



Healthcare accessible everywhere

Outline

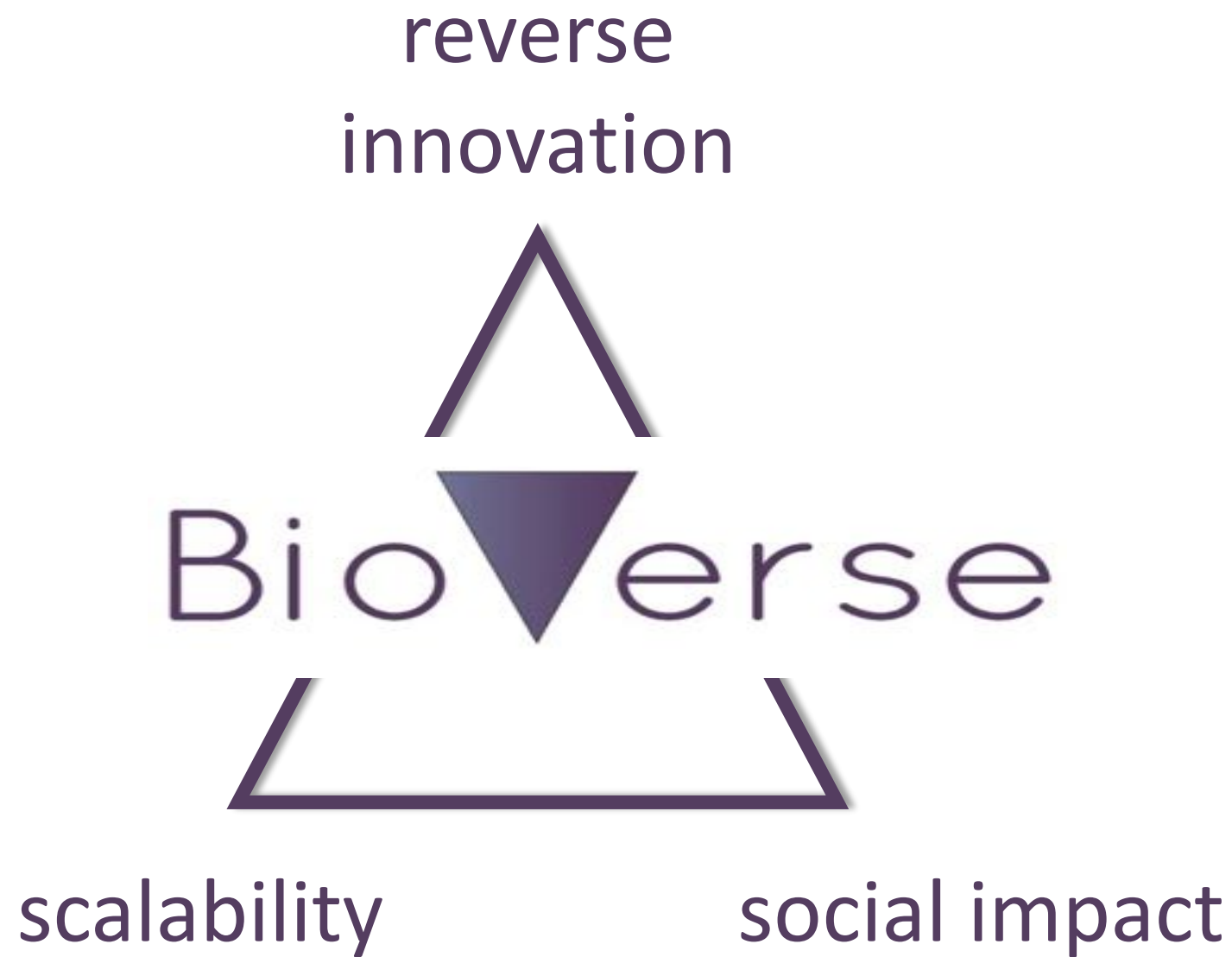
- **Bioverse**
 - **Mission and values**
 - **Design Thinking**
 - **«Corax the Life Box»**
 - **Problem**
 - **Idea**
 - **Development**
 - **Classification**
 - **Tests**
 - **Market and Business model**



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CTO
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Design Thinking





burn care accessible everywhere

Pediatric Burns

*Data from



11M
victims



+2/3
children

95%
in LMICs

Pediatric Burns



"Research in Ghana indicates that 92% of deaths due to infections would be preventable with adequate environmental conditions" [*]

The problem of burn injuries

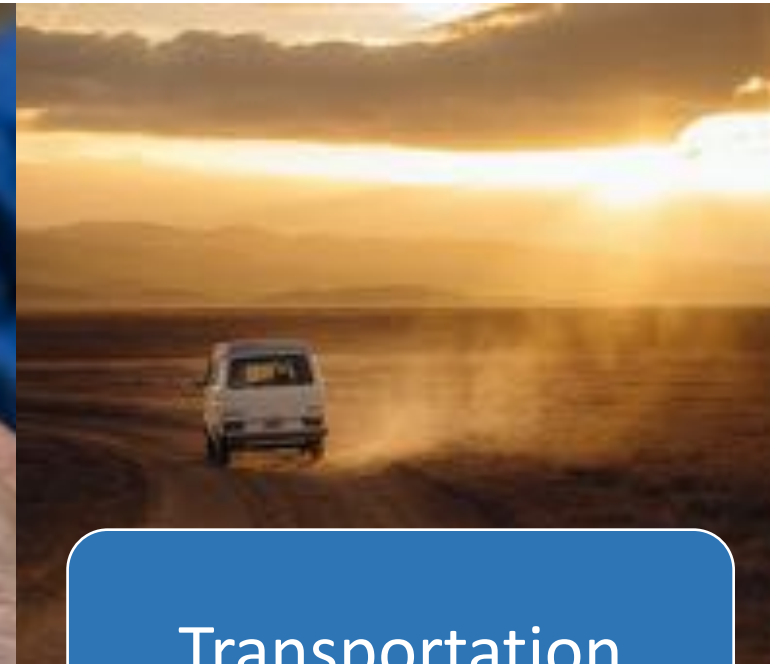
This is caused by three main factors:



Infrastructures



Cost of medication



Transportation

Corax Lifebox

Burn Unit



Corax the Life box



accessible



user-friendly

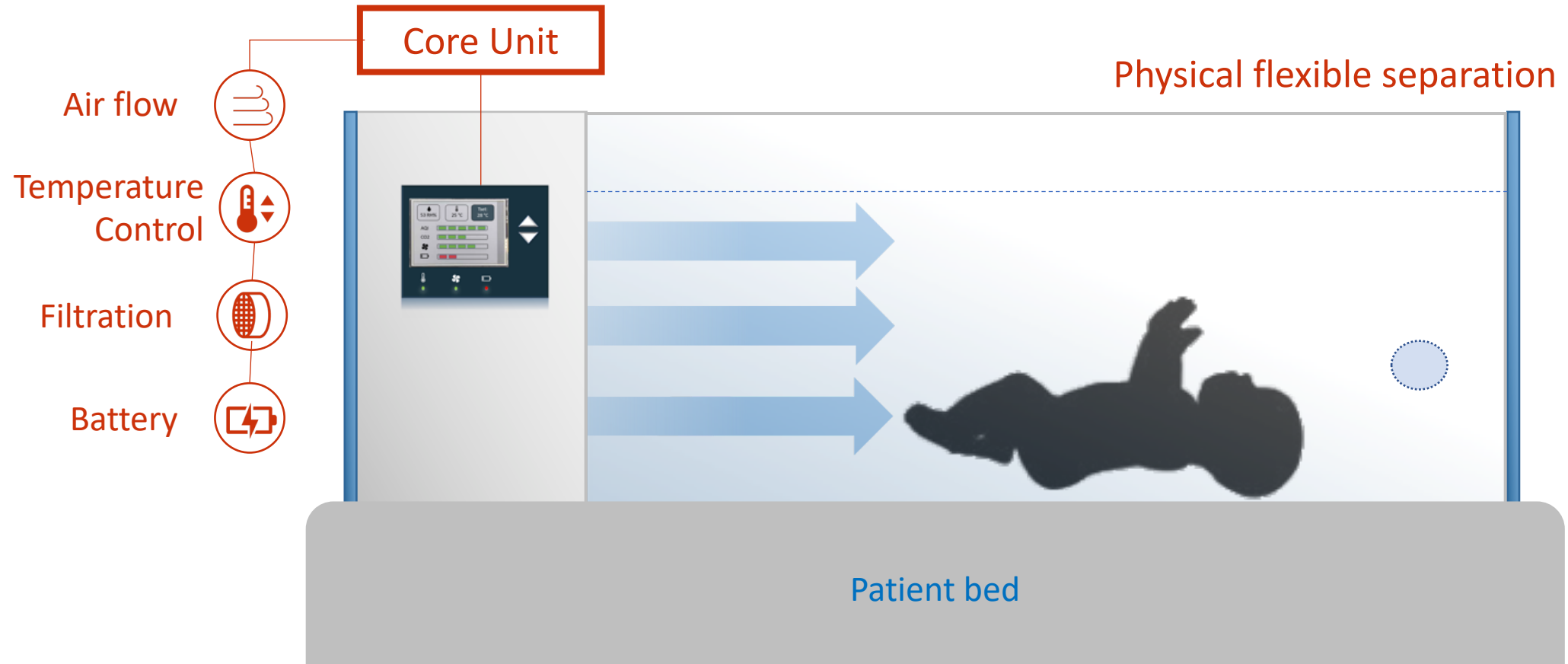


transportable



cost-reducing

Corax is for children with severe burns (TBSA > 20%)
to prevent infections and hypothermia





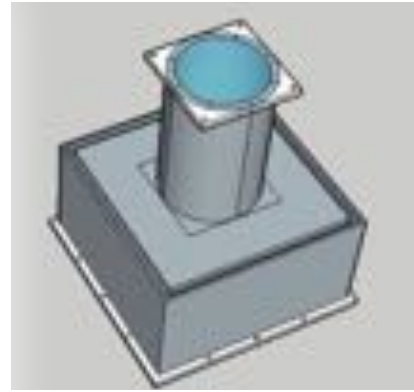
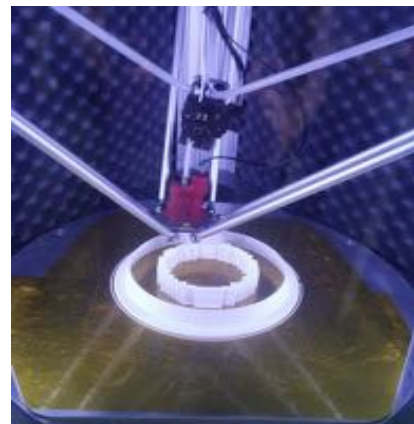
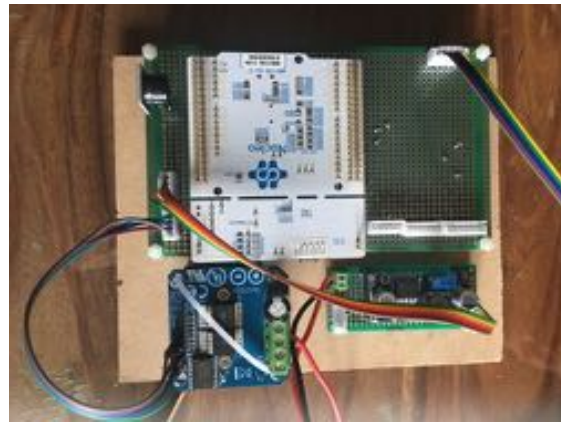
OUR PROTOTYPE

Other characteristics

| | |
|-------------------|--|
| Size | 60x70x165 cm |
| Patient area size | 60x70x125 cm |
| Weight | 15 kg |
| Battery autonomy | 6h |
| Noise | 50 dB |
| Power supply | 80-264 VAC Max 250 W Battery 10W |

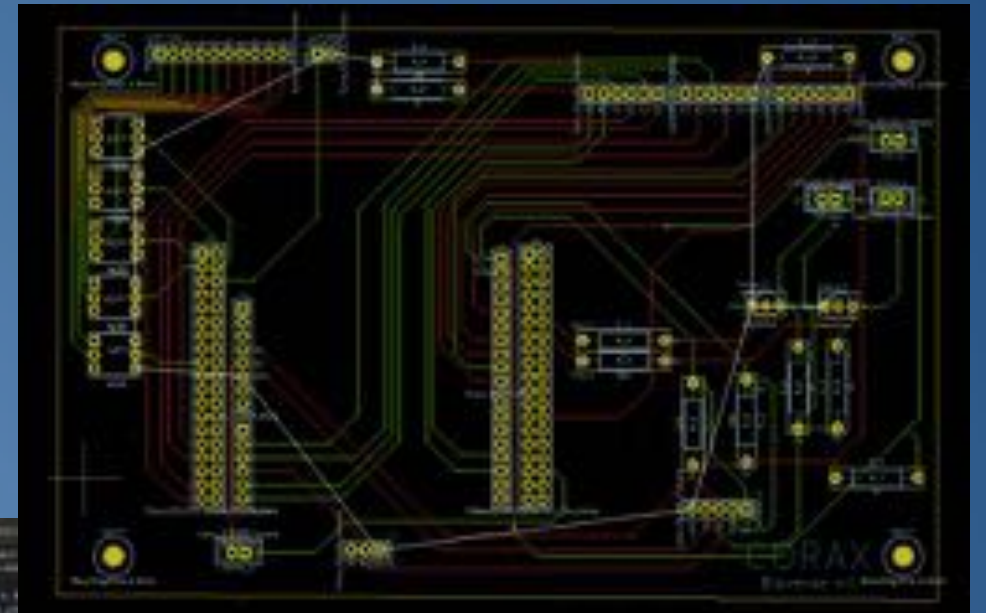


Prototyping



Tools

- CAD Fusion360 (free license for startup)
- CADPCB Kicad
- IDE PlatformIO
- GITHUB

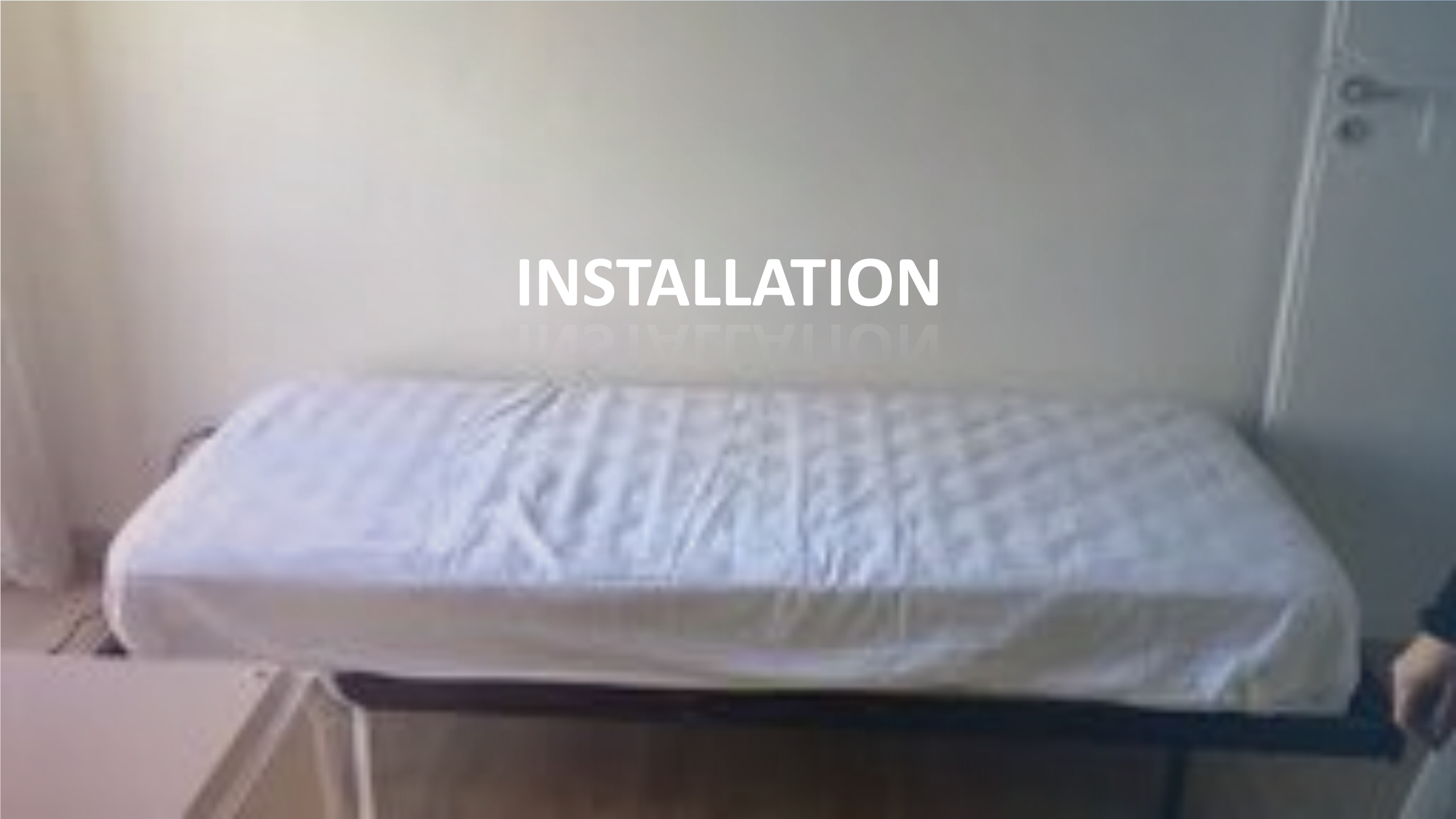


Open Source

- License (CC BY SA / CC BY NC SA)
- Rapid prototyping
- Cost and time reducing
- Community
- Disadvantages: investors

INSTALLATION

INSTALLATION





POWER ON

БОМЕР ОИ

MDR regulation and ISO

Class I MDR according to EU MDR 2017/745 because:

- Non-invasive
- No direct contact with injured skin
- Active device but:
 - Control of environmental parameters.
 - Not intended for diagnostic or monitoring use but for prevention.

ISO standards

- EN 14971 Risk management (iterative cycle of risk analysis and mitigation measures)
- EN60601-1 Electrical safety (class II double insulation device)
- EN 60601-1-2 Electromagnetics disturbances
- EN 60601-1-6 Usability
- EN 60601-1-8 Alarm systems
- EN 60601-2-19:2009 Basic safety and essential performance of infant incubators
- EN 13485 Quality management system

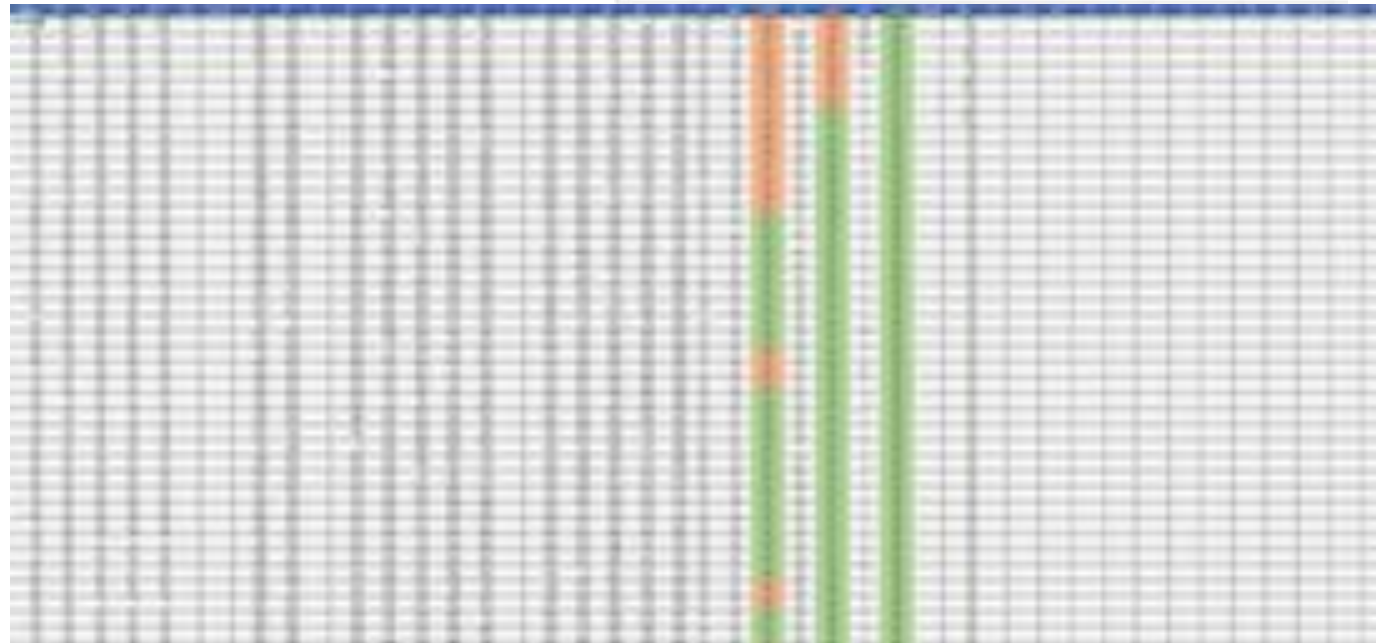
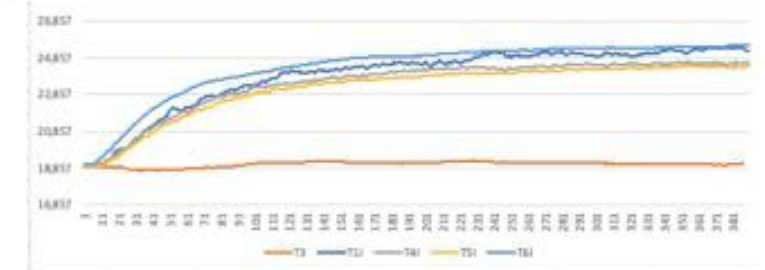
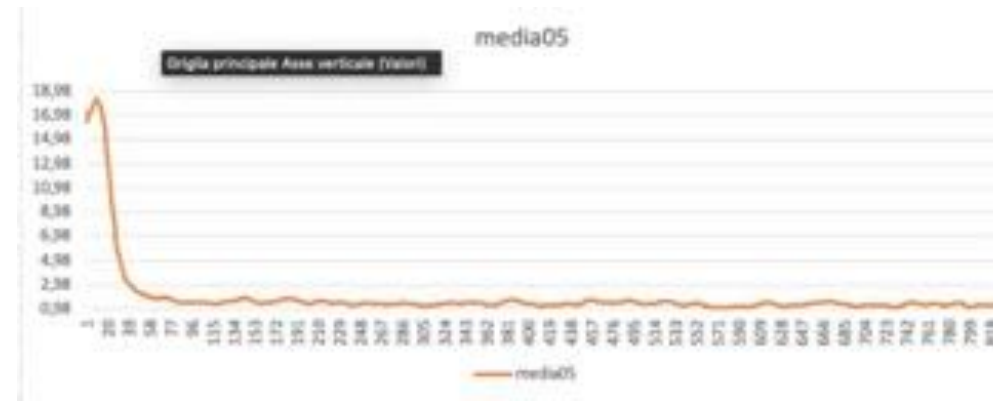
Safety testing

- **Electrical safety test**
 - ground continuity test
 - insulation test
 - high voltage test
 - line leakage test



Functional testing

- Filtration (AQI)
- Temperature distribution
- Pressure control
- CO2 concentration



Clinical validation



Network

58 Doctors

26
Hospitals

Technical and User test

Market and Competitors



TAM 22.4 B €

Global market of burn care

SAM 6.6 B €

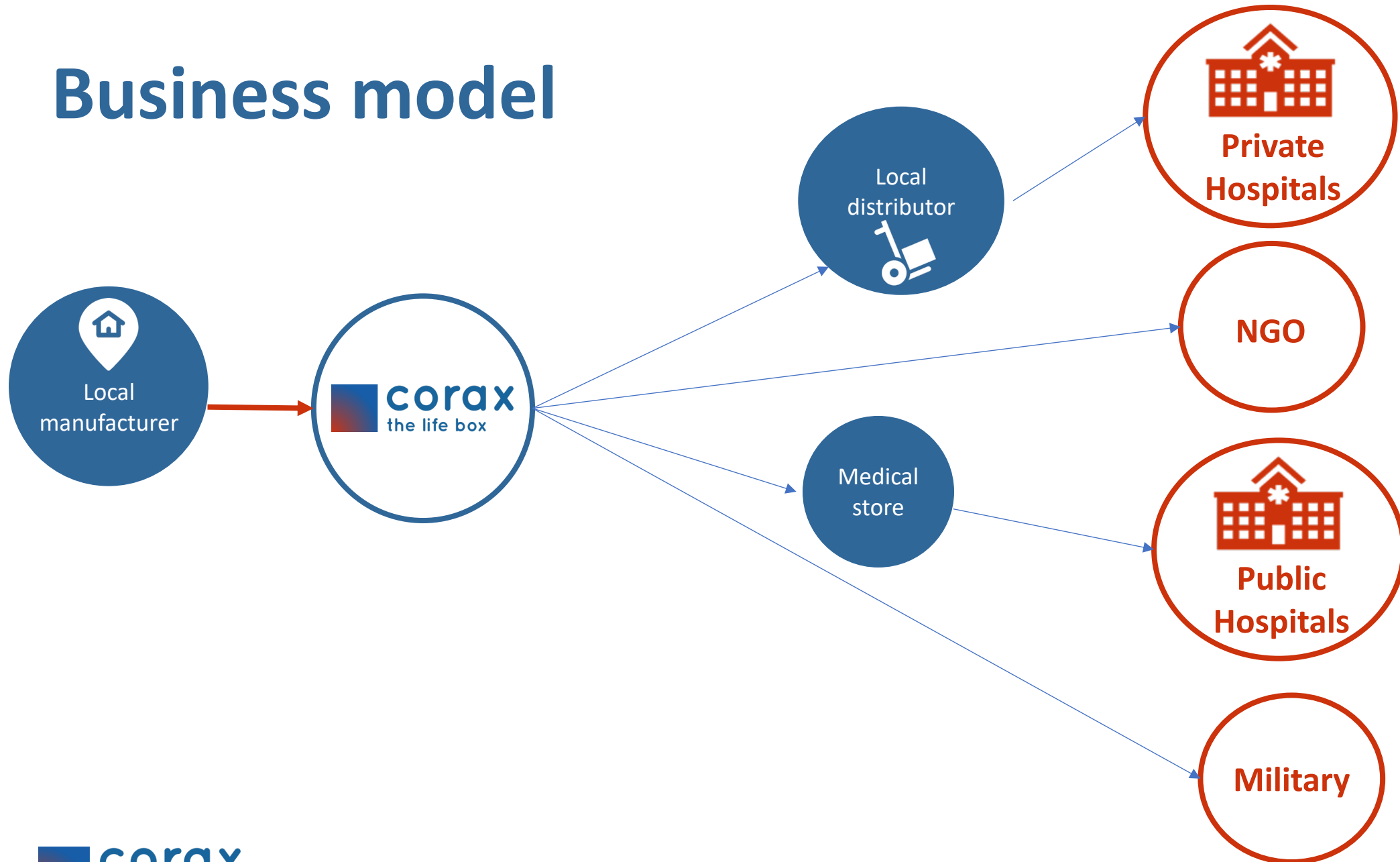
LMIC market for pediatric burn care

SOM 10 M €

5% pediatric patient
Uganda/Tanzania



Business model



Business model



Advantages:

- Spare parts
- Local economy
- No transport and import fee
- Cost of manufacturing

Disadvantages:

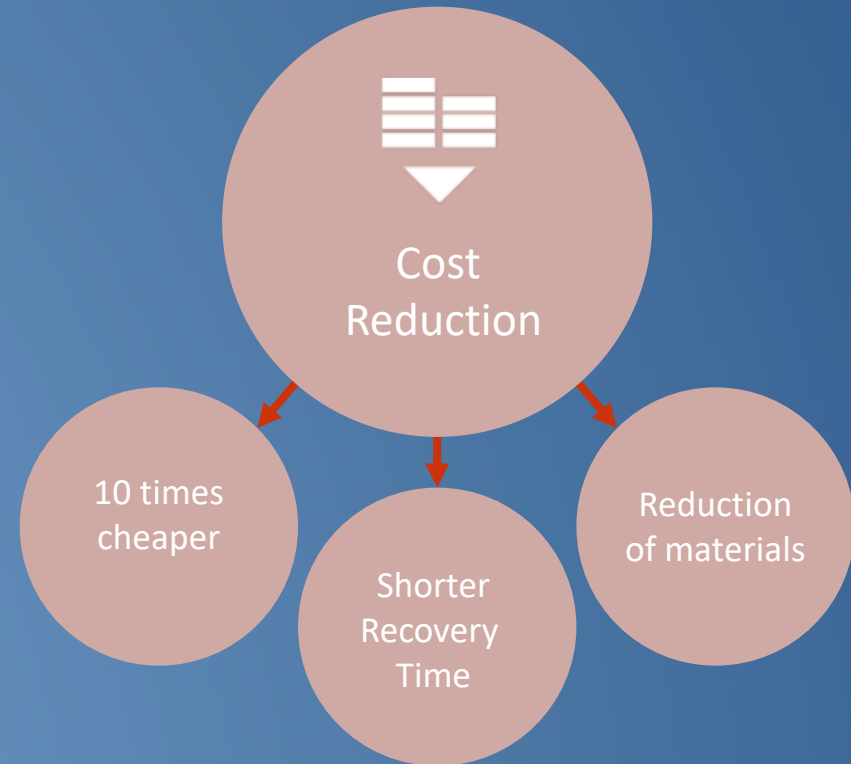
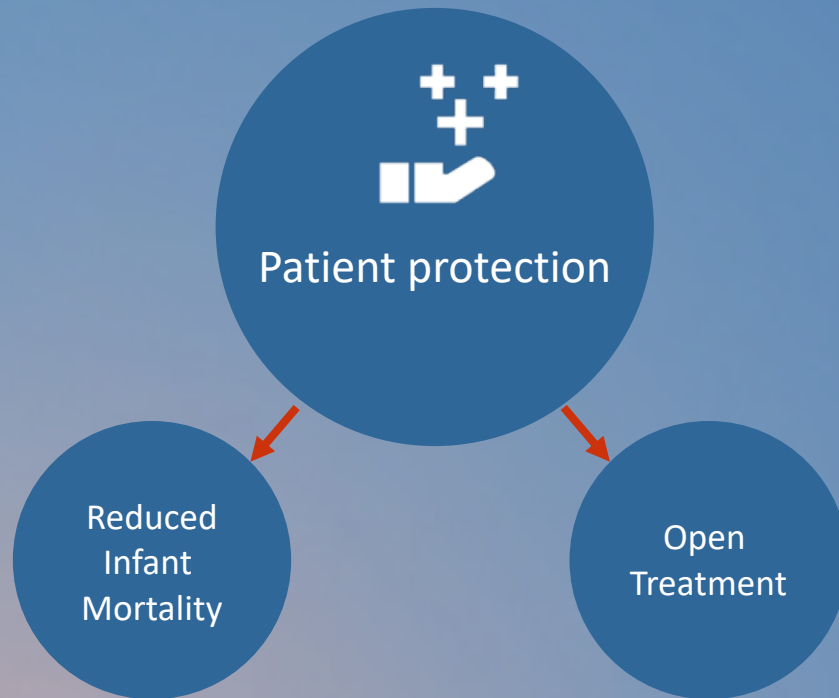
- Quality

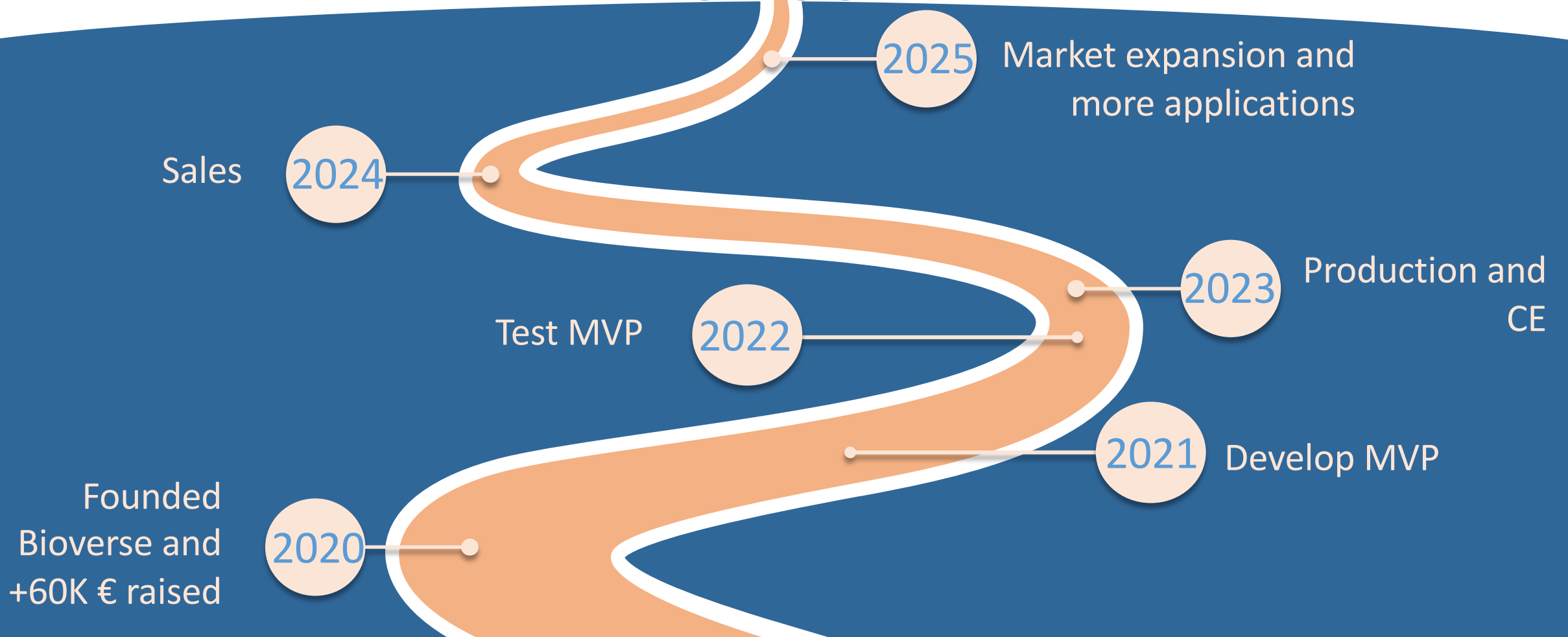


Advantages:

- Local representative
- Maintenance

Social impact





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Thank you!

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