



TBH

project delivery experts

Project Controls Maturity Assessment Capability

Asia Pacific - Middle East
tbhconsultancy.com



“ Transforming our communities and improving lives by providing practical solutions to complex problems.

Who We Are

Specialising in high-risk, large-scale and challenging projects, since 1965, TBH has partnered with both the public and private sector to provide practical solutions to their most complex problems.

1

team of diversified expertise, dedicated to providing you with innovative and practical solutions

80%

of our business is from returning satisfied clients - a reflection of the trust they place in us

55+

years of undisputed project excellence have shaped us as leaders in the industry today

8000+

projects to our credit from across the globe, so you can progress with confidence

We strive to deliver undisputed project excellence and bring confidence to all stakeholders in each project we undertake. Our team of experts achieve success through constantly mastering and innovating our application of project advisory services with the highest standard of trustworthiness, reliability and independence.

Our Services

As one of Australia's largest privately owned, independent consultancy with an international footprint, we provide specialist project management services including:



Planning & Scheduling



P3M, PMO and Programme Management



Cost Management



Claims and Dispute Resolution



Risk Management



Project Management



Project Controls



Strategic Advisory Services

These services can be deployed as individual disciplines or packaged up as a complete offering. Our deep sector knowledge, customised tools and experience across the entire project lifecycle allow for all our partners to progress with confidence.

What We Do

Over five decades of experience, coupled with documented industry best practice has been shaped into a bespoke assessment tool. This tool is used to capture and aid in the analysis of organisational data gathered through document reviews, interviews, benefits and workflow mapping. It illustrates how people, processes and technology interact to inputs and generate outputs in the current state and helps to crystallise an appropriate future state.

A gap analysis is then carried out to identify key areas of focus, success factors are defined against which progress can be measured and an implementation plan agreed. In this way we provide all the information required to successfully navigate the next steps toward maturity

Key Areas of review include:

- Tool Sets
- Processes, Guidelines & Work Instructions
- Roles & Responsibilities
- Progress Measurement
- Work Breakdown Structures & Hierarchies
- Time and Cost Estimating & Planning
- Integration of Schedule & Cost
- Time and Cost Management Controls
- Change Management
- Risk Identification
- Risk Quantification
- Risk and Contingency

TBH's Project Controls Maturity Assessment

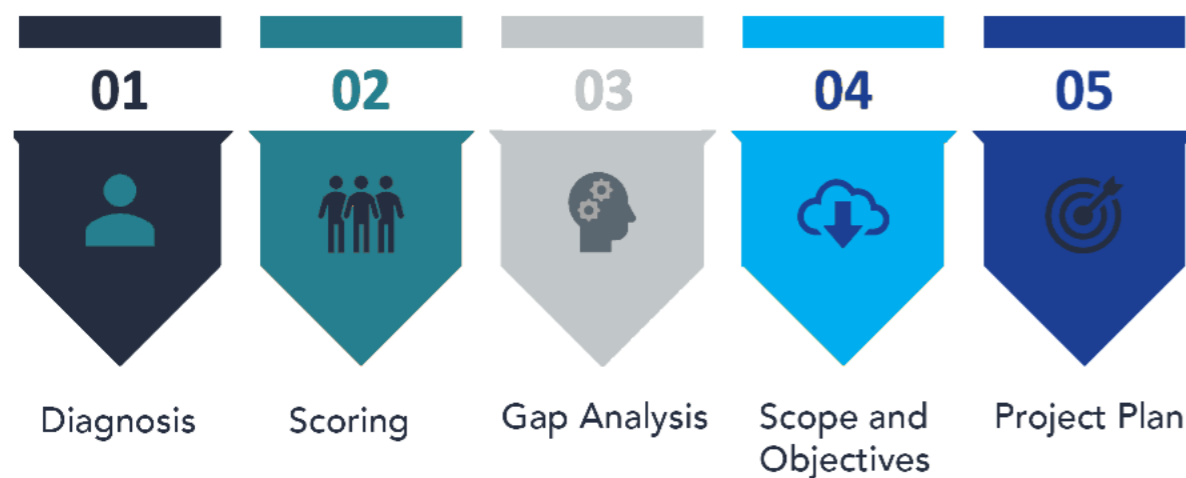
“ The Maturity Assessment provides an objective rating of capability across the functions of time, cost and risk management. A set of predetermined criteria are used to quantify maturity across bands in a way that is unbiased, clear, specific and measurable.



IPC Maturity Assessment: A methodology to Measure the Unmeasurable

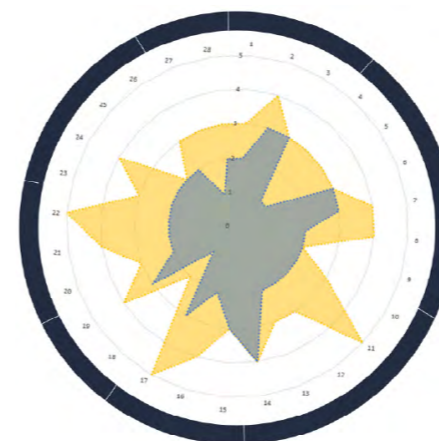
Project Overview

Many organisations measure their maturity – of People, Projects, Processes and Systems – using quantitative metrics, or KPIs as they are often called. The issue however is, metrics that rely on human judgements are subject to cognitive bias. A well-designed metric should include an unambiguous statement as to what is being measured, how it is to be measured and how it is to be interpreted.



Using TBH's Maturity Assessment Toolkit and methodology, we have made it possible to eliminate this subjectivity by associating the intangible characteristics to tangible ones (Best Practices).

- **Diagnosis:** The evaluation state began with diagnostic meetings, workshops and review of the existing processes, procedures and systems to identify existing practices and organisational maturity. The goal is to determine which processes are currently in place and gauge how effective they are at achieving their intended purpose.
- **Scoring:** The key best practices are organised around a range of project controls and project management fundamentals. This is the benchmark for assessment and assesses and identifies best practice gaps.
- **The Gap Analysis assessment** is carried out, identifying current and future state capabilities and areas to focus on. The score for each band is clear, specific and measurable.
- **Scope and Objectives:** Identify and document interim and future state capabilities. Develop key principals which will form the basis of our recommendations
- **Project plan, budget, change management and communication plan approved and being implemented.**



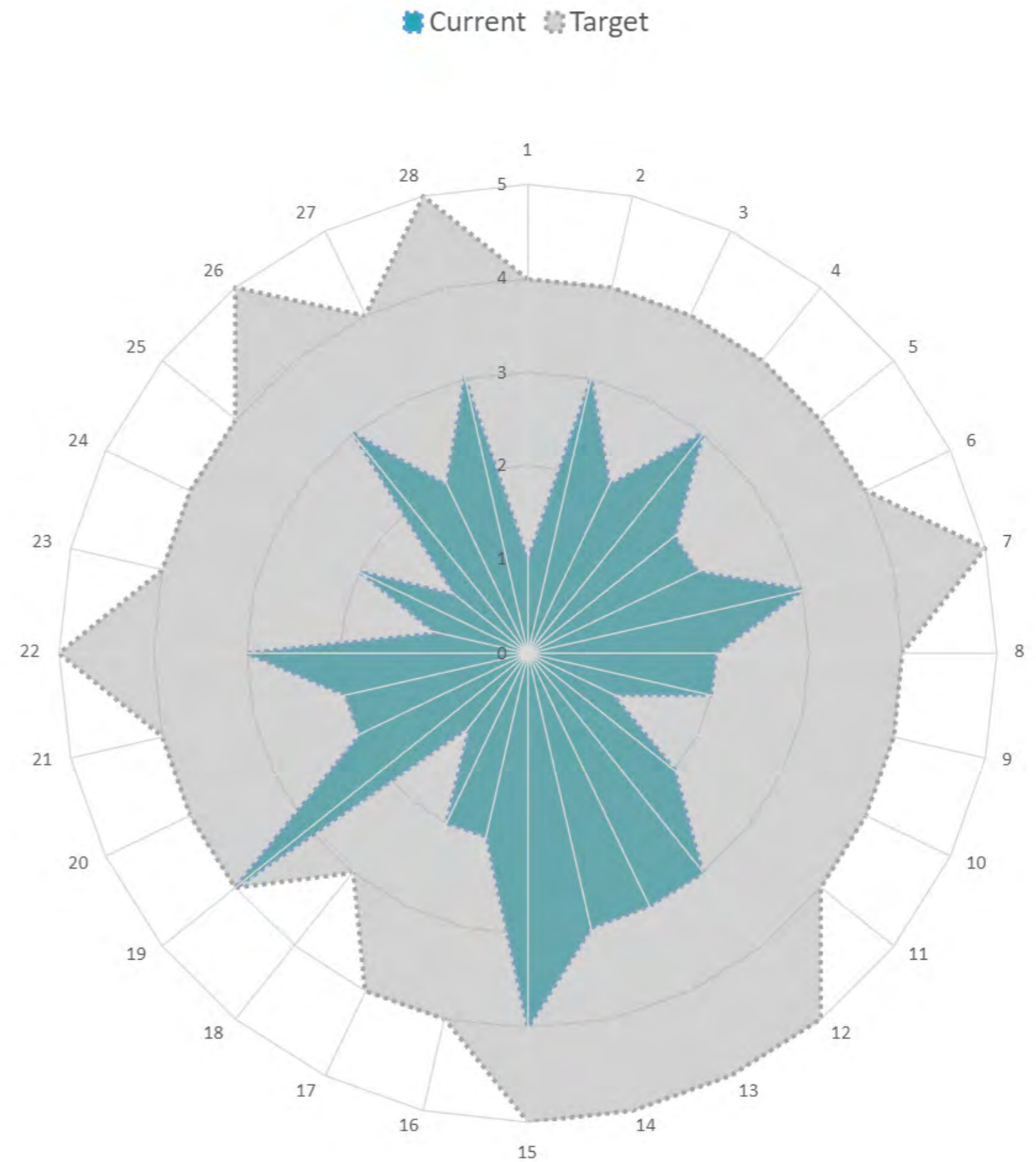
The following are some common issues across various industries concluded from our gap analysis. These observations are the most reoccurring themes from a range of project controls' Maturity Assessments conducted by TBH.

Integration:

- Data across disciplines and projects is inconsistent
- Key performance indicators are often manually manipulated and the confidence from management is low in using these for decision making
- No ability for management to drill down into information to find the cause of problems
- No overall portfolio master schedule of current and upcoming projects exist
- Early warnings and the ability to make decisions have been missed. Time is spent chasing reasons for inaccuracies rather than corrective actions
- Key trends such as SPI/CPI variances over time, upcoming changes, contingency draw down are not included
- There is a general desire to have a more proactive project controls function that not only provides historical information but can flag upcoming problems and provide solutions to allow the project manager time to decide if they want to intervene

Schedule:

- The scheduling team are engaged at the discretion of the Project Manager. There is no scheduling and planning accountability and responsibility framework that sets out the line of authority
- Lack of Contractor's schedule acceptance criteria and integrity checks
- Contractor schedules are interpreted back into the master schedules which creates unwanted positive float that cannot easily be used to construct and justify the level of schedule management-reserve.
- No defined risk analysis embedded into the scheduling process



Cost:

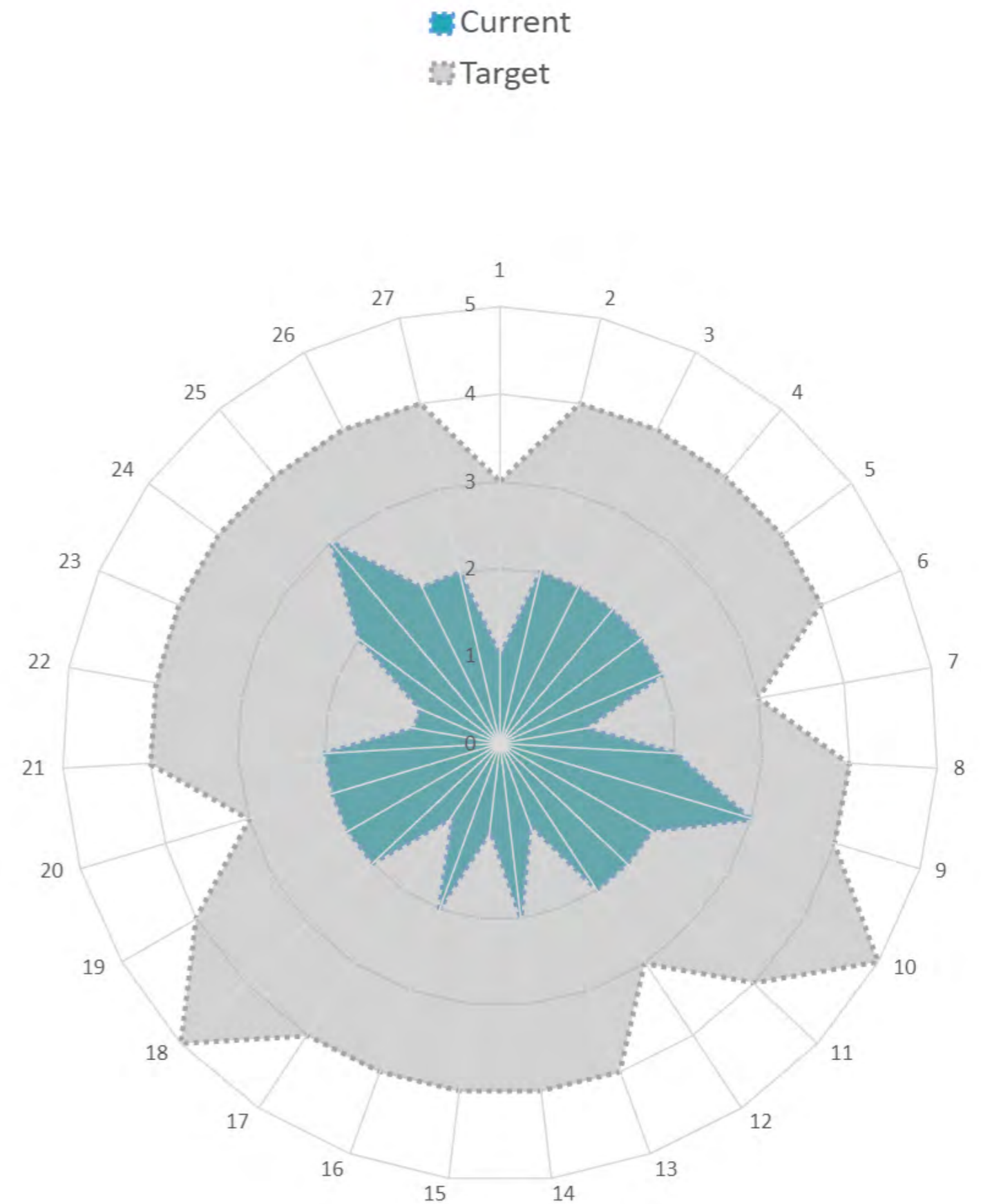
- Poor understanding of commitments and what works have been included in Purchase Orders (POs)
- A project-based approach to cost planning has been employed across the business resulting in inconsistent implementation of procedures across the business.
- The process of transferring data between the cost control system and the financial system is manual and prone to errors.
- There is no process defining the integration of cost and schedule. Lack of schedule and cost integration results in reduced visibility of project costs.
- Key trends such as SPI/CPI variances over time, upcoming changes, contingency draw down are not included

Estimating:

- Historical records of previous projects have been lost and therefore minimal benchmarking data is available for estimates

Contingency:

- A Standard percentage contingency is applied for studies regardless of the likely risk and number of options being investigated
- Low adherence to change control processes and approval of changes without an assessment of the time and cost impacts to the overall project
- Cost contingency is calculated as a percentage of line-item cost based on likelihood of the identified risks materialising.
- Risk analysis techniques are not applied to estimates and schedules as part of project development to objectively quantify project and overall program contingency rolling up into the business.





Client
WaterNSW

Value
Confidential

Services
Integrated Project
Controls

Region
Australia

Duration
2019

Maturity Assessment of WaterNSW Integrated Project Controls

Project Overview

WaterNSW is a State-owned Corporation established by an Act of Parliament in 2014 as an entity which operates New South Wales' rivers and water supply systems. Water NSW supplies two-thirds of water used in the state to regional towns, irrigators, Sydney Water Corporation and local water utilities.

WaterNSW's Asset Delivery Team is responsible for overall planning and delivery of projects generated by customer and organisational need, with a purpose to realise valued customer solutions through effective project delivery. Programs that are delivered by the Asset Delivery team include the Dam Safety Upgrade, Catchment Protection, Water Security and Drought Response Programs.

TBH's Role

TBH was engaged by Water NSW to conduct a Maturity Assessment of their Integrated Project Controls capability in the form of:

- Assessing the current state of Project Risk, Time and Cost Control as functional capabilities throughout the Asset Delivery team through the use of document reviews, interviews, process testing and the implementation of TBH's own internal Cost, Time and Risk maturity assessment tool.
- Conduct a benefits mapping exercise to identify the key problem statements, the benefits of resolving the problem statements, and developing potential solutions for each problem statement.
- Collaboratively identifying a future state to suit business and project requirements that realised the identified benefits.
- Conduct a gap analysis between the two states and areas to address the differences between the current and future states and develop solutions to realise the future state.
- Provide a report detailing the assessment outputs and potential solutions to achieve the desired future state.
- Develop and agree a solution implementation road map along with change management and communication plans.

From this work, TBH was further engaged to develop and implement an Integrated Project Controls solution to achieve the targeted future state. This included:

- Development of an integrated Project Cost, Time, Risk and Reporting Framework that defined the required processes and quality standards.
- Development of a coding system to map the organisational Cost Breakdown Structure to the Work Breakdown Structure of each project at a detailed level
- Development of a Project Cost tool to manage project costs, calculate the weighted percentage of works complete, and calculate earned value performance metrics.
- Development of an integrated and automated Dashboard Report and reporting process designed to consolidate and identify key decision-driving Cost, Time and Risk information at the Project, Program and Portfolio levels.
- Establishment and running of a Project Controls support team to implement the developed solution and ensure compliance to the Framework.



Client
WaterNSW

Value
Confidential

Services
Integrated Project
Controls

Region
Australia

Duration
2019

Project Controls Maturity Assessment

Project Overview

Newcrest Services Pty Limited (Newcrest), is the largest gold producer listed on the Australian Securities Exchange and one of the world's largest gold mining companies. Due to the increase in commodity prices, Newcrest is undertaking studies for upcoming projects across their portfolio of mines. The Cadia Moly Plant project has been the first of these projects to progress to execution. Newcrest has remobilised and strengthened its central delivery team to enable successful project delivery.

TBH's Role

TBH was engaged to conduct a maturity assessment of Newcrest's current state of project controls. Project information was gathered via various means; Interviews were conducted with relevant Newcrest staff, including project controllers, project managers, and project directors to understand how projects are delivered and reported. TBH sought internal guidelines, processes and tools reviewing these to understand what was expected at the outset and how the tools supported the project team.

The collated information was fed into TBH's Project Controls Maturity Assessment (PCMA) tool. Newcrest's data was compared against 50+ industry best practice criteria for time, cost and risk management to produce a maturity rating for Newcrest's current state. A gap analysis was then conducted between Newcrest's current operation and their desired future state.

TBH documented their findings in a report, highlighting a number of key areas where understanding was lacking, or assumptions were being made by project controllers that had significant influence in the accuracy of reporting. TBH's report provided practical recommendations that will enable Newcrest to achieve a desired interim and future maturity state.

TBH subsequently assisted Newcrest in the improvement and standardisation of their tools (P6 and SAP) and developed integrated time and cost dashboard reports. TBH is currently undertaking an update to the project controls guidelines and developing training material to increase knowledge and understanding of project controls for Newcrest's project teams.

The TBH Difference

With TBH's support Newcrest has improved the accuracy of progress measurement and its efficiencies, enabling the project controllers to spend more time proactively managing projects.



Client
TransGrid

Value
\$500m

Services
Integrated Project
Controls

Region
Australia

Duration
2016

TransGrid Integrated Project Controls Maturity Assessment and Implementation

Project Overview

TransGrid manages over 200 projects at any given time across New South Wales and the Australian Capital Territory. They set out to raise project controls maturity across its portfolio of projects and engaged TBH to work collaboratively with the team to develop and implement a practical, integrated project controls (IPC) solution.

TBH's Role

The envisioned methodology was that the solution would be developed and delivered over a number of phases.

As part of the first phase (Discovery and Recommendation), TBH conducted interviews with various team members and reviewed a number of internal documents and artefacts to get an insight into how TransGrid manages its projects. The goal was to determine which processes are currently in place and gauge how effective they are at achieving their intended purpose.

A maturity assessment and a gap analysis was carried out, identifying current and future state capabilities with a number of recommendations provided.

The implementation of these recommendations was phased, with pre-set KPI's designed to show performance improvements that clearly correlate with maturity gains. This approach garnered support from staff experiencing on-the-ground improvements in their day-to-day interactions, and also from executives who wanted to see the impact of efficiency gains on the bottom line.

Using the findings from the first phase, TBH developed, documented, and agreed on an IPC framework, detailed reporting standards and fundamental IPC functions processes and procedures, also developing an interim reporting solution, cost tool and a project 'one-stop shop', which centralised individual project information. This interim solution was then piloted with a group of 5 - 7 project managers over a 2-month period. This allowed the solution to be used and tested across a variety of project types and included the development and delivery of training for those involved in the pilot.

The TBH Difference

TBH's evaluation methodology provided clear criteria for each maturity level and therefore avoided any subjectivity in determining TransGrid's current ratings. TBH identified and documented TransGrid's current, interim, and future state capabilities, with the improvement to project controls and project management fundamentals forming the basis of our recommendations. The maturity framework formed the benchmark for the assessment and identified the gaps to project controls best practice.



Client
MSP Engineering

Value
\$516 million

Services
Integrated Project
Controls

Region
Australia

Duration
2019

CGP3 Integrated Project Controls

Project Overview

Talison Lithium - the world's largest lithium oxide concentrate producer - contracted MSP Engineering, through an EPC agreement, to expand the chemical grade processing plant at the Talison's Greenbushes mine site in Western Australia. The new processing plant is the world's largest lithium oxide production facility and consists of a dry crushing and screening plant, wet process plant, overland conveyors, stockpile facilities and non-process infrastructure aimed at increasing the production of lithium mineral concentrate by 2.4Mtpa

TBH's Role

TBH was engaged to conduct a maturity assessment of MSP Engineering's project controls processes and capability. Areas of improvement were identified using Chemical Grade Plant 3 as an active pilot project to build its platform and raise the controls maturity at an organisational level. Further procedures performed by TBH which integrated time, cost, risk and reporting functions included:

- Schedule Management Framework (SMF) design and development which establishes the integration into the overall project management;
- Introducing transparency, consistency and traceability across all major project disciplines through the SMF;
- Master Schedule development including all of project scope at an appropriate level of detail, containing robust logic and a defined critical path;
- Budget alignment of the Cost Breakdown Structure with the schedule Work Breakdown Structure;
- Basis of Schedule providing a summary of design and procurement processes, construction and commissioning methodology, key assumptions, constraints, rates, risks and opportunities;
- Change control measures for how the artefacts are updated, issued and enforced.

The TBH Difference

TBH were able to understand and determine detailed project deficiencies through initial maturity assessments.



Contact Us



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