



PlantQuest Case Study

Operational Excellence Through Enterprise-Scale Mobile Asset Tracking

Tier-1 Pharmaceutical Manufacturer - Global Deployment

Organisation Challenge

- Complex global facilities producing a wide range of products with unique production processes.
- Production capacity not utilised due to unoptimised asset usage
- Lost calibration standards leading to GMP deviations and investigations.

Solution

- Deployment of PlantQuest's asset mapping and RTLS solution across global sites.
- Unified, map-based interface showing asset and batch locations in real time, whilst contextualising data from sites systems (CMMS, MES & LIMS)

Outcome

- GMP deviations reduced to zero at one USA site.
- 37 additional batches per year in one site, worth €1.1M in output.
- €6M+ in annual efficiency gains projected globally.
- Foundation established for global standardisation in asset location and facility visualisation.

Mobile Asset Tracking At Scale

Across its manufacturing network, the global pharmaceutical producer faced challenges maintaining visibility and control over its equipment. Each facility operated independently, with siloed data systems and limited insight into asset location or utilisation. To address these challenges, multiple asset visibility and tracking initiatives were consolidated under the PlantQuest platform, creating a single geospatial environment for operations.

With no unified, spatial view of asset and production activity, teams across Production, Engineering, and Quality lacked accessible, accurate, location data, making it difficult to locate, manage, and optimise equipment.

PlantQuest's solution connected live data from site systems to interactive visualisations—enabling users to visualise, locate, and navigate to assets, batches, and workflows spatially across each facility.

Why They Embraced Asset Tracking

Across its global manufacturing network — spanning oral solid dose, aseptic, and biologics facilities — the organisation recognised that mobile equipment play a critical role in daily production efficiency, product quality, and regulatory compliance.

Key production and laboratory equipment such as IBCs, totes, and calibration standards move constantly between areas and buildings. Without real-time visibility, these assets are easily misplaced or delayed, causing production bottlenecks, repeated cleaning cycles, and scheduling inefficiencies. Untracked equipment introduced compliance risks, as calibration standards and cleaning intervals become harder to identify, control and verify. These inefficiencies compound at scale, affecting throughput, audit readiness, and resource planning across the network.

The organisation aimed to create a single source of truth for asset location and status — enabling teams to find, allocate, and maintain equipment efficiently, reduce downtime, and drive consistency across every facility.

Data Was There — The Context Wasn't

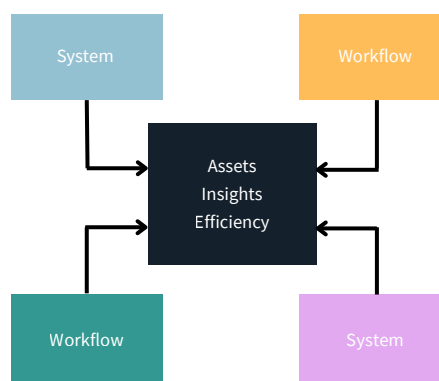
Across each facility, critical operational data was dispersed across various systems—CMMS, MES, LIMS among others. While each contained valuable insights, the absence of a shared spatial context made it difficult for teams to interpret information or act efficiently.

PlantQuest was selected for its proven ability to connect disparate workflows and data systems with spatial context, delivering a single source equipment across each individual site. Unlike conventional tracking systems, PlantQuest integrates directly with sites systems such as CMMS, MES, IoT, and LIMS platforms. This ensured that full operational context was available to teams when planning maintenance, production and engineering activities.

Operational Impact & Outcomes

- **Production Optimisation:** Real-time visibility eliminated manual searching and production idle time. One site increased annual output by €1.1 million, while another halved waiting times for mobile vessels—adding 37+ batches per year.
- **Quality & Compliance:** Asset related alerts and location status updates helped to cut repeated equipment cleaning cycles by over 50%, cutting investigation hours and improving GMP readiness.
- **Asset Accountability:** Instant location of calibration standards and production equipment ensures no lost assets and eliminates GMP deviations linked to misplaced or “missing” assets during audits.

Collectively, the initiative is projected to have delivered a €5+ million gain per year in operational efficiency across the manufacturing network.



PlantQuest Interacting with Systems & Workflows