

IX Session of the Scientific Committee of BIREME - Latin American and Caribbean Center on Health Sciences Information

BIREME/PAHO/WHO
Department of Evidence and Intelligence for Action in Health (EIH)

The IX Session of the Scientific Committee (SC) of the Latin American and Caribbean Center on Health Sciences Information (BIREME/PAHO/WHO) was held online on May 24, 2023, to comply with Resolution 5 of the 49th Directing Council of PAHO/WHO (CD49.R5), which approved the Statute of BIREME, effective since 2010.

The current members of the SC were appointed during the VIII Session of the BIREME Advisory Committee (AC) on October 24-25, 2019, for a three-year term (2020-2022). They are experts from six (6) PAHO/WHO Member States: Brazil, Argentina, United States, Mexico and Peru, and the Netherlands.

FINAL REPORT

São Paulo, Brazil, May 24, 2023

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Opening Session

- 1) On 24 May 2023, the IX Session of the Scientific Committee (SC) of the Center, which exercises advisory functions to the PAHO/WHO Advisory Committee and Board, was held online. The session was opened by Sebastián García Saisó, Director of the Department of Evidence and Intelligence for Action in Health (EIH), with words of welcome and thanks for the presence of the participants.
- 2) Before starting the proceedings, Sebastián García Saisó contextualized the agenda of the session in relation to the five pillars that currently guide PAHO/WHO technical cooperation. Acknowledging the participation of the experts and the importance of their contributions to PAHO/WHO mandates and strategies and the strengthening of products, projects, services and networks coordinated by BIREME/PAHO/WHO in the Region, he then informed the specific objectives of the session: presentation, consideration and validation of the BIREME Strategy 2023-2025 by the SC members.
- 3) He then handed over the floor to João Paulo Souza, Director of BIREME and *ex-officio* Secretary for the session, who, after thanking those present for their participation, requested the appointment of President and Rapporteur.

Regulation Matters

- 4) The following members volunteered to compose the Directing Panel of the Committee at its ninth session:

Presidency:	Jorge Barreto (Brazil)
Rapporteur:	Barend Mons (Netherlands)

Presentation

- 5) João Paulo Souza presented the working agenda for the session: Overview of the Strategy 2023-2025; Overview of the innovation plan, Priorities and avenues of innovation, research and development for BIREME 2023-2025; Expected results; Comments from the members of the Scientific Committee; Discussion; Development of recommendations based on comments and suggestions; Closing remarks.

- 6) The Director of BIREME then moved on to the presentation: "BIREME Strategy 2023-2025: Towards the Information Industry 4.0", a document developed on the recommendation of the Advisory Committee, in a session held in October 2022.
- 7) The presentation was structured around the following topics:
 - **Why do we need a strategy**
 - General context of Industry 4.0 and specific to BIREME
 - The logic model of BIREME's operation and mission in the EIH/PAHO/WHO approach and vision
 - Current portfolio with more than 40 health information products and services
 - What Digital Transformation means for BIREME
 - New generation of information products
 - **The Strategy 2023-2025**
 - Methods and guiding principles
 - Strategic priorities for the 2024-2025 Work Program
 - Situational analysis and mapping of opportunities and gaps
 - The road to the Information 4.0 industry
 - Monitoring and evaluation
 - **Innovation Plan for 2023-2025**
 - Innovation Lab
 - Startups Incubation Program
 - Research Program
- 8) At the beginning, João Paulo Souza contextualized the need for a Strategy for BIREME that considers the general context of the expansion of computerization towards the so-called "Industry 4.0"; and the specific effects that can be expected on the centrality of BIREME's operations. The new generation of 4.0 information products has been characterized by attributes such as: ubiquity, interconnectivity, mobility, personalization, security, automation and collaboration.
- 9) On the topic "What does Digital Transformation mean for BIREME", he highlighted that the new strategy would seek to harness the power of digital transformation to transition BIREME's portfolio to 4.0 attributes, recalling other historical moments experienced by the Center, with the technological changes previously experienced by the industrial sector.
- 10) The "Methods" and "Guiding Principles" used for the development of the new strategy were then presented to ensure:
 - Alignment with the PAHO Strategic Plan 2020-2025 and the Sustainable Health Agenda for the Americas (SHAA) 2018-2030;

- Integration with the EIH approach and PAHO Vision
 - Positioning for Health Action
 - Producing impact at country level (country focus)
 - Facilitating the transition to 4.0 Information Products and Services
- 11) Among the "Strategic Priorities for the 2024-2025 Work Program", the BIREME Director stated that they derive from indicators with progress considered insufficient for the goals of the SDG and SHAA agendas; and that they are organized into Priority Topics (Reduction of communicable and non-communicable diseases; Suicide prevention; Reduction of maternal mortality; Elimination of communicable diseases) and Programmatic Priorities (Country focus; Vulnerable populations; Primary health care; Preparedness and response to public health emergencies; Inter-programmatic action and systems approach; and Data-driven and evidence-informed health decision-making).
- 12) Based on the mapping of gaps and opportunities carried out in the Situational Analysis conducted for the preparation of Strategy 2023-2025, four areas of work were identified as priorities. These refer to strategic actions for strengthening the capacity of professional and lay communities for health decision-making; and supporting the development of health policies and research.
- 13) In the topic "The road to Industry 4.0", João Paulo Souza explained how the situational analysis and planning conducted to organize a Theory of Change for BIREME resulted in the indication of nine strategic interventions, as listed below: Innovation; Agile Culture; Strategic communication and engagement with interlocutors; Biannual Work Program (BWP) 2024-2025 aligned with the new strategy; Information and Communication Technologies, Resource mobilization and diversification of funding sources; ESG (Environmental, Social and Governance) principles; Workforce well-being and engagement; and Increasing BIREME's regional and global presence. Completing the matrix of the Theory of Change, these interventions are proposed as enablers of the work in the priority areas mentioned in the previous item (n. 11); and, together, they will be able to contribute to the PAHO vision of achieving, by 2030, the highest possible level of health, with equity and well-being. Finally, the strategy establishes a matrix of Key Performance Indicators for the monitoring and evaluation of activities.
- 14) Next, the "Innovation Plan for 2023-2025" was presented, which includes, among others: the adoption of agile methods for project management (implementation of Scrum and DevOps); organizational chart change with the establishment of a new functional unit dedicated to innovation, the "Innovation Laboratory"; the creation of new products with the attributes of Information 4.0; and a business incubator and research program for the development of technologies.

- 15) Some information was detailed about the "BIREME Innovation Lab", which has been in operation since February 2023, and which brings together members of all BIREME teams to: identify challenges, develop ideas and concepts, and test specifications. Reports that LILACS is the first unit to receive intervention from the Innovation Lab, currently underway, with the aim of increasing the automation of harvesting and indexing operations, as well as the integration of the architecture of databases for archiving.
- 16) For the "external innovation" component, i.e. that developed in cooperation with BIREME partners, João Paulo Souza presented the updated status of the Startup Incubator Program and the Scientific Research Program. These are scheduled for implementation in the second half of 2023, and should explore diverse technological solutions, including: automated indexing strategies; uses of broad language models in public health; effectiveness of inserting 4.0 attributes in health information products and services; and other research opportunities and gaps.
- 17) The presentation was concluded with the "Expected Outcomes" which considers, together, the programmatic priorities, priority topics, key countries and priority work areas for the review of the current portfolio and the development of the new BWP 2024-2025. Thus, it is expected that the implementation of the BIREME Strategy 2023-2025 will facilitate the development of information products 4.0, contributing to PAHO's vision and consolidating BIREME as the "Pan American Information Center for Action in Health".
- 18) Thanking everyone for the audience, João Paulo Souza passed on the word to the president of the Session, Jorge Barreto, who coordinated the considerations of the committee members on three guiding questions for their comments and recommendations:
 - Is the adoption of a strategy a valid approach to foster innovation at BIREME?
 - Considering the provided suggestions and remarks and the overall context of digital transformation, is the proposed strategy conducive to the goal of facilitating BIREME's transition to Information Products and Services?
 - What other areas of work or interventions should be considered to accelerate the digital transformation at BIREME?

Comments and Recommendations

- 19) The Scientific Committee acknowledges the BIREME 2023-2025 Strategy as a valid approach to stimulate innovation, favor digital transformation and facilitate the development and implementation of a workplan conducive to BIREME's objectives.

20) The Committee supports the adoption of agile methodologies, emphasizing the centrality of user needs (including the lay public) for generating new solutions. These components were recognized as strengths in the presented strategic planning.

21) The SC members recommend:

- (I) Address disinformation programmatically, with an emphasis on:
 - Publication of health information with full provenance of evidence and data;
 - Avoid dissemination of irrelevant information;
 - Surveillance of disinformation disseminated by large language models (LLM) emphasizing the importance of reliability and provenance of data.

- (II) Promote collaborative work with other institutions dedicated to the development of specific information technologies for overcoming the specific challenges of the area, through:
 - Exchange with PhD/postdoctoral researchers, focusing on the development of machine learning projects and the use of data based on the four FAIR principles (i.e. making all types of data that are fragmented and disconnected more easily Findable, Accessible, Interoperable and Reusable).

- (III) Advancing the development of technology, products and services with Industry 4.0 attributes, with emphasis on:
 - Products and services that are exclusively developed and offered by BIREME, and that have the potential to highlight it as a unique reference for the Region, such as multilingualism;
 - Bibliometric mapping with monitoring of classic indicators of scientific production and with automated translation into Portuguese and Spanish, as a way to face language barriers and facilitate access for users not proficient in English or Spanish;
 - Publication of open data, nano-data, and machine-readable data;
 - Improving the search capacity and quality of searches of BIREME's information systems;
 - Evolution of evidence maps to intelligent/living maps, allowing the automatic inclusion of new studies and adding efforts to translate knowledge for decision makers.

Other matters

22) Acknowledgment was made for the participation of the Committee members, highlighting the discussions held and the results achieved during the meeting.

BIREME staff was also recognized for their performance at the Center in the area of scientific information in health and, especially, in the realization of the IX Session of the Scientific Committee.


Closure of the session

After the exchange of acknowledgements and expressions of courtesy, highlight was given by the Secretary *ex-officio* to the main objectives achieved and next steps towards the new institutional positioning of the Center.

In witness thereof, the Ninth Session of the Scientific Committee of the Latin American and Caribbean Center on Health Sciences Information (BIREME) was closed. The Secretary *ex-officio* signs this Final Report in its original language, Spanish.

Held online on the twenty-fourth day of May of the year two thousand and twenty-three.

The original signed document will be deposited in the archives of the *Oficina Sanitaria Panamericana*.



João Paulo Souza
Director of BIREME/PAHO/WHO
Ex-officio secretary of the ninth session of the
Scientific Committee of BIREME/PAHO/WHO

Annexes

Annex A

AGENDA

Welcome to the participants and appointment of the Chairperson and Rapporteur

Presentation by João Paulo Souza, Director of BIREME/PAHO/WHO “BIREME Strategy 2023-2025: Towards the Information Industry 4.0”

Global megatrend towards digital transformation and Industry 4.0

BIREME's Logical Model

Theory of Change

Innovation Strategy

Considerations and recommendations

Comments from SC members

Final discussion and consensus of the recommendations to the Director of PAHO/WHO

Closing words

Annex B

LIST OF PARTICIPANTS

MEMBERS OF THE SCIENTIFIC COMMITTEE

Amanda Wilson	Information Management, United States of America
Barend Mons	Information Technology, Netherlands
César Augusto Cabezas	Scientific Research, Peru
Fabio Tarasow	Education, Argentina
Jorge Barreto	Evidence Informed Health, Brazil

PAHO/WHO

<i>Sebastián García Saisó</i>	<i>Director of Evidence and Intelligence for Action in Health – EIH</i>
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BIREME/PAHO/WHO, Director, Managers and Teams

<i>João Paulo Souza</i>	<i>Director</i>
<i>Carmen Verônica Abdala</i>	<i>Manager of Cooperative Services of Information and Evidence (SCI) and Production of Information Sources (PFI)</i>
<i>Sandra Janostiac</i>	<i>Manager of Methodology and Information Technologies (MTI) and Administration of Information Sources (AFI)</i>
<i>Silvia Almeida de Valentin</i>	<i>Manager of Administrative Management and Planning (GA)</i>

Annex C

ABBREVIATIONS USED IN THIS REPORT

BIREME	Latin American and Caribbean Center on Health Sciences Information, in abbreviation of its original name, in Portuguese, <i>Biblioteca Regional de Medicina</i>
BWP	Biannual Work Program
EIH	Evidence and Intelligence for Action in Health
ESG	Environmental, Social and Governance
FAIR	Data principles referring to Findability, Accessibility, Interoperability, and Reusability
LILACS	Latin American and Caribbean Literature in Health Sciences
LLM	Large Language Model
SDG	Sustainable Development Goals
SHAA	The Sustainable Health Agenda for the Americas