coherence, joint governance, and technological autonomy.

Equally, **monitoring the employment impact of AI** and designing active policies can prevent regressive effects and maximise opportunities for decent employment. The adoption of AI is reshaping the LAC labour market, and its impact will depend on the policy decisions made today. The EU has mechanisms such as AI Watch, GPAI, or the experience of the ILO Observatory that could be adapted regionally. LAC also has emerging capacities, such as OBIA in Brazil. TC can facilitate the transfer of methodologies, the creation of comparable monitoring systems, and the active participation of workers in policy formulation, reinforcing a human-centred approach to technological development.

At the same time, **continuous training and the development of skills in AI** are essential to ensure labour inclusion in the digital transition. In LAC, millions of workers need to acquire new skills to adapt to the changing production environments. The EU has developed programmes such as the AI Skills Academy or the Digital Skills and Jobs Platform, which can serve as a basis for designing sectoral training routes in partnership with governments, businesses, and trade unions in the region. In countries such as Argentina, where trade unionism has a strong capacity for dialogue, the participation of workers in these initiatives can ensure that AI does not exclude, but rather improves working conditions and encourages decent work.

Finally, **strengthening digital citizenship** and critical thinking in relation to AI is key to ensuring informed and responsible appropriation of technology. Large gaps in digital access and literacy persist in LAC, increasing vulnerability to misinformation, digital violence, or algorithmic surveillance. TC can channel European experiences such as the European Year of Digital Citizenship or the Digital Education Plan, to design joint programmes that integrate digital rights, critical literacy, and citizen participation. This can range from educational curricula to intergenerational literacy strategies, always with an inclusive and territorial approach. The creation of a regional coordination mechanism would allow for the scaling up of successful experiences, avoiding duplication and ensuring a fair distribution of knowledge.

Cooperation and technology in LAC
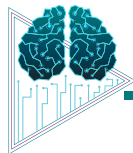
6 Risks to EU-LAC TC on the AI agenda

One of the most significant risks in the bi-regional AI cooperation agenda is the possibility of a **loss of technological sovereignty** among LAC. The heavy reliance on technologies and models developed in the global north limits the capacity of the region to influence the design of algorithmic architectures, cybersecurity criteria, or transparency mechanisms from the outset.

This situation not only reduces the scope for action in technology governance, but also hinders the possibility of participating in co-creation processes as an equal partner. Moreover, if critical AI infrastructure is left to external providers — be it the EU or private stakeholders — with no guarantees of equal participation, new forms of digital dependency could be consolidated. Added to this is the risk of adopting European regulatory frameworks with no contextual adaptation, which could result in solutions that are inapplicable or unsustainable for the institutional, social, and economic environments of the region, and subsequently exacerbate asymmetries in digital governance.

Secondly, the implementation of a coordinated specialisation strategy runs the risk of consolidating the **exclusion of countries with lower development or capacities within LAC**, as well as broadening internal gaps between territories and social sectors. While this strategy seeks to articulate the contributions of each country according to their comparative advantages, in the absence of solid mechanisms for inclusion and the transfer of capacities, it could end up reinforcing the already existing asymmetries in the regional digital ecosystem. Countries with less technological infrastructure, institutional capacities, or regulatory development risk losing out on the main benefits of this cooperation, reducing their role to that of passive recipients.

In turn, without a territorialised approach that is sensitive to structural inequalities, AI integration could systematically exclude rural communities, indigenous peoples, and other vulnerable groups. Similarly, if training programmes are not designed with clear equity criteria, traditionally marginalised sectors such as women, young people, or informal workers may not have access to new opportunities, further widening the existing gaps in access to technology, digital skills, and quality employment.

Structural differences between the EU and LAC in AI regulation represent a significant obstacle to effective cooperation in this field. While the EU is a global leader in advanced regulatory frameworks such as the AI Law, three structural challenges predominate in LAC: a marked institutional heterogeneity between countries, confusion between ethical frameworks and legal regulations, and the persistence of self-regulatory schemes with limited capacities. This situation not only makes it difficult to design common frameworks, but also opens the door to dynamics of regulatory or even ethical "dumping", where the region could become an attractive destination for developers seeking to operate with fewer requirements. If the EU feels that LAC do not have adequate safeguards on critical issues such as data privacy or labour rights, its willingness to cooperate on sensitive projects could be seriously affected, undermining the shared agenda of responsible development.

In parallel, the deployment of AI technologies without adequate regulation could have **direct adverse effects on the achievement of the Sustainable Development Goals (SDGs)**, which are a transversal priority for EU-LAC TC. Poorly regulated AI can amplify structural biases, reproduce discriminatory dynamics, or deepen inequalities in access to digital services, undermining progress in social inclusion and equity. Moreover, if projects funded by bi-regional cooperation rely on AI systems without a rigorous assessment of their technical and ethical risks, their long-term sustainability could be compromised, generating contradictions with the principles guiding international cooperation for development.

Another key risk lies in the **inadequacy of efforts to ensure algorithmic transparency failing the strengthening of *enforcement* capacities against global stakeholders**. Although transparency is a widely recognised value in both regions, its specific implementation clashes with the resistance of

large tech companies to open up their models and algorithms.

In the absence of solid regulatory frameworks in LAC and binding international mechanisms, countries in the region lack effective tools to audit or monitor the AI systems deployed in their territories. Even in cooperation with the EU, whose regulations are making progress in this area, effective control of global private stakeholders remains limited. With no local capacities or robust international governance, transparency commitments risk becoming symbolic declarations that have no real effect on technological practice in the region.

Additionally, the adoption of advanced digital identity technologies in the framework of TC with the EU poses a serious **risk of surveillance or discrimination in fragile contexts**, especially when these tools are implemented in countries with low institutional transparency and weak democratic controls. While AI-based systems such as biometric identification can expand access to rights and services, their deployment without robust local data protection and digital rights frameworks can facilitate the misuse of personal information. Even when the transferred technologies meet high security standards in their countries of origin, their application in environments where institutional opacity and fragility prevail can lead to forms of political or social control that violate fundamental rights. This would not only undermine public confidence in digital systems, but also call into question the principles of ethics and responsible cooperation that should guide the bi-regional relationship.

Finally, there is a **risk of poorly contextualised labour policy design due to structural differences between EU and LAC labour markets**, which could weaken the effectiveness of public interventions. While a formalised, digitised labour market with high exposure to the effects of AI on cognitive tasks predominates in Europe, in LAC there are still high levels of informality, low productivity, and an ever incipient and uneven adoption of these technologies. Unadjusted application of analytical frameworks and recommendations generated in the European context can lead to misdiagnosis and badly calibrated policies. If these differences are not explicitly addressed in monitoring systems and public policy design, there is a risk of implementing solutions that are misaligned with the regional reality, limiting the capacity of TC to generate positive and sustainable impacts in the processes of labour inclusion and productive transformation.

Risks of AI
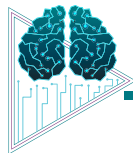
7 Final thoughts

This study supports that EU-LAC TC is a key instrument to contribute to a smart, inclusive, and sovereign insertion of the region in the new global scenario shaped by the accelerated development of artificial intelligence (AI). Drawing on a conceptual approach that integrates the political economy of innovation, critical technology studies, and contemporary approaches to international cooperation, **AI is characterised not as an abstract, isolated, or neutral technology, but rather as a deeply material phenomenon, linked to international relations and geopolitics, with a direct impact on the reorganisation of global value chains, and on debates about equity, inclusion, and sustainability.**

The study highlights the structural asymmetries faced by LAC countries in relation to the development and appropriation of AI, linked both to their limited insertion in the higher value-added segments of the global digital economy and to gaps in infrastructure, connectivity, institutional capacities, and human talent. However, **it also identifies concrete opportunities for the region to move through this process of technological transformation in a more strategic and cooperative manner, taking advantage of the EU regulatory, technological, and governance experience.**

LAC holds a peripheral position in the global artificial intelligence (AI) value chain but does have strategic emerging capabilities. Its role revolves around extractive functions: it provides critical minerals, large volumes of data, and precarious digital work, but is left out of algorithm design, hardware manufacturing, and the setting of standards. This subordinate insertion limits access to economic, scientific, and regulatory benefits, and also threatens to reproduce structural inequalities. However, the region has young talent, growing technology communities, and a diversity of data and languages that could provide differential value to global AI developments.

Triangular cooperation between the EU and LAC can become a strategic lever that allows AI to drive inclusive and sustainable development. This modality allows for the articulation of

technical expertise, local priorities, and shared regulatory frameworks, overcoming traditional vertical schemes. It also offers a specific channel for furthering bi-regional technology diplomacy, fostering policy convergence and the construction of strategic alliances around fair digital governance. Its institutional flexibility and potential for co-designing solutions adapted to the context make it a key tool for enhancing digital autonomy in the region.

The EU and LAC have a convergent regulatory and policy basis for deepening cooperation on artificial intelligence. Initiatives such as the Ibero-American Charter of Rights in Digital Environments and the EU-LAC Digital Alliance promote shared principles: digital inclusion, algorithmic ethics, data protection, and democratic governance. This alignment provides legitimacy for joint efforts and establishes a fertile ground for progress in compatible regulatory frameworks, common technical standards, and lasting institutional partnerships.

In recent years, several governments in the region have defined national AI strategies focusing on social inclusion, improved public services, and institutional strengthening. Initiatives in countries such as Argentina, Brazil, Chile, Colombia, and Mexico are aiming to align AI with development policies. At the same time, stakeholders such as the IDB, ECLAC, CAF and UNESCO are already promoting programmes and platforms geared towards digital innovation, talent training, and the design of ethical and regulatory frameworks.

In parallel, there are concrete experiences of triangular cooperation that have proven to be effective and replicable. Projects like LATAM GPT, telemedicine platforms, digital inclusion for deaf people, or the interoperability of civil registries show that it is possible to co-design technological solutions with a local impact and institutional sustainability. These initiatives have managed to combine regional expertise, European regulatory frameworks, and shared funding to create scalable models.

One of the most urgent and promising areas for triangular cooperation is data interoperability. The

development of compatible regional systems would allow the use of AI in key public sectors such as health, education, and environmental management to be scaled up. European stakeholders can contribute with technical and regulatory frameworks to facilitate the secure exchange of information between countries, laying the foundations for a more integrated Latin American digital ecosystem.

Algorithmic transparency complements this effort by ensuring that automated systems operate under principles of fairness and public control. There are opportunities for implementing auditing tools, monitoring mechanisms, and explainability standards that strengthen accountability. Collaboration with European partners can help transfer good practice and build institutional capacity in this critical area. While there are challenges linked to the opacity of large global developers, the EU has developed frameworks such as the AI Law and technical auditing mechanisms that can be transferred and adapted to Latin American contexts.

In order for these solutions to be sustainable, it is key to help the countries in the region to strengthen their regulatory capacities. Triangular cooperation offers an avenue for designing adaptive legal frameworks through policy laboratories, technical assistance, and institutional capacity building strategies that respond to both global standards and local conditions.

In parallel, linking technical cooperation to the development of socially relevant *benchmarks* can align technological incentives with public priorities. Designing metrics that measure the real contribution of AI to equity, sustainability, or the improvement of social services would allow resources to be targeted more towards projects with a tangible impact. This creates a foundation for financing innovation on the basis of collective benefit, not just technical efficiency.

One of the areas where this focus can be translated into concrete solutions is the development of digital identity systems. Interoperable national systems can facilitate access to public services, ensure the protection of personal data, and enable new forms of cooperation between countries. The European experience in this area offers valuable inputs to support institutional designs in LAC.

These developments must be supported by a robust cyber-security infrastructure. From vulnerability prevention to incident management and critical infrastructure protection, there is room for the design of joint protocols, technical training, and bi-regional cooperation mechanisms. This not only strengthens digital resilience, but also reinforces social trust in the use of AI. Here, the EU can provide advanced regulatory frameworks, such as the NIS2 Directive, along with training and institutional strengthening programmes that help to close the gaps in LAC,
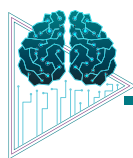
as experience has shown at the Cybersecurity Competence Centre of the Dominican Republic (LAC4).

In turn, reducing asymmetries in access to AI requires shared processing infrastructure. The implementation of regional data centres, with European technical and financial support, would allow multiple countries to utilise high-performance capabilities that are currently enjoyed only by a few. These infrastructures can provide support for governments, universities, and social organisations. European experience in supercomputing networks and projects such as EuroHPC and RISC2, as well as the leadership of institutions like the Barcelona Supercomputing Center, provide a solid starting point for this cooperation.

At the societal level, one of the most urgent challenges is to anticipate and manage the impacts of AI on employment. Establishing joint monitoring and active policy design mechanisms would make it possible to share methodologies, build regional indicators, and foster fair transition strategies. This is a real opportunity to link technical knowledge with effective public responses to prevent an intensification of inequalities. The creation of a regional monitoring system, inspired by experiences such as AI Watch or the ILO Observatory, would make it possible to generate comparative evidence and steer inclusive policies.

These strategies must be accompanied by sustained investment in talent training and the development of skills. Strengthening AI skills prepares fertile ground for educational and technical cooperation. Training, retraining, and AI skills certification programmes are needed, targeted at strategic sectors and designed in coordination with stakeholders in the world of work. Tri-national training programmes, academic mobility, skills certification, and the creation of centres of excellence can accelerate the development of strategic talent across the region, a prerequisite for an autonomous digital transformation. In countries like Argentina where trade unions still play a central role in the labour agenda, their involvement is essential to ensure that these initiatives contribute to strengthening the skills of workers and building a fair digital transition.

In addition, critical digital citizenship must be enhanced, from schools to community spaces. Incorporating AI content into educational curricula, driving public awareness campaigns, and encouraging critical thinking towards automated systems are key steps. Triangular cooperation can ensure that these processes are culturally relevant and inclusive. European experience with programmes such as the European Year of Digital Citizenship or the AI Skills Academy can be a valuable reference to reenforce these capacities in the region.

However, triangular cooperation in AI faces significant risks that need to be managed through the design of interventions. The exclusion of countries with lower capacities, the concentration of technological power, surveillance in fragile contexts, and regulatory inadequacy in relation to global stakeholders are real threats. There are also tensions linked to the possible loss of technological sovereignty or the application of poorly contextualised labour frameworks.

Mitigating these risks requires strong shared governance mechanisms, the effective participation of all partners, and constant monitoring of the social impact of technological initiatives. Successful experiences of triangular cooperation reveal key factors that can guide future interventions. Local appropriation, co-design between different stakeholders, institutional flexibility, and a focus on specific needs have been enabling conditions for projects that succeeded in generating sustainable capacities. Coordination between technical innovation, public objectives, and multi-stakeholder collaboration shows that it is possible to develop AI that is contextualised, useful, and has a real impact on well-being.

Ultimately, the study shows that **AI can be a driver of productive transformation and inclusive development for LAC, provided that it is approached from a strategic cooperation perspective** that combines mutual learning, local capacity building, and the joint construction of governance frameworks that prioritise social welfare and equality. **Triangular cooperation can be a specific way for AI to contribute to closing gaps. Seizing this opportunity requires strategic decisions, political commitment, and inclusive mechanisms that prioritise human development over technical efficiency.** Far from being a passive recipient of technologies, LAC has the capacity to co-create frameworks, solutions, and standards that respond to its own challenges. **The digital future of the region will depend on its ability to turn AI into a public asset and a tool for social justice.**

Using technology to achieve social justice

Opportunities and risks of Triangular Cooperation in Artificial Intelligence between the European Union and Latin America and the Caribbean

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