Safeguard the Prototype by Analysis of the Multi-element airfoil

Publieke samenvatting / Public summary

Short description

Ampyx Power will in the near future perform its first flights with its new Airborne Wind Energy System (AWES) prototype named AP-3, which should be able to generate 180 kW rated power. Simulations have shown highly nonlinear aerodynamic characteristics caused by the slat element in AP-3's wing configuration. First flights will be executed without this slat element however, the aerodynamic model in this configuration is kind of unknown. The motivation for this project is to use NLR's Computational Fluid Dynamics (CFD) knowledge to obtain an accurate aerodynamic model for the first AP-3 flights without slat element. In addition, it will increase the CFD knowledge, e.g. model accuracy, of multi-element airfoils.

Projectinformatie / Project information

Projectnummer / Project number
TKITOE_WOZ_2102_NLR_SPAM
Subsidiebedrag / Grant amount
€ 29.750,00

Algemene informatie / General information

Penvoerder / Secretariat
NLR

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