The African Open Science Platform (AOSP): Fostering a Culture of Open Data within African National Systems of Innovation

Mrs Ina Smith[1], Mrs Susan Veldsman[2]
[1]African Open Science Platform Project Manager, Academy of Science of South Africa
[2]Director Scholarly Publishing Programme, Academy of Science of South Africa

Synopsis	Concurrent advances towards the 4th Industrial Revolution such as Artificial Intelligence (AI), the Internet of Things (IoT) and robotics are expected to enable tremendous innovations and fundamentally transform science, business, government and society - also in Africa. Scientific advances - spearheaded by an explosion of data generated through digitally connected devices - will only be possible if governments and organisations across are aligned, prepared and geared towards collaboration and sharing of infrastructure and other resources. To understand where we want to go, and what is needed to get there, the South African Department of Science and Technology - through the National Research Foundation - made available funding and mandated the Academy of Science of South Africa to conduct a landscape study to identify the status of data initiatives and sharing on the continent. This paper will share selected findings from the report, including challenges and opportunities, to also stimulate thinking on the role of various stakeholders and research communities in making sure data remain FAIR. Frameworks to guide policy- and decision-makers in terms of Open Data policy, capacity building, incentives for sharing, and the required infrastructure to enable data sharing, will further be shared. AOSP follows on existing initiatives and strategies elsewhere in the world, such as the e-infrastructure work by the Joint Information Systems Committee (JISC), US National Science Foundation (NSF), the European Open Science Cloud (EOSC), Compute Canada, the Australian Research Data Commons (ARDC) and the Southern African Development Community (SADC). The future AOSP is expected to position the African continent alongside these major initiatives, advancing science even further, for all to benefit.
Format of demonstration	Slide Show
Target research community	Transdisciplinary, focusing on collaborative and continental initiatives. Aimed at managers and policy- and decision makers, implementing eInfrastructures on institutional, regional, national or continental level.
Statement of Research Impact	The African Open Science Platform is currently in its pilot phase. The outcomes of the landscape report and the proposed frameworks are not only relevant for Africa, and will not only benefit Africa and the development of the future AOSP eInfrastructure, but are expected to benefit stakeholders across disciplines, regardless of country. Countries globally – more connected than ever before – need to collaborate, have access to research and specifically data, and where possible share infrastructure (incl. resources) in order to find solutions to global challenges (MDGs, SDGs). For this to happen we need to align with one another. It is crucial that Africa not be

	isolated, and not be excluded from global dialogues. Alignment and collaboration with the likes of the Joint Information Systems Committee (JISC), the US National Science Foundation (NSF), the European Open Science Cloud (EOSC), Compute Canada, and the Australian Research Data Commons (ARDC) are crucial if we are to make progress. Sharing the findings from the pilot study will not only benefit future collaborations, but might also interest prospective future investment as far as data infrastructure concern.