Innovate UK

Results of Competition: Automotive Exceptional Projects 2018

Competition Code: 1809_CRD_CCAV_SPECPRO

Total available funding is £1,517,035

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
OXBOTICA LIMITED	Autonomous GPS-free Off-Road Vehicle Navigation Using Low Cost Stereo Vision	£1,792,984	£1,255,089
QINETIQ GROUP PLC		£523,892	£261,946

Note: you can see all Innovate UK-funded projects here: https://www.gov.uk/government/publications/innovate-uk-funded-projects
Use the Competition Code given above to search for this competition's results

Project description - provided by applicants
Oxbotica, an innovation leader in the field of robotics and machine learning will partner with QinetiQ a world leader in the provision of robotics and autonomous systems for complex environments, to deliver a breakthrough in cost effective self-driving solutions for heavy duty off-highway equipment. This will enable benefits in productivity, safety and well-being of operatives to be demonstrated in high value construction, mining and defence applications. Oxbotica's leading edge technology, currently under test with a number of automotive companies and in on-highway CAV projects offers the potential to use a low cost camera-based approach to self-driving, which enables the potential to deal with the much more dynamically changing environments of large construction projects. In this project QinetiQ will develop a conversion kit that enables drive-by-wire control for large off-highway vehicles, and will then integrate it with Oxbotica's Selenium autonomy system. As a part of the project we will run demonstrations that benchmark capability in tough off-road environments and explore deployment into industries ranging from airports to construction to defence. Finally the partners will integrate a fleet-level command and control system that enables many AV's to interact with other varieties of transportation. This will include a goal-based mission planning system that optimises the route the vehicle will take and will factor in dynamic route conditions and constraints to ensure the vehicle progresses safely and efficiently.