

Case study - Heathrow Airport

Enabling Efficiency in expansion and improvement of Mega-Airport Project



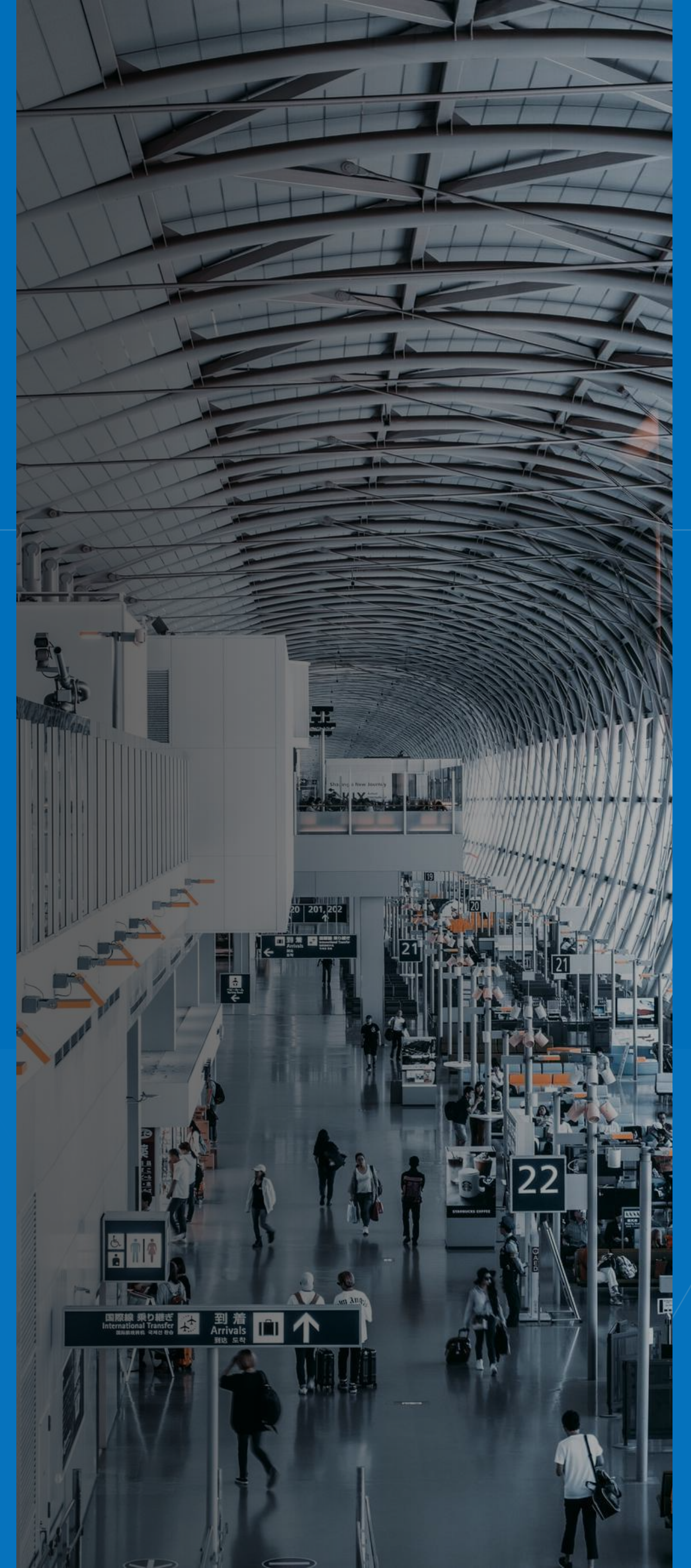
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● The Complexity

Heathrow is one of World's busiest international airports. Known as the 'Hub of the Civil Aviation World', it is the largest airport in the UK, handling over 80 million passengers annually.

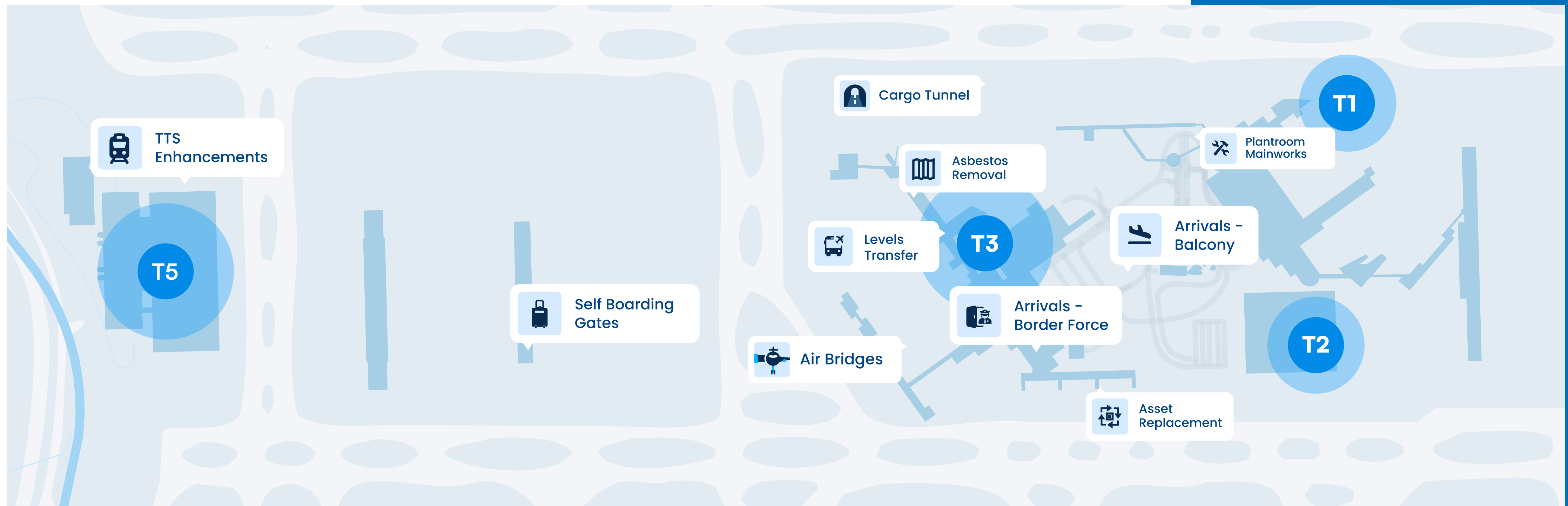
With the ever-growing demand, Heathrow has had to constantly work on expansion and improvement in their terminals to future proof its operations. For this, Mace, one of the leading Contractors in the UK, is appointed to provide consultancy, logistics and contracting service to deliver the various projects across Heathrow Airport.

One of the major challenges that Mace has had to address is to continue to construction operations while Heathrow operates and maintains its passenger experience.



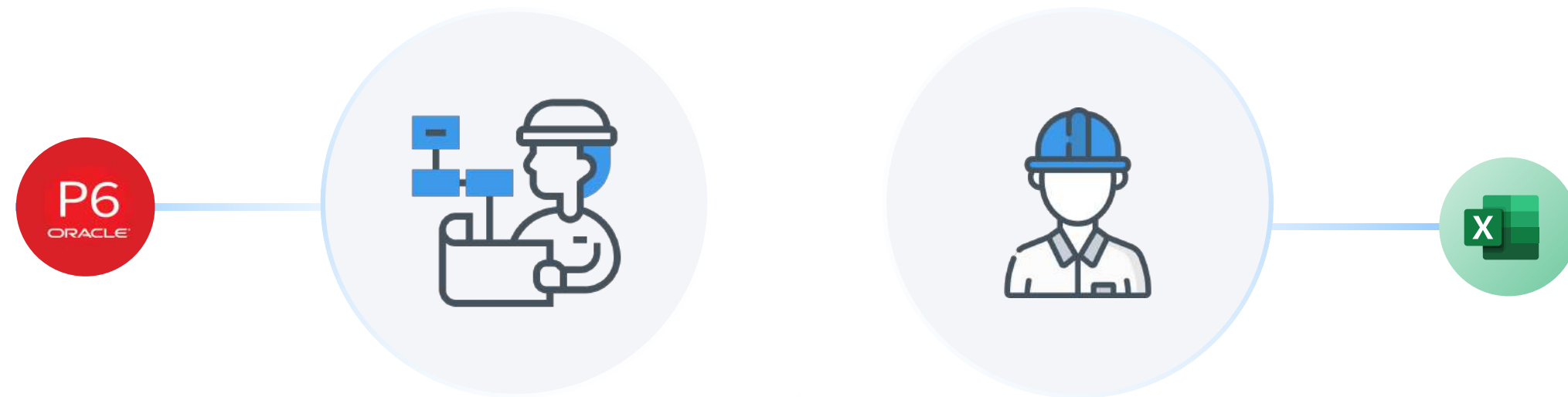
On-going Projects

As part of Heathrow's expansion, VisiLean has been deployed by Mace across the airport to help drive their PPCS (Production Planning and Control System) process towards efficient, safe, and timely delivery of these projects. These projects range from improved Cargo Management and Security Upgrades to introducing new Air-bridges and Balcony areas within Terminals T1, T3, and T5.



Map shown is for representational purpose only

• The Challenges



Labour intensive manual process leading to poor coordination

Limited collaboration between the Mace team and suppliers

Multiple tools creating non-value adding work for project team

20 hours spent per week for the planning and review process



Demanding projects where every minute matters



Planning involves extensive aviation safety considerations



High level complexity & calls for extensive collaboration with the supply chain.

• What VisiLean has achieved



Provided common platform for the supply chain



Proven success with first pilot - rolled out from 2 to 14 projects in 6 months



Worked with the team at the ground to define and align processes with tools



Set up a standard process across different projects. Easy to adapt by the subcons



The Planning

VisiLean is the single source of truth combining the master P6® plan with the production level plans from the suppliers. As a part of the lookahead planning process, the team mapped 20+ constraints - approvals, design, RAM's, manpower, etc, every week to make their work ready.

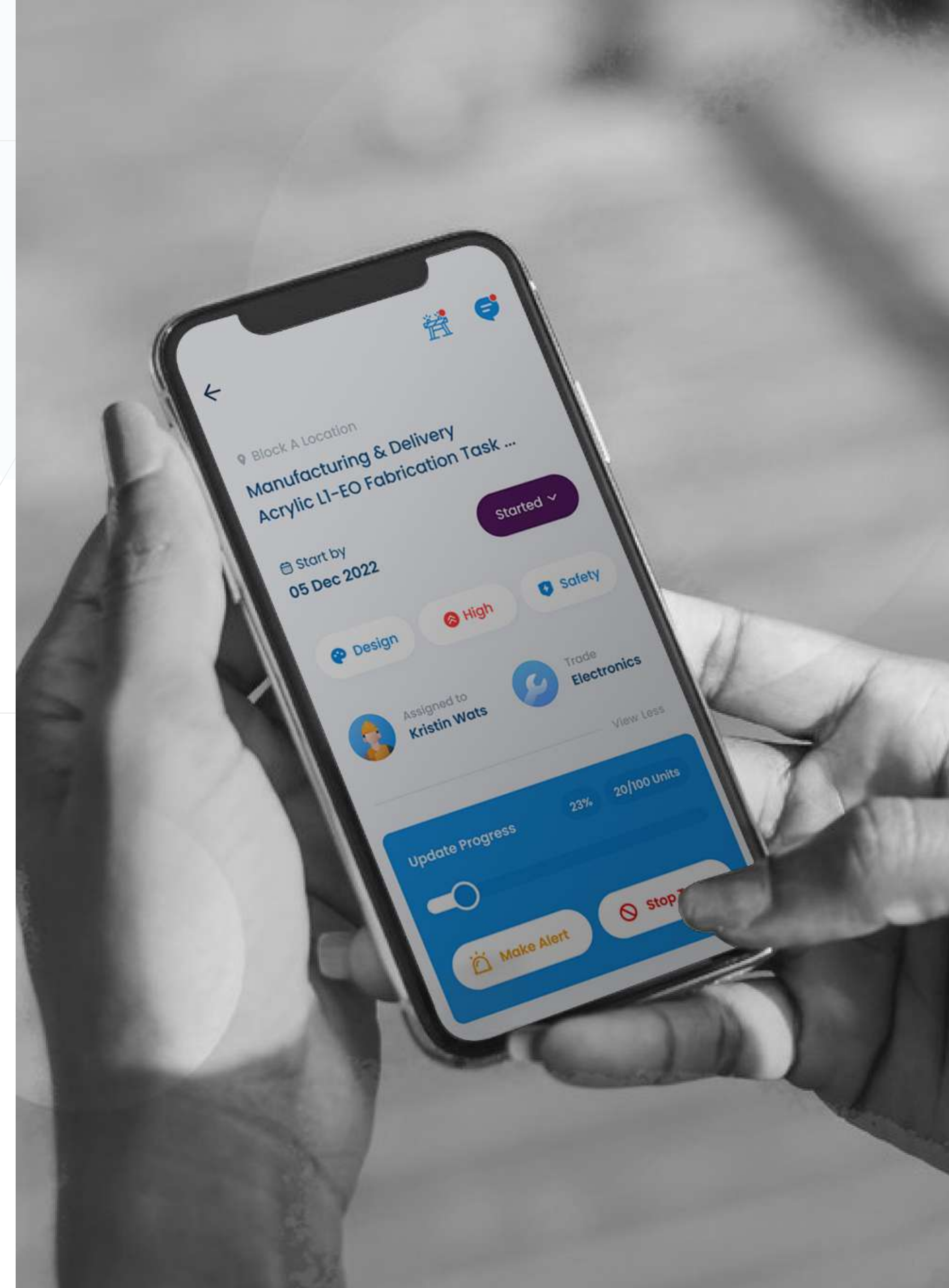
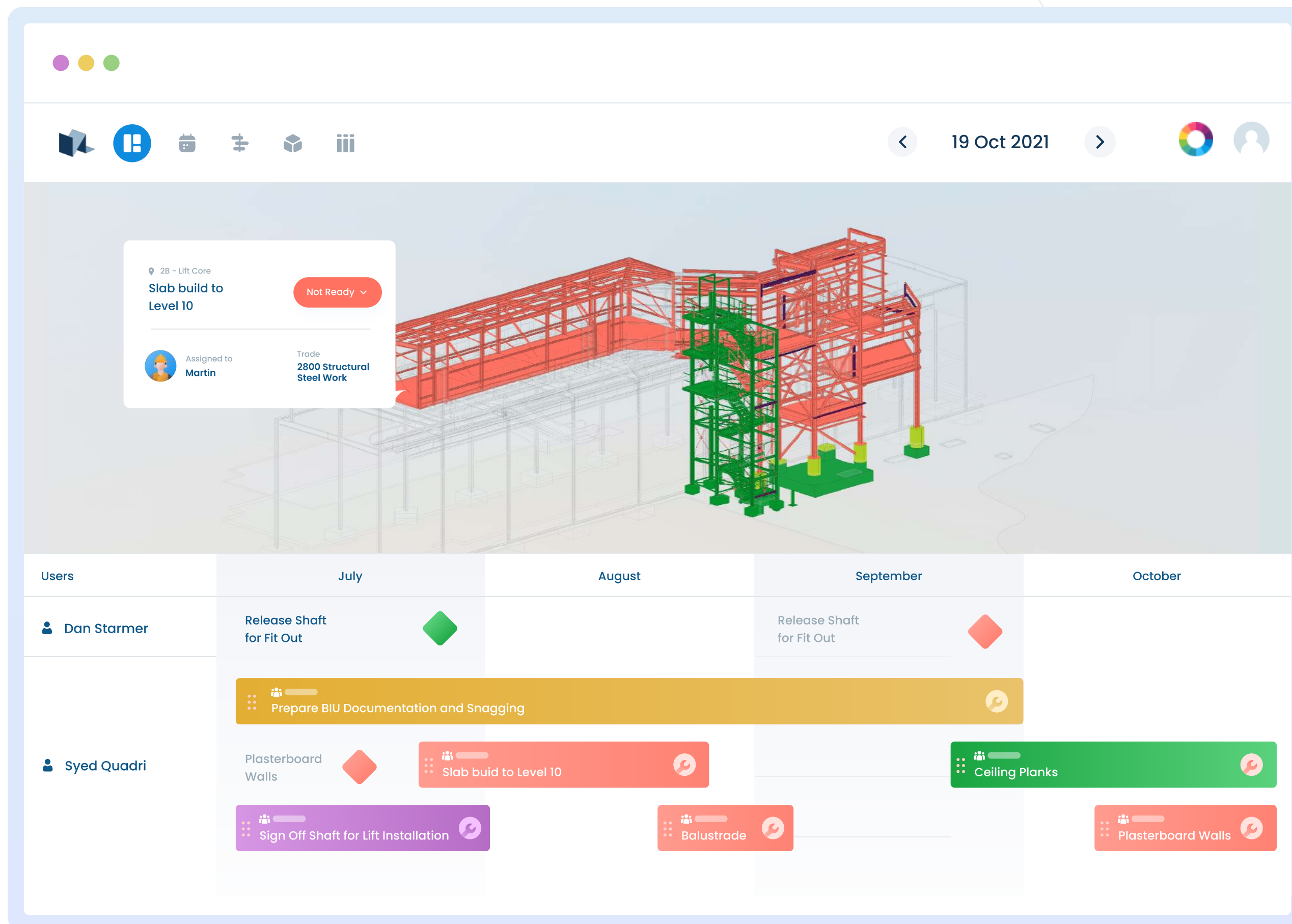
Planners

Suppliers

S.NO	Task Name	Status	Owner	CA-Material	CA-Contract	CA-Labours
01	Manufacturing- Modules	Approved	Kristin Watson	H		H
02	Site Mobilisation	Not Committed	Devon Lane	✓	H	✓
03	Plantroom Slab	Stopped	Ronald Richards	H	✓	
04	Undercroft Steelwork	Rejected	Courtney Henry			H
05	Electrical Ancillaries	Completed	Jane Cooper	✓	H	
06	Stairwell Fabrication	Force Ready	Ralph Edwards		✓	H
07	Replacing Deflectors	Warning	Robert Fox	H		
08	Interchange concrete	Not Ready	Naren		✓	H
09	Installation of signs	Not Ready	Kumar		H	

The Execution

Real time progress updates from the suppliers massively reduced manual errors, variability and increased the flow of valuable information for the teams to take the right decisions. The teams reviewed the exact status of the work on the live 4D BIM models.



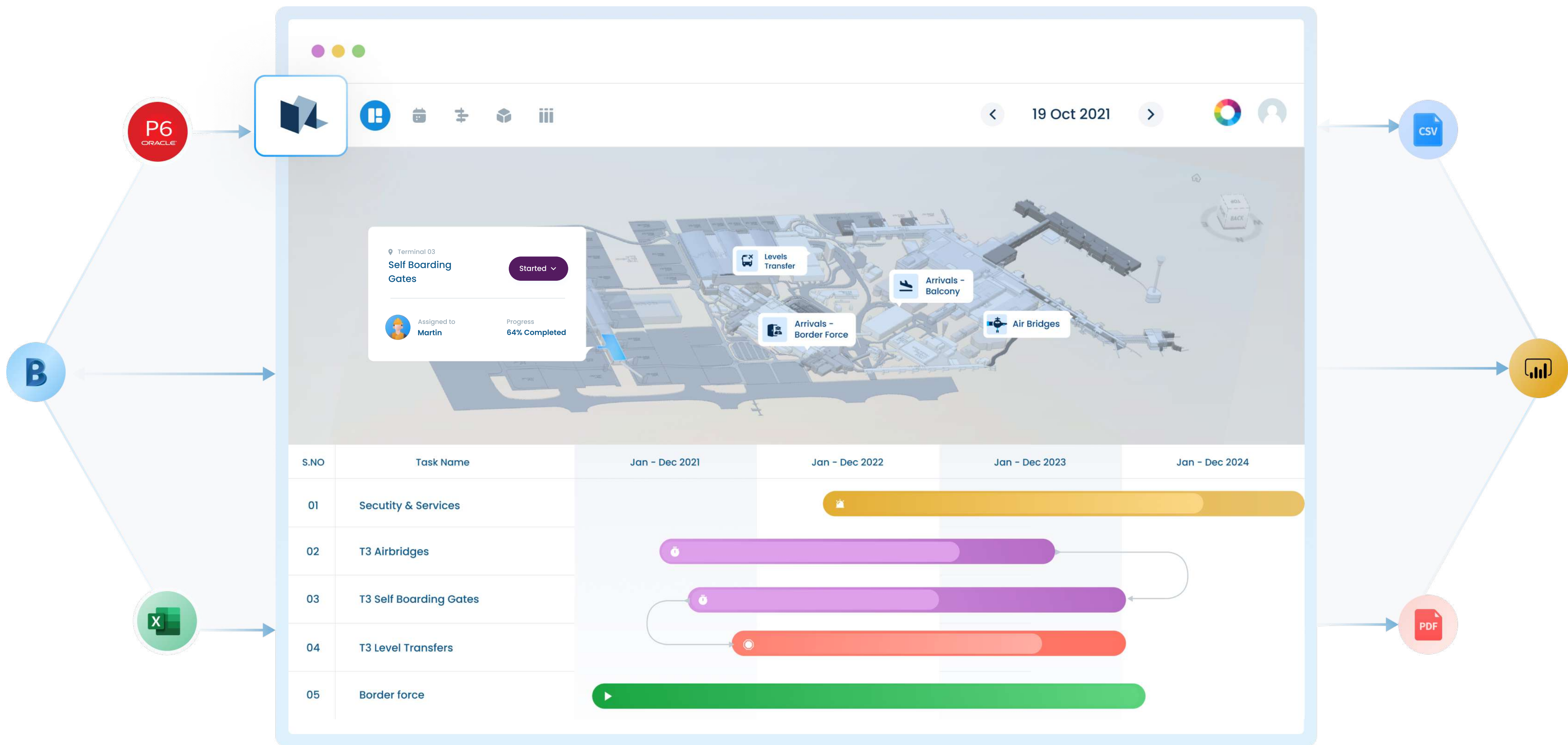
- # The Monitoring & Control

As a part of the Mace-PPCS process, the team measured the performance of the suppliers by constantly reviewing the constraints, weekly work plan, progress updates and captured the reasons for variances for project improvement. One of the important metrics used by the team for continuous improvement was the Percent Plan Complete (PPC).

With VisiLean and its capability to create custom dashboards, the team was able to review their workflows for its successes and failures, from real-time updates captured from the project site.



Integrated Project Delivery



● Proven Results



OLD PROCESS

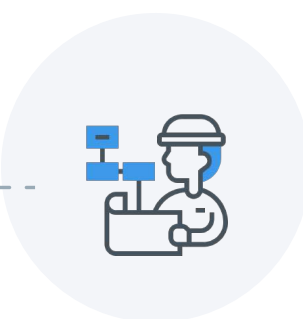
20 hours spent
per week



NEW PROCESS

8 hours spent
per week

Time saved in the overall process



2.5 hours
saved per week
Planner



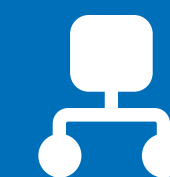
1 hour
saved per week
Construction Manager



1 hour
saved per week
Sub-Contractor



Work Clarity. No Manual
work. Zero variability



Improved Planning. Flow of
valuable rich information



Better project control with
real time updates



• Recognised by the Team

“

Our suppliers use this software to update their progress, constraints, and labour for 2 week lookahead which massively reduced the errors we had when they were manually using excel spreadsheets to update these weekly.

- Planning Manager

”

“

The team who have helped develop and implement the platform have been outstanding. Very knowledgeable and patient. The software is great but the team behind it is even better. Great customer experience. Thank you.

- Associate Director

”

Thank You



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