

PRESS RELEASE

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Ricardo helps Isansys scale up production of its life-saving innovation in healthcare

With a surge of UK and international orders for its advanced patient monitoring systems in the face of the Covid-19 pandemic, Isansys Lifecare is collaborating with Ricardo to scale up production as quickly as possible while also building longer-term capacity

Isansys has developed the Patient Status Engine (PSE), an innovative patient monitoring system which uses digital and wireless sensor technologies to enable near-ICU grade monitoring and advanced analytics of patient data. The PSE is the world's most complete, real-time, wireless patient monitoring system that creates and utilizes data to provide more time for nurses to care for their patients and save patients' lives by providing early warnings of life-threatening events.

The PSE uses wireless, wearable sensors including the Lifetouch "smart patch" cardiac sensor and the Lifetemp continuous temperature sensor to automatically collect and analyse the patients' heart rate, respiration rate, temperature, oxygen saturation levels and blood pressure in real-time. In addition to this, nurses can add essential measures such as coma or pain scores at the bedside to produce a complete set of vital signs. This information is then used to automatically calculate an early warning score. If a patient's health starts to deteriorate, the system will provide a warning to nursing staff so they can act on it immediately. This enables healthcare providers to offer a high standard of safe

care based on continuous data and analysis, avoiding the need for intermittent manual 'obs'. The PSE platform is extremely flexible, enabling care to be provided outside the hospital walls with real-time, continuous data and predictive alerts from patients at home or in community care facilities.

The PSE is a fully certified CE Class IIa and FDA Class II medical device which has been deployed in multiple major hospitals globally since 2014. With the advent of the Covid-19 pandemic, the demand for this advanced patient monitoring system has increased at an unprecedented level.

To help scale up to meet the immediate demand for the PSE, as well as planning for future expansion, Isansys is now collaborating with Ricardo to explore the optimization of its manufacturing processes, including considerations of design for manufacture and assembly and supply chain development and management. Ricardo's manufacturing and strategic consultants are ideally placed to assist with this work, as the company has extensive experience in processes from design for manufacture and assembly through to supply chain development. In addition to producing a diverse range of complex products including engines, driveline systems and transmissions for motorsport and high-performance road cars, Ricardo also manufactures precision parts for a range of other industries, including aerospace and defence.

The first stage of the collaboration Isansys and Ricardo has focused on a full review of the existing production process for the PSE. Ricardo's manufacturing specialists have reviewed the details of current operations, identifying how bottlenecks can be addressed and the processes of assembly and end of line testing can be made more efficient. The next stage – now underway – is to focus on the implementation of measures identified, with the aim of improving efficiency and reducing assembly time. This work includes an examination of the supply chain, investigating for example the alternative or additional external sourcing of pre-assembled components.

Beyond the current collaboration, Isansys and Ricardo are also planning to explore possible longer-term improvements, including an evaluation of the design for assembly of the current product, as well as wider issues of supply chain development and management.



“We are seeing a surge in orders for our Patient Status Engine (PSE) product as a result of the Covid-19 pandemic,” said Keith Errey, CEO of Isansys Lifecare. “Hospitals are seeking to deploy the PSE to rapidly increase capacity and numbers of higher dependency beds and isolation wards in order to monitor ventilated patients and to use it to provide high-grade monitoring of patients at home or other locations outside the hospital itself. Our collaboration with partners Ricardo will help us to scale up quickly, making us confident that we can meet the current demand, and also form plans to further increase our own production capacity.”

“Ricardo is pleased to be working with Isansys on scaling up the PSE which could have a transformative positive impact upon patient monitoring both during the Covid-19 pandemic and beyond,” added Simon Arbuthnot, regional director, Ricardo Strategic Consulting. “Helping to optimize manufacturing operations and supply chains across many different domains is a core area of expertise for Ricardo. It is gratifying to bring these skills to the assistance of Isansys, whose products have the potential to benefit the healthcare of patients worldwide.”

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NOTES TO EDITORS:

Isansys Lifecare provides remote monitoring solutions which improve patient care, drive clinical performance, ensure economic value and enhance patient safety. We look beyond technology to the experiences of patients, providers and caregivers across the healthcare continuum. From early detection of deterioration, to caring for patients more efficiently and effectively and providing care in the home, we unlock insights leading to innovative solutions and help our customers deliver better services to more people around the world, without compromising the level of care. In addition, we partner with visionary healthcare leaders striving to improve patient outcomes and boost efficiency gains across the whole healthcare delivery spectrum. Headquartered in Oxford, UK, Isansys now has offices in Germany and India. For more information, visit www.isansys.com.

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