



UbuntuNet
CONNECT | 2020

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Implementing Multi-Institutional Digital Repository

Case for Somali Research and Education Repository - SORER

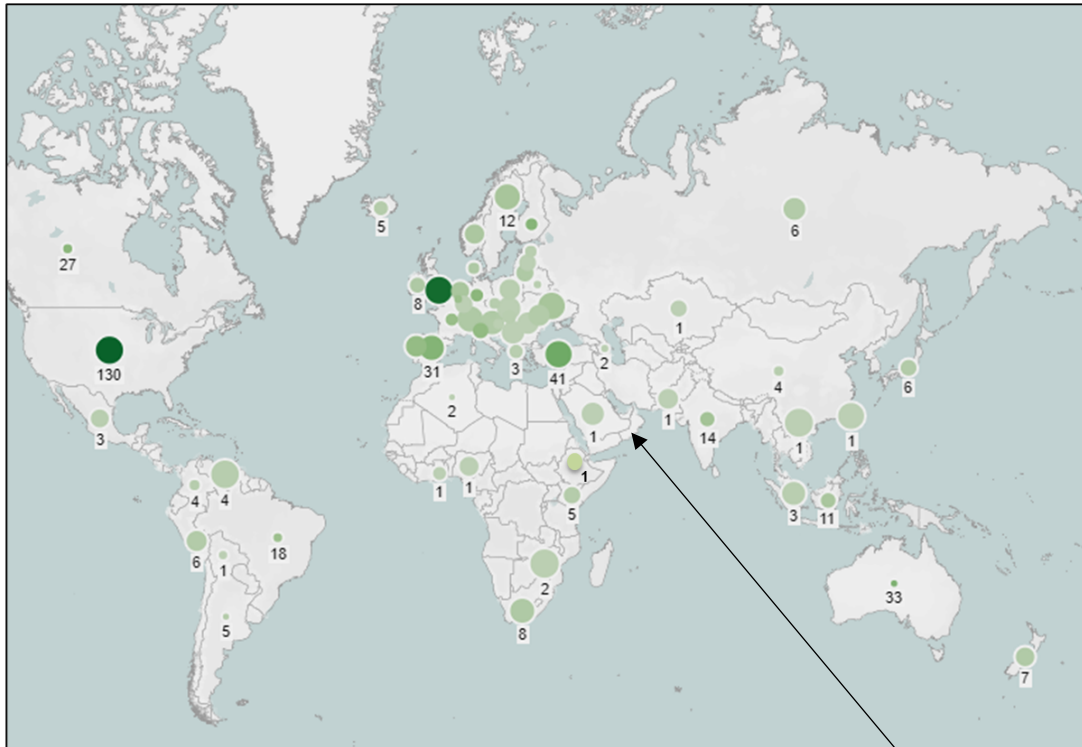
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Outline

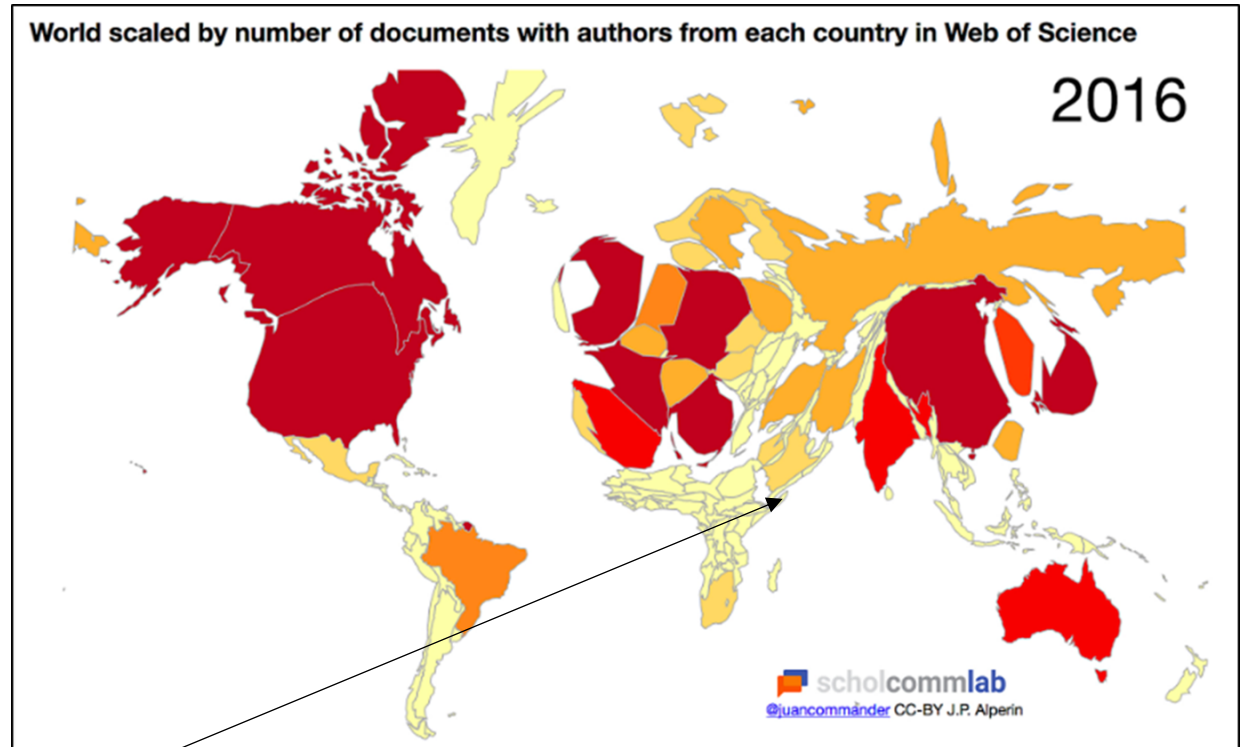
- State of play
- Local context
- SORER Objectives
- SORER Project Scope
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- SORER Project Implementation Plan and Milestones
- Acknowledgements

State of play

World map of Open Access policies



World scaled by number of documents with authors from each country in Web of Science



Somalia has no OA policy in place and a research visibility gap

Local context

• Challenges

- The research outputs produced by local institutions are **not OPEN** to local and global audiences
- This has **minimized** the visibility and impacts of local academic institutions
- The limited research outputs produced by local institutions were **not adequately showcased to interested constituencies and global citizens outside academic institutions**
- This has **negatively branded** the universities as **in-competent** to produce any form of research content
- The **printed copies** of Student's Theses and Dissertations are archived inside the university, and nobody can basically see them after the defending day

To overcome this situation...

- The Somali Research and Education Repository (SORER) is meant to be a **Centralized Multi-Institutional Digital Repository System** implemented and managed by **Somali Research and Education Network (SomaliREN)** with external experts' help (Prof. Roberto Barbera from University of Catania and Drs Marco Fargetta and Riccardo Rotondo from INFN Catania, Italy)
- The primary purpose of the SORER project is to assist research and academic institutions in **increasing its research outputs and encouraging local content production**
- This will allow the local institutions **to host their research and educational resources for greater visibility and increased access**

SORER OBJECTIVES



Increased local Publications

Improve research quality and quantity produced by local institutions.

1

Open Access Contents

Make research contents accessible to the local and global audiences outside academic institutions

2

Greater Visibility

Help the dissemination of research outputs and the visibility of local academic institutions

3

Local Plagiarism Checker

To be used a local plagiarism checker

4


SORER Project Scope

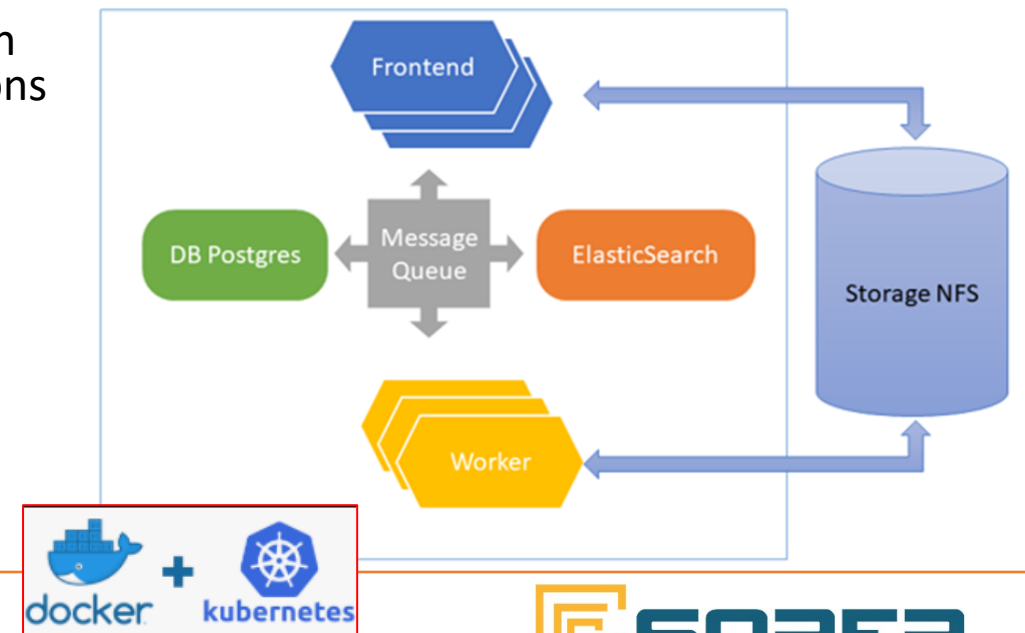
- The scope of the SORER project is to implement a centralized Multi-Institutional Open Access Digital Repository for Somali higher education and research institutions
 - That will lead to innovation as well as greater economic and social return
 - Create a local academic knowledge base that will comply with and support the FAIR principles
 - Will be made uploaded resources available metadata search engines compliant with the OAI-PMH standard, using Digital Object Identifiers (DOI)
 - To be registered to/harvested by regional and global registries such as:
 - Open Archives Initiative
 - Open Directory of Open Access Repositories (OpenDOAR)
 - OpenAIRE
 - Registry of Open Access Repositories (ROAR)
 - Etc.
 - Will be easily and widely accessible through the support of (SAML based) Federated Authentication and social (GitHub and ORCID) credentials

SORER System Architecture

SORER has been configured and deployed using the [Synthetic procedure to replicate the INFN Open Access Repository](#), which was originally written for the deployment of NADRE in Ethiopia

SORER:

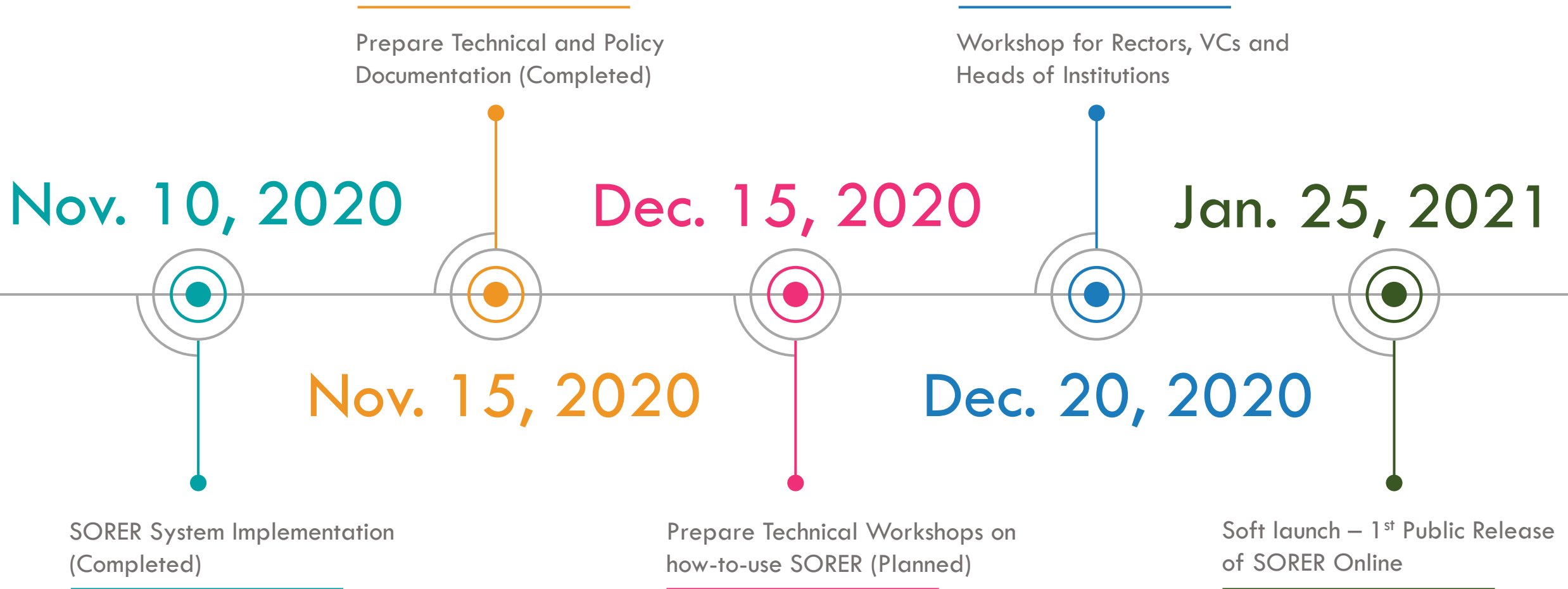
- Adopts **leading-edge technologies** in the domain of digital repositories such as **INVENIO** and **zenodo**
- Relies on **containers and containers' orchestrators** for maximum reliability and scalability
- Exploits the concept of “**communities**”, which is central in the Zenodo architecture, to cope with several aggregations of contents: per University, per Department/Faculty, per project, etc.
- **Supports DOI minting and versioning**
 - SomaliREN will own a DOI prefix from  **DataCite**
- **Is compliant with FAIR principles**
- **Is compliant with Plan S requirements**



Research & Education Resources to be hosted

- Conference papers
- Peer-reviewed materials
- Theses and Dissertations
- Lecture Notes
- Student research
- Workshops and Seminar materials (slides and videos)
- Data
- Etc.

SORER Implementation Plan – 1st Milestone



Acknowledgments

- Our sincere thanks to our great friends [from the University of Catania and INFN Catania](#), Prof. Roberto Barbera and his team, for giving us unwavering technical support to make this project successful
- We also thank [our Ethiopian colleagues at EthERNeT](#) for making NADRE documentation publicly available
- Finally, we [thank the UbuntuNet Alliance](#) for providing us free cloud services to host some of our services

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Thank you