CLIMATE ADAPTIVE LARGE SCALE SHELTER

120 M² MULTIFUNCTIONAL AREA
Rapid deployable shelter, specifically designed for extended use and versatility in functional use.

Dimensions:
- Span: 8 m
- Roof angle: 18°
- Length: 5x3 m = 15 m
- Sidewall height: 2.8 m
- Ridge height: 4.1 m

Lifespan: 10 years
Upgradable to extended functionality and extreme climate conditions with ADD-ON kits:
- ADD-ON-01: extension module: 8x3 m
- ADD-ON-02: side wall eaves
- ADD-ON-03: front awning (covered front area)
- ADD-ON-04: inner partition/room divider
- ADD-ON-05: shade net (double roof)
- ADD-ON-06: insulation liner
- ADD-ON-07: side wall tables
- ADD-ON-08: tracks
- ADD-ON-09: outside storage
- ADD-ON-10: container side wall connection
- ADD-ON-11: container roof assembly component (MMU roof assembled on container)
- ADD-ON-12: flooring tiles
- ADD-ON-13: flexible PV panels

Upgradable to extended functionality and extreme climate conditions with PLUS kits:
- PLUS-W1: heavy wind kit
- PLUS-S1: snow kit
- PLUS-S2: heavy snow kit
- PLUS-RS: foundation for rocky soils

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A quick overview
The Mobiel Modular Unit is rapid deployable and has a size of 120 m² which is unique in the field. It is specifically designed for application in an emergency relief operation in assistance of vital NGO actions. It is fully calculated to a life span of minimal 10 years and adaptable to specific climate conditions.

Personalise the system
The basic system can be modularly extended and upgraded with a variety of ADD-ONS for multifunctional use, such as storage, medical centers, offices and distribution. Also ADD-ONS are available for extended and comfortable use in extreme climates such as shade nets. Flexible, PLUS KITS are available for additional safety measures for extreme wind speeds and snow loads for extended periods of use.

Further, PLUS KITS are available for additional safety measures for resistance to extreme wind speeds and snow loads and for extended periods of use.

Project characteristics
Product name: Mobile Modular Unit 120m²
Target price (€): €12,000
Surface (sqm): 120 m²
Target price (€)/sqm: 100 €/m²
Target shipment volume (m³): 4 m³
Target shipment weight (kg): 900 kg
Developed by: Eindhoven University of Technology
In close collaboration with:
- IFRC Shelter Research Unit
- Medicins Sans Frontieres (the Netherlands)
- WRG, Wijnroemer Relief Goods
Current client: Medicins Sans Frontieres
Research funded by: European Union under grant agreement n° 284931

Project description
Emergencies occur in different climate conditions. Therefore, humanitarian organisations demand reconfigurable shelters adapted to varying climate conditions. At the heart of this is the ability to change the system to respond to different climate conditions.

The European SPEEDKITS project responded to this demand. Three partners from the Netherlands, the University of Technology Eindhoven, the University of Dortmund (Sudholt research group) and Medicins Sans Frontieres (MSF) developed a system that allowed part of production development of the results are promising.