



Position Paper on Pathways for the Exploitation of the BELLA Infrastructure

Beyond interconnectivity towards sustainable EU-LAC digital cooperation

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
1. INTRODUCTION AND PURPOSE	3
2. EU-LAC DIGITAL TRANSFORMATION: COOPERATION CONTEXT	4
3. BELLA AS A STRATEGIC PUBLIC INFRASTRUCTURE	4
4. FROM INTERCONNECTIVITY TO SYSTEMIC COOPERATION	5
5. PRIORITY DOMAINS FOR STRATEGIC EXPLOITATION OF BELLA	5
6. ENABLING CONDITIONS FOR EFFECTIVE USE	6
7. ADDED VALUE FOR KEY STAKEHOLDER GROUPS	6
8. STRATEGIC RECOMMENDATIONS	7
9. CONCLUDING MESSAGES	7
ANNEX 1 – BRIEFING NOTE FOR DECISION-MAKERS	8
ANNEX 2 – METHODOLOGICAL NOTE	9
ANNEX 3 – REFERENCES	9

EXECUTIVE SUMMARY

The BELLA infrastructure constitutes a cornerstone of EU-LAC digital cooperation, providing long-term, high-capacity connectivity between Europe and Latin America and the Caribbean¹. Developed as a public-private investment embedded in the National Research and Education Network (NREN) ecosystems of both regions, the BELLA Programme has successfully delivered its initial objective of interconnecting research and innovation communities across the Atlantic.

Evidence gathered through the SPIDER project² confirms that the technical performance of BELLA is robust and that demand for advanced connectivity, data-intensive services, and remote access to digital resources is high. At the same time, this evidence highlights a structural gap between connectivity and cooperation. While organisations benefit from improved network performance, BELLA is not yet consistently used as a strategic enabler of long-term cooperation, policy alignment, and shared digital transformation objectives.

This Position Paper sets out pathways to exploit the full potential of BELLA beyond basic interconnectivity. It frames BELLA as a strategic infrastructure that can support sustained EU-LAC cooperation in priority digital domains, including data-intensive research, artificial intelligence, cybersecurity, virtual research environments, and satellite data use. The paper focuses on strategic orientation, guiding principles, and priority areas, and deliberately avoids operational measures, which are addressed separately through the SPIDER roadmap for EU-LAC digital cooperation.

Addressed to policymakers, NRENs, research and funding organisations, ICT and digital actors, space-related stakeholders, and leaders of EU-LAC digital dialogues, this document aims to support informed decision-making and long-term commitment to the public value of BELLA.

1. INTRODUCTION AND PURPOSE

The BELLA infrastructure represents a major public-private investment aimed at strengthening digital cooperation between Europe and Latin America and the Caribbean. By providing stable, long-term and high-capacity connectivity between the two regions, BELLA has established a reliable technical foundation for collaboration in research, innovation, and digital development³. This achievement marks a major step forward in EU-LAC relations.

Evidence collected through the SPIDER project - including surveys, expert focus groups, and EU-LAC digital dialogue events conducted between 2024 and 2025 - confirms that this foundation is technically solid and operational. At the same time, it indicates that the wider benefits of BELLA depend on how the infrastructure is positioned and used within the EU-LAC cooperation framework. While many organisations benefit from improved connectivity, this does not automatically lead to structured cooperation, alignment with policy priorities, or sustained impact. In practice, BELLA often remains perceived as a neutral technical backbone rather than as a strategic cooperation asset embedded in EU-LAC relations.

This Position Paper responds to this challenge by offering a strategic perspective on how BELLA can be more effectively positioned and used beyond basic interconnectivity. It clarifies the role of BELLA in supporting EU-LAC digital transformation and long-term

¹ BELLA - Building the Europe Link to Latin America, European Commission. https://international-partnerships.ec.europa.eu/policies/programming/programmes/bella-building-europe-link-latin-america_en

² SPIDER publications and resources. <https://spidernetwork.org/resources/>

³ BELLA II Strategic Dialogues Workshop Panama, 15 November 2023 Conducted within the framework of the TICAL2023 Conference. Outcomes Report

cooperation. The document complements the SPIDER roadmap for EU-LAC cooperation on digital transformation, by focusing on strategic orientation, guiding principles, and priority domains rather than operational measures or implementation mechanisms.

The Position Paper addresses policy makers involved in EU-LAC digital relations, as well as NRENS, research and funding organisations, digital and ICT actors, space-related stakeholders, and leaders of digital dialogues who contribute to shaping cooperation between the two regions.

2. EU-LAC DIGITAL TRANSFORMATION: COOPERATION CONTEXT

Digital transformation is a shared priority for Europe and Latin America and the Caribbean. Both regions face similar challenges linked to data use, digital skills, cybersecurity, public services, and the responsible deployment of emerging technologies⁴. At the same time, differences in institutional capacity, funding conditions, and digital ecosystem maturity shape how digital transformation unfolds in each region. EU-LAC digital dialogues have helped identify common areas of interest and have supported policy exchange and coordination.

EU-LAC cooperation on digital topics has grown in recent years through political dialogue, joint declarations, and thematic working groups⁵. These EU-LAC digital dialogues have contributed to building mutual understanding and identifying areas of common interest.

However, evidence from SPIDER activities shows that cooperation often remains fragmented and is project-based and time-limited. Opportunities for collaboration are not always visible to all relevant actors on both sides, and long-term cooperation frameworks remain limited. Differences in institutional capacity, funding conditions, and national digital ecosystems also affect participation and engagement across regions.

In this context, BELLA represents more than a technical asset. It is one of the few shared infrastructures jointly supported by both regions. Embedded in the NREN ecosystems of Europe and Latin America and the Caribbean, BELLA can play a key role in moving EU-LAC cooperation from dialogue to sustained joint work, provided that its use is guided by a clear strategic vision. This gives BELLA the potential to serve as a practical anchor for cooperation, linking political dialogue with concrete collaboration among research, innovation, and digital actors.

3. BELLA AS A STRATEGIC PUBLIC INFRASTRUCTURE

BELLA should be understood as a strategic public infrastructure rather than only as a connectivity solution as it supports cooperation, trust, and continuity between two regions. Its value lies not only in speed or capacity, but in the fact that it is designed for public interest purposes, anchored in the NREN ecosystems of Europe and Latin America and the Caribbean, which contributes to digital development and long-term cooperation between regions.

Survey data collected within SPIDER highlight strong demand for high-speed connectivity, remote access to computing resources, cloud services, and data-intensive applications. At the same time, they show that users often focus on service quality without engaging with the infrastructure that enables it. This suggests that BELLA does not need to be highly

⁴ SPIDER (2024) Survey Report on the use of BELLA infrastructure by the digital ecosystem. <https://spidernetwork.org/wp-content/uploads/2026/03/SPIDER-Survey-Report.pdf>

⁵ SPIDER (2025), Mapping of digital dialogues and identified EU-LAC agreements. https://spidernetwork.org/wp-content/uploads/2026/03/SPIDER_D1.3_Mapping.pdf

visible to be effective, but it does need to be strategically positioned and used. By integrating BELLA into cooperation frameworks and policy objectives, it will be recognised as a strategic enabler of cooperation.

For policy makers, this implies recognising BELLA as part of a broader cooperation system that supports digital autonomy, open science, data sharing, and balanced participation across regions. For NRENs, it reinforces their role as trusted intermediaries that enable cross-border cooperation and support services that require stability, predictability, and public oversight, in complementarity with commercial providers.

4. FROM INTERCONNECTIVITY TO SYSTEMIC COOPERATION

Interconnectivity is a necessary precondition for cooperation, but it is not sufficient on its own. SPIDER consultations show that technical connectivity between Europe and Latin America and the Caribbean does not automatically translate into structured collaboration between institutions, research communities, or digital ecosystems.

A strategic shift is therefore required, from focusing on connectivity as an end in itself to supporting cooperation systems. These systems enable long-term partnerships, shared priorities, and continuity beyond individual projects or funding cycles. BELLA can contribute to this shift by providing a stable environment for repeated interaction, joint use of resources, and trust-based collaboration.

NRENs play a central role in this context. This implies recognising the role of NRENs as intermediaries and cooperation facilitators rather than only service providers⁶. Strengthened cooperation between European and Latin American NRENs can support coordination, reduce fragmentation, and improve the visibility of opportunities across regions. From a policy perspective, this underlines the importance of supporting coordination mechanisms that link infrastructure, communities, and strategic objectives.

5. PRIORITY DOMAINS FOR STRATEGIC EXPLOITATION OF BELLA

The strategic use of BELLA should focus on domains where cross-border cooperation is essential and where shared infrastructure brings clear added value. Evidence from SPIDER survey, expert discussions, and dialogue events points to several priority domains.

Data-intensive research and data sharing are central. Many scientific and innovation activities rely on access to large datasets, repositories, and distributed computing resources. BELLA can support trusted data exchange and joint use of such resources across regions.

Artificial intelligence and advanced computing represent another key domain. The development of AI systems depends on access to data, computing power, and collaboration between research teams. While regulatory and capacity differences exist between regions, BELLA can support shared datasets, remote access to computing resources, and joint experimentation in a trusted environment.

⁶ SPIDER DIF at TICAL 2025, Panel 2: BELLA Beyond Borders - Unlocking the Future of EU-LAC Research and Innovation Connectivity.

Cybersecurity has also emerged as a domain with strong cooperation potential. Both regions face skills shortages and increasing security risks. Cooperation supported by BELLA can contribute to shared capacity building and knowledge exchange.

Virtual research environments, test facilities, and remote laboratories also benefit from stable and high-quality connectivity, enabling continuous collaboration across distance. These tools allow researchers and innovators to work together across distance, reducing barriers linked to geography and infrastructure gaps.

The use of **satellite and earth observation data** like Copernicus is increasingly relevant, particularly for areas such as climate, agriculture, mobility, and environmental monitoring⁷. BELLA can support access to and exchange of such data between regions.

Finally, **High-performance computing (HPC)** is a cross-cutting enabling capability underpinning several of these priority domains, particularly data-intensive research, artificial intelligence, virtual research environments, and cybersecurity, rather than a standalone cooperation domain in itself.

6. ENABLING CONDITIONS FOR EFFECTIVE USE

The effective exploitation of BELLA depends on enabling conditions that extend beyond technical aspects. Awareness of the infrastructure alone is not sufficient. What matters is clarity on how BELLA supports concrete needs and how its use aligns with policy and organisational priorities.

SPIDER evidence points to budget constraints, policy concerns, and uneven national infrastructures and priorities as factors that influence uptake, particularly in Latin America and the Caribbean. These differences call for flexible approaches that take regional contexts into account rather than uniform solutions.

Trust is another key condition. Clear usage frameworks, confidence in data protection and security, and transparency regarding rules and responsibilities are particularly important for public sector and research actors when cooperation involves sensitive data.

Policy alignment also plays a supporting role. While full harmonisation is neither required nor feasible, improved dialogue and mutual understanding can help reduce friction and support cooperation. BELLA can serve as a practical reference point connecting policy discussions with real cooperation needs.

7. ADDED VALUE FOR KEY STAKEHOLDER GROUPS

The strategic exploitation of BELLA delivers value to different stakeholder groups in complementary ways.

For NRENs, BELLA strengthens their role as facilitators of international cooperation and reinforces ties between European and Latin American networks. It supports their long-term relevance within the digital ecosystem.

For research performing and funding organisations, BELLA enables joint work, shared infrastructures, and more balanced participation across regions.

For ICT and digital actors connected to research and innovation, BELLA provides access to cross-regional ecosystems, partners, and test environments.

⁷ RedCLARA Copernicus Academy LAC, BELLA II Project. <https://bella-programme.eu/es/results/copernicus-academy-redclara-bella>.

For space agencies and actors working with satellite data, BELLA supports data exchange and joint analysis across continents.

For policy makers and leaders of digital dialogues, BELLA offers a concrete instrument to support the translation of political commitments into practical and sustained cooperation.

8. STRATEGIC RECOMMENDATIONS

Several strategic recommendations emerge from the evidence gathered through SPIDER.

Recommendation 1. Treat BELLA as a shared cooperation asset. BELLA should be explicitly recognised as a shared asset embedded in EU-LAC digital relations rather than only as a connectivity solution and technical backbone. Evidence from SPIDER shows that cooperation remains fragmented when infrastructure is viewed only as a technical service. Framing BELLA as a cooperation asset supports long-term planning and shared ownership.

Recommendation 2. Link BELLA use to policy priorities and dialogue outcomes. BELLA should be connected to EU-LAC digital dialogue priorities to ensure that political commitments translate into practical cooperation. SPIDER dialogue activities demonstrate the need for clearer links between policy discussions and infrastructure use.

Recommendation 3. Focus on continuity in priority domains. Strategic exploitation of BELLA should prioritise long-term engagement in key domains such as data, AI, cybersecurity, and satellite data, rather than isolated experiments. SPIDER evidence highlights the importance of sustained collaboration to generate impact.

Recommendation 4. Promote balance and inclusion. Cooperation supported by BELLA should take into account different levels of capacity across regions. Survey results show uneven access and uptake, particularly in Latin America and the Caribbean, underlining the need for inclusive approaches to participation across regions.

Recommendation 5. Safeguard BELLA's public value through sustained commitment. Continued public support is essential to protect BELLA's role as a trusted, non-commercial infrastructure. SPIDER findings show that public governance and long-term commitment are key to trust and adoption.

9. CONCLUDING MESSAGES

BELLA has successfully delivered its initial objective of interconnecting Europe and Latin America and the Caribbean. The next phase concerns how this infrastructure is positioned within the EU-LAC cooperation framework. Strategic choices made now will determine whether BELLA remains primarily a technical backbone or becomes a driver of structured and sustained cooperation.

This Position Paper provides strategic guidance to support informed decision-making. It complements existing roadmaps and implementation instruments by clarifying direction, priorities, and principles. Through this approach, BELLA can fully support a more balanced, inclusive, and sustainable EU-LAC digital cooperation.

Decision-makers' takeaway

- BELLA is a shared EU-LAC digital infrastructure with strategic value beyond connectivity.
- Connectivity alone does not deliver cooperation; strategic positioning and continuity are required.
- BELLA can anchor sustained EU-LAC cooperation in priority digital domains such as data, AI, and cybersecurity.
- Balanced participation and trust-based frameworks are essential for long-term impact.
- Sustained public commitment is critical to safeguard BELLA's public value.

Annex 1 – Briefing Note for Decision-Makers

PURPOSE

This briefing note summarises the key messages of the Position Paper on pathways for the exploitation of the BELLA infrastructure. It is intended for EU and LAC policymakers, leaders of digital dialogues, and senior decision-makers involved in shaping bi-regional digital cooperation.

WHY BELLA MATTERS

BELLA is one of the few shared digital infrastructures jointly supported by Europe and Latin America and the Caribbean. It provides more than connectivity: it enables trust, continuity, and long-term cooperation between research, innovation, and digital ecosystems. Evidence from the SPIDER project shows that while BELLA's technical performance is strong, its strategic potential remains underused if treated only as a neutral connectivity backbone.

THE CHALLENGE

EU-LAC digital cooperation remains fragmented and largely project-based. Political dialogue has advanced, but translation into sustained cooperation is uneven. Connectivity alone does not ensure alignment with policy priorities, balanced participation, or long-term impact.

STRATEGIC DIRECTION

BELLA should be positioned as a strategic asset embedded in EU-LAC digital relations. Its value lies in supporting cooperation systems that enable repeated interaction, shared use of resources, and long-term partnerships across regions.

PRIORITY DOMAINS

Strategic exploitation of BELLA should focus on domains where cross-border cooperation is essential:

- Data-intensive research and data sharing.
- Artificial intelligence and advanced computing.
- Cybersecurity cooperation and skills development.
- Virtual research environments and remote laboratories.
- Satellite and earth observation data use.

KEY RECOMMENDATIONS

1. Recognise BELLA as a shared cooperation asset, not only as infrastructure.
2. Link BELLA use to EU-LAC digital dialogue priorities and policy objectives.
3. Focus on continuity and long-term cooperation in priority domains.
4. Promote balanced and inclusive participation across regions.
5. Safeguard BELLA's public value through sustained public commitment.

DECISION-MAKERS' TAKEAWAY

Strategic choices made now will determine whether BELLA becomes a driver of sustained EU-LAC digital cooperation or remains primarily a technical backbone. This Position Paper provides strategic guidance to support informed decision-making and complements existing roadmaps and implementation instruments.

Annex 2 – Methodological Note

This Position Paper is informed by evidence gathered through the SPIDER project using a mixed qualitative and consultative approach. Inputs include an online survey targeting EU-LAC stakeholders, a series of expert focus groups involving representatives from research, innovation, digital, and network communities in both regions, and dedicated dialogue and consultation events linked to EU-LAC Digital Dialogues Implementation Forum - DIF.

These activities aimed to capture perceptions, needs, and opportunities related to the strategic use of the BELLA infrastructure beyond connectivity. The analysis focused on identifying recurring patterns, shared priorities, and systemic challenges rather than producing quantitative metrics. Findings were triangulated across sources to ensure consistency and robustness and were interpreted at strategic level to inform policy-oriented conclusions and recommendations.

Annex 3 – References

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