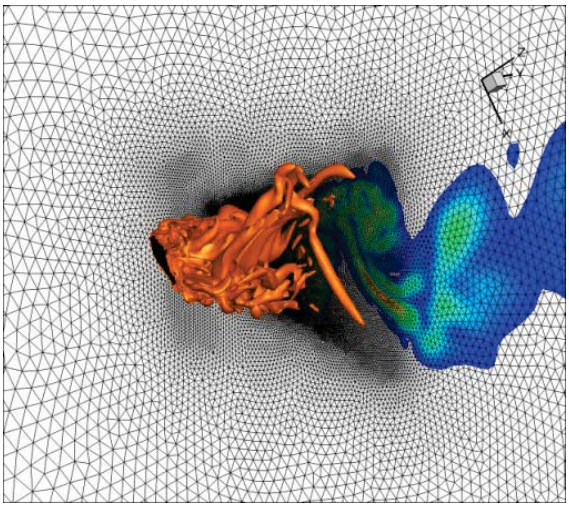
Software
TRL 5

Commercial grade rotor CFD

Validation of URANS CFD simulations against the 10m rotor tested at NASA – AMES for attached to stalled conditions



Validation of DES CFD simulations against wind tunnel experiments for a stalled blade section

- **The TAU software from the German Aerospace Center (DLR) is a leading European aerospace CFD software. IFE have developed validated methods for use of this software to achieve highly accurate results for wind turbine rotor aerodynamics.**
- **Rotor aerodynamics is essential for understanding and prediction of performance, loads and behavior of offshore wind turbines. The knowledge level of rotor aerodynamics is relatively low in the Norwegian offshore wind education-, research-, development- and engineering community. Unforeseen problems and the hunt for LCOE reductions will likely result in increased industrial interest in this area.**
- **IFE has provided rotor aerodynamics services to the industry for close to 30 years.**
- **The development continues with increasingly difficult load cases. Fully or partly stalled blades during parked or fault conditions will be the focus of 2015. IFE is the only Norwegian institution delivering high-fidelity CFD solutions to the IEA MEXNEXT project.**