



September 2017

For immediate release.

CST Global receives a £202k research grant for the MacV, CPT-based, miniature, quantum atomic clock research project.

CST Global, a wholly-owned subsidiary of Sivers IMA Holdings AB and the UK's leading, independent, III-V opto-electronic, semiconductor foundry is a participant member of the 'VCSELs for miniature atomic clocks' (MacV), government-funded, research project, receiving a grant of £202,056.

"The project is endeavouring to develop of a commercially viable, mass produced, coherent population trapping (CPT) – based, miniature quantum atomic clock," explains Iain Eddie, Project Engineer at CST Global. "Atomic clocks track time by measuring the vibration of an atom, hence the accuracy. The MacV quantum atomic clock will use a Caesium ion, which vibrates at a very stable frequency when excited by light of the correct wavelength.

"CST Global's involvement, as a participant member of the MacV project, is in the development of a commercially viable, single mode VCSEL (Vertical Cavity

Surface Emitting Laser) producing light at a wavelength of 894nm, which matches the resonance of the Caesium ion.

“The MacV project is initially aimed at magnetic sensing applications and communications where the GPS timing signal is not available, such as military and underwater applications. However, we foresee its use in other data transmission applications, as knowing when data is transmitted, to atomic clock accuracy, makes subsequent decryption more efficient and secure.”

The MacV project has a funded value of £705,287, with Compound Semiconductor Centre (CSC) Ltd, Cardiff, appointed as lead participant. CST Global is one of three participant members of the project, receiving a grant of £202,056. The other participant members are Cardiff University and the National Physical Laboratory Management Ltd, Teddington.

Contact CST Global on 01698 722072 or visit www.CSTGlobal.uk for more information.

Ends

CST Global is a wholly owned subsidiary of **Sivers IMA Holding** publicly traded under SIVE. The wholly owned subsidiaries **Sivers IMA** and **CST Global** develop, manufacture and sell cutting-edge chips, components, modules and subsystems based on proprietary advanced semiconductor technology in microwave, millimeter wave and optical semiconductors. Headquarters in Stockholm, Sweden. Learn more at <http://siversima.com>.

CST Global Ltd

4 Stanley Boulevard
Hamilton International Technology Park
Blantyre
Glasgow
G72 0BN

Tel: +44 (0) 1698 722072

Web: www.CSTGlobal.uk

email: enquiries@cstglobal.uk