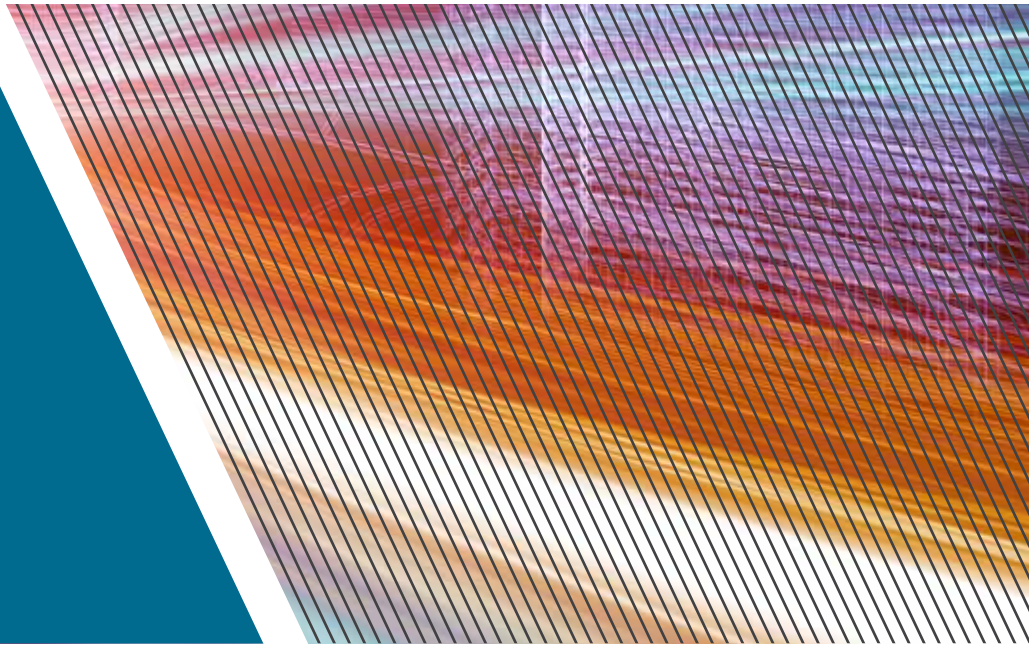


Victorian Digital Asset Strategy

Guidance

OFFICE OF PROJECTS VICTORIA

VICTORIA State Government

Office of Projects Victoria (OPV) recognises the departments and agencies of the Victorian Government that participated in the consultation for this work, the MelBIM Community, as well as AECOM as an alliance partner.

OPV also wishes to acknowledge the many individuals, companies, and organisations across the architecture, engineering, construction and operations (AECO) industry and supply chain.

There is a detailed list of acknowledgements at the end of this document.

Version	**Summary of changes**
1.00	Release
Owner:	Office of Projects Victoria
Authoriser:	Victorian Chief Engineer

Part A contents

Message from the Treasurer

'The VDAS seeks to maximise every dollar of Victorian investment.'

The Victorian Government is embracing innovative processes and frameworks to plan, create and operate our State's assets – and the *Victorian Digital Asset Strategy* (VDAS) is key to achieving this goal.

The VDAS is a consistent, integrated and repeatable approach to creating and managing Victorian assets and maximising the many benefits of our investments.

The VDAS embraces key technologies such as building information modelling and geographic information systems to enable better outcomes for all Victorians.

The move to adopt the VDAS is strongly supported by all stakeholders, including government, industry, academia, project teams and operators.

The VDAS is a key enabler for the future, setting the foundation for the use of smart construction platforms and integrated, real-time data collection and analysis, to help build digital twins and truly smart cities.

The VDAS will allow Victoria's assets to be more cost effective, and it will enable us to deliver them safely and to make use of leading innovations that will add value to our State for decades to come.

I'm excited about what the VDAS means for Victoria today and into the future.

Tim Pallas MP
Treasurer of Victoria

Message from the Victorian Chief Engineer

'Victoria is an engineering powerhouse.'

The Government of Victoria has set out a clear vision to transform the way we deliver, analyse, share and use data and information about our State's infrastructure and built environment.

The vision harnesses the power of digital technology, data capture and analytics, for the public good.

The VDAS sets a strong agenda for how we can achieve this. It includes creating world-class assets with a whole of life philosophy and innovative approaches such as digital engineering.

The VDAS is guided by, and aligns objectives, policies, directions and priorities on state, Commonwealth and international levels.

These include the state Asset Management Accountability Framework, 'Virtual Victoria', and the Value Creation and Capture Framework, the Commonwealth Australian National Digital Engineering Policy Principles and the international Gemini Principles and United Nations Sustainable Development Goals.

The *VDAS Guidance* should be applied to all projects and assets to create a smarter built environment.

Dr Collette Burke
Victorian Chief Engineer

Executive summary

The *Victorian Digital Asset Strategy* (VDAS) is a step change in the way Victorian Government departments and agencies plan, deliver, operate and maintain the assets they manage on behalf of the people of Victoria.

In particular, it recognises that preserving the valuable data generated at each stage of an asset's lifecycle is critical, and that this data can and should be used for the public good. Preserving this data will enable future cities with improved data value and information management

Decisions for public good demand quality information. Quality information needs fit-for-purpose data. Any break in this chain erodes quality decision making.

The same applies to how Victoria creates, maintains and operates its infrastructure, such as transport, hospitals, education, parks and justice facilities.

Being able to know the location, condition and performance of our infrastructure assets, digitally and in real-time, allows us to use those assets more productively.

Importantly, it will enable us to create a 'Virtual Victoria' – a digital twin that supports integrated planning and the development of smart cities.

The VDAS builds on and supports Victoria's Asset Management Accountability Framework (AMAF), which was released in 2016 to help decision makers and operators to better plan and maintain these crucial systems.

Data-enabled infrastructure will generate significant value towards Victoria's future.

The VDAS sets out the vital process for safeguarding the digital systems that will allow us to monitor and improve the creation and management of infrastructure assets in Victoria.

The VDAS supports the government's objective to provide world-class public infrastructure, and it aligns with Victorian Government Acts, policies and initiatives, including the Department of Treasury and Finance's (DTF) Investment Lifecycle, Value Creation and Capture (VCC) Framework and the *Public Administration Act*.

It provides the framework for Victorian Government stakeholders to apply innovative approaches such as digital engineering to improve outcomes across the State.

Digital engineering aims to create an efficient flow of information across the lifecycle of an asset. It enables the Government to get more out of existing infrastructure by managing data in a systematic way, which leads to improved decision making and better productivity.

This work is supported by a common data environment (CDE) aligning digital information systems including drafting, geospatial information systems (GIS), building information modelling (BIM), electronic document management systems (EDMS), project controls (time, cost, risks, etc.), asset data and other related systems.

The VDAS will enhance Victoria's infrastructure outcomes through innovative approaches.

This *VDAS Guidance* document is the next step in adopting a consistent and modern approach to digital engineering and BIM. It is aimed at Victorian Government departments and agencies, and sets out the 'who', 'why, 'how' and 'when' of digital engineering and BIM adoption in major capital and renewal projects.

The *VDAS Guidance* is structured and designed to assist stakeholders and decision makers within their organisation.

The *VDAS Guidance* also includes templates, checklists and tools to assist you throughout the journey.

While the *VDAS Guidance* is not mandated, it has been developed through extensive stakeholder engagement, and it is aligned with relevant international, national and state best practice, standards and lessons learned. It also accounts for and aligns with applicable Victorian law, regulations, policies and frameworks.

The *VDAS Guidance* works as a system. It is highly recommended that executives, practitioners and managers do not pick and choose the parts of the guidance to adopt, but rather view it as a complete package where all parts work together to achieve maximum value.

To align with contemporary best practice in policy, technology and standards, the *VDAS Guidance* will be regularly updated through revisions and release of additional resources. Refer to www.opv.vic.gov.au for more information.

VDAS aims to enhance digital assets to inform their physical counterpart for the benefit of current and future Victorians.

Future cities

Future cities combine physical and digital systems in the built environment. An integrated and smart built environment means a sustainable, prosperous, and inclusive future for Victorians.

Future cities rely on 'enablers' such as digital twins, integrated planning, data being valued, automated worksites and virtual reality technologies.

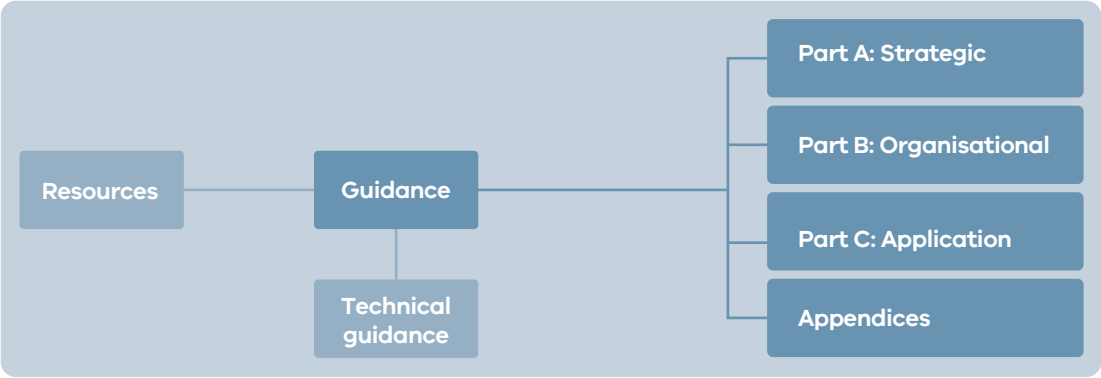
These enablers don't just 'happen' - they need an integrated and supported approach, such as VDAS, to get there.

The *VDAS Guidance* document is a key enabler for Victoria as a future city.

Future city enablers

Artificial intelligence	Driverless cars	Circular economy	Smart agriculture	Increased automation	Virtual reality
Integrated planning	Valued data	Automated worksite	Digital twins	Internet of things	

Victorian Digital Asset Strategy initiative



Purpose of this document

This *VDAS Guidance* document is for government stakeholders who plan, create and operate Victoria's assets. It provides detailed guidance on planning, implementing, managing and maintaining an effective digital asset strategy throughout the lifecycle of your organisation's asset base.

The *VDAS Guidance* outlines who is responsible for implementing and managing the VDAS within an organisation.

Across the project lifecycle, this includes:

- roles and responsibilities;
- governance of information;
- organisational requirements;
- procurement; and
- the people, processes and technology.

The audience for this document is:

- executive management;
- asset owners: Victorian Government departments, Victorian Government agencies, or those representing their best interests;
- client-side asset management professionals, including those responsible for asset-level decisions;
- client-side project delivery professionals, such as engineers, constructors, and commissioners; and
- client-side technology, finance and customer-focused departments.

The VDAS approach supports complex interfaces on major projects.

How to use this document

Part A: Strategic **Page A.1**

This section provides insights and direction for heads of departments, executives and others who plan, deliver, operate and maintain assets.

It articulates how the VDAS integrates, assists and improves on various policies, Acts and strategies that Victorian Government executives are required to follow.

Part A also highlights how the VDAS aligns with, and responds to, national and international principles and strategies, alongside other digital engineering frameworks.

Part B: Organisational **Page B.1**

This section provides organisational-level guidance and advice for asset owners, operators, project managers and mid-level management involved in the management, and direction of major assets and projects.

It captures key information about change management, the governance of information management, systems integration, organisational requirements and common data environments.

Part B also positions the organisation to manage digital information and data effectively throughout the life of an asset and explains how this integrates with structuring projects and managing capital investment.

Part C: Application **Page C.1**

This section provides detailed project-level advice articulated through the front-end, implementation and handover phases of the asset lifecycle. Part C is structured in seven phases:

- Phase 1 – Brief
- Phase 2 – Concept
- Phase 3 – Definition
- Phase 4 – Design
- Phase 5 – Build and commissioning
- Phase 6 – Handover and closeout
- Phase 7 – Operate and maintain

Appendices

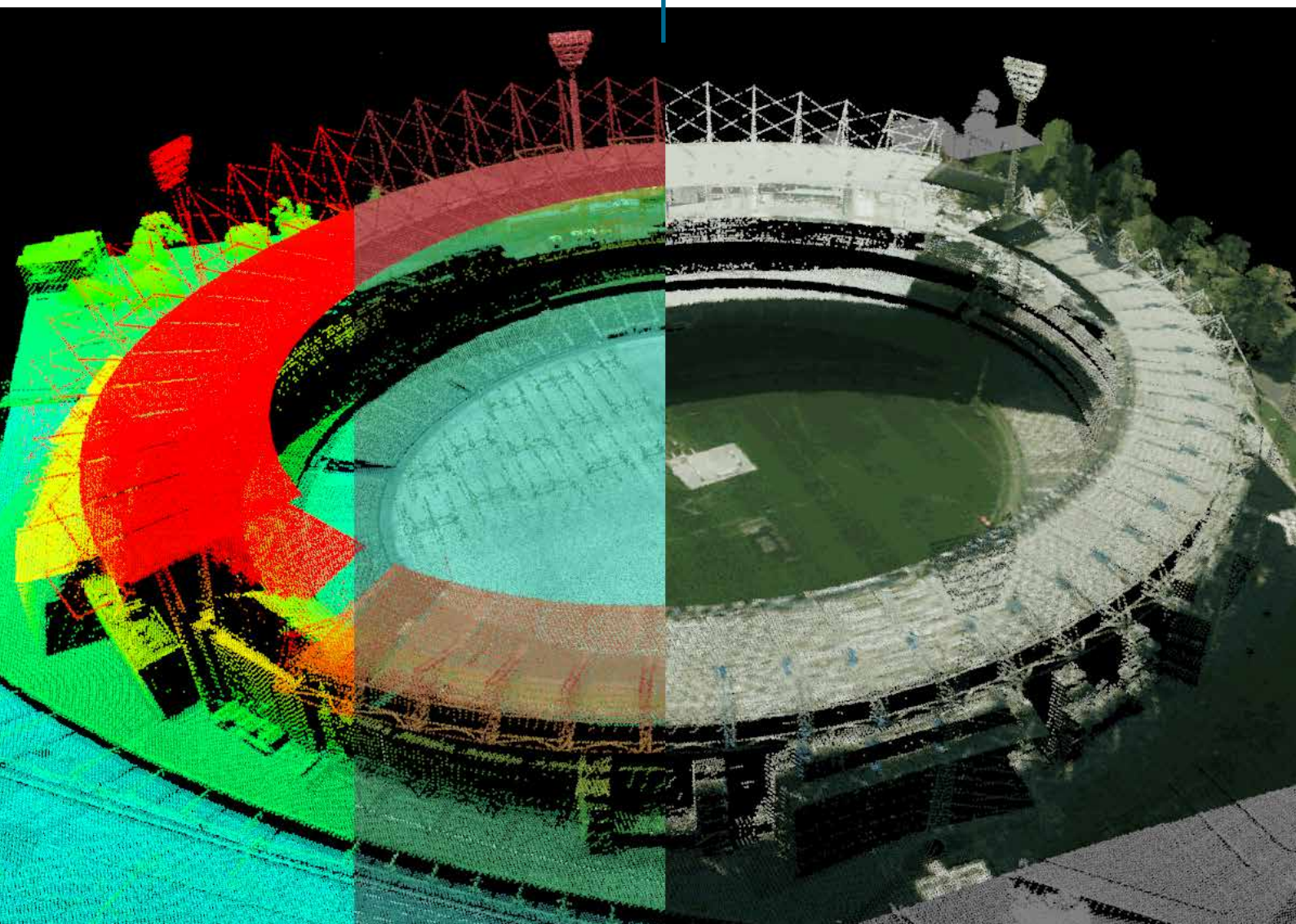
- Appendix 1: Organisational information requirements (OIR) template
- Appendix 2: Asset information requirements (AIR) template
- Appendix 3: Sample key decision points (KDP)
- Appendix 4: VDAS data dictionary (VDD)
- Appendix 5: Exchange information requirements (EIR) template
- Appendix 6: Digital engineering execution plan (DEEP) template
- Appendix 7: RACI/scope checklist template
- Appendix 8: Digital engineering execution response (DEER) template
- Appendix 9: Sample VDAS job descriptions
- Appendix 10: VDAS procurement workflows

While the VDAS is specifically aimed at the Victorian Government and its stakeholders who support planning, creating, operating and maintaining government assets, it is equally applicable to many other stakeholders in the architecture, engineering, construction and operations (AECO) industry. This includes supply chain, local government and councils, industry organisations and associations and individual practitioners.

The *VDAS Guidance* document is not exhaustive, nor is it a list of instructions on how to apply digital engineering to major assets and projects.

Each asset, organisation, context, and situation is unique. Applying the VDAS demands pragmatism and consideration at every point from all relevant stakeholders.

The VDAS has been developed in the Victorian context. Victoria is proud and excited to lead the way in developing clear and detailed guidance to the many stakeholders that deliver our important assets.



Victorian Digital Asset Strategy
Guidance

Part A
Strategic

About this section

Part A articulates how the VDAS integrates, assists and improves on various policies, acts and strategies that Victorian Government executives are required to follow.

It also highlights how the VDAS aligns with, and responds to, national and international principles and strategies, alongside other digital engineering frameworks.

Who this section is for

This section provides insights and direction for heads of departments, executives and those trusted by government to plan, deliver, operate and maintain assets.

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What is the VDAS?

The *Victorian Digital Asset Strategy* (VDAS) is an innovative way to improve the value and use of both physical and digital assets through digital engineering across the entire asset lifecycle. The VDAS applies to all asset types: built environment, linear infrastructure and systems.

At its core, the VDAS aims to:

- improve public infrastructure assets, public sector capability, promoting innovation and digital efficiencies;
- deliver effective and efficient public services; and
- drive more sustainable outcomes.

The VDAS provides a consistent, integrated and repeatable approach to creating, curating and managing information relating to Victoria's physical assets in a digital environment.

The digital environment maximises the benefits of making decisions about Victoria's many physical assets, such as hospitals, schools, railways and roads.

The VDAS employs digital technologies to help users better understand, visualise, consume and gain insight from asset information.

These processes include digital engineering, which encompasses building information modelling (BIM) and geographic information systems (GIS).

Digital engineering improves the value and useability of physical assets across their lifecycle.

The VDAS is not software nor a specific system. It is a shift in how we create and manage information across the asset lifecycle. It encompasses a collection of processes, frameworks, systems and technologies.

The VDAS aims to improve the transfer and the quality of information through each stage of the lifecycle.

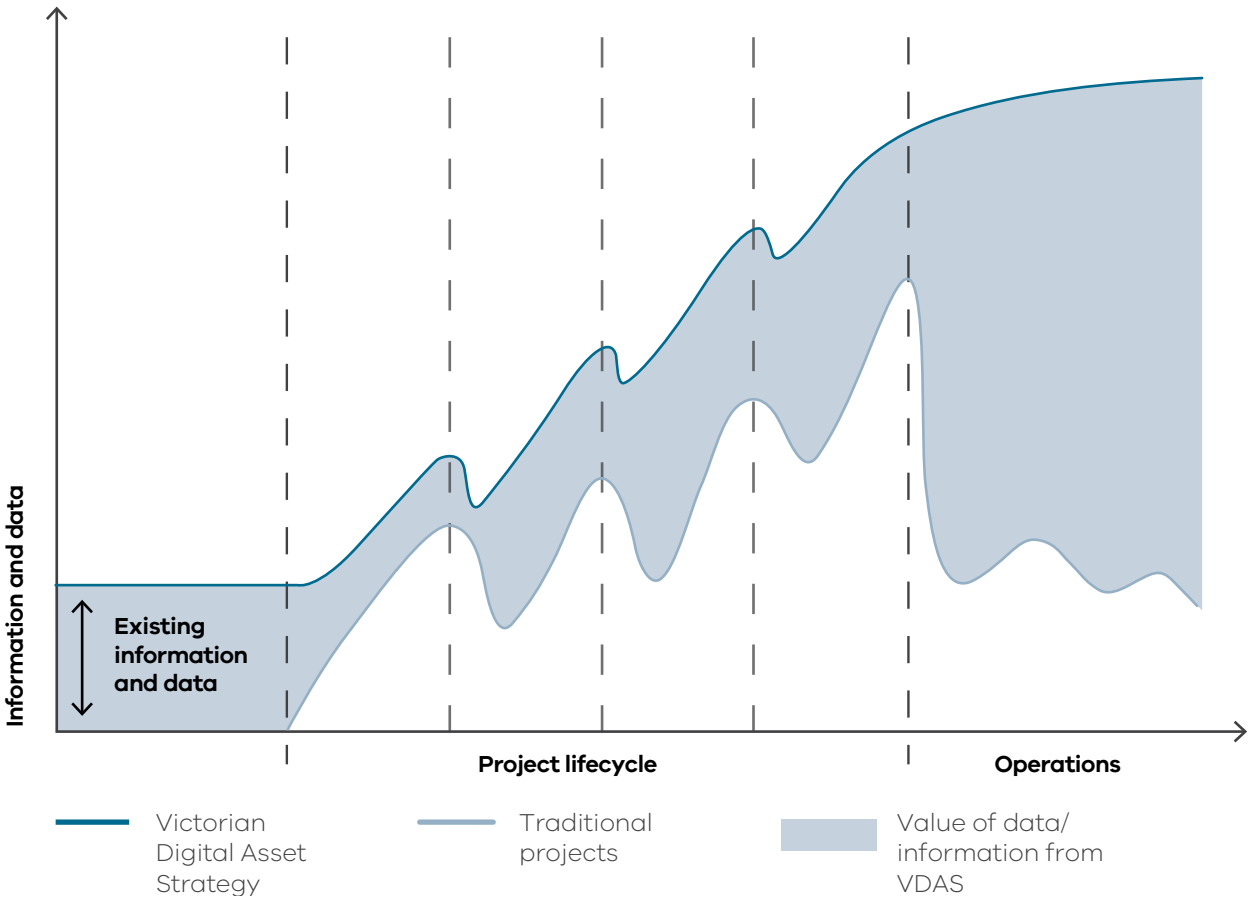
Managing information and data flow through the life of assets drives better decision making for operators and provides improved insights for operation, maintenance and future investment planning.

There are different approaches to infrastructure management – some of them more effective than others.

The current approach relies on analogue processes – printing, static versions and non-linked sets of information, data and documentation about the asset. In this approach, the lessons learned, and tacit knowledge are typically retained by individuals rather than the 'system'. When an individual leaves a project or an organisation, the knowledge is lost and it needs to be recreated at significant cost. This creates unnecessary risk, is inefficient, expensive to maintain, and it does not support balanced and effective decision making.

A better approach is to leverage digital information and systems. The VDAS uses a digital environment where systems interact and information, data and documentation are retained. Individuals thus spend less time searching for information, and save more time for making effective decisions.

In this way, information and data is better utilised, current and available to stakeholders and given inherent value.



The VDAS is a modern and best practice approach

It has been developed in collaboration with industry and is aligned with international standards and best practice, such as International Standard *ISO 19650: Organisation and digitization of information about buildings and civil engineering works* and the Centre for Digitally Built Britain's Gemini Principles.

It also harmonises with existing Victorian Government and Commonwealth policies.

Implementing the VDAS is a medium to long-term program that will support better asset management in the public interest – however, this work comes with inherent challenges.

Some of the perceived challenges and barriers are addressed in the table below.

Perceived barriers to VDAS implementation		Response from government and industry experts
'We don't need a new software or enterprise system, or a similar discrete solution.'	→	The VDAS is a best practice approach that values system and information interoperability. In most cases, existing systems can be retained.
'It will cost a lot and who's going to pay?'	→	Qualitative and quantitative studies support a high return on investment. In many circumstances, government is already paying for industry to apply these practices without receiving the full benefits.
'Why change? We've always done it this way and it seems to be working.'	→	Leveraging a best practice approach unlocks organisational efficiencies through digital workflows.
'It's not in the contract.'	→	There are very few contracts that preclude the use of effective practice. In most circumstances, contract parties are very willing for the State to move toward best practice approaches.
'It's not our responsibility – isn't this industry's problem?'	→	The State has been entrusted by the people of Victoria to develop, operate and maintain assets in line with best practice. Certainly industry has a role when its contracted on behalf of the State.
'It will be too hard to find and upskill people.'	→	There is a wide range of training and professional development material available within the Victorian context. Further support is available from the Office of Projects Victoria to assist with training, guidance and subject-matter expertise.

VDAS vision and priorities

The vision of the VDAS is:

To create, deliver and enhance digital assets that inform the delivery and whole-life management of world-class, effective and efficient physical assets across Victoria for the benefit of current and future Victorians.

The VDAS approach is underpinned by the following strategic priorities. These priorities are aligned with the Victorian Government's objectives, alongside broad objectives set out in the Gemini Principles, a UK framework on the value of data, information and effective decision making.

The VDAS priorities outlined below should be used by Victorian departments and agencies as a guide when compiling their own VDAS implementation roadmap.

Principles for applying the VDAS

International best practices in the management of information, digital assets and projects have established principles towards a collaborative culture relating to sharing and integrating data and information more collaboratively.

The *VDAS Guidance* has been developed in line with these principles – with a large emphasis on the value of data and information.

The principles set out here for applying the *VDAS Guidance* are not typical of the traditional AECO operating environment. Historically, the AECO industry can be susceptible to a commercially unproductive, litigious and 'siloed' environment.

This erodes potential organisational, asset and project value. Through collaboration and more transparent information exchanges during the asset lifecycle, the VDAS seeks to change this legacy.

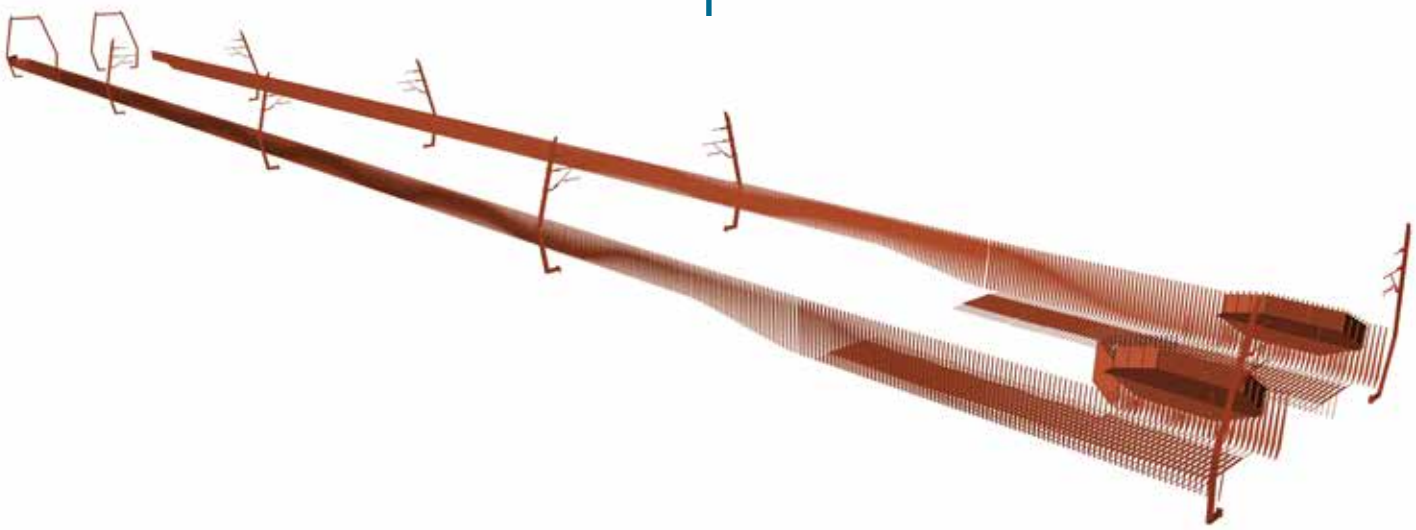
It aims for a new and more effective approach to developing Victoria's assets by improving collaboration and replacing unproductive workflows.

The VDAS principles should therefore be clearly established, articulated and instilled within the organisation.

The VDAS represents a future way of working; all stakeholders (whether in government or supporting government) who are adopting the VDAS should use these principles as part of their commitment to continuous improvement.

The 12 VDAS principles are explained in the next section.

The VDAS follows a set of 12 principles that inform better and more transparent project solutions earlier in the project lifecycle.



Clear requirements

Clear data and information requirements to an appropriate level of need

Better outcomes

Data to support the public good and enhance the lives of Victorians

Asset leveraging

Driving valuable outcomes for Victorians, asset users and stakeholders

Transparent

Enable more important and transparent decisions to be made

Secure

A holistic approach to securely share data and information

De-risk/ risk sharing

Using DE and digital management to mitigate and minimise risk

Whole of life

Using DE and data feedback loops to visualise lifecycle solutions

Capability and capacity

Increasing capability and capacity for DE and digital asset management

Open

An open and vendor-neutral approach

Integrated and repeatable

An integrated working practice, aligning OPEX and CAPEX in a repeatable manner

Innovative approach

Implementation of DE, BIM and digital asset management methodologies

Future enabled

Data and information that supports a virtual Victoria

The VDAS in the Victorian context

Executives and leaders within the Victorian Public Service (VPS) are responsible for setting the strategic direction for the organisations they represent, for ensuring that their assets and operations are sustainable, for delivering good value to the public, and for meeting all relevant regulatory requirements.

The VDAS can assist executives and leaders in the VPS to meet these responsibilities by providing the aligned enablers listed on the following page.

VPS executives and leaders should see the VDAS as an 'enabler' that assists with delivering and complying with the Government's legislation, policies and initiatives (see following table).

The VDAS can assist individuals within the VPS with greater depth and transparency of information and data – both of which drive better decision making and community engagement.

		VDAS enablers													
		Innovative responses	VDAS adoption	Cost certainty	Early creation of data	Common data environment	Enhanced accountability	Transparent data and workflow	Data and asset classification	Design re-use	Information exchange	Monitoring waste and utilisation	Trialling design optioneering	Using international best practice	Informed decision making
Public Administration Act 2004	Responsiveness	✓	✓												
	Integrity						✓								
	Impartiality						✓								
	Accountability							✓							
Financial Management Act 1994	Section 23C whereby Government must operate in accordance with principles of sound financial management			✓											
	Section 44B highlights the importance of asset information management								✓						
Section 44B highlights the importance of asset information management	Principle 1: Information is valued and governed as an asset				✓	✓					✓				
	Principle 2: Information is created and managed digitally					✓			✓		✓				
	Principle 3: Information is fit for its intended purposes and is easy to find, access and use					✓			✓		✓				✓
	Principle 4: Information is shared and released to the maximum extent possible					✓	✓				✓				✓
	Principle 5: Information management capability is fostered and embedded into how the government does its work					✓		✓	✓		✓				✓
Standing Directions 2018	Instruction 3.4: Internal control system							✓	✓						
	Instruction 4.2.1: Acquisition of assets, goods and services				✓				✓						

		VDAS enablers													
		Innovative responses	VDAS adoption	Cost certainty	Early creation of data	Common data environment	Enhanced accountability	Transparent data and workflow	Data and asset classification	Design re-use	Information exchange	Monitoring waste and utilisation	Trialling design optioneering	Using international best practice	Informed decision making
DTF Investment Management	Planning				✓		✓	✓				✓	✓		✓
	Delivery							✓		✓		✓	✓		✓
	Evaluation					✓			✓						✓
Value Creation and Capture (VCC) Framework	Increasing productivity and cost efficiency					✓									
	Increasing asset value and amenity								✓		✓				
	Unlocking commercial opportunities									✓					
	Improving accessibility												✓		
	Enhancing public safety												✓		
	Protecting and enhancing the environment											✓			
	Increasing social capital											✓			
DTF Investment Lifecycle	Stage 1: Conceptualise							✓							
	Stage 2: Prove								✓						
	Stage 3: Procure								✓					✓	
	Stage 4: Implement								✓		✓				
	Stage 5: Realise								✓			✓			
Asset Management Accountability Framework	Service delivery focused						✓								
	Integrated into planning frameworks							✓						✓	
	Whole of life cycle approach								✓		✓				
	Informed decision making								✓						✓
	Responsible and accountable												✓		
	Government policies and priorities													✓	

VDAS alignment

The *VDAS Guidance* has been established and developed to align closely with the following digital engineering policies, principles and frameworks, both global and local. This alignment is essential to enable future adoption across Australia. Operational data should feed back into future design opportunities to facilitate innovation.

One of the lessons learned from the UK Government mandating the use of BIM was the importance of clear guidance to departments and agencies beyond a national directive and technical standards.

The VDAS seeks to address this.

Australasian BIM Advisory Board: Australian BIM Strategic Framework

The *Asset Information Requirements Guide* is internationally recognised and aims to assist clients and consultants in defining information requirements using BIM to capture and deliver asset data.

The *BIM Process Consistency* document identifies a clear definition, the underlying principles, main elements and requirements for developing a common framework for BIM process consistency.

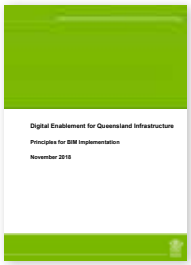
Asset Management Council

The *Framework for Asset Management* outlines the different types of information that can be useful for strategic, tactical and operational purposes.

Facilities Management Association

This association has developed a good practice guide for Facilities information outlining the key stakeholders and the importance of facilities information management.

Digital Enablement for Queensland Infrastructure



The principles for BIM implementation report aims to embrace a consistent approach to BIM adoption, and simultaneously provide certainty to industry for its future investment.

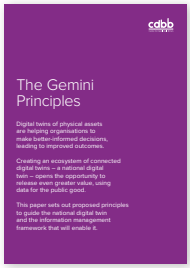
Transport for New South Wales

The *Digital engineering framework* is a unified and reusable approach to digital engineering for project management teams and individuals.

Victorian Digital Asset Strategy

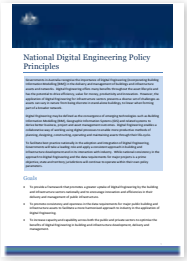
The *Victorian Digital Assest Strategy* (VDAS) aims to improve the way infrastructure projects are defined, delivered and maintained.

The Gemini Principles



As a global leader in the vision toward the 'digital twin' concept, the UK government created and embraced the Gemini Principles. At the heart of the principles is the value of data, information, and effective decision making.

National Digital Engineering Policy Principles



The principles were developed in recognition of the potential benefits that digital engineering and BIM can bring to the design, delivery, operation and management of infrastructure assets.

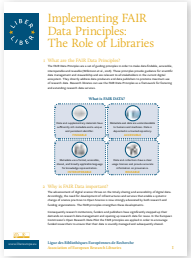
HM Government Construction Strategy

In 2011, the UK Government released a Construction Strategy to embrace the use of BIM. The government mandated the use of 'Level 2' BIM on all centrally procured government projects from April 2016.

New Zealand BIM Acceleration Committee

The New Zealand BIM Acceleration Committee was established in February 2014 to coordinate efforts to increase the use of BIM in New Zealand.

FAIR Data Principles

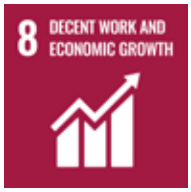


The FAIR Data Principles (Findable, Accessible, Interoperable, Reusable) were drafted at the Lorentz Center workshop in Leiden, the Netherlands in 2015.

Shergold Weir Report

Completed in 2018, the Shergold Weir report outlines 24 recommendations for the Australian building industry.

United Nations' Sustainable Development Goals



Industry innovation and infrastructure – targets quality, resilient, functional and sustainable infrastructure.

Decent work and economy growth – focused on improving individual, asset and societal productivity through informed and evidenced-based decision making;

Sustainable cities and communities – explicitly targeting integrated planning for improved asset and land use.

Five steps to VDAS success in the organisation

The five steps to VDAS success outline how senior executives in the Victorian public service should deliver future projects and assets. For many organisations, this requires a change in the current way of working to move towards better practice.

For each department and agency, these five steps will vary in scale, timeframe and resourcing, including funding. Evidence shows that this resourcing commitment has a positive return on investment, with improved societal impacts, decision making, productivity, value for money, amenity/function and safety.

It is also important to note that the VDAS will evolve and incorporate continuous improvement. The VDAS implementation road map (step 2) must be contemporary and reviewed in line with lessons learnt, industry better practice and government policy.

Step 1

Assign the role of a VDAS Champion. The VDAS Champion is responsible for the implementation of VDAS.

A template job description is available in Appendix 9.

Step 2

Develop a VDAS implementation roadmap. This considers the organisation's digital asset level of maturity as compared to the future vision of the organisation.

A detailed VDAS implementation roadmap can be found in Part B.

Step 3

Develop and communicate the organisation's information requirements (OIR) and asset information requirements (AIR).

These should be aligned with the organisation's purpose, vision, and asset management approach. An OIR and AIR template can be found in Appendix 1 and 2 respectively.

Step 4

Aligned with the VDAS implementation roadmap implement a project with VDAS.

A VDAS investment matrix can be found in Part C.

Step 5

Review the performance of VDAS implementation against plan and refine approach accordingly.

Begin to make VDAS 'business as usual' with the creation and adoption of a digital engineering policy and standard.

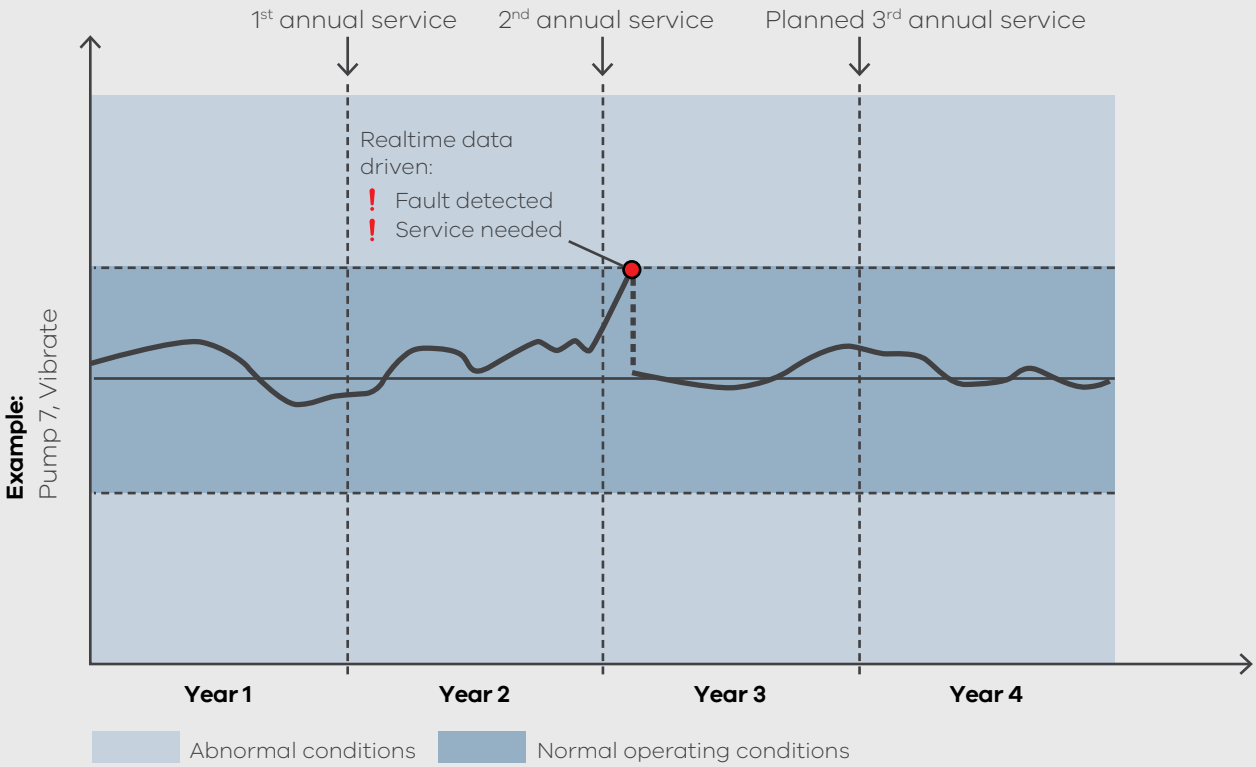
Feedback loop

Data-driven asset management

Timely and high-quality information informs good asset management decisions. Digital engineering creates valuable information for custodians of Victoria's assets, such as asset managers, facilities managers and operators so they can make informed decisions to provide efficient, fit for purpose and effective services.

Custodians of Victoria's assets need to make strategic, tactical and operational decisions informed by key themes, such as:

- the type of asset and its role as part of a larger infrastructure/system;
- the location of the asset, and its geographic context;
- the current condition of the asset;
- the cost of repairs and maintenance;
- asset utilisation and leveraging opportunities;
- the current capacity and future demands on the asset;
- technical and financial asset performance;
- commercial and non-commercial service commitment;
- critical assets and risk minimisation; and
- asset portfolios resilience, asset interaction and interoperability.



Data-driven asset management (continued)

Many of these themes are now informed by data, both historical and in real-time.

For example, vibration sensors can be mounted to critical assets to measure movement as a proxy for condition. This information can be used to pinpoint exactly when maintenance is required.

Often this saves on additional servicing costs alongside unnecessary asset downtime. For even small assets, this can save tens of thousands of dollars a year, per asset.

Much of the information needed throughout ongoing operations and maintenance is generated during the project's development phases. This may include maintenance manuals, access to warranty statements, process flow diagrams, plot plans and wiring diagrams.

If this historical information is lost or not updated, it will need to be recreated and re-validated for both routine maintenance and more involved capital works programs.

Not only is this a risk to the organisation, but it also attracts a large cost and time commitment to refresh lost information.

There is also a high risk that data will not be able to be regenerated or recreated for asset components or elements that are no longer visible post construction, which means you may not be able to fully use an as-built data set.

The VDAS lays the foundations for best practice information management across the asset's lifecycle, which supports operators, asset managers and facilities managers with their strategic, tactical and operational goals.

In the figure on the previous page, without the introduction of sensor-based technology, the organisation would either experience asset failure or operate in an inefficient way for the next 11 months, increasing risk for the organisation.

Summary

Part A provides insights and direction for heads of departments, executive management and those trusted by government to plan, deliver, operate and maintain assets.

Executive management is essential in taking the next step towards a consistent approach to digital engineering, but organisational support and alignment is equally as important.

Part A articulates how the VDAS integrates, assists and improves on various policies, Acts, and strategies that Victorian Government executives are required to follow.

Part A also highlights how the VDAS aligns with, and responds to, national and international principles and strategies, alongside other digital engineering frameworks.

The next part, Part B, provides detailed guidance on positioning an organisation to manage digital information and data effectively throughout the life of an asset. It also provides advice for professionals responsible for implementing the VDAS.

The VDAS integrates, assists, and improves on various policies, Acts and strategies that Victorian government executives can realise benefits from following.

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