Holistic Adoption:

Value, Proven by the Stats

Case Study | Rotterdam Manufacturing Complex | Europe

The Rotterdam refinery and chemical plant identified the need for a scalable and sustainable solution to contextualise their data.

Through successful adoption of the ZynQ asset visualisation software, and asset wide usage, the client continues to benefit from having a digital solution that provides access to trusted, quality data in an easy to use platform.

ZynQ users survey feedback

5,978 hours saved complex wide per month:

- *Internal end-users saved 5,238 hours per month on average*

- *External end-users saved 740 hours per month on average*

Site roles include:

- ✓ Engineering
- ✓ Technical
- ✓ Safety
- ✓ Training
- ✓ Maintenance
- ✓ Process
- ✓ Projects
- ✓ Turnaround

Estimated savings since adoption of ZynQ

$10m +

Based on $100 per hour (industry standard used)

Overall ZynQ hits

2 million +

Since inception

Active users in May 2025

1,655

Estimated hours saved annually

71k +

Annual investment

$765k*

*Initial capture cost and software licensing spread over a 3 year term

ROI in under 12 months

Optimise Turnaround
and Shutdown Planning

A ZynQ visual twin streamlines turnarounds and shutdowns through better planning, faster issue detection, and smarter scheduling, which increases cost control and improves safety.

ZynQ 360 has proven to:

- ✓ **Reduce costs** of engineering
  (HVEC and reduced time in field)
- ✓ **Increase safety** improvements
- ✓ **Increase** right first-time engineering
- ✓ **Increase** right first time construction

Other benefits:

- ✓ Compare data - new, existing and historical
- ✓ Tag equipment
- ✓ Identify hazards
- ✓ Identify Safety Critical Elements (SCE)
- ✓ Tag P&ID and PFD
- ✓ Reduce travel to and around site
- ✓ Experience realistic, immersive training and asset familiarisation
- ✓ Capture workforce knowledge
- ✓ Improve security
- ✓ Take measurements

$1.6m
yearly savings
Based on 8 medium sized refinery units

Client reported these savings on turnaround projects after deploying ZynQ.

Overall ZynQ hits
2 million +
2022 - 2025

Refinery hits
1,456,144

Chemical Plant hits
495,742

Polyolefins hits
54,082

Comprehensive Visual Twin

The objective of this project was to improve operational efficiency and safety by developing a detailed, up-to-date visual twin of the refinery.

- Phased data capture combining photogrammetry with extensive full-site SLAM scanning

- Coloured point clouds generated for every process unit and tank park

- Regular Management of Change (MoC) trips to verify current conditions and capture on-site changes

- Visual twin kept accurate and aligned with physical reality

- Supports safer, more effective planning and ongoing maintenance

- Ensures teams work from the most current site layout

Active use cases:

- ✓ **Asset visualisation**
- ✓ **Management of change**
- ✓ **Turnaround planning**
- ✓ **Remote engineering**
- ✓ **Workpack planning**
- ✓ **Pipe rack visualisation**

Overall ZynQ hits
270,845
2022 - 2025

Averaging
700+
hits per day

Active users
639

Comprehensive Visual Twin

This project improved operational efficiency and safety by developing a detailed, up-to-date visual twin of the refinery, enabling more streamlined collaboration for field operations.

Active use cases:

- ✓ Asset visualisation
- ✓ Turnaround planning
- ✓ Remote engineering
- ✓ 3D design reviews
- ✓ 3D models from point cloud data

Making collaboration faster and more flexible.

ZynQ users at Fawley improved coordination around critical equipment tasks, such as pump replacements, by using the direct link and screen grab tools. Instead of scheduling field meetings, they shared links via email or Teams, allowing operators to review and respond on their own time.

Overall hits
418,545
2018 - 2024

Averaging
379
hits per day
in 2024

Active users
956
on UK instance

Comprehensive Visual Twin

Case Study | Saint Gabriel Facility | Louisiana, USA

Based on client feedback and user surveys, we have estimated an annual saving of $4.16m with site-wide adoption of the ZynQ asset visualisation platform, which allows end users to access all units and major equipment from their desks.

- ✓ Outage event planning
- ✓ Design review
- ✓ Project meetings
- ✓ 3D models from point cloud data
- ✓ Location and equipment identification

- ✓ Work orders
- ✓ Improved estimating
- ✓ Remote measurement
- ✓ Reducing field visits

Estimated annual ROI

$4.16m

Based on 200 users saving 5 hrs per week, with rate of $80ph

PoC investment
$200k

Hours saved
52,000

HPF Unit
120
active users