Humanitarian organisations like the Red Cross have sleeping emergency response units (ERU), which start acting immediately after disaster strikes. Each ERU has a specific function, e.g. medical care, sanitation, energy provision, or water supply. Current equipment solutions will be scanned and bottlenecks with respect to large volumes and/or heavy weight will be identified. Then, novel materials and concepts will be developed to drastically reduce the volume and weight for transportation.

Examples of targeted innovations: lightweight but durable and thermally isolating tent materials, novel concepts for energy supply (biogas from sanitation), textile to line pit latrines, light weight textiles to store and distribute water and smart packaging of materials (matryoshka doll principle, i.e. smaller units in medium ones in larger ones, the smallest transportable by single persons).

Settlement kit modules will be developed that can be used for debris recuperation and re-use of damaged facilities. This is crucial as the recent trend in emergency aid is to stimulate as early as possible the self-repair. These kits can be inserted in an affected area (affected city, improvised camp, rural region) to regain as quickly as possible a ‘temporary’ economic and social life.

For reaching the ambitious goals, the project team consists of carefully selected partners. The project will be guided by a humanitarian actor (Red Cross). Further, key partners, experts in material and structural engineering, industrial design and architecture, are added for the design of shelters and their materials and for packaging and logistics.
This project will provide kits that can be pre-positioned and mobilized very quickly and easily, that are modular and adaptable, low cost, high-tech in their conception but low-tech in use. These anticipated kits can literally improve the lives of millions of peoples the first hours, days and weeks after a major disaster and this for years to come.

Field of Science

/ engineering and technology/civil engineering/structural engineering

/ engineering and technology/materials engineering/textiles

Programme(s)

FP7-SECURITY - Specific Programme "Cooperation": Security

Topic(s)

SEC-2011.4.2-3 - Rapid deployment of shelters, facilities and medical care resources following a major disaster - Integration Project

Call for proposal

FP7-SEC-2011-1

See other projects for this call

Funding Scheme

CP-IP - Large-scale integrating project

Coordinator

CENTRE SCIENTIFIQUE & TECHNIQUE DE L'INDUSTRIE TEXTILE BELGE

Address

Rue Montoyer 24/2
1000 Bruxelles
Belgium

Activity type

Research Organisations

EU Contribution

€ 702 000

Website

Contact the organisation

Administrative Contact

Guy Buyle (Dr.)

Participants (15)
AIDE INTERNATIONALE DE LA CROIX-ROUGE LUXEMBOURGEOISE ASBL

Address: Boulevard Joseph II 44, L1840 Luxembourg

Activity type: Other

Website
Contact the organisation

Administrative Contact:
Kaat Boon (Ms.)

EU Contribution: € 98,400

HET NEDERLANDSE RODE KRIJS

Address: Leeghwaterplein 27, 2502 KC The Hague

Activity type: Other

Website
Contact the organisation

Administrative Contact:
Eelko Brouwer (Mr.)

EU Contribution: € 149,700

SIOEN INDUSTRIES NV

Address: Fabriekstraat 23, 8850 Ardooie

Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

Administrative Contact:
Bert Groenendaal (Dr.)

EU Contribution: € 382,000
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<td>Groene Loper 3 5612 Ae Eindhoven</td>
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