We wanted to give the production teams the data to see what was going on in the area and where efforts to drive improvements could be made.

RICHARD LARDER
Head of Digital Innovation
Dyer Engineering

BACKGROUND
Dyer Engineering is an innovative group of fabrication and machining businesses with wide-ranging capabilities to manufacture metal components and structures. The company also offers maintenance, repair and overhaul support services to keep equipment, facilities and processes running.

CHALLENGE
Dyer Engineering operates in 10 buildings at two sites in Stanley, UK, which are 3 miles apart with a total floorspace of 9200 m². At any given time, Dyer Engineering has approximately 1000 jobs/work orders requiring a large amount of assemblies including around 10,000+ operations across the sites. Materials and equipment are kept at different locations for days or weeks, so it is a challenging and time-consuming task for workers to identify them later. In addition, employee efficiency KPIs push workers to pick the nearest and most visible jobs instead of spending time on identifying the location of the prioritized jobs.

To achieve an efficient and accurate production outcome, the right jobs must be done at the right time. With this objective in mind, Dyer Engineering started looking for an indoor tracking solution which not only tackles well SMEs’ challenges but also budgets.

SOLUTION
Digital Catapult, the UK’s leading non-profit agency for the early adoption of advanced digital technologies, introduced Dyer Engineering to ThinkIN’s location tracking solution, which is a combination of Quuppa’s indoor positioning technology and ThinkIN’s software application. The decision was easy as the ThinkIN solution met all the technical requirements and was very cost effective.

Approximately 60 Quuppa Locators were installed at the two sites, with each Locator covering an area of around 100 m². Initially 500 tags were attached to equipment and assets, and this volume was quickly increased to 1000 due to its initial success. With this infrastructure feeding continuous data, the ThinkIN system could start providing production line data in real time. The ThinkIN cloud platform then visualises the specific tag locations on a VR/photographic representation of the company’s workshop. The system allows workers to immediately determine the exact locations of tools and assets and to easily understand which jobs to prioritize.

RESULTS
The location tracking system has improved the production efficiency since workers can save a significant amount of time and effort in searching for material and equipment as well as in other tasks. ThinkIN’s solution has added focus and structure to the prioritization of jobs. According to Dyer Engineering’s estimate, the workflow improvement can cut costs by up to £10,000 per month compared to the previous method of operation.

NEXT STEPS
Dyer Engineering has been encouraged by the results so far and will continue to use the real-time tracking technology to dynamically manage workflows at it’s sites. The system will continue to help direct workers towards the top priority tasks across the different buildings at the site and will continue to find new use cases ie secure social distancing - tracking solution. With the contribution of ThinkIN’s solution, Dyer Engineering hopes to become a leader in the digital adoption of the Industry 4.0 solutions.

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ThinkIN for Industry 4.0 is an advanced IoT solution for the Smart Factory. ThinkIN uses Real-Time Locating Systems based on BLE technology to monitor in real-time and with high accuracy the position of workforce and industrial assets in the environment. Such raw data is processed to extract actionable knowledge on the execution of industrial processes and to optimise the factory efficiency.

View the full case study from ThinkIN: https://thinkin.io/