

[News story: Business innovations to tackle brain injury and back pain](#)

Close up of head and brain scan: Credit: DedMityay at Shutterstock.com.

Faster treatment of brain injuries and relief for people with back problems are some of the game-changing innovations being backed in Innovate UK's latest open funding competition.

A total of £15.4 million has been awarded to 60 different projects working on new products, processes or services from a range of technology, science, engineering and industrial areas. The decision to fund them is based on their potential to generate significant positive impact and grow the UK economy.

Quick, accurate decisions that improve chances of survival

One project, by [Cortirio](#), is developing portable brain imaging technology to be used at the scene of accidents.

The company highlights that traumatic brain injury is the most common cause of death and disability among children and young adults. Its new technology will enable faster triage, diagnosis and treatment, thereby reducing disability burdens and saving lives.

Patrick Beldon, of Cortirio, said:

Neurosurgeons say that 'time is brain', and faster treatment means faster recovery and better quality of life.

For serious injuries, the chance of survival is 3 times higher if treated within 4 hours. Portable brain imaging will assist clinicians to make early, accurate decisions to give their patients the help they need.

Positive contribution to quality of life

Another project to get funding comes from Pacla Medical. This incorporates sensor and spine-mapping software in its automated physiotherapy device – [Robo-Physio](#) – and uses robotic fingers to treat back stiffness.

Chongsu Lee, founder of Pacla Medical, said:

In the UK, back problems affect one in 10 people, and large numbers of working days are lost to back pain.

We feel Robo-Physio can make very positive contributions to people's quality of life by relieving back tension in their own homes. Our vision is to make Robo-Physio a must-have healthcare product for every household globally.

Industries of today and the future

Fionnuala Costello, Head of Open Programmes at Innovate UK, said:

In highlighting these examples of companies we're supporting, it demonstrates the impact our funding can have in developing game-changing products, with the potential to change lives and significantly affect the way a market functions.

What struck me was the high quality of applications we received from all sectors of the UK economy. We are supporting companies that have the vision and bravery to use their own funds, combined with our grants, to explore disruptive innovations right across the industries of today and those of the future.

I am particularly pleased that these 60 projects have a total value of £38.4 million, of which £23 million is from the companies themselves.

I very much look forward to watching and supporting the progress of these innovative companies, as they launch new products, secure additional investment and acquire companies as they grow.

The open programme

As well as ranging in theme, the projects to get funding under open are at different stages of development, from conceptualisation through to prototype development and demonstration. The grant they get ranges from £25,000 to £1 million, for projects up to 36 months.

Further examples of projects to win funding include:

- [Eave](#), which is developing an intelligent ear defender headset for use in heavy industry to address occupational hearing loss
- [GeneFirst](#), which will use DNA sequencing technology to improve cancer treatment through better detection of cancer mutations in blood
- the NUOVOpb project, led by [Aurelius Environmental](#), which is developing unique lead-acid battery recycling technology to reduce carbon dioxide emissions and waste
- [Sprint Electric](#), which is researching and developing a range of variable speed drives for general industry. The aim is a more efficient control of electric motors that will use less energy in rotating loads in industrial processes
- Intray, which is developing time and temperature responsive labels for

food and medical application. Its labels use patented technology to inform consumers of any changes via a simple green-amber-red signaling mechanism