

Decentralised Solutions – Agile & Appropriate
Wastewater Treatment
Solid Waste Management
Renewable Energies



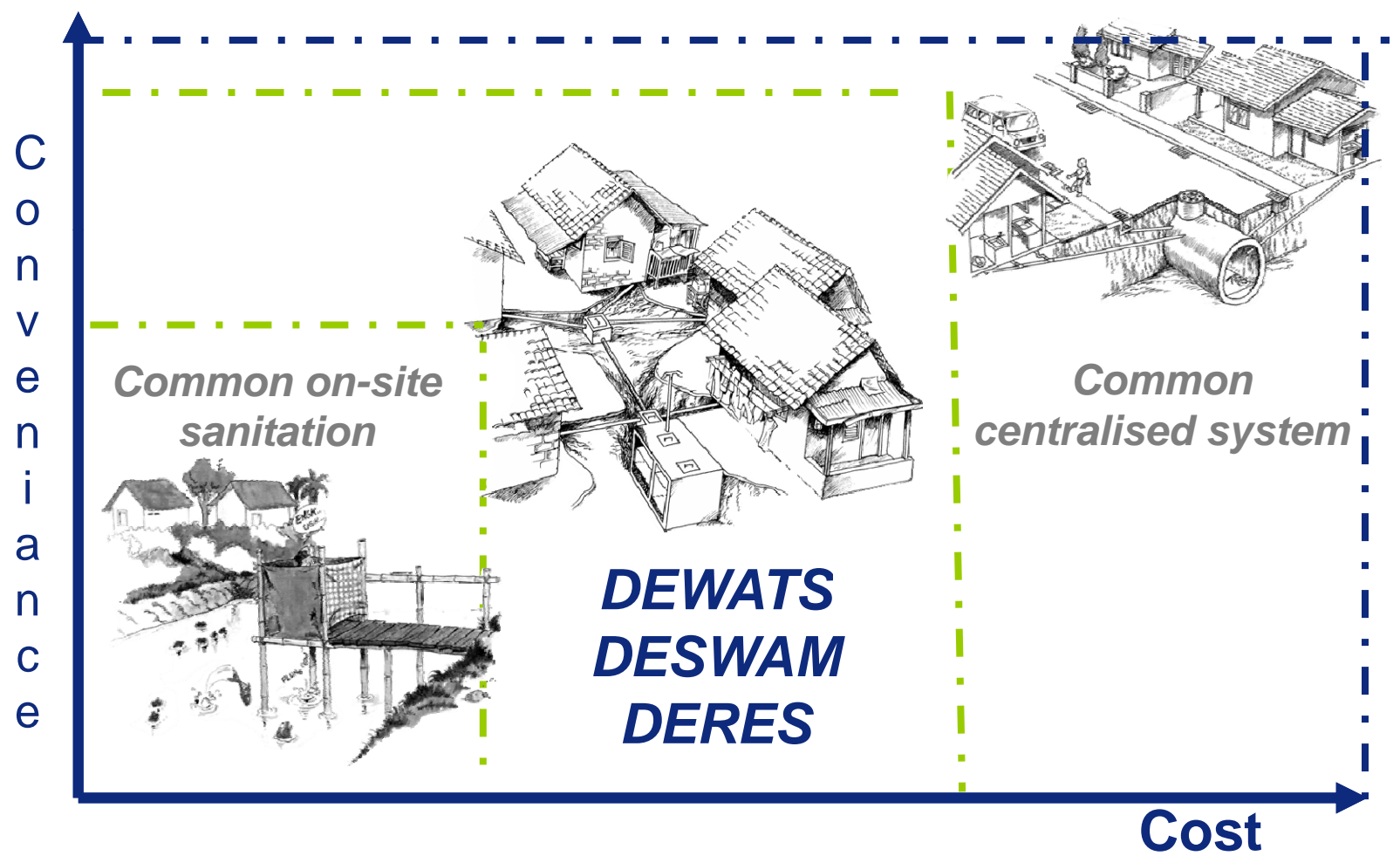
BORDA Bremen Overseas Research and Development Association

www.borda-net.de
Manila, May-27th 2014

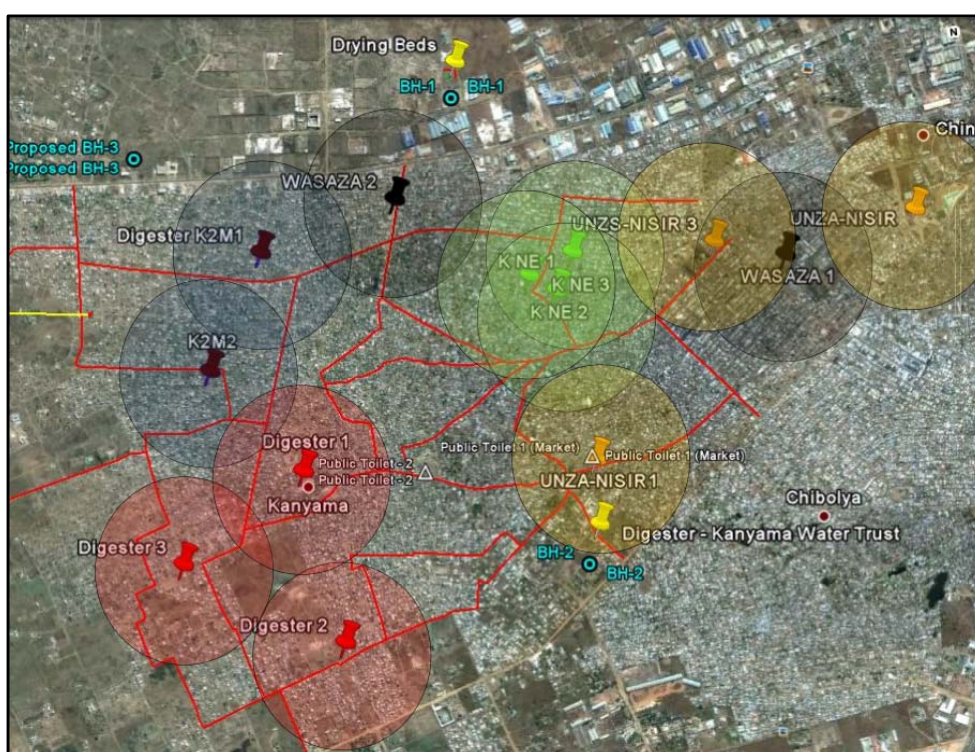
Jens Bruns
BORDA Board of Directors

Profile:

BORDA –27 organisations from 4 continents
Mainstreaming Decentralised Solutions



A wake up call:
Decentralised Solutions are agile +
appropriate for rapid urbanisation:



- **Economic service provider models**
- **Treatment capacity: Up to 100.000 PE***
- **Scale effects**
- **Low energy demand**
- **Low maintenance**
- **Resource reuse**

Urban city plan for location identification

**population equivalents*

A path out of the dilemma

Problems need to be accepted to get solved



Large scale WWTP – after 4 years of operation

A few facts:

- **Decreased invest. In BSN Services (Glass)**
- **Missing of sustainable service provider models**
- **Local ownership (who is really product owner?)**
- **Mainstream for large treatment system projects (Environment follows technology – Copy-Paste)**



Awareness for alternatives is missing

A new approach for new challenges:

Agile iterative development of local solutions
for local needs with local ownership

DEWATS, DESWAM, DERES – Scrum

Locals know best what their needs are



- **Coaching local development process (30 years of experience)**
- **Based on IT-development tool Scrum**
- **Iterative sprints with development backstopping**