

PROJECT PROPOSAL SUMMARY:

NTNU-VISTA Centre for autonomous operations subsea

The NTNU VISTA Centre is pursuing to become a world-leading research centre on autonomous underwater robotic operations with focus on resident and collaborating autonomous underwater vehicles (AUVs) that are supported by subsea docking systems for energy charging and communication.

Together with ground-breaking research on articulated underwater robots and autonomy we proceed towards a game changer in offshore oil and gas activities in terms of increased efficiency in marine operations and lower CO2 footprint. The proposed scope will contribute to higher uptime of subsea production units as well as higher marine environmental capabilities and shorter response time in case of incidents. The addressed research will also be of high relevance for ocean science and other marine industries such as maintenance and inspection of offshore wind installations and aquaculture.

The project will take benefit of the NTNU owned and operated underwater experimental infrastructure in the port of Trondheim, constituting of the installed subsea module at 90 m water depth and subsea docking station at 370 m water depth 2,2 km apart. The methods will be demonstrated and tested on the NTNU snake robot Eelume, an articulated intervention-AUV (AIAUV).