

CHANGING PERSPECTIVES

Man & Nature

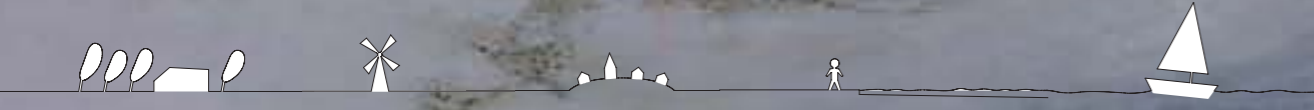
The World Sustainability Centre explores a fundamental question: *what is the relationship between man and nature?* In our opinion there is no better place to explore this question than the Afsluitdijk. It offers a wide range of contrasts, dynamics, paradoxes and extremes in this relationship. Around the Afsluitdijk you physically feel the effects of the struggle and joy of man with nature. *Changing perspectives*, aims to involve people in this relationship. It embodies the change, diversity and movements of the cultural historical and natural Frisian phenomena, which can be regarded as exemplary to the global challenges that lay before us.

To change perspective, see it from a different angle, is more important to scientists than in any other profession. The WSC Afsluitdijk will provide the scientist and students with an unprecedented environment to study, discover and invent.

Changing perspectives consists of five floating boxes (vessels) and a connecting floating jetty. The connections are flexible so tides, waves and wind will have an influence on the configuration. A multiplicity of configurations and locations is possible always optimizing the presentation of the current exhibition, research or congress. The WSC Afsluitdijk is easy movable by just sailing the vessels to a new location and it is easily extendable with new vessels or extra jetty elements. The WSC will use the already existing parking and infrastructural facilities plus those that will be created in the future developments. From certain fixed locations small ferries will sail to the centre offering a tour and information to the visitors on the way. Furthermore the WSC Afsluitdijk will become a popular stopover for yachts.

Each vessel consists of about 1000m². To create maximum flexibility all technical installations and storages are concentrated in the hull at level minus 1. This creates two free floors of 400 square meters and a third of 150 squared meters. The inclining roof gives the boxes direction and creates diversity both in the interior space as in the possible configurations in relation to the wind, sun and tides. The vessels will invoke an analogy with the farms, boats and dikes that offer protection in the sometimes-harsh Frisian landscape.

The jetty serves as the connection between the vessels. People can walk over it, it produces electricity through wave-energy and it forms the infrastructure for the exchange of heat, electricity and water between the vessels.



Objects in emptiness, the poetics of the north Frisian landscape



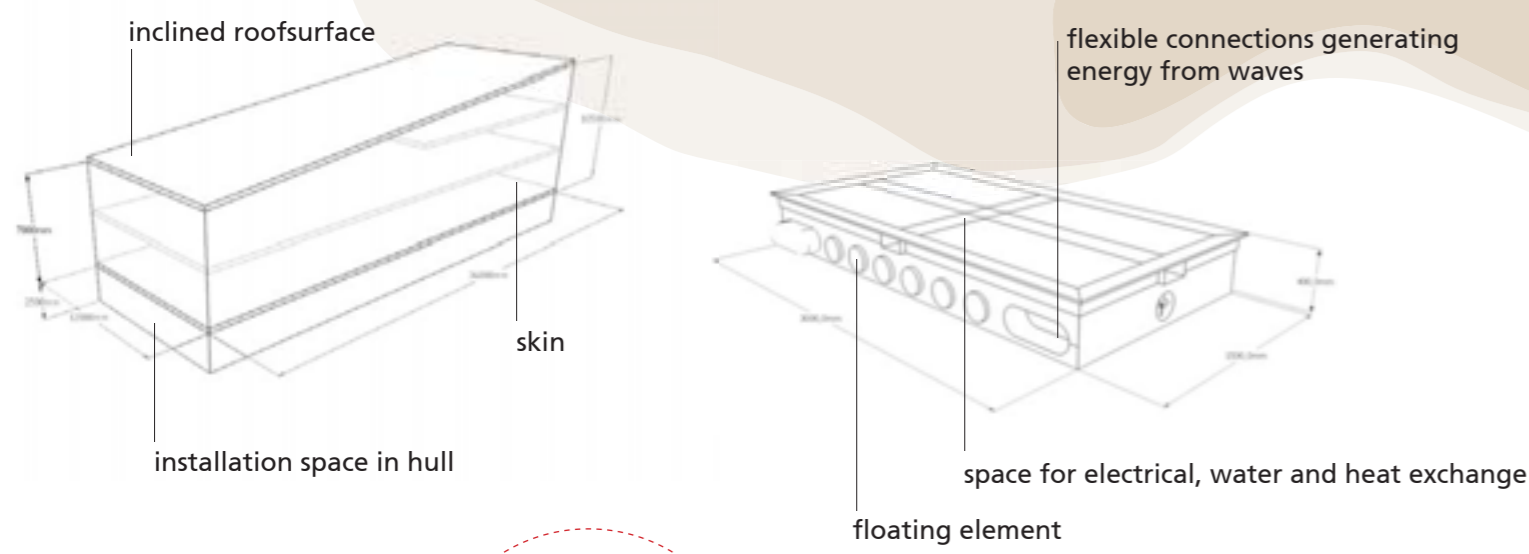
Is it a boat? - Is it a building? - Is it a landscape? - Is it alive? ...no... it's all!



man vulnerable to nature man in dynamic balance with nature mutual (re-)claiming of territory technology contrasting nature man inspired by nature

Why choose only one location if you can have all?

The richness and complexity of the area cannot be experienced from only one location. Especially with changing exhibitions the location, and the route towards that location, should be essential part of the experience and the story that will be told.

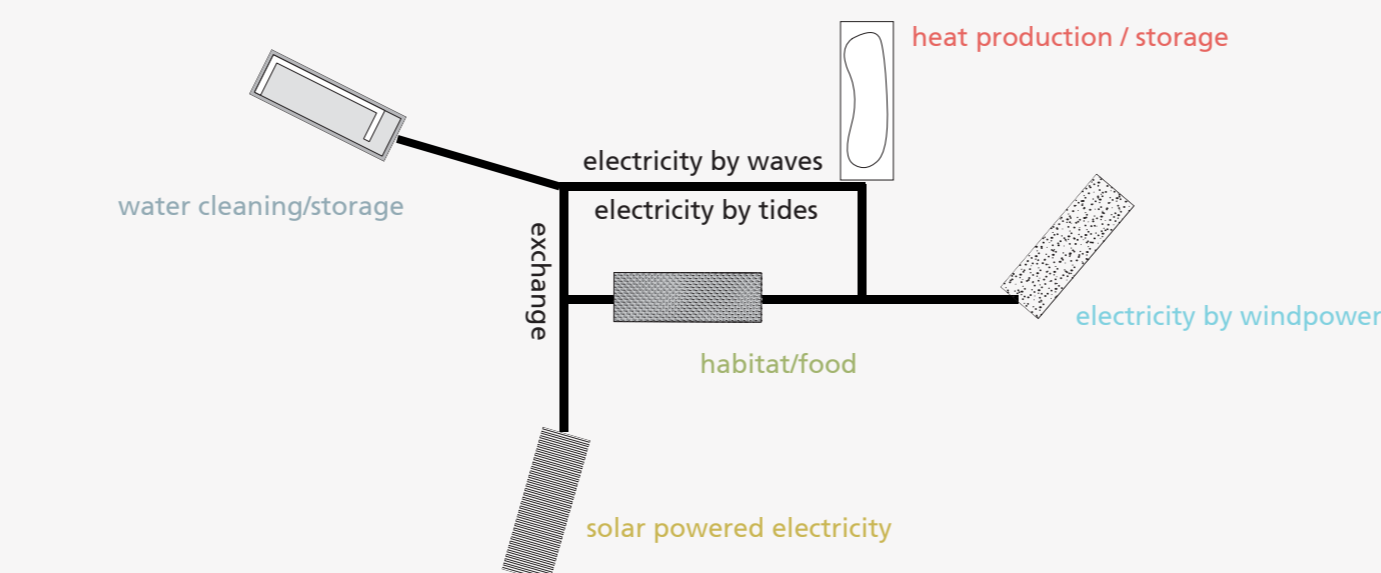
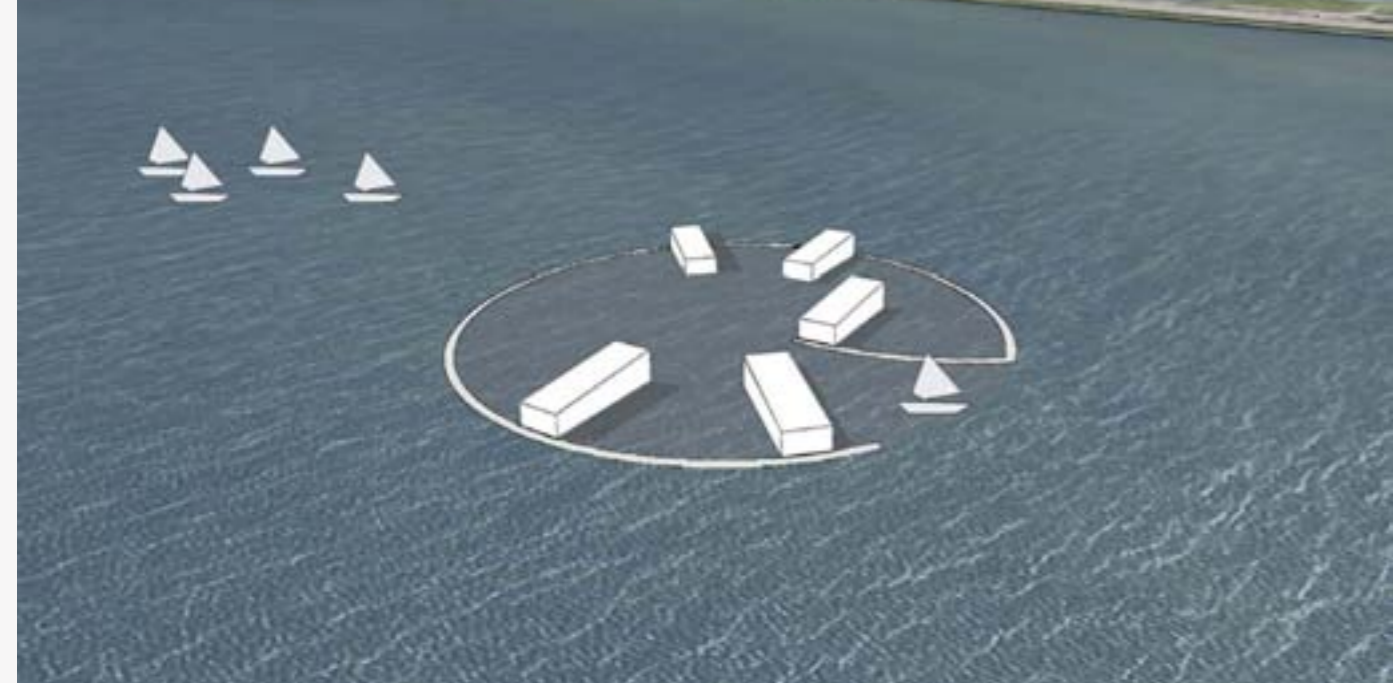


What if the WSC existed 80 years ago?

Adaptability, movability and flexibility

These characteristics form the point of departure for changing perspectives. The developments around the afsluitdijk in the upcoming 50 years will be of extreme interest. The changing perspectives vessels can be moved to the most interesting location at that moment in time. The developments themselves will be part of the exhibition. The Frisians have excelled for centuries in maritime technology. With our proposal we want to challenge and stimulate the local industry to rethink the concept of buildings and boats. We aim at a hybrid solution, using the Frisian high-tech know-how of sail making, boat construction and sustainable energy production as well as the potential of the landscape and nature. The vessels have a width of maximum 12 meters to be able to go through the existing docks at Kornwerderzand. The floating vessels provide great flexibility, not only by changing locations but also by changing the orientation. The vessels can turn towards, or away from, the sun or the wind to adapt to climatologically conditions.

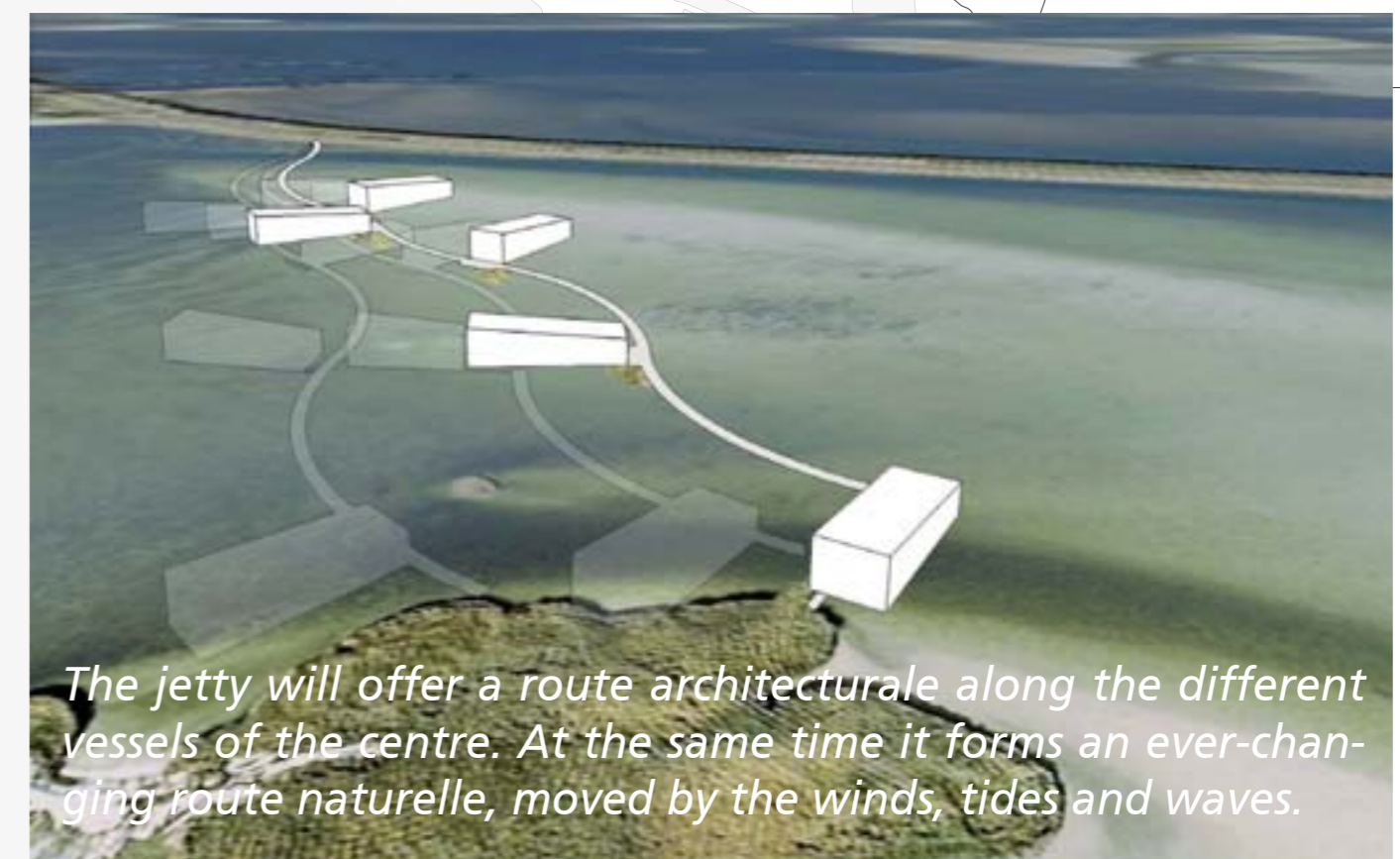
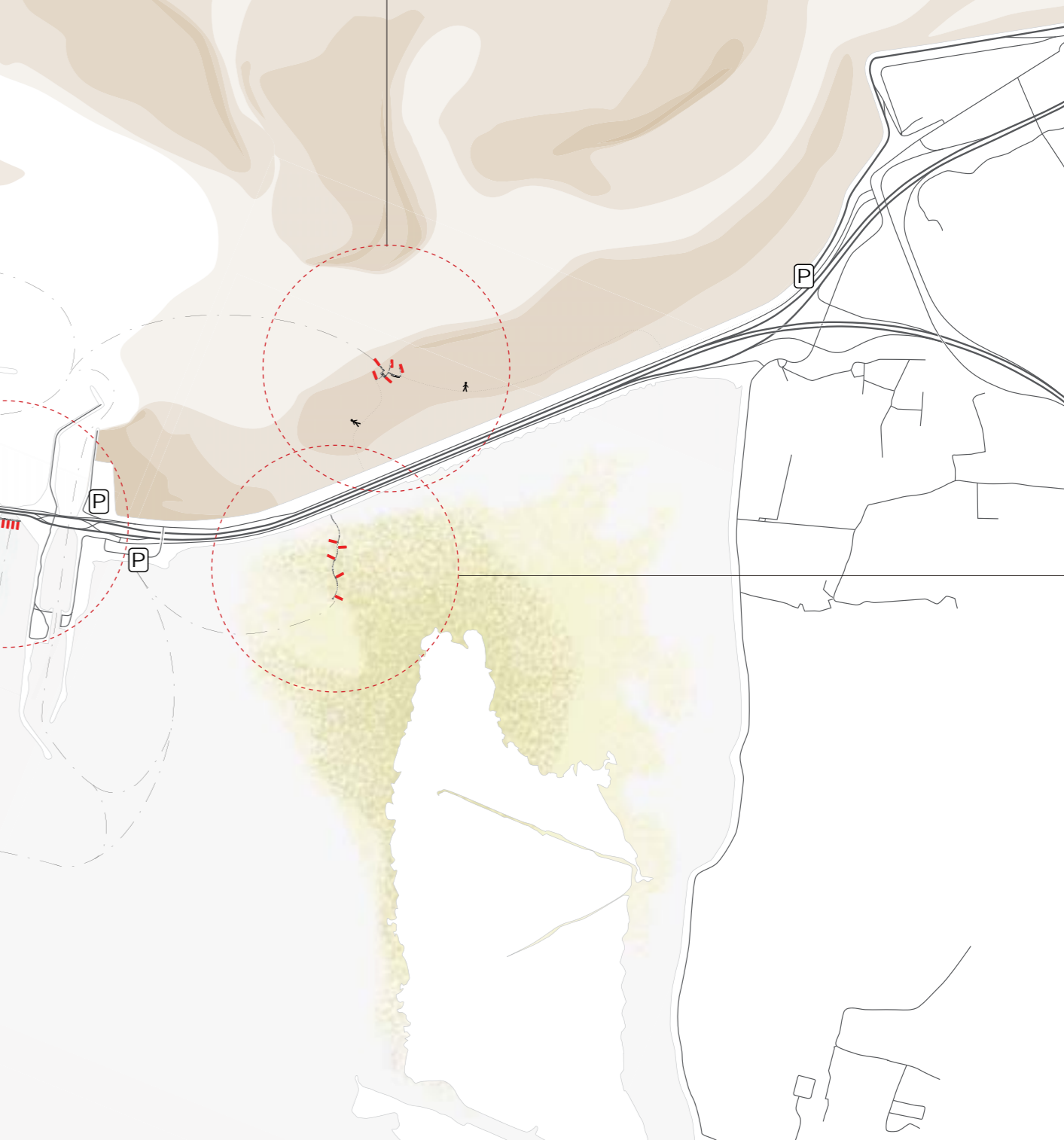
Not every vessel is self-sufficient, the vessels are specialized. Together they form a stable self-sufficient network.



Network-based Sustainability

Not every vessel is self-sufficient, they are interdependent. Together they form a completely self-sufficient, balanced system, like in complex ecosystems. In order to achieve that, the vessels are specialized in producing heat, electricity, clean water or providing habitat and food for the ecosystem around. They protect their users against the wind sun and rain. The specialized vessels exchange their produces by means of the jetty. The jetty itself will generate electricity by transforming the movements caused by waves, wind and people walking on it into electricity. To be able to form a year-round self-sufficient system, generation is not enough. Storage is equally important. All vessels have reserved space in the hull for technical installations, sustainable technologies and storage. Energy will be stored in innovative ways like phase changing materials for heat and hydrogen for electricity. All waste and water will be purified and the used materials will be recyclable or degradable, a cradle-to cradle micro-cosmos.

The vessels can safely group together or disperse around the site, intensifying the relative impact of currents, waves and winds.



The jetty will offer a route architecturale along the different vessels of the centre. At the same time it forms an ever-changing route naturelle, moved by the winds, tides and waves.



The configuration of the WSC Afsluitdijk will adapt to the aesthetics and conditions of the site it currently inhabits

WORLD SUSTAINABILITY CENTRE AFSLUITDIJK

CHANGING PERSPECTIVES

Every vessel shows a different aspect of mans relationship to nature and cultivates the theme of changing perspectives in a different way. All themes relate to the fundamental issues of the complex of IJsselmeer, Afsluitdijk, Waddenzee. At the same time they form key questions - positions in the quest for a sustainable society, a sustainable relationship between man and nature.

The WSC Afsluitdijk is designed and configured in such a way that people can experience the real thing. In the honest Frisian landscape and culture it seems inappropriate to re-create an experience by artificial means, the experience has to be real. Our proposal offers a way to provide real experiences in a flexible, challenging and engaging way: while visiting the exhibition or attending a congress you will be below sea level, see the waves, feel the wind, smell the sea and see and feel in real life how man can deal with all these natural dynamics.

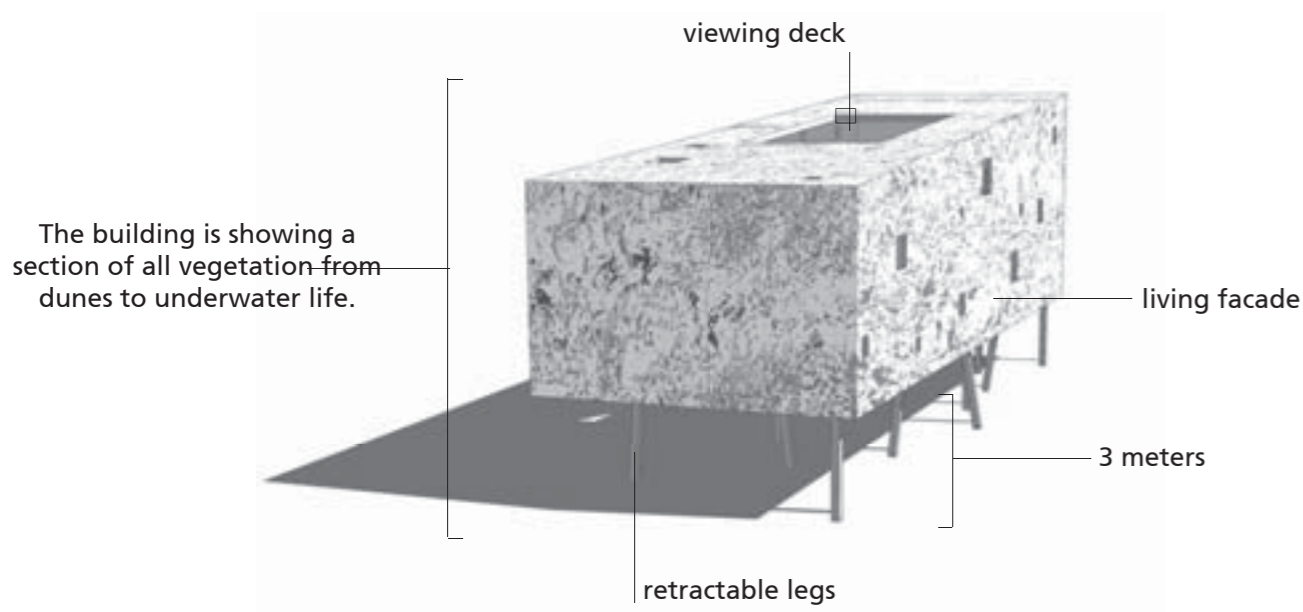


The landscape itself is part of the exhibition

The living vessel, changing habitat

theme: (re-)claiming territory
proposed program: hotel/ campsite
sustainability: super insulating, natural ventilation
special feature: it produces food and forms a habitat

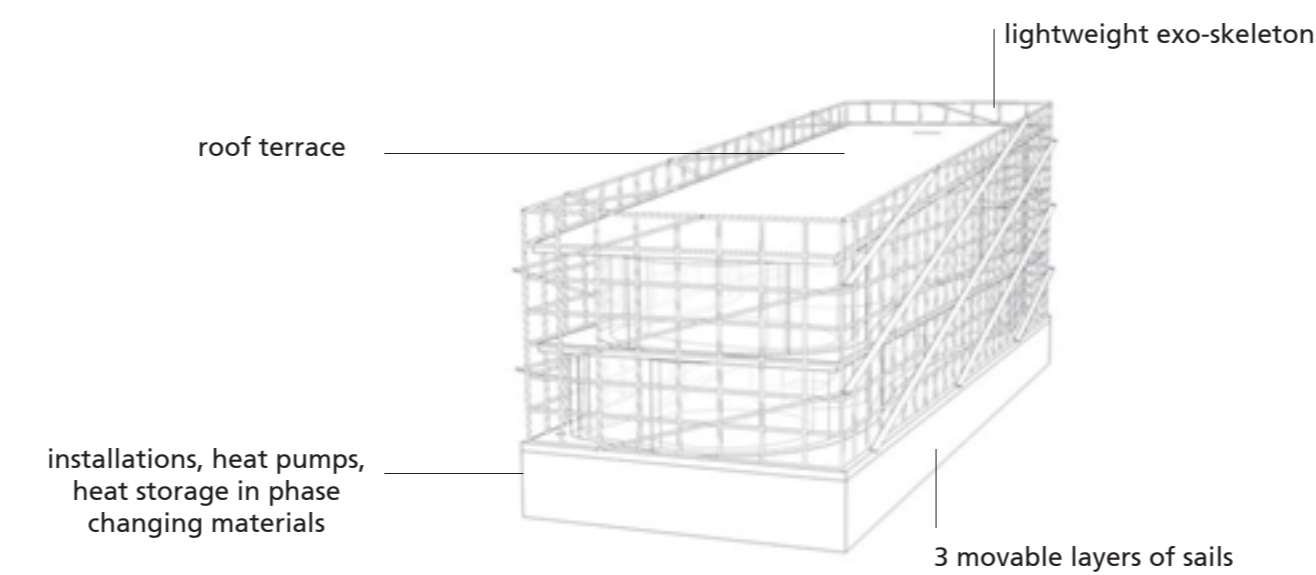
This building shows nature at work reclaiming its territory. It will fix itself to the bottom with retractable legs. With high tide it seems to float like the rest of the vessels. With low tide people can inspect the habitat underneath. The facades show the typical vegetation and its fauna that we find on dikes, dunes and in the polders. When it changes location from salty to sweet water the effect on the ecosystem can be seen "live" as an effect on the vessel itself.



Construct like nature, layered protection

theme: nature inspiring technology
proposed program: restaurant, play, shop, exhibition
sustainability: heat production and storage
special features: sail technology for climatological adaptation

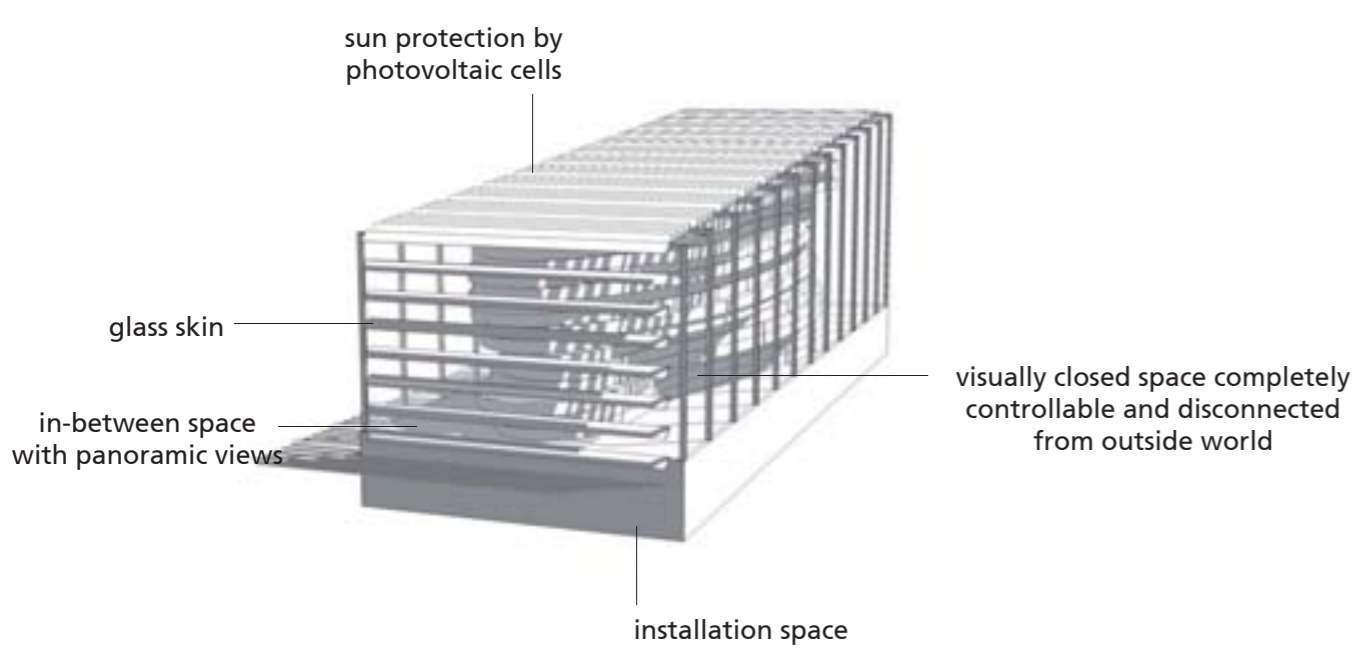
This super lightweight structure is inspired by the glass structures of sea-sponges (*Euplectella Aspergillum*). This exo-skeleton supports three floors with a maximum of flexibility. Three layers of sails railing between floor and ceiling can be positioned to adapt to climatological or functional necessities always creating comfortable conditions. This system will be developed with the innovative Frisian sail making industry. It will create smart adaptable beautifully layered spaces that will blur the differences between inside and outside.



Light construction, contrasts

theme: technology contrasting nature
proposed program: congress centre, workshop, cafe
sustainability: produces electricity, hydrogen storage
special features: sails adapt space to climate and function

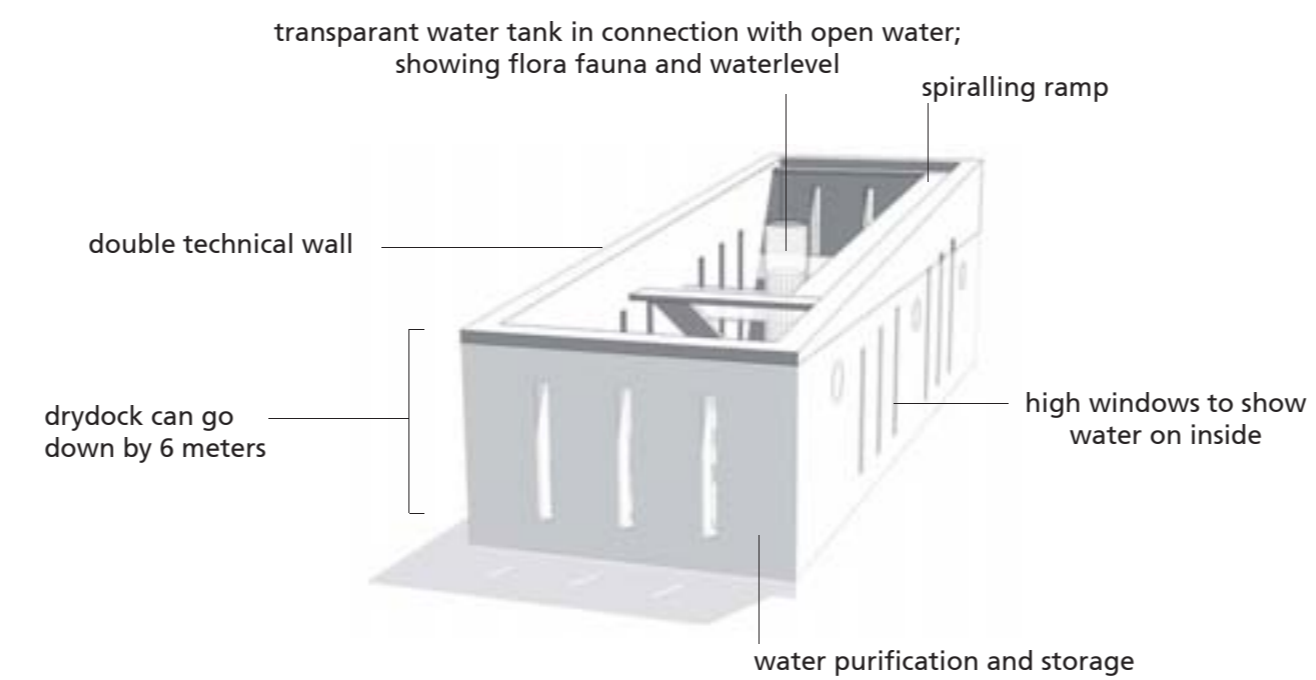
This high-tech vessel makes a maximum use of the sun. Since it floats it can follow the sun to maximize the production of electricity. At the same time the pv-cells serve as louvers keeping the indoor climate comfortable. A glass box with a completely closed core of the building. This describes the ultimate visual contrast between being open and closed off to nature. From a panoramic view on the surroundings, bathing in natural light, to a completely artificially controlled space.



Dry-dock, sea level

theme: man vulnerable to nature
proposed program: playground, exhibition, research
sustainability: water purification, storage
special features: it puts water in perspective

The rising sea level, living under sea level, drinking water shortages and storm at sea; nothing describes man's vulnerability better than it's relationship with water. This "dry-dock" is the open-air part of the WSC Afsluitdijk. It can adjust its vertical position in the water according to the exhibition or weather conditions. It can slowly sink for people to see the water level rising, it has fish tanks and windows showing the wildlife, it can give demonstration of (sea)water purification. This and more will be shown with the open sky above and the sounds of water, wind and birds around, giving you authentic experiences that you will remember.



Visual wind, open - close

theme: the relationship of man with a dynamic nature
proposed program: exhibition
sustainability: innovative windenergy
special features: the whole skin can be lifted up 3 meters to open up the building to it's surroundings

This vessels skin is dancing like long grass in the wind. The "grass" is made of transparent, flexible fiberglass tubes that let the fluctuating natural light penetrate into the building. Their movements are transformed into electricity. In the summertime the ground floor can become an outside space by lifting the whole skin 3 meters up. The roof offers a magnificent view amidst the dancing high-tech grass. Inside, the (exhibition) space is completely flexible and can easily be adapted to the 500-day cycle.

