

**Research Organisation Name:**

Fraunhofer UK Research Ltd and it's Centre for Applied Photonics (Fraunhofer CAP)

**About:**

Fraunhofer UK is a legally independent affiliate of Fraunhofer Gesellschaft, Europe's leading independent research organisation, and the proven Fraunhofer model is being used to benefit the UK economy.

Fraunhofer UK Research Ltd is a not-for-profit company limited by guarantee. As well as undertaking development project for UK industry it opens the door to the wider Fraunhofer network.

Fraunhofer CAP performs professional, application-oriented, research and development services for, and with, industry. Fraunhofer also has a significant training mission and hosts and trains many doctoral students every year.

**Location(s):**

Glasgow

**Technical Capability:**

Photonics is an enabling technology across many sectors and Fraunhofer CAP has a large team of professional development engineers (and associated facilities) with extensive experience of delivering industrially relevant solutions. Operating in the "valley of death" and concentrating on development rather than research we have a track record of delivering proof of concept demonstrators capable of operating in challenging environments. Our extensive network of contacts can also facilitate the commercial availability of solutions.

**Research Areas Relevant to the Foundation Industries:**

In process monitoring, e.g., non-contact, stand-off sensing of various characteristics including composition and other physical characteristics using a variety of techniques.

Gas sensing, both proximal and stand-off, including hydrogen, hydrocarbons, and toxic species.

Imaging and optical communication in highly scattering and challenging environments.

**How to Engage with Fraunhofer UK Research Ltd:**

From technical consultancy to development of deployable systems. Activity can be delivered via funded collaborative projects e.g., Innovate UK, Horizon Europe or via direct contracts.

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**Case Study:**

Fraunhofer CAP is working with Sellafield on non-contact analysis of granular material arising from remediation activity. Rapid, non laboratory, and field deployable solutions are being developed to characterise granular material including the presence of contaminants. These techniques could be deployed in a conveyor belt system.