

D-LASS

Dutch network for lightweight applications at sea

13-09-2022

Tahira Ahmed

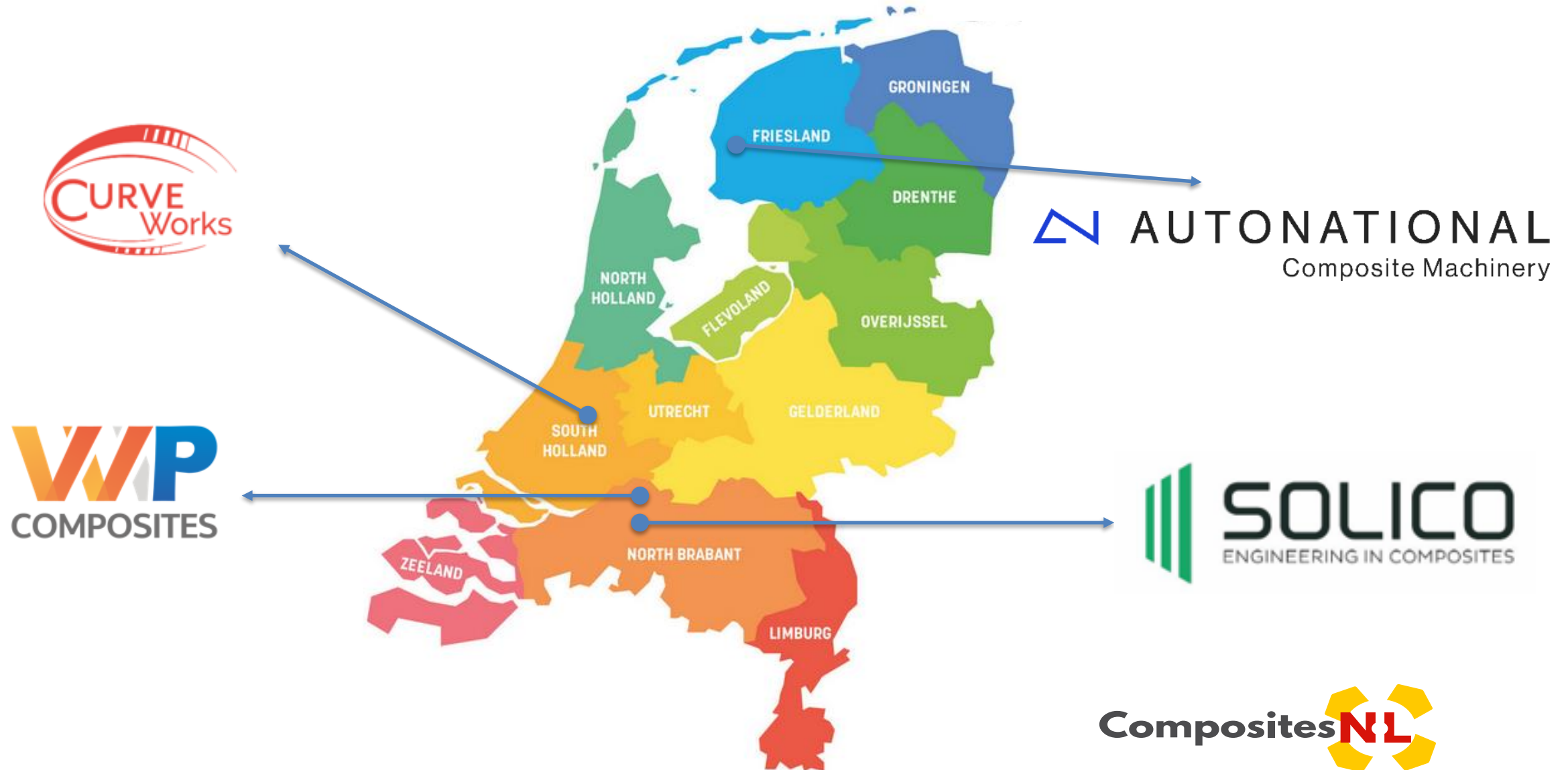
Chairwoman, CompositesNL



NETHERLANDS
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TECHNOLOGY

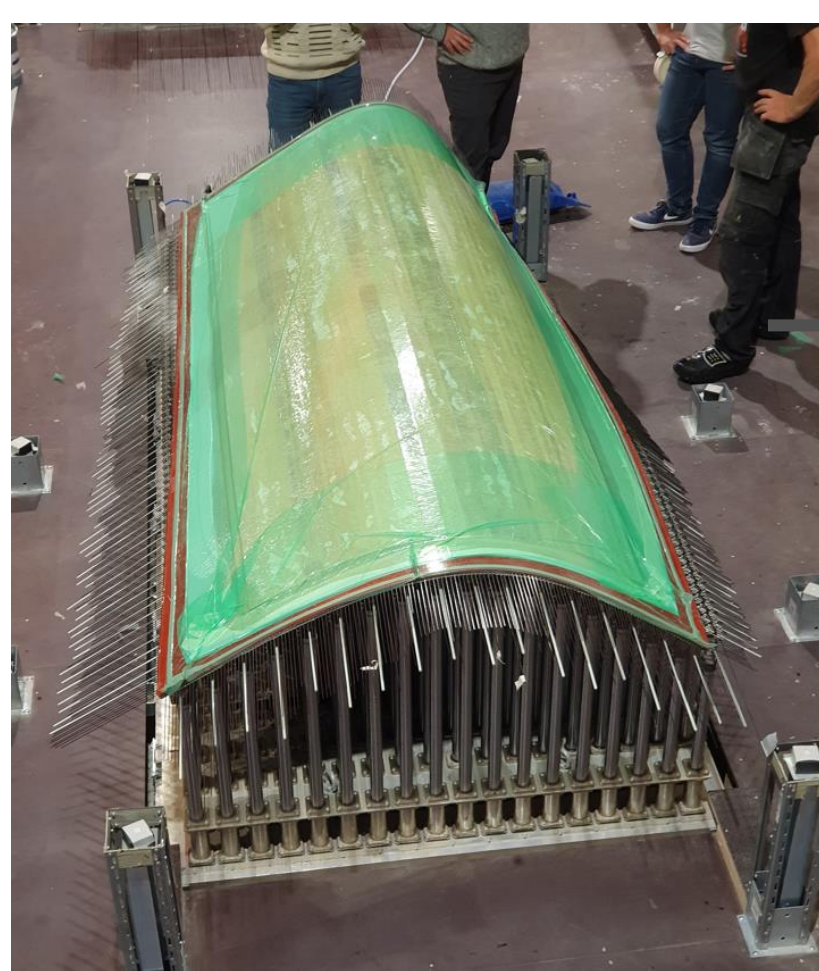


News from around The Netherlands



Wood panel assembly

Worlds' first wooden hull surface made outside the shipyard



Curved Panels + Panel Assemblies
www.curveworks.nl

Lightweight case design for VLF 80kV system

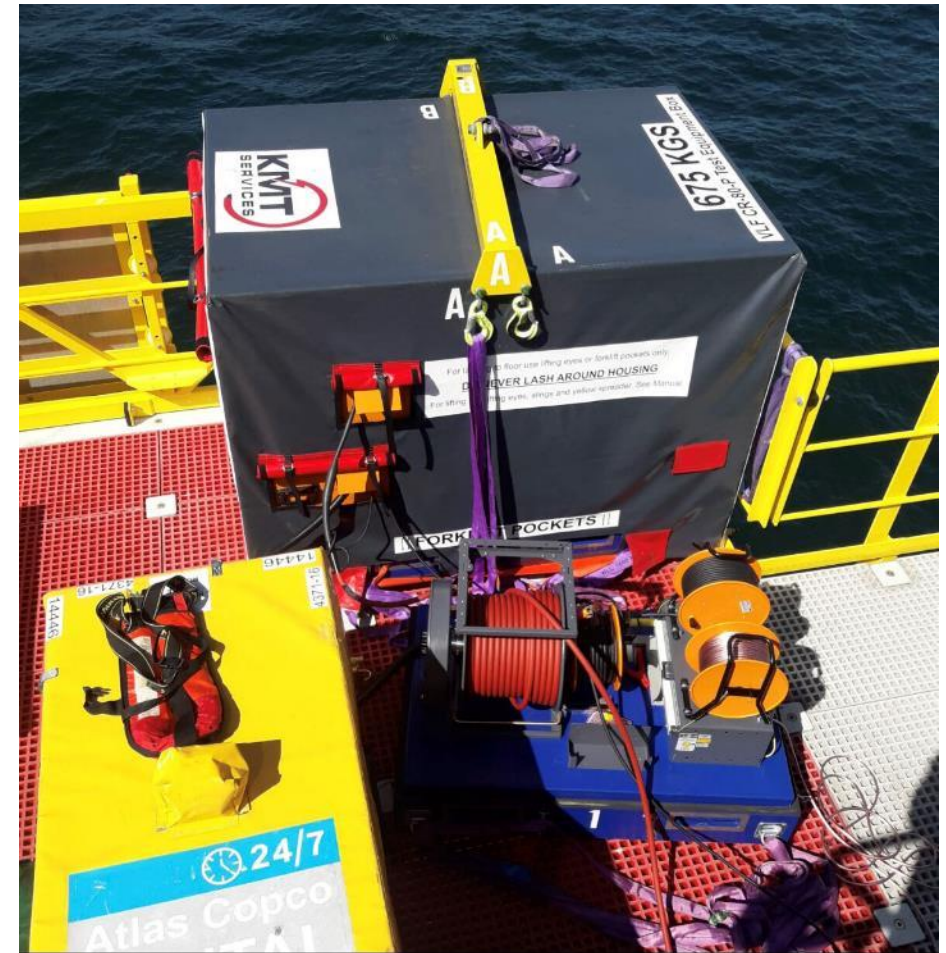
Offshore cable testing

Project scope

- Maximum weight: 675 kg
- Equipment weight: 495 kg
- Left for case and hoisting equipment: **180 kg**
- Case dimensions: 1940 x 1590 x 1560 mm
- Features such as mobile airconditioning, hatches, integrated lifting lugs, etc.

Solution

- Lightweight glassfiber/foam composite sandwich design
- Load case safety factor 3
- In-house engineering, fabrication and testing
- Test certificate





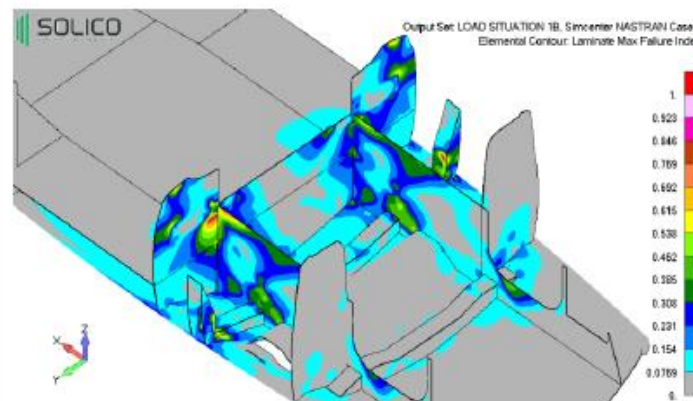
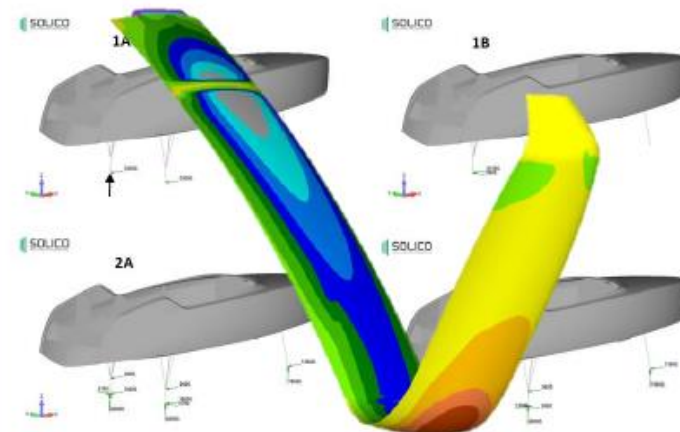
Electric hydrofoils

- Vessels with electric propulsion & hydrofoils
- Increase range by:
 - Lightweight design
 - Foiling
- More and more popular
- From foiling (racing) sailboats, pleasure crafts to foiling passenger ferries



Lack of available rule set for foiling vessels

- Rule sets only for displacement & planning vessels
- Trial and error approach from racing sailboats is not acceptable
- Commercial vessels should accommodate fail-safe design
- What should the rules be?



Edorado 8S tailored design solution

- Boat planing at critical speed as per ISO 12215-5
- Boat foiling at max speed as per ISO 12215-5, but with reduced factors of safety
- Foil foundation/hull integration details with various scenarios: from a normal operation to hitting an object
- Load factors appointed based on the probability
- Sacrificial part – prevent sinking

Your partner in tailored composite solutions

www.solico.nl

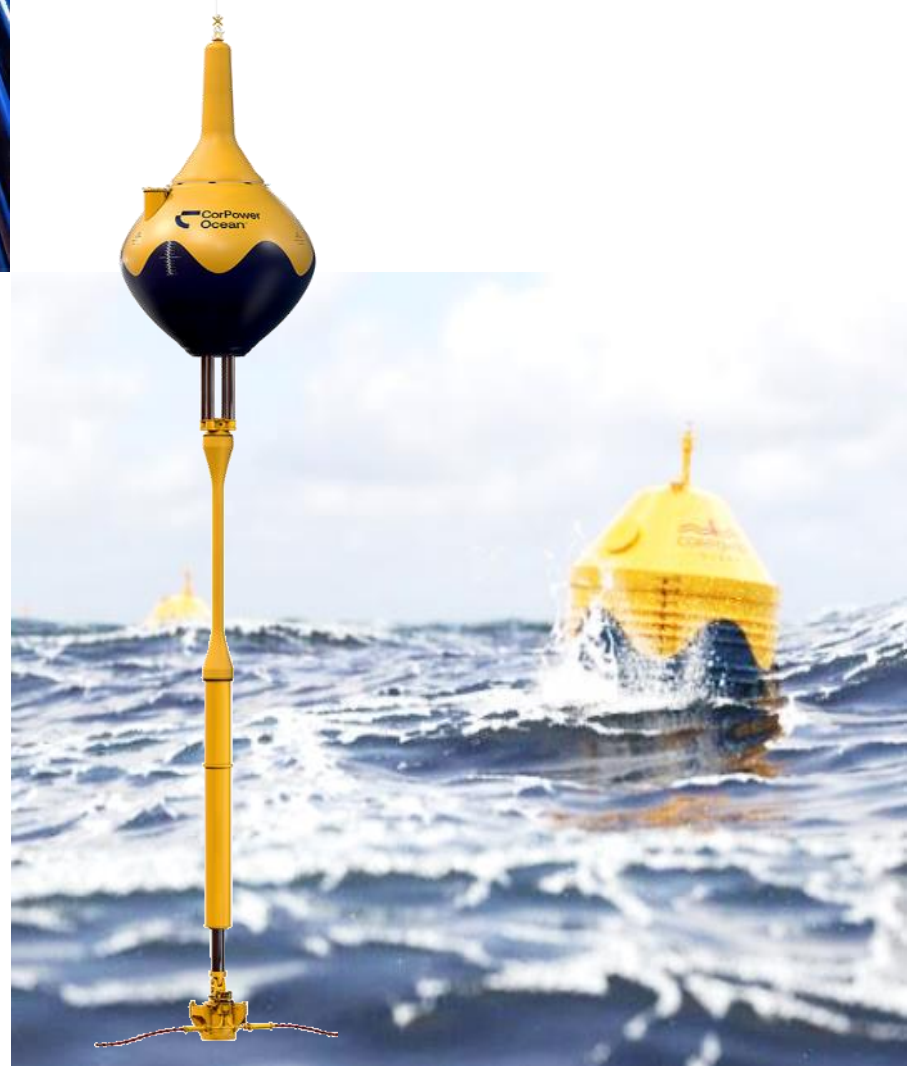


 **AUTONATIONAL**
Composite Machinery

Mobile Winder



- > Filament Winding of large objects (10m)
- > Setup fits in 2 containers
- > Enables local composite production
- > Installation time 5 days





Mobile Winder

- > Geographic flexibility
- > Product versatility
- > Manufacturing efficiency
- > Quality composite products

Scan me!

Want to learn more about Mobile Winders? Please visit our website by scanning the code. Check out the case story, meet our team of engineers, and discover how we can tailor-make composite machinery that completely suits your production needs.



Contact us

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Composite Machinery



Travelling machinery

A machine for composite manufacturing that can be placed wherever you want, whenever you want. Doesn't that sound incredible? It seemed unreal to us at first, but now it's here: our very first mobile filament winding system.

A typical filament winding system is usually installed permanently on-site. However, in some situations, given the size of the final product, transportation can be problematic as re-locating the product can be an expensive operation.

Autonational Mobile Winders are custom-made yet versatile. Even end-products made on mandrels of 10m long and 9m wide can be produced.

When transport is required, the entire winder can be stored inside two containers, which are part of the support structure of the installation. The lid can be closed on top of the container, after which it is ready for transport. The resulting system is easy to transport by boat or truck to the site of production. Once arrived the winder can be set up in less than five days.

To make high-speed production possible, a machine that ensures a highly precise lay-down of fibers is required. All components and controls used in the design and fabrication of Autonational





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Thank you