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PROMOTING OPEN INNOVATION AND THE TRANSFORMATION OF HIGHER EDUCATION FROM AN OBREAL PERSPECTIVE

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1. ABSTRACT

A reference to the “Third Mission” has become politically correct language. The production of societal, cultural, and economic value. However, despite its widespread adoption, the concept often remains ambiguously defined and weakly operationalized, limiting its effectiveness as a driver of institutional transformation.

In this context, Open Innovation emerges not merely as a complementary approach, but as the missing operational logic that allows the Third Mission to move from rhetorical commitment to systemic practice.

Open Innovation provides both a conceptual and operational framework to clarify, implement, and align the “Third Mission” with the traditional missions of teaching and research. Open innovation promotes a shift from closed knowledge systems to collaborative, permeable, and impact-oriented innovation ecosystems. Building on Joseph Schumpeter’s theory of innovation as structural transformation and Henry Chesbrough’s articulation of Open Innovation, this paradigm now intersects with global frameworks such as the UNESCO Recommendation on Open Science (2021), the New European Innovation Agenda (2022), and Horizon Europe.

The move to Open Innovation aligns closely with the Triple Helix models (Etzkowitz and Leydesdorff, 2000), Quadruple (Carayannis and Campbell, 2009) and Quintuple Helix (Carayannis and Campbell, 2010), which conceptualize universities as co-creators in multi-stakeholder innovation ecosystems involving industry, governments, civil society, and the environment.

From an evolutionary economics perspective, this paper also draws on Röpke’s contribution to innovation theory, which frames openness as an evolutionary necessity rather than a managerial choice, reinforcing the role of universities as adaptive institutions that learn through collaboration, experimentation, and interregional knowledge exchange.

In a world where knowledge is widely distributed, universities cannot afford to conduct their research alone. Through this lens, Open Innovation becomes not just an institutional paradigm, but a political and developmental one, aligned with Obreal’s mission and reinforced by interregional processes involving Africa, Latin America and the Caribbean, Europe, and the Arab world.

Obreal’s interregional initiatives, such as the AI Youth Incubator, the Multilingualism Agenda, the Julio Cotler Programme, and the Interregional Dialogue Platform, demonstrate how Open Innovation can be translated into practice across Africa, Latin America and the Caribbean, Europe, and the Arab world. Through the promotion of open participation, open technologies, and open processes, Obreal positions universities as orchestrators of collaborative, multilingual, and socially grounded development.

2. INTRODUCTION

2.1 THE EVOLUTION FROM CLOSED TO OPEN INNOVATION

The transition from closed to open innovation represents one of the most significant paradigm shifts in the governance of knowledge and research over the last three decades. Early innovation models, rooted in linear and internalized R&D logic, assumed that organizations could maintain competitive advantage by controlling information flows and concentrating expertise within institutional boundaries. This approach, however, proved increasingly inadequate in a globalized knowledge economy characterized by accelerated technological change, distributed expertise, and rising societal expectations of transparency and participation.

Henry Chesbrough's (2003; 2006) foundational articulation of Open Innovation challenged these assumptions by demonstrating that innovation emerges most effectively when organizations, universities included, develop porous boundaries, cultivate external partnerships, and actively integrate knowledge produced by diverse actors. In this sense, Open Innovation does not merely describe a set of tools or practices; it conceptualizes a structural transformation in how institutions generate value. It also builds on earlier economic thinking inspired by Joseph Schumpeter's theory of innovation-led development, where progress results from collaborative recombination of ideas and resources.

In higher education, the shift from closed to open innovation aligns with broader trends toward interdisciplinarity, societal engagement, and mission-driven research. Universities that want to remain relevant must embrace multi-actor collaboration and alignment with public policy goals. Only by being locally relevant can they stand out internationally and be recognized for their unique value. Open Innovation, therefore, becomes a strategic orientation, influencing how universities partner with industry, governments, and civil society, and how they engage with societal challenges.

From an evolutionary economics perspective, Röpke (1998; 2001) emphasizes that innovation systems evolve through cumulative learning, routines, and institutional adaptation. Open Innovation does not represent a rupture with earlier innovation theory but rather its evolutionary extension: it formalizes the necessity of openness, interaction, and external knowledge absorption as core mechanisms of innovation. Röpke's perspective highlights capability accumulation and institutional learning, providing a theoretical foundation for open, iterative, and collaborative innovation models—including contemporary practices such as living labs, pilot projects, and innovation procurement.

2.2. FROM OPEN SCIENCE TO OPEN INNOVATION: A CONTINUUM

The progressive rise of Open Science[1], finally embedded in the UNESCO Recommendation on Open Science (2021) and reinforced by Horizon Europe's open access mandates, has expanded expectations that publicly funded knowledge should be accessible, reusable, and transparent. Open Science promotes new norms for data sharing, collaborative research, multilingual dissemination, and the democratization of scientific processes.

Open Innovation builds directly on this foundation. While Open Science focuses on openness in *knowledge production*, Open Innovation extends this ethos to *knowledge utilization* and *societal transformation*. This openness is not only about *outcomes* (Access), but also about methods and actors (Participation).

The synergy between Open Science and Open Innovation is increasingly recognized in EU instruments such as the New European Innovation Agenda[2] (2022), Horizon Europe[3] (2021–2027), and the European Strategy for Universities[4] (2022). These frameworks view the openness of knowledge, processes, and collaboration as core drivers of societal impact, institutional modernization, and economic resilience. And it positions Open Innovation not only as an academic practice, but as a public policy imperative.

The continuum from open knowledge to open impact is evident in global policy agendas that promote:

- interoperable research infrastructures,
- collaborative innovation models,
- cross-border and multilingual research networks,
- citizen-engaged experimentation (e.g., living labs), and
- shared digital infrastructures in education and development

1. UNESCO Recommendation on Open Science (2021): https://www.unesco.org/en/legal-affairs/recommendation-open-science

2. New European Innovation Agenda (2022): https://research-and-innovation.ec.europa.eu/strategy/support-policy-making/shaping-eu-research-and-innovation-policy/new-european-innovation-agenda).

3. Horizon Europe (2021–2027): https://commission.europa.eu/funding-tenders/find-funding/eu-funding-programmes/horizon-europe_en.

4. European Strategy for Universities (2022): https://education.ec.europa.eu/sites/default/files/2022-01/communication-european-strategy-for-universities-graphic-version.pdf

2.3. CONCEPTUAL TOOLS: OPEN DEVELOPMENT MODELS

- **Open Access** (asset-focused), which emphasizes shared infrastructures, data, technologies, and resources.

  - Open Technologies, with the use and development of open-source software, interoperable digital platforms, and technological standards
  - Open Content, with the publication of research results, data, and open educational resources (OER, MOOCs) in open-access repositories, often required by Horizon Europe and UNESCO.
  - Open Access (in the strict sense), with the sharing of physical infrastructures, laboratories (such as Living Labs), and data resources for collaboration.

- **Open Participation** (process-focused), which stresses co-creation, multi-actor engagement, and inclusive governance.

  - Open Participation (in the strict sense), with the involvement of multiple actors (citizens, businesses, NGOs) in the co-creation of research and innovation, through dialogues and experimentation.
  - Open Processes, with the application of openness principles to institutional governance, decision-making, and policy design. It involves transparency and inclusion in its operating mechanisms.

Openness must also penetrate the core academic process. Just as Open Innovation challenges the closed nature of R&D, we must challenge the traditional "teaching-and-learning" binary. A true Open Process shifts the focus from "what is taught" to "what is learned", treating the student not as a passive recipient of a diploma, but as an active agent who "discovers knowledge and co-creates new knowledge". In this view, the lecturer transitions from a monopolist of knowledge to a "guide, helper, and tutor", orchestrating the student's independent study and inquiry[5].

When universities adopt both dimensions (open access and open participation), they transition from being isolated generators of knowledge to becoming platform institutions—spaces where diverse actors collaborate on public value creation. This strategic orientation supports the development of:

- open educational practices and repositories,
- shared digital research infrastructures,
- multi-actor innovation labs,
- capacity-building ecosystems that strengthen regional and international partnerships.

Open Development Models also contextualize openness within power dynamics, equity considerations, and multilingual realities, highlighting that open innovation requires governance structures that promote fairness, participation, and cultural diversity. This is particularly relevant for interregional cooperation frameworks where diverse socio-political contexts converge and is directly linked to the goals of social justice and multilateralism that Obreal advocates.

5. See HAQAA-3 Policy Brief n.4: "Neither 'Teaching-and-Learning' nor 'Learning-and-Teaching': The real issue is 'What Teaching for What Learning'", Dr. Ramon Torrent, OBREAL, 2024: https://haqaa3.obreal.org/wp-content/uploads/2024/11/POLICY-BRIEF-4-ON-THE-NEED-FOR-A-NEW-APPROACH-TO-TEACHING-AND-LEARNING.pdf

Obreal has already tried to move forward along these two five dimensions and five sub-dimensions:

TABLE 1.
OBREAL'S OPEN DEVELOPMENT MODEL

OPEN ACCESS	OPEN TECHNOLOGIES	Fundamental for the **AI Youth Incubator** (ensuring equitable access to tools) and the creation of **shared infrastructures**
	OPEN CONTENT	Supports the **Multilingualism Agenda** (democratizing access to knowledge beyond dominant languages) and **teacher transformation**.
	OPEN ACCESS	Enabling **knowledge mobility** and the creation of **interregional capacity-building** ecosystems.
OPEN PARTICIPATION	OPEN PARTICIPATION	It is the core of the **Third Mission** and the focus of programs like the **Julio Cotler Programme**, where responses to social challenges are co-designed.
	OPEN PROCESSES	It is the basis of the **Obreal Interregional Dialogue Platform**, which connects ministries and university associations to **co-design shared policies**.

2.4. THE INTERNAL TRANSFORMATION: FROM PEDAGOGY TO INNOVATION ORCHESTRATION

Integrating Open Innovation successfully within Higher Education institutions demands a fundamental, corresponding shift in internal operations, primarily centring on pedagogy. It is an established principle that a university cannot function as an external innovation ecosystem if its core function—*teaching and learning*—remains closed, linear and passive. The true challenge lies in transcending the traditional "*teaching-and-learning*" binary.

Ultimately, the success of the Open Innovation agenda depends not only on the quantity of students who have gone through its classrooms, labs, and libraries, but on their quality to contribute to the development and wellbeing of their fellow citizens. By embedding experiential and problem-solving methodologies at the heart of the curriculum, we move beyond merely "*teaching for a diploma*" towards a model predicated on "*learning for innovation*". This internal revolution ensures graduates are not only employable but are equipped to actively drive the social and economic betterment promised by the Open Innovation paradigm.

3. OPEN INNOVATION AND THE HELIX MODELS

While the concept of a 'Third Mission' had been postulated earlier, it was more robustly theorized during the early 2000s. This mission emerged as a response to growing evidence that universities play crucial roles in regional innovation systems, social development, and cultural life (Molas-Gallart et al., 2002; OECD, 2011; Benneworth & Jongbloed, 2010). It expands upon the traditional dual mandate of teaching and research by integrating societal engagement, economic development, and community-based innovation.

The Third Mission is analytically strengthened through the Triple Helix model (Etzkowitz & Leydesdorff, 1995; 2000), which conceptualizes innovation as a dynamic and hybridized relationship between universities, industry, and government. This model positions universities not as passive knowledge producers but as co-creators of innovation ecosystems, capable of assuming entrepreneurial, policy-shaping, and partnership-building roles. Evaluations from the European Innovation Scoreboard consistently show that regions with strong Triple Helix interactions generate more robust innovation performance.

3.1. FROM TRIPLE TO QUINTUPLE HELIX: FRAMEWORKS FOR SUSTAINABLE INNOVATION

The Triple Helix model (Etzkowitz & Leydesdorff, 1995; 2000) revolutionized thinking on innovation ecosystems by demonstrating that transformative innovation emerges from iterative and hybridized interactions between universities, industry, and government. Empirical evidence from the *European Innovation Scoreboard* (2020–2023) and Joint Research Centre studies confirms that Triple Helix configurations correlate strongly with higher rates of:

- knowledge transfer,
- patenting and spin-offs,
- cross-sector R&D collaboration,
- public–private partnerships.

The emergence of the Quadruple Helix framework (Carayannis & Campbell, 2009, 2012) represented a significant maturation of innovation theory by incorporating civil society—including citizens, communities, and media—as an essential fourth pillar. This model argues that sustainable innovation requires the systematic participation of these actors to actively co-design and legitimize outcomes. Evidence from a decade of evaluations by the European Network of Living Labs (ENoLL, 2010–2023) supports this, demonstrating that participatory experimentation significantly increases the adoption and social robustness of innovation. Consequently, contributions from Arnkil et al. (2020), McAdam et al. (2021), and the European Commission (2022) underscore that Quadruple Helix collaboration has evolved into a normative expectation of EU innovation policy, particularly within mission-oriented research and the creation of public value.

While the Quadruple Helix integrates civil society, the Quintuple Helix model (Carayannis & Campbell, 2010, 2012) adds the Natural Environment as the fifth dimension. In this model, nature is not treated merely as a resource, but as a key driver of knowledge production. The challenges of global warming and ecological survival become the catalysts for innovation, creating a circular flow of knowledge between society, the economy, and the environment.

For universities, this shift is critical. It implies that "Third Mission" activities cannot just be economically profitable (Triple Helix) or socially inclusive (Quadruple Helix); they must also be ecologically sustainable. This aligns perfectly with the "Green Transition" and "Climate Resilience" priorities identified in the Interregional Dialogue, providing the theoretical justification for universities to act as agents of environmental protection.

3.2. UNIVERSITIES AS ACTORS IN INNOVATION ECOSYSTEMS

Röpke's evolutionary economics reconceptualises universities as dynamic actors within complex innovation ecosystems, rather than isolated knowledge producers. In this framework, universities are vital to a region's absorptive capacity, facilitating knowledge circulation and long-term skill development. Their primary value lies in enabling firms, public bodies, and communities to learn and adapt.

This approach aligns with contemporary Open Innovation and public-sector reform, where success hinges on institutional learning and cross-sector collaboration. As stable, trusted institutions, universities provide the essential infrastructure for experimentation and cumulative learning. By positioning them as 'institutional anchors' and learning hubs, Röpke's perspective strengthens the theoretical basis for AI-driven transformation and sustainable, inclusive regional development.

3.3. OPEN INNOVATION AS THE OPERATIONAL MECHANISM

Open Innovation provides the methodological and organizational infrastructure through which Third Mission and Helix models are operationalized. Evidence from EUA reports (2019; 2021; 2023) and studies by Bogers et al. (2018) and Tijssen & Ràfols (2021) shows that universities adopting Open Innovation frameworks diversify their knowledge partnerships, accelerate translational research, expand interdisciplinarity, and strengthen their societal impact pathways. Newer scholarship emphasizes "Open Innovation 2.0" (European Commission, 2016; 2022), where systemic co-creation and shared infrastructures replace linear or bilateral collaboration models.

3.4. FROM KNOWLEDGE PRODUCERS TO INNOVATION ORCHESTRATORS

Universities are no longer passive transmitters of knowledge but are becoming active orchestrators of innovation ecosystems. Applying open innovation principles to higher education entails the creation of living labs, university–industry clusters, and innovation partnerships where academia, industry, and the public sector co-develop solutions. This transition calls for new institutional capacities in technology transfer, entrepreneurship education, and innovation governance.

At the same time, universities must adopt open process innovation—rethinking internal decision-making, teaching methods, and community engagement using open collaboration principles. Participatory curriculum design, co-created research agendas, and community-based innovation labs embody this transformation. These models resonate strongly with the European Commission's Open Innovation 2.0 paradigm (European Commission, 2016), which promotes quadruple helix collaboration—linking government, academia, industry, and civil society to drive regional and global innovation.

Aligned with the Bogotá (2025) vision, universities are no longer mere policy recipients but active development actors and diplomatic agents linking research to social transformation. To fully operationalize this 'Third Mission', we must redefine 'Research' as 'Research and Innovation'. This shift acknowledges that while not every institution is a well-funded research powerhouse, every university can—and must—be an innovation hub. By prioritizing 'innovative spirit' and community service over pure academic output, we democratize the landscape and ensure local development is driven by empowered academic ecosystems rather than just policy frameworks.

4. THE POLICY AND GLOBAL CONTEXT

4.1. THE EUROPEAN UNION: A DENSE POLICY ARCHITECTURE DRIVING OPENNESS AND COLLABORATION

The European Union (EU) positions from a closed, laboratory-centred model of innovation toward an ecosystemic and demand-driven approach. The New European Innovation Agenda (NEIA, 2022) drives this evolution. It aims to strengthen Europe's capacity for deep-tech entrepreneurship, mobilize finance for innovation, and connect public demand with innovative solutions through innovation procurement and mission-oriented initiatives. This directly encourages universities to engage in partnerships that translate research into market and societal impact.

The EU's Open Innovation 2.0 model, promoted since 2016, provides the conceptual foundation for these transformations. It champions the quadruple helix framework—where academia, industry, government, and civil society co-create value—recently adding the environmental component of the quintuple helix. This model has driven the rise of living labs, innovation hubs, and regional innovation ecosystems, where universities serve as orchestrators—providing knowledge, testing technologies, and coordinating collaboration.

At the operational level, Horizon Europe—the EU's main research and innovation programme—makes Open Science *practices mandatory*, while explicitly funding multi-actor consortia that embody *Open Innovation* principles. Universities receiving EU funding must ensure open access to results and data and demonstrate pathways for impact, which in practice has led to structural reforms:

- Creation of technology transfer offices that focus on collaborative licensing rather than exclusivity.
- Establishment of entrepreneurship units and innovation liaison offices.
- Integration of societal engagement into research evaluation frameworks.

The European Strategy for Universities (2022) and the European Universities Initiative complement this by promoting long-term institutional alliances and shared infrastructures for innovation. These alliances—such as EUTOPIA, CIVIS, and YUFE—facilitate joint degrees, research–industry pipelines, and the development of interdisciplinary innovation curricula, turning universities into hubs of regional innovation and social transformation.

Together, these instruments embed Open Innovation into the DNA of European higher education and research systems, redefining universities as co-creators of public value.

However, this new approach, with its good set of objectives, has not yet been internalized by most universities, departments, and individual lecturers or researchers, who remain extremely attached to their "ownership" of results.

4.2. AN EMERGING INTERREGIONAL POLICY SPACE

A distinct interregional policy space has taken shape through the Interregional Dialogue on Education and Development (an annual event since 2022), bringing together Africa, Latin America and the Caribbean, Europe, and the Arab world. This emerging space is characterized by a shared commitment to polycentric cooperation, multilingualism, gender equity, and the recognition of universities as diplomatic and developmental actors. Rather than reproducing hierarchical knowledge flows, it promotes a model of plural, distributed, and mutually constitutive innovation.

In this context, Open Innovation becomes more than a managerial tool; it becomes a geopolitical framework that aligns with the principles of open development and inclusive multilateralism. Interregional cooperation increasingly relies on co-designed research agendas, shared digital infrastructures, joint incubators, and multi-actor platforms that facilitate knowledge diplomacy. This approach reflects broader global transformations—such as mission-oriented innovation, the democratization of scientific knowledge, and the rise of multilingual and culturally grounded innovation ecosystems.

The interregional agenda is therefore not simply an aggregation of bilateral collaborations. It constitutes a new epistemic and political space in which universities serve as orchestrators of transnational innovation ecosystems, aligning societal priorities with research capacities and technological opportunities across regions.

This is not a technical evolution alone - it is geopolitical.

Open Innovation becomes a vehicle for a renewed, more democratic multilateralism.

4.3. REGIONAL PERSPECTIVES: ADAPTING THE OPEN INNOVATION PARADIGM

Africa
The African Union's Science, Technology and Innovation Strategy for Africa (STISA-2024) places innovation at the heart of continental development and emphasizes networked collaboration, capacity building, and knowledge transfer. Universities are recognized as central *nodes in regional innovation ecosystems*. However, structural limitations—funding, infrastructure, and policy alignment—require adapted models of openness. Here, Open Innovation through partnerships offers a way to connect local research to global networks while fostering South–South collaboration. Universities are encouraged to develop innovation offices, incubators, and regional clusters that connect research to industrialization and entrepreneurship.

Latin America and the Caribbean
The CELAC Plan of Action on Science, Technology and Innovation (2021) and the EU–CELAC Joint Initiative on Research and Innovation (JIRI) highlight co-creation and inclusion as guiding principles. Many Latin American governments have adopted mission-oriented innovation policies (e.g., in health, sustainable agriculture, or climate adaptation) that rely on university-led collaborations. Universities increasingly act as conveners of *multi-stakeholder dialogue*, reflecting Obreal's own interregional mission. Policy incentives are gradually evolving to reward social innovation and impact rather than only publications or patents.

Global frameworks
The UNESCO Recommendation on Open Science (2021) provides a universal policy anchor for all regions. It defines principles for open infrastructures, capacity building, and inclusivity, calling for universities and governments to adopt policies that ensure the accessibility, integrity, and reuse of scientific outputs. This global norm aligns Open Science with Open Innovation by framing both as enablers of equity, participation, and sustainable development.

4.4. INTEGRATING THE DIALOGUE OUTCOMES: GENERATIVE AI AS ENABLING INFRASTRUCTURE

The conclusions derived from the most recent Interregional Dialogue (such as the VII Forum on CIP, Innovation and Open Innovation) introduce a critical layer of complexity and opportunity to the Open Innovation agenda. The most pressing development concerns the rapid and pervasive deployment of Generative Artificial Intelligence (GenAI), which is fundamentally reshaping the production and dissemination of knowledge.

GenAI must be viewed not merely as a set of disruptive tools, but as an enabling infrastructure that accelerates the need for "*open-by-design*" systems. This technology dramatically lowers the barriers to knowledge synthesis and content creation, thereby making the traditional closed model of IP increasingly untenable and positioning the Open Innovation paradigm as a technological and functional imperative.

The forum's outcomes underscore a dual mandate for Obreal and its network:

- Leveraging GenAI for Open Access: The technology must be strategically harnessed to enhance open knowledge sharing, support multilingualism across academic institutions, and automate the creation of Open Educational Resources (OERs), accelerating the equitable diffusion of knowledge across regions.
- Establishing Ethical Governance: Simultaneously, the deployment of GenAI necessitates urgent policy dialogue to address issues of data ethics, algorithmic bias, copyright infringement, and digital sovereignty. The interregional space is essential for developing shared, responsible guidelines that prevent the deepening of existing digital divides and ensure that AI-driven innovation remains aligned with principles of social justice and equity.

These insights confirm that Open Innovation is an evolving framework, where technological acceleration necessitates immediate strategic action on policy and governance to ensure inclusive and sustainable outcomes.

4.5. POLICY MECHANISMS THAT MAKE OPEN INNOVATION WORK FOR UNIVERSITIES

Across regions, certain policy levers consistently transform how universities engage in innovation:

- Funding and evaluation reform — rewarding co-creation, societal impact, and collaboration (e.g., Horizon Europe's "Pathways to Impact" and the EU's CoARA initiative).
- Demand-side instruments — such as *innovation procurement* and *challenge-based* missions that connect academic solutions to public needs.
- Alliances and regional innovation ecosystems — promoting cross-institutional infrastructures for joint R&D, digital transformation, and open learning.
- Intellectual property and data governance frameworks — allowing open-by-default models while maintaining balanced protection for sustainability.
- Capacity-building and incubation programmes — such as Obreal's AI *Youth Incubator*, which directly operationalize open innovation principles by connecting young researchers and entrepreneurs across continents.

5. OBREAL'S STRATEGIC ROLE IN THE POLICY LANDSCAPE

Obreal's network uniquely connects the policy frameworks of these diverse regions. Its AI Youth Incubator translates open innovation into practice, empowering youth-led projects that co-develop AI solutions for public good. The Julio Cotler Programme anchors openness in the social sciences, linking research to democratic governance and policy dialogue. The Multilingualism Agenda operationalizes openness through inclusion and linguistic equity, ensuring that global cooperation is not limited to dominant languages. Finally, the Interregional Dialogue Platform embodies the "open processes" dimension—linking ministries, university associations, and innovation agencies to co-design shared policies.

These programmes are now fully aligned with the Interregional Action Agenda that emerged in Bogotá. Obreal's AI Youth Incubator, the Julio Cotler Programme, the Multilingualism Agenda, and the Interregional Dialogue mechanism are not isolated initiatives —they form the backbone of an emerging open and distributed innovation ecosystem that bridges continents through shared priorities:

- Climate resilience
- AI for development
- Food sovereignty
- Gender equality in STEM
- Transitions for peace, equity, and sustainability

In sum, Open Innovation—driven by global and regional policy frameworks—positions universities not only as centres of knowledge, but as active engines of co-creation, regional development, and inclusive governance. Obreal's work bridges these frameworks, translating the European experience into actionable, context-sensitive models for Africa, Latin America, and Asia.

6. OBREAL'S CONTRIBUTION AND STRATEGIC RELEVANCE

Within the evolving global landscape, Obreal acts as a strategic orchestrator of interregional dialogue and policy cooperation across Europe, Latin America, Africa, and Asia. By implementing open and collaborative frameworks, it serves as a vital convener for innovation. Its AI Youth Incubator puts Open Innovation into practice by connecting diverse stakeholders to co-create responsible AI, while the Julio Cotler Programme applies these participatory principles to democratic governance and social inclusion. Furthermore, Obreal's Multilingualism Agenda ensures that open communication and linguistic diversity prevent inequality, empowering actors across cultural boundaries. Ultimately, through its Interregional Dialogue Platform, Obreal consolidates these initiatives into a comprehensive framework of open processes, positioning itself as a key global broker of knowledge diplomacy and innovation governance.

6.1. STRATEGIC PRIORITIES (AFTER THE INTERREGIONAL DIALOGUE IN BOGOTÁ 2025)

Following the Bogotá 2025 Interregional Dialogue, three strategic priorities have been identified, all underpinned by Open Innovation frameworks. These include strengthening knowledge and research networks through innovation hubs and mobility, advancing gender equality in science through inclusive leadership, and co-designing joint STI agendas in critical fields such as AI, climate, TVET, food security and energy transition.

Open Innovation provides the tools, methods, and values needed to turn these commitments into impact. To effectively address these priorities—particularly climate resilience and energy transition—we must adopt a Quintuple Helix approach. This ensures that our joint STI agendas are designed not only with industry and government but also fundamentally aligned with ecological boundaries. By formally recognizing the environment as a stakeholder in our innovation ecosystems, Obreal ensures that interregional cooperation drives the necessary socio-ecological transition.

Ultimately, the success of an Open Innovation agenda depends not only on the quantity of students who have gone through its classrooms, labs, and libraries, but on their quality to contribute to the development and wellbeing of their fellow citizens. We must move beyond "*teaching for a diploma*" to a model of "*learning for innovation*". By embedding experiential learning and problem-solving into the heart of the curriculum, universities will produce graduates who are not just employable, but who are capable of driving the very social and economic betterment that the Open Innovation paradigm promises.

6.2. STRATEGIC CHALLENGES AND THE GOVERNANCE OF OPENNESS

Despite its compelling promise, the Open Innovation paradigm is continually confronted by a central tension: the paradox of openness versus protection. While collaboration thrives on permeability, critical issues concerning Intellectual Property (IP) rights, data sovereignty, and privacy legislation present formidable constraints on cross-border knowledge flows. This requires a proactive governance framework.

Obreal must therefore lead regional and interregional deliberation on how to successfully reconcile mandatory openness with responsible governance, particularly in emerging domains such as AI, sensitive data sharing, and digital education. To translate this paradigm into effective global action, institutions must navigate three strategic challenges that define the operational landscape for Obreal's interregional mission:

- Bridging the Global-to-Local Divide and Addressing Structural Inequality: Innovation ecosystems in regions such as Africa and Latin America often grapple with fundamental structural limitations, including unequal access to digital infrastructure, scarce funding, and fragmented policy alignment. The strategic question is: *How can Open Innovation frameworks be contextually adapted to foster genuine inclusion and South-South cooperation, ensuring they do not merely reproduce global North-centric models of development?*
- Governance of IP and Data for Public Value: The default assumption of 'open-by-design' must be balanced against the need for sustainability and fair compensation. The strategic question is: *What new interregional IP and data governance models are required to secure public value creation from academic research while maintaining balanced protection and addressing concerns of data ethics and sovereignty?*
- *Operationalising the Quintuple Helix for Systemic Impact: The explicit shift to a Quintuple Helix demands that impact measurement extends beyond economic and social metrics to include ecological sustainability.* The strategic question is: *How can Obreal design shared methodologies and Key Performance Indicators (KPIs) that effectively evaluate the systemic impact of open innovation—linking co-creation outcomes directly to environmental protection, climate resilience, and the 'Green Transition' across diverse institutional contexts?*

Obreal's strong network of higher education associations and its expertise in capacity building position it uniquely to broker solutions to these complexities. By developing context-sensitive and equitable models, Obreal can ensure that the interregional agenda delivers on the promise of inclusive, sustainable, and democratically governed innovation.

7. CONCLUSION: ORCHESTRATING AN OPEN, EQUITABLE FUTURE

The analysis confirms that Open Innovation is no longer an optional institutional accessory but the essential operating system for contemporary Higher Education. This paradigm represents a profound, Schumpeterian structural transformation, moving universities from being mere knowledge producers to active innovation orchestrators within a dynamic Quintuple Helix framework.

The fundamental prerequisite for external success is the internal shift towards "learning for innovation", whereby academic staff act as "*guide, helper, and tutor*" to agents of co-creation. Simultaneously, the adoption of Open Development Models provides the necessary conceptual architecture to ensure that engagement is systemic, process-oriented, and focused on maximizing public value.

The strategic mandate of Obreal is to broker solutions across regions—particularly regarding the complexities introduced by Generative AI and the inherent tension between openness and governance—ensuring that the interregional agenda delivers innovation that is socially just, environmentally sustainable, and democratically governed.

The conclusion drawn is that the transformation of Higher Education through Open Innovation is a commitment to fostering equitable, resilience-driven societies. It is an agenda that demands continuous institutional courage, global policy alignment, and a sustained collective effort to ensure that knowledge serves the common good.

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