

**CREATIVE.
INNOVATIVE.
PUSHING
BOUNDARIES.**

UNIVERSITY EXPERTISE SHAPES TOOLS FOR PRE-HOSPITAL TREATMENT



COMPANY

**Openhouse Products Ltd
and the WAS Group**

NATURE OF COLLABORATION

**Research Assistants Industrial
Secondment, funded by
Loughborough's EPSRC-funded
Knowledge Transfer Account**

LOUGHBOROUGH EXPERTISE

**Healthcare Ergonomics and
Patient Safety Research Unit**

Research at Loughborough is helping to equip paramedics with the specialist tools and vehicles needed to treat patients on the spot – and cut the number of people being taken to A&E.

Fifteen years ago, ambulance staff tended to provide secondary care, and transport patients to hospital. Today, a new breed of highly skilled paramedics called Emergency Care Practitioners (ECPs) are often first on the scene of an emergency. In many cases, they are equipped with the skills to deliver treatment without taking patients to hospital.

Academics at Loughborough University's Healthcare Ergonomics and Patient Safety Research Unit (HEPSU) are working to develop new portable technology to support this treatment.

They are working in collaboration with the University of the West of England, Great Western Ambulance Service NHS Trust and two manufacturers, the emergency product supplier, Openhouse Products Ltd, and the WAS Group, Europe's leading supplier of ambulances and security vehicles.

Based on detailed research into both the needs of patients and the operating practices of paramedics, Openhouse Products Ltd have produced Portable Pods – a series of specially designed packs, each carrying equipment suitable for administering treatment in the most

common emergency cases. The packs range from suture kits and tissue glue for minor wounds, to nebulisers and oxygen for breathing difficulties.

The academics are also working with the WAS Group to design ergonomically sophisticated ambulance interiors, based on clinical studies of the ways in which Emergency Care Practitioners work.

HEPSU director Sue Hignett said the work had a crucial role to play in updating the design of emergency care equipment, to bring it into line with changes in the way healthcare is administered.

Openhouse managing director Andrew Jones said: "This has been a most enlightening and beneficial project not only for the real future commercial benefits for us being able to offer the modular kits as part of our marketing approach to the NHS, but also in being involved with the expert advisory group, a diverse group of individuals from differing backgrounds and areas of expertise who have come together to achieve a complete solution."

WAS UK commercial manager John Rumsey said: "This type of research and collaboration work is challenging for a commercial company such as ours to achieve, but is crucial to improve our understanding of what the NHS will deliver to the community in the future."

Impact

- The project delivered a market-ready portable workstation evaluated in user trials by a range of ECPs
- The development of design specifications for the adaptation of the workstation in a vehicle space

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