VIRTUAL EVENT

Held on 27 June 2022

SUMMARY REPORT

REGIONAL WORKSHOP ON OPEN SCIENCE IN THE PACIFIC

Executive Summary

Open Science is becoming more and more an important policy priority for governments to enhance the quality, efficiency and responsiveness of research.

Ideally, the concept promotes unhindered access to both scientific publications and data from public and collaborative research.

These practices can accelerate the research process and reinforce cooperation and knowledge sharing, taking into consideration contextual settings.

Following a first webinar on Open Science and a Policy Support Facility service in Timor-Leste to assist in setting up a national Science Technology and Innovation Policy and a National Digital Repository, this regional workshop delved deeper into the topic at the Pacific region level.

The workshop started with a presentation of the UNESCO Recommendation on Open Science.

International and regional panelists shared initiatives on Open Science in Europe and the Pacific, highlighting benefits, challenges and opportunities for inter-regional information sharing.

Panelists also facilitated a co-creation activity aimed to identify some initial recommendations that could serve as a basis for the development of a 'Manifesto' for Open Science in the Pacific, in alignment with existing regional policy frameworks and mechanisms.

Participants

More than 50 participants from various Pacific countries

Co-organised by the OACPS R&I Programme, the National Institute of Science and Technology from Timor Leste, the Pacific Islands Forum Secretariat and the Pacific Community

Implemented by the OACPS Secretariat

OACPS R&I

Financed by the European Union

OACPS R&I

"A fractured national and international science community is hindering the much-needed collaboration among the various societal actors. It is crucial that we join forces. We need stronger regional collaboration and stronger frameworks to make the most of the talents of all members of society, especially women and young people."

Mr. Norbert Richard Ibrahim,
Assistant Secretary-General,
OACPS Secretariat

"Collective action towards shared data systems and platforms are necessary to ensure that cohesive and coordinated approaches are consistent to inform policy processes and our decision-makers. We encourage you all during these discussions to stress the importance of ensuring that gender gaps and inclusivity are addressed and new initiatives such as these are tailored accordingly so that no one is left behind."

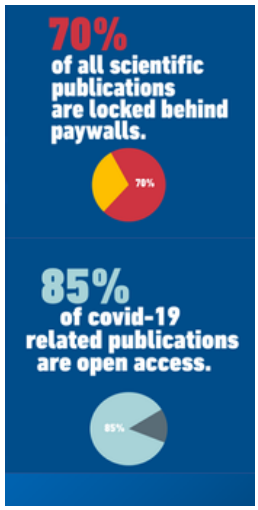
Ms. Manaini Rokovunisei
Representative of the PIF Secretariat

Referring to the recommendations of PSF service in Timor-Leste: "Developing open science and open sources in the future needs solid commitment of all entities including universities, private sector, government and civil society groups, political will, strong budget and qualified human resources in terms of professional researchers and other technical experts."

Mr. Jose Cornelio Guterres
Executive President INCT

IMPORTANCE OF OPEN SCIENCE

- Open Science is recognised as a critical accelerator to meet the United Nation's 2030 agenda and its 17 Sustainable Development Goals (SDGs).
- For the Pacific region, Open Science contributes to the long-term vision of the 2050 Strategy for the Blue Pacific Continent.
- Open Science has the potential to increase the quality, efficiency and impact of R&I, lead to greater responsiveness to societal challenges, and increase trust of society in the science system, by making the entire scientific process and its outputs more (rapidly) accessible, transparent, collaborative and inclusive (involving all relevant knowledge actors: academia, industry, public authorities, end users, citizens and society at large).
- The COVID-19 pandemic has served as a catalyst to accelerate the implementation of Open Science and Open Data initiatives. It demonstrated the importance of:
  - timely and free access to scientific data, publications, information.
  - scientific collaborations and widely sharing of information.
  - science-policy-society dialogues.
- Open Science can be a true game changer in bridging the science, technology and innovation gaps between and within countries.



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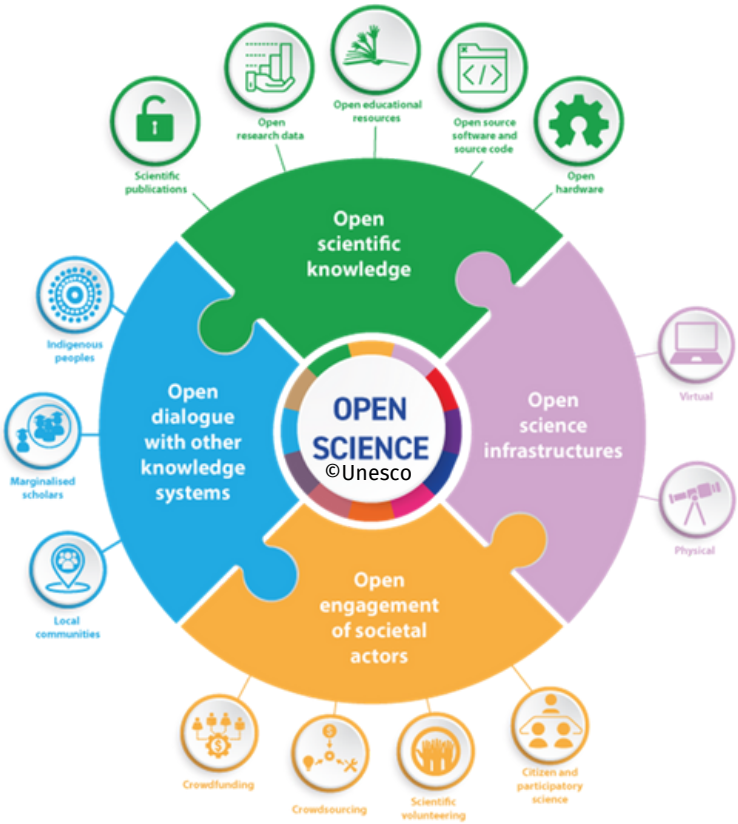

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ENTRY POLLS OF PARTICIPANTS

UNESCO RECOMMENDATION ON OPEN SCIENCE

- The first international standard-setting instrument on Open Science, adopted in 2021 by 193 member states.
- Addresses the need for an international policy and action framework, a common definition of open science, and a shared set of values and principles, taking into consideration regional policy frameworks, values and principles.
- Provides a roadmap as to what needs to be put in place for Open Science to thrive.

Seven key areas of actions to implement the UNESCO Recommendation

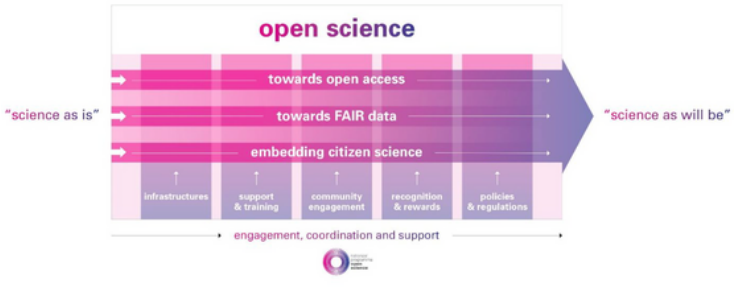
SHARING EXPERIENCES ON OPEN SCIENCE

EU's Open Science Policy

Eight strategic pillars

- Changing business models for publishing (publications available for free and Article Processing Charges (APC) paid by the authors- still a potential affordability issue).
- FAIR (Findable, Accessible, Interoperable and Re-Usable) Open Data
- European Open Science Cloud (EOSC, a platform for sharing research data).
- Citizen science.
- Open education and skills.
- Research integrity.
- Reward system.
- New metrics (find alternatives to the current impact indicators such as the Journal Impact Factor, currently used to rank universities and researchers)

Shift from publications to digital research outputs, incl. software, open educational resources, videos, newspapers, social media ...



SHARING EXPERIENCES ON OPEN SCIENCE

Initiatives from the Pacific Community -SPC

The Pacific Community is the principal scientific and technical organisation in the Pacific region, comprising 27 country and territory members. Working across more than 20 sectors, and known for its knowledge and innovation in fisheries science, public health surveillance, geoscience, and conservation of plant genetic resources for food and agriculture, it actively supports Open Science in the Pacific (see below a snapshot of its Open Science-oriented activities).

Pacific Community Centre for Ocean Science, PCCOS

Citizen Science · Open Innovation

Videos: Three questions to PCCOS Director, Jérôme Aucan (notably on traditional knowledge and modern science) https://www.youtube.com/watch?v=ko5vzN2iISk
Lab 5 Vaka Moana: An accessible Pacific Ocean https://www.youtube.com/watch?v=K-3nu5h7P4A
Website: https://www.spc.int/pccos

Climate and Oceans Support Program in the Pacific, COSPPAC

Citizen Science · Open Acces

Video: The Pacific Ocean Portal https://www.youtube.com/watch?v=j6knk49S1v0

Websites:
http://oceanportal.spc.int/portal/ocean.html
The importance of where https://www.spc.int/updates/blog/2018/10/the-importance-of-where
http://pgsc.gem.spc.int/

Supercomputing, NIWA

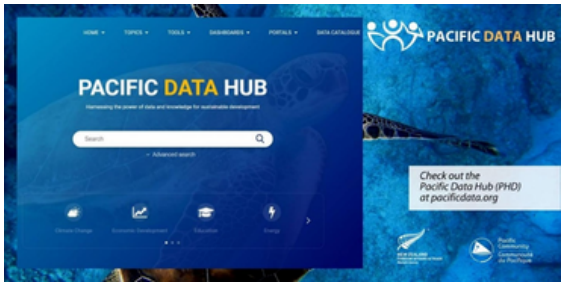
(partnership with New Zealand in terms of their use of their supercomputing facilities)

Open Hardware · Open Infrastructures

Videos: SPC – NIWA Learning Exchange Webinar Series

Website: NIWA https://niwa.co.nz/our-services/high-performance-computing-facility

Pacific Data Hub, PDH



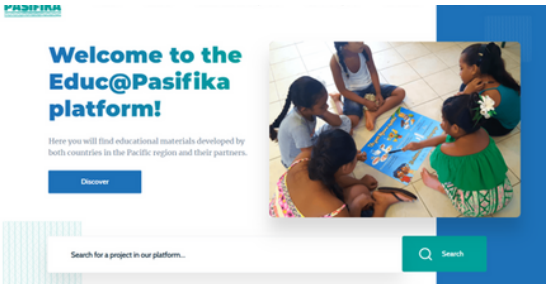
Open Acces · Open Data

Videos: Pacific Data Hub demo https://www.youtube.com/watch?v=FXIXRSg9ztI
Pacific Data Hub Functionalities:

- Data catalogue, the largest central data repository for the region
- PacificMap, mapping interface allowing for visualization of spatial data
- SDG Dashboard, data on the 132 Pacific Sustainable Development Indicators selected by the region.
- PDH.stat, data explorer for development indicators and official statistics.
- Microdata Library, Pacific region's survey, census, and administrative-based microdata and documentation

Website: https://pacificdata.org/

Open Educational Resources, OER, Educ@Pasifika



Open Educational Resources

Websites:
Educ@Pasifika platform
https://www.educapasifika.com/en
OER, Other Pacific OER repositories:
https://pacificopencourses.col.org/pacific-oer-collections/

TOWARDS AN OPEN SCIENCE MANIFESTO

During the co-creation session, participants brainstormed in break-out rooms on how to boost Open Science in the Pacific region and what main challenges should be addressed in order to make it thrive. The outcomes were presented in a plenary session. Suggestions/recommendations were consolidated as follows, to serve as a basis for the development of an "Open Science Manifesto for the Pacific".

Support for Open Science in the Pacific

- Build upon the 2050 Strategy for the Blue Pacific Continent (education, capacity-building, safeguards and protection ...)
- Strengthen this support with the agreement of (ministries, research funding organisations, research performing organisations, researchers ...).
- Acknowledge the plurality of science (disciplines): multidisciplinary and transdisciplinary.
- Address the need to solve complex scientific and social challenges (incl. SDGs).
- Ensure FAIR Data and Open Data principles.
- Align with UNESCO recommendations on Open Science.
- Accessible to all communities to see the value of science.
- Agree on key definitions: open access, open peer review, open collaboration ...

Values for Open Science in the Pacific

- Pacific regionalism - Example: PacREF research framework.
- People-focused - Vanua - ecosystems- community.
- Diversity and inclusiveness:
  - Talanoa (inclusive, participatory and transparent dialogue).
  - Ethical considerations (fairness, non-discrimination ...).
  - Ensure that everybody (including people in rural and/or remote areas, youth) can have access to research results .
  - Guarantee low cost (free)- non-commercialisation of research outputs.
  - Make data (even technical data) understandable at all levels of community.
  - Promote Citizen science from grassroots to policy, upstream from the start.

Encourage participation

- By society at large.
- Stimulate digital skills (for researchers, but also society to better understand science).
- Inclusive approach - all stakeholders (incl. publishers) involved.
- Citizen science.

<u>Awareness, promotion and engagement</u>

- Targeting researchers, lecturers, students, librarians ...
- Using local institutional networks (women associations, youth committees, IKS groups ...).
- Ensuring informed participation and consent (community, stakeholders and contributors know what the information will be used for and if it will be used for other projects or research).

Building blocks for a possible Pacific network on Open Science

<u>Critical mass, key for:</u>

•Negotiations with publishers
•Economies of scale
•Stronger global voice

<u>Alignment:</u>

•On standards (for metadata, technical infrastructures, ...)
•On laws and regulations (e.g., a common statement on copyright, embargoes)
•On rewards & recognition (to facilitate mobility of researchers)

<u>Discussion and agreement on an Open Science Manifesto for the Pacific</u>

Sharing and making research infrastructures available

- Common platform for seamless access to data, tools, computing, storage ... (such as the Pacific Data Hub).
- Ensure digital sovereignty (owners keep control on their data, regulations, different levels of access to content- related to the nature of data ....) and clarify on indigenous knowledge data/content.
- Build digital skills, as early as possible (even at secondary school for basic skills) to enable wide access/use of existing platforms on Open Science.
- Provide multilingualism and include local languages to avoid language barriers. Example: the future Timor-Leste National Digital Repository will be a multi-languages platform (English- Portuguese- Tetum).
- Elaborate guidelines for researchers (FAIR and verifiable data, reproducible research ...).
- Manage ownership at national level (to safeguard sensitive data- example traditional knowledge and climate change, COVID 19 ...), combined with regional information sharing, essential to address common challenges via Pacific regional organisations.

Co-creating and sharing research outputs

- In any case, the research financed with public funding should be freely available.
- Reproducibility of research outputs:
  - Connect research data to research papers.
  - Encourage participation / consideration of traditional knowledge contributions.
  - Share research results with contributors (communities, groups).
  - Encourage peer review to ensure data quality.
  - Copyright - Creative Commons Licenses.
  - Demonstrate impact, transparency, reproducibility, and encourage researchers to publish data via citation of data.
- Protect sensitive data: e.g. fisheries data (company data have to remain confidential, but can be aggregated).
- Widen dissemination of the research outputs via Open Access Journals.
- Intellectual property/copyright issues: prevent plagiarism via appropriate regulation.
- Develop new products/services driving growth (turn data sets into usable products, provide wider range of tools to consume the data, etc.).
- Promote citizen science (statistics data collected at grassroots level, people can create datasets and fill gaps, etc.).

Research assessments based on quality and impact

- e.g. Sign the Declaration on Research Assessment (DORA).
- Agree on the parameter/impact assessment of the journals.
- Provide incentives for researchers to share/publish data.

Useful links to deep delve into the topic

JOIN OUR INNOVATIONXCHANGE PLATFORM!

It's important to learn from each other and use fora, such as the OACPS R&I InnovationXChange platform. Join us for further discussion on the topic!

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