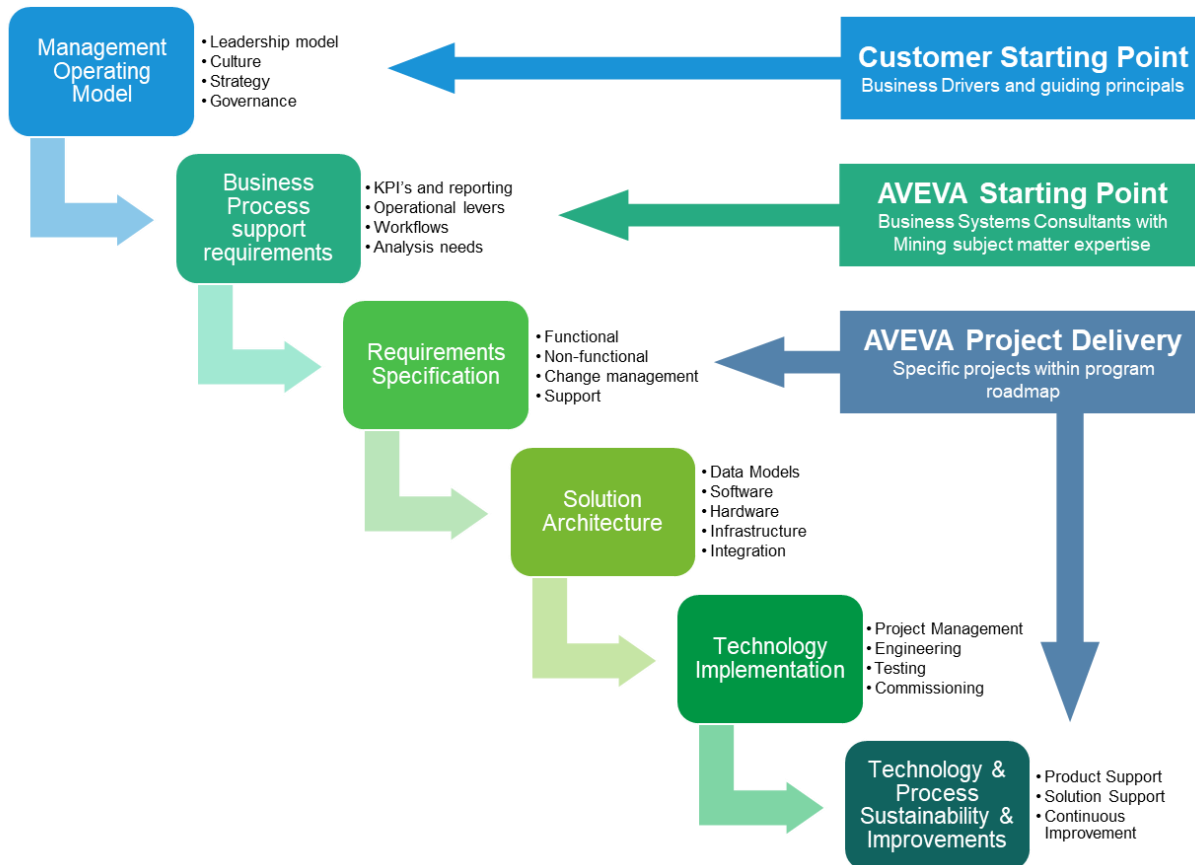


## Summary of AVEVA Mining Professional Services

AVEVA has the competency and capability to design, engineer and deliver an end to end solution for production improvement projects in house, starting from the development of the Business Processes required to support the program of improvements through to the establishment of a sustainable solution from a process and product support perspective



*AVEVA Professional Services Engagement Lifecycle*

Based on the customer's business operating model and strategic initiatives, all the components for our solution including the business consulting, program roadmap, technology, design expertise, domain expertise, engineering and delivery resources, and post project support services can be provided by AVEVA employees and products.

AVEVA's Mining Professional Services Center of Expertise, headquartered in Australia, has global project delivery capability with resources based in each of the major mining regions. AVEVA have also developed toolsets within our project delivery organisation that allow the design, engineering and execution of projects to be shared across teams in different locations and countries. This unique combination ensures that key expertise remains in-country when projects are completed, to provide true end to end coverage over the entire lifecycle of AVEVA solutions.

## Our consulting services

By utilizing AVEVA's consulting services, we will facilitate the development of an improvement roadmap supported by the recommended implementation of technical solutions, ensuring that your key strategic goals are achieved. Our consultants provide a variety of services designed to complement AVEVA's engineering and project delivery capabilities, improve technical implementation and enhance your business:

### Strategic services:

- ▲ Executive and stakeholder workshops
- ▲ Best practice assessments
- ▲ Value stream mapping
- ▲ Business case and ROI assessments

### Specialty consulting:

- ▲ Energy efficiency and facilities management
- ▲ Continuous improvement using Lean and Six Sigma techniques
- ▲ Asset utilization studies
- ▲ Plant and maintenance optimization

### Change management:

- ▲ Change management strategy and planning
- ▲ Business process analysis
- ▲ Operator and manager coaching
- ▲ Facilitation of continuous improvement workshops

## AVEVA Project Management Methodology

### Introduction

The Customer Project Process (CPP) comprises of implementation phases with pre-defined milestone and phase gates to ensure that projects deliver the technical solution required by the customer. These implementation phases are, in turn, supported by project management processes that ensure the project is run according to best practices.

### Initiate & Set-up Phase

In the Initiate & Set-up phase, all team members will be introduced including Customer's project team/s and Change Management team. The project scope, project success criteria, including the desired business outcomes and benefits to be realized will be validated during this phase. The project schedule is also validated.

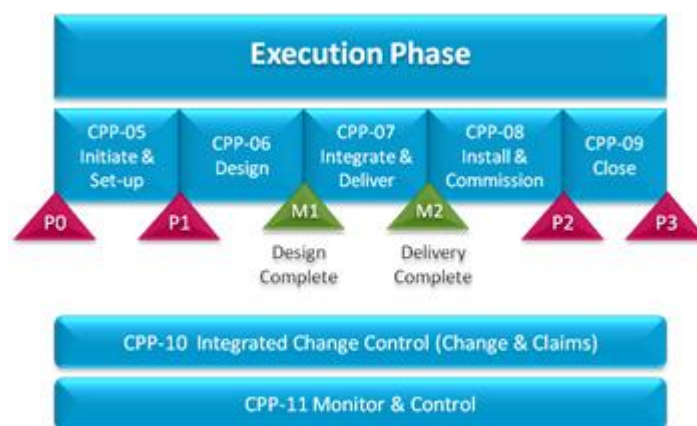


Figure 1: CPP - Project Life Cycle

Project management procedures, based upon recommended practices to ensure a successful implementation, will be established and agreed to. This will ensure both Customer and AVEVA project teams are prepared for the upcoming Design Phase of the project. Change Management Phase 1 commences at this time, preparing for change.

**PHASE GATE/MILESTONE:** The project team is formed and ready to commence detailed requirements definition and design. The initial conditions for the project contract are met and both parties are now bound by the terms of the contract. Project Execution Plan and Baseline Schedule are agreed.

## Discovery and Design Phase

The business and functional requirements are addressed through a consultative process called the Discovery Services Study (DSS). The purpose of the Discovery Scoping Study is to provide a consultative investigation into the business, technical and functional requirements to a greater level of detail and granularity to assess a viable solution fit.

The scope of work included in the Discovery Services Study is as follows:

- ▲ Define the boundaries of the project/initiative
- ▲ Clarify business processes
- ▲ Assess change readiness, and
- ▲ Elicit and document detailed requirements

The approach to the Discovery Scoping Study is consultative, whereby a series of discovery workshops will be conducted with key stakeholders to elicit the business and functional requirements.

In the Design Phase, Customer requirements, as documented and approved during the DSS, will be reviewed and Functional Design Specifications written to meet the project requirements. The FDS is the overarching design document establishing the key business standards applicable. The End user training plan will be developed during this phase.

Both AVEVA and Customer's Project Managers will ensure that their project team members understand the project requirements before they commence building the solution.

**PHASE GATE/MILESTONE:** Design Complete - Formal acceptance of the Functional Design Specification and Training Plan by the Customer.

## Integrate & Deliver

In the Integrate & Deliver Phase the solution will be built and implemented following a series of testing phases. The test plans and test cases will also be drawn up in this phase. These will be submitted to the Customer for review and approvals. Following in-house testing, Supervised Factory Acceptance Testing (FAT) will be conducted. This process will cover all agreed areas of the system solution and will demonstrate that the system meets the documented specifications.

Customer testing team will be trained on how FAT will be conducted and what their responsibilities are within the overall process. At the end of each testing stage, the outstanding Non-Conformance Reports that must be fixed prior to the next phase of testing will be highlighted and prioritized.

Alongside testing, the project team will also review and prepare all documentation, approvals and systems to ensure that the system is ready for commissioning. As well, the end user training program will be reviewed with the FAT team to ensure that all key points are covered.

The following Test phases will be conducted at this stage of the project:

### **Internal Testing:**

Internal Testing will be conducted to determine whether the solution is stable and robust enough to present to the Customer for Factory Acceptance Testing (FAT) and proceed to the integration testing phase. This testing will be conducted in accordance with the Test Specification. This phase is not witnessed by the Customer.

**INTERMEDIATE GATE:** Internal approval, by the Project Manager and Solution Architect is required to proceed to the next phase.

### **Functional Factory Acceptance Testing (FAT):**

Customer witnessed Factory Acceptance Testing will be conducted. This process will cover all agreed areas of the system solution and will demonstrate that the system meets the documented specifications. This phase will use test data to test the functionality.

Change Management Phase 2 commences at this time, managing the change.

**PHASE GATE/MILESTONE:** FAT acceptance is provided by the Customer, acknowledging that the system is ready for Installation and Commissioning.

### **Install & Commission Phase**

The Install & Commissioning phase covers the activities required to deliver a working system to Customer sites and the management of issues through to the end of defects liability and the issuance of the Final Acceptance certificate.

### **Integration Testing:**

The purpose of integration testing is to ensure that all applications within the solution are able to reliably exchange data required to deliver the functionality.

It is expected that test data in controlled conditions will be used in this phase however, error conditions will be tested for.

This phase will be witnessed by the customer and executed in accordance with approved Test Specification. It is expected that the Customer will mobilize the necessary 3rd party resources to actively participate in the integration testing. This will include execution of the testing as well as resolution any defects pertinent to 3rd party applications.

### **Intermediate gate:**

Integration Testing acceptance is provided by the Customer, acknowledging that the system is ready for the next phase of testing.

This is carried out on systems on live site data and production server infrastructure. The purpose of this phase is to ensure correct operation of all of the systems within the solution scope in site conditions. Prior to the formal Site Acceptance Testing, preliminary testing will be conducted to ensure the system is stable and ready.

Once the system has been deployed at site, and initial connectivity established we will progress to the Site Acceptance Testing

## Site Acceptance Testing (SAT)

SAT will be conducted to ensure that the system has been deployed correctly and the site is operating as expected. Alongside this testing AVEVA will also deliver any agreed end user testing (or in accordance with agreed project schedule).

Following approval of the results of the testing and the punch list of remaining issues, the Customer will sign a Practical Completion certificate, accepting the system delivery. AVEVA will then complete the handover of the system to the Customer's operations team.

At this point the Defects Liability period will commence. AVEVA will manage and clear the punch list with the Customer's operational staff, as well as update all project documentation to "As-Built" state.

**PHASE GATE/MILESTONE:** Practical Completion Certificate is signed by the Customer.

## Close Phase

At project close, AVEVA will complete project reviews and complete internal processes to handover the new service to AVEVA Services Team for post-implementation support.

**PHASE GATE/MILESTONE:** Handover of Customer system and support to Services.

## Integrated Change Control

This is one of the overarching processes, running in parallel with all the phases of the project delivery. The purpose of this is to work collaboratively with the Customer to maintain and control the scope. As part of this and if necessary, AVEVA will create and maintain Project Claim Register & Project Change Register, Change Control Plan (in Project Management Plan).

## Monitor and Control

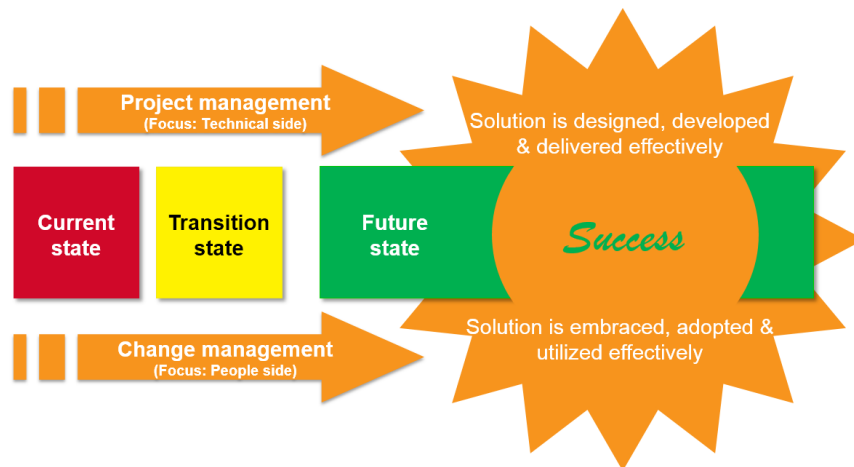
This process encapsulates the daily, day to day project management executed by AVEVA's Project Manager. Its primary objective is to track, review and control the project progress to meet the stated project objectives. The Project Manager will create and maintain a number of artefacts to facilitate this process

1. Project Progress Report template
2. Risk & Issue Management Process
3. Project Risk Register (Workbook)
4. Project Issue Register (Workbook)
5. Project Review Process
6. Project Schedule
7. Regular reporting

## Change Management and Sustainability practices

In the context of our response to Change Management, we have considered that the Change Management requirements for project execution are managed within our CPP detailed above and as such BHP are looking for how AVEVA approaches the very real requirements for acceptance of the new solution from all the stakeholders.

AVEVA's Change Management (CM) Services assimilate with our Project Management activities in a fully complimentary manner, as part of our Customer Project Process (CPP) delivery methodology and ISO Certified Quality Management System (QMS). We take an equally rigorous approach to delivering CM services, leveraging proven CM practices from Prosci®, global thought leaders in this field, and the skills and experience of Prosci® certified Change Practitioners.



### Overview of our approach

AVEVA Change Practitioners will work within our customers' preferred Change Management framework or alternatively can help guide our clients' selection based on an assessment of organizational and project parameters. Our practitioners commonly employ the Prosci® Change Management Process, and the ADKAR® Model when managing change. An overview of the phased approach follows:



*Prosci® 3-Phase Change Management Process*

### CPP Delivery Methodology, PM and CM Overlay

The 3 Prosci® CM phases typically overlay with our CPP implementation phases as shown in the diagram below.

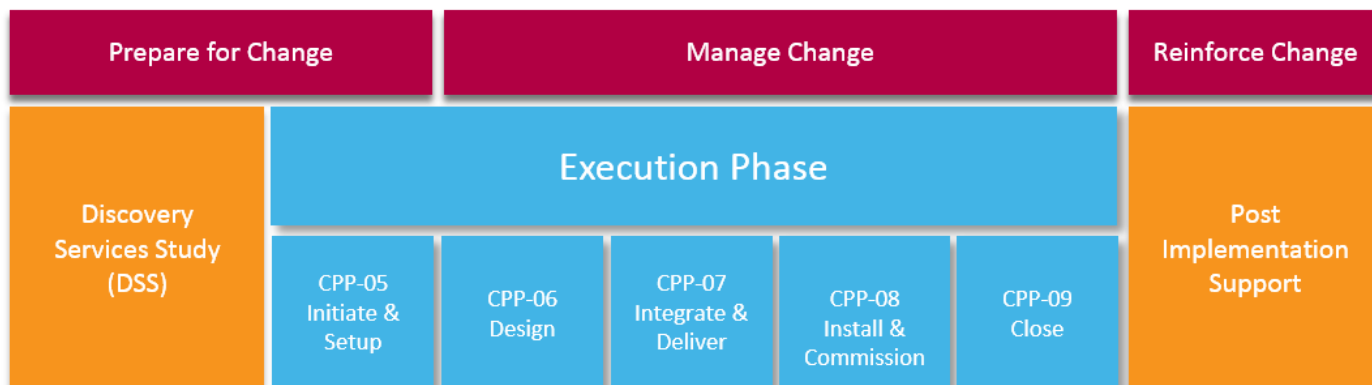


Figure 1 CPP and Change Management Phase Overlay

In all cases, we strongly recommend that CM is initiated at the very start of the project and the CM plans be fully integrated with the project activities to ensure appropriate communications to all project stakeholders surrounding the project.

There are a number of joint project activities and artefacts that can be shared by both PMs and CMs such as Stakeholder Assessments and Communication Plans. AVEVA’s integrated services are streamlined to leverage these synergies and benefits.

### Tailored to your needs

**Size and Scope:** Every change management engagement is unique and must be sized, structured, and tailored according to the specifics of the organization, the size and complexity of the change being undertaken, and the resources and time available. These assessments are typically performed as part of AVEVA’s Discovery Services Study (DSS) and recommendations put forward as a DSS deliverable. The DSS assessments and outputs form part of the Preparing for Change phase.

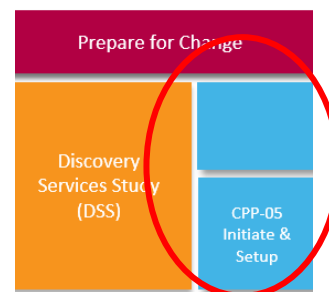
**Roles within CM Team:** The role(s) that AVEVA CM practitioners assume within the Customer Change Management team can vary according to needs/gaps within the team, such as change lead or coach. Project budgets, client preferences, and the DSS findings will help inform the selection.

### Change Management in more detail

#### Discovery Phase

Establishing a framework for a successful project begins by identifying the unique characteristics of the proposed change. The Discovery phase is the ideal time to be performing this assessment.

AVEVA’s Business focused DSS includes a Change Assessment and Readiness service. AVEVA’s Change Practitioner, in collaboration with client CM personnel, facilitates a series of interviews and workshops with the customers key stakeholders - project sponsor(s), change team, process owners, IT/OT, and end users. A written report documenting key findings and recommendations is then prepared.



The main CM activities undertaken during the DSS are:

- ▲ Familiarisation with customer's existing and/or preferred CM frameworks
- ▲ Familiarisation with customers CM resources - capacity, capability, and experience
- ▲ Familiarisation with customers proposed CM plan (if exists)
- ▲ Identify Change Characteristics – Nature, scope, impacted groups, change type, amount, and impact assessment on groups.
- ▲ Conduct Readiness Assessments
- ▲ Anticipate resistance areas
- ▲ Perform Risk Analysis
- ▲ Assess sponsorship

### Key outputs from this service are:

- ▲ A report documenting the findings of the above assessments
- ▲ A series of recommendations that can feed directly into the Projects Change Management Strategy
- ▲ Optionally – budget estimates for AVEVA CM resources to lead/augment the CM Team.

**Outcome:** Being able to quantify the size, risks, strategies and costs of the change effort required to make the project successful.

### Execution phase

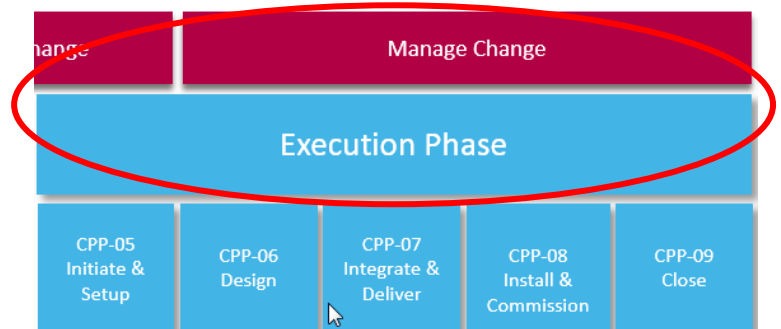
During the CPP Initiate & Setup phase the Preparing for Change activities are completed. Outputs from the DSS are reviewed (if significant time has lapsed) and form the basis of the CM Strategy. Activities include:

Creating the Project Change Management Strategy, including:

- ▲ Team structure
- ▲ Sponsorship
- ▲ Anticipated resistance
- ▲ Special tactics
- ▲ Preparing the CM Team
- ▲ Defining a sponsorship model and will yield the best outcomes

**Outcome:** The overall CM Strategy has been determined and endorsed

Following this phase, the newly formed CM team will expedite the development and approval of the Change Management Plan as quickly as possible.





Key artefacts of the CM Plan are:

- ▲ Communications plan
- ▲ Sponsor roadmap
- ▲ Coaching Plan
- ▲ Training Plan
- ▲ Resistance Management Plan
- ▲ Master Change Management Plan

The CM Plans are integrated with the main project activities and CM and PM teams aligned.

**Outcome:** CM artefacts are approved for execution; CM effective metrics are determined.

During the remainder of the CPP Execution Phases (CPP-06 to CPP-09) The CM approach moves into implementation mode where the plans are executed and assessed in a continuous feedback loop as impacted groups move through the ADKAR® stages at their own pace.

**Outcome:** CM plans are executed, including the delivery of user training. Individuals move through ADKAR stages.

### Post Implementation Support

On successful delivery of a project, project closure and customer handover take place. This heralds the extraction of AVEVA's Delivery team from site and the engagement moves into Post Implementation Support. During this phase, typically via a Managed Service, AVEVA can continue to support (onsite and/or remote) not only the technical solution, but also the CM Teams most crucial task of making the change stick and helping the organization move to the Future State – one person at a time.

Driving adoption, utilization and the proficiency of end users is where project success will be won or lost.

For this reason, AVEVA will stay engaged during this vital period. We offer CM Services as part of a Managed Service offering that can be structured according to customer needs. Customers' taking ownership of the new system and processes and leading the reinforcement effort and celebration of success is critical for long term success. Hence our services are designed to support, coach and motivate Change Leads and System Owners to bring home the benefits.

Typically, our CM services include:

- ▲ Coaching – CM Team, Managers, Sponsor, End Users
- ▲ Training – if additional training needs are identified
- ▲ Feedback collection and analysis (at regular intervals)
- ▲ Gap analysis and corrective action recommendations

These services can continue until the desired performance metrics and business outcomes are achieved.

**Outcome:** Business goals of the project are achieved or benefits maximized.

