



The Refugee Housing Unit (RHU)
aka 'The IKEA Shelter'

- **What is it?**
- **How has it developed?**
- **Why has it developed?**
- **UNHCR's engagement?**
- **Pre-Packaged Solutions?**

What is it?:

- Pre-Packaged temporary shelter unit
- Designed specifically for the humanitarian shelter sector
- High Spec', Rigidly Tested, Lightweight, Palletized, Dry Storable
- Solar light
- Lockable Door
- Mosquito Screen
- Internal Partition
- Ground Sheet
- Slope Adjustable



Logistics:

Weigh and Volume

Gross Weight: 160kg +/-5%
Pack Volume: 1,075cbm +/-5%
boxes: 2
Weight box: 80kg

Logistics

Container 40'HQ: 48 Units
Container 40': 36 Units



How has it developed?:

2010 – Ongoing R&D, Modular Shelter Solutions

- Alternatives to tents
- Covered frames + local materials
- National and regional research



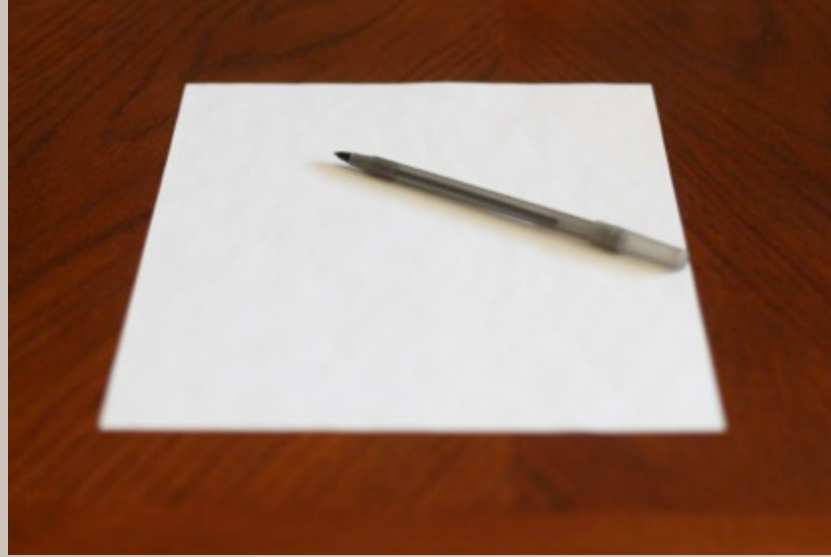
How has it developed?:

2010 – UNHCR and SVID engage in joint shelter related research

- IKEA Foundation supports with funding
- Additional capacity from 2 Swedish Universities
- Starting point - Regionally developed framing solutions
- Locally Sourced vs Locally Available



What if we liberate ourselves & re-visit the problem?



2011

No base product

Not an iteration

No pre existing supply base or production facility/process

How has it developed?:

- Global supply base – *if it exists it can be considered*
- Best available technology – *all of industry*
- New and innovative approaches – *fresh brains*

2012 (Jan) – What about the covering? Rigid? Insulated?



2012 (Dec) – First Prototype



2013

- Field Testing in Ethiopia & Iraq
- Results analysis and further development
- SVID becomes a Social Enterprise

2014

- Prototype 2 developed & further tested
- Design Finalisation & Laboratory testing
- Frame agreement with UNHCR

2015

- Production commences and mobilisation to field operations



Why has it developed?:

- UNHCR purchased 182k FT 2013/14
 - Tent for tent replacement
 - Local supply capacity - Shocks
 - Challenges of scale - coverage
 - Adequacy across response phases
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- Extensive development
 - Safety
 - Quality Assurance



UNHCR's engagement?:

- Project escalation – *Frame to Shelter to Test to Production*
 - Resourced R&D
 - Assessed need – Market Survey 2012
 - Expert technical Input & guidance – Design Brief
 - Specification development, testing & compliance
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- Conditional commitment
 - IP sharing in 2017

Pre- Packaged Solutions?:

- Extensive development
 - Durable supply chain
 - Volume & rapid coverage
 - Broad palette of materials
 - Quality control
 - Known solution
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- Unfamiliar technology
 - Does not support local economy – how do we prioritise this?
 - Extended logistics ???