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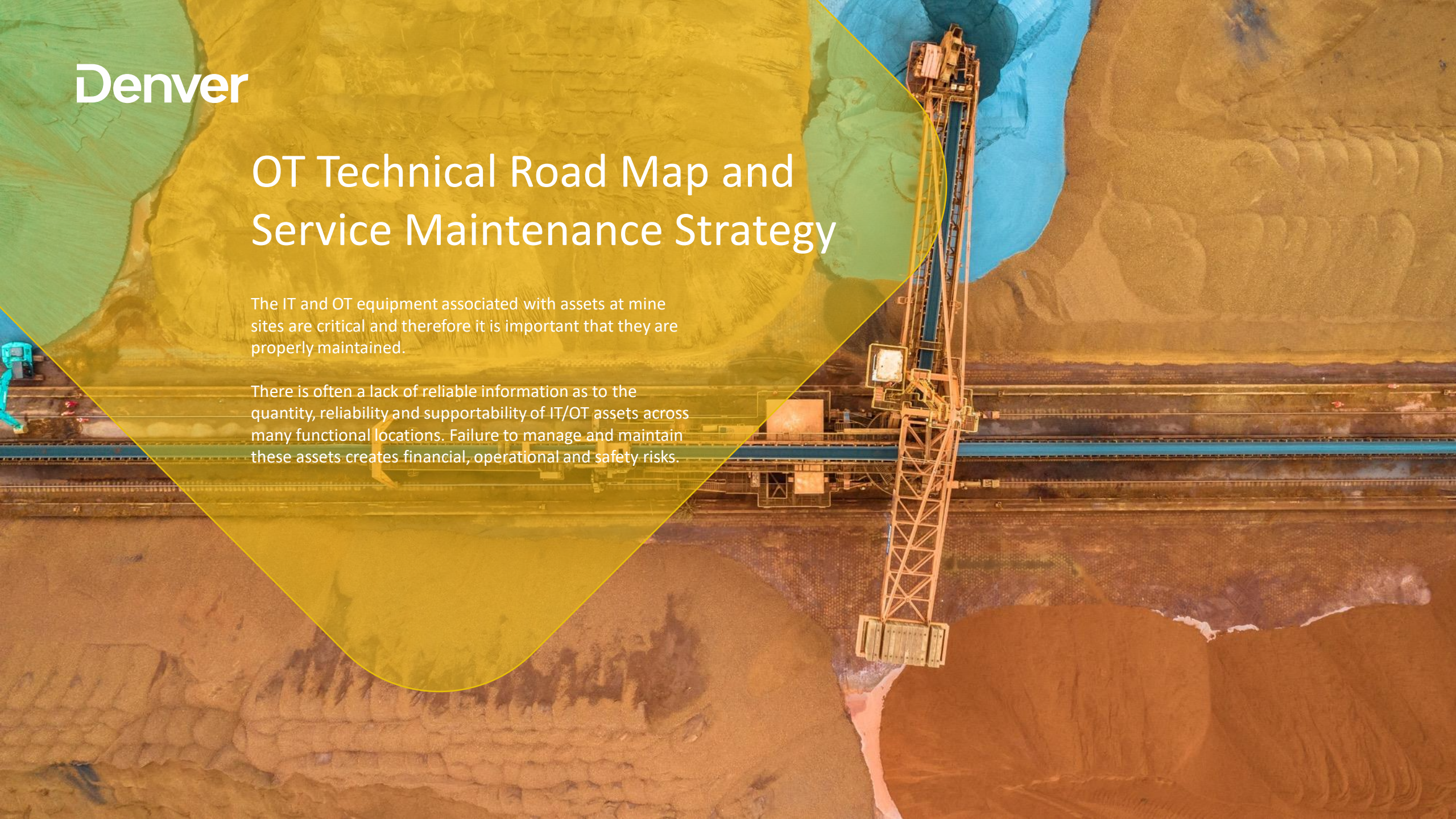
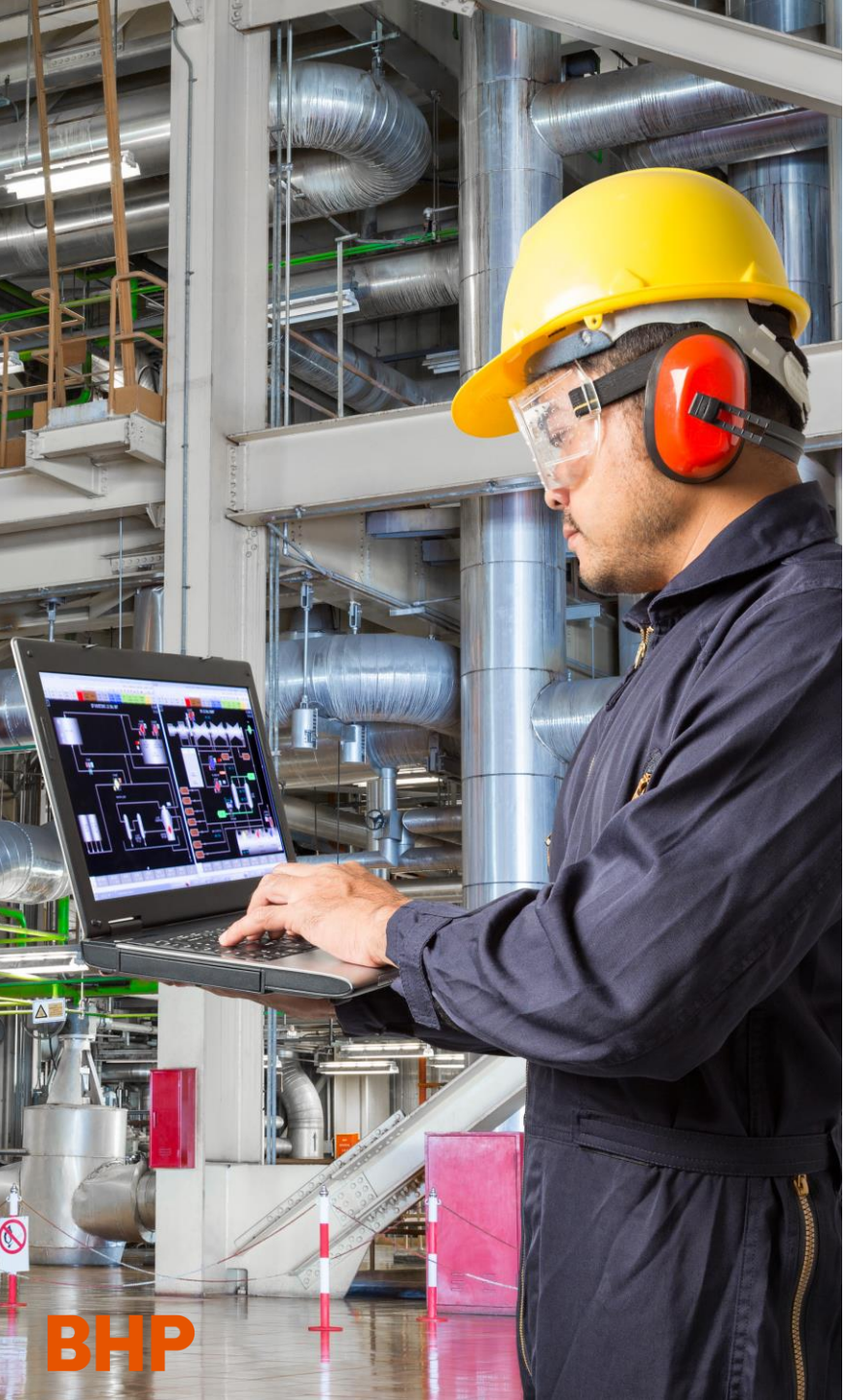
OT Technical Road Map and Service Maintenance Strategy

The IT and OT equipment associated with assets at mine sites are critical and therefore it is important that they are properly maintained.

There is often a lack of reliable information as to the quantity, reliability and supportability of IT/OT assets across many functional locations. Failure to manage and maintain these assets creates financial, operational and safety risks.





Objectives

An OT Technical Roadmap and Service Maintenance Strategy will address the following objectives:

- Identify a network support template
- Ensure that the Clients site network support is compliant with technology standards & existing network management tools
- To have a clear and prioritised transition plan to the desired network support target state
- Ensure any inflight projects and network support template are in alignment and compliant with each other
- Ensure consideration of impacts to hosting and control systems for any roadmap recommendations
- Identify any additional audit and/or discovery tasks that may be required to achieve the desired network support target state
- Identify a five year refresh/upgrade schedule for End of Life equipment
- Five-year cost estimate (+/- 15%) with yearly breakdown
- Identify risk to Client if not investing in identified roadmap items
- To have findings to be communicated / documented in a way that would be readily understood by the business

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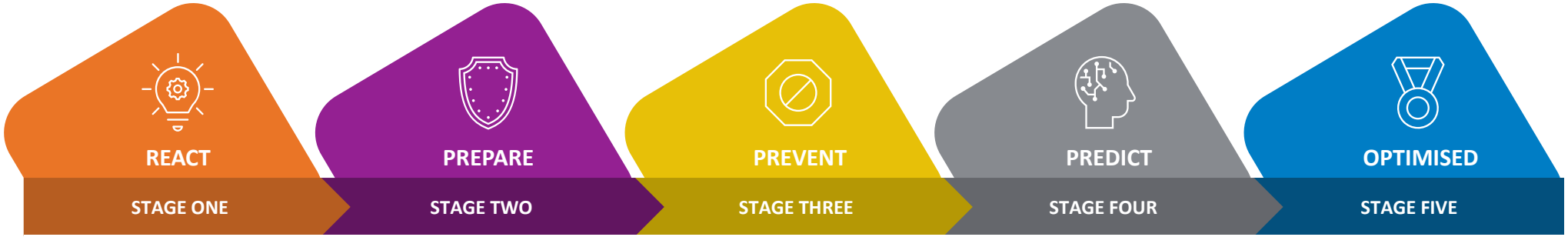
Capability Maturity Model

Denver utilises a Capability Maturity Model to assess our clients current state of maturity, benchmarking against other organisations of similar size and industry, thus providing base recommendations for improvement.

The Capability Maturity Model uses a five point scale to assess People, Process and Technology as per below.



Our Approach

Following an Agile, outcome-based approach, the four stages are delivered in an approximate 45 day duration.

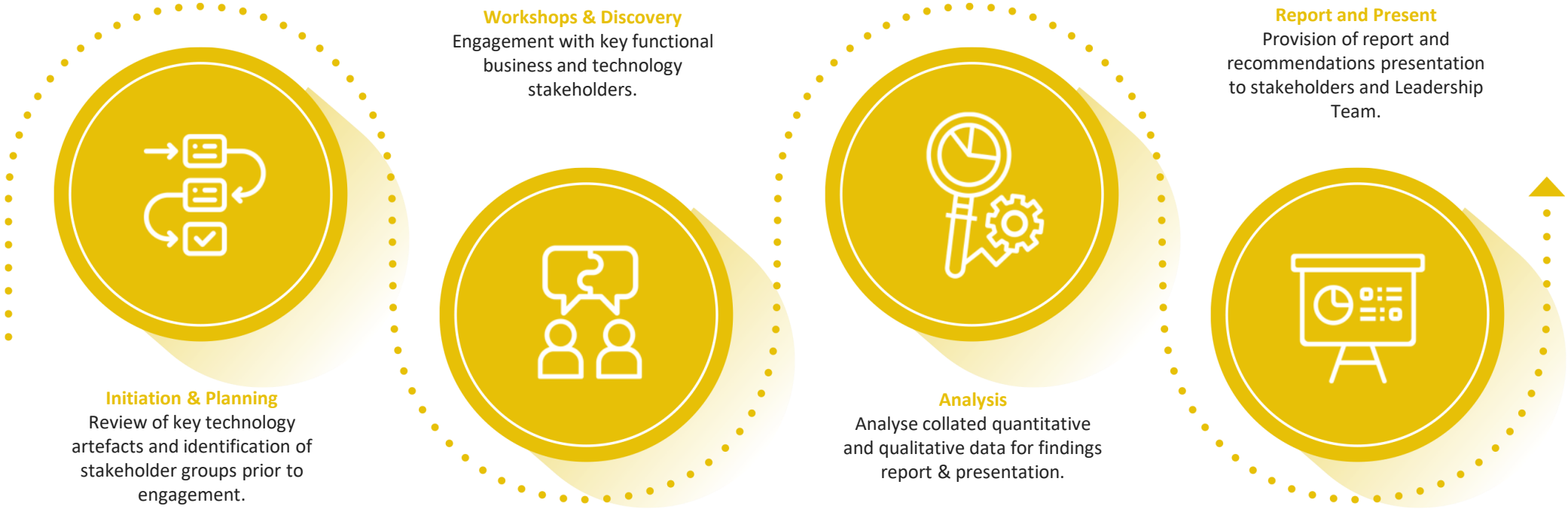
45 day duration*

Initiation & Planning
Review of key technology artefacts and identification of stakeholder groups prior to engagement.

Workshops & Discovery
Engagement with key functional business and technology stakeholders.

Analysis
Analyse collated quantitative and qualitative data for findings report & presentation.

Report and Present
Provision of report and recommendations presentation to stakeholders and Leadership Team.



*Duration dependent on size of organisation and scope

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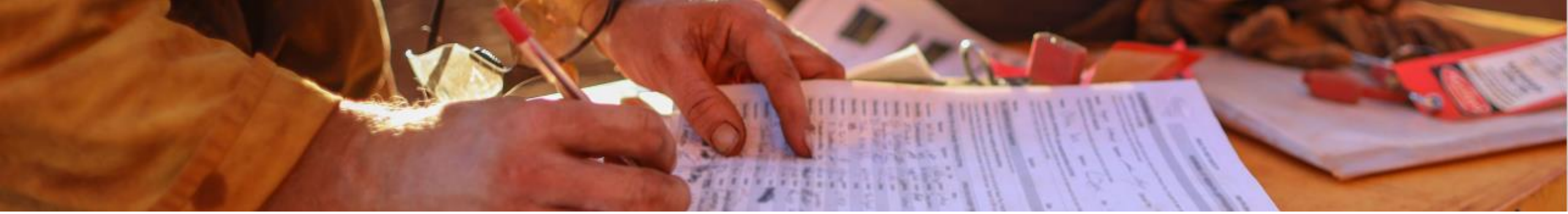
Stage 1: Initiation & Planning

This stage involves the review and analysis of existing documentation, standards, and architecture information to determine a baseline for what information and standards exist and establish areas in which relevant information is not available. This may cover areas such as:

- Clients Technology Cybersecurity Network Security Standard
- Clients Technology OT Network Reference Architecture
- Clients Technology OT Network Devices Standard
- Clients Technology OT Wireless Standard
- Clients Technology OT Network Monitoring Standard
- Clients Technology OT Network Management and Access Standard
- Clients Technology Network Management Standards and existing network management tools
- Current State Documentation
- Existing asset inventory(s)
- Remediation Proposals and inflight High Level Designs
- Project Governance and Stakeholder details



Stage 2: Workshops & Discovery

The Workshops & Discovery stage involves co-ordination of workshops at Client's nominated sites to discuss and work through the OT Technical Roadmap and Service Maintenance Strategy items. This will include personnel and teams who are responsible for the systems and the remediation projects.

This stage will include:

- Preparation and pre-distribution of workshop agendas and an initial set of discussion questions
- Host workshops
- Summarisation of workshop findings
- Gap analysis on supplied materials and workshop outcomes
- Requests for further details and/or clarification
- Where required, follow-up meetings and discussions

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Stage 3: Analysis

After the workshops with the teams and personnel are completed, Denver will document and analyse the information gathered during the preceding stage. This will include:

- Requirements for network management/monitoring
- Requirements for network access and authentication for network management / monitoring
- Recommendations for network support target state
- Inflight project network remediation project design compliancy review
- Transition plan for migration to the network support target state
- Five-year network refresh/upgrade schedule based on the end state of the current inflight remediation projects
- Additional audit and/or discovery tasks required to achieve target state
- Five-year cost estimate (+/-15%):
  - Transition/setup costs
  - Additional audit and/or discovery
  - Recuring network management/monitoring/ ongoing maintenance costs
  - Breakdown of costs by year

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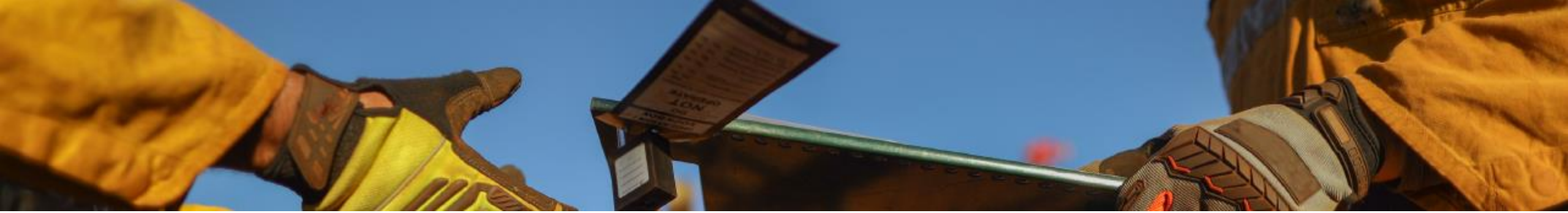

Stage 4:
Report & Present

The final stage involves the collation and final analysis of the information collected as part of the OT Technical Roadmap. The assessment will produce the following final deliverables:

Draft Report

A draft report will be delivered to an identified key stakeholder to be reviewed. This will allow the Client to provide feedback to Denver and request any clarifications.

Final Report

OT Technical Roadmap Final Report containing the findings, analysis, recommendations, and action items gathered during the preceding stages of the assessment.

Report Presentation

Presentation of a summarised slide deck to management on the findings, analysis, recommendations, and action items determined during the health assessment and opportunity to ask and clarify any of the recommendations made as part of the assessment.

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Example Deliverables

OT Technical Support Roadmap:

- Business requirements and drivers for network management/monitoring solution (if applicable)
- Recommendation for target state for network management/monitoring solution (if applicable)
- Security/network access and authentication recommendation for network management/monitoring
- Review of inflight remediation project network design to identify any gaps from the recommended support target state
- Identify critical infrastructure and provide recommendations for HA resiliency and maintenance service levels
- Needs assessment to provide documentation, training, and outcomes for the transition to support (if applicable)
- Asset management and spares holdings plan
- Identify any additional audit and/or discovery tasks that may be required to achieve the recommended network management/monitoring target state
- Standards review
- Service maintenance strategy
- Transition plan for migration to support target state
- Five-year network refresh/upgrade schedule based on the proposed end state of the current inflight remediation projects
- Justifications and benefits of network support recommendations

Draft Five-year cost estimate based on High Level Roadmap (+/-15%)

- Transition/setup costs
- Additional audit and/or discovery tasks
- Recuring network management/monitoring/ongoing maintenance costs
- Breakdown of costs by year
- Completed Opportunity Framing template

Final Report & Associated Appendices

Summary Presentation

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Summary

The IT and OT equipment associated with assets at mine sites are critical and therefore it is important that they are properly maintained. There is often a lack of reliable information as to the quantity, reliability and supportability of IT/OT assets across many functional locations. Failure to manage and maintain these assets creates financial, operational and safety risks.

Overall Benefits of Initiative

1. Improved service delivery and reduced outage through preventative maintenance
2. Improved utilisation of resources
3. Greater visibility of costs and assets
4. Supports the ability to build a long-term roadmap and budgeting
5. Increased visibility of risks
6. Increased stability of environment by identifying at-risk assets

Overall Risks of Doing Nothing

1. Limited visibility and control
2. Costly remediation projects due to obsolescence
3. Degradation of equipment
4. Increased regularity of equipment failure
5. Increase in critical faults
6. Lack of available spares when key equipment fails
7. Health & safety risk impact
8. Lack of roadmap and budgeting visibility

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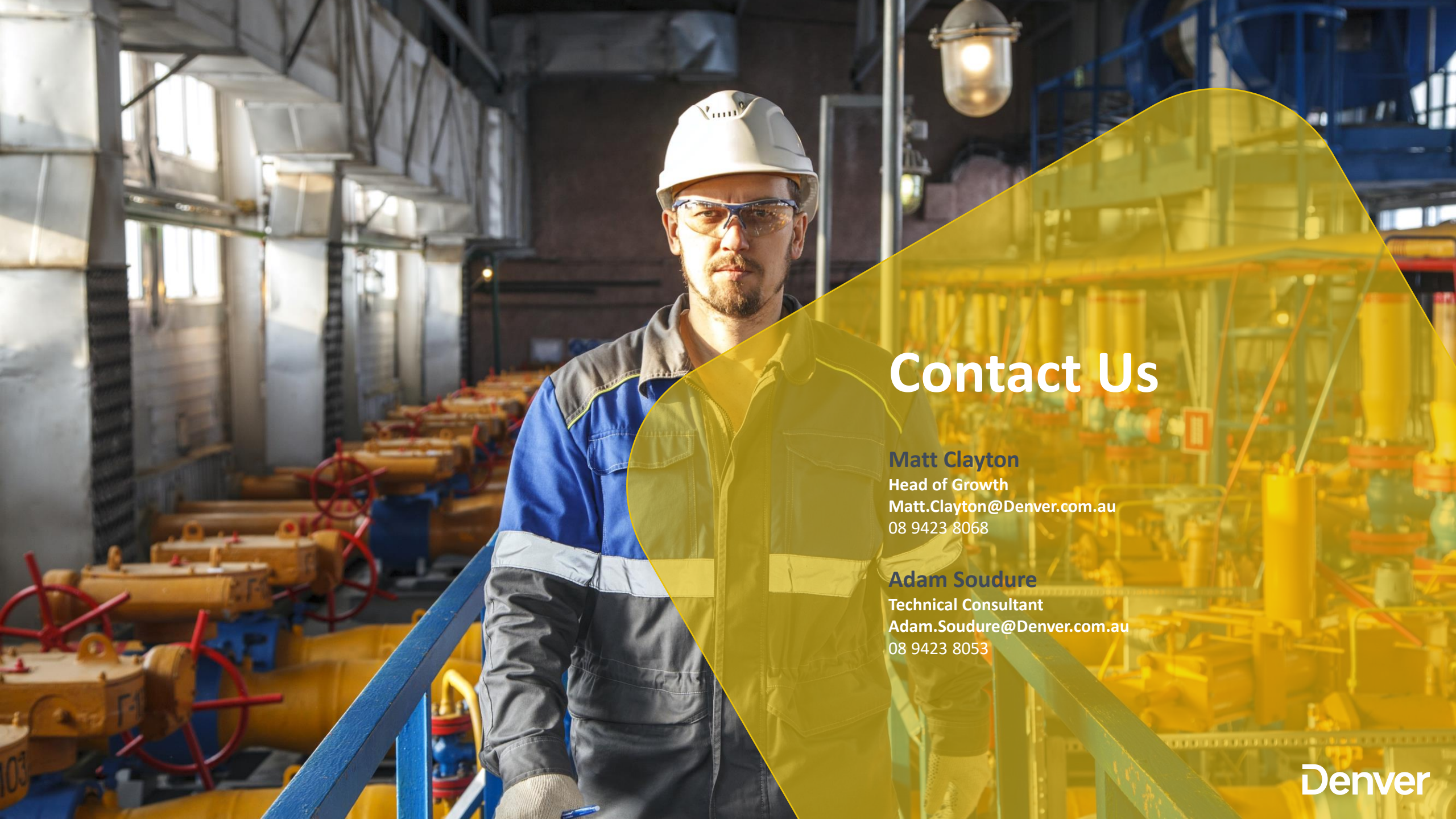

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