

community and environment

We live in a disposal society which we are accustomed to, and self-evident we carry on living in it. Worldwide all raw materials are getting exhausted by our human behaviour. The car and industrial sector are seen as number one environmental polluters. Hereby they encounter a great social pressure to have a green image. The development of hybrid cars and reduction of CO<sub>2</sub> emission are an example of it. But people do not insipid notion to the fact, that when we pour a concrete construction, thousands of kilos steel are processed. A raw material which shrinks with the years.

Steel is elegant and formative material, which we perhaps better put to use for visible constructions, instead of indefinitely hiding it in a coat of concrete. Is there no alternative way to produce reinforced concrete? A material that we can combine with concrete like we do in steel reinforced structures. A material which also encounters the well-known error of concrete: the possibility to endorse a pulling tension.

Conkevlar. It is fibre structure that possesses the properties to make the combination of concrete and kevlar stable. And more even, kevlar can endorse an even greater tension than steel. The span we can produce with this system are never seen. All this within an ecological point of eye.

conkevlar

Conkevlar is a double layered system which combines concrete and kevlar. A fibre which is capable to endorse up to five times more tension, we can produce on steel.

With this system we will be able to create spans never made before.

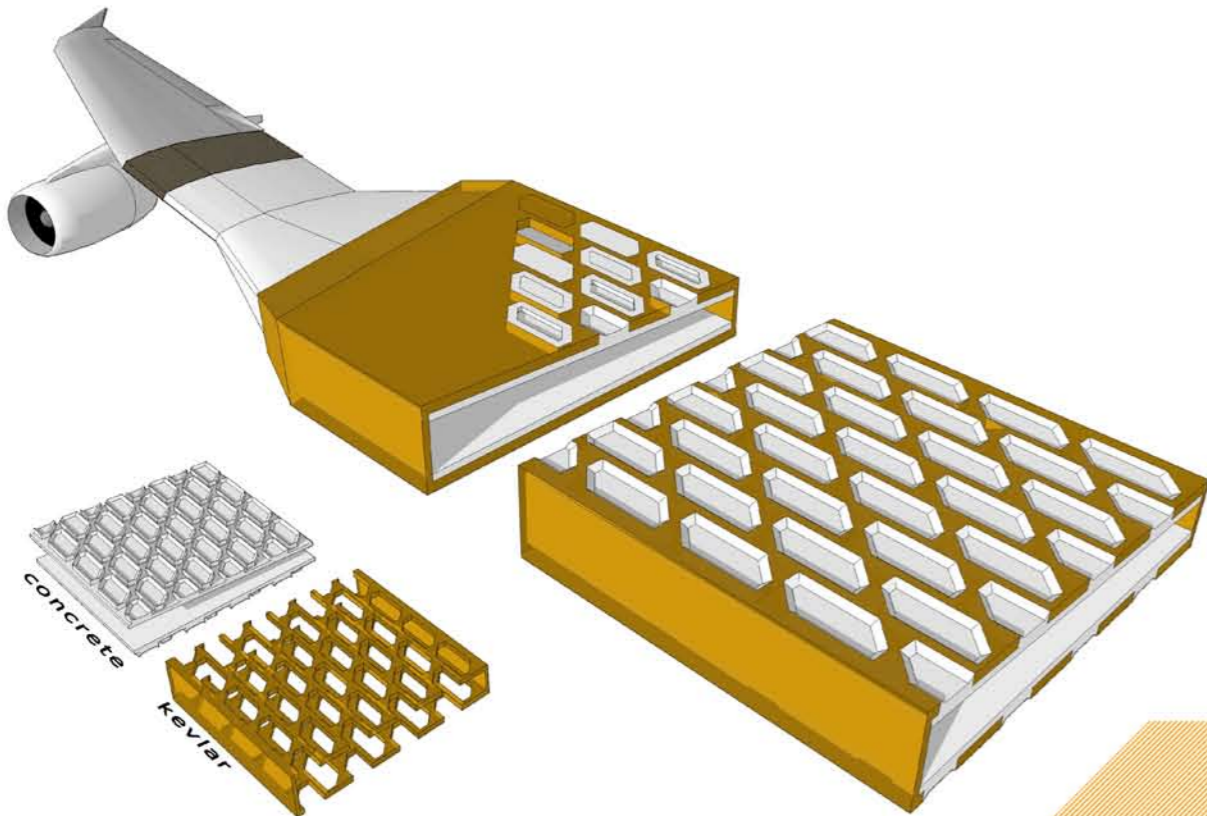
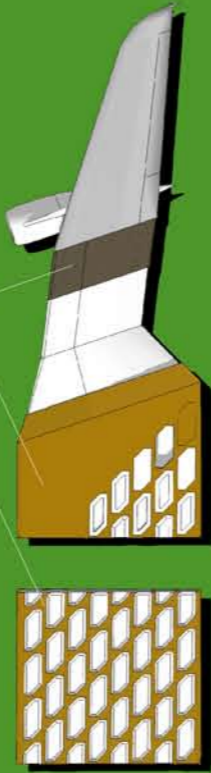
It is a leap away from the heavy armoured concrete structures, which we produce today.

hybrid concrete Innovation

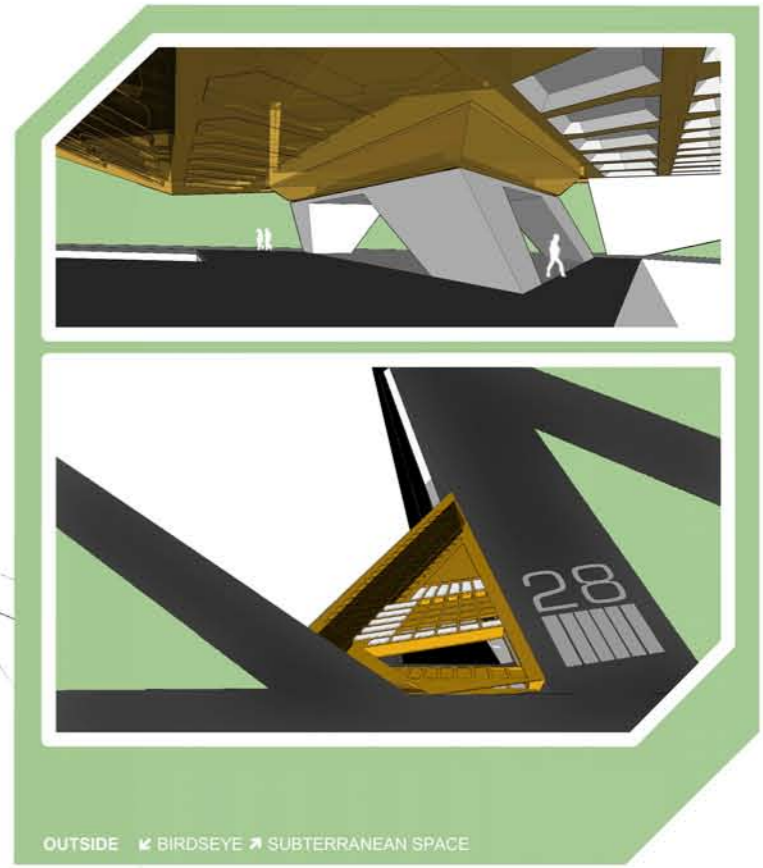
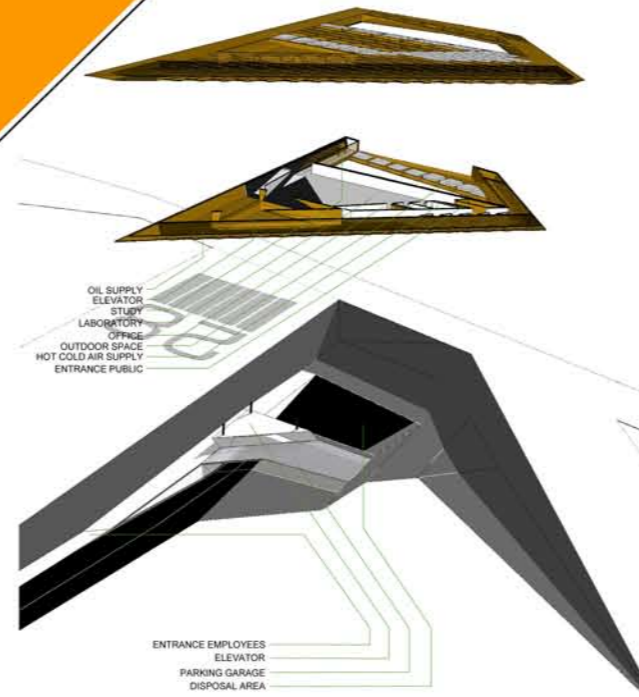
Conkevlar, a technology developed by 00717 has been inspired from out the aviation. The skin of a plane wing is built out of a number of very thin layers. All these layers have a specific function: stability, waterproof, force, etc. This structure of layers, 00717 has translated to a double laminated system: conkevlar.

Conkevlar exist from a kevlar fibre structure, which is combined with a layer of concrete. Concrete does what he does best, take on pressure. Whereas the kevlar endorses the pulling tension and on top makes the element impermeable to water. The two layers are attached to each other by poring the concrete layer trough out the dams of the kevlar structure. When the kevlar structure would fold in, she exercises a pressure on the concrete.

With conkevlar we say goodbye to phenomena such as concrete sickness. We step into a new era of concrete constructions, which are more economically and ecologically justified.



# CONKEVLAR



architectural proposal

The attitude, to develop an ecological system which we use in building constructions, can be inspiring for the activities which will take place in the building. So many non-places like freeways, intercourses, train routes, port environments, etc. ask for a destination. They are places where many people pass but nobody stands still. 00717 partly wants to use these lost spaces for research centres, which add themselves on there surrounding activities. Hereby the surroundings will be attended to the importance of ecological development.

The centre can use disposal produced by the surrounding element, in research to bio-fuels and hybrid engines for several means of transport. At freeways it can be trash of green maintenance work. If the centre is located in the city it can use disposal produced by the people living in it.

The research centre has designed along two adaptive axes, which makes it adjustable to the straight lines on different non-places. The colour of the kevlar is also variable as a result of which it can abound elegantly in its surroundings.

