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PeruCRIS: A National Research Information Infrastructure based on DSpace-CRIS

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VISION, GOAL AND STRATEGY

#PeruCRIS is the Peruvian project for setting up and operating the National Information Network on Science, Technology and Technological Innovation. It is open source software and open standards based, especifically as an extension of the already existing network of Peruvian open access repositories, and it´s lead by Concytec, the Peruvian Council for Science, Technology and Innovation.

The vision for **#PeruCRIS Project** is:

Vision

To have an **information ecosystem** in science, technology and technological innovation in Peru to provide value, accessibility and development for all people.

#PerúCRIS Project has as main goal:

Main Goal

To develop an open, interoperable and integrated national network that provides timely and reliable information services on the actors, activities and results of science, technology and technological innovation in Peru, in favor of the scientific and academic community, the public and private sector, and the general public.

In order to accomplish the goal for **#PeruCRIS Project**, Concytec implements the following strategy:

Main strategy

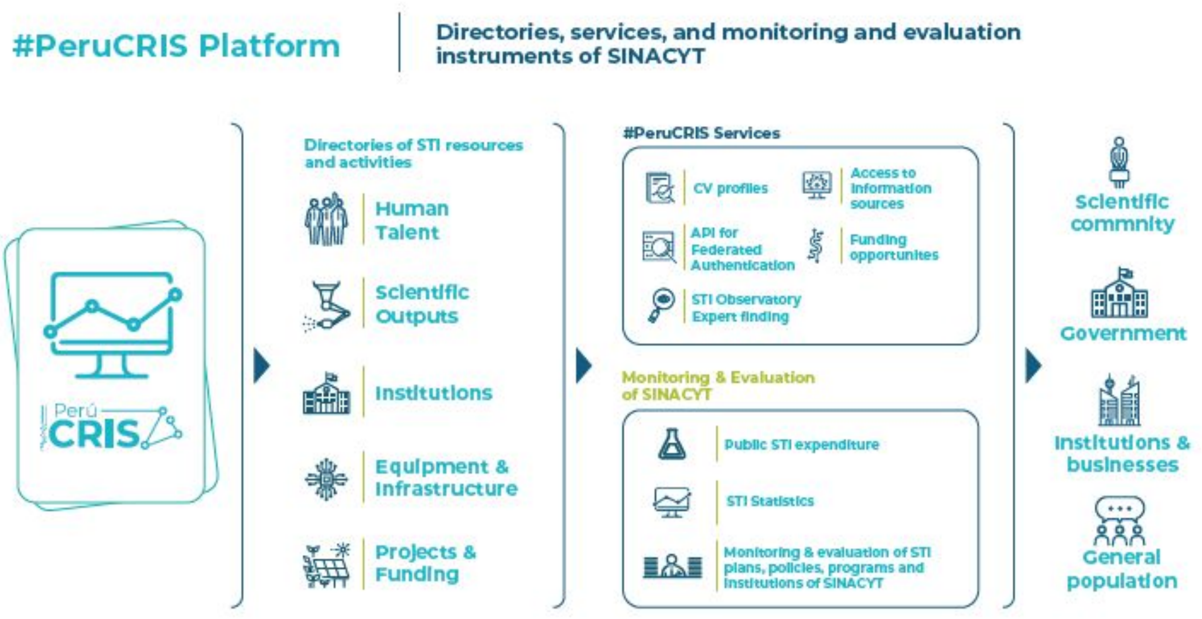
1. Articulate, operate and regulate the National Information Network on STI
2. Strengthen the National Network of Open Access Repositories (RENARE)
3. Launch the #PeruCRIS platform and interoperate with institutional research management systems
4. Provide value-added services for accessing and managing information on STI in the country

EXPECTED BENEFITS

- Timely statistics and reports on national R&D activities.
- Better monitoring and evaluation for public funding and national open access policy.
- Disseminate research results, analyze trends and impact.
- Sharing and discovery for innovative technologies and ideas, new markets, competitors and partners.
- Better decision making at different levels: national, local, institutional, private sector and general population.

#PERUCRIS PLATFORM

The National Information Network on STI is established from the interoperability of the information management systems of Peruvian institutions: public and private universities, public research institutes, public project funding agencies/programs, among others.



A subsystem allows for institutions to have private entities collections under their own private communities, wherein they are able to bulk import or directly edit information to be submitted to the public main directories.

Custom connectors for national interoperability (national ID registry - RENIEC, national degrees database - SUNEDU, national institutions tax database - SUNAT) and other bibliographic sources (Scopus, Web of Science REST API, and Latin American SciELO collections).

#PeruCRIS Platform goes beyond mere aggregation, supporting data normalization, enrichment and curation for collected data, and direct editing in the Directorios.

#PERUCRIS's INFORMATION MODULES

#PeruCRIS Platform will be organized in five directories:

Human Talent
Personal profiles of researchers, technological developers, innovators and STI managers, with links to their scientific production, completed projects, affiliation institutions. Also their bibliometric indicators.

Projects & Funding
Profiles of the projects developed by the members of SINACYT and other institutions that carry out activities in STI.

Scientific Outputs
Publications (books, articles, theses, reports, conferences, etc.), intellectual property (patents) and research products (data sets, images, cartographic material, audio recordings, etc.)

Equipment & Infrastructure
Laboratories and equipment used to carry out activities in STI.

Institutions
Profiles of SINACYT member institutions and other that carry out R&D activities in Peru.

#PERUCRIS SERVICES

CV profiles

CV profiles for people engaged in STI activities in Peru. It will be linked to the directories of the platform,
to benefit from information validated by Concytec.

API for Federated Authentication

It will allow other platforms to validate the login with the username and password of the #PeruCRIS Platform.

STI Observatory Expert finding

Information to view and download as an instrument for monitoring and evaluation of SINACYT. Includes: charts, reports, reports, news, events, expert finiding, job portal and scholarships.

Access to Information sources

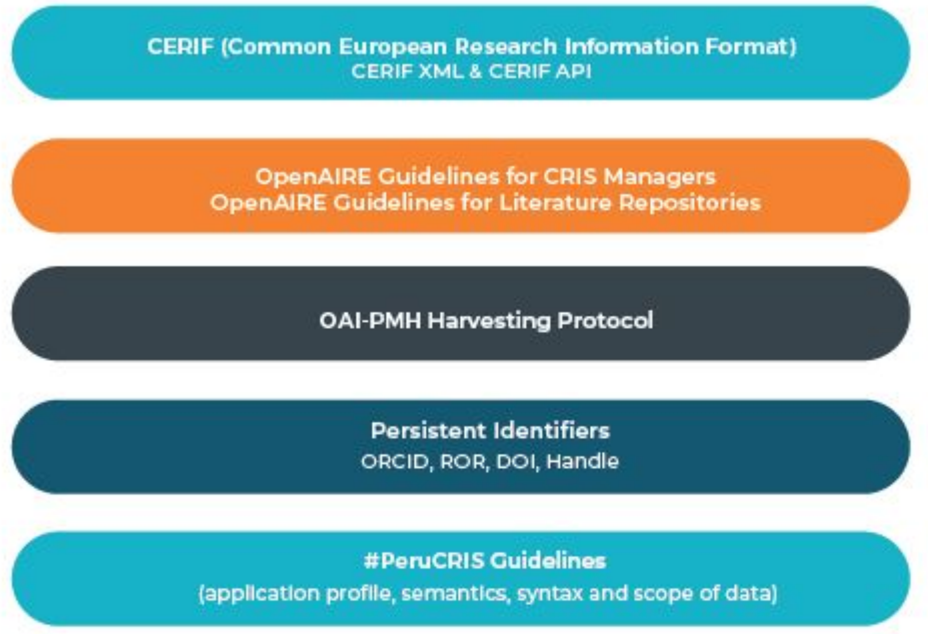
Search and retrieval API.
Federated access to subscription-based and open access content.
Federated access to application for public funding opportunities.

Monitoring & Evaluation of SINACYT

It includes scientific-technological statistics, information for the management and evaluation of plans, policies, programs and entities of SINACYT and the STI observatory to support decision-making.

INTEROPERABILITY STANDARDS

To guarantee the collection and exchange of information (interoperability) between the **#PeruCRIS** Platform and SINACYT, the latest international recommendations for the integration of CRIS systems will be used.



CERIF XML profile

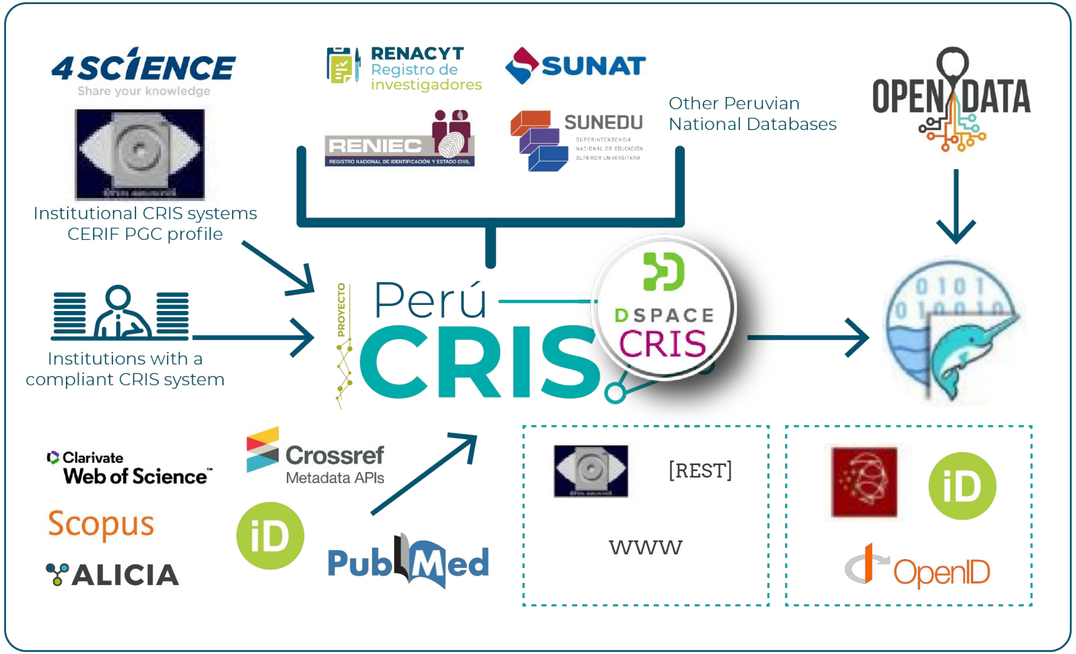
A particular peruvian CERIF profile and a set of controlled vocabularies are developed.

Search and retrieval CERIF API

Includes the development of a RESTful API for search and retrieval from the main directories. Metadata will be exposed in the preferred PeruCRIS CERIF XML profile and other supported formats.

GENERAL SOFTWARE ARCHITECTURE

Main Directories will be populated through the following flows:



1. A subsystem allows for institutions to have private entities collections under their own private communities, where in they are able to bulk import or directly edit information to be submitted to the public main directories.
2. OAI-PMH harvesting with PeruCRIS custom CERIF XML profile, designed to be the preferred way for data ingesting.
3. Custom connectors for national interoperability (personal national records - RENIEC, national degrees database - SUNEDU, national institutions tax database - SUNAT) and other bibliographic sources (Scopus, Web of Science REST API, and Latin American SciELO collections).
4. A new version of the CV national profile system is being developed as its own DSpace community,
5. PeruCRIS Platform goes beyond mere aggregation, supporting data normalization, enrichment and curation for collected data, and direct editing in the Directorios.

The design and development of the platform is based on DSpace-CRIS and carried out by 4Science, https://www.4science.it/.

4SCIENCE
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PROJECT MANAGEMENT, QUALITY AND KNOWLEDGE TRANSFER

Project Management

- Scope Management (large number of requirements, 18 months)
- Monitoring
- Communications framework

Quality and Testing

Assurance of compliance with the procedures established

- Control of Deliverables
- Testing
- Quality Audit
- Risks

Training

Training as a transfer of knowledge and Technology

- Training of the different types of users (technical and functional training)
- Preparation of manuals and teaching materials
- Generation of multimedia content to support training

Management, Quality and Testing, Training are carried out by Semicrol, https://www.semicrol.com/

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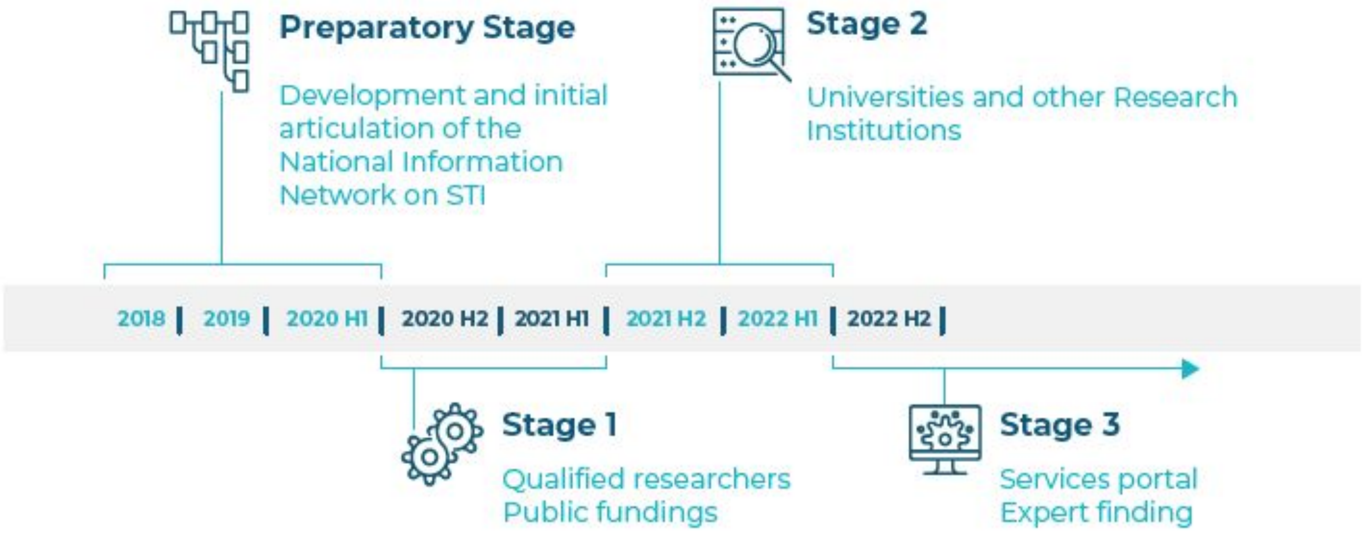
PROJECT STAGES AND CURRENT STATUS



The National Platform implementation started on July 2020, 18-month estimated.

The first modules will be delivered by stages, with an initial release of main directories scheduled for early Q2 2021.

More information at http://perucris.concytec.gob.pe