

## PRESS RELEASE

### **TECHNOLOGY STRATEGY BOARD**

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#### **DATA GATHERING PROJECTS TO BENEFIT FROM £7 MILLION TECHNOLOGY STRATEGY BOARD INVESTMENT**

**Wireless sensors to track coastal erosion, early warning monitoring systems to assess damage to art objects and sensors to monitor chemical leaks are just three of the diverse research and development projects to benefit from investment by the Technology Strategy Board.**

The eleven data gathering research and development projects, which have a total value of nearly £15 million, are to receive £7 million from the Technology Strategy Board. Two of the projects are to receive funding from the Engineering and Physical Sciences Research Council, worth over £750,000, while the participating companies will invest the balance of £7 million.

The decision to invest in the projects follows a challenge set by the Technology Strategy Board, which late last year invited companies to submit proposals to develop technologies that could be used successfully in difficult or complex environments to gather data that currently cannot be captured.

Explaining the decision to invest in these projects, the Technology Strategy Board's Director of Innovation Programmes, David Bott, said: "The ability to gather information in complex or difficult environments is vital in a wide range of industry and service sectors, such as pollution monitoring, power generation, the aerospace industry and buildings management. Many UK companies have particular strengths in sensing, instrumentation and imaging technologies, and in telecommunications and intelligent systems. Bringing this expertise together will help give the UK the capability to exploit the worldwide demand for tracking, data gathering and monitoring technologies."

The funding of these projects is the latest in a series of major investments in innovative research and development by the Technology Strategy Board. Since August, the Board has announced that it will invest nearly £80 million in over 120 projects in cell therapy, material technologies for energy, high value manufacturing, low carbon energy technologies, advanced lighting & lasers, data protection & privacy, technologies for assisted living, healthcare technologies and, now, data gathering. Including contributions from the research councils and match funding from the private sector, this brings the total investment in these new government-backed UK research and development projects to about £160 million.

#### Notes to Editors

1. The Technology Strategy Board is a business-led executive non-departmental public body, established by the government. Its role is to promote and support

research into, and development and exploitation of, technology and innovation for the benefit of UK business, in order to increase economic growth and improve the quality of life. It is sponsored by the Department for Innovation, Universities and Skills (DIUS). For more information please visit [www.innovateuk.org](http://www.innovateuk.org).

2. The Technology Strategy Board's Collaborative Research and Development Programme is investing directly in new and emerging technologies and has been designed to help businesses work with each other or with academic partners to develop technologies that will underpin products and services of the future. Since 2004, the programme has supported about 700 projects across 40 technology areas with a combined business and government investment worth over £1 billion.

3. Currently available details of projects are:

**Title:** GAARDIAN - GNSS Availability, Accuracy, Reliability and Integrity Assessment for timing and Navigation

**Summary:** GAARDIAN will create a web enabled data gathering system which can be used in the vicinity of mission or safety critical activities to certify the integrity, accuracy and reliability of Positioning, Navigation and Timing (PNT) systems. This includes GPS and the new eLoran transmissions, and in the future Galileo. The system will operate in real time, on a 24x7 basis and at point of use.

**Partners:** Chronos Technology Ltd, BT Plc, Ordnance Survey, Imperial College London, University of Bath, National Physical Laboratory, General Lighthouse Authorities of the UK and Ireland

**Title:** Automated Sensing Technologies for Coastal Monitoring (ASTEC)

**Summary:** The project will develop a novel marine wireless sensor network for deployment on the sea bed to enable data gathering for better understanding of the causes and effects of coastal erosion. This will be the first system to gather data related to coastal erosion from beneath the surface of the sea, and will be used to support decision making on the management of coastlines around the world.

**Partners:** WFS Ltd, Swansea Metropolitan University, Valeport Ltd

**Title:** WiTNESSS "Wireless Technologies for Novel Enhancement of Systems and Structures Serviceability"

**Summary:** WiTNESSS delivers demonstrated, validated technology to enable robust, high integrity wireless links for gathering and transmitting data in the extremely harsh RF and physical environments of aerospace applications e.g. helicopter rotors, aero-engines or composite structures.

**Partners:** TRW Conekt (registered as TRW Ltd), QinetiQ Ltd, QM Systems Limited, Rolls-Royce plc, Airbus UK, BAE Systems (Operations) Ltd, System Level Integration Limited, GE Aviation Systems Ltd, Bombardier Aerospace Belfast (registered as Short Brothers PLC), Ultra Electronics BCF, AgustaWestland.

**Title:** Coordinate Measuring Robot

**Summary:** The aim of this project is to develop an accurate, repeatable and flexible in-line inspection solution for complex production line environments. Key objectives are to provide coordinate measuring machine (CMM) accuracy and repeatability with the flexibility of manual measurement arms, enabling 100% real time inspection, and accommodating complex production environments.

**Partners:** Metris UK Ltd, Tata Motors European Technical Centre (TMETC) PLC, WMG at the University of Warwick.

**Title:** Interactive Components (ICOMP) - Embedded sensors and RFID tags for through life part identification and data gathering

**Summary:** The project will enhance the ability in the construction and rotary wing aerospace sectors to gather data on location, identity, status and operating conditions of a component.

**Partners:** AgustaWestland, Building Research Establishment, Swift Horsman (Group) Ltd.

**Title:** 'Heritage Intelligence' - Cultural Heritage Environmental Monitoring with Intelligent Sensor Systems

**Summary:** The objective is to develop an intelligent monitoring system for art objects in museums and historic buildings, or in transit, and for large outdoor heritage buildings and sites, to address issues of cost effective management and preservation. The project will innovate through integration of a large range of chemical and physical sensors into a single 'early warning' system for possible damage.

**Partners:** Senceive Ltd, Centre for Sustainable Heritage University College London, Hutton+Rostron Environmental Investigations Ltd, Historic Royal Palaces, National Trust, British Museum.

**Title:** WIDAGATE: Wireless Data Acquisition in Gas Turbine Engine Testing

**Summary:** This project will combine the latest advancements in wireless communication and agent-based computing to design, model, simulate and evaluate flexible and reliable wireless sensor networks for effective data acquisition in the harsh, dynamic and inaccessible environment of gas turbines.

**Partners:** Rolls-Royce plc, University of Strathclyde, Selex Sensors and Airborne Systems Ltd, University College London.

**Title:** STUAC = Status Monitoring of Unmanned Aircraft

**Summary:** This Proposal concerns the development of an innovative technology to gather real time status data on board an Unmanned Aircraft that can fly Beyond Line Of Sight, to enable the prediction of imminent system failure, so action can be taken to avoid an accident and potential loss of life.

**Partners:** Barnard Microsystems Ltd, Imperial College London, Partner Electronics Ltd.

**Title:** DYCE: DYnamic deployment planning for monitoring of ChEmical leaks using an ad-hoc sensor network

**Summary:** The consortium will develop a capability for the rapid deployment of sensors to effectively gather data on chemical agents following their malicious or accidental release into an outdoor (industrial/urban) environment.

**Partners:** Selex Galileo, Owlstone Ltd, University of Reading, University of Surrey.

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