

Study on Frugal Innovation and the Reengineering
of Traditional Techniques

Dissemination Workshop

10th November 2016

European Commission, DG Research and Innovation
Covent Garden Building, Place Rogier, Brussels

Agenda

10:00 – Welcome Coffee /Registration

10:30 – Welcome by European Commission

*Doris Schröcker, Head of Unit D1 – Industrial Technologies – Strategy,
DG Research and Innovation*

10:40 – Potentials of Frugal Innovation for Europe: an Introduction

*Presentation of the Study's Findings,
Henning Kroll, Fraunhofer ISI / Madeleine Gabriel, Nesta*

11:15 – Examples of Frugal Innovation, chair: Fraunhofer ISI

*François Barreau, Marketing and Development Manager, Beautiful Light Project
Niccolò Natali, Inclusive Business and Design4Development, DeLab, Italy
Joris Voeten, Roofscapes, GreenSource
Néstor Pongutá Puerto, Press, Communication, Partnerships, Warka Water*

12:15 – Reflections on Potentials and Opportunities of Frugal Innovation

*Dr. Yasser Bhatti, Prof. Cees Van Beers, Jeremy Millard
Prof. Thierry Burger, Dr. Annamaria Inzelt
Moderated by Madeleine Gabriel, Nesta / Andrea Zenker, Fraunhofer ISI*

13:00 – Lunch Break

Possibility to interact with and talk to the presenters

14:00 – Examples of Relevant Initiatives, chair: Fraunhofer ISI

*Dominik Reinertz, International Business Development, Fraunhofer
Dorota Przuldzka, DG GROW, European Commission
Johan Karlsson, Head of Business Development at Better Shelter*

14:45 – How can Policy unlock the Potential of Frugal Innovation?

*Doris Schröcker, DG Research and Innovation
Katja Reppel, DG Regional and Urban Policy
Prof. Jaideep Prabhu, Prof. Terry Wilkins
Moderated by Henning Kroll, Fraunhofer ISI/ Florence Engasser, Nesta*

16:15 – Closing Remarks by European Commission

16:30 – Farewell Coffee, Opportunity to Network

During the workshop, some voting may be conducted through the sli.do mobile phone application. Participants are invited to acquaint themselves with the tool at www.sli.do

Morning Presentations

François Barreau, Marketing and Development, Beautiful Light Project

How to meet needs in developing countries with a new solar technology designed and manufactured in France

Armor is a world leader in the formulation, coating and processing of thin films and, hence, the development and design of next generation organic photovoltaics (OPV). At the same time, the company put strong emphasis on social responsibility and wants to demonstrate that it is possible for industry to innovate with a direct focus on serving diverse user needs by putting people at the heart of business plans and, at the same time, preserve the environment. With its innovations, Armor provides practical answers to societal challenges: securing goods and people through the traceability of products, reducing the environmental impact of printing by offering clever and responsible consumables to transform light into energy for all through the third generation of photovoltaic film. One example of OPV related activities is the Beautiful Light Project. Moreover, Armor has been investigating opportunities to introduce OPV in Africa for more than two years, exploring different pathways to deliver the right solar product at the right price through locally adapted sales channels.

Niccolò Natali, Inclusive Business and Design4Development, DeLab

Kokono - A Frugal Prote(spe)ctive System

De-LAB's pilot-product "Kokono" constitutes a well-known example for an inclusive business and social innovation model as a new entrepreneurial paradigm for unknown markets. It was presented during the XX1 Triennale exhibition as a frugal innovation, inclusive business and social innovation model portrayed as new entrepreneurial paradigms for unknown markets.

Kokono is a protective system for babies from 0 to 12 months that has been conceived adopting the principles of frugal innovation, inclusive business and human entered design. The genesis of the product has followed a demand-driven approach, stemming from an underserved health and infant security need typical of low-income communities, and addressed it through the creation of a new and accessible product. All the features of the product were, indeed, designed to be innovative, cost-effective and inclusive. Many aspects of KOKONO's design phase relied on frugal innovation principles, which appear to be a key gateway for implementing inclusive innovation, particularly in low-income communities.

Joris Voeten, Roofscapes, GreenSource

GreenSource; let's play let's drink.

The urgent need for sustainable water management in cities worldwide makes it clear to see why we need to rethink the way we've been building our cities. Innovative sports pitches can and should be an essential part of that. This presentation will introduce Greensource; an innovative synthetic turf sports pitch that transforms a sports pitch into a (rain) water catchment, storage, distribution and drinking water generating system. This is of particular importance in arid regions of developing and emerging economies where safe drinking water is not always available. By combining sports with safe drinking water we have created the ultimate solution for the whole community.

The combination of sports, access to clean water and community development is what makes GreenSource such an innovative system. Introducing it to our partners such as STRI, Polypipe and the Dutch Sports Infrastructure (DSI) has led to their enthusiasm and commitment to introduce it worldwide. Twenty pitches will be installed in South Africa and the installation of the first GreenSource system in India is a fact. By the end of this year this so called "Colourfield" in New Delhi will be opened officially and function as the ultimate showcase of Dutch innovation. It is our goal to create multifunctional sports pitches that contribute to challenges like climate change and urbanization

Néstor Pongutá Puerto, Communication & Partnerships, Warka Water

Warka Water; every drop counts.

Having recognised the dramatic reality of an almost to complete lack of potable, uncontaminated water in isolated communities on the Ethiopian high plateau, the founders of the Warka Water team developed a solution that is tailored to the cultural traditions, traditional techniques and economic realities of the villages while at the same time standing for modernity and access to the outside world. The "Warka Water Tower" provides a fog harvesting technique that builds on a traditional techniques and insights going back thousands of years in arid regions. However, the firm's researchers implement it by developing specific natural and biodegradable materials and coatings that enhance condensation, water flow and the storage capability of the tower's mesh it by studying plants' and animals' micro- and nano-scale surface features. Warka Water Tower are designed to be owned and operated by the villagers and intended to become an organic part of the villages' infrastructure. The tower not only provides water but also creates a social place for the community.

The project foresees three subsequent stages of piloting and demonstration before mass production will be considered in 2018/19. Earlier versions repeatedly experienced technical problems resulting from dust, debris and bird droppings. During its current third pilot stage, the towers' new generation is gradually becoming fit to meet the essential technical requirements. Tests and research activities are being conducted with full-scale prototypes and materials, first in Italy, now also on site in Ethiopia.

Afternoon Presentations

Dominik Reinertz, International Business Development, Fraunhofer

F4D – Fraunhofer for Development

Global partnerships for sustainability in emerging and developing countries

Fraunhofer is committed to make STI more participatory and inclusive. Under the scope of »F4D - Research for Development«, Fraunhofer initiates and fosters through an inclusive process joint projects and international partnerships, which contribute to sustainable and inclusive development, meeting global challenges. The concrete aim of the »F4D« initiative is to use Fraunhofer technologies in order to find and implement solutions for urgent local problems in the emerging and developing countries. Identifying relevant and appropriate solutions for such issues is only possible having in-depth regional knowledge.

Fraunhofer has launched a first pilot round of »F4D« starting in January 2016. Via WAITRO's members – currently about 160 Research and Technology Organizations (RTOs) mostly based in emerging and developing economies – a »Call for Challenges, Problems and Ideas« was advertised. Fraunhofer invited institutions and individuals to sketch challenges or problems, which a country or region is currently facing or might face in the near future. In this first phase, problems and challenges were identified. In the second phase, possible solutions and technologies to tackle the proposed issues were identified and matched with the challenges. In the currently on-going third phase, project development and financial acquisition is taking place.

Dorota Przyludzka, DG GROW, European Commission

Capturing innovation impulses from emerging economies

The international dimension of innovation activities has been identified as a major area for activities by expert groups for SME innovation, suggesting that the traditional division between 'trade promotion' and 'innovation support' is slowly breaking up – but still all too present in most countries and regions. Against this background, the objective of the presented, just initiated European Commission action, supported through EASME, is the development of tools and methods that help European SMEs to capture innovation impulses from emerging economies. Primarily, these tools shall be used not directly by SMEs but by European innovation and SME internationalisation support agencies in order to provide better services to their SME clients. The tools and methods shall be developed for the European Union which will make them available to interested national and regional SME support services. This may happen for example in the context of the Enterprise Europe Network⁴ in which business support organisations from all countries participating in the EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (COSME)⁵ are collaborating to support SME innovation and internationalisation.

Johan Karlsson, Head of Business Development, Better Shelter

Better Shelter – A social enterprise

Better Shelter is a Swedish social enterprise, founded by designer Johan Karlsson, and financially backed by the IKEA Foundation. As a social enterprise, Better Shelter strives to create a safer, more dignified home away from home for millions of displaced persons across the world through smart design, innovation and modern technology. The idea for their flat-packable, lightweight and modular emergency shelter emerged in 2010, as the IKEA Foundation entered a partnership with the UNHCR, allowing for the Better Shelter prototype to be tested in 2013 in Ethiopia and Iraq. Today there are around 15,000 Better Shelters across ten locations in Europe, Africa, Asia and the Middle-East. In addition to its core product, the company offers training and support to ensure safe and effective assembly of the shelters, before and during implementation. It supports partners in increasing their competences and capacity in order to ensure that as many people as possible get the shelter they need, as quickly as possible. Moreover, such cooperation is understood as an opportunity to monitor quality, understand local requirements and to gather and offer feedback on the assembly and practical use of the shelters.