

Real-Time Automated Project Controls



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Agenda

1. Introduction to Lewis Woolcott
2. Industry challenges
3. Project Controls challenges and how is the industry changing?
4. Technology solutions
5. SMART demonstration
6. Questions & answers

Company Overview

Who Are We?

As an innovative company focused on delivering dynamic analytical solutions, Lewis Woolcott combines technology with project management, commercial management and legal expertise to deliver industry leading services to the construction, infrastructure and engineering sectors.

On a mission to revolutionise the industry, we add value and provide the clarity necessary to ensure every client achieves the best possible outcome. Our team of commercial and technical experts, complemented by world-class technology, is what sets us apart from the rest.



Established 2020



Brisbane, Perth, Sydney



45+ Employees



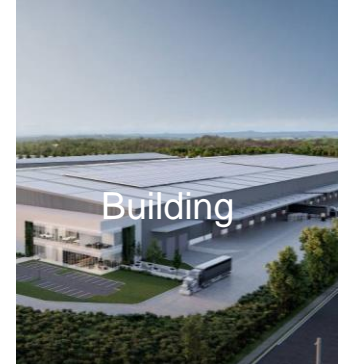
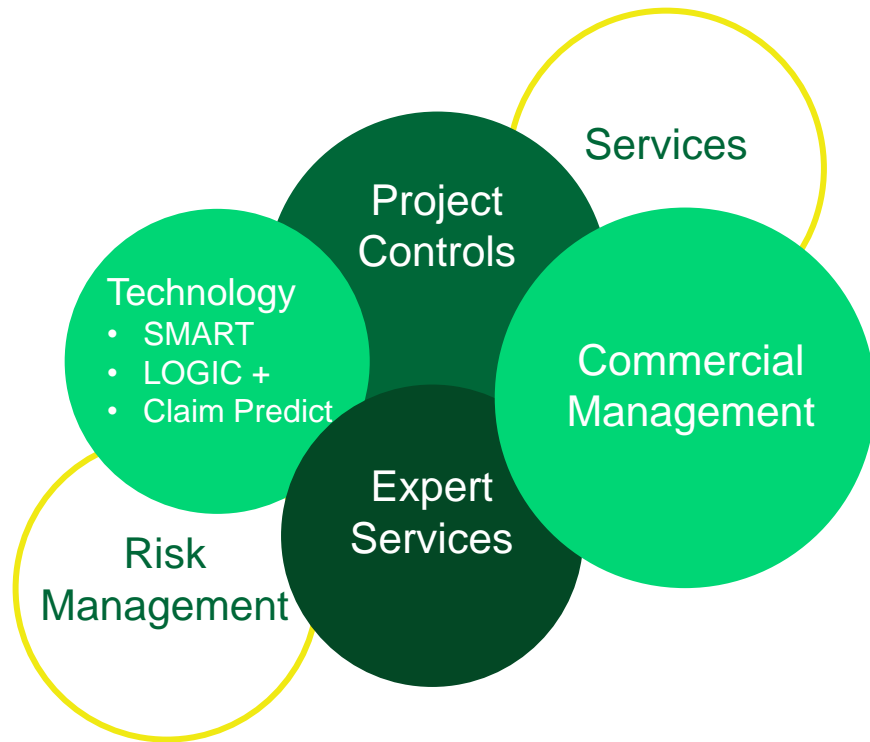
70+ Projects across 40+ Clients



ISO 9001:2015 Certified

OBSEQUENTIA
QUALITY CERTIFIED
ISO 9001:2015

Company Overview





Keeping things in perspective

Where have we come from and where are we going?

The temptation is to let short term “urgent” issues replace longer term important issues.

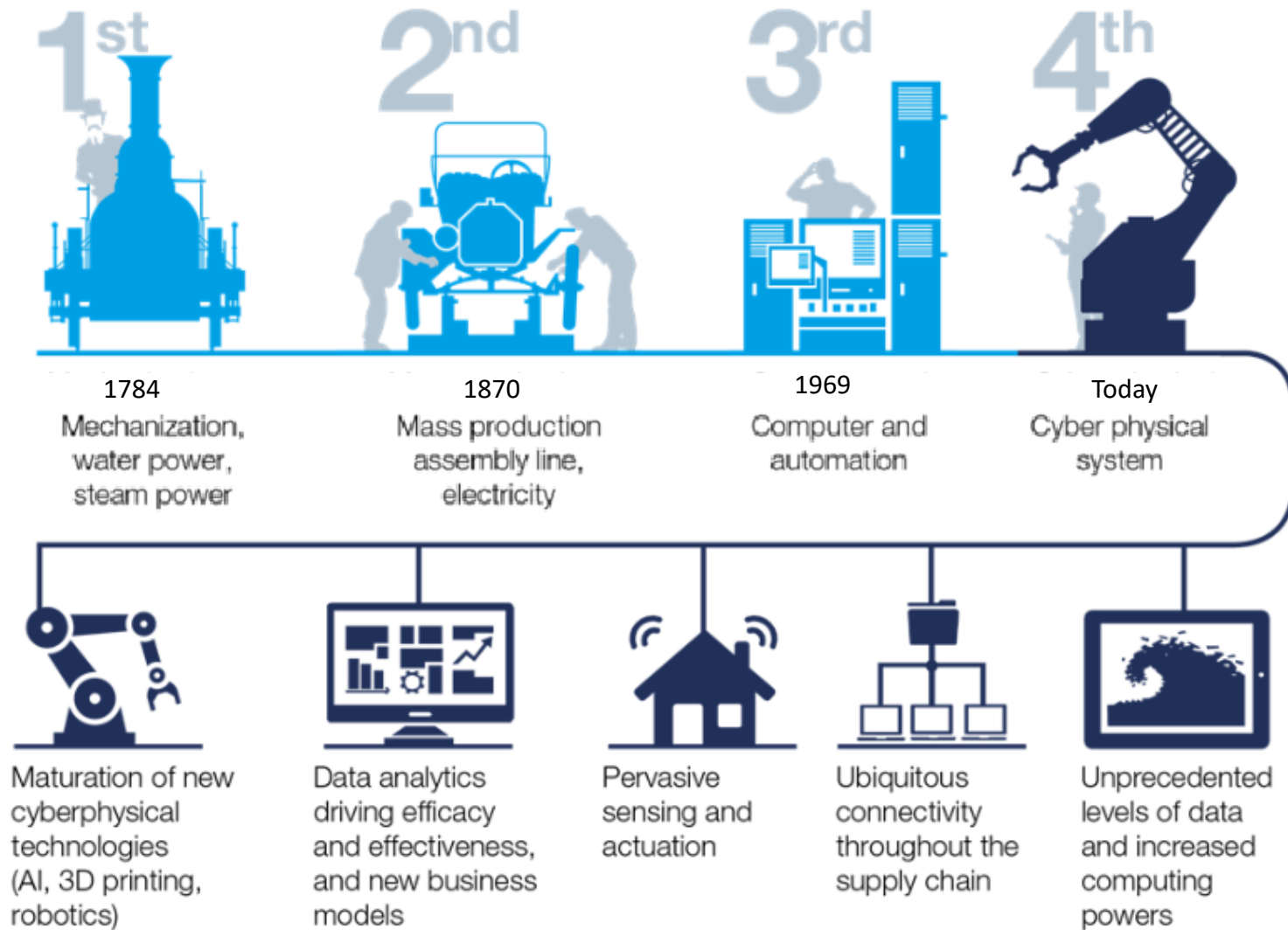
Unlocking potential is about balancing short-term and long-term strategy.



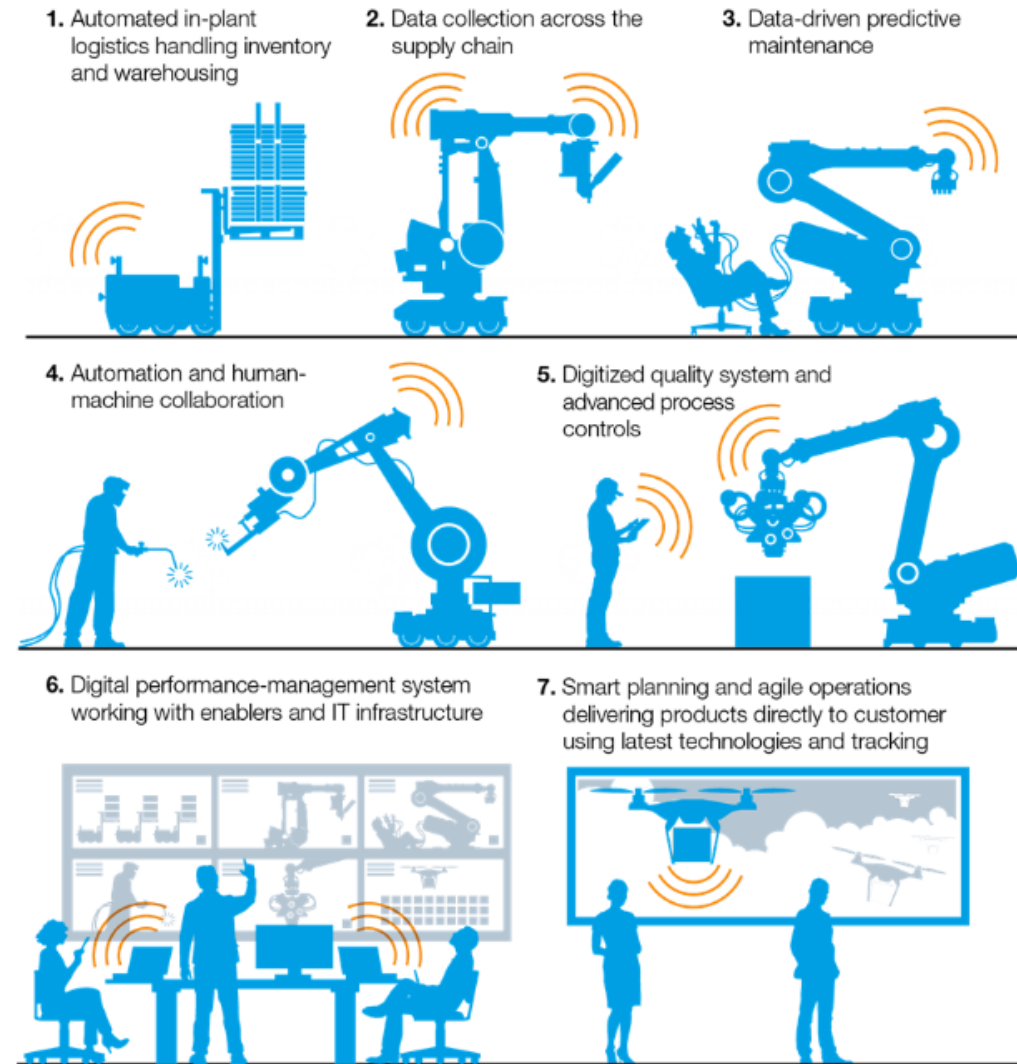


Industry Challenges

Industrial Revolutions



The factory of the future combines technologies that are available now



Todays Construction Ecosystem

Development

Design and engineering

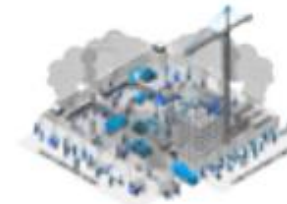
Supply of materials, components, and equipment

Materials distribution and rental

Construction and assembly

Final building

Project 1



Project 2



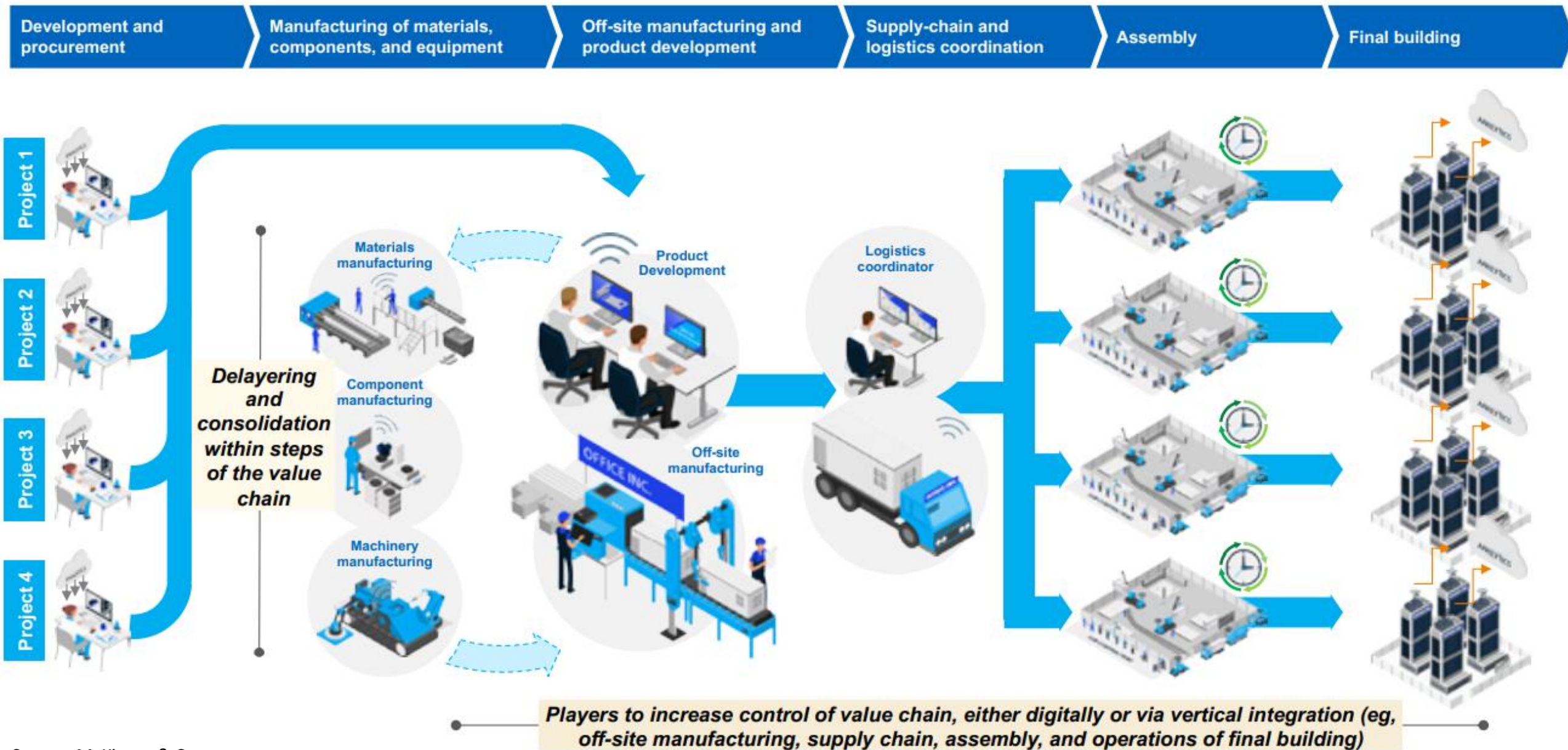
Project 3



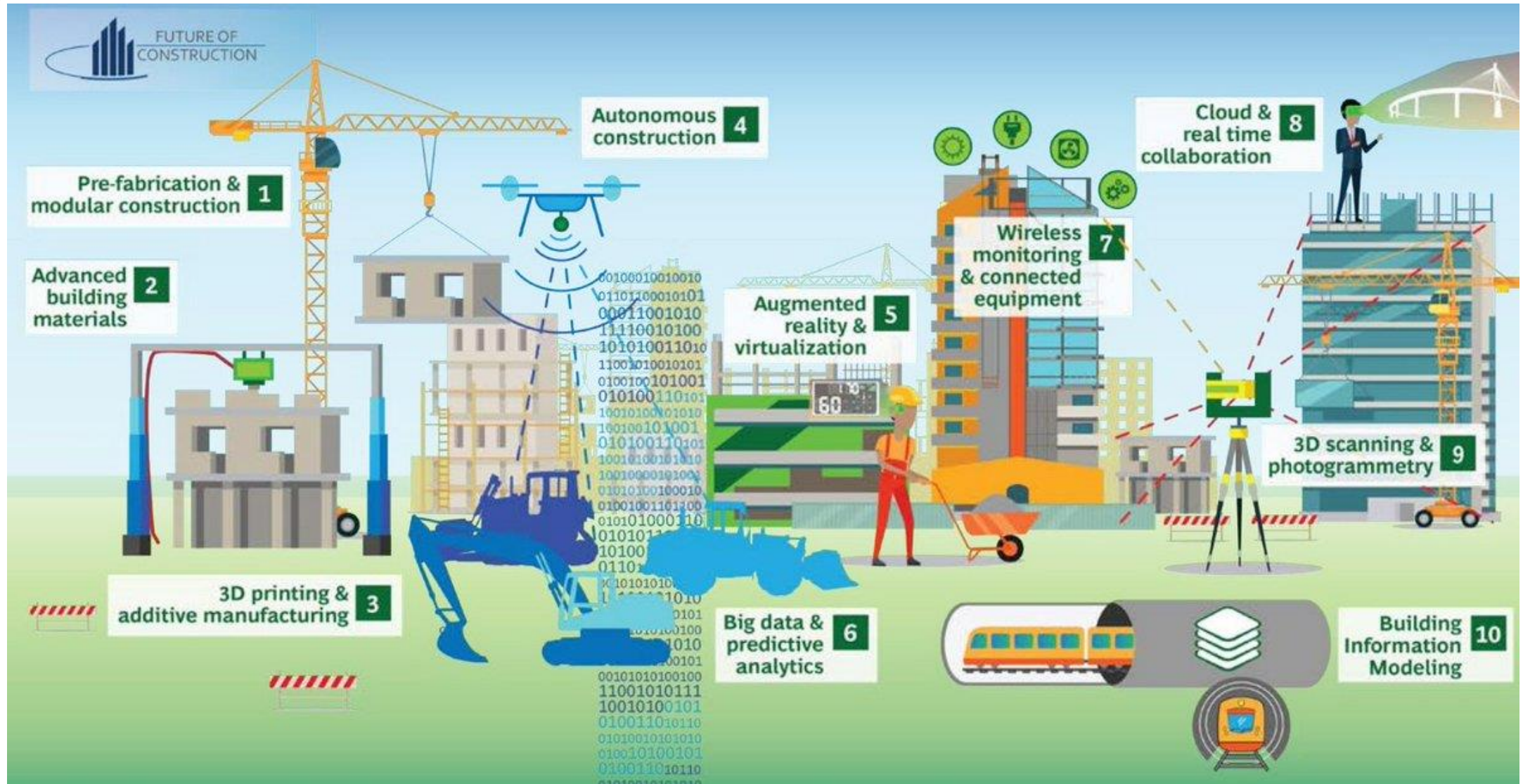
Project 4



The Construction Ecosystem of the Future



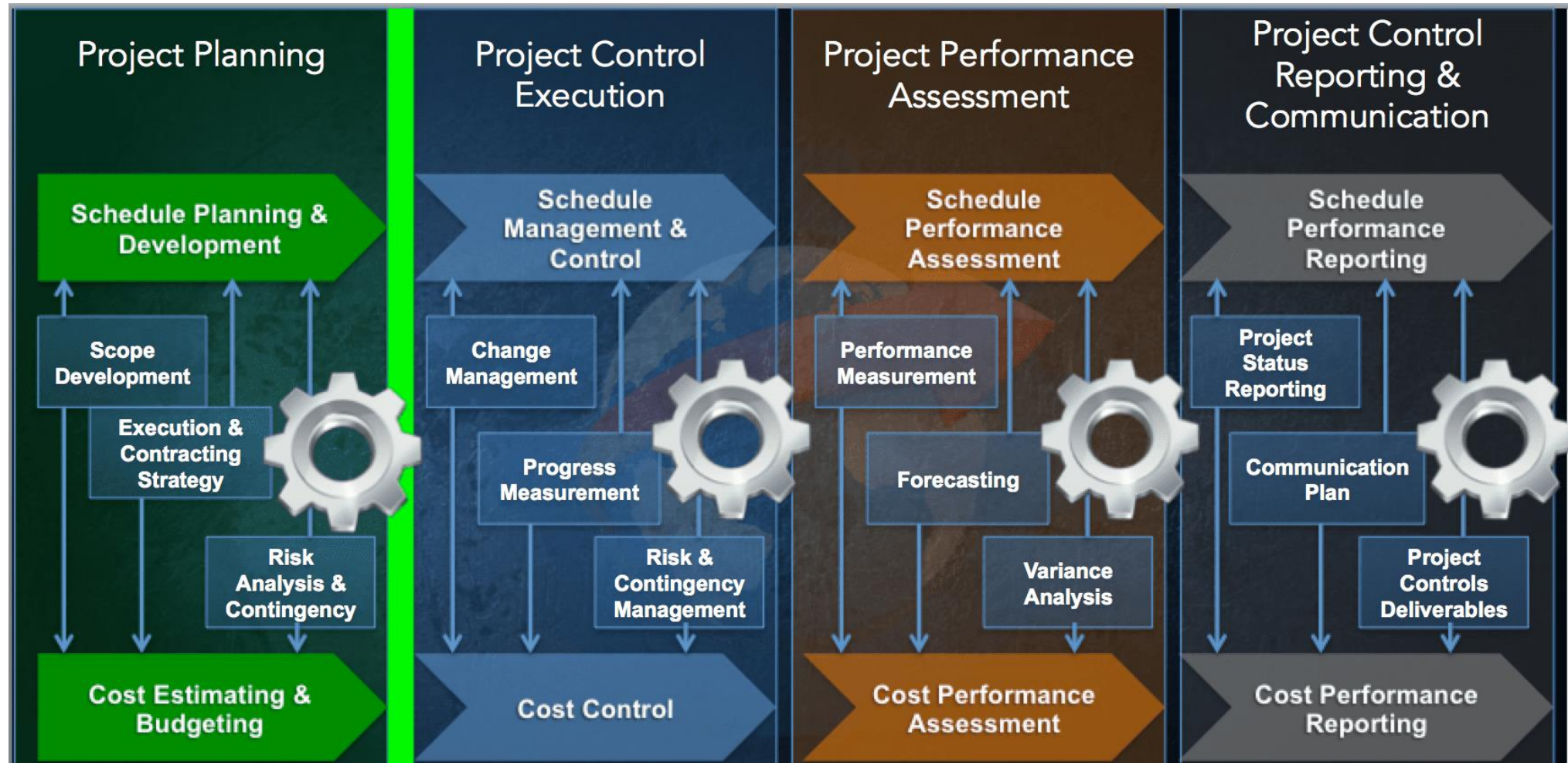
What the future looked like in 2018



Project Controls Challenges



The Project Control Process



The Burning Issue – why do we need good project controls?

Frustration with issues across the industry include:

- Project Cost and schedule blowout
- Resource inefficiency & unavailability
- Site supervision and project controls monitoring is challenging on remote projects
- Poor tracking of equipment and personnel
- Poor record keeping
- Environmental and heritage breaches
- Estimating and benchmarking challenges
- Rising disputes and effort and cost required to resolve them



There must be a better way to work Smarter !!!

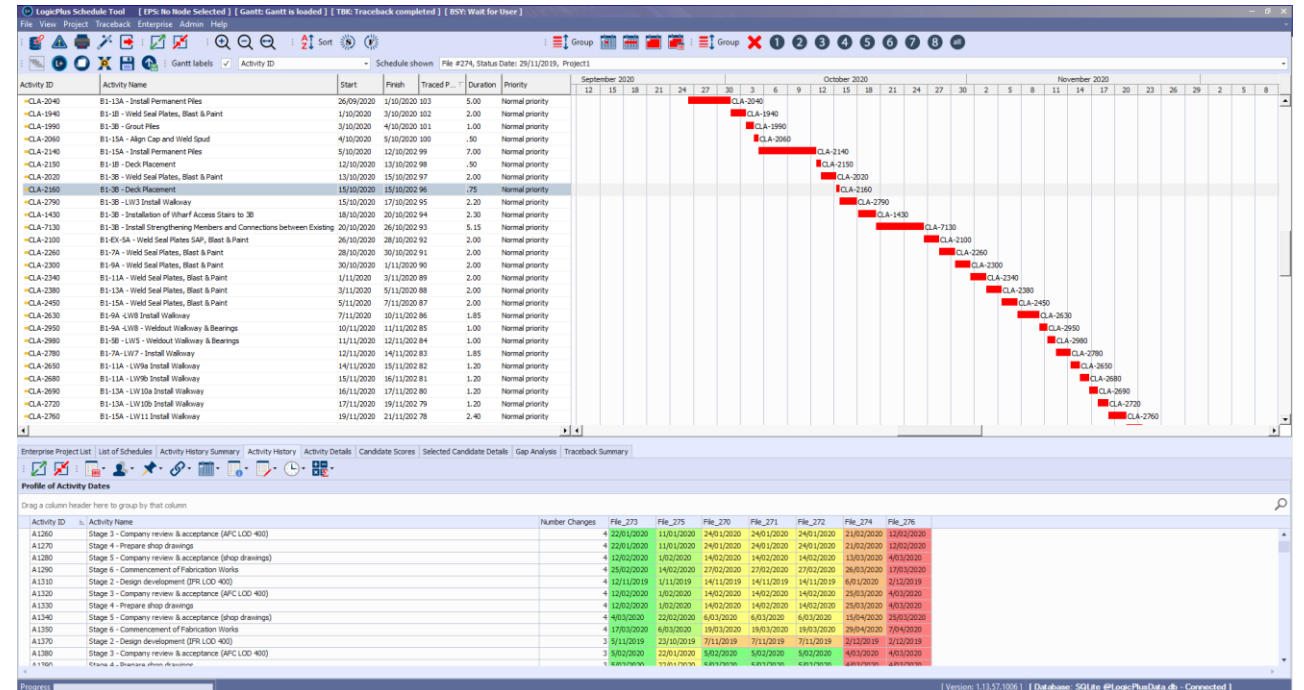
Amazing Project Performance



Technology Solutions



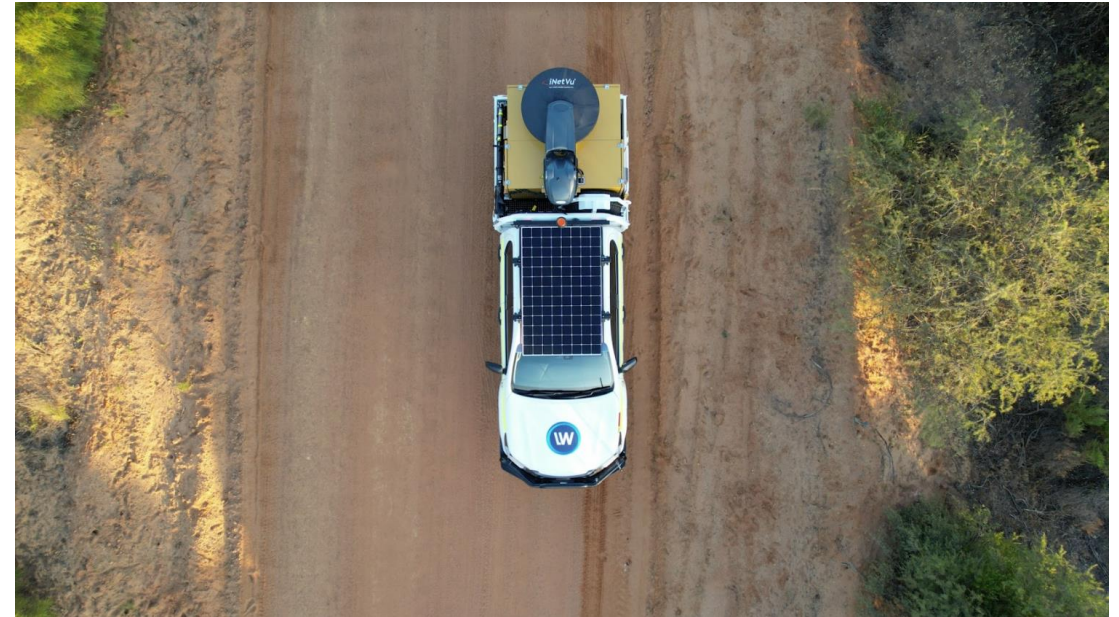
Logic +



Establishing the project's critical path is of course a core element of delay analysis. Events that delay the critical path may entitle a party to relief from their effects.

LOGIC+ identifies the project's critical path across all files and finds changes from the selected baseline. An easy intervention process allows the user to make corrections to the algorithm's selection and all user interventions are logged in supporting files.

SATUTE



Lewis Woolcott's SATUTE has the ability to create a fast and secure internet connection anywhere in the country at the touch of a single button. It's the perfect solution for mobile teams working in locations that would otherwise be completely cut off from civilisation!

SMART

What SMART does

- It is an advanced project management tool that enables remote management of projects
- Able to watch in real time the progress of the project
- Complete visual recording of a project
- Tracks resource information – plant, equipment, people

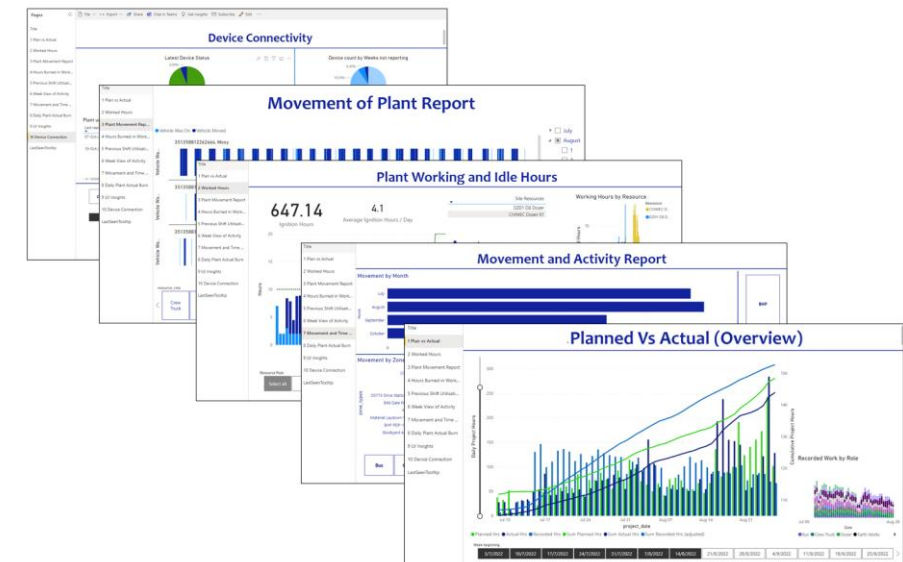
Key Features

- WBS and site terrain visualization
- Assigns resources per each plant, equipment to ensure adherence to schedule.
- Instant alerting of breaches of zones

Results

- Analyses data to improve productivity – budgeted vs scheduled
- Mitigate risks of disputes due to tracking of work
- Support resolution of issues
- Better decision making based on real-time automated project controls

SMART creates unity and one source of truth



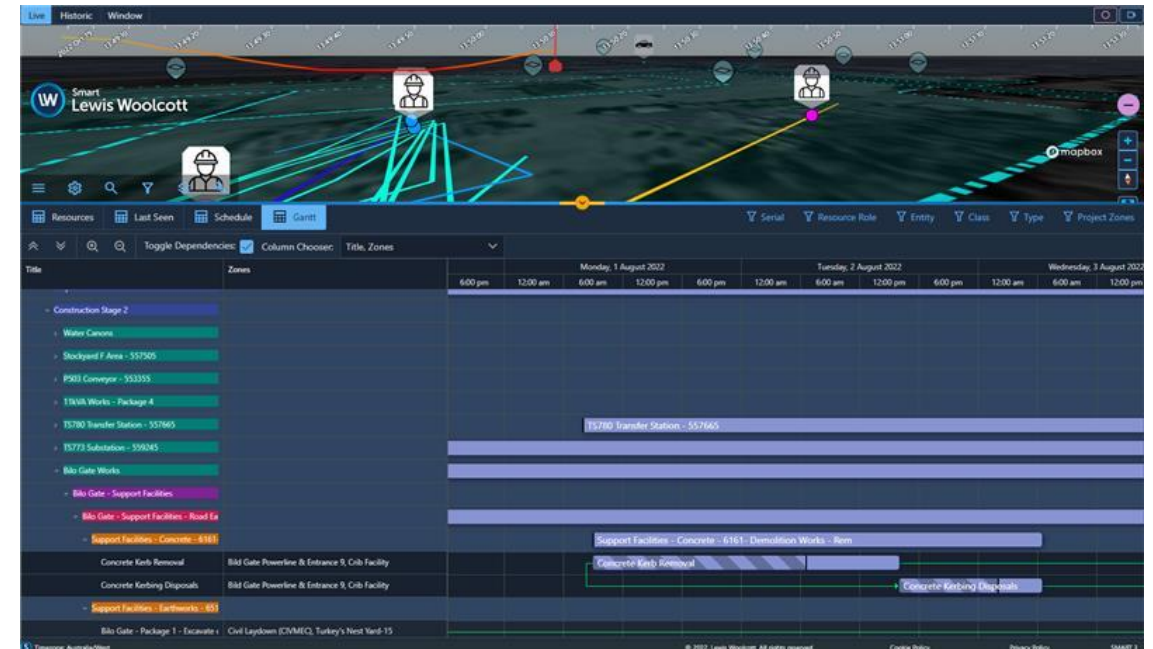
SMART Schedule Integration

Integrating master schedule with SMART platform allows for:

- The ability to view activities live as they are executed on the project site
- Oversight of planned vs actual burned
- Playback of Gantt activity by a simple click

Projects Activities									
Layout: Classic Schedule Layout									
Activity ID	Activity Name	ZONE	SMART Non Prod	SMART Prod	AI Completion Labor Units	AI Completion Nonlabor Units	Original Duration	Remaining Duration	Schedule % Complete
A1000	Site walk through & Validate	Obstruction 85.9 LX-East			0	0	0	0	100%
A1000	Confirmation of clearing requirements	Obstruction 85.9 LX-East			0	0	0	0	100%
A10700	General Fill delivery (not required at 85)	Obstruction 85.9 LX-East			0	0	0	0	100%
A10710	Clip and Pails Delivery	Obstruction 85.9 LX-East			0	12	1	0	100%
A17000	89.1LX - East - Enabling Preworks - LoE	Obstruction 89.2 LX-East	519.92		854	1170	2	10	2%
A17000	89.1LX - East - Core Execution Works - LoE	Obstruction 89.2 LX-East			4802	2668	2	2	0%
A17000	89.1LX - East - Follow Up Post Works - LoE	Obstruction 89.2 LX-East			2600	1480	1	1	0%
A17700	89.1LX - West - Enabling Preworks - LoE	Obstruction 89.1 LX-West	0.48		3741	4860	5	0	100%
A17710	89.1LX - West - Core Execution Works - LoE	Obstruction 89.1 LX-West			4822	2660	2	0	100%
A17720	89.1LX - West - Follow Up Post Works - LoE	Obstruction 89.1 LX-West			1584	878	1	1	100%
A17800	95.4LX - West - Core Execution Works - LoE	Obstruction 95.4 LX-West			4800	2668	2	2	0%
A17810	95.4LX - West - Follow Up Post Works - LoE	Obstruction 95.4 LX-West			2948	1608	1	1	0%
A18210	Downers - Labour (White Collar)	WorkArea 1			31200	0	28	21	26.92%
A18150	Downers - Labour (Blue Collar)	Rio Site Office			74880	0	28	21	26.92%
A18190	McDonalds - Labour	KEM Site Van			4368	0	28	21	26.92%
A18170	KEM - Labour	Ramp 1			15600	0	28	21	26.92%
A16150	Enabling works Start				0	0	0	0	100%
A16160	Obstruction works Start				0	0	0	0	100%
A16170	Obstruction works Finish				0	0	0	0	0%
A16180	Obstruction 85.9LX - East works Finish				0	0	0	0	0%

General Resources									
Activity A17000									
Resource ID Name	Plant	SMART Res Non Prod	SMART Res Prod	Budgeted Units	Actual Units	Completion Units	Remaining Units	Remaining Units / Time	
K-UT04 KEM - Dual Cab LV 4	KEM Crew Cab			26	0	26	26	3rd	
K-UT05 KEM - Dual Cab LV 5	KEM Crew Cab			26	0	26	26	3rd	
K-EXC001 KEM - Excavator 38 t	KEM Excavator			14.26	0	26	26	3rd	
K-EXC002 KEM - Excavator 38 t	KEM Excavator			14.26	0	26	26	3rd	
K-EXC003 KEM - Excavator 8t	KEM Excavator			14.26	0	26	26	3rd	
K-GDR1 KEM - Grader 1	KEM Grader			26	0	26	26	3rd	
K-GDR2 KEM - Grader 2	KEM Grader			26	0	26	26	3rd	
K-GDR3 KEM - Grader 3	KEM Grader			26	0	26	26	3rd	
K-LW0 KEM - Leading Hand				12	0	12	12	7th	
K-LT0 KEM - Light Truck	KEM Light Vehicle			38.15	0	26	26	3rd	
K-LDR1 KEM - Loader 1	KEM Loader			7.94	0	26	26	3rd	
K-LDR2 KEM - Loader 2	KEM Loader			7.94	0	26	26	3rd	
K-LDR3 KEM - Loader 3	KEM Loader			7.94	0	26	26	3rd	
K-LDR4 KEM - Loader 4	KEM Loader			7.94	0	26	26	3rd	
K-MEC KEM - Mechanical Fitter				26	0	26	26	3rd	
K-OPR KEM - Operators (LV4)				416	0	416	416	54th	
K-OVT1 KEM - Overhead Tanks 1	KEM Prime Mover			0.67	0	26	26	3rd	



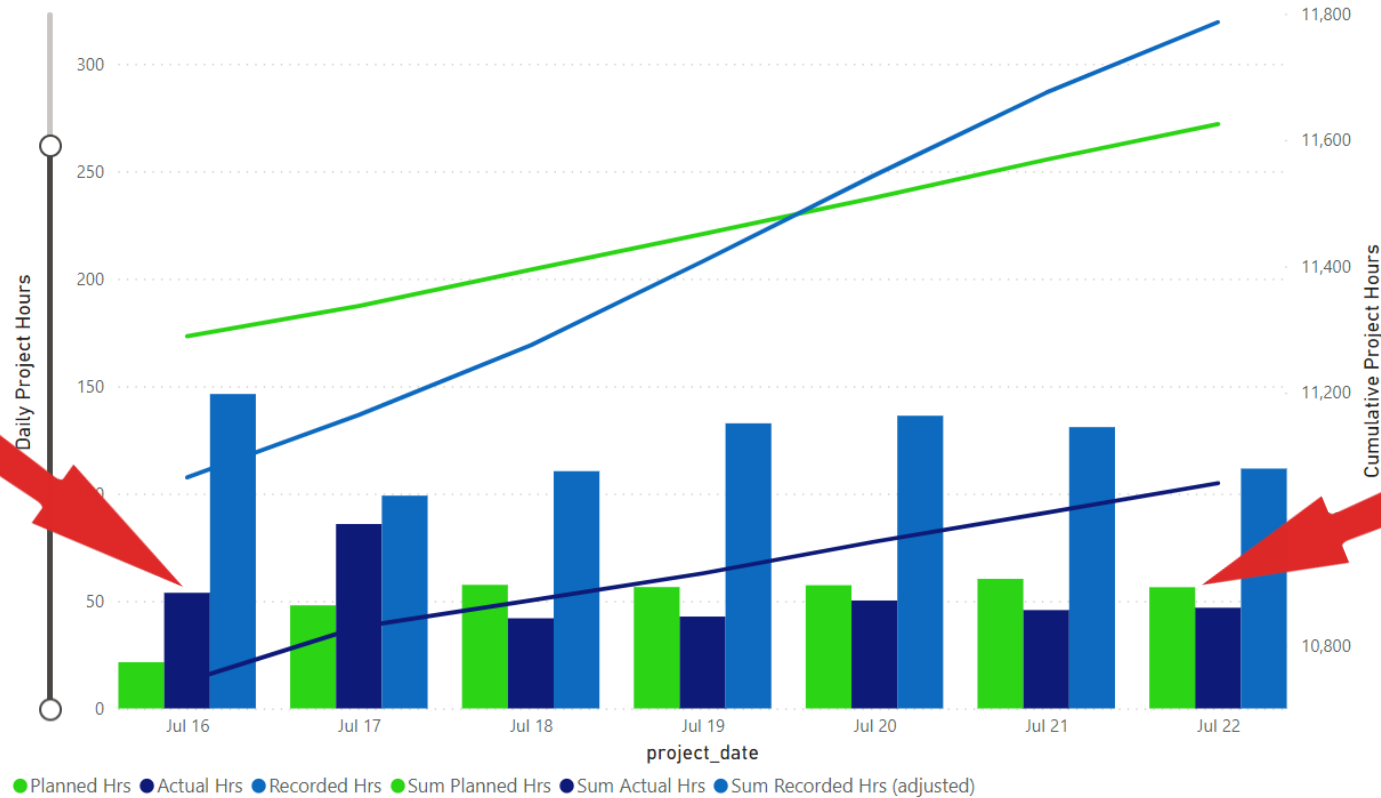
Tracking Actual Vs. Planned

SMART can read data directly from P6, so Planned vs. Actual work hours can be compared in real-time.



Smart

Site Mapping and
Resource Tracking



Lewis Woolcott

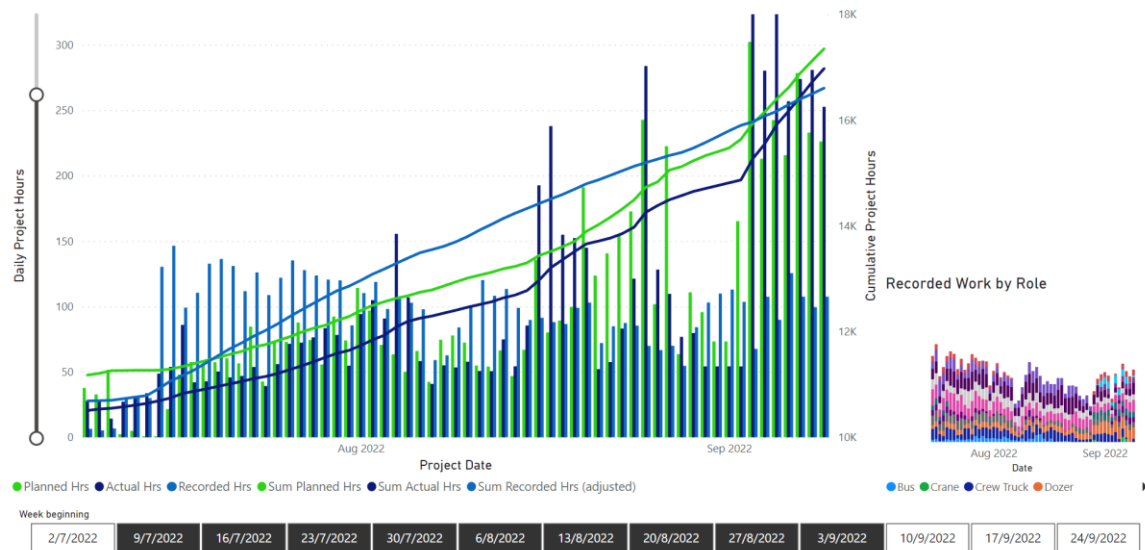


Project Controls
EXPO
Melbourne, Australia

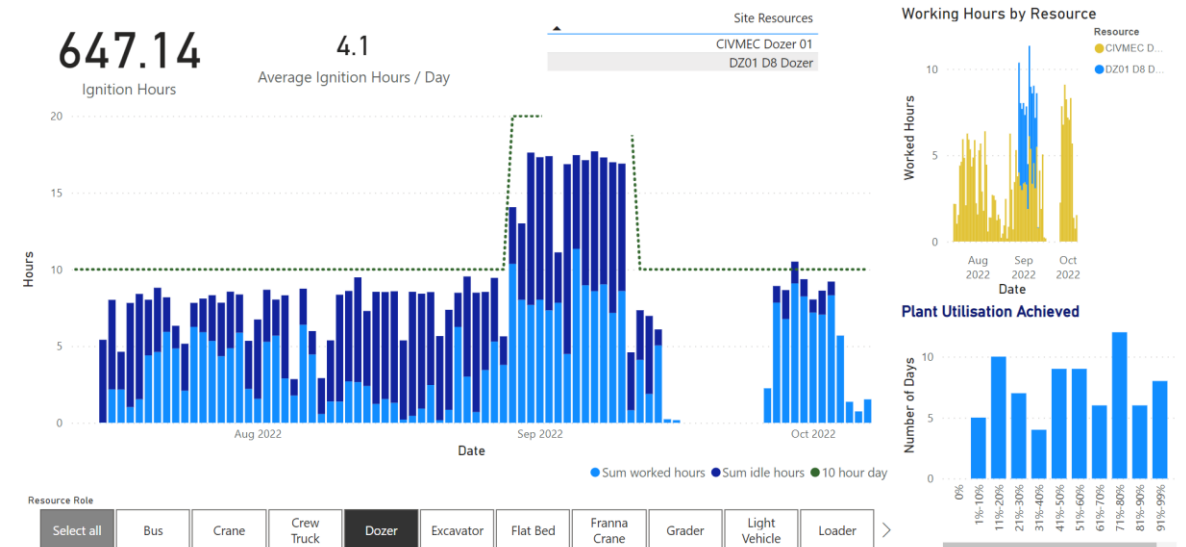
Transforming SMART Data Into Project Controls Gold

Lewis Woolcott Power-BI Reporting Suite

Planned Vs Actual (Overview)



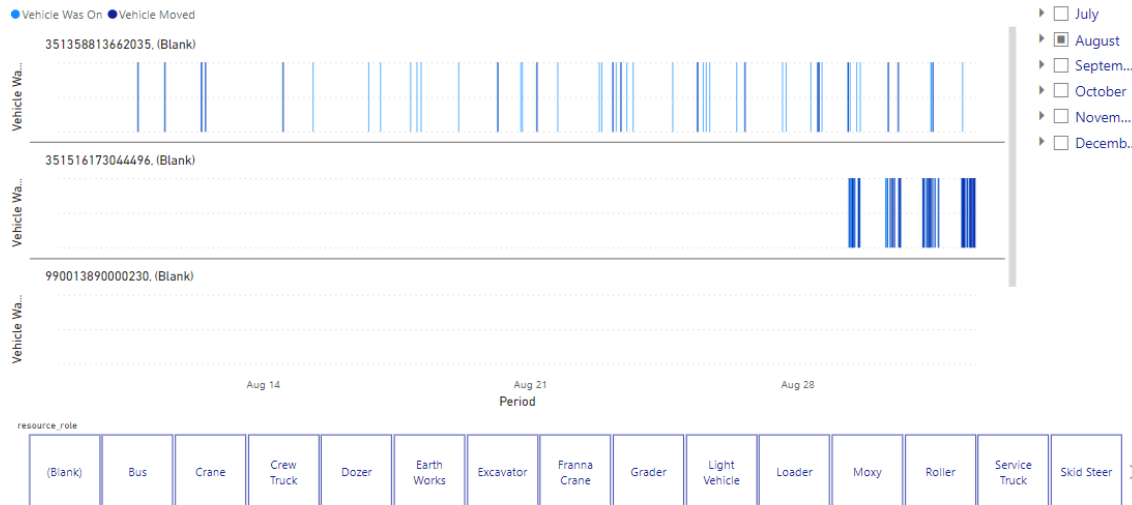
Plant Working and Idle Hours



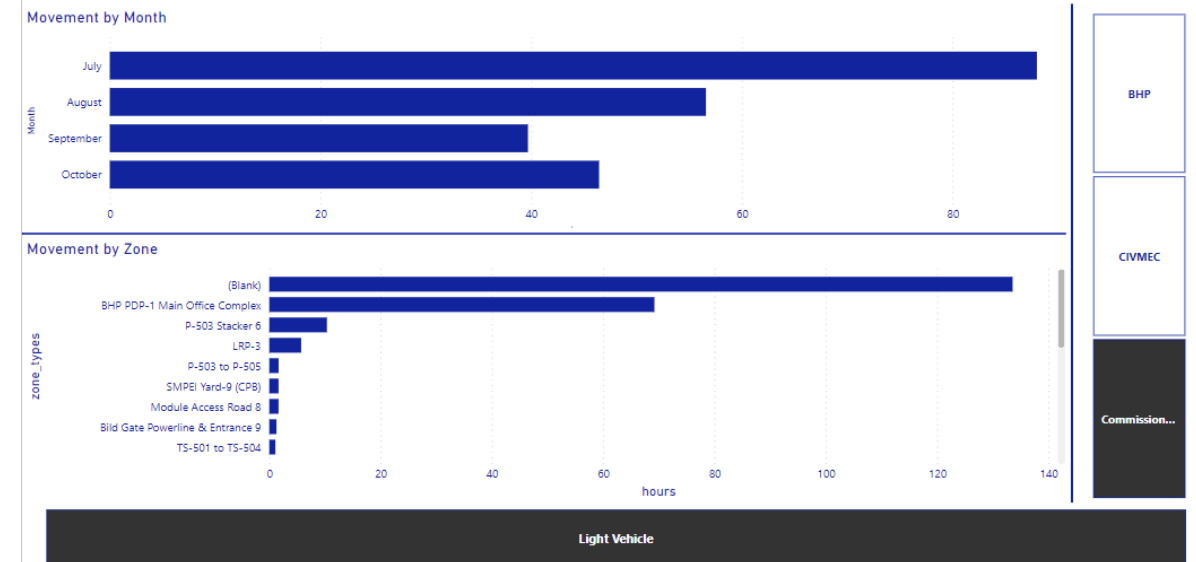
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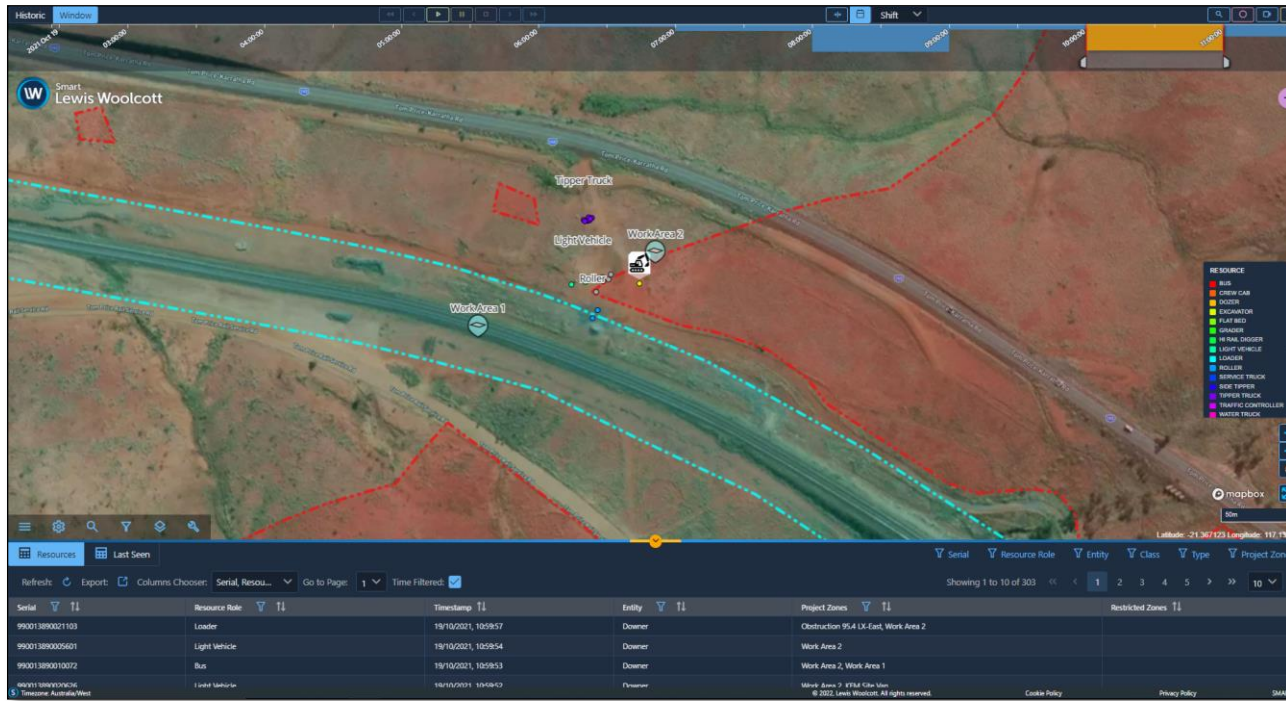
Movement of Plant Report



Movement and Activity Report

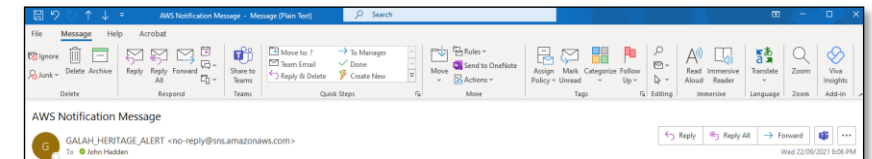


Biosecurity, Heritage, and Safety



Overlay of No Go Zones such as Heritage, Private Boundaries, Biosecurity, and High-Risk Zones Allow for Instant Breach Detection and Alerting

Instant Event Alerts to Email and SMS



Text Message
Today 12:46 pm

A breach has just been detected at Galah Heritage Site [142738](#) by a Contractor Excavator



Smart

Site Mapping and
Resource Tracking

Launch SMART

Launch
Dashboards



THANK YOU