



This deliverable is currently awaiting approval from the European Commission.

DIGITAfrica Consortium, June 2026

## DIGITAfrica POLICY BRIEF midterm

### Highlights / Summary

- As **digital transformation** becomes a **strategic priority** and a timely opportunity for Africa, DIGITAfrica aims to act as a catalyst for aligning existing African and European efforts towards a shared vision of a pan-African Research Infrastructure in Digital Sciences. Its unique contribution is to establish the common foundations upon which a sustainable, interoperable and community-driven infrastructure can be progressively designed and deployed.
- The first 18 months of DIGITAfrica **show that shared priorities can be identified** across diverse African contexts, while recognising a diversity of national needs and capacities.
- DIGITAfrica goes beyond strategic recommendations **by proposing a practical shared substrate that supports both research and education**. This has been made possible by bringing together researchers, research infrastructure actors, students, policymakers, industry actors and international organisations through consultations, hands-on training activities and spaces for co-design, dialogue and shared learning. Two initial technical blueprints serve as proof-of-concept platforms ("playgrounds") to validate common services, foster interoperability, and demonstrate how existing initiatives can progressively converge towards a continental infrastructure. In doing so, the project demonstrates both the feasibility of a coordinated approach and the willingness of actors to contribute to sustained cooperation and future action.
- The brief recommends the **foundation and design principles of an intra-African cooperation**, including guiding directions to establish a roadmap supporting capacity development through modular training and micro-credentials closely linked to research infrastructures.
- If implemented, **these recommendations would support a more coherent and interconnected African digital research ecosystem**, empowering the African research community in AI Digital infrastructures. By creating economies of scale, strengthening scientific excellence and developing a critical mass of expertise, DIGITAfrica will enhance Africa's capacity to address the challenges and opportunities brought by Artificial Intelligence and next-generation digital infrastructures. DIGITAfrica builds the common foundation that makes this infrastructure possible.

DIGITAfrica in action: consultation workshops and training activities during the first 18 months of the project:



*DIGITAfrica Consultation Workshop, Tunis, April 2026. Stakeholders from Africa and Europe contributing to the co-design of a pan-African digital research infrastructure.*



*DIGITAfrica Summer School, Nairobi (March 2026): 44 students, graduates and early-career professionals participated in hands-on training in AI, Big Data, Networking, Cloud Computing and 5G technologies. Women represented 52% of participants.*

### Key specific questions addressed by this brief

This brief examines progress towards a pan-African digital research infrastructure, its impacts on African and European partners, conditions for broader uptake, and the respective roles of community-building and capacity development.

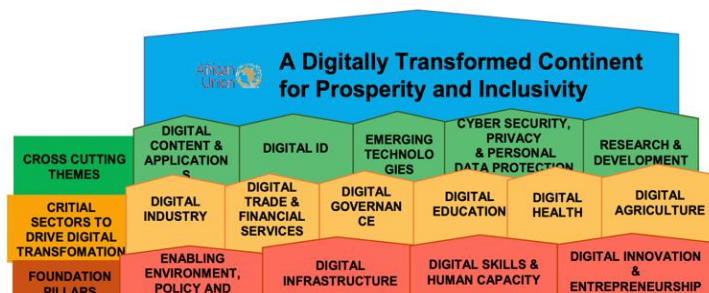
**NB : All deliverables are available to the following [link](#)<sup>1</sup>.**

*The recommendations are primarily addressed to the European Commission, African Union institutions, national ministries responsible for research, higher education and digital transformation, as well as regional organisations and funding agencies supporting research and innovation, alongside research infrastructure operators and stakeholders from the broader digital innovation ecosystem, including industry and technology providers.*

## INTRODUCTION / CONTEXT

### Overall context

In line with the European Commission's Strategy with Africa and the Global Approach to Research and Innovation, **strengthening cooperation between Africa and Europe has become an important strategic priority**. As recently stated by President Macron at the Africa Forward Summit in Nairobi (May 2026), **Europe and Africa share common ambitions for prosperity, sovereignty and strategic autonomy, pursuing a path that seeks to avoid dependence on either Chinese or American dominance while relying on science and innovation to address global challenges**



**Figure 1: Overview of the African Union Digital Transformation Strategy (2020–2030), highlighting key priority areas for a digitally transformed continent.**

Africa is at a **critical stage of its digital transformation**. ICT offers strong potential to address key societal challenges and drive inclusive economic growth across sectors such as health, agriculture, education, finance and the digital industry, while also supporting innovation, entrepreneurship and industrial digitalisation. This ambition is reflected in the African Union's *Digital Transformation Strategy for Africa (2020–2030)*<sup>2</sup>, which aims to harness digital innovation to strengthen integration, reduce inequalities and support sustainable development.

However, **significant structural gaps remain**. Many African countries still face limited ICT infrastructure<sup>3</sup>, access and usage, resulting in low levels of digital readiness and reduced competitiveness. These challenges are compounded by structural disparities in ICT research and innovation capacities, including uneven levels of scientific production and collaboration across the continent, which can limit the translation of knowledge into technological and societal impact.

In this context, **strengthening capacities in digital sciences and structuring Research Infrastructures (RIs) emerge as key policy priorities**<sup>4</sup>. A more strategic and coordinated approach is needed to unlock the potential of digital transformation, support the digital and green transitions, and reinforce both African innovation ecosystems and EU-Africa cooperation. Beyond the development of technical capacities, strengthening long-term EU-Africa cooperation in digital sciences is becoming a strategic objective in its own right, as sustained collaboration can facilitate knowledge exchange and contribute to building scientific capabilities capable of addressing societal and economic challenges. This requires connecting the communities that will use, govern and sustain these infrastructures over time.

Yet, despite increasing policy attention, **a clear and operational framework for structuring digital Research Infrastructures in Africa remains lacking**. The overall goal of DIGITAfrica is to design an **effective and long-term pan-African digital research infrastructure**. For that purpose, the initial plan of

<sup>1</sup> <https://www.digitafrika.eu/deliverables/>

<sup>2</sup> *The Digital Transformation Strategy for Africa (2020-2030)*, African Union, May 2020 ([38507-doc-DTS\\_for\\_Africa\\_2020-2030\\_English.pdf](#))

<sup>3</sup> Network Readiness Index 2025 ([nri-2025.pdf](#))

<sup>4</sup> *The AU-EU Innovation Agenda*, Global Gateway, July 2023 ([ec\\_rtd\\_au-eu-innovation-agenda-final-version.pdf](#))

DIGITAfrica was to develop and assess a comprehensive framework to engage the research community, build relevant skills, propose a first blueprint and design study, and raise awareness among key stakeholders. Two blueprints have been designed and made deployable in various contexts to demonstrate the value and feasibility of the proposed methodology. Drawing from the expertise of partners across five AU countries, each with a strong background and representing diverse African contexts, alongside EU partners who coordinate the first two ESFRI DIGIT RIs - SoBigData<sup>5</sup> and SLICES<sup>6</sup> - dedicated to Digital Sciences, DIGITAfrica aims to exchange experiences, consult stakeholders, and foster dialogue to collaboratively develop a strategic approach.

### Preliminary insights from the first phase of the project (January 2025 – June 2026)

#### Progress in designing a pan-African research infrastructure in Digital Sciences

DIGITAfrica has progressed from an initial concept to the first structured elements supporting the **design of a pan-African research infrastructure in Digital Sciences** through needs analysis, technical blueprints and stakeholder engagement.

- A **shared understanding of needs, capacities** and the **RI landscape** has been established (D1.1, D1.2), confirming fragmentation and priority areas.
- Two initial **DIGITAfrica blueprints** (Edge AI and Heterogeneous Networking) have been defined (D2.1), providing first technical and architectural reference models. Selected as priority use cases for the first phase of the project, they illustrate the DIGITAfrica approach and may be complemented by additional blueprints as needs evolve.
- **Training activities and hands-on initiatives** (e.g., summer school, collaboration with SLICES and SoBigData) illustrate practical use and adaptation and are tightly articulated with each blueprint.
- **Stakeholder consultations** (Cape Town, Tunis, ongoing consultations) contribute to aligning priorities and structuring a common approach, while engaging stakeholders including UNESCO, ITU, Smart Africa Alliance, technology providers, innovation hubs and industry representatives.
- By connecting technical work, training activities and stakeholder consultations, DIGITAfrica has **started to create a practical space for dialogue and co-design** among African and European partners. This helps build the shared understanding and coordination capacity needed to take a pan-African digital RI agenda forward.

#### Impact on European and African partners in terms of linkages and research opportunities

DIGITAfrica started to generate new linkages and **collaboration opportunities** between European and African partners, as well as across African partners.

- Workshops, joint activities and stakeholder consultations have created **new working links between African and European partners**, improving African partners' access to European research infrastructures and training environments (e.g., SLICES, SoBigData), while opening concrete opportunities for joint activities and continued collaboration.
- **Initial mobility and training activities** (summer schools, participation in RI programmes) contribute to acquiring new skills and strengthening exchanges.
- Collaboration remains largely **driven by EU-Africa links**, but we do also observe the emergence of intra-African cooperation.

#### Uptake by African partners and conditions for scaling

DIGITAfrica has identified **clear pathways for uptake by African partners**, while showing that scaling will depend on structural conditions that are not yet fully in place.

- The identification of needs and existing capacities (D1.1, D1.2) provides the **basis for adapting solutions to different national contexts**.
- The blueprint approach then offers modular and adaptable technical foundations that can be **deployed across these diverse contexts**.
- The development of training modules and micro-credentials (D4.2) enables **progressive integration of new users and institutions** with more suitable formats.

<sup>5</sup> SoBigData (<https://www.sobigdata.eu/>)

<sup>6</sup> SLICES (<https://www.slices-ri.eu/>)

- **Initial uptake** is also supported through training activities involving students and early-stage researchers.
- Stakeholder consultations and engagement contribute to **building interest and alignment**.
- **Uptake remains constrained by uneven infrastructure** and connectivity conditions, lack of coordinated investment mechanisms, need for continued stakeholder coordination and engagement.

#### Community-building and capacity development

DIGITAfrica combines **capacity development and community-building** through training activities, stakeholder engagement and the DIGITAfrica community<sup>7</sup>.

- Progress in training and education includes identification of **needs and target groups** and **barriers affecting female and young researchers**, inclusive digital skills development guidelines (D4.1), development of a structured training model, competence framework and micro-credentials approach (D4.2) and concrete hands-on training activities through the Summer School and SLICES and SoBigData programmes.
- **Community-building activities** (workshops, stakeholder consultations, dissemination - D6.1, D6.3), create opportunities for networking, dialogue and co-design across stakeholders, helping to align priorities and identify concrete avenues for continued cooperation.
- These activities go beyond awareness-raising by **creating early opportunities** for researchers, students, infrastructure operators, public institutions and innovation actors to meet, exchange and identify concrete avenues for cooperation.

## POLICY RECOMMENDATIONS

### PR1: Investing in a coordinated and service-oriented pan-African digital research infrastructure

DIGITAfrica confirms **fragmentation of research infrastructures, uneven access to resources and shared needs across countries**. The African Union and national governments should prioritise the development of a federated pan-African digital research infrastructure by:

- Building on identified **needs** and **federating existing capacities**;
- Supporting **modular and interoperable infrastructures** adapted to different contexts;
- Strengthening **enabling conditions**, in particular high-speed connectivity, trusted data services and access to computing resources;
- Establishing **coordinated funding mechanisms**, including joint calls, regional investment programmes and dedicated RI funding instruments.

This would support more coherent development across countries and improve access to digital research infrastructures.

### PR2: Strengthening intra-African collaboration through improved coordination

DIGITAfrica highlights the need for **stronger coordination across countries**. Policymakers should:

- Support **alignment of approaches and solutions** to research infrastructures and data;
- Encourage **cross-border collaboration** through a few relevant joint programmes, and shared access to research infrastructures, properly articulating research educations;
- Strengthen **coordination between national and regional initiatives** through dedicated governance mechanisms and regular multi-stakeholder dialogues;
- Encourage **the involvement of industry stakeholders**, innovation hubs and technology providers in the development and deployment of digital research infrastructures.

This would support more effective collaboration and contribute to structuring a pan-African research ecosystem.

### PR3: Supporting more structured EU-Africa research cooperation

DIGITAfrica shows that **EU-Africa cooperation is active**, but remains largely **project-based and often limited to relatively small-scale and exploratory initiatives**. Policymakers, including European Union and African institutions, should:

<sup>7</sup> <https://www.digitafrika.eu/the-digitafrika-community/>

- Support **more structured cooperation frameworks**, including both bilateral initiatives and EU-AU level collaborations;
- Ensure **continuity beyond individual projects** through sustainable funding pathways and follow-up mechanisms;
- Facilitate **joint research, training and exchange activities**.

This would strengthen long-term collaboration between partners.

#### PR4: Supporting capacity development and community-building in connection with research infrastructures

DIGITAfrica shows that **capacity development, sustained stakeholder engagement and practical opportunities for collaboration** are necessary to lay the foundations for digital research infrastructures that are responsive to users' needs and can be sustained over time.

Policy-makers should:

- **Support the development and scaling of structured training approaches and modalities**, including modular programmes and micro-credentials;
- **Ensure that training activities are connected to research infrastructures** through practical and hands-on components;
- **Support sustained stakeholder engagement mechanisms** to facilitate coordination and alignment across actors;
- **Explore appropriate collaboration models between public research organisations, governments and private-sector actors** to support the long-term sustainability of digital research infrastructures;
- **Facilitate broader access to both training and engagement opportunities** through open calls, mobility schemes and online learning resources.

This would support skills development, coordination across stakeholders, and the effective use of research infrastructures.

## EVIDENCE AND ANALYSIS

DIGITAfrica provides converging evidence that **the foundations of a pan-African research infrastructure in Digital Sciences can be defined and progressively activated**. The project's first phase shows not only that common needs and technical options can be identified, but also that researchers, infrastructure actors, public institutions and innovation stakeholders can be mobilised around a shared agenda, while significant structural constraints remain.

### Robust evidence from project results:

- The **demand and landscape analysis** (D1.1, D1.2) confirms the fragmentation of capacities and infrastructures, uneven access to resources and connectivity and shared needs across countries despite heterogeneous contexts.
- The **DIGITAfrica blueprints** (D2.1) demonstrate the feasibility of a **common technical and architectural approach** that can be **adapted to different environments**.
- The **training and competence framework** (D4.1, D4.2) identifies skills gaps, and demonstrates the feasibility of structured training approaches, including modular programmes and micro-credentials and the specific inclusion challenges affecting female and young researchers.
- The **design study requirements, sustainability analysis and stakeholder engagement activities** (D5.1, D6.3) highlight the importance of coordinated investment, governance, long-term sustainability and continued stakeholder dialogue.

### Concrete illustrations:

- The **DIGITAfrica Summer School (Kenya, March 2026)**<sup>8</sup> provided hands-on training in Artificial Intelligence, cloud and networking, with participation of students and early-career professionals and a strong inclusion dimension (52% female participants).
- Participation of African students in **SLICES and SoBigData training environments** illustrates early forms of engagement with European research infrastructures.

<sup>8</sup> <https://www.digitafrica.eu/digitafrica-summer-school-in-it/>

- Consultation workshops (Cape Town in March 2025<sup>9</sup> and Tunis in April 2026<sup>10</sup>) demonstrate **active involvement of stakeholders** in shaping priorities.

These early results show that DIGITAfrica is **not limited to producing conceptual models or policy recommendations**. Through technical co-design, practical training and stakeholder dialogue, it is already putting in place some of the relationships, skills and coordination mechanisms required for future implementation and scaling.

#### Limitations:

- Results are based on the **first phase of the project (January 2025 - June 2026)** and remain **preparatory**.
- Evidence reflects a **limited number of countries and partners**, with uneven coverage across Africa.
- Some elements (e.g., updated demand analysis, training framework, sustainability aspects) are **still under development (Planned publication in December 2026)**.

#### Methodology and robustness:

The analysis is based on a combination of:

- **Demand and landscape analysis**, including mapping of research infrastructures and capacities;
- **Stakeholder consultations and workshops** across African and European partners;
- **Technical design work** (blueprints and architecture);
- **Training activities and feedback from participants**.

These complementary sources ensure that results are **grounded in both analysis and practical activities**, while remaining within the scope of a Coordination and Support Action.

## REFERENCES AND LEGACY

Key DIGITAfrica outputs include the demand and landscape analyses (D1.1, D1.2), the DIGITAfrica blueprints (D2.1), competence framework and modular curricula (D4.1, D4.2), design study requirements (D5.1), and stakeholder engagement and dissemination results (D6.3).

## PROJECT IDENTITY AND CONTACT DETAILS

**Project title, acronym, grant agreement number:** DIGITAfrica, Towards a comprehensive pan-African research infrastructure in Digital Sciences, GA 101187966

**Coordinator:** Sorbonne Université, Paris, France, [contact@digitafrica.eu](mailto:contact@digitafrica.eu)

**Consortium:** Barcelona Supercomputing Center Centro Nacional De Supercomputacion, Consiglio Nazionale Delle Ricerche, Institut National De Recherche En Informatique Et Automatique, Panepistimio Thessalias, Strathmore, Technische Universität Berlin, Université Cheikh Anta Diop De Dakar, Université De La Manouba, Université De Ngoundere, Universiteit Van Amsterdam, University Of Cape Town, Mandat International Alias Fondation Pour La Coopération Internationale

**Call identifier:** HORIZON-INFRA-2024-DEV-01

**Project duration and budget:** 36 months, 1 499 375,00€

**Project's main objectives:** In line with the objectives of the Commission Strategy with Africa and the Global Approach to Research and Innovation "Europe's strategy for international cooperation in a changing world"<sup>6</sup> the overall goal of DIGITAfrica is to design an effective and long-term pan-African Digital research infrastructure. For that purpose, we will develop and assess a comprehensive framework to engage the research community, develop the skills, propose a first blueprint and design study, and raise awareness among the key stakeholders.

**Website:** <https://www.digitafrica.eu>



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<sup>9</sup> <https://www.digitafrica.eu/digitafrica-launches-in-cape-town-supporting-and-spearheading-digital-sciences-and-research-infrastructure-in-africa/>

<sup>10</sup> <https://www.digitafrica.eu/2nd-digitafrica-consultation-workshop/>