

## Evaptainers

by Yassine Maghnoij / 2018-06-13 17:58:22 / Maroc / 6638 / FR



**Year of commitment** : 2015

**CO2 Impact** : Annual reduction of 65 million tons of GHGs

**Green energies** : Energy Efficiency, Heat



500 000 €

### GENERAL INFORMATION

**Evaptainers** is an American-Moroccan company that creates the first refrigerators in the world that work only with water without the use of any other source of energy (electricity, solar ...) but only water, ideal for non-electrified rural areas and refugee camps.

**Evaptainers** uses the phenomenon of evaporative cooling, a technic that has proved its effectiveness and has been used for decades in traditional solutions such as the Zeer-pot or the ceramic water jar, which allows to triple or even quadruple the service life. food.

By combining the evaporative cooling phenomenon with modern design and innovative manufacturing materials, a clean, environmentally friendly and inexpensive cooling solution has been created to reach the most remote areas.

Our solution can be used by a wide range of users, farmers who are far from the city and move their crop to sell can keep their fruits and vegetables longer and earn more money for sale, rural families and refugee camps that often can not afford a conventional refrigerator and / or have no electricity can keep their food

longer and avoid waste, street vendors can also use our solution to keep their goods cooler longer.

## Progress Status

In progress

## Data Reliability

Self-declared

## Website Enterprise / Infrastructure

<http://www.evaptainers.com>

## Sustainable Development

### Attractiveness :

About 650 million people in developing countries

### Well Being :

- Improving the quality of food by keeping it fresh
- Food security assurance

### Social Cohesion :

Our cooling solution contributes enormously to the objectives of sustainable development, it helps to eliminate poverty, during our tests with several families in Morocco they confirmed to us to have saved 10% of their income by making less trips to the village. Close to replace the lost food and also saves the time it uses to plow their fields.

In addition to the environmental and economic impacts, our project will also recruit employees who will take care of the sale in several regions of Morocco

### Preservation / Environmental Improvement :

Our goal is to fight climate change on several fronts. More directly, our solution will reduce the rates of food spoilage, which will reduce the amount of methane and carbon emitted into the atmosphere by rotten foods. FAO estimates that total food waste worldwide has the third largest carbon footprint in the world (WRO 2012). Food waste contributes annually to about 3 billion tonnes of GHGs in the atmosphere, with 1.3 billion tonnes of GHG discharged across Africa. Plant waste, for example, accounts for nearly 25% of global food waste and 21% of the global carbon footprint of waste. One of our company's missions is to reduce by 5% the global food waste in Africa, which would represent an annual reduction of 65 million tons of GHGs. In addition, by providing an alternative solution to compression refrigeration, we can save millions of kWh of electricity by reducing the consumption and production of associated greenhouse gases. For example, if we assume that a small refrigerator uses an average of 200 kWh per year, each 10,000 customers will offset the electricity consumption by 2 million kWh. Finally, reducing the need for compression refrigeration will also reduce the number of hydrofluorocarbons (HFCs) released to the atmosphere as a by-product of compression refrigeration. HFCs are known to be 3,830 times more potent than CO<sub>2</sub> in terms of their impact on greenhouse gases.

### Responsible use of resources :

Evaporative cooling technology is used in the phases of changing water to gas. Liquid water consumes energy around it, it is the same process of our "traditional khabya" the walls are wet when the water evaporates because of the heat in a precise place that will lead to the cooling of the "traditional khabya". Evaptainers combines the already tested method of evaporative cooling - without electricity - with a modern design to create a lightweight and efficient cooling system that can be used in a wide variety of applications.

## Governance

Quang D. Truong

Holder Type : Private Company

Builder Type : Other

## Sustainable Solutions

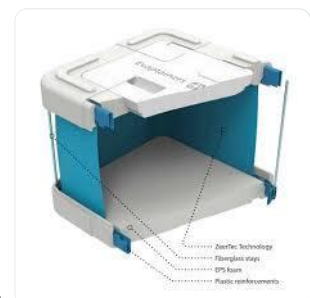
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### Description :

In Morocco and in African countries, agricultural cooperatives face difficulties with refrigeration during different stages of the agricultural supply chain. In particular, there is a lack of cooling solutions for product transportation in areas where modern refrigeration technologies are not available or too expensive. According to the FAO, these difficulties lead to a disproportionate deterioration of the products: **45%** of the fruits and vegetables perish before being consumed, which causes a total loss of **4 billion dollars in Africa** each **year** which can supply a quarter of the world population. Our solution is directly aimed at the problem of food loss. Thanks to our exclusive, totally eco-friendly technology that uses a low-cost model using evaporative cooling to keep foods two to three times longer.

Evaptainers combines the already tested evaporative cooling process with modern design to create an easily transportable and efficient cooling system that can be used in a wide variety of applications.

- Economic development :
- Energy/climate :
- Citizen participation



- Infrastructure
- Low-carbon materials/ infrastructure

Company (es) Website :

## Contest

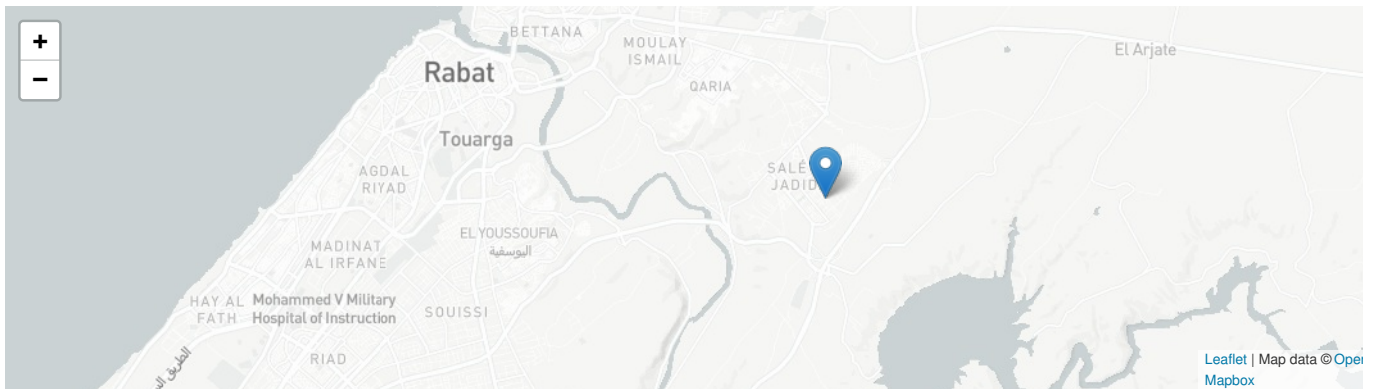
### Building candidate in the category



Coup de Cœur des Internautes



Grand Prix Infrastructure Durable



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