

PRESS RELEASE

La Mure, December 9, 2021

SCPTime in partnership with Teledyne e2v selected by Innovate UK and the National Physical Laboratory to conduct feasibility studies on the UK's first nationally distributed time infrastructure.

SCPTime (France) and Teledyne e2v, two dynamic companies with strong industrial expertise in the field of Time/Frequency, win the funding competition "Innovation in Time Dissemination and Application". This call was launched in April 2021 by Innovate UK, the UK's innovation agency as part of NTC* project led by the National Physical Laboratory (NPL). The first feasibility studies will start in December 2021 under the name PURETIME**.

*NTC (National Timing Center) **<u>P</u>roviding <u>U</u>TC with <u>R</u>esilience and <u>E</u>ndurance

After being selected by the European Commission as part of the Tender looking for alternative or complementary solution to Galileo for time synchronization solutions, <u>SCPTime</u> wins in partnership with its partner <u>Teledyne e2v</u>, based in Essex in the UK, the funding competition "*Innovation in Time Dissemination and Application*" and will conduct the feasibility study in the UK starting from December 2021.

A two-fold industrial expertise in the field of Time/Frequency of both partners integrates all the necessary elements to be successful. Mainly, SCPTime owns three international patents, its parent company <u>GORGY TIMING</u> has 45 years expertise in time servers designing and manufacturing, and the know-how in design of atomic micro-clocks of Teledyne is indisputable.

Both companies will work closely to develop a time dissemination solution for UK needs and will seek to deliver innovative solutions that support a robust, resilient Critical National Infrastructure and provide opportunities for new and emerging business opportunities. This feasibility study is to explore and demonstrate the feasibility of a UK time dissemination service that could underpin the vital services on which our modern society relies.

Robust time dissemination is essential for our critical infrastructure that energy, transport, communications and financial transactions. It will also enable the emergence of a robust, reliable digital environment that will positively enhance quality of life.



We are delighted to be working with SCPTime on this vital project and our joint skills and capabilities will make a difference that can really benefit our society.

Cliff WEATHERUP, Strategic Technology Manager, Teledyne e2v



National Timing Centre aims to address the challenge of fully traceable, secure, and certified dissemination of the high precision national timescale from NPL and to provide a UK sovereign solution for critical national infrastructure and on a wider scale for UK economy to support the security of our emerging digital society.

Indeed, a vast majority of critical infrastructure services, such as energy supply, safe transport links, mobile communications, data networks or electronic financial transactions rely on accurate and trustworthy time synchronisation for effective functioning. Up to 90% of these systems use Global Navigation Satellite Systems (GNSS) as unique time signal reference. However, GNSS signals are easily disrupted either accidentally or maliciously (spoofed by hackers), and in case of major GNSS unavailability, these critical services even stop functioning.

The reliance on GNSS for precision timing, and the consequent vulnerability of our essential services prompted Innovate UK to commission a report published by London Economics in June 2017. It estimated the impact on the UK economy of a five-day GNSS outage at £5.2B. That message is becoming widely understood and is creating a demand for timing solutions that are not GNSS dependent as a matter of sovereignty.

The innovative time dissemination solution arising from this project fulfils this need and will find widespread application in precision timing for base stations, network servers for financial services, data centres, national power distribution networks and air traffic control systems. It will maximise access and security of the data we use and exchange, enhance research and education and create new markets for time and frequency synchronisation from electronic signature and certification in legal and commercial to leisure and entertainment.

Further applications arise in areas where no GNSS signal is available and where synchronisation or timestamping using a certified legal time source is required. This project will aim to demonstrate the feasibility of a secure, traceable certified system that derives directly from the National Timescale and benefits a range of critical capabilities in civil and military applications to bring security and economic gains for the UK.

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We are proud to be part of the National Timing Centre programme (NTC) led by NPL in cooperation with Innovate UK. It is a great recognition of our know-how.

In the digital world, Time plays an essential role, both for cybersecurity and regulatory compliance. Nowadays, Time is a question of sovereignty, hence the importance to provide the solution to move away from reliance on GNSS and deliver resilient time and frequency solutions that provides confidence, especially to Critical National Infrastructures. Our technology makes it possible to combine security and accuracy in the dissemination of legal time through secured infrastructure, allowing full traceability of the time source to prevent interferences and cyber-attacks.

The feasibility studies that we will conduct with Teledyne opens great prospects for our business development. We are happy to work closely with Teledyne and we hope to build up synergies and develop a customized and innovative UK solution for time dissemination.

Nicolas GORGY, CEO, SCPTime



ABOUT

SCPTime

SCPTime is a subsidiary of <u>GORGY TIMING</u>, the worldwide well-known expert in Time/Frequency. SCPTime sets up an infrastructure and a service to broadcast the legal time (UTC) using a new time signal, Secure, Certified, Accurate and Traceable, to address current Time sources vulnerabilities, and to prevent serious consequences resulting from their corruptibility. These new requirements for using reliable and legal Time are becoming essential to authenticate transactions, and secure synchronization devices.

By design, SCPTime[®] time distribution complies with ATTS certification of the French LNE (National Metrology Laboratory), accredited by ANSSI (National Agency for Information System Security).

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Teledyne (Teledyne e2v a subsidiary of Teledyne UK)

Our innovations enable our customers innovations through access to state-of-the-art technologies, driving the next generation of systems, in sensing, timing, semiconductor devices, imaging and high-power radio frequency solutions. Teledyne e2v has an enviable history of employing some of the best minds who work with industry and academia in commercialising technologies of the future, developing high quality products, services and turn-key solutions produced through our world class global facilities that have real benefit to the world. Our teams passions have led to ground breaking improvements in cancer radiotherapy systems, ultra-high reliability in critical electronic systems and observing the effects of climate change from space.

UK Research and Innovation

Innovate UK

Innovate UK drives productivity and economic growth by supporting businesses to develop and realise the potential of new ideas. We connect businesses to the partners, customers and investors that can help them turn ideas into commercially successful products and services and business growth.

We fund business and research collaborations to accelerate innovation and drive business investment into R&D. Our support is available to businesses across all economic sectors, value chains and UK regions.

Innovate UK is part of UK Research and Innovation. For more information visit www.innovateuk.ukri.org

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