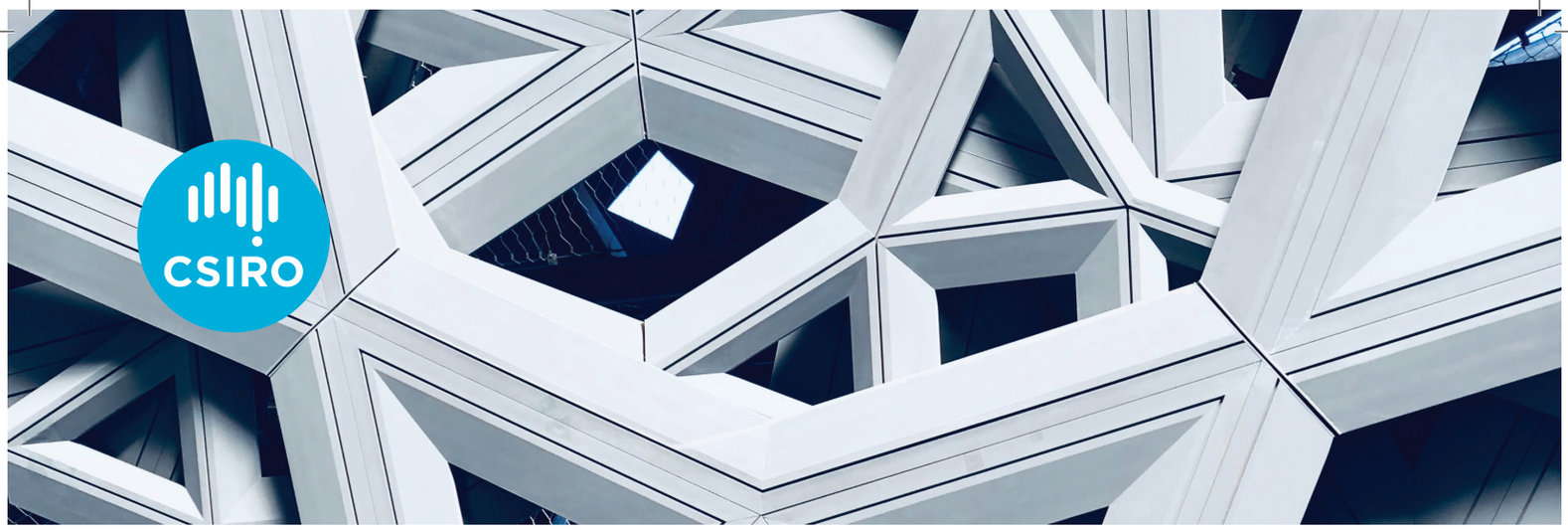

Ynomia

Bluetooth Low Energy Aware Tracking (BLEAT) technology offers users the opportunity to improve productivity by reducing the time required to locate objects and people while delivering safety and health benefits.

The technology combines proprietary Bluetooth beacon localisation with a cloud-based solution to provide scalable, long-term, low-maintenance localisation services. It utilises off-the-shelf hardware for indoor localisation and tracking of people and objects.

The challenge

The cost of managing building resources is substantial. To safeguard people from hazardous environments, the world needs a scalable, long-term, low-maintenance localisation solution. Utilising GPS technology is not possible in many locations (such as indoors).

Delivering asset tracking, more productive job sites and improved health, safety and environment outcomes

The response

The team leveraged iBeacon technology to triangulate the location of objects indoors. They developed the algorithm that underpins the BLEAT technology and built a prototype BLEAT system. The technology provided room-level accuracy tracking. Light detection and ranging (LiDAR) was used to both benchmark and improve BLEAT's location engine accuracy. The resultant technology provides scalable, low-cost, low-maintenance, and low-power tracking of people and indoor objects.

The impact

The BLEAT system has led to productivity improvement and reduced costs on building sites, especially for builders and contractors. Adoption of technology also enables improved health and safety. The work has generated new employment opportunities and revenue with other significant applications. The benefit-cost ratio is estimated at 4.42.

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