

Towards a common Vision on Open Science: FAIR-Data Culture and National Data Infrastructure in Ethiopia

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giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

Outline

- Introductory considerations
- e-Infrastructure projects in Africa
- The Sci-GalA project and its legacy
- The National Academic Digital Repository of Ethiopia (NADRE)
- Summary and conclusions

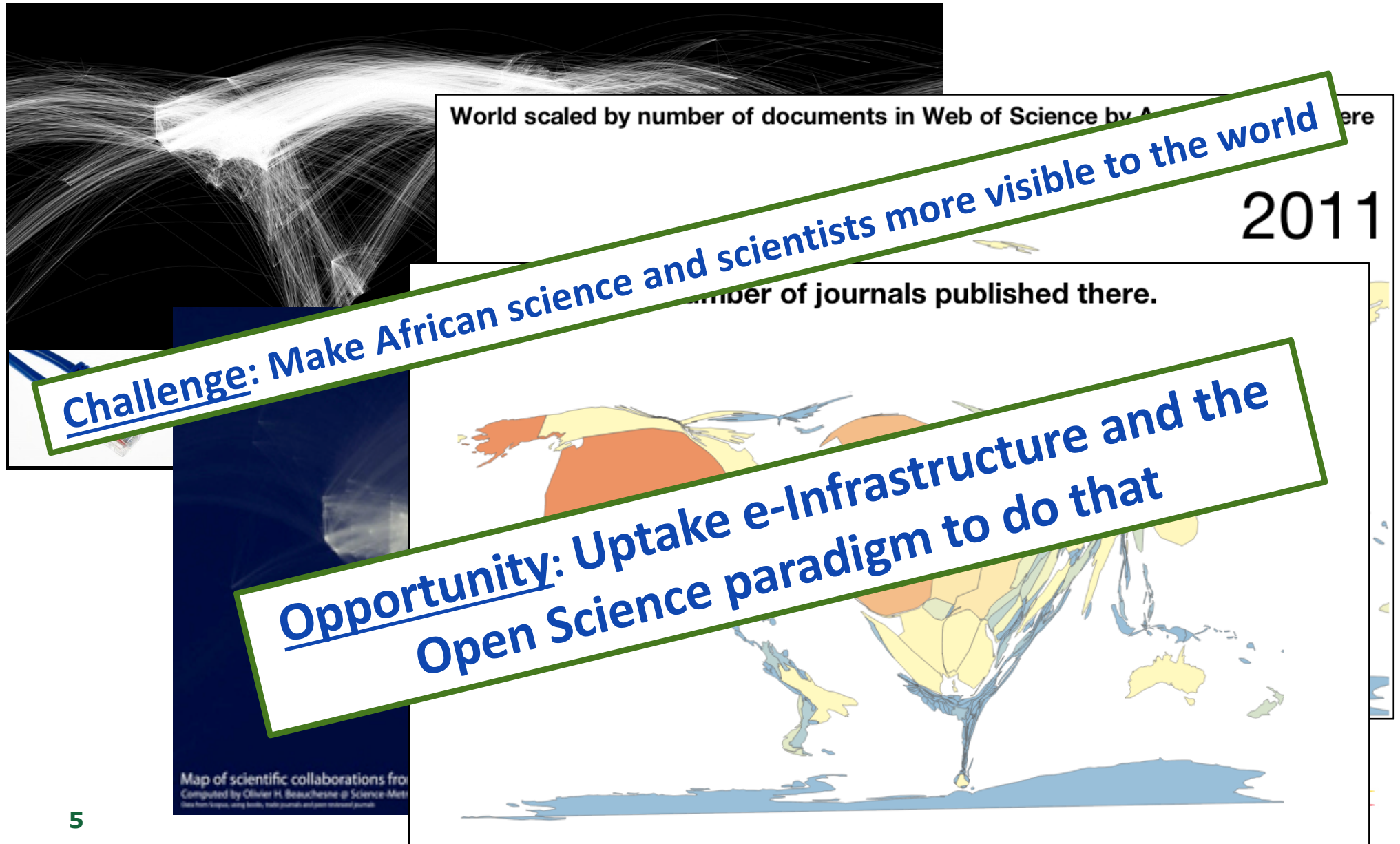
3



“My” e-Infrastructure projects “vs. space” (outside Europe)

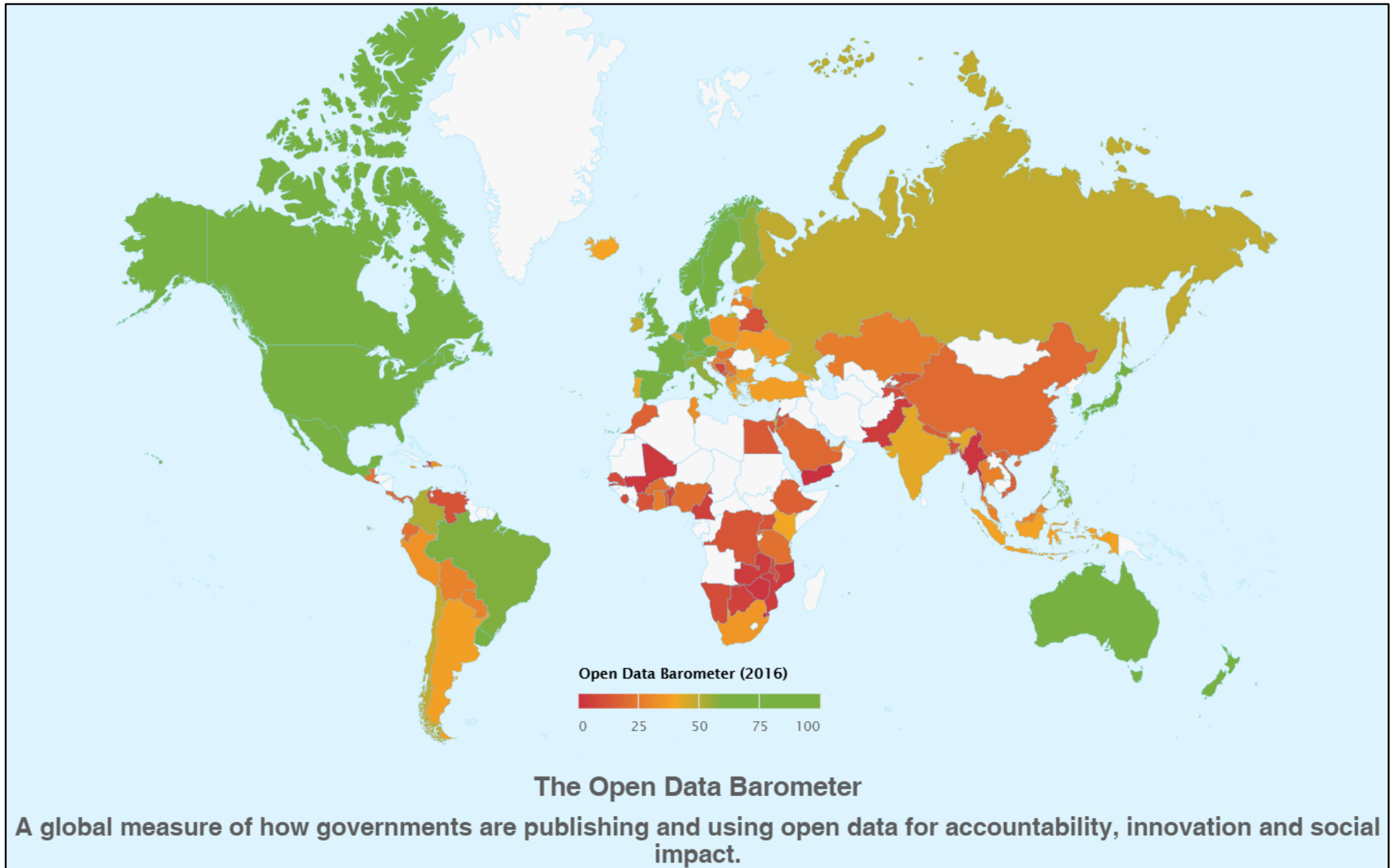


Consideration #1: Some global “connections”



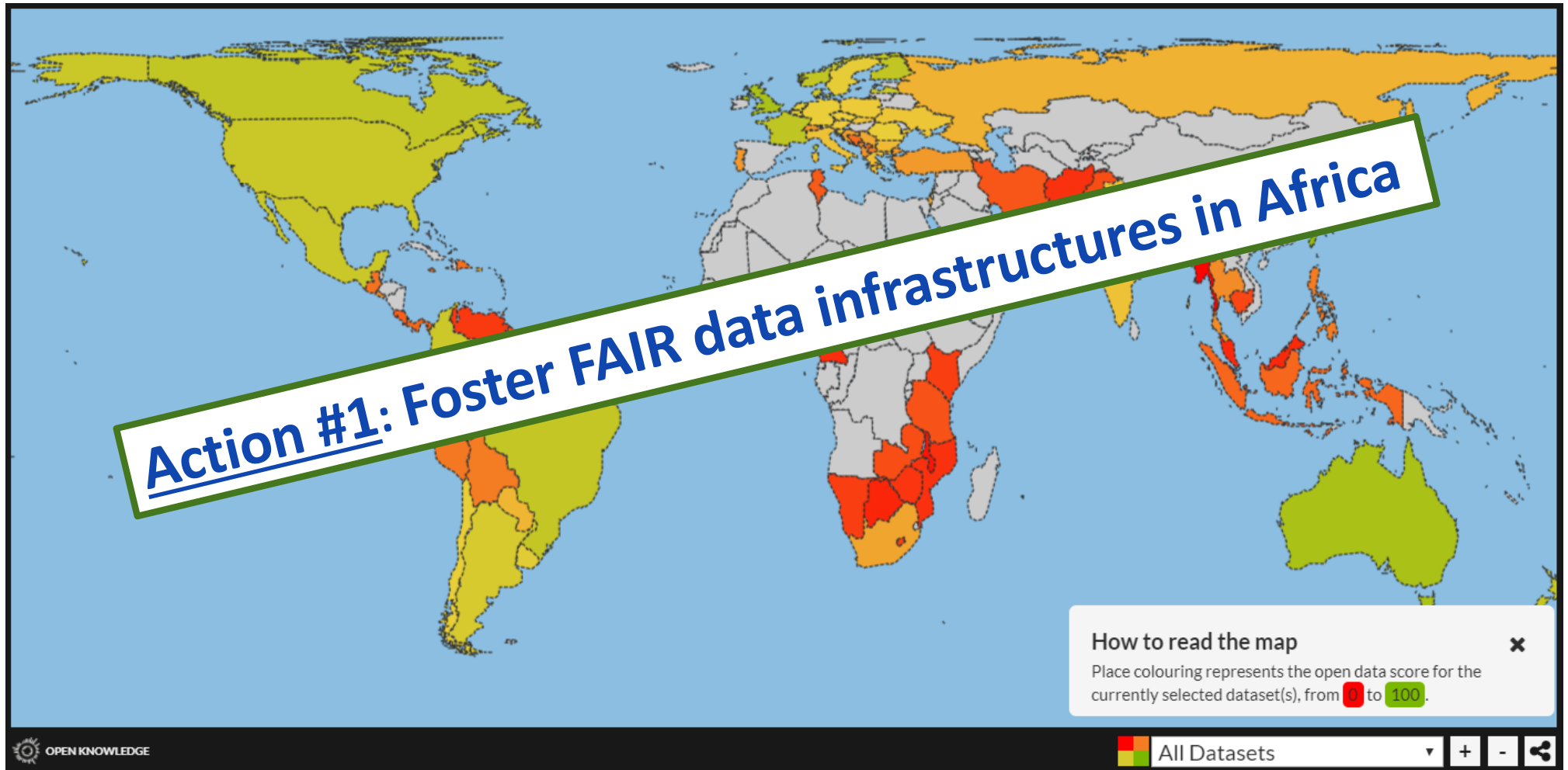
Consideration #2: Open Data availability

Open Data Barometer (2016 Report)

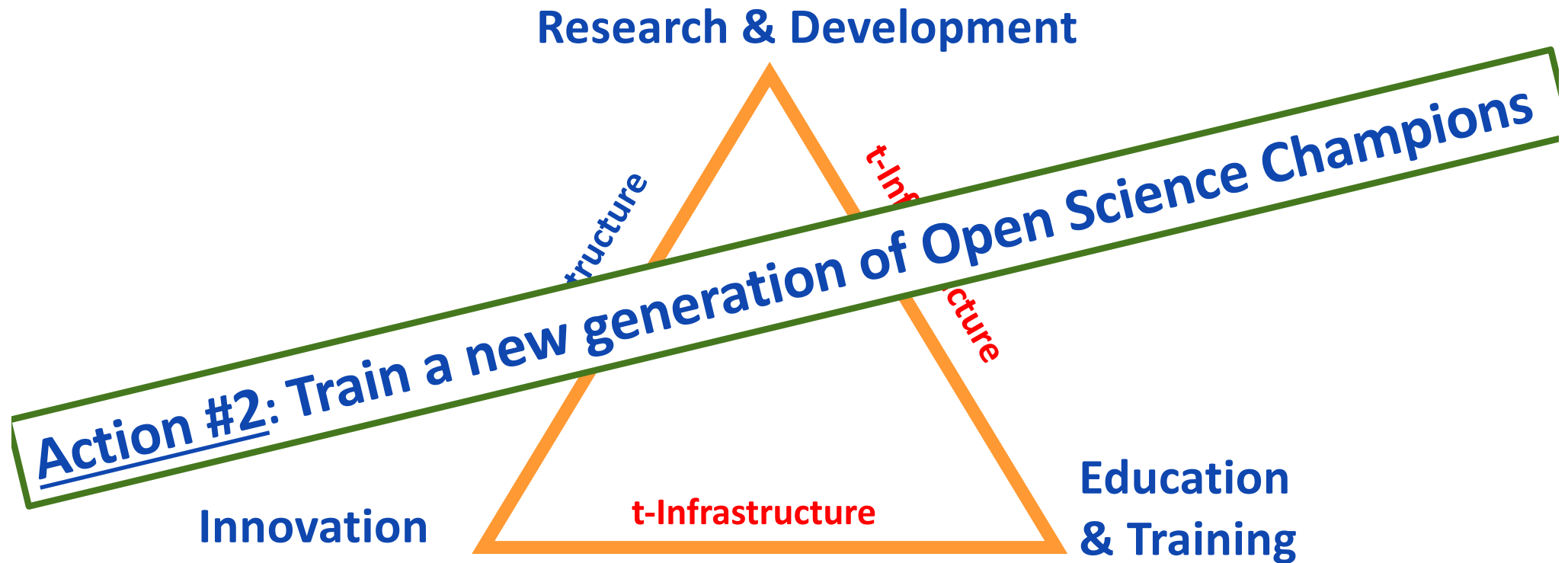


Consideration #2: Open Data availability

Global Open Data Index



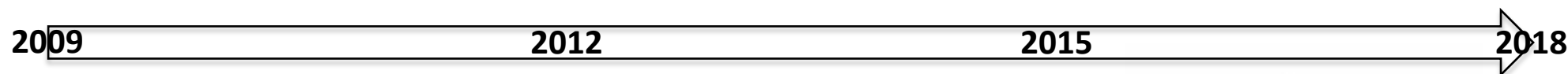
Consideration #3: The Triangle of Knowledge



Building e-Infrastructures is a waste if we don't “build”, at the same time, their users

Along with e-Infrastructures, t-Infrastructures and training programmes are also needed, as Open Education Resources (OERs)

(Some) e-Infrastructure-related projects in Africa



FEAST
Project
← 2008



GLOBAL
← 2008



el-Africa



← 2006

The EuroAfrica-ICT/P8 Initiative
Strengthening ICT research & policy links under
the 8th Strategic Partnership



The Sci-GaIA Project

(www.sci-gaia.eu)

- **Energising Scientific Endeavour through Science Gateways and e-Infrastructures in Africa**
- Research Infrastructures – Coordination & Support Action
- Grant Agreement no. 654237
- EC contribution: ~1.4 MEuro
- Start date: 1 May 2015
- Duration: 24 Months



ROYAL INSTITUTE
OF TECHNOLOGY



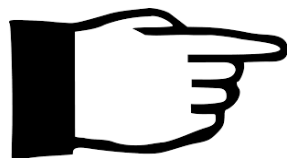
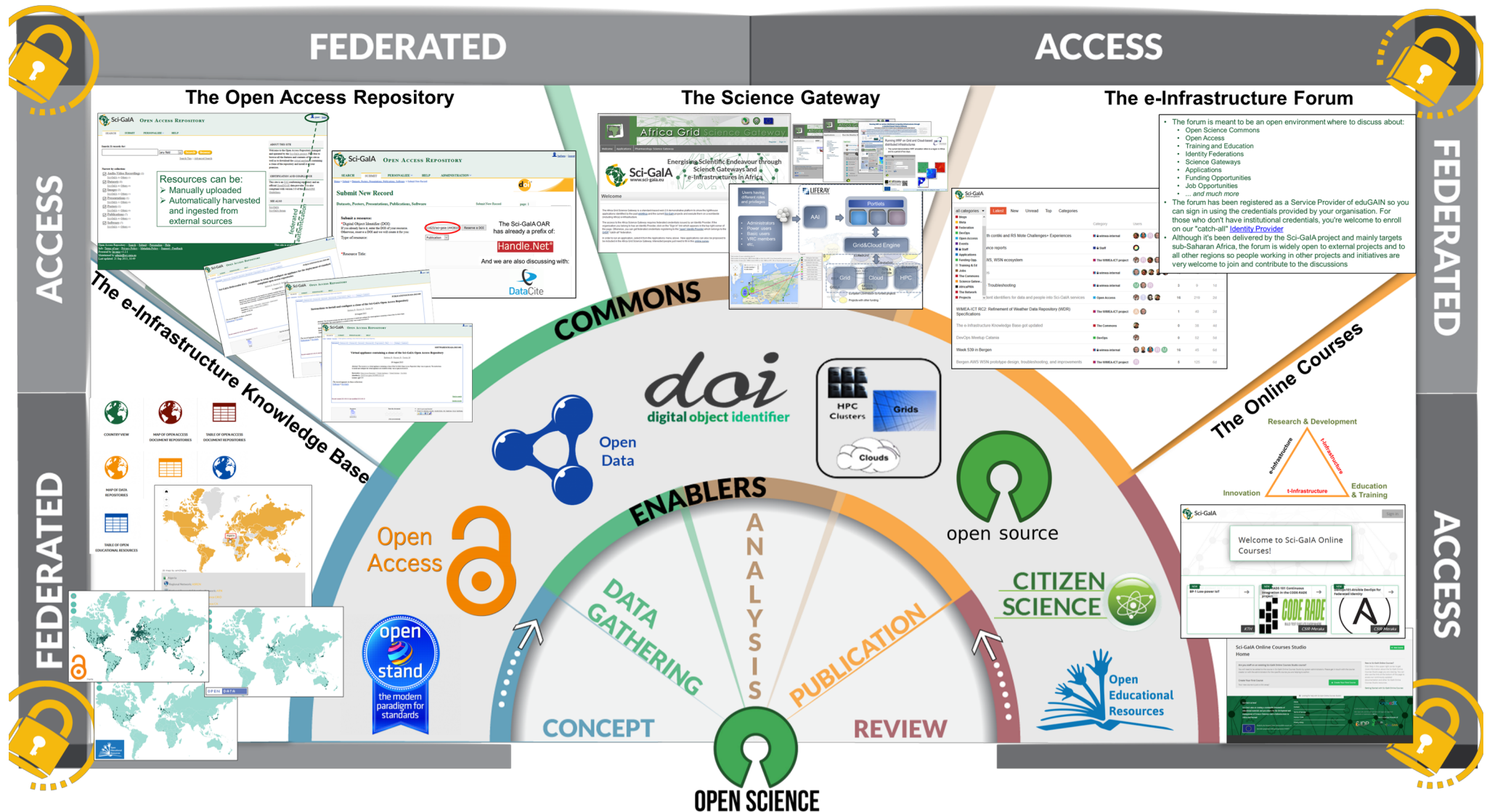
UNIVERSITÀ
degli STUDI
di CATANIA



our future through science



The Sci-GaIA Federated Platform for an Open Science Commons in Africa



Sci-GaIA Training & Educational Material

(www.sci-gaia.eu/materials)



**Sci-GaIA**
ABOUT ACTIVITIES

ENERGISING SCIENTIFIC ENDEAVOUR THROUGH SCIENCE



**Sci-GaIA**

TRAINING & EDUCATIONAL MATERIAL

Section 1 – Science Gateway

Section 2 – e-Infrastructure

Section 3 – Science Gateway

Section 4 – e-Infrastructure

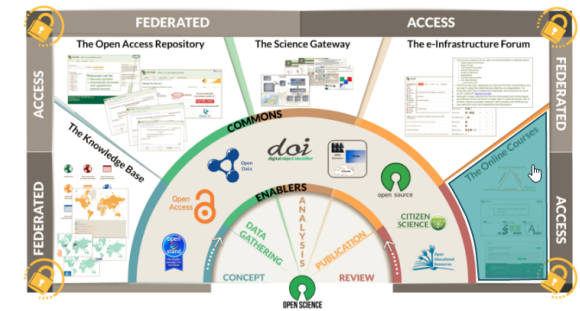
13

WINTER SCHOOL		
E-RESEARCH SUMMER HACKFEST		
WACREN E-RESEARCH HACKFEST		
ETHERNET E-RESEARCH HACKFEST		
e-Research Summer Hackfest		
Streamed videos		
Video "moments"		
Documentary video		
Lecture	#	Content
Introduction		Sci-GaIA Project
		INDIGO DataCloud Project
1		The FutureGateway framework
		Overview – APIs – Tutorial
		Video recordings (1, 2, 3, 4, 5, 6, 7)
2		The INDIGO PaaS (Overview, Tutorial)
		Video recordings (1, 2, 3, 4, 5, 6, 7, 8)
3		The gLibrary framework
		Video recordings (1, 2)
4		Programmatic Interaction with Open Access Repositories
		Video recordings (1, 2, 3)
5		The Onedata platform
		Video recordings (1, 2, 3, 4)
6		The Ophidia platform (Overview, Tutorial)
		Video recordings (1, 2, 3)
7		The Kepler workflow manager
		Video recordings (1, 2)

"FAIR" Open Educational Resources

(www.sci-gaia.eu/materials)

- Textbook, virtual appliance and video-lessons (on OAR)



Information | Reference: (11) | Citation: (0) | Keyword: | Discussion: (0) | Usage statistics | File | Plot | Holdings | Linkback:

Virtual appliance for the "Course on how to turn web-based services into Service Providers of Identity Federations" - Consortium GARR - SOFTWAREOTHER-2015-007

- [1] [LESSONSOTHERS-2016-005]

First lecture of the "Course on how to turn web-based services into Service Providers of Identity Federations"

Identifier: [11623/sci-gaia:1457359430.6](#)

- [2] [LESSONSOTHERS-2016-004]

Second lecture of the "Course on how to turn web-based services into Service Providers of Identity Federations"

Identifier: [11623/sci-gaia:1457368082.87](#)

- [3] [LESSONSOTHERS-2016-003]

Third lecture of the "Course on how to turn web-based services into Service Providers of Identity Federations"

Identifier: [11623/sci-gaia:1457368205.75](#)

- [4] [LESSONSOTHERS-2016-002]

Fourth lecture of the "Course on how to turn web-based services into Service Providers of Identity Federations"

Identifier: [11623/sci-gaia:1457368309.96](#)

- [5] [LESSONSOTHERS-2016-001]

Fifth lecture of the "Course on how to turn web-based services into Service Providers of Identity Federations"

Identifier: [11623/sci-gaia:1457368401.84](#)

- [6] [AVROTHERS-2016-006]

Introduction to the "Course on how to turn web-based services into Service Providers of Identity Federations"

Identifier: [11623/sci-gaia:1458641678.05](#)

- [7] [AVROTHERS-2016-001]

First video-lecture of the "Course on how to turn web-based services into Service Providers of Identity Federations"

Identifier: [11623/sci-gaia:1458633214.42](#)

- [8] [AVROTHERS-2016-002]

Second video-lecture of the "Course on how to turn web-based services into Service Providers of Identity Federations"

Identifier: [11623/sci-gaia:1458635243.06](#)

- [9] [AVROTHERS-2016-003]

Third video-lecture of the "Course on how to turn web-based services into Service Providers of Identity Federations"

Identifier: [11623/sci-gaia:1458636990.95](#)

- [10] [AVROTHERS-2016-004]

Fourth video-lecture of the "Course on how to turn web-based services into Service Providers of Identity Federations"

Identifier: [11623/sci-gaia:1458637911.78](#)

- [11] [AVROTHERS-2016-005]

Fifth video-lecture of the "Course on how to turn web-based services into Service Providers of Identity Federations"

Identifier: [11623/sci-gaia:1458639337.79](#)

Slides

Video-lessons

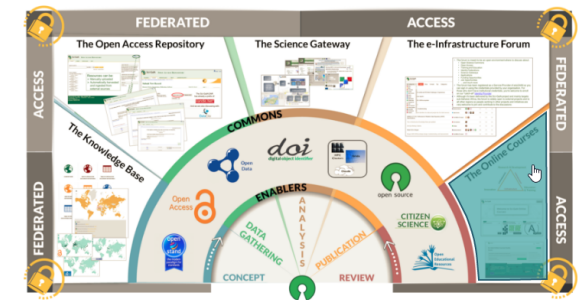
Virtual appliance
for assignments
and hands-ons

Each Open Educational
Resource has a DOI

[Similar records](#)


The Platform for MOOCs

(courses.sci-gaia.eu)



Course on how to turn web-based services into Service Providers of Identity Federations

REGISTER FOR SP101



overview

ABOUT THIS COURSE

Course on how to transform your application into a federated service. The program for this course covers the installation and configuration (basic and advanced) of the Shibboleth SP.

The course will include hands-on exercises that allow participants to experience soon ease and speed of implementation of the SSO.

Course objectives

The course aims to provide theoretical and practical knowledge for the development of applications providing control based single sign-on and federated paradigm.

The program will cover the installation and basic configuration and advanced Shibboleth SP. After that, hands-on exercises are provided to allow participants to experience quick and easy knowledge about how to implement SSO.

Recipients


The course is aimed at those interested in developing applications that provide access control with SAML.

Course Number **SP101**

Classes Start **Apr 01, 2016**

Sci-GaIA Winter School

REGISTER FOR WS2015



overview

OVERVIEW

The goal of the Sci-GaIA Winter School is to create the skills to integrate scientific applications in the Africa Grid Science Gateway and/or in other domain-specific Science Gateways.

This will allow the creation of an intercontinental pool of experts that can act as "interface" between the end-users of the Communities of Practice (CoPs) supported by the project and the e-Infrastructure services.

Course Number **WS2015**

Classes Start **Apr 04, 2016**

Sci-GaIA Consortium GARR: SP101 Course on how to turn web-based services into Serv...

RobertoBarbera

View this course as: Student

Courseware Course Info Prerequisites Textbook Discussion Progress

Lesson 1

Lesson 2


Shibboleth SP: installation and basic configuration for Single Sign On (SSO) - second part

Lesson 3

Lesson 4

Lesson 5

VIDEO



0:03 / 27:04

SPEED 1.0x

To download the presentation PDF for this lesson, please follow [this link](#).

Sci-GaIA Sci-GaIA: WS2015 Sci-GaIA Winter School

RobertoBarbera

View this course as: Student

Courseware Course Info Discussion Progress Textbook Application Assignments

Inaugural Lesson

Lesson 1 - Getting started

Pre-requisites

Quiz due Apr 22, 2016 at 09:00 UTC

Lesson 1 Assignments

Quiz due Apr 22, 2016 at 09:00 UTC

Lesson 2 - The Development Environment

Lesson 3

Lesson 4

Lesson 5

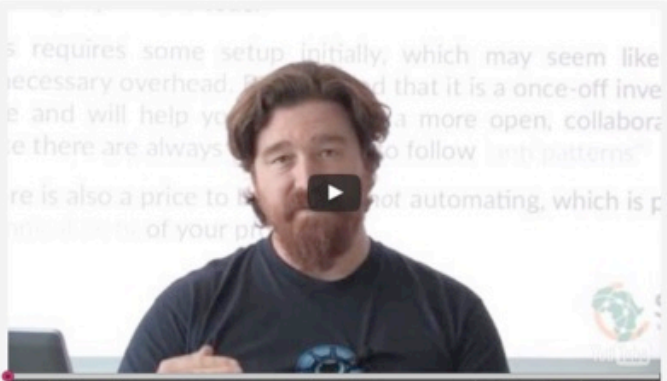
Lesson 6

Lesson 7

Hands-on assignments

Final workshop

VIDEO



0:08 / 0:00

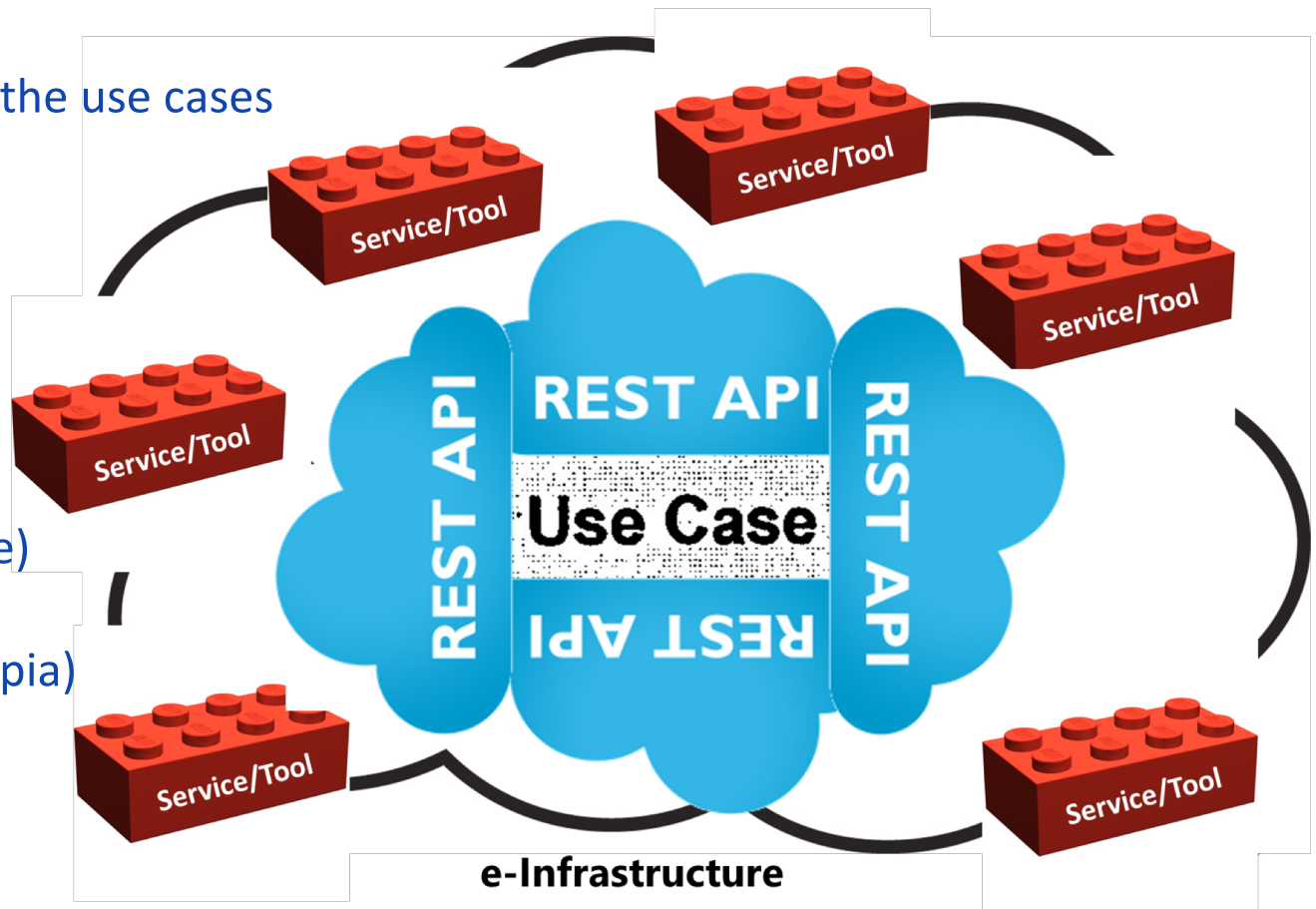
SPEED 1.0x

The e-Research Hackfest Model

(www.sci-gaia.eu/summer-hackfest)

- Day 1 and 2
 - Presentation of the technologies/tools
- Day 3
 - Presentation of the use cases (with indication of the technologies/tools adopted)
- Other days
 - Implementation of the use cases

- Locations:
 - Catania (Italy, twice)
 - Lagos (Nigeria)
 - Addis Ababa (Ethiopia)



The e-Research Hackfest Model

(www.sci-gaia.eu/summer-hackfest)























Evaluation of Sci-GaIA Hackfest for Educational Purpose Conclusion


















- ⇒ The Horizon 2020 Project Sci-GaIA introduces a Hackfest approach that fulfills the requirements of courses in formal education.
- ⇒ Sci-GaIA Hackfests build on the cognitive domains (analysis, synthesis and evaluation) and allow to describe the objectives, activities, methodology and the evaluation process in a syllabus. Teaching and learning methodologies are set out based on cognitive domains as problem-solving and research-oriented methodology. Subject for assessment is the result achieved and students' competence.
- ⇒ Working with 'big data' is seen in Sci-GaIA Hackfest as the starting point for an innovative idea.

The 35 Sci-GaIA “champions”

(www.sci-gaia.eu/champions)

 Ysaiah ABATE ETHERNET - ETHIOPIA	 AbdulAzeez ADELOPO UNIVERSITY OF ISADAN - NIGERIA	 Taiwo ADIGUN COVENANT UNIVERSITY - NIGERIA	 Oluwaye AJAYI FEDERAL UNIVERSITY OF AGRICULTURE - NIGERIA
 Soladale AKANLE COVENANT UNIVERSITY - NIGERIA	 Alazar ALEMAYEHU ETHERNET - ETHIOPIA	 Benjamin ARISALA LAGOS STATE UNIVERSITY - NIGERIA	 Oluwasoyi SASARINDE FEDERAL UNIVERSITY OF AGRICULTURE - NIGERIA
 OluwaToyin ENIKUOMEHIN LAGOS STATE UNIVERSITY - NIGERIA	 Tochukwu EZE NNAMDI AZIKWE UNIVERSITY - NIGERIA	 Elena EZEAGOR NNAMDI AZIKWE UNIVERSITY - NIGERIA	 Adedaj FABIYI BRUNEL UNIVERSITY LONDON - UNITED KINGDOM
 Oluwadamilare FALOLA COVENANT UNIVERSITY - NIGERIA	 Mekuanent GETACHEW ETHERNET - ETHIOPIA	 Aron KONDORO UNIVERSITY OF DAR ES SALAAM - TANZANIA	 Behalu KORMA EDUCATION STRATEGY CENTER - ETHIOPIA
 Damaz MAKWESA DAR ES SALAAM INSTITUTE OF TECHNOLOGY -	 Stephan N. MGRYA TERNET - TANZANIA	 Abayomi MOSAKU COVENANT UNIVERSITY - NIGERIA	 Thomas MUNGHONO ECAI - UGANDA

 Eyuel MULATU ETHERNET - ETHIOPIA	 Dennis MUCHO EGERTON UNIVERSITY - KENYA	 Trigona NGAILO DAR ES SALAAM INSTITUTE OF TECHNOLOGY - TANZANIA	 Charles NJARAMBA EGERTON UNIVERSITY - KENYA
 Trust ODIA COVENANT UNIVERSITY - NIGERIA	 David OGUCHE UNIVERSITY OF JOS - NIGERIA	 Uchachukwu CHAERI UNIVERSITY OF JOS - NIGERIA	 Olusola OLASANJO LAGOS STATE UNIVERSITY - NIGERIA
 Olawale OLAYIDE UNIVERSITY OF ISADAN - NIGERIA	 Rising OSAZUWA UNIVERSITY OF ISADAN - NIGERIA	 Segun OYEYOLA OBAFEMI AWOLOWO UNIVERSITY - NIGERIA	 David RINAMHODZI NORTHWEST UNIVERSITY - SOUTH AFRICA
 Diana RWEKASIRA UNIVERSITY OF DAR ES SALAAM - TANZANIA	 Collins UDANOR UNIVERSITY OF NIGERIA NSUKKA - NIGERIA	 Ikemefuna UZOCHUKWU NNAMDI AZIKWE UNIVERSITY - NIGERIA	



Mr. Charles NJARAMBA
Egerton University - Kenya
njarambacharles01@gmail.com



Use Case Description

Kenya National Public Health Gateway
The use case aims to develop a National Gateway to provide information on the effects of motorcycle-related accidents, those involving bicycles and cars. When many cases avoidable, the persistence drain to the economy as well as a real cost used by Public Health experts and motorcycle accidents that will then be proactively raise riders aware of "black spots".

References

Presentation 1 - Presentation 2 - Poster

[BACK TO ALL CHAMPIONS](#)



Ms. Diana RWEGASIRA
University of Dar es Salaam - Tanzania
dianarose@yahoo.com

Use Case Description

TTA Collaboration Platform

The use cases aims at developing and deploying the Collaboration Platform of the Technology Transfer Alliance (TTA). TTA is a non-for-profit network of universities interested in: (i) having an impact on development of the societies in which they exist; (ii) problem-oriented, project-driven learning with a focus on innovation and entrepreneurship; and (iii) offering students and faculty members opportunities to contribute to important projects for academic credit. The Collaboration Platform is intended to be a web-based environment (a Science Gateway), containing an integrated set of tools, applications and data repositories, to support collaboration and training in order to foster project-driven education among the partners of the alliance.

References

Presentation 1 - Presentation 2 - Poster

[BACK TO ALL CHAMPIONS](#)

Short Profile

I hold a degree in Computer Science from Lagos State University, Lagos Nigeria, West Africa. I am interested in research work, precisely in the area of Computer the and

Short Profile

I am an Assistant Lecturer at the University of Dar es Salaam, Tanzania. Currently, I am a PhD student at the University of Dar es Salaam as well as KTH (Sweden) in the context of the iGrid Project. I am doing research and consultancy activities on smart grid, e-learning and network & communication.

[View Full Profile](#)

e-Infrastructure Services Exploited

For storing documents, datasets and other research products, the TTA Collaboration Platform makes use of the Sci-GalA [Open Access Repository](#) (OAR), in which specific sub-categories have been created for the use case. A [DataCite](#)-issued Digital Object Identifier (DOI) is automatically assigned by the OAR to each iGrid record to improve its findability, discoverability and reusability. TTA records stored in the OAR are integrated in the project portal using the API of the repository.

For the presentation layer, the [TTA Collaboration Platform](#) is implemented with the [FutureGateway Portal](#) - developed in the context of the [INDIGO-DataCloud](#) project and based on the latest version of [Liferay](#).

Current Implementation of the Use Case

[TTA Collaboration Platform](#)

skills and experience in highly self motivated interests and expertise in Artificial Intelligence. Also Implementation and

West University, researching on the infrastructures such as Computational vers in academic environments. My fields of Speech Technology, Computer ware Engineering, & Computer Science in the School of IT (Single Campus).

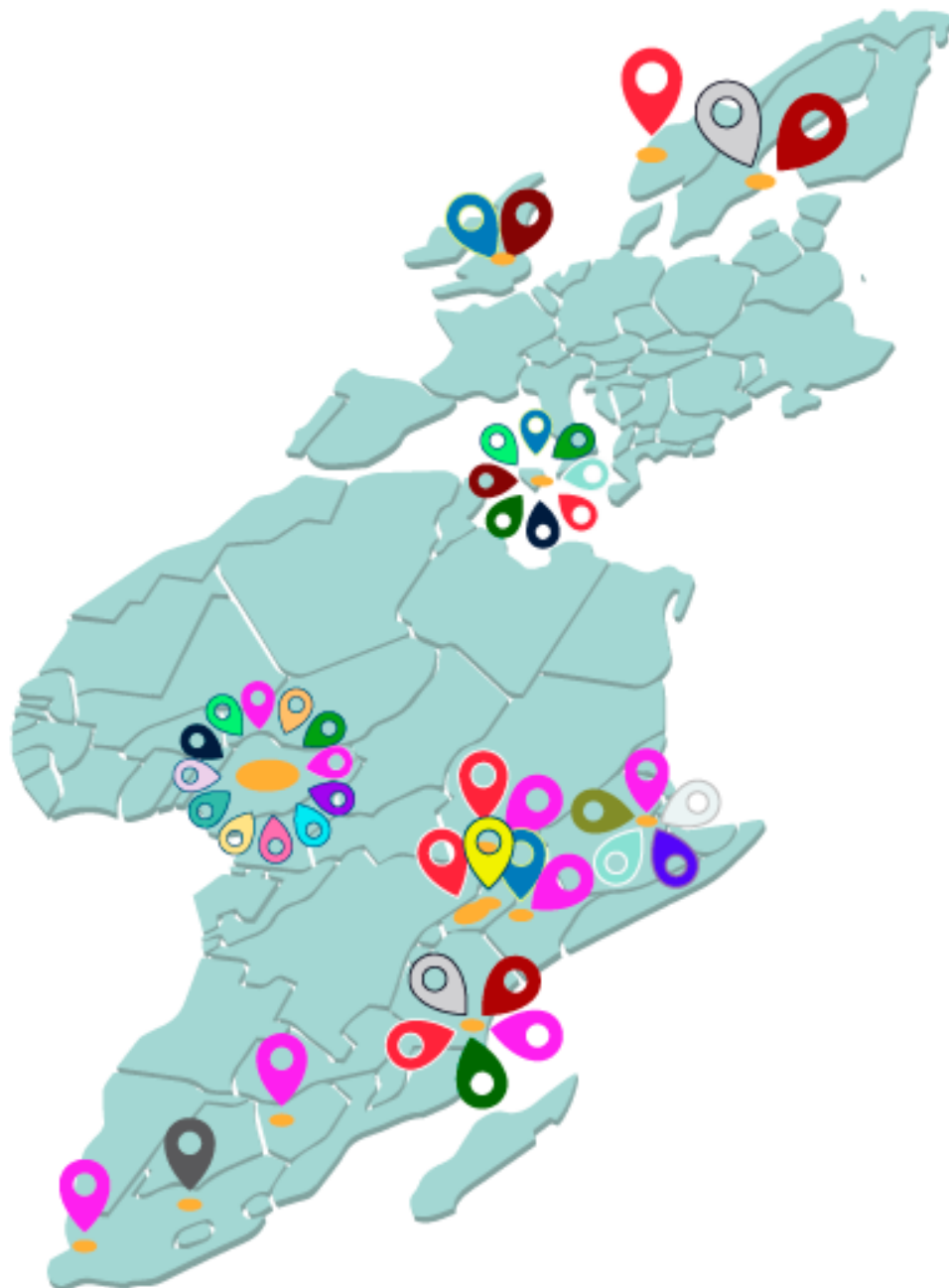
SR Science Gateway will use a clone of [Y \(OAR\)](#). [DataCite](#)-issued Digital Object assigned by the OAR to each ASR record and reusability.

is connected to a [FutureGateway API](#) the [INDIGO-DataCloud](#) project - which and Cloud resources belonging to the re.

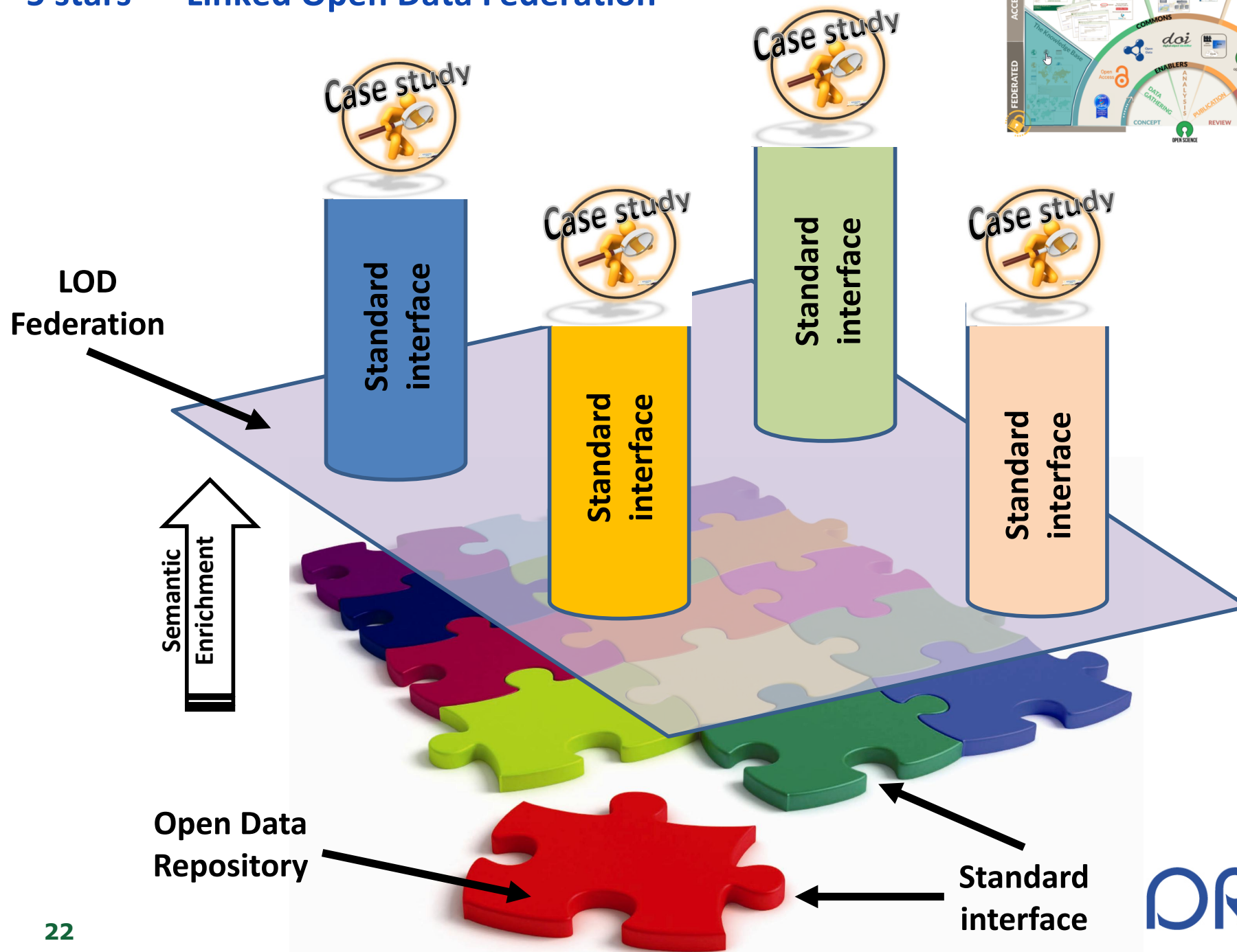
Case

“Bird’s eye view” of the CoPs supported by the Sci-GaIA project

(www.sci-gaia.eu/community)



“5 stars”(*) Linked Open Data Federation



(*) <https://5stardata.info/en/>

The e-Infrastructure Knowledge Base and the Semantic Search Engine

- > 4,000 repositories
- > $3 \cdot 10^7$ docs/datasets/OERs



The screenshot displays the UPCommons portal for the document "Adjust of solar cell model parameters based in MATLAB". The interface includes a top navigation bar with the UPC logo and language options. The main content area shows the document title, authors (Guasch Murillo, Daniel and Ortega Villascas, Pablo Rafael), and a list of authors with ORCID iDs. The document type is "Conference lecture", dated 2003, published by M. C. Acero, M. Lozano - GNM-CSIC. The rights access is "Restricted access - publisher's policy". The abstract states: "In this work, a model parameter extractor of solar cells using Matlab is shown. The software, developed in Matlab environment, has been successfully applied to study internal characteristics of photovoltaic devices [1-2], as well as on-line photovoltaic system performance [3-4]. However, in this case, the developed tool allows to obtain automatically electrical parameters than are often requested to model the performance of single solar cells, as can be the photocurrent density J_{ph} , series resistance R_s , shunt resistance R_{sh} ,". The document is available as a PDF (77.42Kb) with restricted access. The interface also features a sidebar with navigation links and a search bar.

Adjust of solar cell model parameters based in MATLAB

GENERAL INFORMATION

Authors : GuaschMurillo, Daniel

Description: Peer Review

Description: Postprint (Peer Review)

Description: In this work, a model parameter extractor of solar cells using Matlab is shown. The software, developed in Matlab environment, has been successfully applied to study internal characteristics of photovoltaic devices [1-2], as well as on-line photovoltaic system performance [3-4]. However, in this case, the developed tool allows to obtain automatically electrical parameters than are often requested to model the performance of single solar cells, as can be the photocurrent density J_{ph} , series resistance R_s , shunt resistance R_{sh} ,

Publisher : M. C. Acero, M. Lozano - GNM-CSIC

Identifier : <http://hdl.handle.net/2042/10000>

Identifier : 84-607-6773

Identifier : Silvestre, S. [et al.]

"Libro de Abstracts". Barcelona : UPC, 2003.

Language : en ;

LINKED DATA

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Adjust of solar cell model parameters based in MATLAB

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Paper 2003 (CDE) - 1.pdf (77.42Kb) (Restricted access)

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Show full item record

Silvestre Bergés, Santiago

Guasch Murillo, Daniel

Ortega Villascas, Pablo Rafael

Navarro, Nacho

Document type: Conference lecture

Date issued: 2003

Publisher: M. C. Acero, M. Lozano - GNM-CSIC

Rights access: Restricted access - publisher's policy

Abstract

In this work, a model parameter extractor of solar cells using Matlab is shown. The software, developed in Matlab environment, has been successfully applied to study internal characteristics of photovoltaic devices [1-2], as well as on-line photovoltaic system performance [3-4]. However, in this case, the developed tool allows to obtain automatically electrical parameters than are often requested to model the performance of single solar cells, as can be the photocurrent density J_{ph} , series resistance R_s , shunt resistance R_{sh} ,

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Subjects

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Communities & Collections


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Other contributions

Titles

Everything is... FAIR

**Sci-GaIA** OPEN ACCESS REPOSITORY

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[Home](#) > [Software](#) > [Software Sci-GaIA](#) > [Virtual appliance containing the Semantic Search Engine](#)

InformationReferences (2)Citations (0)

SOFTWARESCIGAIA-2017-002

Ontology of the Semantic Search Engine

[The Sci-GaIA Consortium](#)

30 April 2017

Abstract: This record contains the ontology, written in OWL with Protege, which has been used to create the RDF triple store with data coming from the e-Infrastructure Knowledge Base. The RDF triple store is used by the Sci-GaIA Semantic Search Engine (<http://www.sci-gaia.eu/semantic-search>).

Identifier(s): [10.15169/sci-gaia:1496260570.75](#)

InformationReferences (0)Citations (0)KeywordsDiscussion (0)Usage statisticsFilesPlotsHoldingsLinkbacks

DATASETSSCIGAIA-2017-003

RDF Triple Store of the Semantic Search Engine

[The Sci-GaIA Consortium](#)


30 April 2017

Abstract: This record contains the dump of the Virtuoso-based RDF triple store containing the data coming from the e-Infrastructure Knowledge Base. The RDF triple store is used by the Sci-GaIA Semantic Search Engine (<http://www.sci-gaia.eu/semantic-search>).


Identifier(s): [10.15169/sci-gaia:1496270412.72](#)

InformationReferences (0)Citations (0)KeywordsDiscussion (0)Usage statisticsFilesPlotsHoldingsLinkbacks


Resource:


SQL


Resource:


ZIP

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Record created 2017-05-31, last modified 2017-06-01

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Virtual appliance containing the Semantic Search Engine


[The Sci-GaIA Consortium](#)

30 April 2017

Abstract: This record contains the dump of the Virtuoso-based RDF triple store containing the data coming from the e-Infrastructure Knowledge Base. The RDF triple store is used by the Sci-GaIA Semantic Search Engine (<http://www.sci-gaia.eu/semantic-search>).

Identifier(s): [10.15169/sci-gaia:1496270412.72](#)

Resource:


SQL

Record created 2017-05-31, last modified 2017-06-01



DOI prefixes for the whole Africa

- In January 2017, an agreement was established between UNICT and the Conference of Italian University Rectors (CRUI) to extend the possibility to provide DOI-prefixes to all African organisations wishing to deploy an institutional Open Access Repository
- 5 DOI prefixes released so far:



The African Population and Health Research Centre (KE and Intl.)



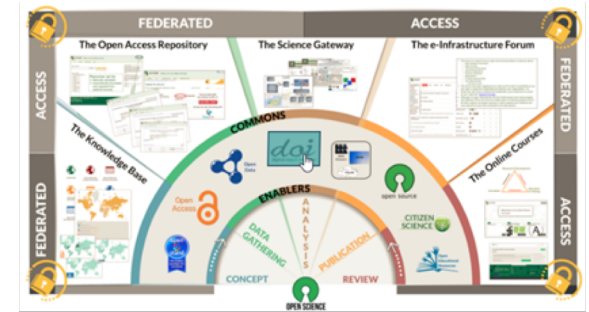
The Eko-Konnnect Research and Education Initiative (NG)



The Ministry of Education of Ethiopia, through EthERNET



The Ubuntunet Alliance (MW and Intl.)



Press release: North and South join forces to promote Open Science in Africa

25 January 2017


The African Population and Health Research Center (APHRC) in Kenya and the Eko-Konnnect Research and Education Initiative in Nigeria are among the very first organizations in Africa to begin use of DataCite Digital Object Identifier (DOI) prefixes.

The partnership with the Sci-GalA project and the Conference of Italian University Rectors will help the research organizations generate persistent identifiers for their datasets: essentially long-lasting references that will help locate the datasets no matter where they appear online. It is also another step to realize a global data revolution – ensuring that research data are open, discoverable, navigable, machine readable, and open to being tested for replicability and reusability.

As a result of this partnership, the African organizations can create an unlimited number of sub-prefixes from their institutional prefix and, for each sub-prefix, an unlimited number of DOIs for their knowledge repositories. It is hoped that this will boost the promotion of e-Infrastructures in Africa and the deployment of key services such as Open Access document and data repositories, which can make scientific products (papers, reports, datasets, etc.) stored in African digital repositories more easily citable and discoverable, worldwide.



DOI prefix for Ethiopia was requested (and approved) at very high political level


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The Federal Democratic Republic of Ethiopia
Ministry of Education
አዲስ አበባ
ADDIS ABABA

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Ref. No. _____
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Date 23-02-2017

LETTER OF AGREEMENT TO JOIN THE CRUI DOI PROJECT

The Ethiopian Education and Research Network (EthERNet),

Considered that

- Universities and Research Organisation are interested in allocating persistent identifiers (Digital Object Identifiers – DOIs) to their own digital publications and data banks made available in an open access format;
- DataCite is a not-for-profit organisation whose aims are to ease the access to research data on the Internet, to increase their legitimization as research outputs, to support the archiving of data that could be verified and reused for research purposes, to make available a platform for the allocation of DOIs to non-commercial open access publications;
- The CRUI, in the interest of the tertiary education system, has joined the DataCite consortium as one of its members and it can enable autonomous "Data Centres" to allocate an unlimited number of DOIs through the DataCite platform;

Agrees to join the CRUI DOI project and on this purpose commits to:

1. Comply with the principles of DataCite statute (<https://datacite.compl.com/sites/default/files/document/DataCite%20Statutes%202014.pdf>);
2. Allocate DOIs only to digital objects published in an open access format, respecting minimal quality standards defined by the CRUI (Annex 1), and, to avoid duplications, belonging to publications the organisation is *publisher or co-publisher of*;
3. Comply with DOI allocation rules (Annex 2);
4. Fill, for each allocated DOI, the corresponding metadata, using the DataCite schema (<http://schema.datacite.org/>);
5. Make metadata openly available for research purposes;
6. Foresee a page of references accessible and up to date in all cases where either research data is not available in a standard format (.xls, .pdf, .doc, .txt, etc.) or access to it is restricted;
7. Share the costs sustained by the CRUI with 200 Euros per year; this amount must be transferred to the CRUI within 30 days from the reception of a credit note, which should


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In replying, please quote our Ref. No.


be addressed to Ethiopian Education and Research Network (EthERNet), Email: info@ethernet.edu.et, Website: www.ethernet.edu.et, P.O.Box 1367, Addis Ababa, Ethiopia.


The Ethiopian Education and Research Network (EthERNet) representative for this activity, to whom the credentials to access the system will be sent, is Director Zelalem Assefa zelalem@ethernet.edu.et.


Unless EthERNet communicates to the CRUI, before the 31st of July of each year, the cancelation of its membership, it will be renewed annually.

Yours faithfully


Samuel Kifle Kidane (PhD)
State Minister



 **CRUI**
Conferenza dei Rettori
delle Università Italiane

 **Il Presidente**

Rome, March 2nd 2017
Prot. 775-17/P/rg

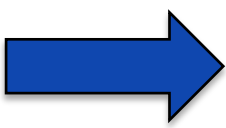
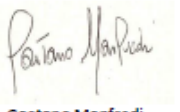
To Samuel Kifle Kidane (PhD)
State Minister
Ministry of Education
Addis Ababa, Ethiopia

Subject: Approval of the request to join the CRUI's DOI Project

With regard to your request of February 23rd 2016, the Rectors' Conference accepts the membership of the Ethiopian Education and Research Network (ETHERNET) to the DOI project.

With the approval of the request, the CRUI will enable your institution to manage as "Data Center" assigning DOI through DataCite platform.

Best regards

 
Gaetano Manfredi

Piazza Romagnoli 48 00186 Roma
tel. +39 06684411 fax +39 0668441399 segreteria@crui.it www.crui.it

GridP Identity Federation as official member of eduGAIN inter-federation

(<https://gridp.garr.it>)

- Since the 26th of August 2016



Italy - Grid Identity Pool

eduGAIN policy
version 2 signed on:2013-07-03
[see the scan](#)
eduGAIN policy hard
2
Metadata

[WebSSOSPAAppendix v2.6.pdf](#)

[GridP FederationRules v2.6.pdf](#)

[Documents/GridP WebSSOIdPAppendix v2.6.pdf](#)

Version of the Policy

Registration practice statement

http://gridp.garr.it/documents/GridP_MetadataRegistrationPractice

Signing certificate

yes

Number of entities in eduGAIN

not supplying yet

First non-country-based Identity Federation
First Identity Federation not operated by an NREN
Gathers several Identity Providers and Service Providers in Africa
Provides SAML based Federated AuthN and «social» SSO
services to «homeless» users

Federations in eduGAIN	
Members	43
Voting-only Members	
Candidates	

Europe

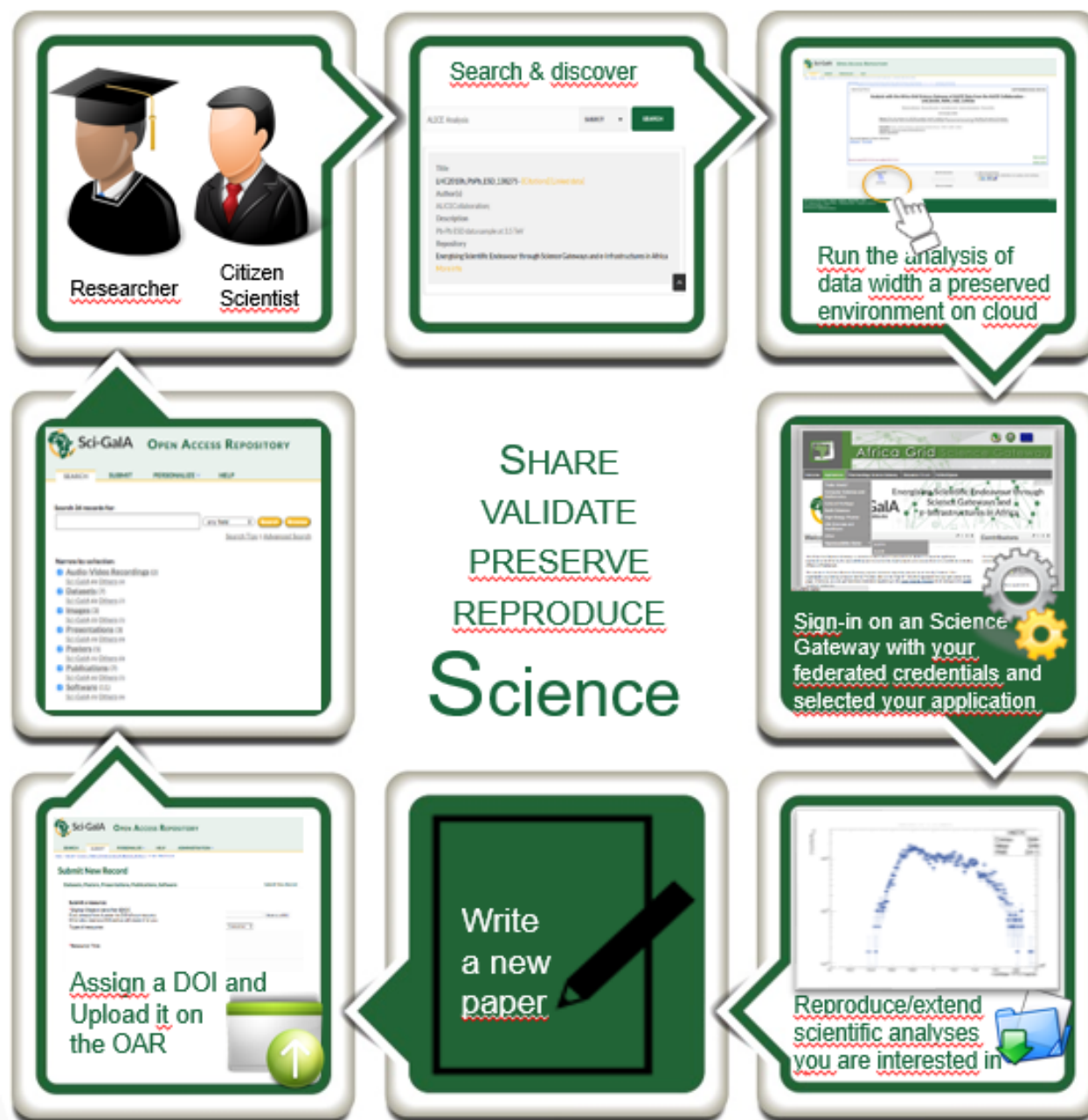
eduGAIN Voting-only Candidate

Global

eduGAIN Voting-only Candidate

The Knowledge Workflow

(to enable a Knowledge Society)



The Knowledge “Nexi”

(to enable a Knowledge Society)



A little bit of history after the end of Sci-GaIA

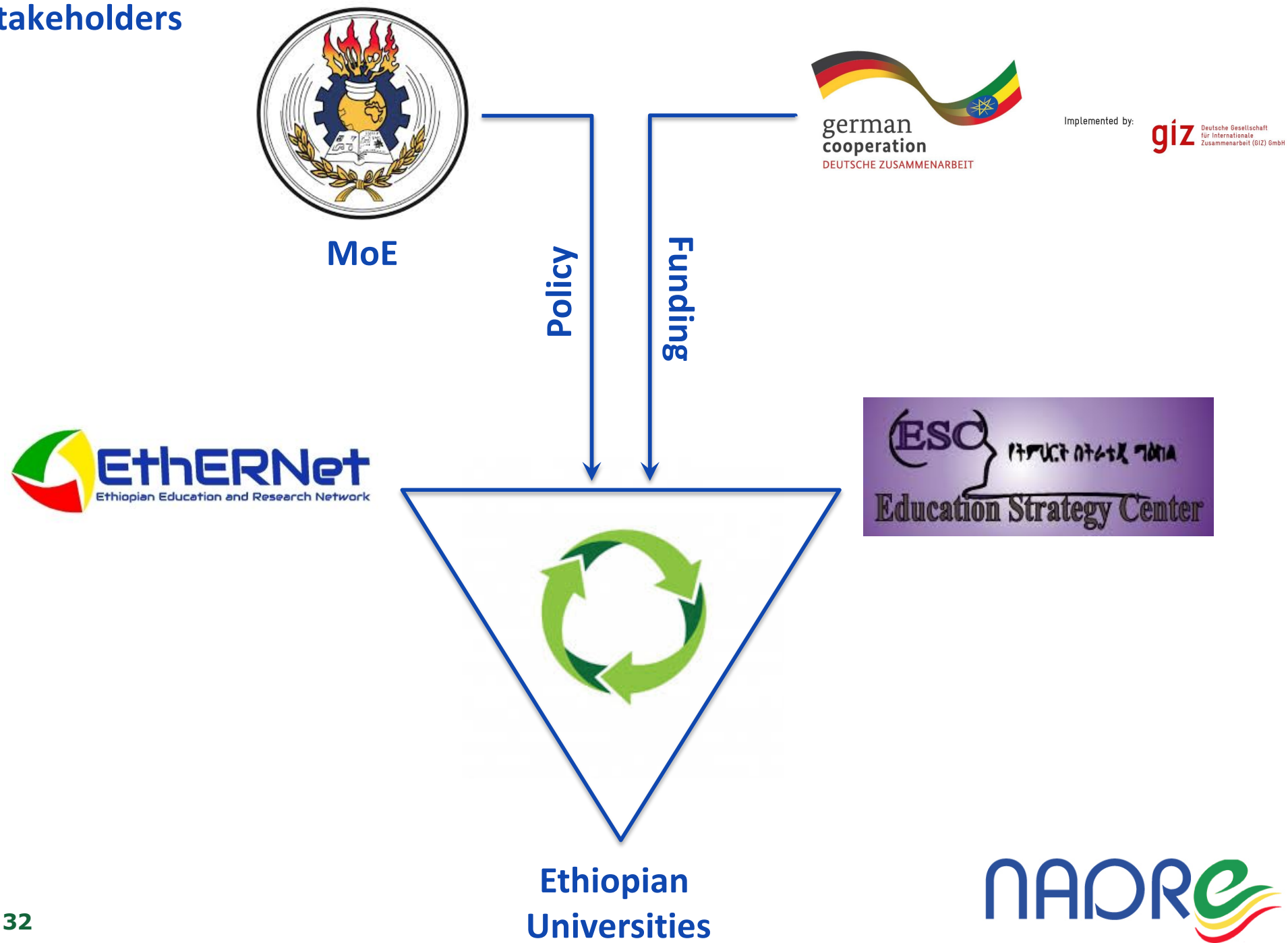
- **November 2017** – EthERNet hosts the UbuntuNet-Connect 2017 conference; the special workshop Towards an African Open Science Platform Infrastructure Framework is held as side-event
 - Outcome: The Ministry of Education attends the workshops and announces later on the news the decision to create a National Academic Digital Repository for Ethiopia -> **NADRE concept starts**
- **February 2018** – The NADRE Kick-off Conference is held in Addis Ababa with the participation of international experts
 - Outcome: in March, GIZ open a tender for a service provision for the “Implementation of the NADRE”
- **June 2018** – My team’s bid won the tender -> **the actual implementation of NADRE starts**
- **August 2018** – The workshop on Research Data Stewardship and e-Infrastructure for Ethiopian Stakeholders was held in Gondar as a NADRE side-event co-organized by ESC and the University of Vienna – Fulfilled needs emerged at the Kick-off Conference



NADRE Mission

- The National Academic Digital Repository of Ethiopia (NADRE) intends to provide researchers, lecturers, students and stakeholders from outside of the academic world access to all research works published by Ethiopian universities and research institutions
- All public and private universities as well as research institutions will contribute to the NADRE and will provide all citizens access to it
- In order to complement and feed the NADRE each Ethiopian university is encouraged to build its own repository and to provide the Ethiopian Research and Education Network (EthERNet) access to that university repository in order to harvest and amalgamate publications from these repositories to a compiled National Academic Digital Repository of Ethiopia
- Those universities that are not currently able to establish their own repository will get support from EthERNet to deploy their own Institutional Academic Repository (ADR). However, each university will be responsible for the curation of contents stored its own ADR

Stakeholders



Objectives

1. To increase the access of academics and citizens in Ethiopia and worldwide to research works published by Ethiopian researchers at one of the Ethiopian universities or research institutions
2. To foster the dissemination of research outcomes and make them, as well as their authors, more visible inside and outside the country
3. To spread completed research to other corners of the country to allow other researchers to build on. For the time being, the NADRE will mainly include Master theses, dissertations, journals, articles, conference proceedings as well as all works published by researchers from Ethiopian universities and research institutions as well as from Ethiopian researcher living abroad. All artefacts will be published under Creative Commons licenses and will be tagged with Digital Object Identifiers (DOIs)

Responsibilities

Responsibilities of universities and research institutions are the following:

- Those universities and research institutions with a repository will provide access to it in order to accommodate it within the NADRE repository.
- To disseminate among their researchers the standards necessary to accommodate research works to the NADRE repository.
- To promote the creation of ORCID IDs by their researchers.
- To manage the issuance of DOIs to tag research documents.
- To handle the license issue with their researchers.
- To run the plagiarism check, prior the research documents will be provided to the NADRE.
- To curate their ADR.

Responsibilities of EthERNET are the following:

- To provide the space on the cloud or server to host the NADRE and the ADRs of those universities and research institutions requesting them.
- To provide the technical support.
- To do the programming necessary for the NADRE to be fully accessible and in operation.
- To manage the creation of DOI sub-prefixes to those universities and research institutions requesting them.
- To inform universities and research institutions how to request and obtain a DOI prefix for their ADR.
- To train local IT staff to cope with the IT-related challenges arising during their ADR's operation and maintenance.

Responsibilities of ESC are the following:

- To coordinate between universities and research institutions and EthERNET.
- To advise users how to work with the NADRE, how to get an ORCID ID and how to link research works to the ORCID profiles of their author(s).
- To organize workshops and tutorials for digital librarians and curators of the local ADRs.
- To report towards the [Ministry of Education](#).

Workplan (1/2)

A1 – Prepare and contribute to the implementation of the Conference, including the Pre- and Post-Conference Workshops

- The Terms of Reference for this series of venues describe the content and the output/outcome (**DONE**, check [this link](#))
- In the Pre-Conference workshop all participants have to become familiarized with DOIs and the ORCID IDs (**DONE**, check [this link](#))
- All researchers participating at the Conference should receive their ORCID IDs by the end of the Conference (**DONE**)
- The Post-Conference workshop participants will get trained on how to use and maintain repositories (**DONE**, check [this link](#))

A2 – Elaborate a Training Plan

- The reports from the Conference workshops will structure the next steps in the training to implement and to use the university repositories and NADRE. Detailed training plans follow for cluster universities with session on remote and at place (**DONE**: (i) the time plan of the NADRE Training Workshops has been defined and the agendas can be inspected [here](#), (ii) the time schedule of the NADRE Webinars has also been defined and it can be inspected [here](#))

Workplan (2/2)

A3 – Conduct a Workshop series

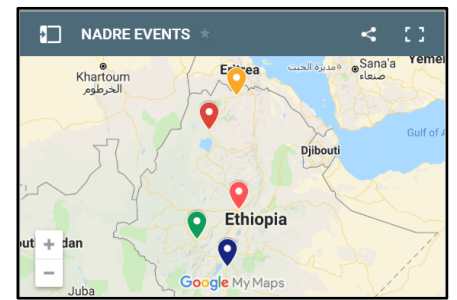
At 4-5 cluster universities workshops will take place. The agenda for the workshops will be structured in accordance to the needs of librarians and their ICT staff as discovered during the Conference Workshops and has been analysed in the Conference workshops (**DONE**, the agendas of the NADRE Training Workshops can be inspected [here](#))

A4 – Establish a NADRE Website and Manual

A NADRE [Website](#) and [Manual](#) will compile the information necessary to use and maintain NADRE in an efficient and sustainable way for the users (researchers and students) and the NADRE experts (librarians and the ICT-staff). (**DONE**, both the [Website](#) and the [Manual](#) have been released)

NADRE Kick-off Conference and Training Workshops

(<https://agenda.ethernet.edu.et/category/1/>)



About 330 Ethiopian users (researchers, teachers) and experts (librarians, IT staff) have been reached in 5 events across the country

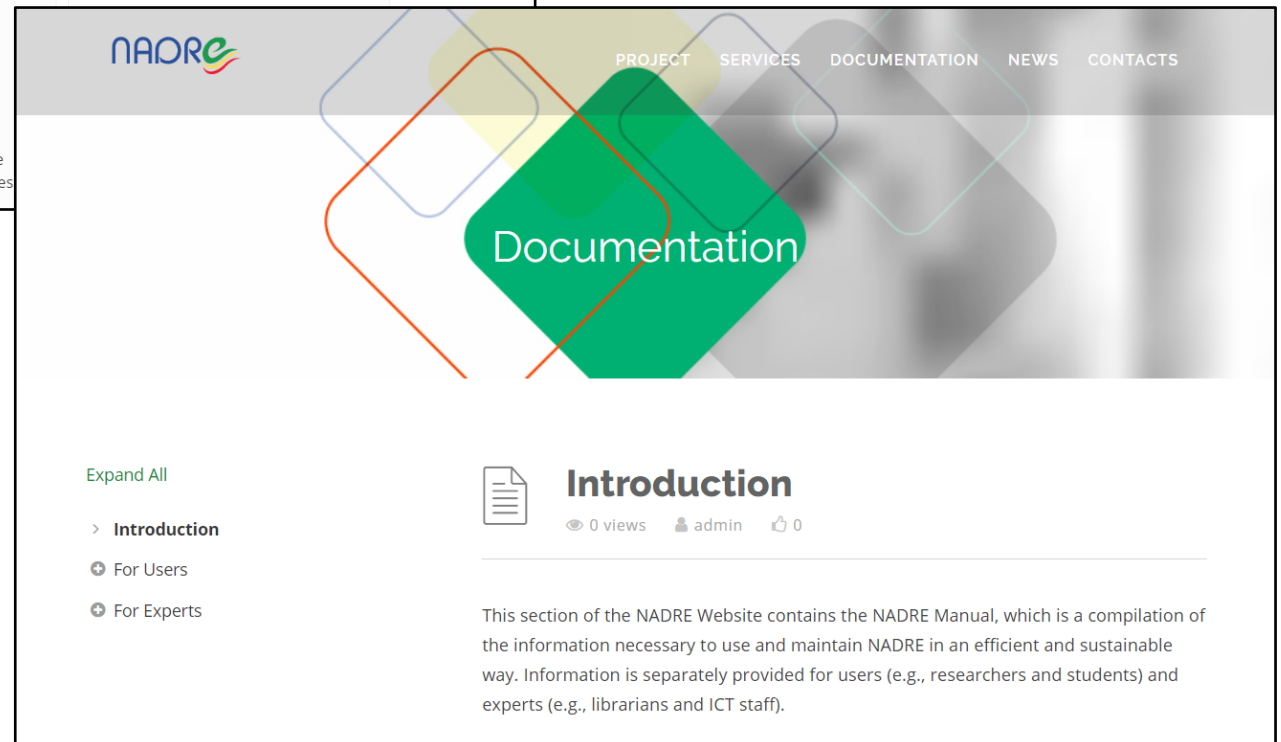


NADRE Website and Manual

<https://nadreweb.ethernet.edu.et>



<https://nadreweb.ethernet.edu.et/doc/documentation>





Shibboleth.

INVENIO



Repository

indico



Agenda

NADRE SERVICES



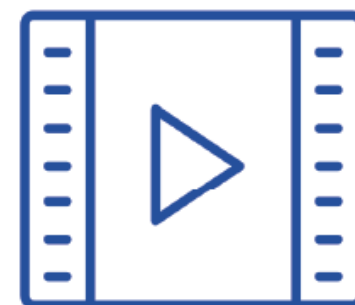
Forum



Wiki



MediaWiki




Platform for MOOCs

OPENedX



The NADRE Repository

(<https://nadre.ethernet.edu.et>)



National Academic Digital Repository of Ethiopia

Search


Home > Open Access Repository

Search 87 records

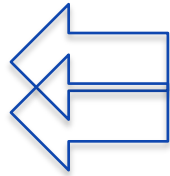
Narrow by collection

- ☒ Publications
- ☒ Presentations
- ☒ Datasets
- ☒ Software
- ☒ Images

OAI-PMH Registration Record



element name	element value
Base URL	http://nadre.ethernet.edu.et/oai2d
Repository Name	National Academic Digital Repository of Ethiopia
Protocol Version	2.0
Email	nadre-support@ethernet.edu.et
Registration Date	2018-10-14T15:03:08Z
Date Last Validated	Sun Oct 14 15:03:08 2018
OAI Repository ID	na...



OpenDOAR, ROAR and WorldCat Digital Collection Gateway compliance checks are in progress - Core Trust Seal is planned

Barbera et al - PRESENTATIONSNADRE-2018-012

sources

[1] [10.20372/ethernet:1533719889.38](https://doi.org/10.20372/ethernet:1533719889.38) - Mario Torrisi - NADRE Video-tutorial no. 4

[2] [10.20372/ethernet:1533719045.24](https://doi.org/10.20372/ethernet:1533719045.24) - Roberto Barbera - NADRE Video-tutorial no. 3

[3] [10.20372/ethernet:1533719045.24](https://doi.org/10.20372/ethernet:1533719045.24) - Roberto Barbera - NADRE Video-tutorial no. 3

[4] [10.20372/ethernet:1533719045.24](https://doi.org/10.20372/ethernet:1533719045.24) - Roberto Barbera - NADRE Video-tutorial no. 3

[5] [10.20372/ethernet:1533719045.24](https://doi.org/10.20372/ethernet:1533719045.24) - Roberto Barbera - NADRE Video-tutorial no. 3

[6] [10.20372/ethernet:1533719045.24](https://doi.org/10.20372/ethernet:1533719045.24) - Roberto Barbera - NADRE Video-tutorial no. 3

[7] [10.20372/ethernet:1533719045.24](https://doi.org/10.20372/ethernet:1533719045.24) - Roberto Barbera - NADRE Video-tutorial no. 3

[8] [10.20372/ethernet:1533719045.24](https://doi.org/10.20372/ethernet:1533719045.24) - Roberto Barbera - NADRE Video-tutorial no. 3

Similar records

About 100 new ORCID IDs have been created and «linked» to NADRE through DataCite DOIs

Summary and conclusions

- Sci-GaIA legacy is surviving well beyond the end of the project and it's having a durable impact on Africa
- **Several Sci-GaIA Open Science Platform services have been used to build NADRE**
- Besides its technical aspects – we are in the process of defining the automatic procedure to copy contents from institutional repositories to the central one - NADRE is triggering a discussion on an Ethiopian National Open Access/Data/Science Policy, which is currently in preparation
- **NADRE services are FAIR and they can be “cloned & customized” wherever needed**
- NADRE interest is actually going beyond the Ethiopian borders:
 - We are supporting the Rwanda Association of Local Government Authorities (RALGA) to deploy an e-library and an e-learning service for MOOCs based on NADRE ones
 - We have started discussion with the Human Resource Development Council in Botswana

Thank you!

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