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Progress Along the Long and Windy Road

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With the dissolution of Ampyx Power in 2022, more than a decade of research and development on airborne wind energy was jeopardized along with the possibility that the AP3 demonstrator aircraft would ever fly. Rather than let it all go to waste, a few determined engineers took a leap of faith and resolved to finish the development, integration and testing of the largest fixed-wing pumping cycle system to date.

The 12 m span, 475 kg aircraft with an estimated average power production capacity of 150 kW and its ground equipment have been under construction since 2017. The

model validation campaign has been kicked off by the first untethered flights in the Netherlands in November 2023, making AP3 one of the largest privately built UAV's to fly in Europe.

This talk discusses the path that led to the first flight of AP3 from an engineering, operations and business development perspective, as well as gives an outlook on product design and scaling for our take on Airborne Wind Energy, leveraging the lessons learnt from building and flying a demonstrator at relevant scale.



First flight of the AP3 demonstrator aircraft at Oostwold Airport, the Netherlands (November 2023).