



## Prevention of erosion on seabed around offshore installations including beaches

Erosion protection of beaches and offshore installations is difficult and costly, and results are often variable. The reasons are many and complex.

SeaCult has developed a new and unique system which consists of a concrete core and polyethylene plastic pipes. Each unit weighs from 4 to 7 tonnes and can be up to 4 m high. This functions in the sea like a tree that provides shelter from the wind while the seaweed and kelp create movement and extract energy from the waves.

The product has been tested by SINTEF Building and Infrastructure Coast and Harbour Research Laboratory in Trondheim and we believe it represents an alternative to other ways of protecting offshore installations, beaches and sandbanks.

The design facilitates planning of various foundation solutions that are simpler and protects the cables going into the windmill foundations.

SeaCult has also developed a cable protection element made from concrete. This makes it possible to avoid costly and difficult digging operations in the beach zone and windmill parks. Sintef has tested this product, which is harmless to bottom trawling.

Together with partners, SeaCult will over the next few years introduce a system for laying cables and cable protection elements in one coordinated operation.

SeaCult products shall be competitive with regard to both price and functionality, while at the same time simplifying offshore operations. An additional bonus is the fact that the seabed is not harmed, and habitat for fish and marine animals is created.

”The Rose Garden of the Sea”

### SeaCult Beach Protection

- The Product:**  
Made by concrete and polyethylene. The product does not harm the environment, it enhances the environment.
- Use:**  
The shoreline which is increasingly exposed to erosion and effects of climate change
- Status:**  
Successful test results from SINTEF.  
Patented

SeaCult Protection and life support for the sea

### SeaCult Offshore Protection

- The product:**  
Is made of concrete and polyethylene and does not harm, but on the contrary improves the marine environment.
- Use:**  
The offshore industry is looking for new and better solutions for protecting their installations where requirements for the environment, decommissioning and removal are emphasized.
- Patented**

Example on protection solutions

SeaCult Protection and life support for the sea

### SeaCult cable and pipe protection Version 250 (kg/m)

- inside height: 20 cm
- outside height: 30 cm
- gross length: 228 cm. Width: 120 cm
- links up with vertically hook
- can lock with shackle
- Patented

SeaCult Protection and life support for the sea

### SeaCult cable and pipe protection Version 400 (kg/m)

- inside height: 23 cm
- outside height: 43 cm
- gross length: 228 cm. Width: 120 cm
- links up with M30 horizontal bolt
- designed for SeaCult Cable System
- Patented

SeaCult Protection and life support for the sea