Breaking news

September 2016

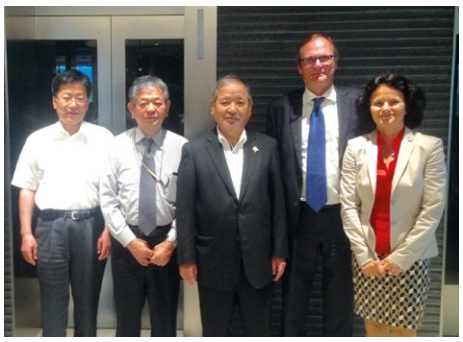
Going to new horizons ...

Even though you have not heard from us for some time, aerodyn engineering has made huge progress in the further development of our SCD turbine technology and the SCDnezzy floating system in the last year. We found immense interest in our technology in Asia and Europe. In Japan we were able to sign a license agreement and in Ireland a cooperation agreement for further R+D work on the SCDnezzy system. For a Japanese floating demonstration project aerodyn engineering will deliver one 3.0MW SCD turbine in 2017. And we were able to conduct the first tank test with a 1:36 scaled SCDnezzy 8.0MW in Cork, Ireland. Thus aerodyn engineering is well on the way to new horizons.

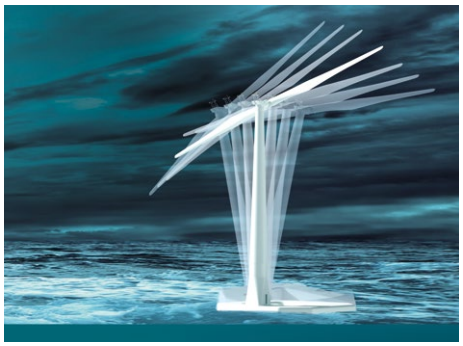
Best regards,
Sönke Siegfriedsen
President

New partner in Japan: GLOCAL signed license agreement

At the end of 2015 we signed a comprehensive license agreement with the Japanese company GLOCAL from the city of Kure. This agreement is exclusively for Japan and includes the whole SCD turbine family with the 3.0MW, 6.0MW turbine and the future 8.0MW turbine. Additionally the agreement also includes the nezzy floating system for the Japanese market. This innovative floating system will be optimized to the environmental conditions in Japanese waters with high water depths and typhoon conditions. The use of floating offshore wind turbines will gain in importance in the next few years and they are being worked on to be prepared for this huge market. The 3.0MW version will be also adapted to the requirements of the Japanese onshore market.



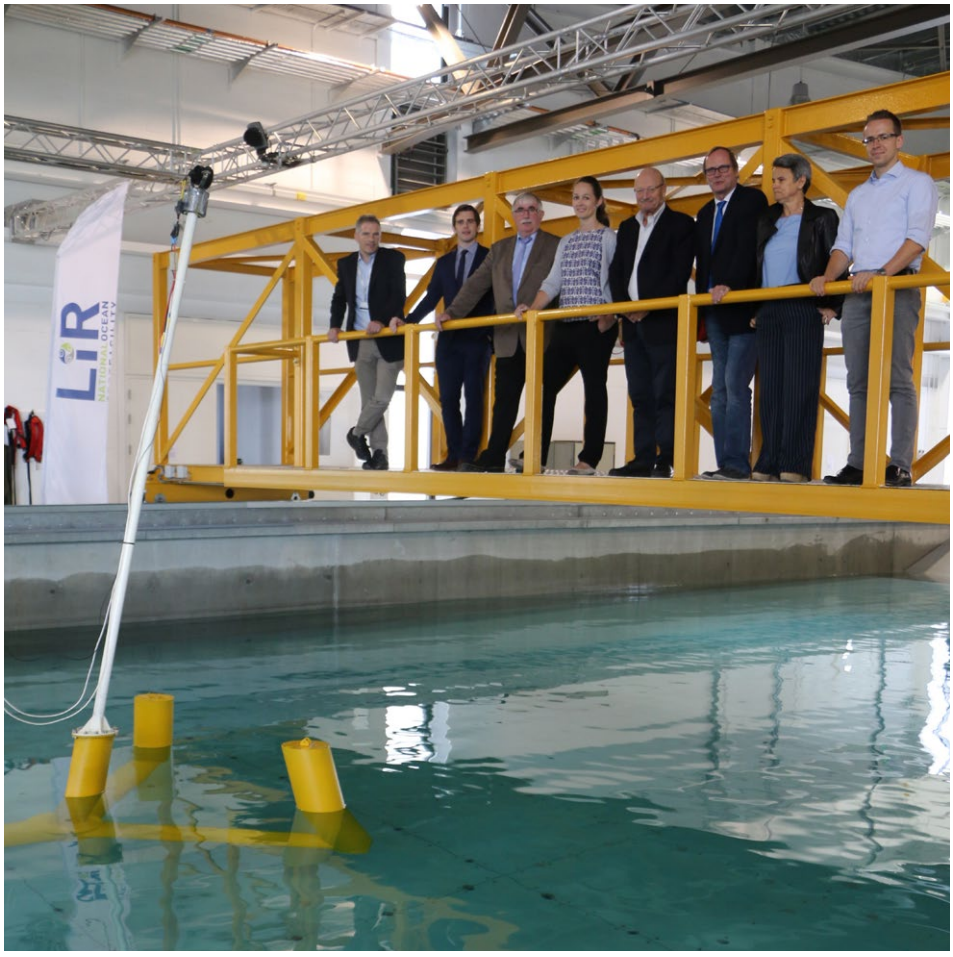
Delivery of a SCD 3.0MW turbine for a Japanese demonstration project

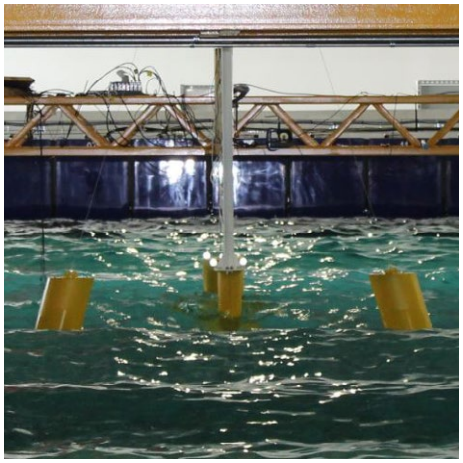


Another very important step for aerodyn engineering was the signing of a hardware delivery contract for a SCD 3.0MW turbine for a Japanese floating demonstration project in the south-west of Japan near the city of Kitakyushu. This project consists of two turbines on two different floaters built by the company of HITZ Osaka and is funded by NEDO (New Energy and Industrial Technology Development Organization). As floaters in general request a higher inclination and acceleration aerodyn engineering has modified the whole SCD 3.0 MW turbine. As maximum the turbine can handle 15° and acceleration of 15 m/sec² now. Standard turbines would not survive these loads for a longer period of time.

'Baby' nezzy in tank test at LiR in Cork, Ireland

After some months of preparation, the tank test for a 1:36 scaled SCDnezzy 8.0MW turbine was conducted in August 2016 at LiR (Ireland's National Ocean Test Facility) in Cork, Ireland. The preliminary design of the floating turbine foundation system was scaled with regard to mass distribution, geometry as well as aerodynamic and hydrodynamic characteristics. We tested different wave conditions with heights up to 30 m. The results have been excellent and are better than expected from the calculation. This is backed up by the design of the accommodating behavior of the concrete semi-submersible foundation combined with the extremely lightweight SCD turbine design. The tower head mass of the 8.0MW incl. the rotor with blades is only 290 metric tons with a 168 m rotor diameter. Further tests are planned for late 2016 and early 2017.





New partner in Ireland: BluWind signed cooperation agreement

In 2016 we also signed a cooperation agreement with BluWind Power Ltd. in Dublin, Ireland. The primary objective of this cooperation is the development and marketing of SCDnezzy turbines for the North Sea and Atlantic coast of Ireland with very tough environmental conditions. Together with BluWind, the tests in Cork were conducted with funding by SEAI (Sustainable Energy Authority of Ireland). Further tests are planned to gain a deeper understanding of the physics of this complex system and to optimize the design of the structural elements. Following further tank tests and another design loop, it is planned to build and erect a scaled test turbine in the open sea on the west coast of Ireland in the second half of 2017.

30-year anniversary of the first turbine built by aerodyn

And to finish off, we had a small celebration on 22 August 2016 at Langenbruck in Switzerland where aerodyn delivered its first wind turbine in 1986. The same persons involved more than 30 years ago (Robert Horbarty, Hans-Peter Zumsteg und Kasper Mertens) met at the side of the turbine and discussed old times and drank a beer or two. Due to the intensive and loving care of our Swiss friends, the turbine is still running and producing electricity for the farm nearby. Also, the farmer couple came over to talk about what they have learnt during these three decades. It was a very nice afternoon and evening with beautiful weather and blue skies, but with no wind. By the way, this old turbine already was a two-bladed downwind type, like our SCDnezzy system today.

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