

Inclusive innovation for poverty alleviation



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AGENDA

The Where, What & How of innovating for poverty alleviation

Aspects of poverty

Business model concept

Examples

How to innovate at and for the low-income emerging markets



Innovating for poverty alleviation

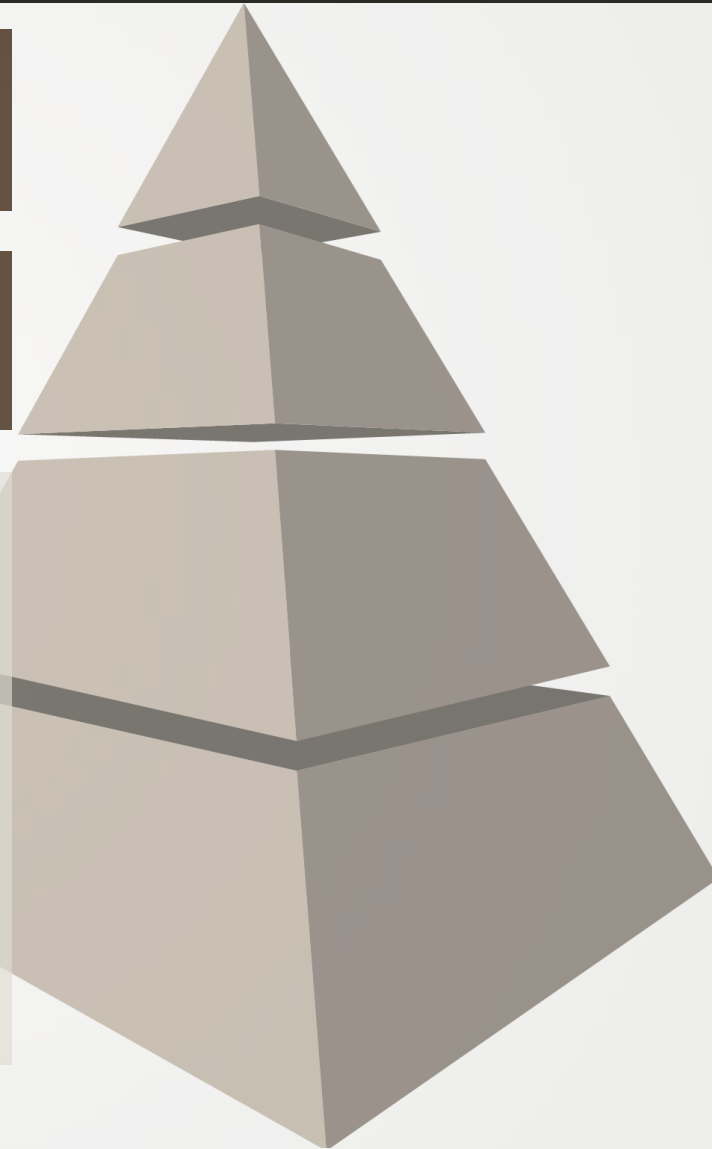
WHERE, WHAT, HOW

Income pyramid

1% people earn \$ > 20.000 / year

33% people earn \$ 3.000 – 20.000 / year

4 billion people
live with **less**
than 5€ (PPP) per
day



Where - Base of the pyramid markets



Purchasing Power: 5 Trillion \$

BoP - Market (4 Billion consumers)

SMALL

Water - \$ 20 Billion
ICT - \$ 51 Billion

MEDIUM

Health (\$158 billion)
Transportation (\$179 billion)
Housing (\$332 billion)
Energy (\$433 billion)

LARGE

Food (\$2,895 billion)

Source: <http://www.wri.org/thenext4billion>

Brazil: \$3.35/day Ghana: \$1.89/day
China: \$2.11/day India: \$1.56/day

BOP market—\$5 trillion

TOTAL BY INCOME SEGMENT



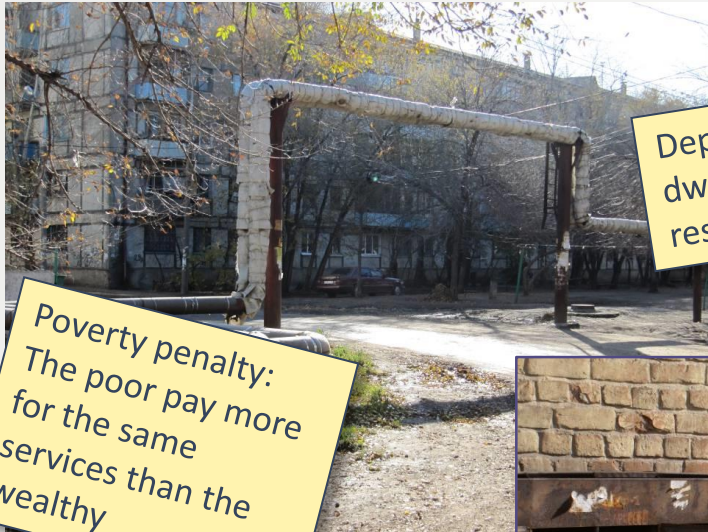
BOP discourse started from the poor living in developing countries or emerging economies, but has extended to **other underserved markets also** e.g. the poor of USA.

Many BOP markets characterized by **poor infrastructure, weak institutions, political instability**



**HOW WOULD YOU CHARACTERIZE
POVERTY?**

Lives

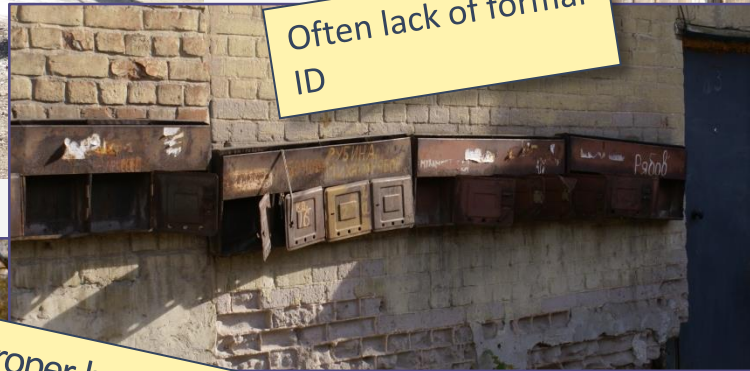


Dependence on dwindling natural resources

Poverty penalty:
The poor pay more for the same services than the wealthy



Unfulfilled basic needs:
water, nutrition & shelter



Often lack of formal ID

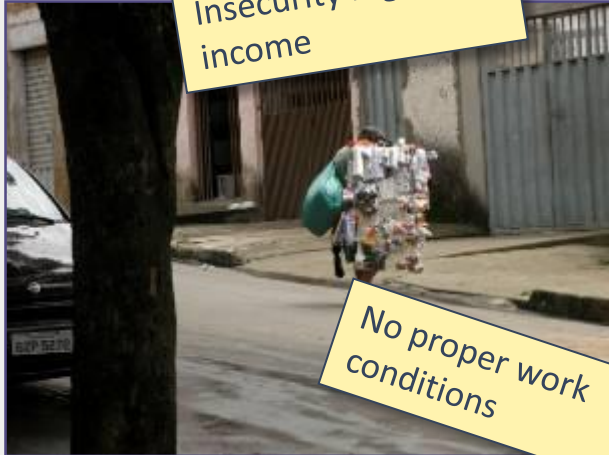


Lack of access to proper health care and medicines, sanitation



Lack of decent education

People



Insecurity regarding income

No proper work conditions



No space for playing and having fun



Lack of space



Vulnerability of abuse by employers & authorities

Lack of voice



Lack of safety



What - Frugal innovation

Resource scarcity as a source of innovating

Offerings that are affordable and functionally good (enough) solutions for the underserved

Products and services with features previously unavailable for existing solutions



Lullaby infant warmer of GE



How - Inclusive innovation

Including the poor in developing new solutions (product, service, business model, supply chain)

The solution yields benefits to the poor and marginalized

The poor can be included as customers, micro-entrepreneurs, workers or other



The fair trade concepts

The Chocolate Case film

Tony Chocolonely is a fair trade type of concept.

What is the key aim of fair trade?

What did you learn from The Chocolate case film?



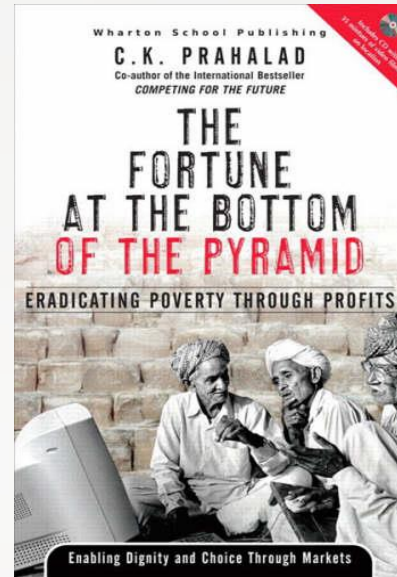
Streams of research on poverty alleviation within business studies

Base of the pyramid approach (BOP) – the poor as market

Inclusive business at low-income markets

Subsistence market places

Frugal innovation



"If we stop thinking the poor as victims or a burden and start recognizing them as resilient entrepreneurs and value-conscious customers, a whole new world of opportunity will open up."



Implicit assumptions of business-for-poverty-alleviation approaches

Focus on the economic aspects of poverty:
Assume that providing income, products and services for the underserved will alleviate poverty

Structural explanations of poverty and institutionalized power aspects are only implicitly taken into account



Hundreds of business models have been documented.

Initiators range from multinational companies to SMEs, social enterprises and non-governmental organizations.

Inclusive and frugal innovation examples from low-income markets

BOP & energy

1.3 billion people live without electricity

In addition, 1 billion suffer from erratic electricity supply

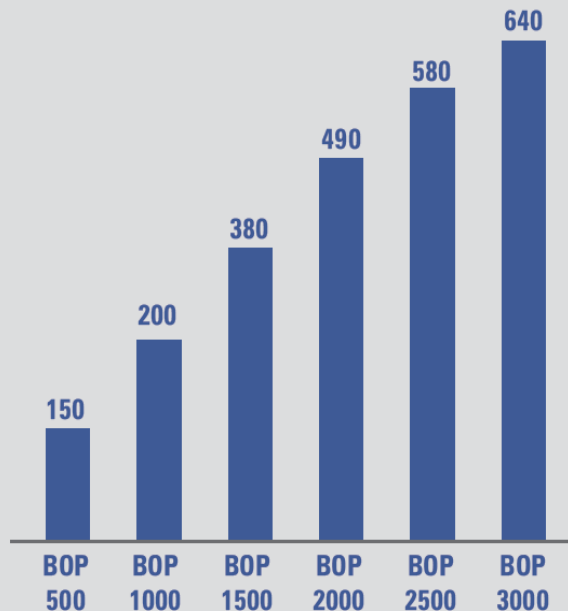
2.7 billion people use biomass for cooking and heating

Lack of energy is one of the biggest hinders of development at the BOP (enabling effect)

BOP households spend a few hundred dollars p.a. on energy, contributing to a significant part of many national markets

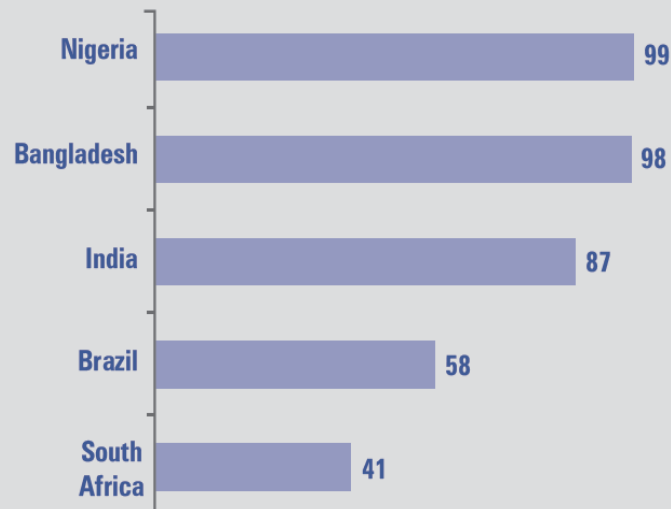
Average annual energy spending per BOP household*

\$PPP



BOP households energy spending as part of national household energy market

%



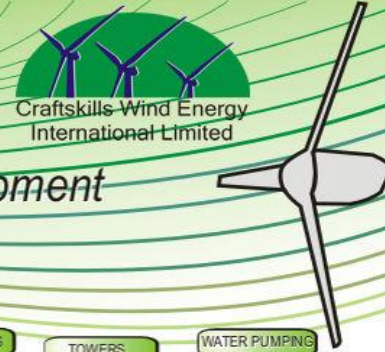
* 38 country average household energy spending in PPP (The next 4 Billion database)
Source: Hystra analysis; The Next 4 Billion

Boond Engineering



CRAFTSKILLS

East Africa Limited



for affordable Renewable Energy Equipment

- << HOME
- TURBINES
- ENERGY KIOSKS
- LED LIGHTS
- HOME POWER
- INSTITUTIONS
- TOWERS
- WATER PUMPING
- Contact Us
- Price List



Mitticool clay fridge

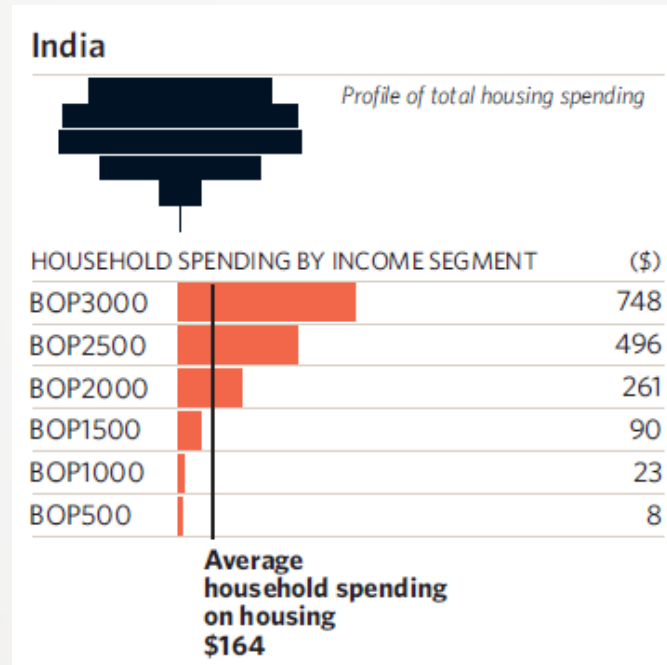
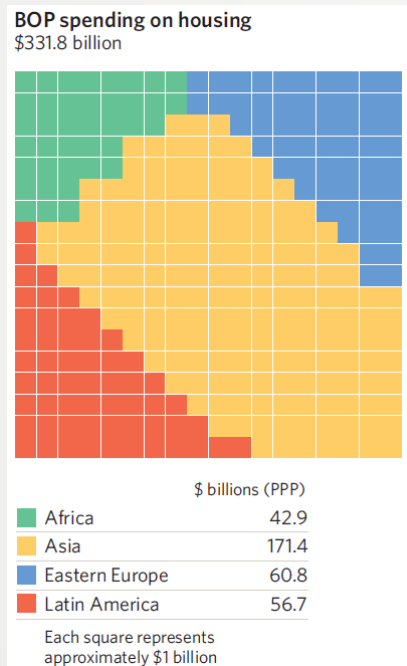


BOP & housing

One of the large BOP markets

The market is handicapped by informality (no entitlement to house) & lack of mortgage financing

Therefore housing solutions need to be coupled with solutions for the above -> collaboration



Cemex

Problem: Lack of housing for the poor

Solution: Cemex's saving & credit scheme Patrimony Hoy allows poor customers to add on to their homes kitchen, bathroom, one at a time

Groups of three families save

76 weeks

Good quality materials

Advice and technical help in the building the addition

Outcome: Since its inception, over 265,000 poor families have built additions to their homes with PH. 60 % of participants say they would not have been able to build their house without the program.

The program creates jobs mainly among local masons and those trained as promoters. 95 % of promoters are women, 51% of whom had no previous working experience. 29% of participants use their homes, or extra rooms that they have built through their participation in Patrimonio Hoy, to build their own businesses.



BOP & water + sanitation

From 1 to 2 billion people live without clean water

Annually nearly 2.5 million people die of waterborne diseases. Mostly children that die of diarrhea.

Primary BOP water needs are at peri-urban areas which lie beyond municipal water supply networks and dry rural areas

Need of interlinked sanitation solutions -> health, hygiene, polluting water

Grundfos Lifelink

PROBLEM: Lack of safe drinking water

SOLUTION: Water systems for rural communities, schools and hospitals

It is crucial to develop community ownership

Users pay with mobile phone & pre-paid key fob (RFID technology).

Local banks participate in financing

Solar panel is power source

Maintenance and repair costs are included in the water price

On-line remote monitoring with GSM/GPRS

Quick repair in case of faults

Locals have been trained as repair mechanics



Lifelink development



2007-2011
BM based on water price
G supplies hardware & biz "software"
Local stakeholder relationships outsourced to an NGO
High failure rate:
O&M not core biz

Revenue collection system developed with Safaricom/Vodafone
Hire antropologist

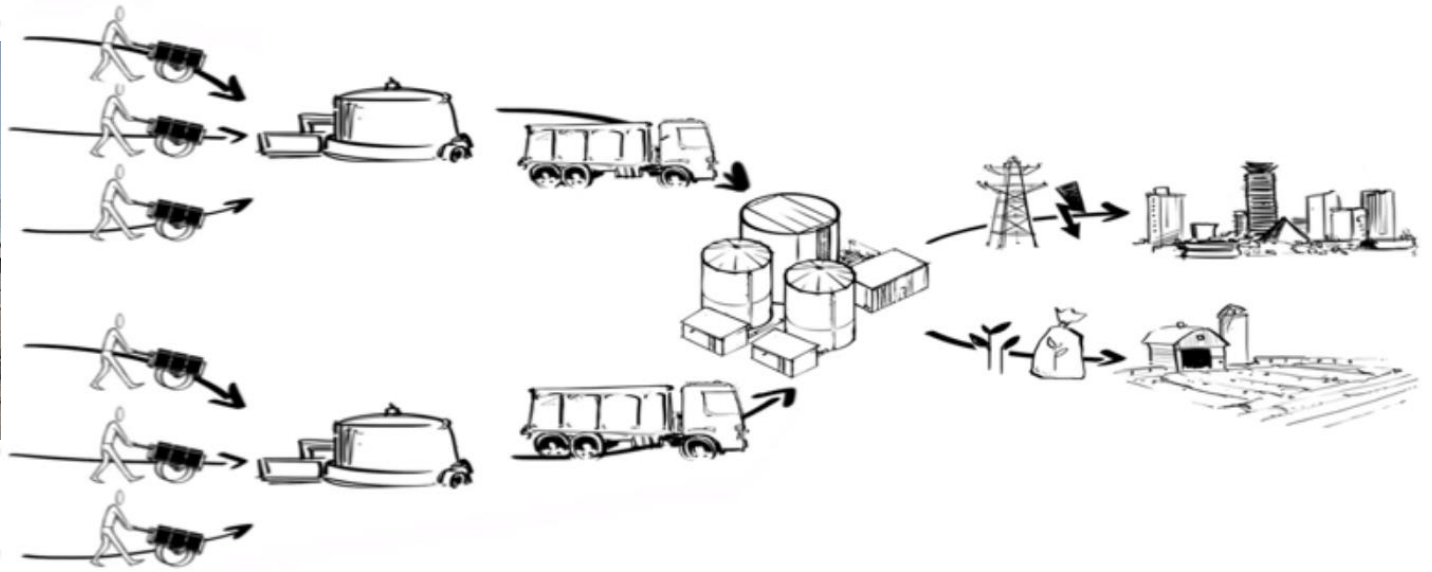
2012-2017
Multipartner model with utilities, NGOs (World Vision, Unicef)...
Grundfos: engineering powerhouse, global sales
Lifelink dispenser price lowered 80%
Includes Ericsson gateway service to connect to any mobile money system/operator

SANERGY

Build – franchise – collect – convert organic fertilizer and renewable energy – transfer to farms



BUILDING AN INTEGRATED SANITATION VALUE CHAIN



A?

SANITATION FACILITIES

WASTE TRANSPORT & REMOVAL

WASTE TREATMENT & REUSE

Low-cost sanitary napkin





ARAVIND EYE CARE SYSTEM

Largest eye care facility in India

Mission is to remove needless blindness

Many eye care services, with the cataract lense surgeries and provision of affordable ophthalmic products worldwide

Let's see ourselves:

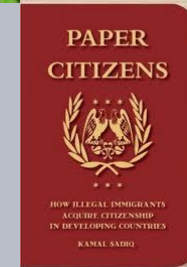
<http://www.youtube.com/watch?v=3cjnNPua7Ag>

What use are mobile services?

Information about
market prices for
produce

Availability for jobs
offers

Financing services
mobile-phone based money
transfer and microfinancing
Formal identity



Exercise: You are a recently hired inclusive business expert in a company entering a low-income market. Your management group asks you what they as a foreign business should know when innovating for the low-income markets. What will you tell them?



Innovation: Products & market

The market may not be readily there -> market creation

Create a new price performance of products and services \neq just lowering prices

Product or service functionality in BOP might be different – start from needs and aspirations of the locals, do not copy developed market experiences

Solutions for 4 billion people must be more resource efficient than in developed countries because of the carrying capacity of the earth



Innovation: Labour & partnerships

Inclusive innovation is often about co-creation. Therefore:

Be prepared to work with untypical business partners (e.g. NGOs)

Engage groups in the savings-credit schemes instead of individuals.

Deskilling work – in most BOP markets lack of trained labour force

The “last mile” to the customer can be provided by local subsistence entrepreneurs.



Innovation: Infrastructure

Design for deficient environments

Dirt roads, erratic or no electricity, deficient hygiene conditions

Innovate hybrid solutions of new technologies and existing infrastructures

Advanced technology solutions, such as regional network of PCs, must coexist with poor and mediocre electrical and telecom infrastructures



Grassroots innovators

Solution to a problem visible in the everyday life of the innovator

Lack of technical knowhow prolonged the innovation process

Lack of entrepreneurship skills

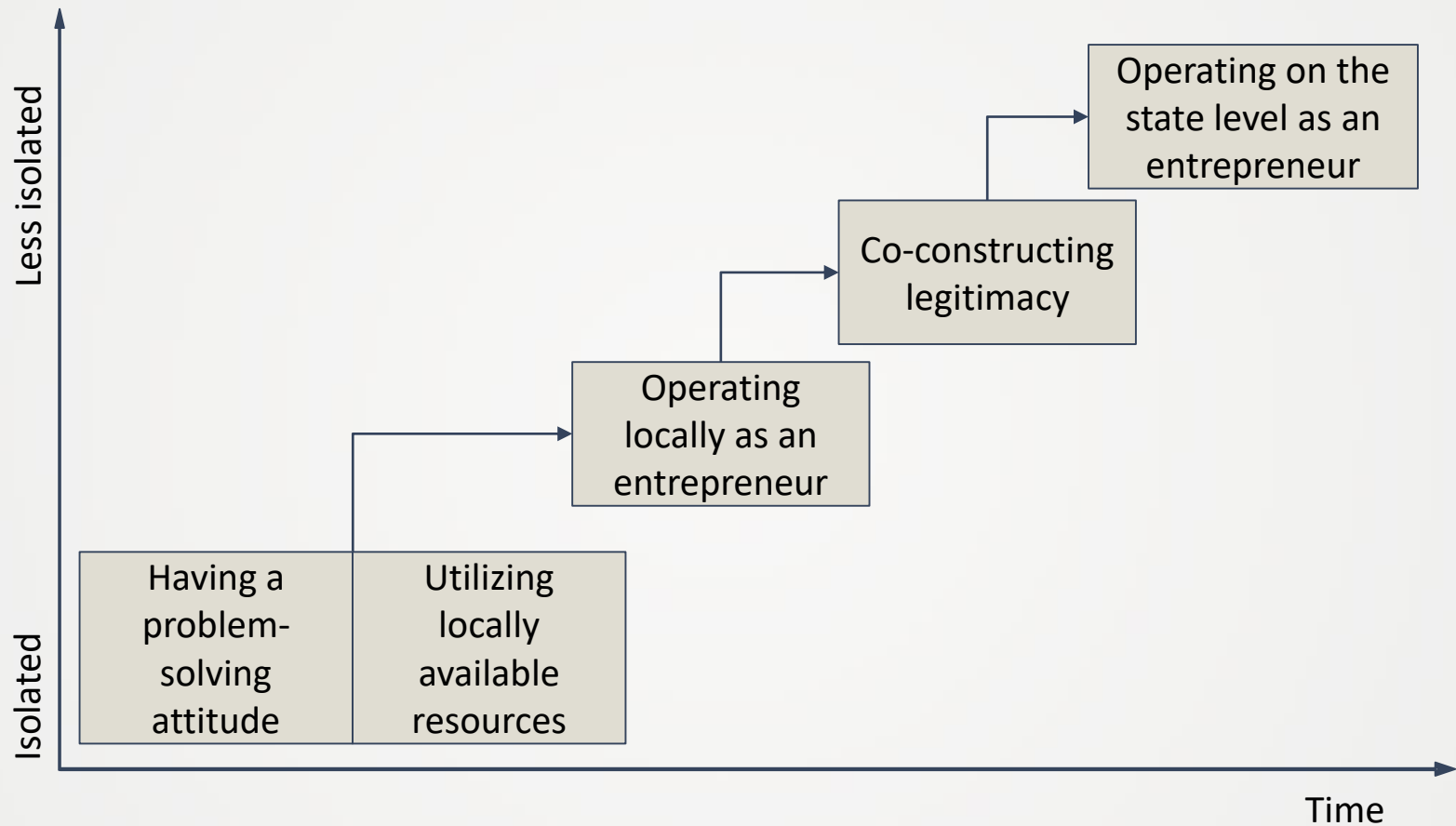
Acceptance by community members and the market

Word-of-mouth and news articles

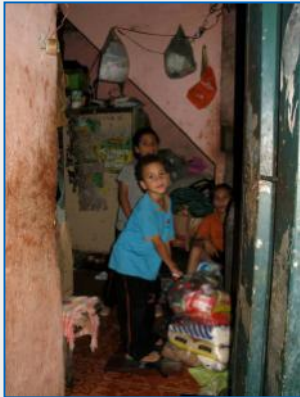
Lack of financing and high interest on loan from informal money lender

Intermediary organizations linking entrepreneur with partner organizations

Scaling process of Grassroots Entrepreneurs



What unforeseen consequences can result from the BOP approach?





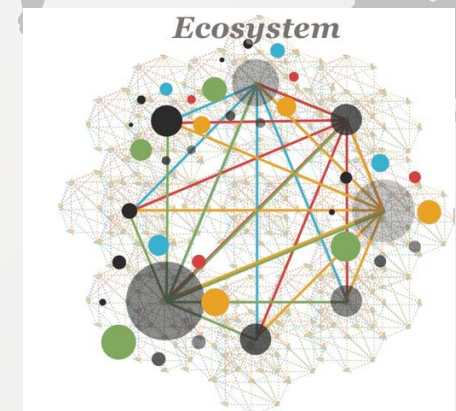
A GLIMPSE AT WHAT WE DO AT AALTO

Co-creating frugal and reverse innovations for complex global systems

The New Global project aims to foster co-creation capabilities for frugal innovations within Finnish and selected international societies.

- To generate new knowledge and education that supports society in the transition to a resource constrained future, through multidisciplinary research
- To create dynamic innovation networks capable of co-creating frugal and reverse innovations across selected locations
- To enable companies to co-create innovation with low-income communities

<http://newglobal.aalto.fi/>



Problem-based learning Aalto & East Africa



Inter-disciplinary FIN-AFRICA student teams develop solutions to authentic challenges for a real client organization.

University of Nairobi, U of Dar-es-Salaam & Makerere University

Aalto provides **support**: faculty as mentors, pedagogical tools and methods.

Direct **engagement** with stakeholders

Aim: Developing skills for **using** academic **knowledge** in practice

Example: Clean water innovation

Ahlstrom & Nanomaji

Ahlstrom is a large high-tec company with outstanding water filter technology "Disruptor"

Aalto New Global project and 2 student teams developed product and business model for Disruptor in developing country context (Tanzania)

Students established a start-up Nanomaji and made a deal on collaboration with Ahlstrom

Nanomaji won Finnish part of the international Climate Launch Pad competition





An accelerator for sustainable business and climate innovations

Organises events: coaching and workshops for business development, informal meetups where people share their experiences and generate ideas.

Networking with impact business actors in Finland and abroad to foster creation of social business.

Offers a public working and meeting space

Takeaways

- Inclusive business models aim at alleviating poverty-related problems (such as lack drinking water, nutrition, electricity or access to safe saving and credit opportunities) in ways that include the poor in the innovation process and the which are beneficial both for the poor and the enterprises.
- Inclusive business at low-income emerging markets can be practiced by many types of enterprises and other organizations: MNCs, SMEs, large national companies, social enterprises & non-profit organizations.
- Knowledge of user needs and involvement of locals are essential for innovating for the low-income emerging markets

More information @

<http://sub.aalto.fi>

<http://www.aaltoglobalimpact.org/>

<http://newglobal.aalto.fi/>

Guide:

https://wiki.aalto.fi/download/attachments/93562678/Miten_Innovoida_kehittyvilla_markkinoilla-2.pdf?version=1&modificationDate=1447663899157&api=v2

