



# BottleBricks

Executive Summary prepared for the Biomimicry Institute, 11/20/2020

## UN SDGs

Goal 3: Good health and well-being

Goal 12: Responsible consumption and production

## NATURE INSPIRATION

- Saharan Silver Ant
- Silk Cocoons of Moth species
- Nacre structure in Molluscs

## NEEDS

We need lab facilities to prepare parts of our prototype as well as performing tests on reflective capacity of the prototypes.

## FOUNDING TEAM

- Bastiaan Ilmer
- Florence Hunnekens
- Gloria Carta
- Laila Kestem
- Vera den Besten

## CONTACT INFO

BottleBricks

[bottlebricksnl@gmail.com](mailto:bottlebricksnl@gmail.com)

[linkedin.com/company/bottlebricksnl](https://www.linkedin.com/company/bottlebricksnl)



**BIOMIMICRY**  
INSTITUTE

BottleBricks brings a simple solution to a complex problem. Helping vulnerable people and benefiting the environment are our core values.

## PROBLEM & OPPORTUNITY

Temporary refugee centres in Greece are currently overflowing with refugees at six times their capacity. As a result, refugees lack basic resources like a proper shelter. Furthermore, poor waste management in the camps results in rivers of (plastic) trash. With over 70 million refugees worldwide, there is a great potential.

## SOLUTION

BottleBricks are delivered to the refugee camps in the form of their regular water supply. After drinking the water, instead of throwing the bottle away, refugees can use the bottles to build an additional layer of protection around their tents. The smart structure of the bottle allows for a waterproof and season-adaptable construction.

## BIOMIMICRY IN PRACTICE

With BottleBricks, the value of what we consider waste is highlighted. The bottles are reused to their full potential instead of being discarded. We got inspired by organisms living in harsh environments, researched their thermoregulation strategies and emulated these functions using basic, easily manufacturable structures.

## REVENUE MODEL

Our revenue model is in development. Currently, our focus is on exploring a licensing model. Thereby, the aim is to set up collaborations with the parties responsible for water supply to the camps (Greek government, UNHCR) and existing plastic bottle producers. These producers will be authorized to manufacture the bottle shape design of BottleBricks.

## TRACTION

BottleBricks has attracted the attention of various parties in the Netherlands, whereunder the Ministry of Defence. Furthermore, articles about the project have been published in a magazine, at the website of Utrecht University as well as local radio outlets, accompanied by a radio interview.

## TEAM

The success behind BottleBricks is that we all have a shared goal; to create innovative solutions that contribute to a more sustainable and social future. Thanks to a composition of people with different educational backgrounds and personal strengths we complement each other ideally as a team.

## NEXT STEPS

Finishing the prototype to use for finding future funding and establishing partnerships/ finding supporters.