



LEAP-RE

Long-Term Joint EU-AU Research
and Innovation Partnership on Renewable Energy

Research & Innovation Action

LEAP-RE RESchool

3rd –6th October, 2022

Programme and Syllabus

D3.4

Version N°1

Authors:

Polimi
Fraunhofer
UCT
SU



This project has received funding from the European Union's Horizon 2020
Research and Innovation Program under Grant Agreement 963530.

Contents

Background and Context	3
The First RESchool	4
Aim.....	4
Topics.....	4
Date, Venue & Format.....	4
Programme	4
Syllabus	5
Organizational and Financial Aspects.....	7
Financial support (Scholarship).....	7
Contact person	8
Suggested Hotel.....	8



Background and Context

The LEAP-RE Programme

The Long-Term Europe-Africa Partnership on Renewable Energy (LEAP-RE) is a five-year programme gathering 83 partners committed to the implementation of a joint programme addressing key renewable energy challenges, strategies, and mechanisms to build a long-term AU-EU Platform for science, technology, and innovation (STI) on Renewable Energy (RE). LEAP-RE is funded by the European Commission under Horizon 2020, aiming to develop a long-term partnership between Africa and Europe on Research and Innovation (R&I) in renewable energy and brings together a Community of Stakeholders who contribute to and benefit from the long-term objectives of the programme.

The programme is built on three pillars with specific methodological approaches:

- Pillar 1: Joint open calls by public funding agencies to select, fund, monitor research, innovation and capacity-building projects across the Multi-Annual Roadmaps (MARs) and TRL scale.
- Pillar 2: Eight R&I projects implemented by consortium members.
- Pillar 3: Programme coordination and all strategic actions to maximize the outputs, outcomes, and impacts of LEAP-RE and set the grounds for the future long-term collaboration of the Africa Union (AU) - European Union (EU) partnership in RE.

Responding to the Africa Union – European Union Research and Innovation Partnership in Climate Change and Sustainable Energy

LEAP-RE represents a major contribution to the implementation of the AU-EU Research and Innovation Partnership on Climate Change and Sustainable energy (CCSE) and its *Roadmap for a Jointly funded AU-EU Research & Innovation Partnership on Climate Change and Sustainable Energy* adopted by the EU-AU High-Level Policy Dialogue (HLPD) on STI, in particular through:

- the projects to be undertaken in Pillars 1 and 2 of the programme,
- the co-development of a long-term AU-EU Platform for R&I on RE in a cyclic programming approach, and
- the co-creation of a multidisciplinary RE community to apply for projects in the framework of the future calls in AU-EU innovation agenda.

LEAP-RE Stakeholder Forums

The LEAP-RE Stakeholder Forum is an event organized every second year to enrich the LEAP-RE Community by addressing the following key objectives:

- Create and expand an international multi-stakeholder community dealing with renewable energy, science-based policymaking, funding and research, innovation, monitoring, evaluation and learning, in Africa and Europe;
- Identify, design, and implement the services and functions of LEAP-RE; and
- Foster collaboration between similar initiatives.



The First RESchool

Aim

A blended Renewable Energy and Source School for PhD students, early career researchers and innovators will be held during the scope of the Stakeholder Forum. The aim of the school is to support the development of early career researchers and innovators or entrepreneurs who are part of the LEAP-RE community.

Topics

Based on the Synergy Groups existing inside the Pillar 2 (i.e. Data collection, Energy modelling) and the internal survey among the partners in Pillar 2, the general topics proposed are:

- Data collection standards and tools;
- Energy modelling capacity and tools;
- Transversal socio-economic ancillary topics (Seminar event).

According to the specific topics and needs, preliminary materials may be shared and discussed before the onsite training using platforms for online (synchrony or asynchrony) sessions.

Date, Venue & Format

Date: 3rd - 6th October, 2022

Venue: South Africa – Protea Hotel Fire and Ice Menlyn

Hosted by the Department of Science and Innovation, Republic of South Africa (DSI)

Format: Hybrid event with physical and remote online participation

Programme

	Programme Feature	Participants
Day 1	Keynote from external speaker	
	Keynote from external speaker	
	First LEAP-RE Workshop <ul style="list-style-type: none">• General Introduction and expected outcomes of the meeting by the Chair and the Vice-Chair of the GA• Overview of LEAP-RE• The CCSE Partnership & Roadmap• Presentation of Pillar 1 Projects	LEAP-RE Consortium LEAP-RE project partners Stakeholders from the AU-EU region Pillar 1 Partners
16:15-18:30	RESchool Day #1	Pillar 2 Partners LEAP-RE Consortium



		LEAP-RE project partners
Day 2	First LEAP-RE Workshop (continued) <ul style="list-style-type: none"> • Presentation of first results of the Pillar 2 Projects • Building the common future by MTT actions • Comments from the EAB • Comments from the SAB 	LEAP-RE Consortium LEAP-RE project partners Stakeholders from the AU-EU region
	Clustering Workshop	LEAP-RE Consortium LEAP-RE project partners Stakeholders from the AU-EU region
16:15-18:30	RESchool Day #2	Pillar 2 Partners LEAP-RE Consortium LEAP-RE project partners
Day 3	#1 LEAP-RE Roundtable Empowerment #1 Coordinated Communication in the Stakeholder's Network Labyrinth	LEAP-RE Consortium LEAP-RE project partners Stakeholders from the AU-EU region
14:00-16:30	RESchool Day #3	Pillar 2 Partners LEAP-RE Consortium LEAP-RE project partners
Day 4		
Day 4 09:00-17:00	RESchool Day #4	Pillar 2 Partners LEAP-RE Consortium LEAP-RE project partners

Syllabus

Here below the two topics proposed, with related following submodules and learning outcomes:

Data Collection

Responsible: SU

Lecturers: Dr. Eric Hsu or As Prof. Susanna Berkouwer, Dr. Jon Leary or As Prof. Elise Harrington, Ms. Anne Wambugu and Mr. Ignatius Maranga

Hours: 6 hours

Topic Content



- Quantitative data collection.
 - Site selection and sampling
 - Development of effective questionnaires and tools
 - Data cleaning and quality
 - Data storage and sharing
- Qualitative data collection
 - Site selection and sampling
 - Development of effective questionnaires and tools
 - Data cleaning and quality including transcription
 - Data storage and sharing
- Case Study based on Pillar 2 Experience and coordination
 - Data methodology and interpretation for WP10
 - Data methodology and interpretation for WP13
- Assignment (to be done online)

Learning Outcomes

After taking this Module, the students will be able to:

1. Understand the fundamental principles of data collection formulation.
2. Distinguish different data collection methods and analyze which best suits their research topic.

Evaluation of the Learning Outcomes

1. Students' solution approach towards the given assignment(s) that will be based on a simple case study project.

Energy Modelling

Responsible: Polimi

Lecturers: Dr. Giacomo Falchetta, Prof. Daniele Fiaschi, Prof. Riccardo Mereu, Dr. Nicolò Stevanato

Hours: 7 hours

Topic contents

- Principle and Taxonomy for Energy modelling at different scales (2h)
- Focus: GIS and Case Study on GIS-based Energy Models (2h)
- Focus: Geothermal Energy modelling (1h)
- Hands-on: Case Studies based on Pillar 2 Experience
 - Open-Source Demand and Supply Energy Models (2h)

Learning Outcomes

After taking this Module the students will be able to:

1. Understand the fundamental principles and the methodological approach to Data Gathering and Energy Modelling (Knowledge and understanding).



2. Prepare questionnaires for a data collection campaign and set up the reference energy systems for a region/area of interest (Applying knowledge and understanding)

Evaluation of the Learning Outcomes

3. Students will receive an assignment to be done on Day #4. The assignment carried out in small teams will be relative to the analysis of a questionnaire for data collection and the implementation of a simple case-study for energy modeling.

Certificate of Attendance

1. Students will receive a certificate of attendance signed by LEAP-RE Coordinator and Co-signed by the Pillar 2 Coordinators after completion of the assignment.

Seminar

Renewable Energy Communities: a sustainable and inclusive way to ensure energy access in African countries

Responsible: SSSA

Lecturers: Dr. Fabio Iannone

Hours: 2 hours

Organizational and Financial Aspects

According to the planned activities and venue and for guarantying the effectiveness of the event a maximum of 40 people may attend the RESchool in presence.

The remote participation through an online platform is guaranteed up to 30 people.

Financial support (Scholarship)

Expenses, including flight tickets, VISA, accommodation and meals will be covered by participants.

There is the opportunity to cover part of the expenses through dedicated scholarships aimed to cover the costs of flight tickets and accommodation for a maximum of 1500€ per participant.

The scholarships are limited to a number of 25 for participants in presence. The scholarships are aimed to co-funding the participation of PhD students, early career / young researchers of Institutions of Pillar 2, in particular priority will be given to participants from AU Institutions of Pillar 2 supporting the gender balance among participants.

Admission for scholarship is selective and the requirements are:

1. Bachelor or Master of Science in disciplines connected to the topics of the RESchool;
2. Curriculum Vitae;
3. Motivational letter by the candidate;



4. Letter of support by the candidate's home University/Organization/Company, preferably issued on headed letter by an institutional representative (head of the unit/department of the candidate), explicitly guarantying the availability to cover the costs (fully or partially in case of scholarship, see details below) and anticipate the full costs;

Moreover:

- Good knowledge of written and oral English is requested, a language certification will also be an additional asset of merit

In case of equivalent profiles of the candidates the age and gender will be taken in consideration for the selection of the candidate.

Upon the receipt of applications, the Selection Committee (LEAP-RE Coordinators, Pillar 2 Coordinators, WP4 Coordinators and Capacity Building Synergy Group Coordinators) will assess the eligibility criteria as above described, for each applicant with respect to the degree requirement. Applicants who pass the selection will be contacted in order to organize the logistic aspects.

Contact person

Contents and Participation:

Riccardo Mereu riccardo.mereu@polimi.it
Isabella Nardini isabella.nardini@ieg.fraunhofer.de
Leslie Ashburner leslie.ashburner@uct.ac.za

Logistic and Financial aspects:

Autio Antti antti.j.autio@helsinki.fi
Léonard Lévêque leonard.leveque@lgi.earth
Kibibi Ndope kibibindope@gmail.com
Sigfried Tivana Sigfried.Tivana@dst.gov.za

Suggested Hotel

Protea Hotel Fire & Ice! Pretoria Menlyn
Summit Place Precinct, 221 Garsfontein Rd, Menlyn
0181 Pretoria
South Africa

