



**Sustainable Product-Service System (S.PSS) applied to
Distributed Renewable Energy (DRE) in low and middle-income (all) contexts:
a Scenario tool for designers.**

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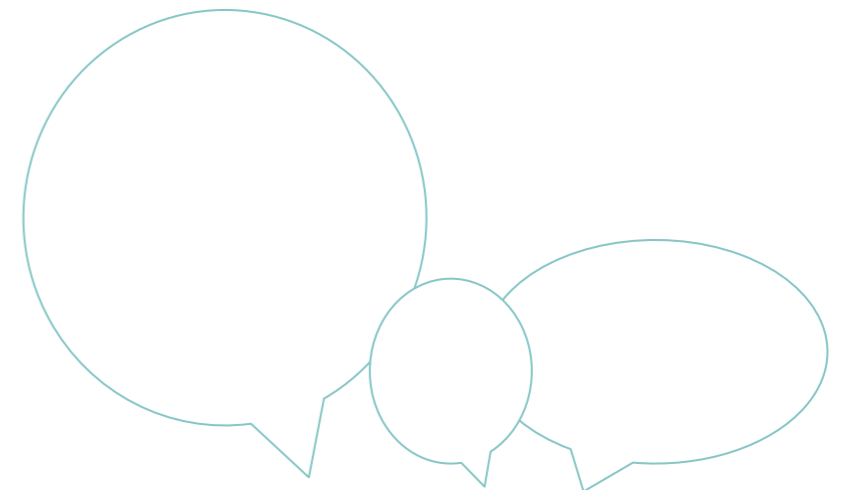
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- **4 visions towards Sustainable Energy for All**

What a Scenario is?

*A way to **design and narrate possible** (sustainable) **futures**, giving inspirations to open new visions and generate ideas, while facilitating strategic conversations among stakeholders.*

- . Applied to different fields;*
- . Narrated from the user point of view;*
- . (Usually) With a pop style.*



How the world will be if... Sustainable Product-Service Systems (S.PSS) will be applied to Distributed Renewable Energies (DRE) in low and middle-income contexts?



*How the world will be if...
Energy will be for All and Sustainable?*



Scenario

Aimed to

***Inspire** designers and stakeholders to design towards radically new social, economic and technical visions towards Sustainable Energy for All solutions!*

***Facilitate** creative processes and strategic conversations among different actors!*



Customer type

Horizontal axis explains the stakeholders relations within the system: Business to Customer (left) or Business to Business (right)

Customer type

Horizontal axis explains the stakeholders relations within the system: Business to Customer (left) or Business to Business (right)

Vertical axis explains the products included in the offered system, on top is only offered the micro generator for the distributed production of energy, on bottom is offered the micro generator plus the energy using products or equipment.

DRE MicroGenerator

ENERGY FOR ALL IN DAILY LIFE

An energy supplier delivers ownerless Distributed Renewable Energy system, for daily life activities of single users and small communities, that pay per period/time.



OFFER/PAYMENT STAKEHOLDERS SUSTAINABILITY

"ENERGIZE" YOUR BUSINESS WITHOUT INVESTMENT COST

An energy supplier delivers ownerless Distributed Renewable Energy system to power the equipment of small entrepreneur, who pay per period/time.



OFFER/PAYMENT STAKEHOLDERS SUSTAINABILITY

B2C
Business to Customer

Customer

B2B

Business to Business

"PAYxUSE" YOUR ACCESS TO DAILY LIFE PRODUCTS AND ENERGY

Single users and small communities acquire an ownerless package of a Distributed Renewable Energy system + a set of energy using products for daily life, paying for them per use.



OFFER/PAYMENT STAKEHOLDERS SUSTAINABILITY

START-UP YOUR BUSINESS PAYING X PERIOD EQUIPMENTS AND ENERGY

A single entrepreneur acquires an ownerless package of a Distributed Renewable Energy system + the equipment to start-up a business.

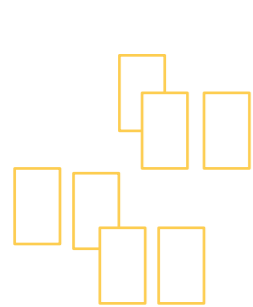


OFFER/PAYMENT STAKEHOLDERS SUSTAINABILITY

DRE MicroGenerator
& Energy Using Products-Equipment

Scenario design process

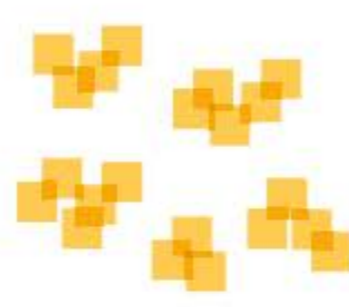
The Scenario has been developed during a MSc thesis.



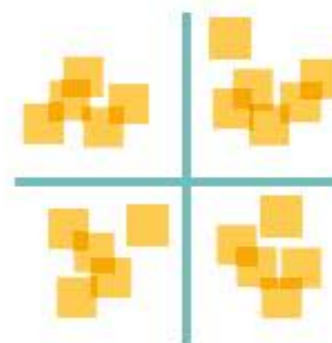
Best practices



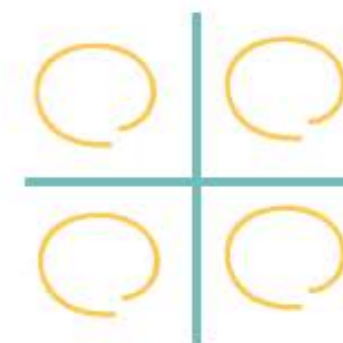
Idea generation



Clusters of ideas



Polarity Diagram



Scenario
(4 visions)

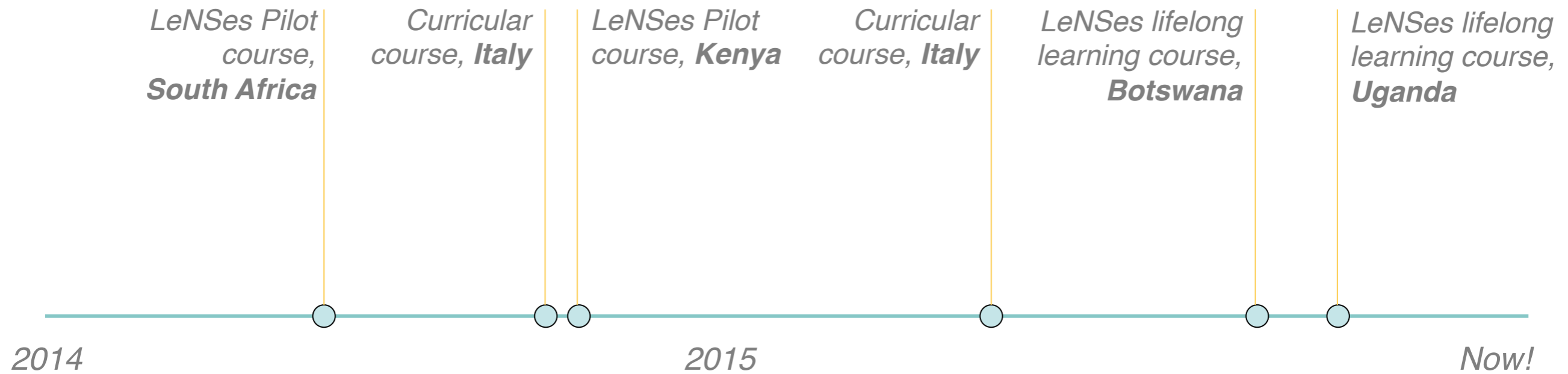
WORKSHOP 2 JULY 2014, MILAN



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Scenario on field experiences



Integration in the process



*Output: a series of **new visions and ideas** favoring creative processes and co-design activities towards Sustainable Energy for All solutions.*

Scenario a free tool

Scenario is available online in **open source** and **copy-left** to be used for further researches and processes at www.lenses.polimi.it.

The screenshot shows the Lenses website interface. At the top left is the Lenses logo and the text "the Learning Network on Sustainable energy systems". On the top right, there are dropdown menus for "Affiliated network" and "Select Language", along with "LOGIN" and "REGISTER" buttons. A navigation bar below the header contains links for "ABOUT LENSES", "NETWORK", "COURSES", "SINGLE LECTURE", "TOOLS" (which is highlighted), "STUDENTS' PROJECTS", and "CASES/CRITERIA".

The main content area is titled "SELECT A TOOL" and contains a table of tools. The table has four columns: "CATEGORY", "TOOL NAME", "DESCRIPTION", and "DOWNLOAD". The "DOWNLOAD" column contains "Download file" buttons and file sizes. There are also buttons for "UPLOAD/MODIFY TOOLS" and "WATCH THE GUIDE".

CATEGORY ▼	TOOL NAME	DESCRIPTION	DOWNLOAD
	E.DRE TOOL	Tool to estimate the user energy load/need and estimate the size of the Distributed Renewable Energy system and its energy production potential	Download file 3.17 MB
	Innovation Diagram	To select, map and cluster most promising ideas and create and characterize the profile of the Sustainable Product Service System (S.PSS) applied to Distributed Renewable Energy (DRE) concepts	Download file 0.33 MB
	S.PSS and DRE CARDS with case studies (support tool for SE4A Idea Tables)	Design tool to take inspiration from real case studies from the field, and use them as support in the idea generation phase for S.PSS	Download file 28.47 MB
	Scenario for S.PSS	Scenario to inspire designer to design Sustainable Product-Service System (S.PSS) applied to Distributed Renewable Energy (DRE) in low and middle income (all) contexts	Download file 1.34 MB
	SE4A Idea Tables	Tool to orientate system idea generation design process towards sustainable energy for all S.PSS-based solutions	Download file 0.27 MB
	Sustainable Energy for All Design Orienting (SEADO) toolkit	On-line version click here Toolkit to orientate system design process towards sustainable energy for all solutions (including environmental and socio-ethical dimensions). It is a software toolkit supporting the generation of sustainable energy for all-focused idea. For the the environmental and socio-ethical dimensions it include even the following processes: A: existing system qualitative sustainability analysis and prioritisation of sustainability criteria/guidelines B: best practices analysis/identify sustainable existing	

At the bottom of the page, there is a navigation bar with links for "Tutorials", "Personal area", "Download site", "Contacts", "Credits", and "Design Competition".

A group of people are gathered in a lush, green tropical environment. In the foreground, several men are standing on a grassy area, some looking up at a drone flying in the sky. One man is holding a long orange rope that is attached to a structure. The structure consists of a vertical post and a horizontal beam. The background is filled with dense tropical vegetation, including palm trees and other green plants. The sky is overcast with grey clouds. The overall scene suggests a field experiment or a demonstration of a drone in a rural or developing area.

Thanks!

*To know more on the Scenario and other tools
come at the **INFO POINT!***

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