

# Field testing of an innovative solar powered milk cooling solution for the higher efficiency of the dairy subsector in Tunisia



Supported by GIZ:



Innovation Transfer into Agriculture –  
Adaptation to Climate Change (ITAACC)



Powering Agriculture –  
Sustainable Energy for Food

## Technical Report 3 (2016b)

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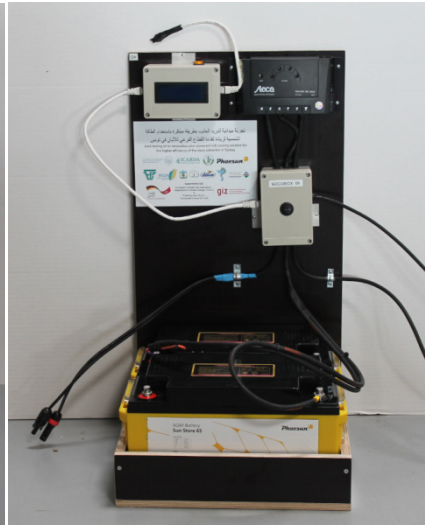
### 1. Final System for on-farm milk cooling



One of the 10 systems shipped to Sidi Bouzid (PV Panels, 2 Batteries, Control panel, Solar freezer, 25 ice-tins, 2 Milk cans)



Isolated milk can for 30 Liter Milk+ Ice compartment and ice tins



Control panel pre installed and place for 2 batteries



Data logging unit(SD Card) with display

## 2. Preparation of prototypes at the University of Hohenheim

The prototypes production of 20 milk cans and 10 control units were concluded on January 30th 2016.



Isolated milk cans



Control panels with charge controller, data logging and fan



Team involved on the production of the milk cans and control panels



Transport to Phaesun on February 1st, 2016

### 3. Preparation of the 10 systems at Phaesun GmbH



Placing the stickers on milk cans, freezers and control panels.

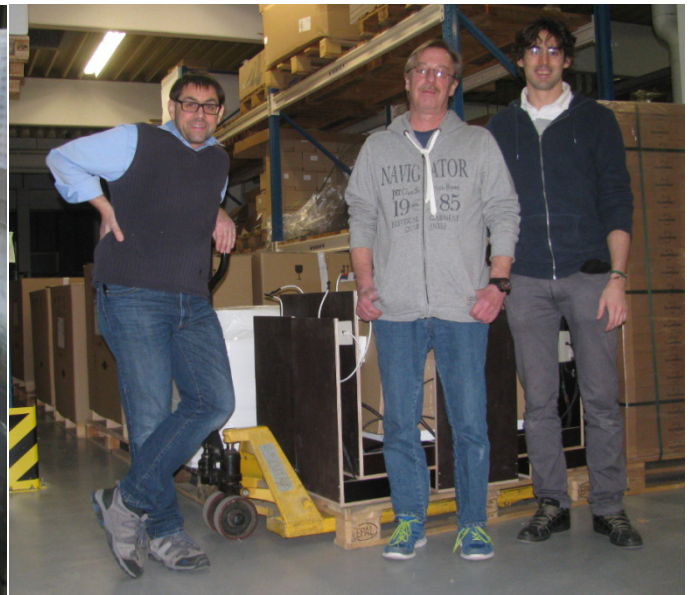


Solar freezers

Every solar freezer has a milk-can inside to safe space.



Packaging the components.



10 Systems prepared by Mr. Tobias Zwirner and Mr. Jürgen Gresser from Phaesun



**Shipment ready on 16th February :**

Ship: MSC MONTEREY

ETS: 22.02.2016 ex Bremerhaven

**Estimated Time of Arrival: 13.03.2016 in Tunis**

Container Number : GATU 015 356 – 5

Siegel Number DB PR 643 994

Phaesun confirmed that the container has been loaded on February 22th. Estimated arrival at Tunis on March 13rd 2016.



Follow actual Ship position:

[http://www.marinetraffic.com/ais/details/ships/shipid:758804/mmsi:636092391/imo:9349796/vessel:MSC\\_MONTEREY](http://www.marinetraffic.com/ais/details/ships/shipid:758804/mmsi:636092391/imo:9349796/vessel:MSC_MONTEREY)

### 5. Further steps:

	March 16	April 16	May 16	June 16
Transport to Tunis and Sidi Bozid				
Installation				
Field testing				
Workshop in Sidi Bozid				