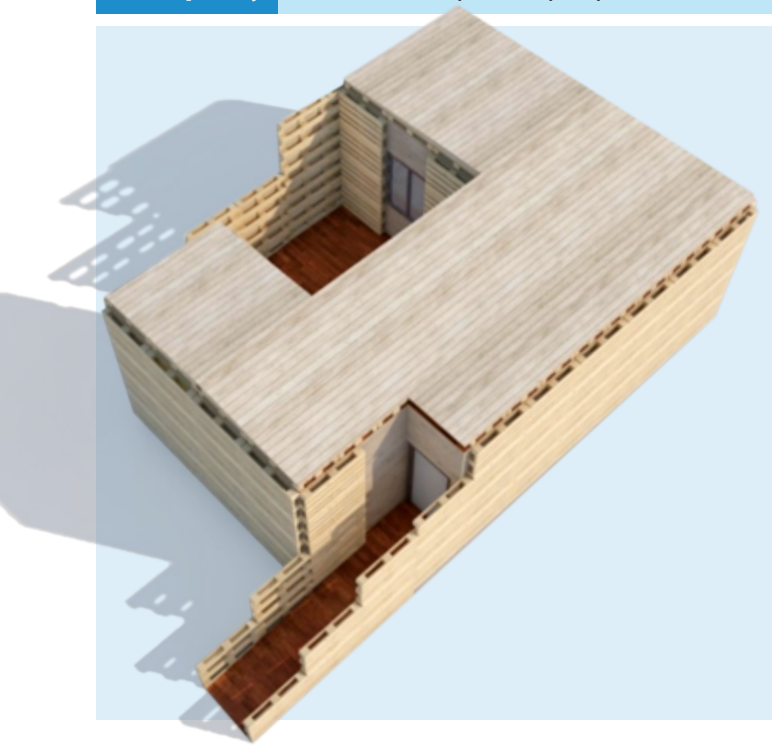
Urban pop-up housing environments and their potential as local innovation systems

BEAT THE HEAT
PALLET SHELTER

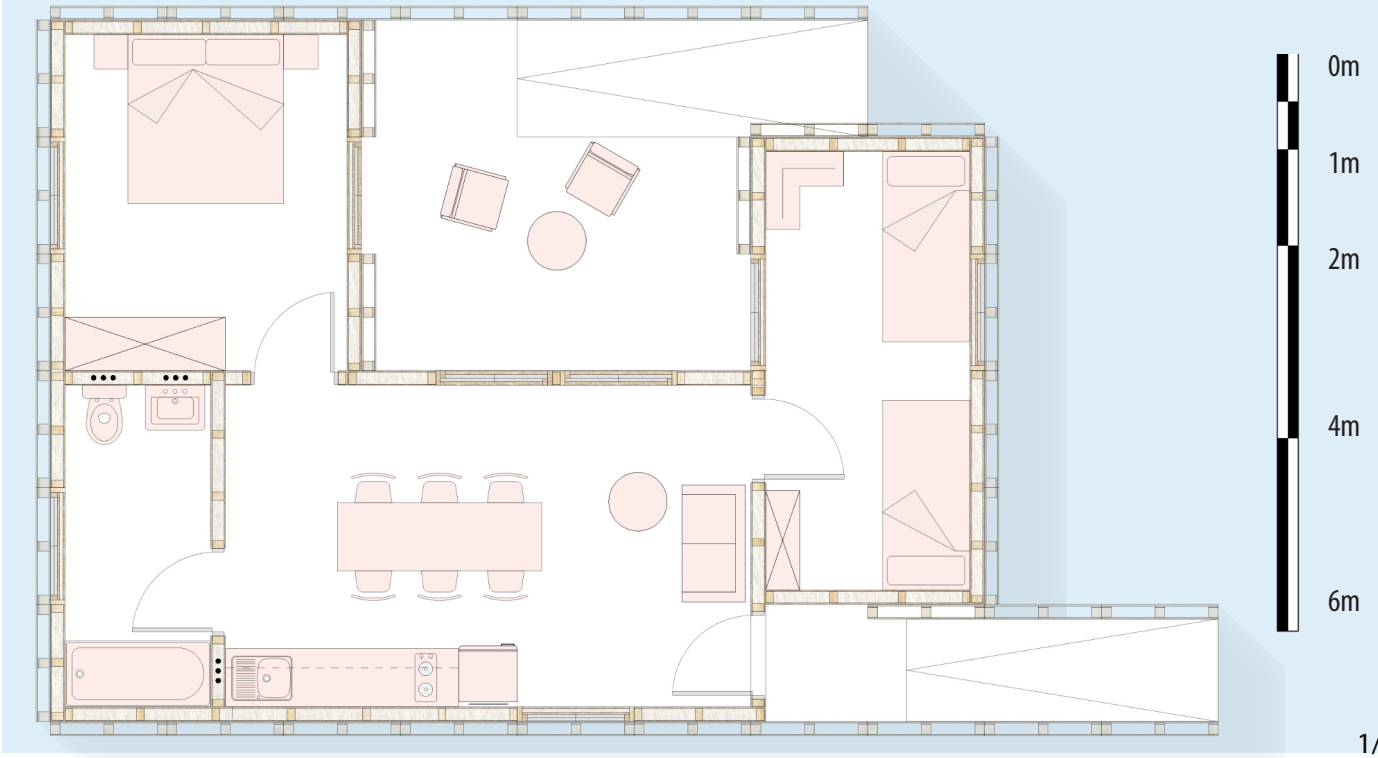
APPROACH

Purpose	Temporary housing during heat waves
User group	People vulnerable to heat waves
Usage time	Several days to weeks
Lifetime	Several years
Capacity	Scenario for up to 48 people



BUILDING

Characteristics Design	Based on natural cooling principles Recycled construction elements Sustainable raw materials Minimal transport costs Easy and quick assembly Reusable and easy to store Completely shaded by sun sail
Main Materials	Standardized EUR-pallets Oriented strand board panels Straw insulation Wooden laminate Wooden beams
Size	Building 50 m^2, Terrace 10 m^2 Up to 4 people per housing unit



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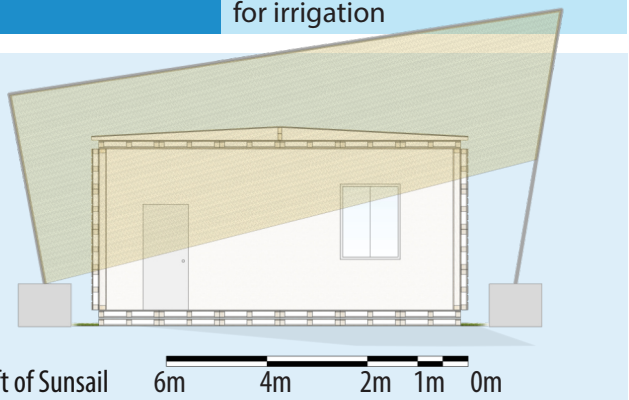
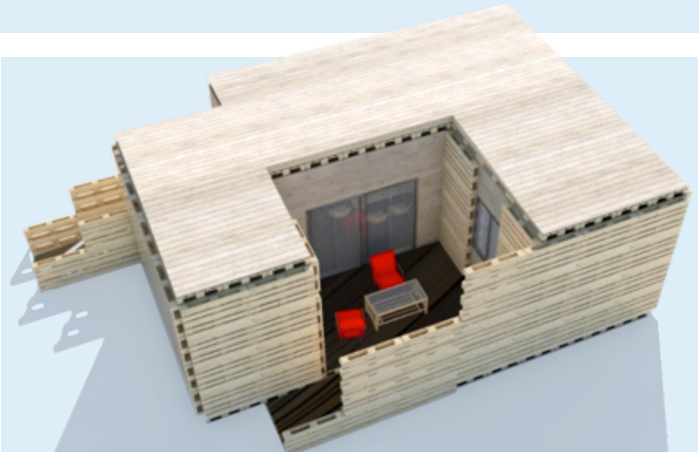
RESOURCES

Power supply	Grid connection
Electric installation	Conventional
Heating	None required
Cooling	Sun sails, water mist sprays
Ventilation	Natural ventilation
Water supply	On-site elevated water tank
Water heating	Instantaneous water heaters at tapping points
Outdoor lighting	LED mounted on the buildings
Wastewater	Percolation/infiltration
Sanitation system	Dry toilets, greywater system for irrigation





SITE

Preconditions	High potential for natural cooling systems Accessibility of public transport Accessibility of social infrastructure Flat area (slope <5%)
Open space	Private: terrace, garden and cultivation area Communal: space for recreation and circulation Wheelchair-accessible Communal used bike storage

Adapted from the original design of Barbero Durán and Cuesta Urquia

PROJECT PARTNERS

alchemia nova circular by nature

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