



## **PRESS RELEASE**

IMMEDIATE RELEASE

### **EUROPEAN CONSORTIUM GRANTED €3.35 MILLION TO DEVELOP NEW EXPLOSIVE DETECTION TECHNOLOGY**

A new project to develop technology to detect the presence of explosive and hazardous materials has been launched with €3.35million of European funding.

A group of European companies and researchers, including laser experts and law enforcement agencies, will collaborate on the CHEQUERS project to create novel technology that will detect the presence of explosive and hazardous materials.

The outcomes of the project will provide new anti-terrorism tools for law enforcement agencies, and help health and safety professionals improve industrial safety on things like oilrigs and chemical plants.

CHEQUERS project partners include M Squared Lasers, research organisation Fraunhofer IAF and IPMS (Germany), Fraunhofer UK Research, Vigo System S.A. (Poland), Bundeskriminalamt (the German Federal Criminal Police Office) and Kite Innovation. Each partner will play a crucial part in the development and rollout of the final applications.

**Nils Hempler, Head of the Innovation Business Unit at M Squared Lasers, said:**

“As a group of truly specialist organisations, all experts in our respective fields, we can pool the knowledge and resources required to develop truly transformational technologies that address real-world challenges.

“The potential application for this technology is huge; the ability for us to detect explosives and chemical warfare agents for the security sector and even potentially catastrophic leaks in the oil and gas industry could save many lives in the future. We’re really excited about this project and are looking forward to seeing it out in the real world. We aim to make this technology widely accessible to a range of emerging markets.”

**Dr. Rasmus Schulte-Ladbeck, Forensic Expert at Bundeskriminalamt said:**

“The Bundeskriminalamt as partner in an international consortium of the CHEQUERS project will be leading a group of potential end-users from across Europe. Collaboration with these research partners will provide useful and relevant input to support the development of practicable and user-friendly devices, which CHEQUERS seeks to create. The BKA is looking forward to a successful collaboration with its research partners.”

Starting this month, the CHEQUERS project will take a total of 42 months and is funded by the European Commission’s Horizon 2020 ‘Information and Communications Technologies’ call, whose objective is to sustain Europe’s industrial competitiveness and leadership in photonic market sectors and to exploit new and emerging

market opportunities.

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## ABOUT M SQUARED LASERS

M Squared Lasers research, design and manufacture world-class lasers and advanced photonic systems for use in a myriad of academic, commercial and industrial applications. Its high performance systems are critical enablers in fundamental physics research, underpinning many 'world-firsts'. Its technology is also finding new practical applications, most recently in the detection and classification of gases in the oil and gas industry and threat detection for the security sector. M Squared Lasers is actively involved in collaborative research projects and working on next generation quantum technologies. Founded in 2006, by laser experts Dr Graeme Malcolm OBE and Dr Gareth Maker, M Squared Lasers is now considered a leader in its field. Based in Glasgow, UK, the company provides sales and service support to its worldwide customer base via a global network of distributors, representatives and local offices including its subsidiary M Squared Inc. in the US. Find out more about [M Squared Lasers](#)

## ABOUT KITE INNOVATION

KITE Innovation works with university and commercial sectors to support research collaboration, enterprise, and knowledge-based business development. KITE provides experienced hands-on practical support to all types of initiatives in this business space with a special focus on European research collaboration and Horizon 2020. Always aiming to deliver high-value services that make a real difference, the KITE team can provide innovative and flexible packages which buy-in to the successful outcomes of the project. Offices in Scotland and Northern England provide services to many leading UK and European universities, SMEs and large industrial organisations. Find out more about [Kite Innovation](#)

## ABOUT FRAUNHOFER IPMS

Fraunhofer IPMS is dedicated to applied research and development at the highest international level in the fields of photonic microsystems, microsystems technologies, nanoelectronic technologies and wireless microsystems. Innovative processes and products which are based upon its various technologies can be found in all large markets – such as information and communication technologies, consumer products, automobile technology, semiconductor technology, measurement and medical technology. Find out more about [Fraunhofer IPMS](#)

## ABOUT FRAUNHOFER IAF

Fraunhofer IAF is one of the leading research facilities worldwide in the field of III-V semiconductors. Fraunhofer IAF develops electronic and optoelectronic devices based on modern micro and nanostructures. The technologies developed by IAF find applications in areas such as security, energy, communication, health, and mobility. Find out more about [Fraunhofer IAF](#)

## **ABOUT FRAUNHOFER UK**

Fraunhofer is Europe's largest application-oriented research organisation with a focus on health, security, communication, energy and the environment. The work undertaken by its researchers and developers has a significant impact on people's lives. Fraunhofer UK Research Ltd is the legal entity and headquarters organisation for Fraunhofer research centres in the UK. It was created, following the instigation of UK government, with collaboration and financial support from Fraunhofer-Gesellschaft, Scottish Funding Council, Scottish Enterprise and the University of Strathclyde. The first UK Fraunhofer Centre is based in Glasgow and builds on the strong photonics clusters in Scotland and other parts of the UK, and is for the benefit of the UK and EU. Find out more about [Fraunhofer](#)

## **ABOUT VIGO SYSTEM S.A.**

VIGO is a private SME established in the mid-eighties to commercialise the research effort of the founder in the field of optoelectronics. The company has specialized in research, development and fabrication of MWIR and LWIR photodetectors operating without cryocooling, at ambient temperature or temperatures achievable with Peltier coolers. The company has developed and manufactured fast and sensitive IR HgCdTe photodetectors optimized for any narrow or wide bands within the 2  $\mu\text{m}$  - 16  $\mu\text{m}$  spectral range. VIGO delivers thousands of detectors and detection modules for industrial, scientific, medical, and other applications. An example is detectors for gas sensing applications delivered for 2011 Mars Science Laboratory NASA mission. Find out more about [Vigo System S.A.](#)

## **ABOUT BUNDESKRIMINALAMT**

The Bundeskriminalamt (BKA) is the Federal Criminal Police Office of Germany. BKA was established as the central office for police information and communications as well as for the German Criminal Investigation Department (CID). The BKA works closely with the State Criminal Police Offices and with forensic science institutes in other countries. At a European level, the co-operation within the European Network of Forensic Science Institutes (ENFSI), founded in 1993, has proven valuable in particular. ENFSI is a network of the approximately 50 most important forensic science institutes in Europe. BKA are headquartered in Weisbaden, Germany - with offices in Berlin and near Bonn. Find out more about [Bundeskriminalamt](#)