



Institutional Stewardship in a Multi-PID Ecosystem

Aligning ORCID, DOIs and ARKs for Diamond Open Access

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A Maturing PID Moment in West & Central Africa

The region is no longer at the starting line. Years of sustained effort through LIBSENSE and WACREN have built meaningful foundations — ARK experimentation, repository strengthening, the launch of ORCID-WACA, and growing Crossref participation. These milestones mark a genuine inflection point.

ARK Experimentation & Repository Strengthening

Institutions across the region have begun minting ARKs and reinforcing local repository infrastructure to support long-term object stewardship.

Launch of ORCID-WACA

A dedicated regional ORCID community — ORCID West & Central Africa — now anchors researcher identity across member institutions.

Growing Crossref Participation

More publishers and institutions are registering DOIs through Crossref, connecting regional scholarship to global citation networks.

- ❏ **The shift from adoption to alignment** — this is no longer just about getting tools in place. It is about making those tools work together in service of durable, sovereign research infrastructure.

The Multi-PID Landscape

Persistent identifiers form a layered ecosystem, not a menu of competing options. Each identifier type serves a distinct function, and together they form the connective tissue of a modern research infrastructure. Understanding the role of each is the first step toward intentional alignment.



ORCID

Researcher Identity — Disambiguates authors and ensures consistent attribution across institutions, disciplines, and borders.



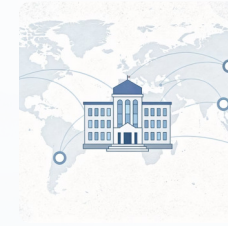
DOI

Global Citation Exchange — The international standard for persistent, resolvable links to published research outputs and datasets.



ARK

Institutional Object Stewardship — Flexible, locally minted identifiers that give institutions direct control over resolution and long-term preservation.



ROR

Institutional Identity — Open, curated identifiers for research organizations, enabling machine-readable affiliation data across systems.

ORCID-WACA Strengthens the Identity Layer

ORCID-WACA is more than a sign-up drive. It is a structured regional effort to embed researcher identity into the workflows, systems, and policies of African institutions — making attribution persistent, reliable, and institutionally owned.



Disambiguation & Attribution

Ensures that research outputs are correctly attributed to their authors, regardless of name variations or institutional changes.



Institutional Reporting & Visibility

Enables institutions to accurately track, report, and showcase the research output of their affiliated scholars.



Regional Community of Practice

A growing cohort of practitioners across West & Central Africa sharing implementation strategies and driving adoption collectively.



Ambassador-Led Capacity Building

Local champions are trained to guide institutions through ORCID adoption and integration with existing research management systems.

Crossref and Global Interoperability

DOIs registered through Crossref do more than provide a persistent link — they plug African scholarship into the global research graph, enabling citation tracking, metadata exchange, and discovery across major indexing systems. Interoperability is not a technical nicety; it is the foundation for visibility.

1 DOI-Based Citation Infrastructure

Crossref DOIs enable standardized citation linking across publishers, journals, and repositories worldwide.

2 Metadata Exchange Across Publishers

Rich, structured metadata deposited with Crossref is harvested by databases and discovery platforms globally.

3 Integration with Indexing Systems

DOIs connect regional outputs to Scopus, Web of Science, OpenAlex, and other major scholarly indexes.

4 Participation in the Global Research Graph

Crossref membership links institutions to a federated network of funders, publishers, and research information systems.

Why This Matters for the Region

Without DOIs, African research is invisible to automated discovery systems. With Crossref participation, even small institutional publishers can achieve global reach and citation credit.

The Stewardship Question in Diamond Open Access

Diamond Open Access removes financial barriers for both authors and readers — but it transfers responsibility squarely onto institutions. When there is no commercial publisher managing infrastructure, the institution becomes the steward of record. That is a profound and often underestimated commitment.

1

Persistent Resolution & Metadata Continuity

Identifiers must resolve reliably over decades. Metadata must remain accurate and machine-readable as systems evolve.

2

Landing Page Stability & Preservation Planning

URLs change. Platforms migrate. Institutions must plan for content preservation independent of any single hosting environment.

3

Cost Sustainability at Scale

PID infrastructure has ongoing costs — registration fees, staff time, system maintenance — that must be budgeted as core operational expenses, not one-time grants.

❏ **Identifiers are long-term commitments.** Minting a DOI or ARK is not the end of the process — it is the beginning of a stewardship obligation that must be honored for the lifetime of the resource.

The Role of ARKs in Institutional Stewardship

Archival Resource Keys offer something distinct in the PID ecosystem: institutional sovereignty. Unlike DOIs, which require registration with a commercial agent, ARKs can be minted locally by any institution with a Name Assigning Authority Number. This makes them particularly well-suited to the realities of African research infrastructure.



Local Minting Authority

Institutions mint ARKs directly, without dependency on a commercial intermediary. This enables rapid deployment and full institutional control over identifier policies.



Institutional Control of Resolution

Resolution infrastructure remains within the institution, ensuring that identifiers continue to work even through platform migrations or vendor changes.



Scalable Cost Structures

ARKs can be assigned at high volume without per-identifier fees, making them viable for institutional repositories with large and growing collections.



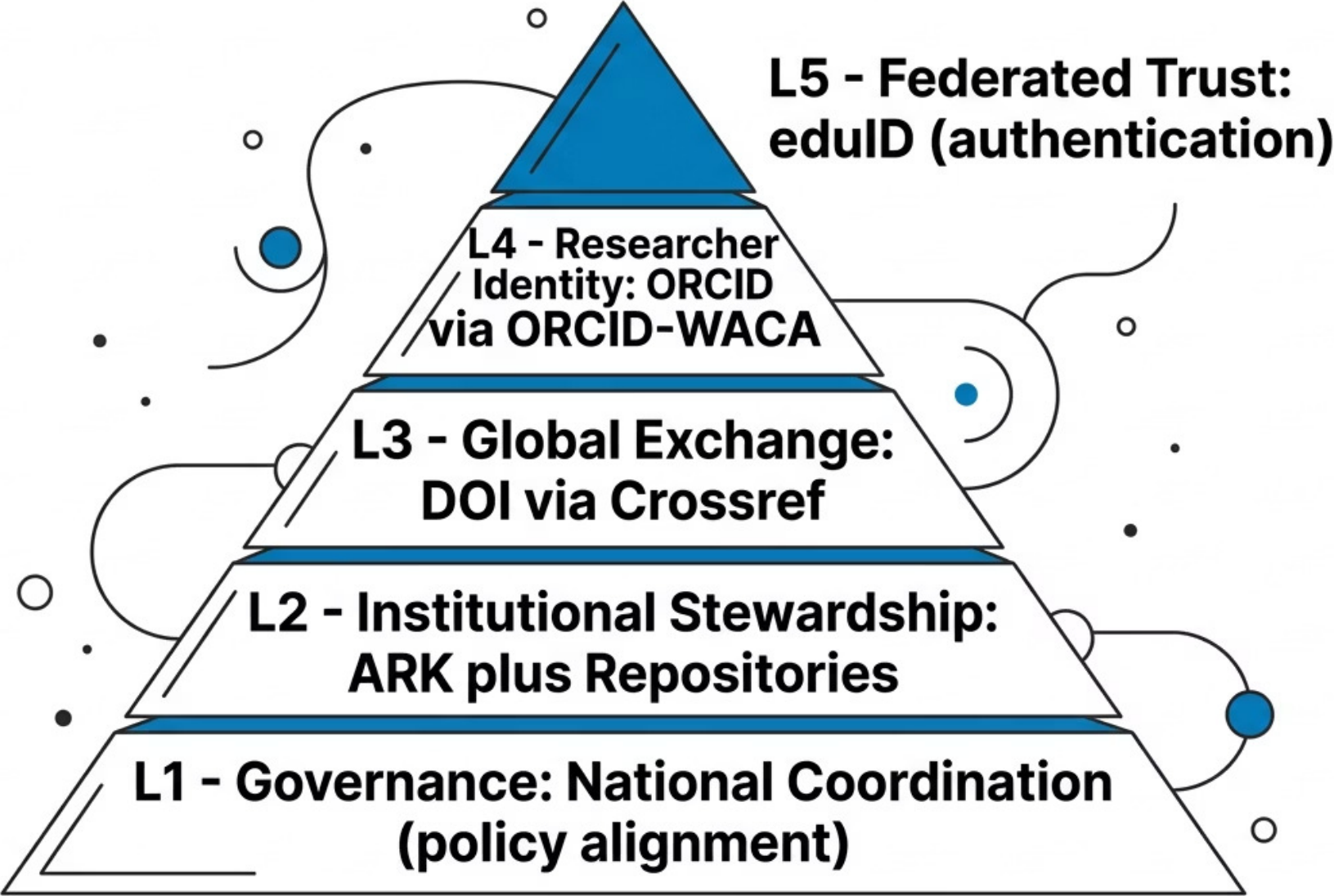
Alignment with Digital Sovereignty

ARKs support a model where African institutions own their identifier infrastructure — consistent with broader principles of digital self-determination in the region.

ARKs are not a replacement for DOIs — they are a **complement**, extending the reach of PID infrastructure into areas where cost, control, and local capacity are primary considerations.

Layered African PID & Trust Architecture

A coherent PID strategy for the region requires thinking in layers — each layer performing a distinct function, and each reinforcing the others. This architecture is not theoretical; it maps directly onto the tools and communities already active in West & Central Africa.



Each layer depends on the layers beneath it. **Federated trust** through eduID authenticates the people; **ORCID** identifies them; **DOIs** make their work globally visible; **ARKs** ensure institutional objects endure; and **national coordination** provides the governance framework that holds it all together.

From Adoption to Alignment

Adoption is a necessary first step — but it is not the destination. When institutions adopt individual PID tools in isolation, the result is a fragmented toolkit. When they align those tools within a coherent strategy, the result is durable research infrastructure that serves scholars, institutions, and the broader knowledge ecosystem for decades.

1

Adoption

Tools are registered and deployed. Identifiers begin to be minted.
Visibility increases in global systems.

2

Integration

PIDs are connected across systems — ORCID linked to repositories, DOIs to metadata, ARKs to preservation workflows.

3

Alignment

Governance, policy, and stewardship practices are designed around PID infrastructure as a long-term institutional commitment.

4

Endurance

Institutional stewardship ensures that identifiers, metadata, and content remain reliable, resolvable, and discoverable over time.

eduID strengthens trust. **ORCID** strengthens identity. **DOIs** strengthen circulation. **ARKs** strengthen local sovereignty. Together, they create infrastructure that endures.

Questions for Our Institutions

As we leave this symposium, the most important questions are not technical — they are strategic and institutional. Every library manager, infrastructure leader, and policy maker in this room has the authority to begin shifting their institution's posture from passive adoption to intentional stewardship.

Are We Merely Adopting PIDs?

Adoption creates accounts, registers identifiers, and generates metadata. It is necessary — but it produces **visibility without durability** unless paired with ongoing stewardship commitments.

Are We Integrating Tools?

Integration connects ORCID to HR systems, DOIs to repository workflows, ARKs to preservation policies. It is valuable — but it is not yet infrastructure design.

Or Are We Intentionally Stewarding?

Stewardship means treating PIDs as long-term institutional obligations — budgeting for them, governing them, and building the staff capacity to maintain them across leadership transitions and platform changes.

Or Are We Designing Durable Infrastructure?

Durable infrastructure is built with the next twenty years in mind — not just the next grant cycle. It reflects a decision that African institutions will **own and govern their own scholarly record**.

Adoption creates visibility. Stewardship creates permanence.

The region has demonstrated it can adopt. The question before us now is whether we will commit to the stewardship that makes that adoption matter — not just today, but for the generations of scholars who come after us.