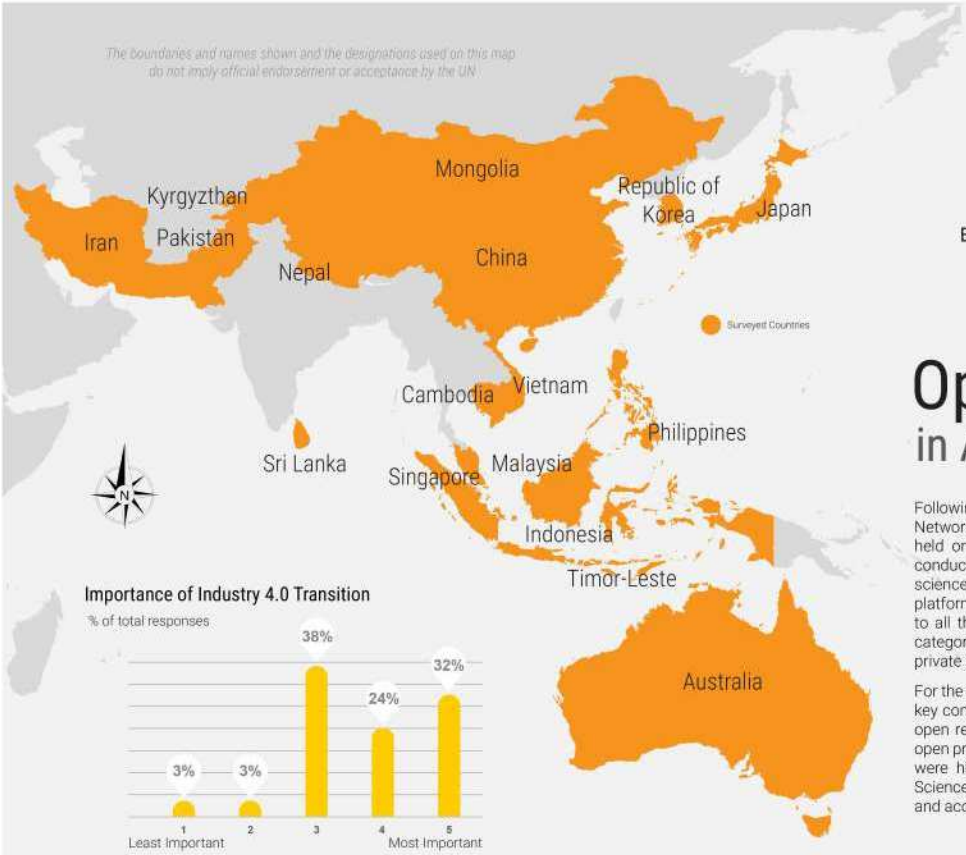


United Nations Educational, Scientific and Cultural Organization

GOAP GLOBAL OPEN ACCESS PORTAL

Open Science Status
in Asia and the Pacific Region

Following the "Regional Multi-Stakeholders Workshop on Open Science for Networked Societies-4th Industrial Revolution and SDGs in Asia and the Pacific", held on September 16, 2019 at Jakarta, Indonesia, UNESCO Jakarta Office conducted post-workshop survey to understand the current status of open science in the region. The questionnaire survey was administered via online platform from 1st December 2019 to 15th March 2020. The survey was sent out to all the Workshop's participants and via UNESCO regional offices, UNESCO category 2 centers, and targeted government officials, academic institutions and private sectors in the region.

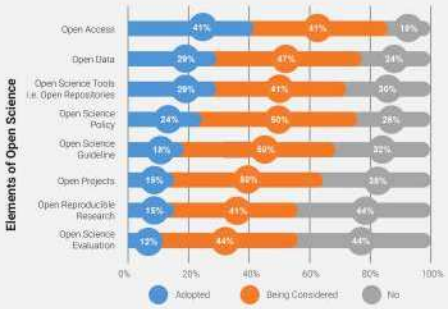
For the purpose of this survey, we considered the following elements as the eight key components of open science: open science policy, open access, open data, open reproducible research, open science evaluation, open science guidelines, open projects and open science tools such as open repositories. These elements were highlighted during the Regional Multi-Stakeholders Workshop on Open Science and considered comprehensive so that open science could contribute and accelerate Industry 4.0 transition and SDGs achievements.

Importance of Industry 4.0 Transition

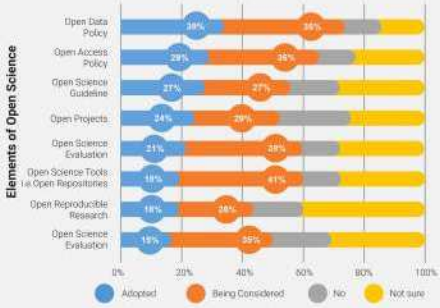
Integration of Open Science into Industrial 4.0 Transition

Availability of Big data Management & Sharing Platforms

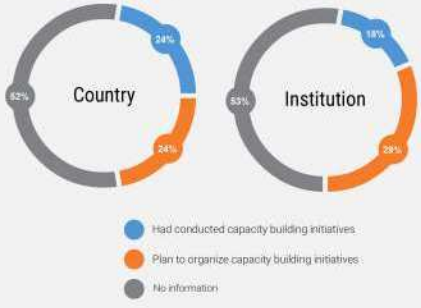
Adoption level of open science by surveyed institutions



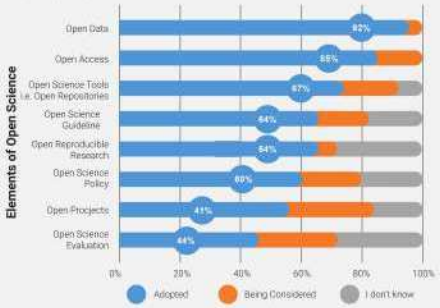
Adoption level of open science by surveyed countries



Conducted Open Science capacity building initiatives



Capacity building initiatives conducted/planned to promote open science



Challenges facing elements of open science

Open Science Policy	• Lack of open science policy at both national & institutional levels	★★★★
	• Lack of awareness	★★
	• Limited human resources experienced on open science*	★
	• Political commitment	
	• Predatory journals	★
Open Access	• Predatory journals	★★
	• Limited funding	★★
	• Weak inter-agency collaboration especially with publishers	★★
Open Data	• Predatory journals	★★
	• Data security	★★
	• Limited human resources	★
	• Limited IT infrastructures	★
Open Reproducible Research	• Lack of awareness	★★★
	• Predatory journals	★
	• Inadequate fund	★
	• Limited human resources	★
Open Science Evaluation	• Lack of effective evaluation metrics for research and researchers	★★★
	• Usually government funded research projects are not properly evaluated.	
Open Science Guideline	• Lack of good practice	★
	• Need to provide sufficient financial support.	
Open Projects	• Limited funding opportunities	★★
Open Science Tools i.e. open repositories	• Limited technical competency for small institutions	★★
	• Financial constraints	★★
Others	• Open science is not a priority to many governments and institutions	★

★ *the more important*

Key Recommendations

★ Scaling up capacity building initiatives.

★ There is need to re-channel and establish innovative funding opportunities to ensure full actualization of open science in all countries and institutions. Also, funding opportunities are required to address pressing challenges facing most developing countries including limited human resources, insufficient infrastructure and limited funds.

★ Scientific research quality is the core principle of open science. Effective strategies should therefore be established to guarantee research quality through scientific evaluation metrics and publication processes.

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