European Crew Personal Active Dosimeter (EuCPAD)

The ‘EuCPAD’ system allows for real time radiation recording of all persons working in an exposure field situation, with local resolution of their trajectories throughout the radiation field. Thanks to its high accuracy and its ability to deliver the data to other areas more remote to the field of or primary source exposure, it may find application in the nuclear, civil aviation or medical fields.

Mobile units

Mobile unit pouch

Technology Transfer proposal BSBF 2022

Original/Potential Field of Application

The technology was developed under the frame of the International Space Station (ISS) mission, with the objective of gathering almost instantaneous information to its wearer (astronauts), on their current radiation exposure and dynamics of their immediate environment

ESA astronaut Andreas Mogensen

The technology could be applied in any activity were human beings are at risk to be exposed to ionizing radiation:

- Military and civil pilotsNatural grasping
- Cabin personnel such as stewardesses,
- Medical personnel such as doctors, nurses and assistants
- Researchers at e.g. accelerators or nuclear medicine
- It also may find applications in law enforcement.

IPR Status & Contact Information

- The technology is protected in the US (US9468406B1) and in Europe (EP3036564B1) in Finland, France, Germany, Ireland, Germany and United Kingdom

- For further information, contact Mercedes Sánchez Álvarez (Mercedes.Sanchez.Alvarez@esa.int)

- The European Space Agency (ESA) is Europe's gateway to space. Its mission is to shape the development of Europe's space capability and ensure that investment in space continues to deliver benefits to the citizens of Europe and the world.