Victorian Digital Asset Strategy
Guidance

Appendix 9: Sample VDAS job descriptions

Version	Summary of changes
1.00	Release
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Appendix 9 contents

Purpose

This document demonstrates how to create a basic project team structure to implement the VDAS for project development.

This document includes descriptions of the roles and responsibilities of unprecedented positions to assist departments and agencies identify the essential competencies of candidates.

These job descriptions also serve as valuable communication tools for supervisors and team members to establish performance objectives and determine the best processes to accomplish tasks.

This document sets up internal and external team governance to drive successful project outcomes.

It does not provide guidance on digital engineering or the VDAS process. This can be found on the OPV website: www.opv.vic.gov.au.

Conditions of using the template

Every organisation is different, and every project is a unique response to an organisational need. The organisational chart provided here should only be used as a guide. Not all roles will be required for every case.

The job descriptions in this document are not mandatory role requirements for the positions, but rather indicate the experience and abilities desired.

The roles are not necessarily exclusive or self-contained positions. In some organisations, the same person will undertake several roles.

It remains the responsibility of the organisation to interpret and validate the roles the organisation, project or asset requires and appoint information management functions that respond to the needs accordingly. This document is a tool to aid with this process.

Background

Implementing digital engineering (CAD/GIS/BIM and associated processes/technologies) into an organisation helps create a fully collaborative environment where team members work in a centralised framework that reduces inefficiencies and improves project outcomes.

With BIM, and digital engineering more broadly, now mandated to varying extents internationally, the Victorian Government recognises that BIM and digital engineering must be implemented as consistently as possible.

However, implementing digital processes effectively requires significant changes to the structure of organisations and project teams.

Currently, the use of BIM and digital engineering is most commonly associated with the project delivery team. This hinders broad-scale information management during all asset lifecycle stages. Thus, employing BIM and digital engineering in a wider organisational context maximises its long-term advantages.

While delivery team personnel are different at different stages of an asset's life cycle, the need for management of the assets (whether a building or some other form of infrastructure) is continuous, from inception through to end of life.

All stakeholders should be able to create, understand and interrogate structured BIM and digital engineering to capitalise on its benefits. ISO 19650 and the VDAS support this approach.

While many companies have digital engineering and BIM users who perform modelling, collision detection, coordination, automated bill of materials and the like on different projects, there are still companies that separate the engineering or existing CAD users.

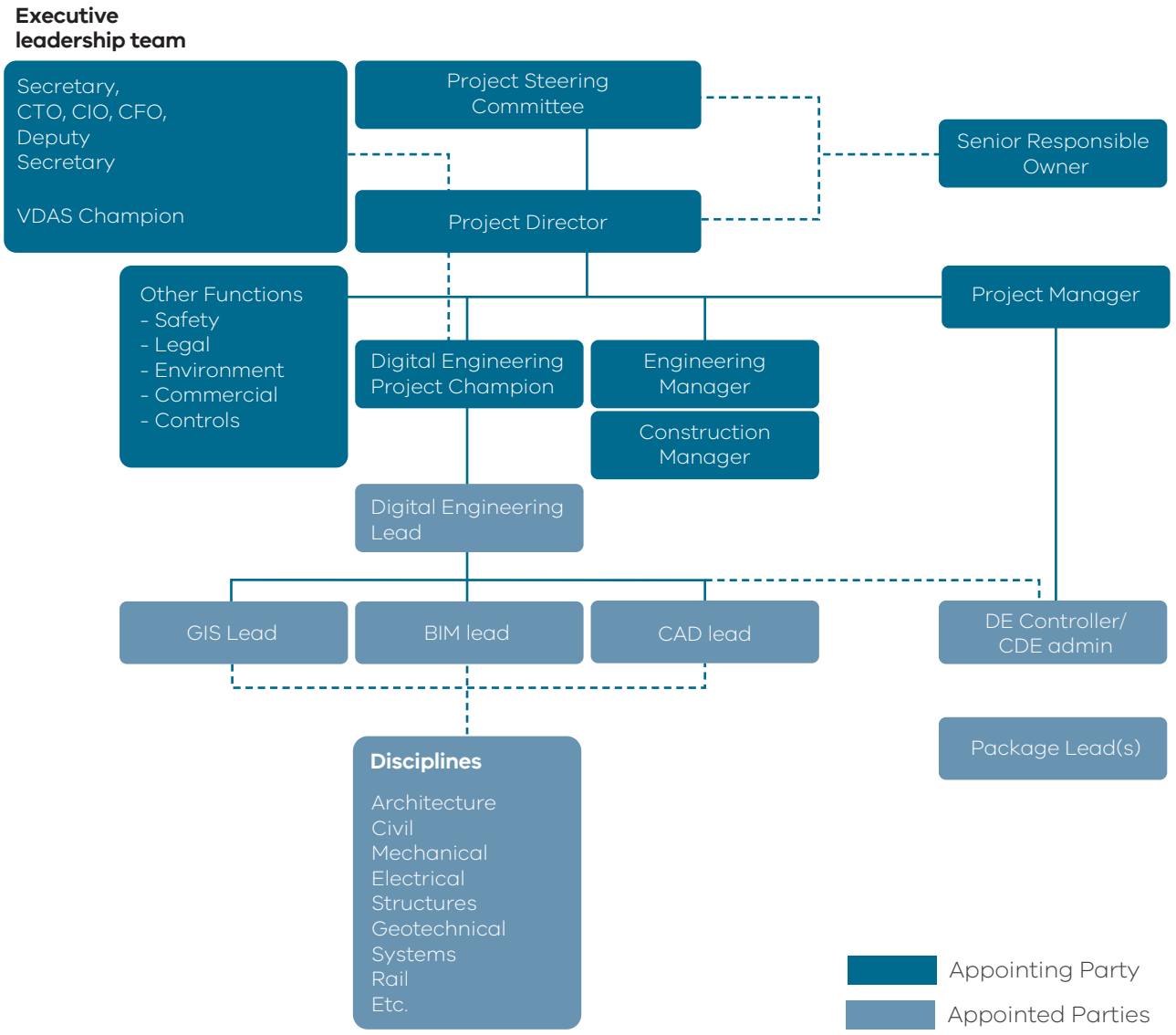
Less advanced organisations may separate the BIM and digital engineering users completely, creating a niche BIM department to work on BIM and digital engineering projects when required by a client or other entity. This takes the organisation longer to implement BIM and digital engineering, typically costing more.

More advanced organisations have integrated these three facets into a single business model and are reaping the benefits.

BIM and digital engineering professionals generally have experience working on previous projects that utilise BIM and digital engineering, so they can directly compete with other subcontractors or close out the competition.

Some use this as a tactic to improve efficiency and productivity, taking advantage of what BIM and digital engineering essentially do – improve information management processes and client satisfaction, thus saving the client and company (or project) time and effort.

Organisational chart



Roles and responsibilities

Organisational level

VDAS Champion

Brief

This executive leadership role assumes the overall vision and responsibility for integrating digital engineering (BIM, CAD and GIS with asset management) within the organisation.

The role relies on critical stakeholder engagement within the organisation. This ensures the organisation realises best-in-class digital engineering and digital asset outcomes. The role is accountable for the organisation information requirements (OIR), sponsors the asset information requirements (AIR) and defines the asset information model.

They ensure the organisation and individual projects, through the DE Project Champions, are set up for success. They manage the individual DE Project Champions and report to the executive leadership on the VDAS implementation progress.

Skills

The role requires a complementary set of skills to succeed:

- executive leadership: stakeholder engagement, progress/status reporting, financial management of team, executive management, strategic and policy direction of technology, systems, processes, and continuous improvement within the organisation;
- technology: the role requires a solid background and foundation in digital engineering and associated technologies, and how it is employed within engineering, major projects, construction, the AECO industry;
- organisational design: the role requires a fundamental understanding of the business, alongside commercial, technical, asset management and project delivery;
- implementation and continuous improvement: a commitment to implementing large asset and information management change exercises; and
- team and capability development: identification of workforce gaps, opportunities and seeking improvement in terms of staffing, resourcing, skills development, and organisational effectiveness toward the strategy.

FTE/resourcing

This role should be 1.0 FTE; however, there needs to be commitment to the organisational approach in the initial project setup (particularly in stages 1, 2 and 3). Thus, it would be prudent to articulate the commitment of time from this function to projects. This may be articulated by project phases, with FTE being cost-recovered to the organisation.

Background/education

Ideally supported by a firm educational grounding in one of the following: architecture, asset management, engineering or construction management.

Further education in financial management, business administration, or technology/ITC would be strongly regarded.

Previous experience in implementing BIM and digital engineering in large, complex organisations will be highly regarded.

Professional memberships of the appropriate organisations would also be well regarded.

Banding

It is suggested that this role is an EO2 for a large department or EO3 for a small authority role with a well-supported and outlined career development trajectory.

Reporting

The role should report to the CFO and CIO (if applicable) and would engage daily Deputy Secretary-level equivalents in assets or projects.

Project level

DE Project Champion

Brief

The prime function of the DE Project Champion is to understand the project's digital asset needs, within the context of the organisational objectives, organisational context, operational uses and project objectives.

The role will manage the process of a delivery team virtually constructing a building or infrastructure asset, in BIM and digital engineering, and oversee documenting it as per the exchange information requirements needs. This information management function (described in ISO19650 Part 2 Section 5.1.1) is essentially the organisation's accountable role for the successful implementation of digital engineering on the nominated project/s.

The role involves managing a team of production professionals, designers and technicians of multiple disciplines and trades.

The DE Project Champion is a primary stakeholder in approving design and construction documents set through as-built submittals. They also lead the strategic development of such activities including model management, digital engineering planning, collaboration and coordination processes in concert with the delivery team and digital engineering lead to ensure the EIR are achieved.

Roles and responsibilities

- accountability for reviewing/auditing digital design and construction deliverables across the project lifecycle (i.e. sequence workflow from pre-award phases, through procurement, award, design, construction, commissioning and handover);
- manage and administer the integration of the project CDE to the organisational CDE. Maintain responsibility and accountability for reviewing/ auditing final handover deliverables from the PIM to the AIM;
- author the project's exchange information requirements per the needs of the project, organisation and asset management requirements;
- review, oversee and approve the contractor's digital engineering execution plan (DEEP);
- maintain oversight of contractor's digital engineering capability, capacity, and delivery per the EIR/DEEP;
- participate and engage in all digital engineering meetings: such as coordination meetings, and clash detection meetings in collaboration with digital engineering lead;
- report on digital engineering progress to the Project Director and VDAS Champion. Assist executive leadership on management and steering of the project in terms of digital engineering; and
- high level of communication and fostering teamwork. Assemble a work environment for different individuals representing multiple disciplines to achieve optimum digital engineering performance.

FTE/resourcing

This role should be 1.0 FTE, charged to the project, across the entire project lifecycle.

Background/education

Ideally supported by a firm educational grounding in one of the following: asset management, facilities management, architecture, engineering, or construction management.

Further education in financial management, business administration, or technology/ITC would be strongly regarded.

Previous experience in implementing BIM and digital engineering into large, complex projects will be highly regarded. Professional memberships of the appropriate organisations would also be well regarded.

Authorised by the Victorian Government
1 Treasury Place, Melbourne, 3002

Accessibility
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Email: enquiries@opv.vic.gov.au
Telephone: 03 7005 9130

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