

# International Conference

Frugal Innovation for  
Sustainable Global Development

Museum Volkenkunde, Leiden  
7 - 8 November 2017

Leiden-Delft-Erasmus  
Centre for Frugal  
Innovation in Africa  
[www.cfia.nl](http://www.cfia.nl)



Universiteit  
Leiden  
The Netherlands

**TU**Delft  
Delft  
University of  
Technology

**Erasmus  
University  
Rotterdam**

*Erasmus*



**Frugal Innovation  
for Sustainable and Global Development**

Dear guests, speakers and presenters,

The Leiden-Delft-Erasmus Centre for Frugal Innovation in Africa (CFIA) started in 2013 as an academic research centre focused on frugal innovation. Now, almost five years later, we are proud to welcome you at our first major international academic conference!

We have positioned ourselves as a partner in research and education, offering a broad network both within our three universities (Leiden University, Delft University of Technology and Erasmus University Rotterdam) and internationally with academics, NGO's and businesses.

For this conference, we have chosen to focus on the relevance of frugal innovation for sustainable global development. Innovation may be a buzz-word nowadays but innovation as such is not going to make the difference that future times demand.

**Frugal innovation, we believe, is able to contribute to that change.**

We invite you to challenge us, each other and yourselves and wish you fruitful collaboration opportunities ahead.

On behalf of all of us at the Centre for Frugal Innovation in Africa, we wish you an inspiring conference!

Prof. dr. Peter Knorringa, Director  
Prof. dr. Cees van Beers, co-Director  
Dr. André Leliveld, co-Director  
Emma Hesselink, Executive Manager

**PETER KNORRINGA:**

*Our aim is to move beyond individual case studies and to develop a systematic understanding of frugal innovation ecosystems*

**CEES VAN BEERS:**

*One of the elements to make Frugal Innovation a success is to make it inclusive so that it fits into the local, resource constrained environment in developing countries.*

**ANDRÉ LELIVELD:**

*Frugal Innovation is a new manifestation of innovation. It's a discovery trip.*

# Frugal Innovation for Sustainable and Global Development

The Leiden-Delft-Erasmus Centre for Frugal Innovation in Africa (CFIA) studies the conditions under which frugal innovation can contribute to sustainable and inclusive development. That is our mission and it is what drives us daily.

At CFIA, we combine the development of theoretical frameworks with projects in the field, which also involve Dutch, multi-national, and African companies and stakeholders. These projects have a dual objective: developing functional, marketable innovations and providing input for theories concerning frugal innovation and global development.

Complex social issues ask for a multi- and interdisciplinary approach. As such, we combine the best knowledge and research of three top-ranking universities. Their quality, complementarity and physical closeness offer unique opportunities for intensive structural collaboration and focus on technology (Delft University of Technology), Entrepreneurship (Erasmus University Rotterdam) and Development (Leiden University).

## OUR WORK

### RESEARCH

Our researchers develop analytical frameworks and models aimed at a better understanding of frugal innovation and assessment of its development opportunities and implications for producers and consumers.

### EDUCATION

We spread our knowledge about frugal innovation and collaborate with students, researchers, policy makers and international organisations to implement various aspects of frugal innovation.

### PUBLICATIONS

Subscribe to our newsletter via our website and stay up to date regarding our publications such as our Working Paper Series.  
[www.cfia.nl](http://www.cfia.nl)

## WHAT IS FRUGAL INNOVATION?

### PROF. DR. PETER KNORRINGA:

'Frugal' means making things simpler, in such a way that they are adapted to the local circumstances, or adapted to a resource constrained environment.

### PROF. DR. CEES VAN BEERS:

Frugal innovation is broader than just being frugal. Broader than stripping products of their luxury attributes and supply them at a dramatically low price.

### DR. ANDRÉ LELIVELD:

Frugal innovations can be placed on the junction of affordability and good enough quality, while still having basic functionality.





# SUSTAINABLE DEVELOPMENT GOALS



# Tuesday 7 November

## Lobby

09.00 - 09.30

Registration

## Grote Zaal

09.30 - 10.45

Plenary Session

### Welcome

Prof. dr. Peter Knorringa, **CFIA Director**

*International Institute of Social Studies - Erasmus University Rotterdam*

Dr. André Leliveld, **CFIA Co-Director**

*African Studies Centre - Leiden University*

Prof. dr. Cees van Beers, **CFIA Co-Director**

*Faculty of Technology, Policy and Management - Delft University of Technology*

Marcel René Bamberg, Moderator

### Keynote

**Prof. Erika Kraemer-Mbula**  
**Prof. Ineke Sluiter**

*Abundance of ideas in a world of limited resources*

*Anchoring Innovation*

## Museum Café

10.45 - 11.15

Coffee break

### Academic

paper  
presentations

## Grote Zaal 11.15 - 13.00

**TRANSFERRING TECHNOLOGY**  
session 1

**Zandra Balbinot** | New mobile applications in West Africa: a threat or an opportunity for the Canadian banking sector?

**Pascale Trompette & Céline Cholez** | Africa's mundane solar market: Trading routes, globalization and competition

**Annamari Inzelt & Laszlo Csonka** | High-tech related frugal innovation for sustainable development: Case study of an SME

**Michael Boyle, Stefanie Calvillo & Nadezda Klimova** | Guatemalan Frugal Innovation Design and its Application in Other Markets

## Paviljoenzaal 11.15 - 13.00

**COOPERATION**  
session 2

**Evanec Otieno Odhiambo & Helena Hansson** | Polycentric innovation – adapting and building on to the existing, creating capabilities for long-term change

**Minna Halme, T. Nahi & S. Jack** | Collective sensemaking in multi-sector groups: The co-creation of inclusive business for poverty alleviation

**Myrtille Danse, Kelly Rijswijk & Laurens Klerkx** | Facilitating collaboration for inclusive innovation: a mapping of dedicated intermediaries working at the North-South interface

**Marleen Wierenga** | A Social Bricolage Approach to Scaling Innovations of Grassroots Entrepreneurs In Resource-Scarce Environments

## Museum Café

13.00 - 14.00

Lunch break and Networking

## Grote Zaal

14.00 - 17.00

Frugal innovation Put to Practice

### Keynote

**Dr. Ann Kingiri**

*Enhancing learning in frugal innovations towards a sustainable growth:*

*Lessons from Mpesa money mobile transfer & small systems renewable technologies*

**Maarten van Herpen**

*Corporate innovation to help advance SDG-3 on Health*

### Presentations

**Richard van der Laken**

*What Design Can Do for Refugees*

**Anouk Baron** *Ministry of Foreign Affairs*

*Frugal Innovation from a policy perspective: exchange of ideas*

**Louis Beijer** *Ministry of Economic Affairs & Climate policy*

**Bart-Jeroen Bierens** *The Netherlands Enterprise Agency*

### Panel discussion

**Erika Kraemer-Mbula, Maarten van Herpen and Anouk Baron**

## Museum Café

17.00

Drinks and Networking

# Wednesday 8 November

## Lobby

09.00 - 09.30

## Registration

### Academic paper presentations

#### Grote Zaal 09.30 - 10.45

*FRUGAL INNOVATION AND SOCIETY*  
session 3

**Henning Kroll & Madeleine Gabriel** | Frugal innovation in, by and for Europe  
**Suneel Kunamaneni** | Low-Cost Innovation Capability development in Emerging and Transition countries: An Institutional Perspective  
**Simone Reinders & André Leliveld** | Introducing 'Frugality' in higher education curricula; a case from The Addis Ababa Institute of Technology  
**Marjolijn Dijksterhuis, Robert Tijssen, Louisa Botha & Sara Grobbelaar** | South African Universities and Frugal Innovation: case studies in the Western Cape

#### Paviljoenzaal 09.30 - 10.45

*FRUGAL AND RURAL*  
session 4

**Raphael Babatunde** | The welfare effect of a frugal innovation on rural households: The case of improved cooking stoves in Nigeria  
**Otto Kroesen, Rudi Darson & D.J. Ndegwah** | A Great Opportunity for Small Farmers. Drivers and barriers for agricultural innovation by frugal greenhouses  
**Mamadou Sissoko & Annick Castiaux** | Antecedents and Consequences of Innovation under constraints in developing countries.  
**Shozo Sakata** | Frugal Innovation in Production Processes: Case Studies on Use of Second-hand Machines in Rural Vietnam

## Museum Café

10.45 - 11.15

## Coffee break

### Academic paper presentations

#### Grote Zaal 11.15 - 13.00

*USERS*  
session 5

**Rachel Howell** | Adoption Factors for Bottom of the Pyramid Consumers in Kenya: A Framework  
**Kinsuk Mani Sinha, Lauren Rook, Cees van Beers** | Tweets as a measure of co-creation in Kenya  
**Luise Fischer, Rajnish Tiwari & Katharina Kalogerakis** | "When 'less is more': Potential socio-economic impacts of frugal innovation in Germany".  
**Georgina Gomez** | How do institutions enable and constrain frugal innovation? The design of a local complementary currency in Argentina

#### Paviljoenzaal 11.15 - 13.00

*FRUGAL ENGINEERING*  
session 6

**Pleasa Abraham** | Lighting a Million SoULs': Tale of a Frugal Energy Innovation from India  
**Morolake Bolaji, Raphael Babatunde & A.S. Onwuorah** | Efficiency of the Biomass Cooking Tove in Nigeria  
**Bibhuti Ranjan Bhattacharjya, Sashindra Kumar Kakoty** | Fostering sustainability in resource constraint society through Frugal Engineering Knowledge in the context of Pottery sector of Assam

## Museum Café

13.00 - 14.00

## Lunch break and Networking

## Grote Zaal

14.00 - 15.00

## FRUGAL INNOVATION: How to do more (and better) with less

■ *Keynote*

### Prof. Jaideep Prabhu

### Academic paper presentations

#### Grote Zaal 15.00 - 17.00

*ENTREPRENEURSHIP*  
session 7

**Sietze Vellema, Greetje Schouten, & Peter Knorringa** | Frugal practices in the hidden middle: a cross-case analysis of food trade in West and East Africa  
**Giacomo Solano & Gerrit Rooks** | Determinants of Small Business Innovation in a Developing Country.  
**Birendra Singh** | Local Resources, Knowledge and Social Institutions in Shaping Frugal Innovations: Vinegar Making in India's Informal Economy.  
**Jan Fransen** | Is absorptive capacity a precondition for frugal innovation?  
**Haye Hazenberg** Mapping the Ethics of Private Sector-led Development

#### Paviljoenzaal 15.00 - 17.00

*SUSTAINABILITY*  
session 8

**Anne Dressler & Julien Bucher** | Introducing a framework for the evaluation of the sustainability of frugal innovations. An explorative study of four South African cases.  
**Eugenia Rosca** | Conceptualizing synergies between economic, social and ecological sustainability: The case of frugal innovation in the sanitation sector.  
**Silas Mvulirwenande, Uta Wehn, André Leliveld & Peter Knorringa** | A Conceptual Framework for Analysing and Fostering Innovation in the Water Sector  
**Winfred Onyas, Samuel Dawa, Fiona Mulira & Rebecca Namatovu** | Fostering Sustainable Frugal Innovations in Uganda  
**Balaji Parthasarathy** | Institutionalizing Frugal Innovation: "Domain Flexibility" and "Scalar Flexibility" for Sustainable Development

## Museum Café

17.00 **Drinks and Networking**



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