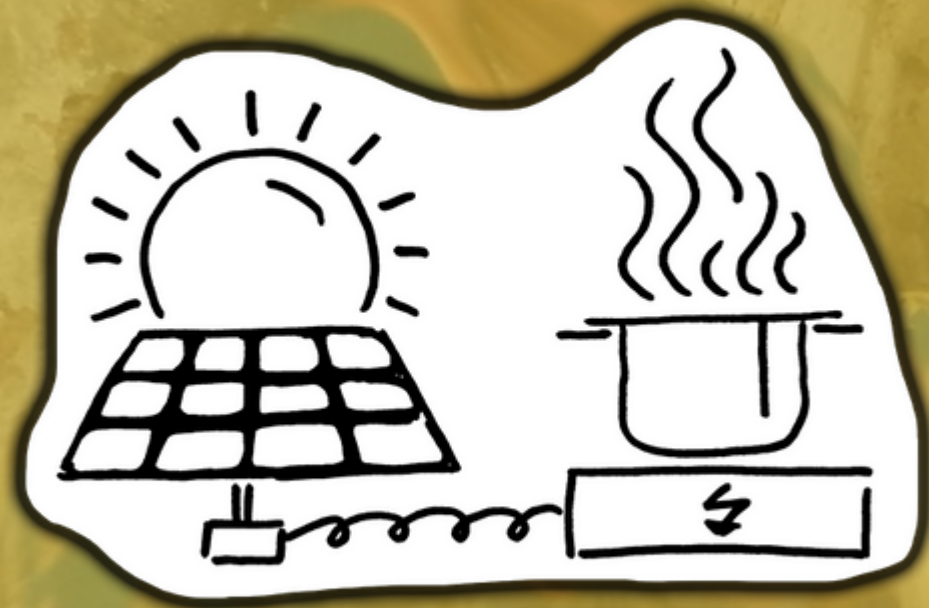


SolarBites



THE Port



Challenge

4 million
premature
deaths each
year

2.4 billion people
lack access to clean
cooking facilities

1 billion people
around the world
live without
electricity

1.9-2.3 % of
global CO₂
emissions per
year

Technology



FIREWOOD & LPG

- Deforestation
- Time consuming
- Availability



SOLAR COOKING

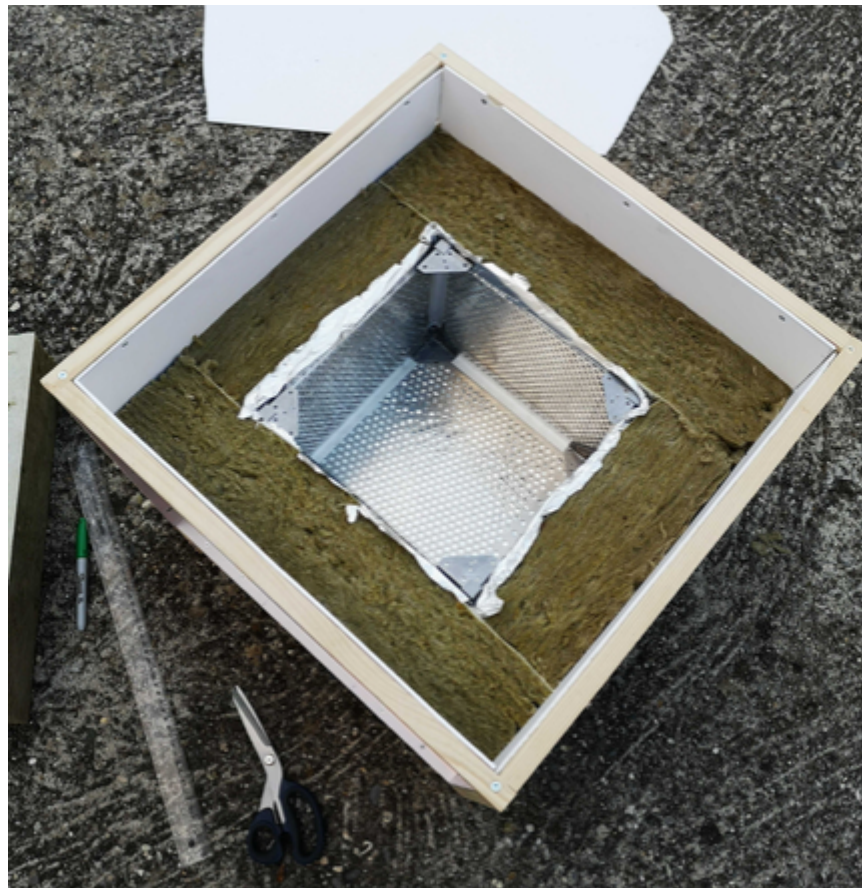
- No temperature control
- Season dependent
- Outdoors



ELECTRIC COOKING

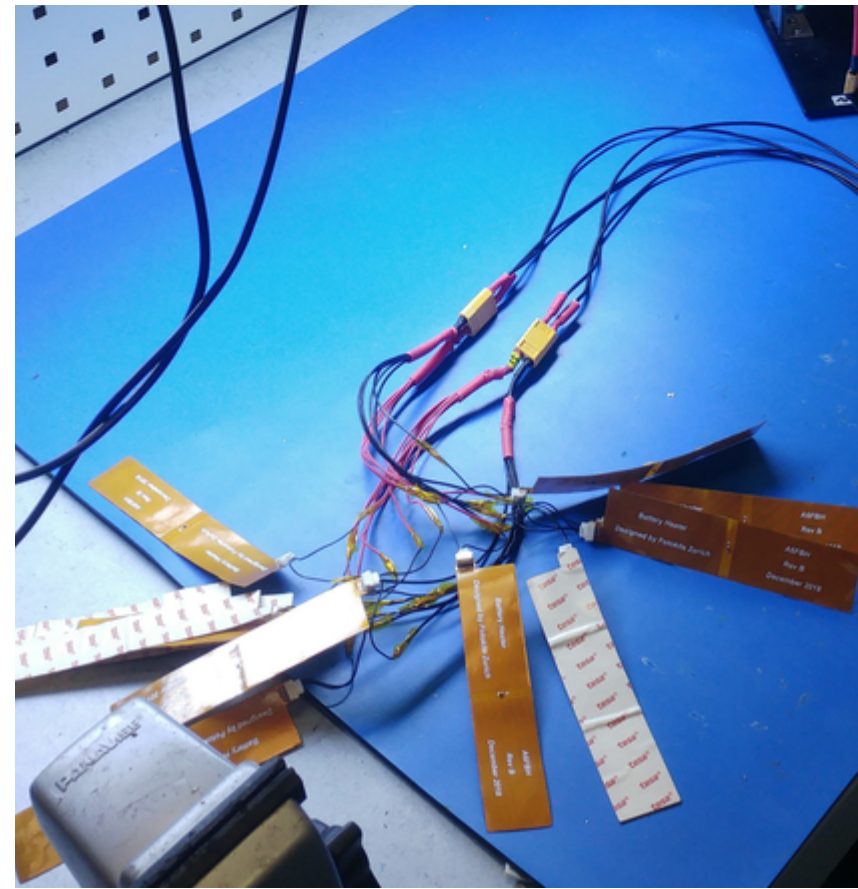
- User friendly
- Reliable
- Safe

Solution and Prototype



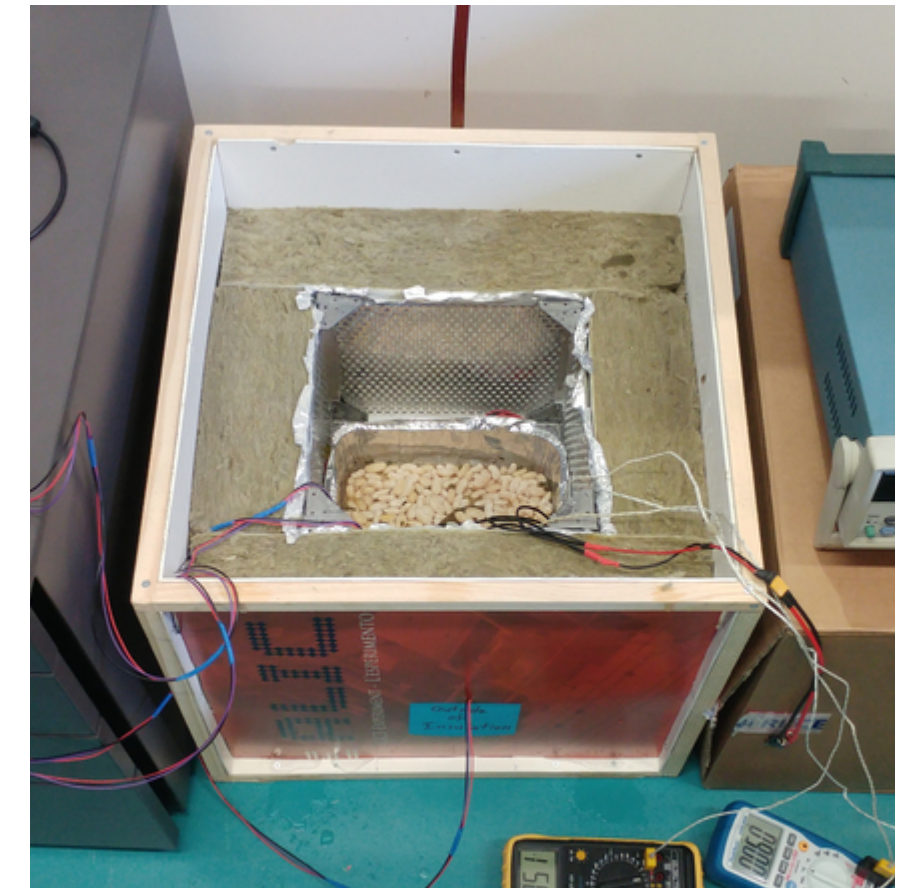
INSULATION

- Reduced heat losses
- Customized enclosure



HEATING ELEMENT

- Flexible heater PCBs
- Commercial crockpot



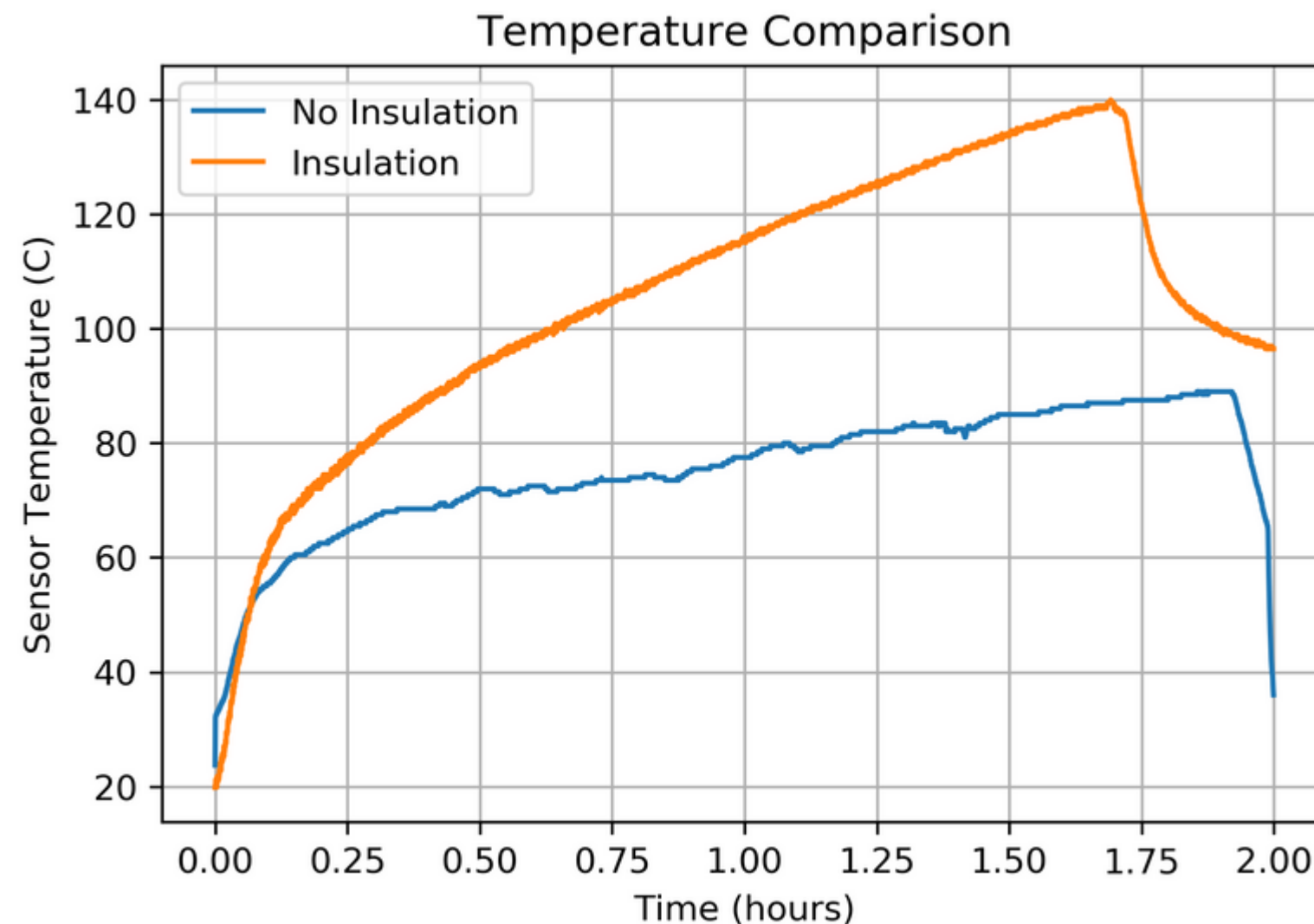
PROOF OF CONCEPT

- Boiling 0.5l
- Soaked beans

The Results of the Experiment

■ INSULATION EFFICIENCY

- ~50Wh saved to reach boiling point
- Keeps food warmer for longer time



■ PCB HEATERS

- ~50% energy saved compared to crockpot



Cultural Aspects

- Local and camp tensions
 - Commercial package
- Long adaptation process
 - Training



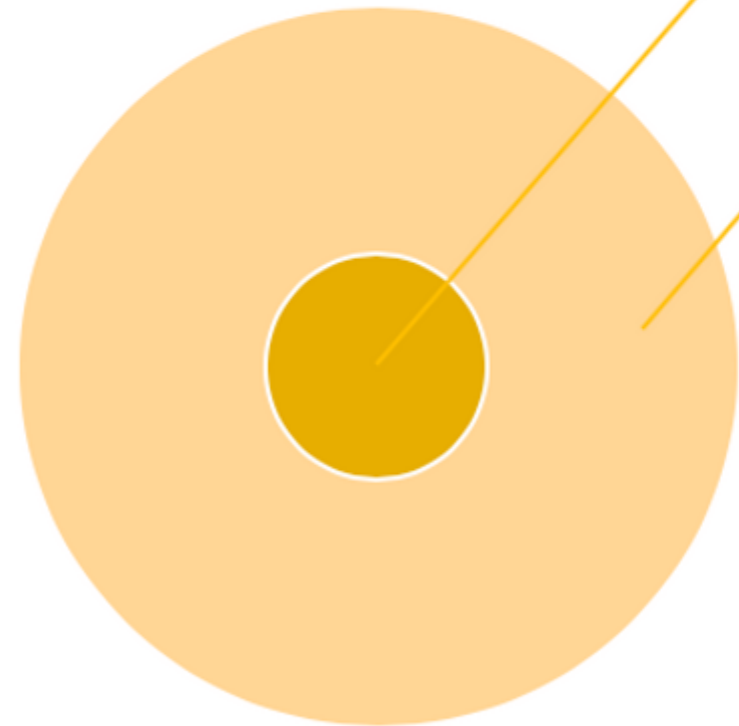
Flexible Financing Model

Cost on the camp residents:

- Traditional/mobile payment (e.g. Pay as You Go)
- Cash policy (e.g. voucher)

Funding from donors/partners

- phase 1
- phase 2



IKEA Foundation





Conclusion

It's possible to cook a meal with less energy
This allows to power it with photovoltaic
technology

Next steps

Optimize the device
Find partners to support us
Involve local communities

THANK YOU