Zero Emission Fuel Cell Taxi

Funding

-TSB Low Carbon Vehicle Innovation Programme

Project

-Zero Emission London Taxi Commercialisation

-Powered by Hydrogen Fuel Cell

Conekt Role

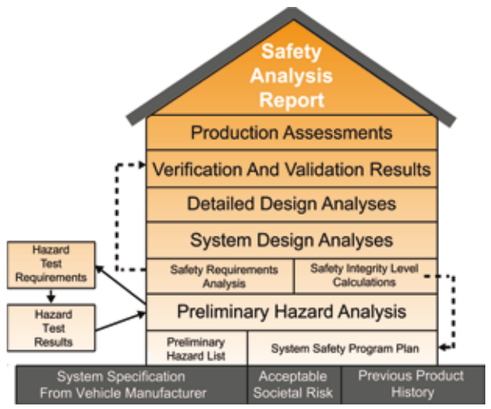
-Systems and Safety Engineering – Hydrogen Conversion, Electric Drives, Steering and Braking systems safety analysis

-Slip Control Boost Braking system demonstration

-Electrically Powered Hydraulic Steering pump unit demonstration

Consortium

-Intelligent Energy, Lotus Engineering, London Taxis International (LTI), TRW Conekt



Fuel Cell Test and Validation

Funding

-TSB Energy Generation and Supply: Fuel Cells and Hydrogen Technologies

Project

-Improving design for automotive reliability, durability, performance and cost

-40 kW, 5,000 hrs durability, $45 /kW, 500,000 pcs pa

Conekt Role

-Test and validation of fuel cell components and modules EMC, vibration, temperature, shock, etc

-Advise on standards and designs for above

Consortium

-Intelligent Energy, TRW Conekt, Ricardo, Dyson Technologies, TATA, DHL, Royal Mail

Foot-LITE:

Funding

-UK Future Intelligent Transport Systems

-TSB, DfT, EPSRC joint funding

Project

-To create a driver information system to educate and encourage safer, greener driving

-Real time coaching and feedback by fusing vehicle operating, road position and geographic parameters from a suite of vehicle sensors

-Track test and fleet fitment

Conekt Role

-External situation sensing using video, radar sensing and fusion algorithms and hardware

Consortium

-MIRA, TRW, IAM, Ricardo, HW Communications, Hampshire Council, Zettlex, Universities of Southampton, Brunel, Newcastle, TRW Conekt

WiTNESSS

Funding

-TSB

Project

-WIreless Technologies for Novel Enhancement of Systems and Structures Serviceability

-Demonstrate robust, high integrity, wireless links for gathering and transmitting sensor data in extremely harsh aerospace environments

-Testing and structural health monitoring applications in aero engines, helicopters and fixed-wing aircraft

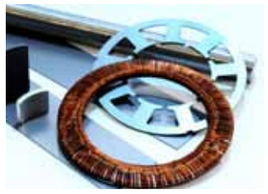
Conekt Role

-Requirements capture, systems architecture, project management

Consortium

-TRW Conekt, Airbus UK, Rolls-Royce, AugustaWestland, GE Aviation Systems, BAE Systems, Bombardier, Ultra Electronics, QinetiQ and QM Systems

LOPEPS



Funding

-TSB Low Carbon Vehicle Innovation Platform – Call 2

Project

-Design and vehicle demonstration of low power EPS

-Based on TRW Conekt innovations

-DC motor, commutation, mechanical components, electrical control

-Low speed assistance

Conekt Role

-System and Control design

-Electronics design

-Test and assessment

Consortium

-TATA, Brook Crompton, TRW Conekt

ViewNet

Funding

-TSB and EPSRC

Project

-Simultaneous Localisation and Mapping for emergency personnel - real time, distributed, wireless, user-assisted. Fusing virtual maps with GPS localisation

Conekt Role

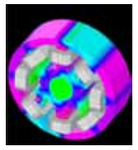
-Sensor fusion, localisation and mapping, object detection

-Fusion Hardware and Software design

Consortium

-3C Research, Thales, Toshiba, Micron, SEPURA, University of Bristol, STMicroelectronics, NPL, ComSine, TRW Conekt, Home Office Scientific Development Branch

E-Van



Funding

-TSB Low Carbon Vehicle Innovation Platform, Call 1

Project

-Integrated electrical systems architecture for Ford Transit/Edison

-Optimising drive train and ancillary efficiency, reducing losses and weight

-Increasing reliability and range

-Improving stored energy usage and regeneration

Conekt Role

-High voltage motor design for ancillaries (steering)

-Equally applicable to automotive electric vehicles

Consortium

-Smith Electric Vehicles, Ricardo, TRW Conekt, Tirius, University of Bristol

YAMOG

Funding

-TSB Low Carbon Vehicle Innovation Platform, Call 1

Project

-YASA™ motor redesign to automotive cost & volume targets

-YASA™ = Yokeless And Segmented Armature wheel motor with high specific torque of 20 Nm/kg at 500Nm, high performance and efficiency

-Integrated power electronics - design for manufacture and cost

-Powdered metal components

Conekt Role

-Test and validation of YASA™ motor

-Input to component design for cost, manufacturability and quality

Consortium

-Morgan (MOG), Oxford University, Oxford YASA Motors, TRW Conekt, Semikron

About Conekt

TRW Conekt is a consultancy and engineering test services business that generates new ideas and applies science and technology to product development, manufacture and validation.

Conekt's experienced engineering teams work closely with customers to define the project requirements, taking account of the skills and knowledge of both partners, whether for a part of or the entire product development pipeline.

Conekt's expertise in new product development and applications engineering is supported by our UKAS-accredited product validation facilities in Solihull, UK. Our services have been developed by combining our core engineering competencies and supporting project management skills and consist of:

- Safety Analysis and Management
- Technology Evaluation and Feasibility Studies
- Product Design and Development
- Low volume product supply
- Failure Analysis and Investigation
- Environmental testing (including EMC, climatics and vibration)
- Advanced test programmes

Contact

Conekt is always interested in hearing from other organisations to discuss potential mutually beneficial collaborative relationships.

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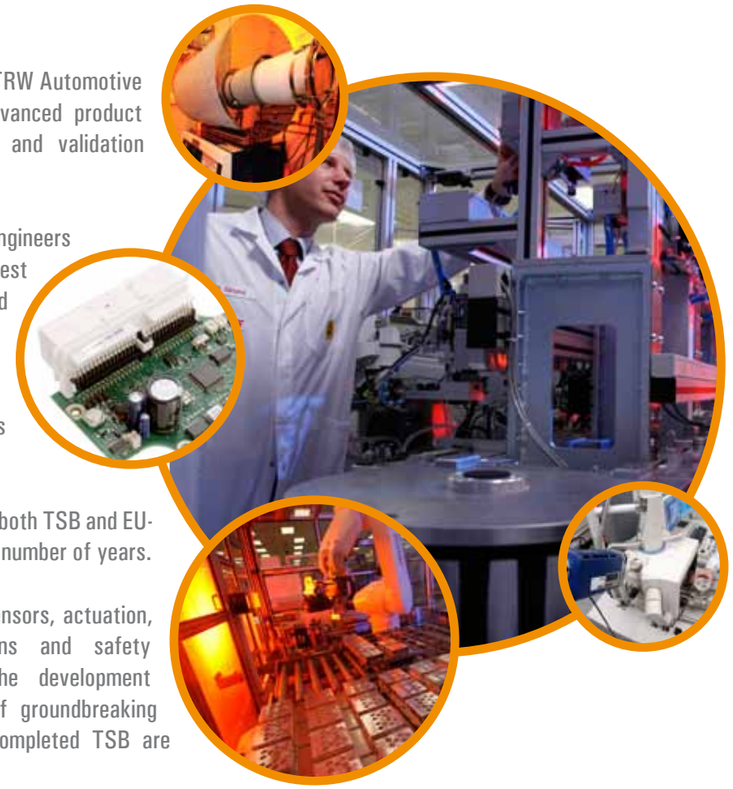
Collaborative R&D Projects

TRW Conekt is an operating division of TRW Automotive with over 50 years' experience in advanced product development, applications engineering and validation services.



Combining the skills of specialist engineers with our in-house UKAS accredited test facility, Conekt is uniquely positioned to offer a complete engineering service from concept design and development through prototype and validation testing to low volume manufacture and systems integration.

TRW Conekt has actively participated in both TSB and EU-funded collaborative R&D projects for a number of years.

By applying its core competencies in sensors, actuation, control systems, embedded solutions and safety engineering, Conekt has enabled the development and commercialisation of a variety of groundbreaking technologies. Current and recently completed TSB are detailed inside.

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