



Turning Ideas into Action!

Or how to introduce High-Technology from Switzerland to the Colombia



It started with a need...



... became an idea and then a prototype ...



... and finally a solution



## Our Focus – Drinking Water



## Our Focus – Renewable Energy Supply



## The Product - The Technology

- Water Purifications Units for Fresh Water, Brackish Water and Seawater
- Solutions for chemically contaminated water sources such as Arsenic, Fluoride, Nitrates etc.
- Modular and compact design for the operation in mobile or permanent applications
- Capacities up to 50'000l (Fresh Water), 20'000l (Brackish Water) or 10'000l (Seawater) per day
- Powered by renewable energy sources (Solar- and Windpower) with the option to use Diesel- or Gridpower as well
- Rugged design for the usage under harsh conditions



## The Product - Advantages

- Best energy efficiency on the market
- Daily operation in areas without power supply
- Very low in maintenance and service
- Easy to operate due to high automation
- Plug & Play design for the operation without additional infrastructure
- Lifespan of more than 10 years for the water purification equipment and even 25 years for the energy supply system
- High flexibility to adjust to individual customer requirements
- Broad practical experience in many different areas around the globe
- Top after sales service through service contracts





# The Products – An Overview

Water treatment  
*Ultrafiltration*

Solar and/or  
wind powered



Water desalination & brackish water  
*Reverse Osmosis*



External power supply

(diesel or  
grid power)



- solar/wind power possible (fix installation)
- mobile application

## The Products – The Containers

Water treatment  
*Ultrafiltration*

Solar and/or  
wind powered

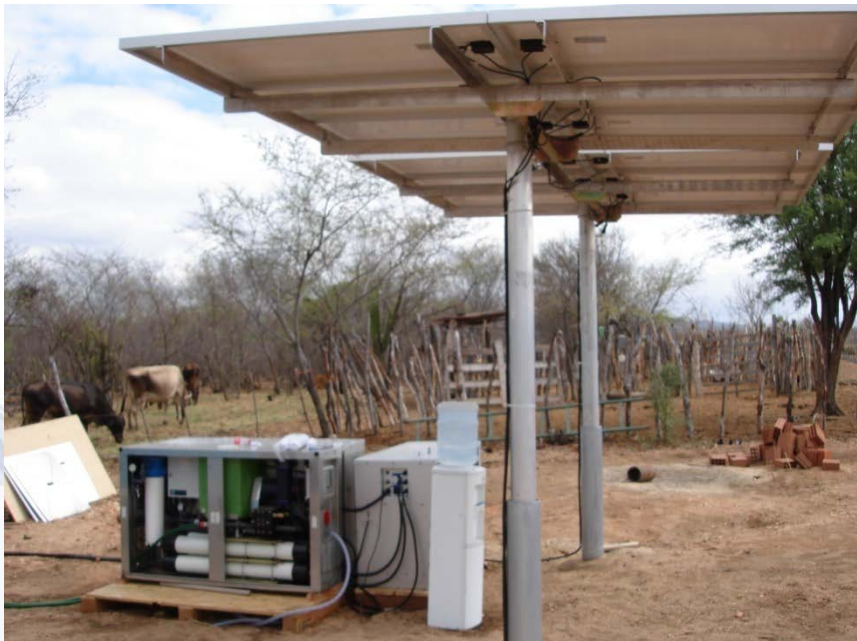


Water desalination & brackish water  
*Reverse Osmosis*



# Brazil

## Brackish Water System for Groundwater Treatment



# The Partners – Our Network

● Subsidiaries (planned 2011 – 2014)



# Philippines

## Solar powered water treatment system



## The Market

Very often, a typical Swiss SME is focussing on niche applications.

In our case we were born global, since our target markets -

- Remote Villages
- Schools
- Hospitals
- Mobile Drinking Water Services
- Emergency Relief Operations

- are mainly outside of Europe.



# Nigeria

## Inauguration Ceremony for the „Water for All“-Project in Abuja



## The Price – Operational Costs Watersystems

Production Costs	Fresh Water	Brackish Water	Seawater
1 L	0.001 US\$	0.005 US\$	0.008 US\$
1'000 L	1 US\$	5 US\$	8 US\$

Purchase Price	Municipal Water (CH)	Water Kiosk (India)	Bottled Water
1 L	0.002 US\$	0.005 US\$	1 US\$
1'000 L	2 US\$	5 US\$	1'000 US\$



## The Price – Operational Costs Energy Supply

Production Costs (5 Years)	Quantitative 1 kW	Telecom Tower 2 kW	Seawater Desalination Trunz 4.5kW	Seawater Desalination 10 kW
Solar (7.5 US\$/Wp)	8'640 US\$/Y	14'400 US\$/Y	32'400 US\$/Y	
Diesel (2.5 US\$/l)	7'300 US\$/Y	14'600 US\$/Y		73'000 US\$/Y

Solar powered Off-Grid Solutions are already today cheaper than a Diesel powered system after an operation of a few years!

Solar systems have a lifespan of 25 years!

## The Price – Investment Costs

The Investment costs for Trunz equipment is clearly on the higher side, especially compared to locally manufactured systems.

There are two main reasons for this:

1. Generally the renewable Energy sources require a relatively high investment, but the operational costs are then close to zero.
2. To ensure a long lifespan and a good reliability under harsh conditions, only top quality components can be used within the Trunz Units.

According to our experience, the investment is not a problem when the total lifecycle costs are being compared.

In the end, it is a question of the allocation of the funds.



## The Business Model

The Innovation lies not only in the technology but to a large degree also in the business model.

We have tried the following Business Models:

- Sales to NGO's for Emergency Relief
- Direct sales to Governments/Military
- Distribution through a partner network
- Watershops

Today, we consider ourselves not only a provider of technology, but a solutions provider!

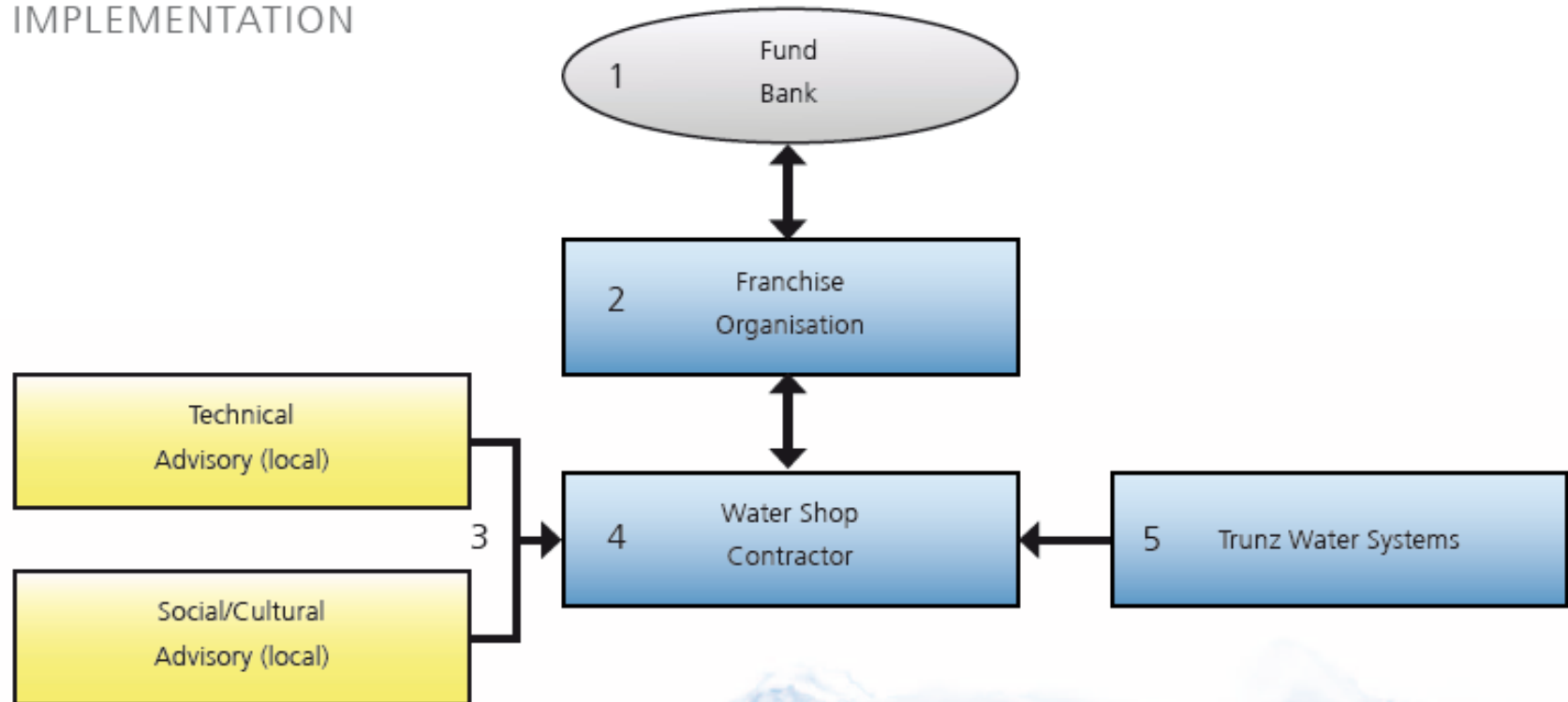


A new, triple bottom line approach: Social, Ecological & Economical



## A new, triple bottom line approach: Social, Ecological & Economical

### IMPLEMENTATION



## The Water Shop Concept

- Selling clean and safe drinking water
- For an affordable price
- To the poorest of the poor,
- With green technology,
- By creating local job opportunities,
- Introduced by a regional partner,
- Financially at least sustainable or even profitable,
- For all stakeholders involved!



# Philippines

## Rotary Watershop Installation in Santa Barbara, Ilo Ilo City



# Colombia

## Parques Nacionales





Let us work together to solve one of the most important problems in the world with natural resources and for everybody's benefit!

Get involved!  
Become a Water Ambassador!

