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ISTEC - **LIBRARY LINKAGE INITIATIVE**
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Ministerio de Ciencia, Tecnología e Innovación

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History

Definition and scope

The *Ibero-American Science and Technology Education Consortium (ISTEC)* is a non-profit organization comprised of educational, research, industrial, and multilateral organizations throughout the Americas and the Iberian Peninsula. The Consortium was established to foster scientific, engineering, and technology education, joint international research and development efforts among its members, and to provide a cost-effective vehicle for the application and transfer of technology.

History: June 1990

- Personnel from UNM visited countries in Ibero-America to identify and evaluate opportunities for successful collaboration in science, innovation, technology, education and entrepreneurship.
- Meetings were held with officials from governments, educational institutions, research facilities and industrial to gauge interest to improve international cooperation.
- December 1990, organizational meeting was held at UNM involving participants from universities, industries, governments, and foundations throughout Ibero-America.

History

Obstacles to improve

- Lack of current information for planning and developing technology

- Lack of expertise in the use of information

- Lack of international cooperation in developing the critical mass needed for projects and joint efforts

- Lack of interaction and confidence among universities, industries, governments, and multilateral agencies

- Lack of availability of technology

- Lack of entrepreneurship to bring technology and intellectual property to the marketplace

History

Result of the meeting

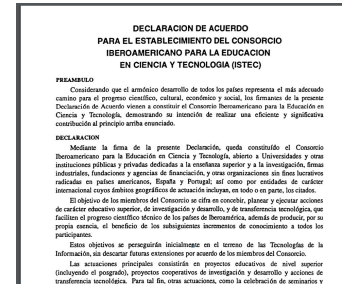- Creation of ISTEC (Ibero-American Science and Technology Consortium)

Members

- Universities, industries and other organizations

1990 MOU (Memorandum of Understanding)
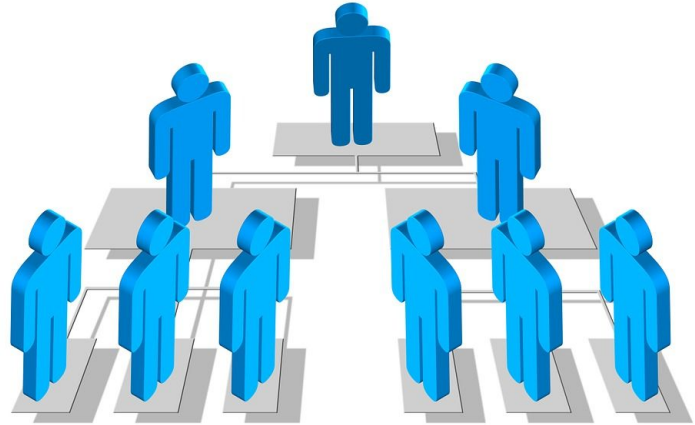1999 officially became a US 501 non-profit organization

History

Organization

- General assembly

- Board of directors

- Executive office

History

Objectives

- to conceive, plan, and carry out activities of higher education, R&D, and technology transfer for the purpose of facilitating scientific and technical development of the Ibero-American countries;

- to encourage the free flow of and access to information in the pursuit of technical excellence.

An innovative concept

the initiatives

Initiatives

What are the **Initiatives**?

- An organized effort to create activities to address a specific area of concern.

- The Initiatives are **member-driven**, flexible, and run concurrently.

- Within Initiatives, projects are identified, planned, and implemented.

- Projects are designed with both short- and long-term goals, and with consideration of social impact.

Initiatives

LibLink
Library Linkages

ACE
Advanced Continuing Education

R&D
Research & Development

LL
Los Libertadores Centers of Excellence

ISTEC
IBERO AMERICAN SCIENCE & TECHNOLOGY
EDUCATION CONSORTIUM

2018 ISTEC Strategies

- **Strategy #1:** Academic and professional training

- **Strategy #2:** Partners, transfer and services to third parties

- **Strategy #3:** Institutional relationships both with other universities and the State and at the level of Civil Society Organizations and the private sector

- **Strategy #4:** Community outreach and networking with a regional footprint

- **Strategy #5:** Administration and management of stakeholder needs

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Spirit for proposed activities 2018

- Meet with partners to find out what they need, what they can provide, what we can do together.
- Meet with the other ISTEC Initiatives and schedule joint activities, determine what each member can do to complement and help the partner.
- Create a virtual space to enable exchange among all the initiatives and partners.
- Communicate the idea of changes and news and specify this through new projects that engage them.

The LibLink Initiative focuses on academic and scientific information management. This means not only localization and bibliographic provision (sharing library collection) but also valuing and giving visibility to institutional production.

To achieve these objectives, the initiative adapts current free access technologies and uses its own developments (Celsius 3), sharing them with its partners: information and statistics managers, tools for harvesting open resources, all of which allow ubiquitous information sharing, with the possibility of providing the partners with the resource in their usual work space.

Work lines

Celsius 3

Celsius 3 is a bibliographic exchange management software for member institutions of the ISTEC consortium. It is the third version of this tool, developed and maintained entirely by the PREBI-UNLP team, the LibLink node at the National University of La Plata, Argentina.

Harvester

Development of a new harvester of open resources for ISTEC members. This project helps improve Open Access visibility of publications in different institutions.

Infrastructure and diffusion

Maintenance of the ISTEC multisite and joint work for diffusion activities

2018 Projects

In 2018, the initiative launched multiple new projects:

The Virtual Office for Institutional Relations receives and trains new consortium members, and ensures permanent communication with partners. Ongoing project

Training in Editorial Management, Quality and Visibility of Periodic Publications of member institutions.

Advice for improving institutional academic excellence and positioning in rankings.

VIRTUAL OFFICE

The **ISTEC Virtual Office** for Institutional Relations aims to enable communication among ISTEC partners, publicizing different benefits, activities and opportunities provided by the consortium through its different initiatives. It is also an open channel for the partners -both universities and companies- to submit their inquiries, concerns and needs.

How does the Liblink Initiative enable document exchange for ISTEC Institutions?

One of the most successful **LibLink** activities has been the provision of bibliographic services through a successful network of exchanges among the libraries of member institutions.

What each institution needs

The requirements to participate in LibLink are simple and in general, all university libraries already have them in place:

- On-line catalogue for Internet consultation.
- Updated information on library inventories in the on-line catalogue.
- Qualified personnel for managing institutional libraries.
- Suitable tools and software for scanning documents.
- Setting up a Celsius instance and a suitable team to manage it.

How does the Liblink Initiative enable document exchange for ISTEC Institutions?

To start working on the **LibLink** initiative, each new member is required to provide institutional data in the format specified below so that they can be published on the ISTEC website and in the **Celsius** directory. Submit data to:

Virtual Office for Institutional Relations **oficinavirtual@istec.org**

Institutional information

Name of university or institution:

Department:

Department website:

Institutional contact (membership, payment):

Data for working in Liblink

Library website:

Catalogue website:

Library contact:

Director: E-mail:

Exchange Official: E-mail:

Liblink contact Information

Areas of interest: Libraries - Institutional Repositories - Open Access - Institutional Visibility - Rankings - Scientific Marketing
Contact: Marisa De Giusti marisa.degiusti@sedici.unlp.edu.ar   More information: https://www.istec.org/liblink/

Current projects

celsius3

- Strategy #1: Academic and professional training
- Strategy #2: Partners, transfer and services to third parties
- Strategy #4: Community outreach and networking with a regional footprint
- Strategy #5: Administration and management of stakeholder needs

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Proyecto de Enlace de Bibliotecas
Servicio de la Difusión de la Creación Intelectual
Universidad Nacional de La Plata
Centro de Servicios de Gestión de la Información
Comisión de Investigaciones Científicas de la
Provincia de Buenos Aires (CICBA)

What is Celsius 3?

Celsius 3® was developed to simplify the management of bibliographic exchanges among the different universities within the **ISTEC**.

It was designed in 2001, with the initial purpose of providing ISTEC with exchange statistics and as a way of contributing to the rest of the institutions.

This is the third version of this tool (previous ones were Celsius and Celsius NT), and like its predecessors, it is developed and maintained entirely by the PREBI-UNLP team, the LibLink node at the National University of La Plata, Argentina.

Upgrades

Unlike previous versions, Celsius 3 is a centralized system. The software is hosted and run from a single central node, available to all member institutions.

This system allows:

❖ to carry out a comprehensive follow-up of the changes and stages of the queries,
❖ to develop statistics that allow for a transparent management and optimization of the service

A simpler management

For institutions, this centralized model removes the need for:

- ❖   Server management
- ❖   Software management
- ❖   Monitoring and backups

All this is done from a centralized server, and new instances of Celsius are created using an instance network management tool, which in turn allows to standardize and share data of interest for all instances, including catalogues, contacts and institutions

Advantages

For users:

- ➢ Keeping a data record in a personalized site
- ➢ Tracking an on-line order status
- ➢ Possibility of downloading material directly from the platform
- ➢ Possibility of contacting operators using an internal messaging service

For operators:

- ❖ Global standardization of applications
- ❖ Tracking order management status
- ❖ Accessing automatically generated statistics and multiple global exchange management indicators.

Advantages for institutions

❖ No installation required; the software is installed in a single centralized node.

❖ No support required for maintenance and updates.

❖ Specific statistics for each institution.

❖ Global, real time statistics for the entire initiative, including order quantities, active users, request destination, service times.

❖ Regular backups without intervention by the institutions (database and documents not yet downloaded by users).

Statistics

The Celsius 3 statistics module has been redesigned using new tools for a more efficient and interactive statistic development
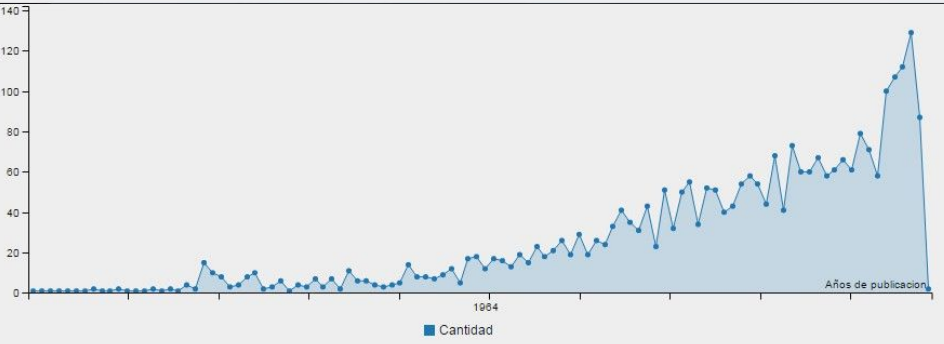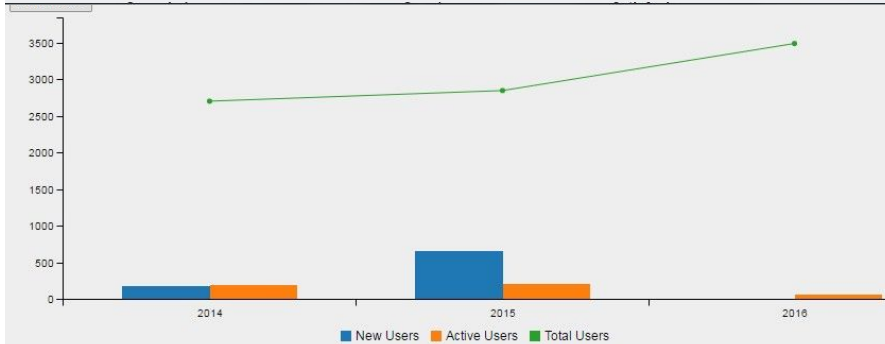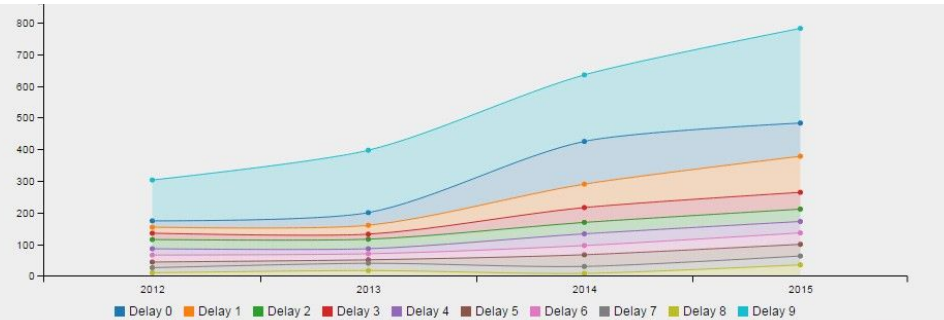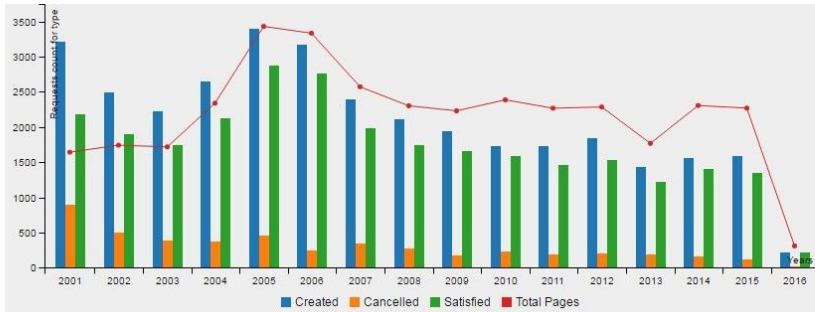
celsius 3

Perspective for **2019**

Concrete actions

Celsius 3 is continuously being developed, with a focus on:

- Error debugging or performance improvements

- Negotiate, design and development of new characteristics

  - Registered data extension for the different stakeholders (users, institutions, etc.)

  - Integration of Celsius with third-party applications

- Upgrade in underlying technologies, addition of new features

Concrete actions

Celsius 3 support
- Continuous problem and inquiring management
  - Generating and updating documentation for administrators and new members of the library network
  - Setting up and deploying new instances of Celsius 3
  - Data migration for institutions with older Celsius versions
  - Solving specific problems
  - Processing general inquiries

Concrete actions

Celsius 3 support
- Multiple channels, including e-mail, video conferences (Skype, Hangouts), incident management (Redmine)

Celsius Instance Network Support
- Celsius Instance Network maintenance
- Management of a virtual server
- Monitoring systems (security, overload, lack of space, etc.)
- Implementation of backup systems

26 Celsius 3 instances have been deployed under PREBI-SEDICI infrastructure. Member institutions only need a computer connected to Internet to access the service. More information here: http://celsius3.prebi.unlp.edu.ar/en/instances

Harvester

- **Strategy #1:** Academic and professional training
- **Strategy #2:** Partners, transfer and services to third parties
- **Strategy #5:** Administration and management of stakeholder needs

Harvesting and visibility of intellectual production

- This is a new harvester of open resources for ISTEC members.
- It consists of an application for managing harvests on OAI-PMH repositories.
- It will enable the creation of global database based on data generated by ISTEC institutions and the provision of value-added services based on this information

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Harvesting and visibility of intellectual production

Designed as two independent services:

1. An **OAI-PMH** request management service that implements a REST interface to enable communication with third-party applications.

2. A user-oriented service, which gathers and provides access to harvest management operations and harvested records through a typical web interface.

These services are designed to work jointly but operate individually to create other interfaces for harvest planning and record management, as well as optimizing and streaming harvest operations in different repositories without compromising harvest management applications.

Harvesting and visibility of intellectual production

- Added value services
    - Improving visibility of Open Access publications of ISTEC institutions (e.g., through an OPAC)
    - Creating remote query interfaces (REST) and resource integration in third party spaces (e.g., institutional websites, research centres, etc.)
    - Performing analysis and obtaining metrics regarding the production of ISTEC institutions: document typology, study areas, collaboration among institutions, etc.

Concrete actions

The development of the harvester requires:

- Design of the decoupled microservice model
- Implementation of the configuration application: repositories, query interfaces, planning
- Deployment of the harvest (OAI PMH) and storage (SolR) application
- Implementation of the processing module (filtering, transformation, de-duplication) and remote access and integration with other services (OpenSearch, REST)

Metasearch engine

- Strategy #1: Academic and professional training
- Strategy #2: Partners, transfer and services to third parties
- Strategy #5: Administration and management of stakeholder needs

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ISTEC metasearch engine

The ISTEC metasearch engine is a service that provides a centralized search interface on catalogues of ISTEC member institutions within the LibLink Initiative. Based on PazPar2 and MasterKeys tools, and protocols Z39.50, SRU and SRW for exchanging queries and records between on-line catalogues (OPAC) and the metasearch engine. Currently, this project is under reengineering.

ISTEC metasearch engine

Accelerates and streamlines the work of bibliographic exchange service personnel within the framework of LibLink, enabling the search of bibliographic resources in multiple catalogues of cooperating libraries from a single point of access.
After migration to the new ISTEC server, this project is currently out of service due to software compatibility issues with the new platform and lack of resources to assign dedicated personnel for the project.

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VIRTUAL OFFICE
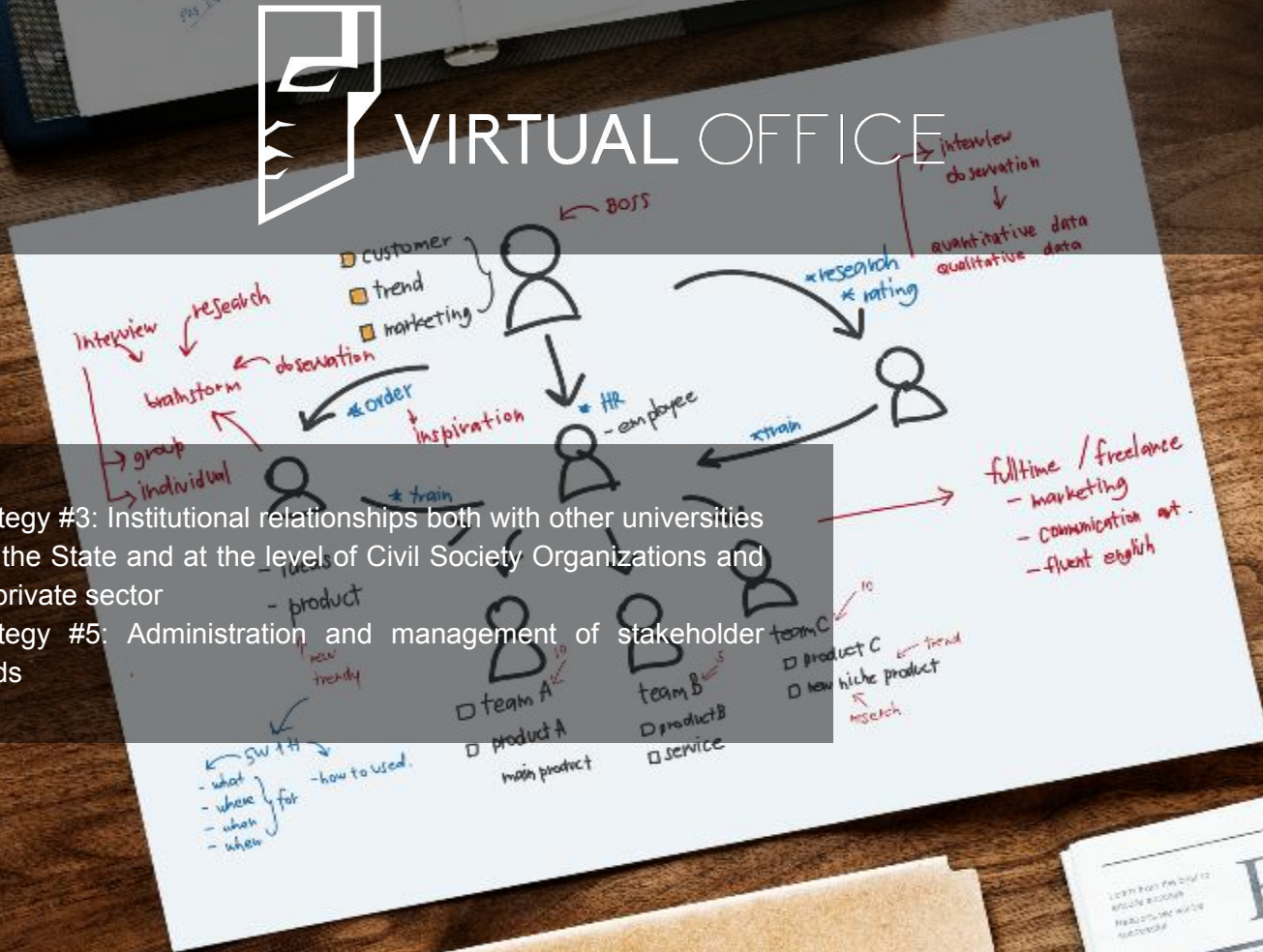
- Strategy #3: Institutional relationships both with other universities and the State and at the level of Civil Society Organizations and the private sector
- Strategy #5: Administration and management of stakeholder needs

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Objectives

- Gather and continuously update ISTEC activities and projects that may be of interest for the partners.

- Maintain an open channel for the ISTEC partners -both universities and companies- to submit their queries, concerns and needs.

- Collaboration in the search and localization of projects and opportunities within the consortium.

- Continuous member training on the operation of the ISTEC consortium, its resources, benefits and opportunities.

Functions and advantages for the ISTEC

- Due to the rapid growth of the consortium, there is a real and increasingly urgent need to unify working criteria and do efforts to promote efficiency standards and use of all the resources provided by the ISTEC consortium.

- A continuous support plan for the ISTEC member is required, from the very start of its membership in the consortium, providing relevant information on the initiatives, how to participate in each of them, determine the potential of the new institution and its profile to advise it on suitable projects for collaboration that could provide benefits.

- The consortium itself, in its daily operation, has developed a set of practices, skills and knowledge that, when systematized and improved, are one of the keys to its success. This is an important asset that should be shared.

Concrete actions

- Creation of new association templates to arrange meetings with new institutional actors.
- Reception of the new member (jointly with ISTEC management team) and regular communication with existing ISTEC members
- Joint development of simple materials with the different directors to publicize the initiatives
- Training of a group of professionals from different areas to manage communication As far as possible, with a geographical location appropriate to the ISTEC membership.
- Creation of a web space within the portal to display contact information on the relevant project managers and how to contact them in each case. Members can know which person or team they should contact for questions about a specific project or even consult the ISTEC organization chart.

Concrete actions

- Continuous update on the web of the ISTEC main portal, as well as the portals dedicated to the initiatives in collaboration with the department of institutional relations and marketing.
- Increase ISTEC presence in social networks, including Twitter and Facebook, in order to establish a virtual community of active users, and build a virtual image of ISTEC as an active organization, in constant movement, with projects and services for a wide range of users, institutions and companies.
- Encourage member institutions to share their projects, events, research lines, achievements, and so on, and refer them to the blog for ISTEC members to share all their information there.

Actions accomplished

- The ISTEC web site (content, news, announcements, etc.) was updated
- Partner's concerns were addressed via e-mail
- Dissemination of activities organized by the various initiatives and associated universities.
- Development for the ISTEC website common areas and for each of the initiatives
- Proactive management to collect the information and raw material required to develop content
- Development and dissemination of content for media and networks
- Management of social networks
- Development of institutional and promotional contents for ISTEC.
- Collaboration to identify adjustments to be made on the website.
- Coordination meetings with the members of the Virtual Office (Buenos Aires-La Plata).

New plans

- Updating the ISTEC website -content, news, announcements, etc.
- News about ISTEC members: A proposal to write news about what is happening in ISTEC universities is made, including information related to the consortium initiatives or information deemed relevant.
- Obtain feedback from each of the member institutions on their participation in each ISTEC initiative, based on a model questionnaire highlighting the advantages of belonging to the ISTEC and the different initiatives in particular, accompanied by a brief description of their participation in each project.
- Generate news on the publication of studies or survey results, relevant to the focus of each initiative. News should be published with a high frequency, to increase the website dynamism.

New plans

- Generate news on the publication of studies or survey results, relevant to the focus of each initiative. News should be published with a high frequency, to increase the website dynamism.

- Simultaneously, develop a protocol so that once a university arrives at the ISTEC, a person is assigned to finding interested parties for each initiative within the institution. People with the potential to work together in the different initiatives or who are interested in the services provided by the ISTEC, including courses, training, purchase of materials from ISTEC companies (e.g. robots)- should be identified.

- Prepare an annual report with measurements and studies published on relevant topics addressed by each initiative. This would be a compilation of links to this type of resources.

New projects 2019

Editorial Management, Quality and Visibility of Scientific Journals

- Strategy #1: Academic and professional training
- Strategy #2: Partners, transfer and services to third parties
- Strategy #3: Institutional relationships both with other universities and the State

Editorial Management, Quality and Visibility of Scientific Journals

Many institutions in Latin America publish their own journals

Editorial teams need to be trained on how to:

- Optimize the editorial process
- Implement new quality and excellence standards
- Integrate them with catalogues and international databases
- Maximize the publications visibility and impact
- Provide new services to readers
- Adopt technological tools

Concrete actions

In this regard, the ISTEC can support institutions with virtual courses and face-to-face workshops

Specifically, the creation of an Comprehensive Training System for Editorial Teams is proposed.

This is a user training platform, which will offer alternatives for the different roles and stages in the management of journals: design, consolidation, expansion.
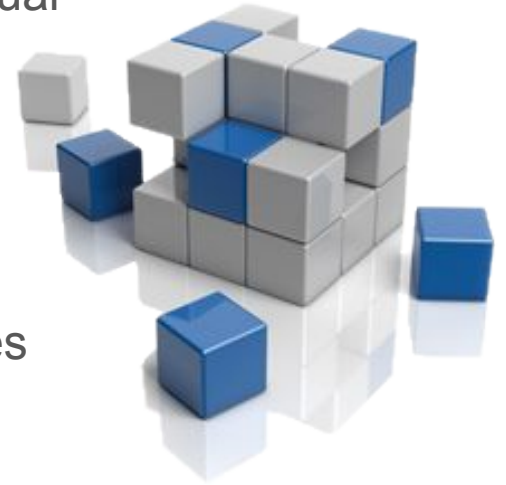
Concrete actions

It will use the various multimedia resources that can be created today to generate a truly comprehensive on-line training, including video tutorials, animations, activities to solve, surveys, presentations and even a test space (sandbox)

Added value services:

- Face-to-face workshops
- Quality assessment
- New technological services: comprehensive management systems, metric collection and analysis, publication formats
- Inclusion in international databases

Editorial Management, Quality and Visibility of Scientific Journals

Required resources

- Virtual space to host the courses and ensure project visibility through a web portal -possibility of using the ISTEC server.

- A full-time person in charge of developing the courses, creating the learning objects, monitoring users and maintaining the web portal

- A part-time person in charge of implementing a web portal to host, manage and disseminate journals (OJS)

Improving institutional academic excellence and positioning in rankings

- Strategy #1: Academic and professional training
- Strategy #2: Partners, transfer and services to third parties
- Strategy #3: Institutional relationships both with other universities and the State and at the level of Civil Society Organizations and the private sector

Improving institutional academic excellence and positioning in rankings

- Academic institutions are continuously assessed by companies and international organizations
- These evaluations are used to compile rankings that assess different institutional aspects, including academic quality, web visibility, scientific production.
- Many institutions request to be included in these rankings or work to improve their ranking position.

Concrete actions

The program Improvement of Academic Excellence and International Positioning aims mainly to provide advice for institutions that seek to improve their global image

- Identification of main current rankings, scope and objectives
- Analysis of the metrics used in each case, data sources and techniques for data processing
- Planning the lines of work to improve measurements: identifying stakeholders, roles and responsibilities, and concrete actions

Improving institutional academic excellence and positioning in rankings

Required resources

This program requires a full time person in charge of analysing the rankings, their methodologies, their data sources and information processing.

This person should also be in charge of collecting information/metrics from the institutions that request this service, in order to establish requirements, priorities and lines of action. This person should also be responsible for preparing reports for the institutions and training workshops when required.

Resources

➢　　　Consorcio Iberoamericano　　　para la Educación en Ciencia y Tecnología ISTEC
http://www.istec.org

➢　　　LibLink Initiative http://liblink.istec.org

➢　　　Software Celsius 3 - Official Website http://celsius.prebi.unlp.edu.ar

➢　　　Proyecto de Enlace de Bibliotecas de la UNLP http://prebi.unlp.edu.ar

Resources

➢ Servicio de Difusión de la Creación Intelectual de la UNLP http://sedici.unlp.edu.ar

➢ **Celsius 3** source code https://github.com/sedici/Celsius3

➢ **Celsius 3** - Technical report http://sedici.unlp.edu.ar/handle/10915/34504

The **LIBLINK** team

The Initiative's presentations are available at:
http://sedici.unlp.edu.ar/handle/10915/25295