



# Grundfos LIFELINK

Sustainable and transparent  
drinking water solution for  
the world's poorest



# Water is the basis of all life

– and of economic development and well-being



**With LIFELINK, the people in the world's poorest regions need only a mobile phone to get safe drinking water. And most of them already have one.**

#### **What is LIFELINK?**

Grundfos LIFELINK is a turnkey water solution for remote communities without access to water and electricity. It is a sustainable and transparent solution which encompasses both the water solution itself and the business model, ensuring long-term environmental, financial and social sustainability.

#### **Putting an end to non-functioning water systems – empowering the people through an intelligent infrastructure**

Grundfos LIFELINK is not the first water solution to be established in remote and poor areas. However, it is the most innovative, sustainable and transparent solution. Many traditional water projects fail because the need for future service, spare parts and ongoing training is neglected due to lack of skills and funds. No infrastructure is established to cover this need.

LIFELINK also solves another challenge – the mismanagement of funds. All cash transactions take place via mobile phones and SmartCards within a closed payment structure, completely eliminating the exchange of cash. Since a percentage of the payment for water is allocated to service and maintenance, lengthy downtime and negligence due to lack of funds are history.



## LIFELINK – The Solution

Grundfos LIFELINK's water solutions are sustainable and transparent. They have been designed to provide safe drinking water to small communities, market places, hospitals, orphanages and schools in rural areas around the world. The system capacity depends on the actual borehole.



**Pump:** A well-proven submersible pump from Grundfos ensures reliable operation even under tough conditions.

**Renewable energy:** The water solution is powered by solar panels or wind turbines. These sources generate the energy to pump underground water.

**Water tower:** The pumped water is stored in an elevated water tank and then led by gravity to an automatic water tapping unit.

**Water station:** Users insert a SmartCard with a built-in chip in the slot at the water tapping unit in order to tap water. A display shows how many water credits are available.

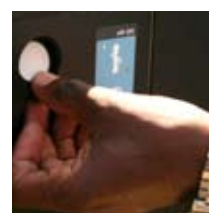
**SmartCard:** Water credits are pre-paid to the SmartCard. When inserted in the slot, the water flows automatically until the card is removed or the water credits have been exhausted.

**Mobile phone:** Water credits are transferred to the SmartCard via mobile phone banking. It is fast and simple.

### Adaption to needs

Depending on the quality of the raw water source, the required water capacity and the community layout, Grundfos LIFELINK engineers can adapt the design to suit the needs of the individual community.

The solution and its optimal components are then chosen on the basis of the results of our community evaluation and mobilisation processes.



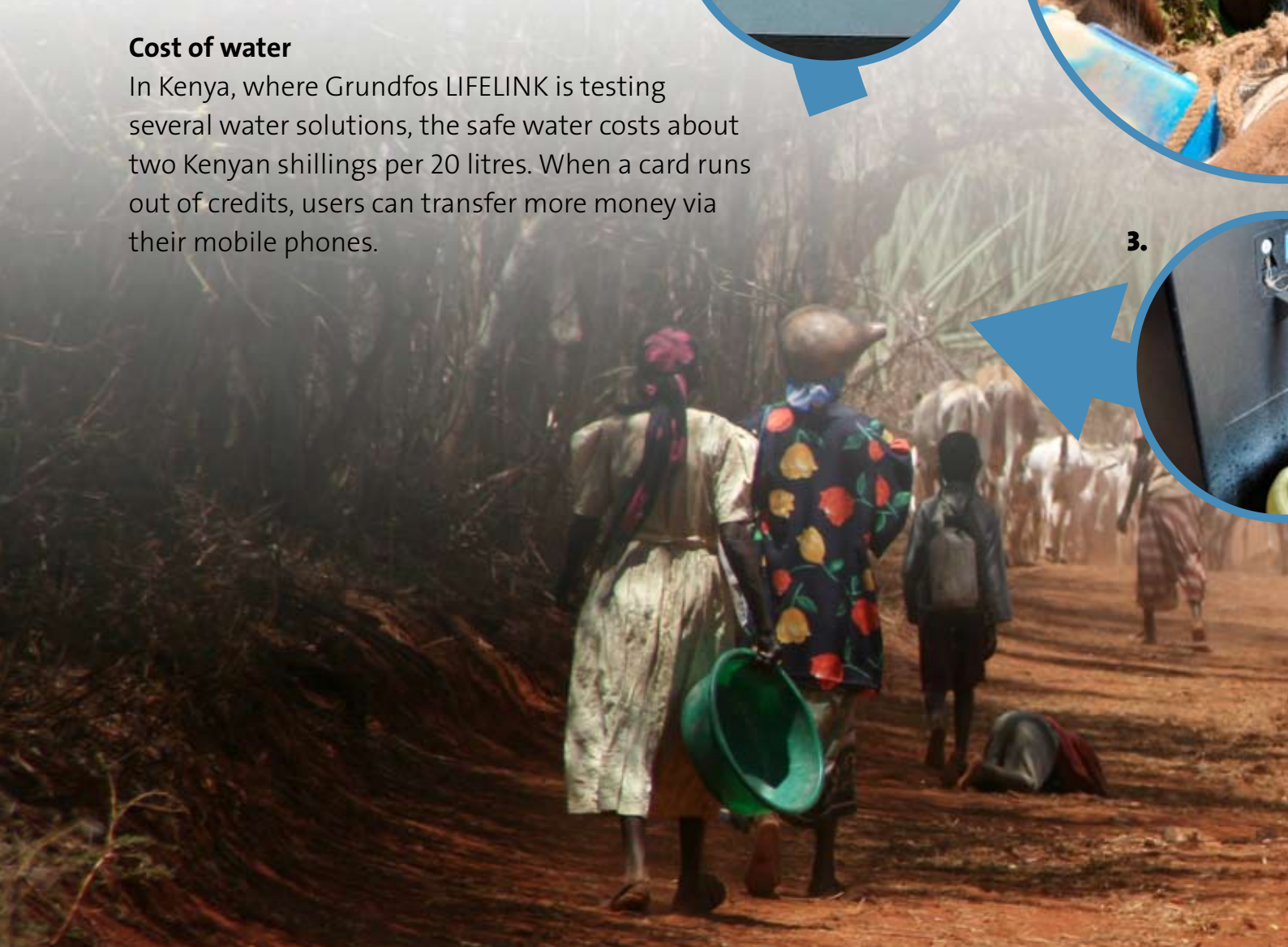
## How it works

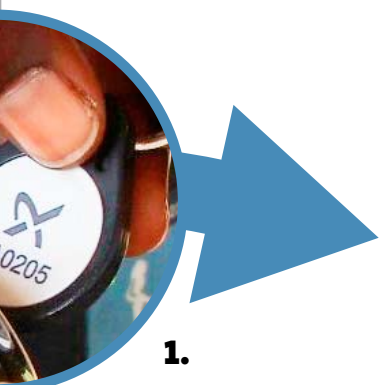
Grundfos LIFELINK supplies, installs and services the turnkey water solutions. The tapping of water is handled entirely by the users. And it is very simple:

1. Transfer money to the Smart Card via mobile telephone.
2. Insert the SmartCard in the slot at the water tapping unit.
3. The water runs until the SmartCard is removed or water credits have been exhausted.
4. Before and after the water has been tapped, remaining water credits on the SmartCard are displayed.

### Cost of water

In Kenya, where Grundfos LIFELINK is testing several water solutions, the safe water costs about two Kenyan shillings per 20 litres. When a card runs out of credits, users can transfer more money via their mobile phones.





1.



2.

**Mobile phones are common**

Even in the poorest areas, mobile phones are widespread – also in Kenya. Here, people are accustomed to using mobile phones when selling livestock, for example.

**Embracing the technology**

“Generally speaking, the people in the communities are positive and I am surprised how quickly they adopt the technology. Despite the change from the traditional hand pump, we are finding an immense willingness to change on the part of the disadvantaged people in rural areas that use our systems. They soon see the advantage of only having to press a button to get safe water,” says Technical Manager at Grundfos LIFELINK, Lars Denning.





## Operation and Service

**Too many water projects in the developed world have failed in the past because focus was not on sustainability in terms of service and maintenance. With Grundfos LIFELINK, it is a package deal with everything included for many years to come.**

### Monitoring and Service

Grundfos LIFELINK water solutions are about more than simply pumping water. The tapping unit is therefore connected to a control box, allowing LIFELINK staff to monitor data from all LIFELINK installations via the Internet from anywhere in the world. This includes water pressure and temperature, amount of water tapped and money paid, etc.

The local LIFELINK service department even receives warning about potential problems via automatic SMS text or email messages, allowing them to take the necessary action to ensure an ongoing safe water supply. Both the technical and financial information from the LIFELINK installations will be made available to stakeholders via the LIFELINK homepage.

## Business Model

**One very important aspect of the Grundfos LIFELINK business model is to engage in partnerships with governments, NGOs, knowledge and research organisations, corporations and foundations, etc. These partnerships make it possible to provide the world's poorest people with safe drinking water.**

### Who pays?

LIFELINK has been created on the basis of a sustainable business model with three different business models. The self-payment depends entirely on how much the communities are able to invest.



#### DONATION MODEL:

In the poorest areas, such as many African countries, LIFELINK water systems are donated by governments, NGOs, humanitarian organisations and foundations, etc. The price of water here is very low and any income generated mainly covers the service/maintenance of the system.



#### SEMI-COMMERCIAL:

In other cases, the community itself pays a share of the initial capital investment and the remaining share is donated. The income from selling the water covers the repayment of the loan and service/maintenance.



#### COMMERCIAL MODEL:

In cases where the community has the means and the ability to operate the water solution, the village will receive financing of the entire water solution. The price of water is typically higher and the revenue covers both the repayment of the loan and service/maintenance.

### Local service teams

In addition to the employees in Denmark, Grundfos LIFELINK has recruited Kenyans to represent the sales and service team in Kenya.

Each community will sign a service agreement with Grundfos LIFELINK. We carry out preventive maintenance and repairs in the event of breakdowns.



### Local water committees

The local community establishes an independent water committee comprised of the users. This committee empowers the users, giving them a financial and health-related interest in the water solution. A number of local individuals are given other areas of responsibility, including sales and maintenance, increasing involvement and commitment.



All three models imply that the community itself pays for maintenance and service, guaranteeing a minimum degree of sustainability. We are currently finding that there is focus on the donation and semi-commercial business models.

### Partnerships make it possible

In cases where a community pays the entire investment or a share of it, Grundfos LIFELINK has established partnerships with banks and other financing institutions to optimise the commercial terms for the communities.

Additional partnerships with telecommunications companies ensure the availability of the necessary telecom infrastructure for transactions from mobile phones to banks.



## **Grundfos LIFELINK**

Grundfos LIFELINK is part of The Grundfos Group, one of the world's leading pump manufacturers, employing approximately 18,500 people in 81 companies in 45 countries worldwide. Grundfos has over 60 years' experience in developing, selling and servicing pumps for water supply, industry and building services.

### **The vision**

Central to the activities of the company is one, singular vision. It is our guiding star:

Grundfos LIFELINK is committed to improving the living conditions of disadvantaged people in the BOP market (Base of the Pyramid) by providing them with access to safe drinking water and other infrastructural platforms.

### **Our value propositions**

Differentiation is the key when discussing Grundfos LIFELINK, both as a company and provider of water solutions. The four core value propositions ensure a unique positioning in the market:

- Sustainability (environmentally, financially, socially)
- Closed, corruption-free payment system
- Transparency via remote surveillance of operation and payment
- Integrated after-sales service.

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