



Bridging the Gap: Implementing the Decentralized Archival Resource Key (dARK)

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LA Referencia



Washington Segundo
IBICT



Co-funded by
the European Union



LA Referencia strategic goals

- Achieving full political representation of the region in its governance.
- Maintaining dialogue and policy coordination for Open Science at regional and national levels.
- Deepening partnerships with regional and international initiatives to enhance the Global Open Science Ecosystem.
- Integrating education and research networks as infrastructure for Open Science.
- Promoting the use of Open Science indicators and metrics in research evaluation.
- Encouraging non-commercial Open Access publishing of scientific production.
- Driving cultural shifts in research communities towards Open Access and Research Data Publish and Reuse.
- Developing more infrastructure and technological tools to support Open Science best practices as regional public goods.

Technical Goals / Activities

Persistent Identifiers as a Public Good (dARK) – Led by IBICT (Brasil) – LA Referencia (funded by SCOSS)

Usage Statistics Ecosystem 2.0 Interoperable with other initiatives (OpenAIRE) (Funded through SCOSS)

LA Referencia Open Platform

- Metadata enrichment, deduplication, and linking with other sources (OpenAIRE, OpenAlex, ROR, etc.)
- Enhance the presence of regional metadata in potential indicator/research assessment sources (COKI, OpenALEX)

Interoperability and Technical Collaboration

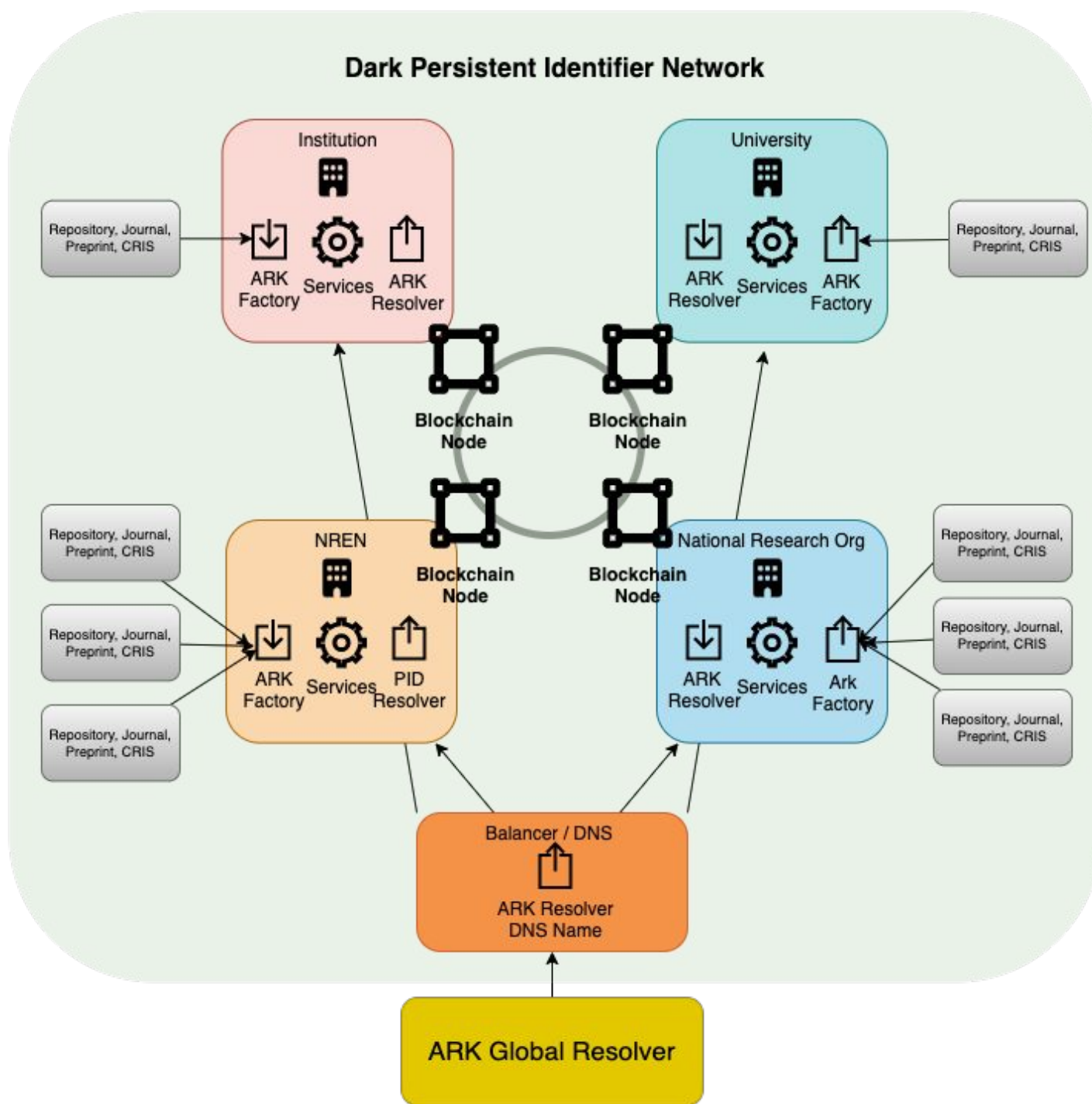
- Regional and global initiatives (REDALYC, Latindex, SciELO, OpenAIRE, OpenAlex, etc.)

PIDs convergence: A big challenge for Latin America

A key aspect of enabling interoperability for research collaboration is ensuring the persistence of identifiers for scientific results. Currently, only 20% of repository contents in Latin America have DOI identifiers, which can hinder data exchange and collaboration efforts.

What is dARK (descentralized ARK)

- *dARK is the first implementation of a technology that could be the base for a low-cost and decentralized services to assign/resolve persistent identifiers (ARK PID for this first version).*
- *dARK is an ARK implementation based on institutional blockchain nodes, the data is owned, stored and controlled no by one single organization but by all participants in a "public good" network.*
- *We see this as the foundation for an open and community driven project fostered by Instituto Brasileiro de Informação em Ciência e Tecnologia (IBICT-Brazil) with the later collaboration of LA Referencia/RedCLARA (supported by SCOSS) with the long-term objective of provide an open non-centralized deduplicated persistent identifier factory and resolution service model for the global Open Science ecosystem based on environment friendly blockchain techonology.*



The dARK Persistent
ID Network
(first goal)

Washington Segundo

General Coordinator of Scientific and Technical Information
IBICT (Brazil)

About Ibict

Mission

Promote competence, resource development and information infrastructure in science and technology for the production, socialization and integration of scientific and technological knowledge

Research unit, linked to the Ministry of Science, Technology and Innovation (MCTI)

Vanguard of Information Science in Brazil

Research areas

Information
Science and Technology
Innovation



dARK: 2024 Roadmap

1. Launch production and sandbox blockchain networks on Ibict, RNP, and LA Referencia nodes (July)
2. Massively assign dARK identifiers to harvested institutions using Oasisbr - Brazilian LA Referencia node (July)
3. Implement universal resolution for all assigned records by redirecting to the digital object (July)
4. Provide metadata access for each digital object through agnostic storage links (July)

Second half of 2024

1. Conduct pilots for Brazilian repository institutions with dARK plugins for DSpace7, Dataverse, OJS
2. Conduct feasibility studies and reports on decentralized metadata storage and deduplication layer
3. Publish and disseminate results in journals, conferences, and other academic platforms
4. Publicize all code to enable dARK's utilization and enrichment by other communities
5. Discuss the governance and sustainability of dARK in Latin America, aiming to expand its reach from Brazil to other countries in the region, fostering collaboration and mutual support among diverse stakeholders.

Brazilian Portal of Scientific Publications and Data in Open Access (approx. 4.4 Million of items)

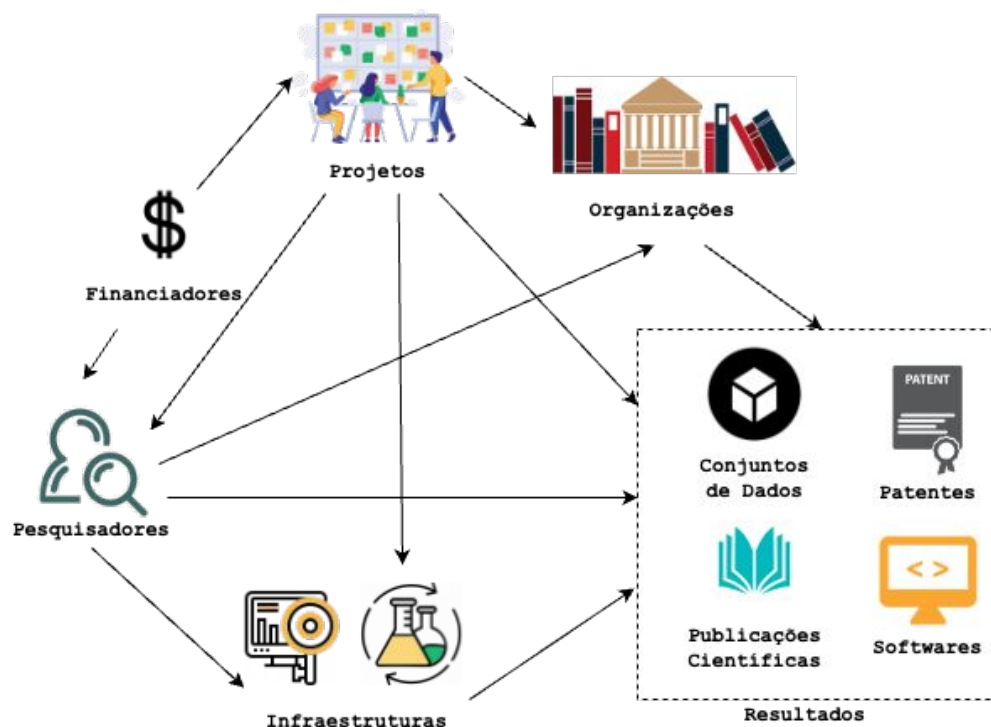


● BrCris - Brazilian Scientific Research Information Ecosystem

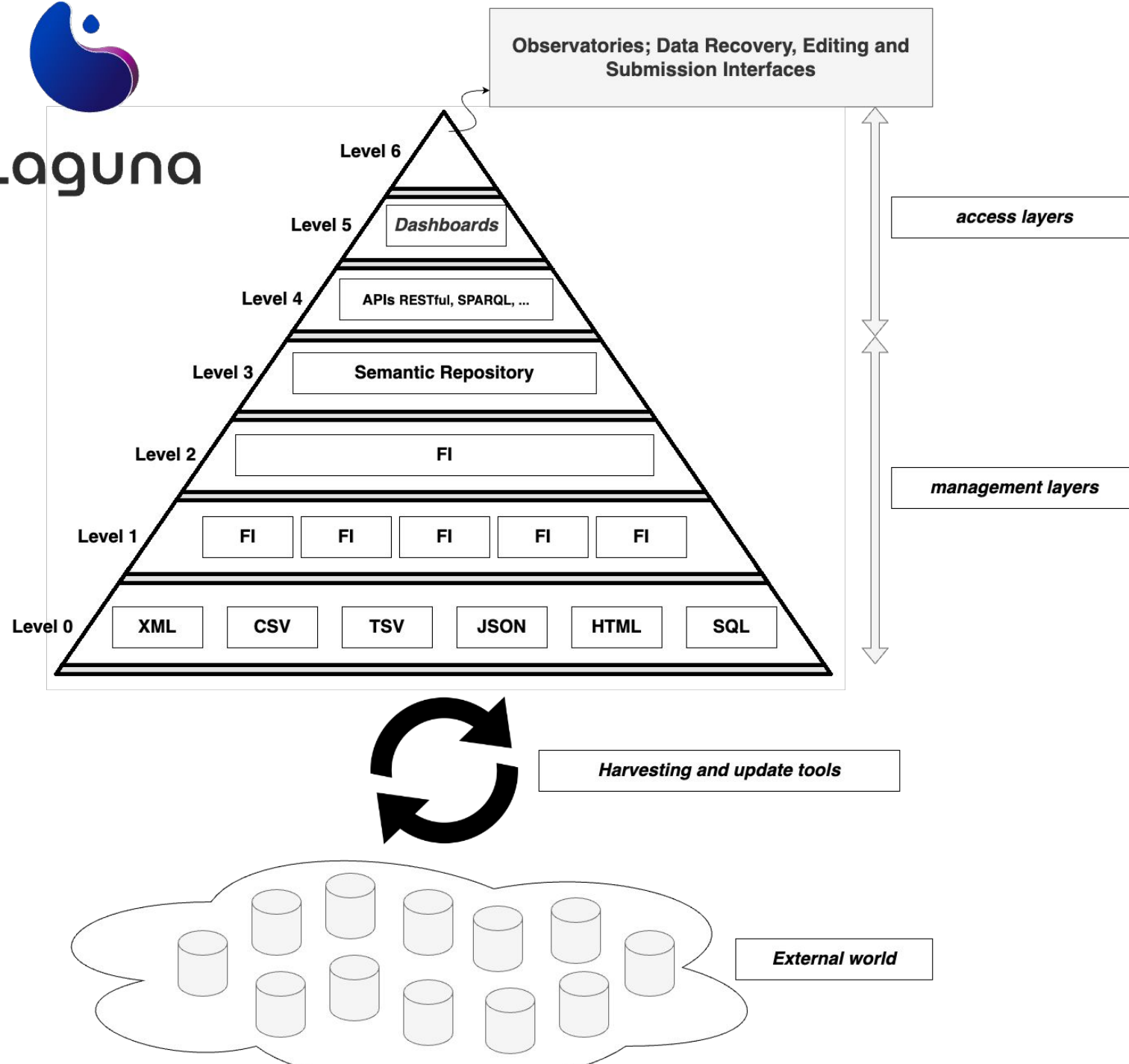
Mapping and organizing data on Brazilian scientific research: an aggregating platform for retrieving, certifying and visualizing data and information on the various players involved in scientific research in Brazil



brcris.ibict.br



oasisbr.ibict.br



Thank you !! – Gracias!! - Obrigado

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