

15 - 16 November, Wembley Stadium, UK

Implementing Project Controls on Victoria's Largest Road Megaproject

Presented By:

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Date: 16/11/2022 | Session Code: P3. 11:15 – 11:55



 **Project Controls**
EXPO
London, UK

 **NORTH
EAST LINK**
PROGRAM

Program Context

North East Link Program (NELP)



Australian Road Network and Context

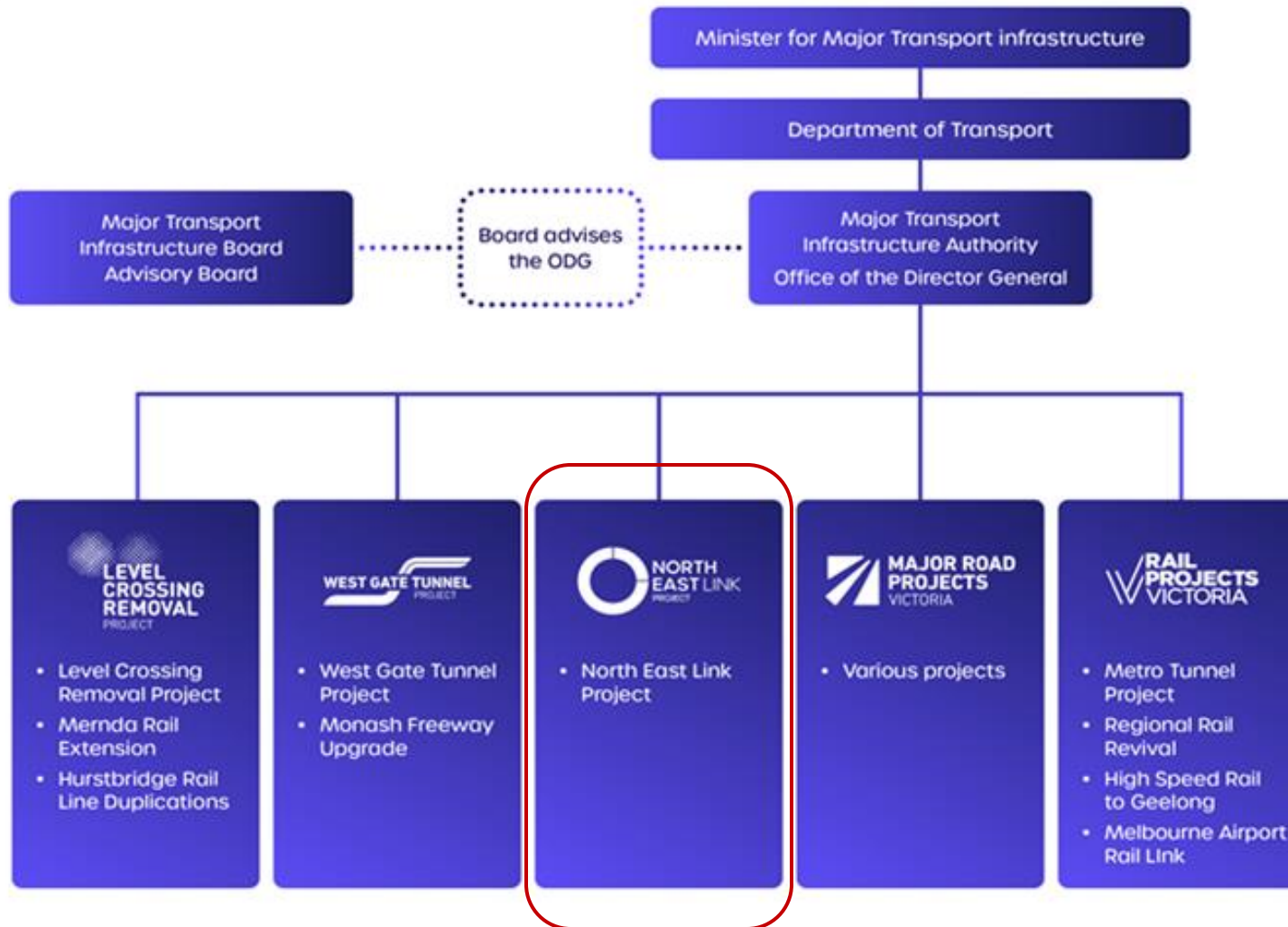
- 95% the size of the USA
- Population of Australia 25 million
- Population of UK 67 million
- Population of Melbourne 5.2 million
- Population of inner London 9.5 million

National road network



Source: Bureau of Infrastructure and Transport Research Economics (BITRE), 2020, Key Australian Infrastructure Statistics 2020, Canberra ACT.

Major Transport Infrastructure Authority (MTIA)



- A Part of Victoria's Big Build
- ~\$110b transport projects being delivered
- 119 major road & rail projects
- Over 25,000 jobs across Victoria

Fixing the missing link between our city's north and east



15,000 trucks off local roads every day



Up to 135,000 trips a day



35 minutes slashed between Melbourne's north and east



Skip 18 sets of traffic lights on your way to the airport



5 interchanges



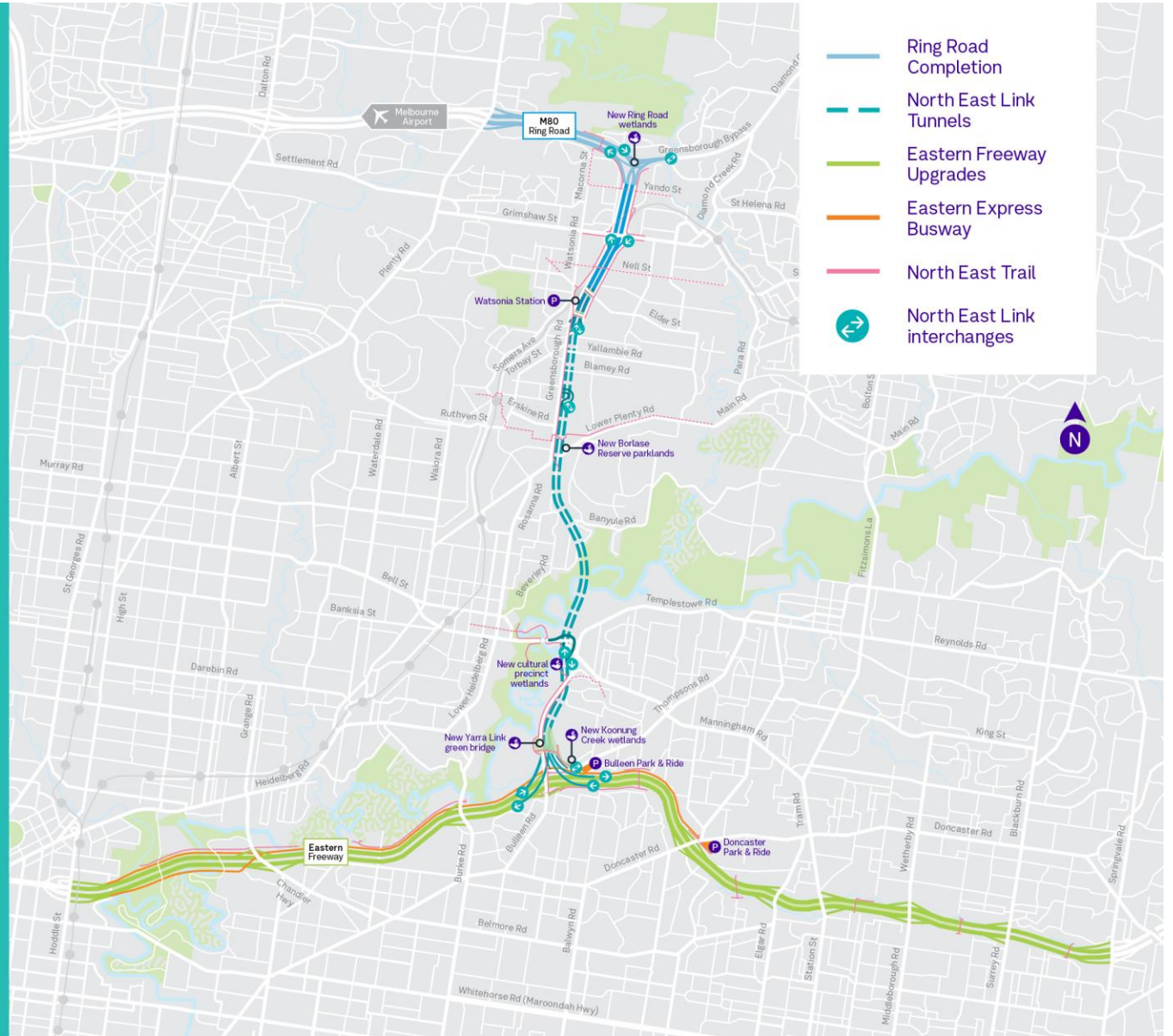
50 MCGs of open space



30,000+ trees planted

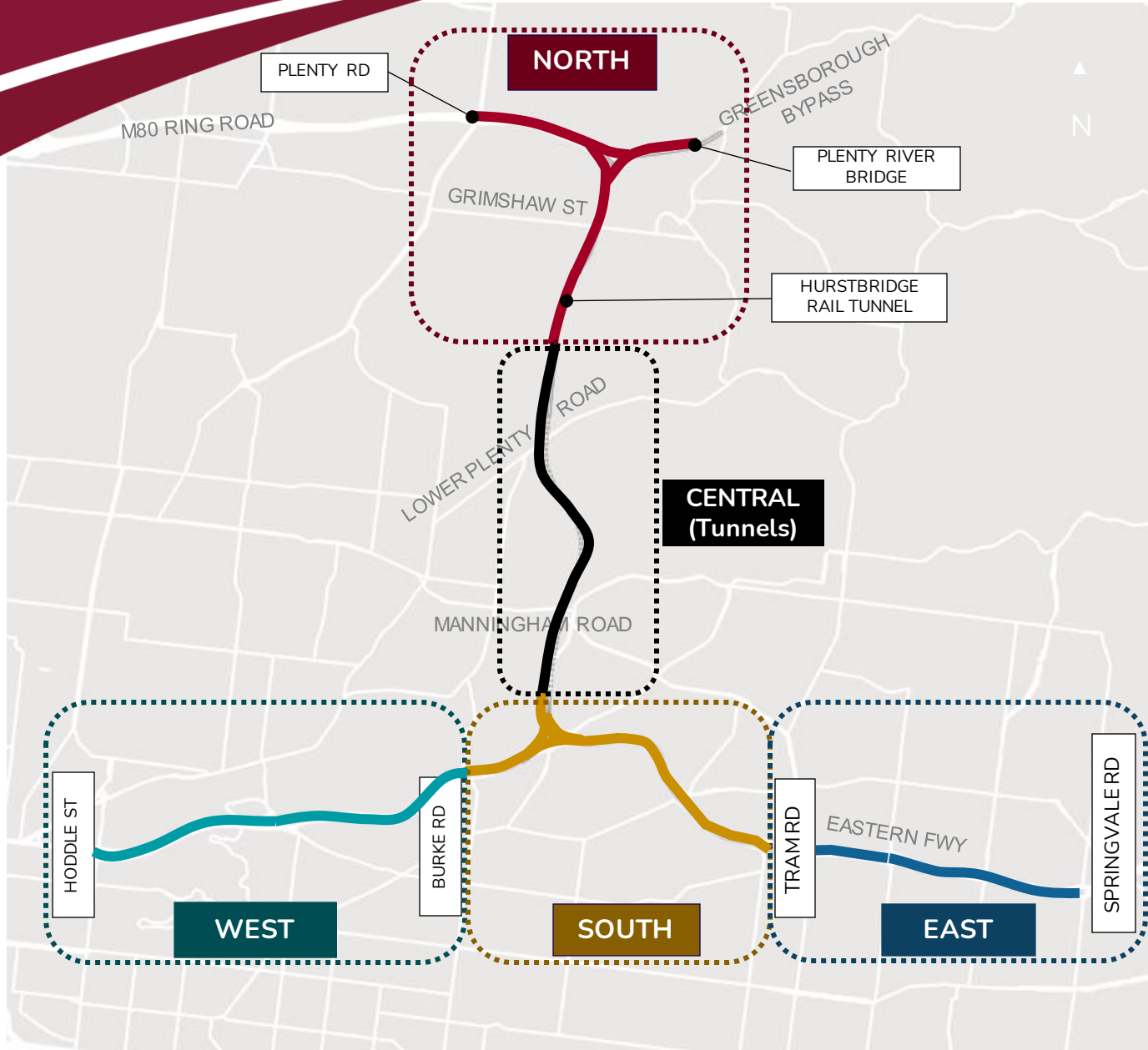


10,000+ new jobs for Victorians



NELP Package Overview

- Main construction works will be delivered through five packages:



Package Name:

Contract Model:

Central (Tunnels) Package

PPP

North Package

Alliance

South Package

Alliance

East Package

Alliance

West Package

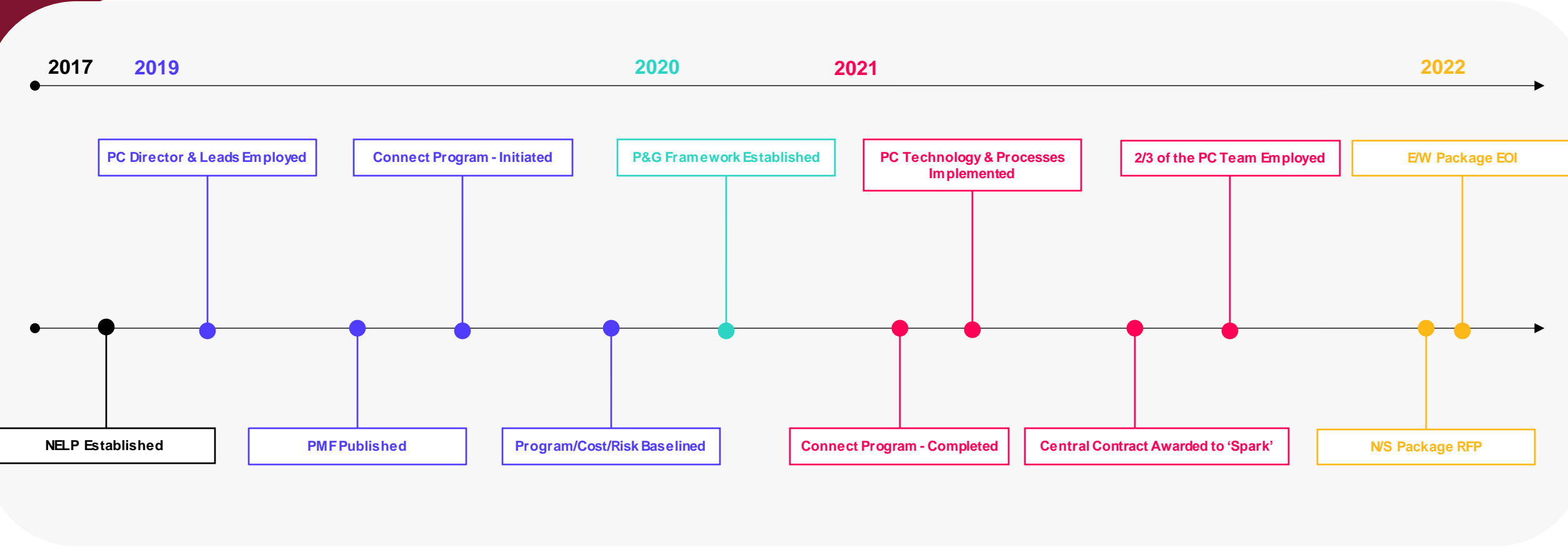
Alliance

Strategic Vision

Project Controls

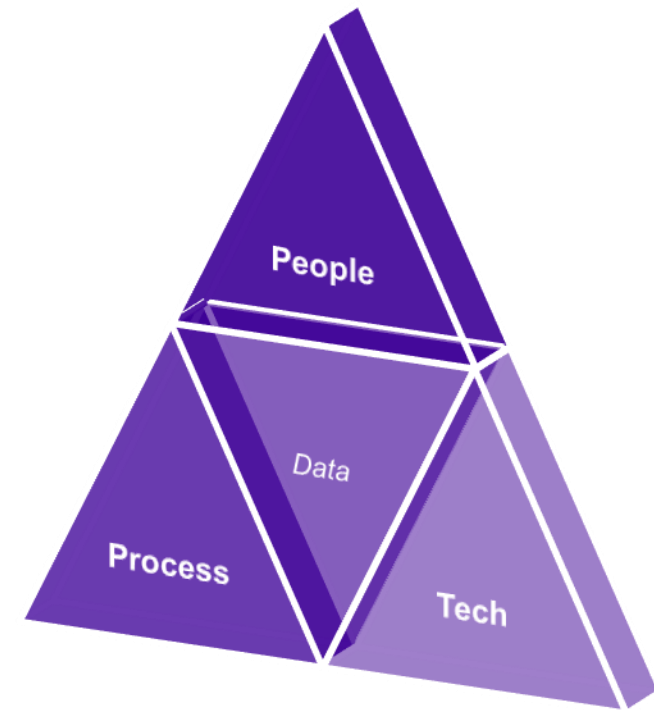


Project Controls – Journey



Project Controls – Mission

- Project Controls provides specialised services across several Functions through the optimisation of people, process and technology to facilitate timely, accurate decision making by project stakeholders.
- This is achieved by creating a capable industry-leading Project Controls team who have implemented technology and processes that are fit for purpose and designed to innovate the delivery of Project Controls across NELP and the MTIA.
- The cornerstones of Project Controls are >



Key Principles to Effective Project Controls

Standardisation

System Integration

Data Integrity

Scalability

Increased Certainty

Increased Staff Capability

Project Controls – Functional Objectives

Planning & Scheduling

- Manages TIME on the project, to facilitate effective, informed, timely decision making

Cost Engineering

- Provision of accurate cost services, through estimating, control, analysis, advice, reporting of project data to support informed decision making

Risk Management

- Provision of specialist risk services to project stakeholders by identifying, analysing and reporting risks to improve decision making and better deliver project outcomes

Quality Control

- Ensure the Quality Assurance and Control requirements in delivering NELP are met by establishing processes and monitoring their implementation, providing confidence to the internal and external stakeholders that NELP achieves its quality objectives

Document Control & Collaboration

- Implement, manage, train and support the collaboration platform to ensure compliance with Government information management requirements and the integrity and security of documents and correspondence for appropriate and timely availability to project participants

Innovation, Insights & Systems

- To enable NELP to make collaborative and informed decisions, through educating, advising and embedding fit for purpose best practice initiatives

Project Controls Operational Plan (Divisional) – 2022-2023

Vision (Elevator Pitch)

- Provide specialised services through the optimisation of people, process and technology to facilitate timely, accurate decision making by project stakeholders.

Strategic Objectives

Operating Rhythm

- Performance & Governance Framework revised implementation completion
- Succession Planning in place for all roles
- Completed alignment between Project Controls and other NELP functions

Success Measures

People

- Approved resource plan and forecast in place and actively managed
- Strategic initiatives adequately resourced and not impacting BAU
- Training & Development plan actively managed

Process

- Align practice with process (remove redundancy and repetition)
- Finalise, agree and align information requirements in the P&G Framework
- Ensure process is effective, understood and complied

Technology

- Implement the EDW
- Align all technology to P&G Framework requirements
- Align technology to Project Controls and functional requirements

2022 - 2023 Operational Initiatives

Planning & Scheduling

- Align and finalise reporting outputs.
- Development and delivery of Planning system incorporating Cost, Time, Risk and Quality.
- Finalise and implement the Performance Baseline Reporting Guidelines (PBRG).
- Embed team in Alliance teams.

Cost Engineering

- Alignment of Project Controls, Finance and Contracts processes and systems (Oracle Unifier, ERP and Ecosys).
- Ecosys shall be the single source of truth for all cost information and reporting.
- Develop and upskill VPS staff in Cost Engineering and provide Ecosys training. Ensure no single points of failure.

Risk Management

- Finalise alliance and resource requirements.
- Align risk, cost and time reporting (strengthening the Schedule component).
- Implement the reporting guidelines in the alliances.
- Enhance Ecosys reporting and functionality.

Quality Assurance

- To ensure there are adequate resources in alliances.
- Train and develop VPS staff in Quality Assurance (Internal Audit capability etc.)
- Consistency of Quality processes across all packages and alliances.
- Finalise Quality reporting

Document Control

- Deliver all vehicles of communications to facilitate contractual processes.
- Ensure Main Contract Information Management Plans are adequate.
- Facilitate compliance with VPDSF initiatives.
- InEight Document contract renewal.
- Utilise load-balancing cooperation among DC Team members to ensure prompt processing services to all Main Contracts.

Innovation, Insights & Systems

- Identification and coordination of all relevant data sources into EDW (i.e. LPE, Comms & Stakeholder etc.)
- Implement EDW and future state reporting in line with Performance & Governance Framework.

Process Foundations

Project Controls



Project Management Framework

Performance and Governance Framework Strategy | Project Controls | Continuous Improvement

Performance Review Meeting Terms of Reference

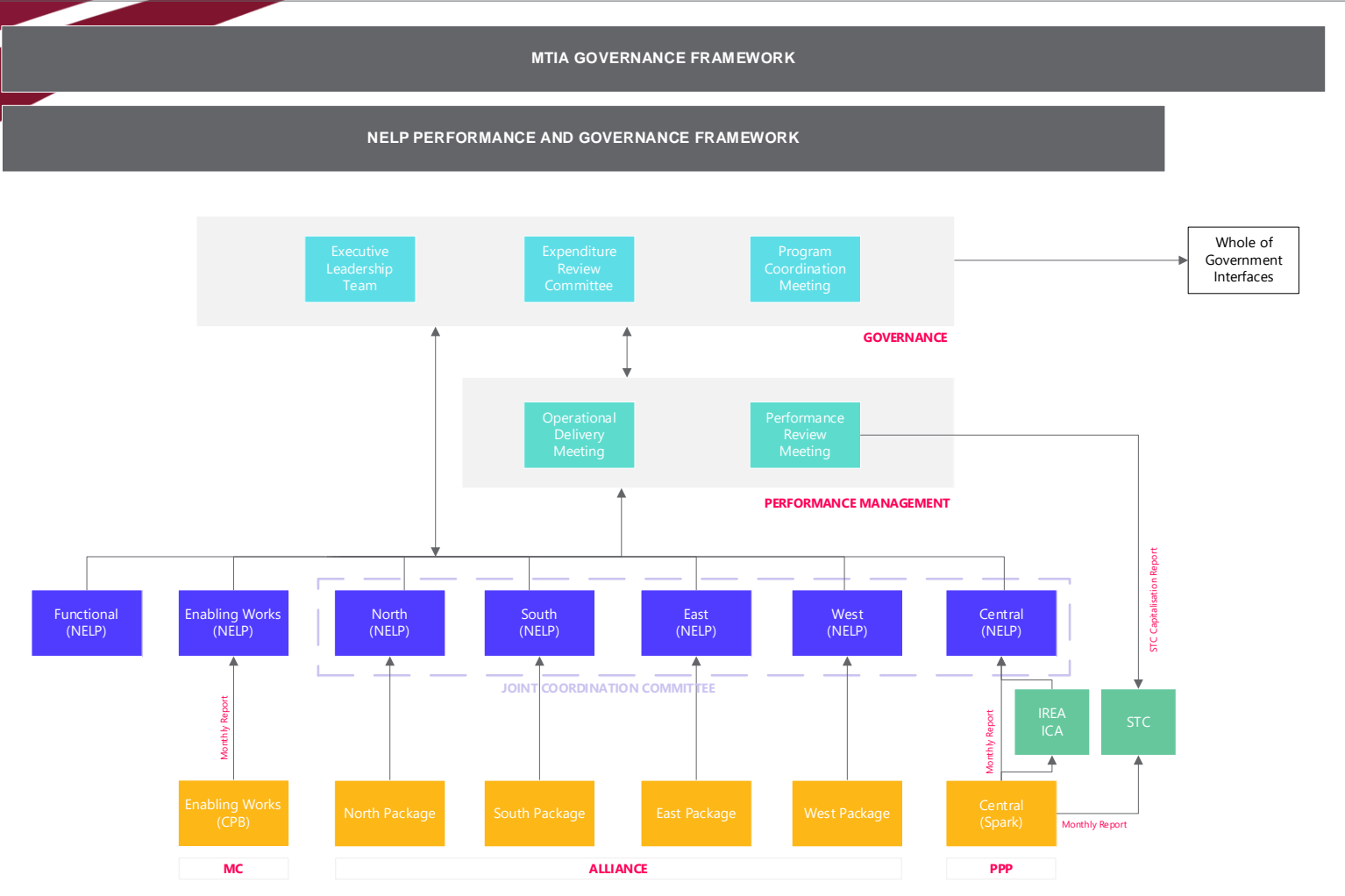
RAPID Decision Accountabilities Model

Last reviewed @ 3/09/2021
This document defines the performance management and governance requirements including authority structure, format and frequency. It aims to provide details on coordination, communication and actions at a program level, for the delivery of NELP

Documents A-Z	Functions	Document Types
Glossary	FAQs	What Is a PMF Doc?
Feedback	Templates	My Documents

- The Project Management Framework (PMF) is a mandated governance approach to managing the North East Link Program (NELP).
- This PMF site contains all of NELP's key process documents and tools, including: Policies, Strategies and Frameworks, Plans and Procedures, Templates and Forms
- All NELP personnel have access to the PMF site, where the current version of all project documentation is available.
- Aligned to AS/NZS ISO 9001 and AS ISO 21500
- PMF Metrics
- The PMF contains over 400 documents
- Each document is reviewed annually to ensure versions are current
- The site receives over 1400 hits per month

Performance & Governance Framework



- The purpose of the Performance & Governance Framework Strategy is to define the performance management and governance requirements including authority structure, format and frequency.
- It aims to provide details on coordination, communication and actions at a program level, for the delivery of the NELP.
- The scope pertains to all meetings, reviews, decisions, actions, reporting and communications associated with NELP program performance, incorporating governance requirements.
- The Strategy defines the purpose of the following meetings:
 - Performance Review Meeting (PRM)
 - Operational Delivery Meeting (ODM)
 - Project Coordination Group Meeting (PCG)
 - Executive Leadership Team Meeting (ELT)
 - Expenditure Review Committee (ERC)
 - Joint Coordination Committee (JCC)

Technology Foundations

Project Controls

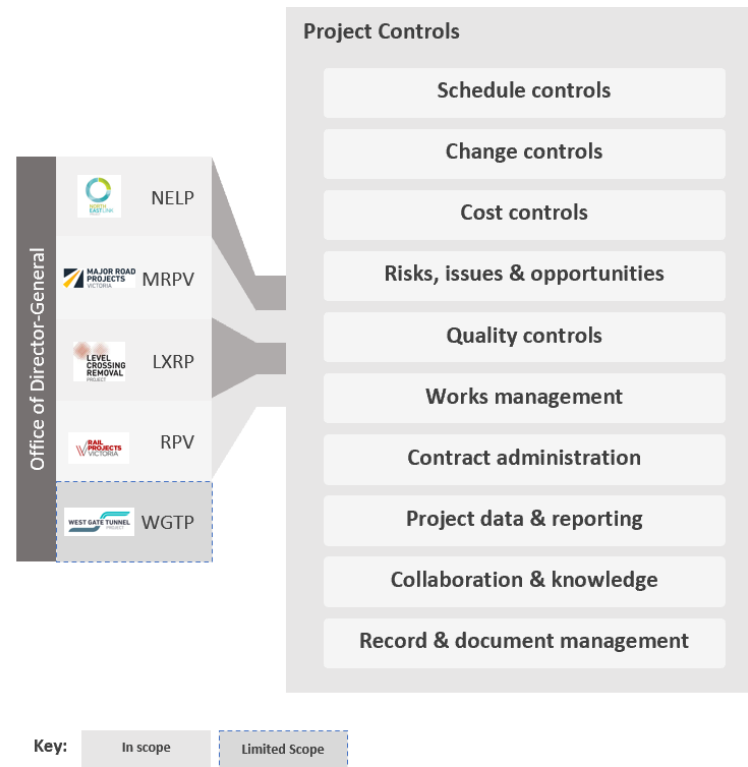


Project Controls Systems Alignment

The commencement of large-scale projects, ongoing control of a significant portfolio of capital investment, and the forming of MTIA required a strategic review of project controls capability across MTIA.

MTIA Approach to Project Controls Systems Alignment

Project Controls Scope



Key Challenges



Increasing complexity and inconsistency across the MTIA technology landscape for project controls areas



Disparate project controls systems and manual processes creating inability to view end-to-end workflows and increasing interfaces with Oracle ERP



Highly manual reporting practices, requiring significant effort to produce predominantly static monthly reports which are quickly outdated



Limited ability to track risks, issues and quality at different levels across Project Offices



Limited tools to accurately track performance of agreed contract terms and risks to unforeseen time, cost and quality impacts to project.

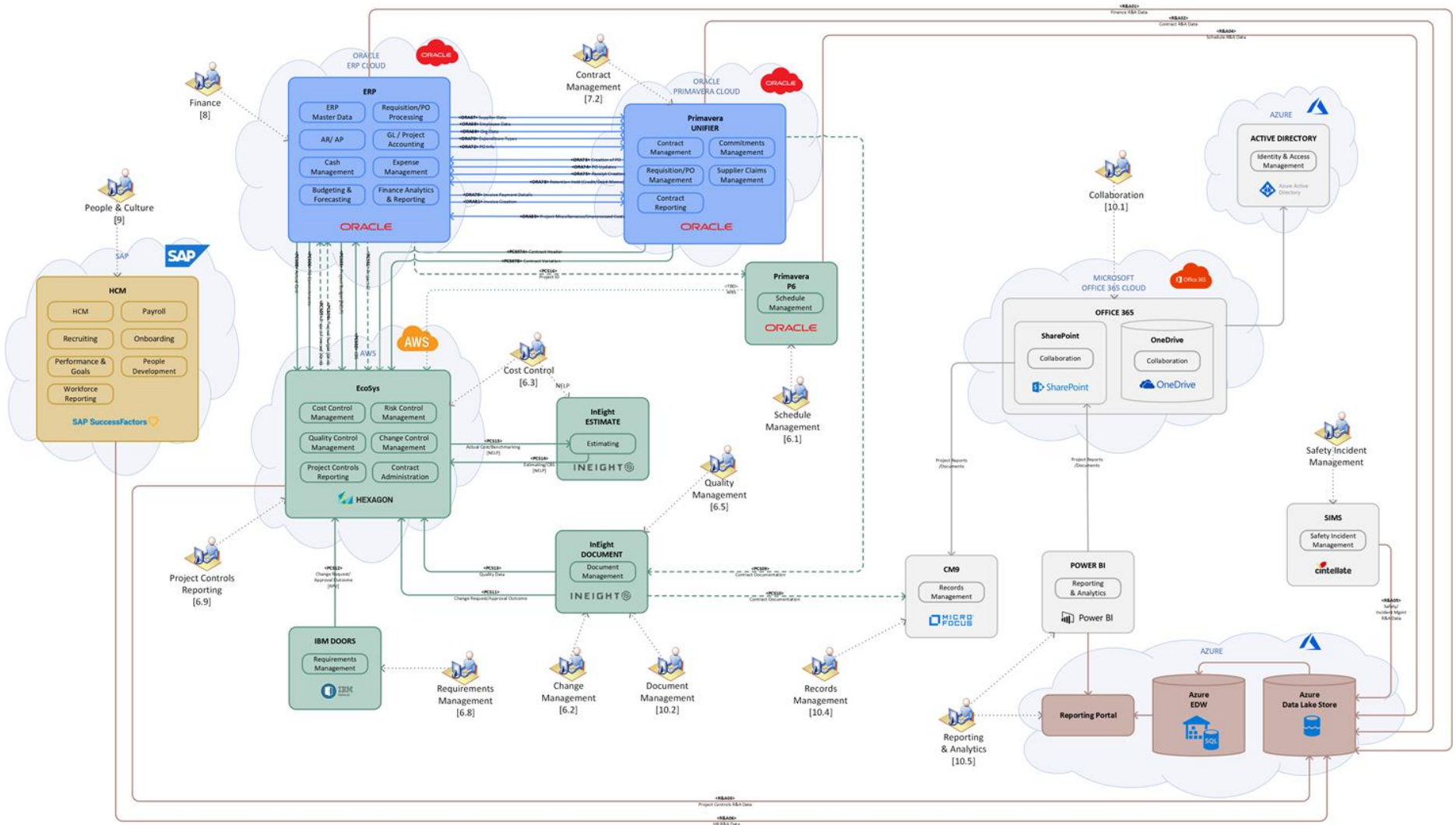
Project Controls Systems Alignment

Current VS Target State Systems

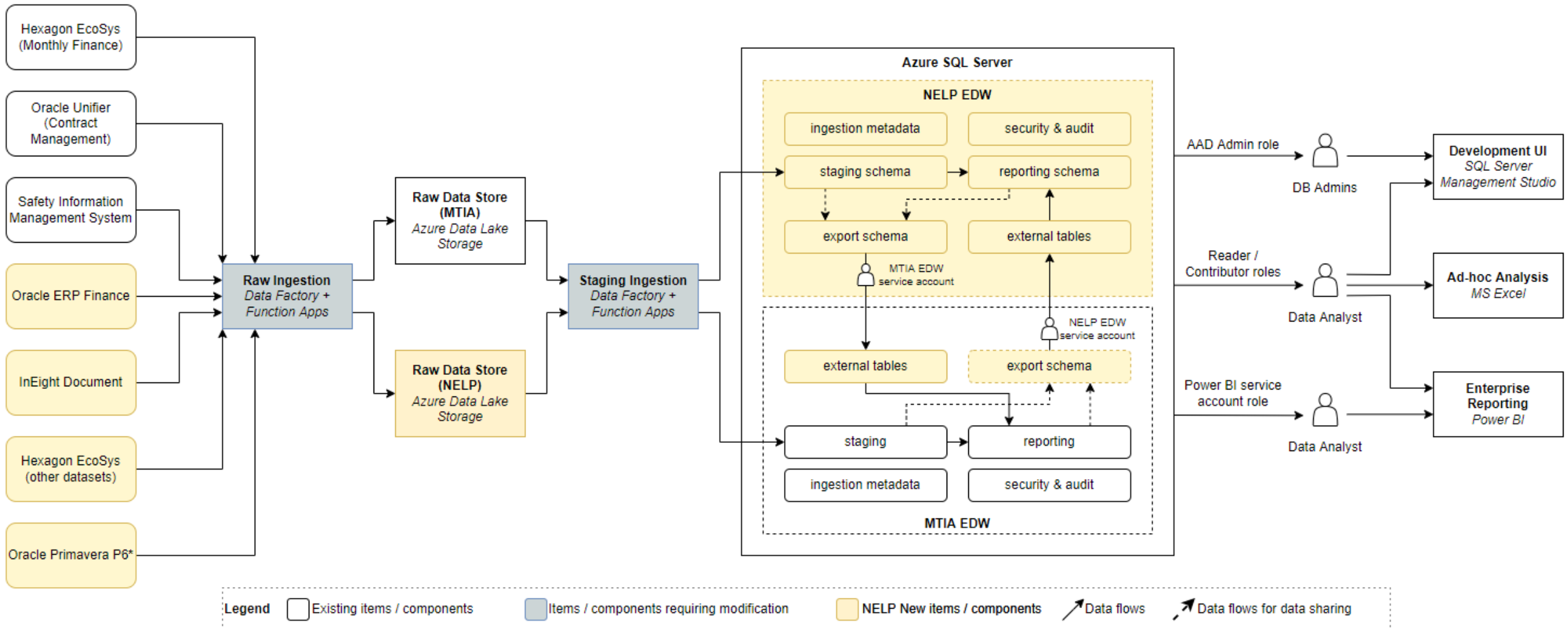
		Current State										Target State										
		NORTH EAST LINK		MAJOR ROAD PROJECTS VICTORIA		LEVEL CROSSING REMOVAL		RAIL PROJECTS VICTORIA		WEST GATE TUNNEL		NORTH EAST LINK		MAJOR ROAD PROJECTS VICTORIA		LEVEL CROSSING REMOVAL		RAIL PROJECTS VICTORIA		WEST GATE TUNNEL		
		RETIRE		CONTAIN		PROMOTE		RETIRE		CONTAIN		PROMOTE		RETIRE		CONTAIN		PROMOTE		RETIRE		
6. Project Controls	6.1 Schedule Management	InEight Document	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	Primavera P6	
	6.2 Works Management	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	6.3 Cost Control Management	Excel	Excel	Excel	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	EcoSys	Oracle ERP	
	6.4 Risk Control Management	Excel	Excel	Excel	EcoSys	Excel	EcoSys	Excel	EcoSys	Excel	Excel	Excel	Excel	Excel	Excel	Excel	Excel	Excel	Excel	Excel	Excel	Excel
	6.5 Quality Control Management	Excel	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint	SharePoint
	6.6 Requirements Management	Excel	Excel	Excel	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	IBM Doors	Excel
	6.7 Change Control Management	Excel	SharePoint	SharePoint	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors
	6.8 Project Controls Data & Reporting	Excel	SharePoint	SharePoint	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors	InEight Document	IBM Doors
7. Procurement	7.1 Source to Contract	Lotus Notes CMS																				
	7.2 Contract Management	Lotus Notes CMS																				
	7.3 Expense Management	Lotus Notes CMS																				
	7.4 Requisition/PO Management	Lotus Notes CMS																				
	7.5 Vendor Claims Assesment	Lotus Notes CMS																				
	7.6 Contract Reporting	Lotus Notes CMS																				
8. Finance	8.1 Asset Accounting	Oracle Financials R11																				
	8.2 Requisition/PO Processing	Oracle Financials R11																				
	8.3 Accounts Receivable	Oracle Financials R11																				
	8.4 Cash Management	Oracle Financials R11																				
	8.5 Accounts Payable	Oracle Financials R11																				
	8.6 Project Accounting	Oracle Financials R11																				
	8.7 Budgeting & Forecasting	Oracle Financials R11																				
	8.8 Finance Analytics and Reporting	Oracle Financials R11																				
		Oracle Unifier										Oracle Unifier										
		Oracle ERP Cloud										Oracle ERP Cloud										

Project Controls Integrated Systems Alignment

Target State Systems Architecture



Proposed NELP EDW Platform Design



Note the source of this document is from the MTIA R&A Phase 3 Key Decision Design for NELP EDW Design

2021 Engagement Survey

Project Controls



Project Controls Team Engagement Survey

NELP department engagement

Branch – Project Controls



Questions that established the level of engagement of our employees

Branch – Project Controls

96%

I would recommend NELP as a great place to work

92%

I am proud to work for NELP

65%

I see myself still working a NELP in two years' time

65%

I rarely think about looking for a job elsewhere

Summary



Project Controls Expo Award Finalists!

- Asia-Pacific Project Controls Expo Awards 'Innovation Project of The Year 2021'
- The winner will be announced in November 2022
- The submission was based on the Project Controls Systems Alignment Connect Project that was submitted by Cameron Mills and completed in 2021.
- The written submission covered:
 - Project management (context, delivery, interface, people)
 - Challenges, lessons learnt and innovations
 - Results and benefits



- Create a clear strategic vision and deliver through sustainable objectives
- Attract, retain and continuously develop your people, to the highest standards possible. Invest everything you can into your people, they are the product you are offering.
- Fit for purpose process, effectively supported by technology – never technology first!

THANK YOU



Project Controls Expo 2022 | 16 11 2022

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