

Are you ready to take this challenge?

**APPLY NOW !**

12  
ECTS

This project runs from  
February 2012 to June 2012

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Open for Master students from all faculties

D-Challenge

*Serious Business*

Delft Centre for Entrepreneurship

## Online tool for Ocean Thermal Energy Assessment

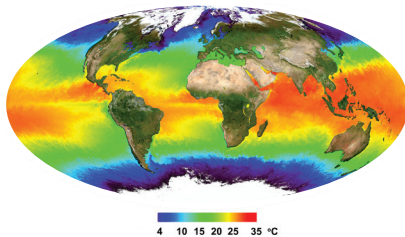
### Introduction

The oceans of the world are a huge energy resource. Marine energy is beginning to come of age, with more and more investments being made in Wave, Tidal and Ocean Thermal Energy Conversion (OTEC). OTEC is a method for generating electricity using the temperature difference between the hot surface water and the cold deep water in the ocean. Relating technologies, such as Seawater Air-conditioning (SWAC) for cooling buildings, are also gaining traction.

### Challenge

The potential of OTEC and SWAC for tropical islands and coastal regions is huge. However, for local stakeholders to determine the potential of their specific site today still needs the involvement of dedicated specialists.

The challenge is to design an online tool that provides basic information about the technical and economical feasibility for user selected locations. The tool should use data from various sources, such as: geo-data, bathymetry data, data from measurements buoys, i.e the Argo float database, etc. The tool should have an easy to understand user interface.



Temperature difference in the oceans

### Main Tasks

You will be challenged to come up with new ideas, and directly apply them in practice. The project involves the complete process of idea creation and implementation:

- Define specifications for the tool
- Identify useable data sources
- Design and build (prototype) of the tool

### Practical relevance

Your work significantly contributes to researching the worldwide potential of Ocean Thermal Energy and enables a better interpretation of its resource. Possibilities for publishing and international exposure are within reach through Bluerise and the OTEC foundation.

**Your work contributes to the continued growth of Ocean Thermal Energy!**

### Expertise Preferably Needed

- IT, MSc Geomatics, Information Architecture
- Industrial Ecology - Engineering synergy solutions
- Civil / Maritime / Offshore Engineering
- TPM / Industrial Design - Innovation management, business case development

### Client

The client is Bluerise BV. Bluerise is a TU Delft spin-off company located in YES!Delft. Bluerise is working on the development and worldwide implementation of Ocean Thermal Energy technology. The tool will be made available as a free-to-use tool by Bluerise.

### Support

Bluerise, the Energy Club and OTEC expert dr. Kas Hemmes from the TU Delft will support you and make sure you have access to the required resources and a network of energy and IT experts. A steep learning curve is guaranteed!



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