

# **Space Science Solutions Ltd; Light-field photography: assessment and proof of concept of robust and cost-effective imagers for space applications from microscopy to remote sensing**

## **Executive Summary**

This project has successfully explored the fast developing subject of Light-field Photography and identified a number of immediate and medium term opportunities for UK:

- Light-field imaging is especially suited to microscopy applications for planetary science: it significantly relaxes the requirements on mechanical alignment of camera, optics and object of study leading to lighter, cheaper instruments
- Light-field imaging has been found to have potential in remote sensing applications and we will be pursuing options to protect this IP
- We have built and demonstrated our own light-field camera hardware, enabling us to identify current capabilities and development needs
- We have identified a European partner who is capable and willing to work with us in the next phase. Crucially they can offer the software know-how which we now know to be key to releasing the full performance of the technique
- We have found the Grant for Exploratory Ideas scheme to be an ideal way to pursue our R&D and make links with European partners