

The Belo Horizonte digital inclusion programme

Region	Latin America and the Caribbean
Award Scheme	Shanghai Manual
Themes	Social Inclusion Youth & Livelihoods
Sustainable Development Goals	Goal 4 - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all Goal 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all Goal 10 - Reduce inequality within and among countries Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable

Summary

Belo Horizonte’s digital inclusion programme addresses persistent digital and social inequalities by expanding access to connectivity, devices, and training among marginalized urban residents. Implemented by the City Hall through its digital infrastructure company, Prodabel, the programme integrates three pillars—connectivity, equipment, and training—into a unified approach to urban digital transformation. Free WiFi hotspots have been installed across all 220 informal settlements, supported by 146 telecentres providing public computer access and digital literacy training. The city’s Computer Reconditioning Centre refurbishes and distributes used devices, with over 50,000 computers donated to students and social institutions. Training programmes such as Coding Dreams and Coding Dreams in Vilas and Favelas offer free courses in programming, robotics, and digital entrepreneurship, targeting youth, women, and residents of low-income communities. Since 2023, more than 3,000 citizens have participated in training, and 111 participants from informal settlements have been certified in web programming. Women now represent 60 percent of graduates. The initiative promotes equitable access to technology, supports job creation, and fosters digital citizenship. Embedded in community facilities and supported by multi-sector partnerships, it provides a sustainable, scalable model for inclusive digital transformation.

Background and Objective

The Dongming Road Subdistrict in Pudong, Shanghai, has developed an innovative metaverse-based digital community to strengthen participatory urban governance in a super-aged context. Implemented in partnership with the social organization Huimingxin, the initiative established the Huimingxin Neighbourhood Development Service Centre, integrating online and offline civic participation through a three-layer digital governance framework: visual, computational, and relational. The visual layer uses digital twin and augmented reality technologies to enhance access to community information, cultural heritage, and local spaces, encouraging engagement among both young and elderly residents. The computational layer supports neighbourhood economic vitality through a location-based digital coupon system that automates incentives and provides real-time analytics for local merchants. The relational layer applies blockchain-based NFT digital badges to recognize community participation and foster youth

leadership in local governance. Since 2023, the project has engaged over 3,000 residents, generated 1,287 citizen proposals, and contributed to 32 implemented community improvements. The initiative demonstrates how emerging digital technologies can advance the New Urban Agenda's goals of inclusivity, innovation, and participatory governance by promoting community self-organization and "intelligence in proximity," where technology serves social connection and local empowerment.

The programme seeks to reduce digital, social, and economic inequality by integrating connectivity, equipment provision, and training into a cohesive urban digital inclusion strategy. Its objectives are to expand internet access in informal settlements, promote digital literacy through targeted education, enhance employability by developing technical and entrepreneurial skills, and ensure that vulnerable populations—especially women, youth, and residents of informal areas—can participate meaningfully in the city's growing digital economy.

Actions and Implementation

The City Hall implemented the programme through its digital infrastructure company, Prodabel, with support from international and private partners. The initiative operates under three main pillars: connectivity, equipment, and training. Free WiFi hotspots were established across all 220 informal settlements, creating over 4,900 active points and 146 telecentres that provide internet access, computer facilities, and training. The Computer Reconditioning Centre refurbishes used devices, distributing over 50,000 units to students and community institutions. Training programmes, including Coding Dreams and its special edition for informal communities, provide free courses in programming, robotics, and digital entrepreneurship. Specialized modules address inclusion for women, seniors, and people with disabilities, fostering social and economic empowerment.

Outcomes and Impacts

The programme has reached millions of residents through its connectivity network and directly trained thousands of citizens in digital skills. The Coding Dreams in Vilas and Favelas programme alone certified 111 participants in web programming between 2023 and 2024, connecting them to employment and innovation opportunities. More than 50,000 refurbished devices have been distributed, while 12,000 new training opportunities are planned through 2025. Women now represent 60 percent of graduates, reflecting progress in gender inclusion. The initiative has also improved local access to digital services, with citizens now able to interact remotely with over 1,400 municipal services. It demonstrates how digital access can strengthen social inclusion, job creation, and civic participation.

Sustainability and Scalability

Sustainability is ensured through institutionalization within City Hall operations, community management of telecentres, and partnerships with local and international stakeholders. Many digital inclusion points are embedded in schools and community centres, fostering local ownership and long-term continuity. The model is adaptable and replicable, offering a framework that can be scaled across Brazilian cities seeking to combine connectivity, education, and inclusive governance.

Gender and Social Inclusivity

The initiative prioritizes gender equity and the inclusion of marginalized groups. Programmes such as Coding Her Dreams have trained women in programming and digital entrepreneurship, with specialized support for survivors of domestic violence and people with disabilities. The combination of targeted training, accessible public spaces, and affordable connectivity ensures equitable participation, particularly for women, youth, and low-income residents of informal settlements.

Innovative Initiative

Belo Horizonte's digital inclusion programme is innovative for its holistic, citywide approach integrating technology access, skills development, and employment pathways. It combines free connectivity, refurbished equipment, and practical training within a unified policy framework, supported by cross-sector partnerships. The programme reframes digital access as an element of urban social infrastructure—essential for inclusion, resilience, and sustainable development.

Resources devoted to delivery

The initiative is implemented by Prodabel under the coordination of the City Hall, with financial support from the United States and participation from private companies and NGOs. Resources include municipal funding for infrastructure, training facilities, and community telecentres, alongside in-kind donations of hardware. Human resources include municipal staff, digital instructors, volunteers, and local digital inclusion agents, ensuring both technical delivery and community engagement.

Conclusion

The Belo Horizonte digital inclusion programme illustrates how coordinated public policy can transform digital access into a catalyst for inclusion and opportunity. By linking connectivity, training, and innovation, it empowers marginalized residents to participate in the city's digital transformation. Its integration into existing urban systems ensures long-term sustainability, while its emphasis on equity and participation aligns closely with the New Urban Agenda's vision of inclusive, resilient, and connected cities.