3. Project Planning

Best practice considerations at this stage in a project

- ☐ Are there governance processes, including responsibilities, accountabilities and decision-making delegations appropriate to the stage of the project to manage, monitor and report on project progress and benefits realisation?
- ☐ Do you have access to the resources required with the appropriate skills and experience (such as commissioning, transitioning, operations, cyber, data, privacy etc)?
- ☐ What are the long-term broader asset network and service integration requirements, and have they been articulated and appropriately captured through the option assessment process?
- ☐ Has the impact of the proposed project on staff, other people (including the community), existing infrastructure and processes been evaluated and documented?
- ☐ Do you understand how your current network will interact with the proposed solution? Have you considered the costs?
- ☐ Are there plans for stakeholder management, engagement and communication that have considered the influence of, and impact on, each stakeholder or stakeholder group?
- ☐ Have you identified current, anticipated and emerging risks and issues, and have you recorded them in a risk register that is up to date and monitored? Does this include a risk management plan that outlines ownership for risk mitigation?
- ☐ What are the existing or high probability issues that could diminish the delivery of the project over time and how will they be mitigated?
- ☐ Are there major risks to the project going live on-time, on-budget and to agreed scope? If yes, are these risks being managed?
- ☐ Have key stakeholders been consulted in developing key project documents including the risk management plan? Do the risk owners understand their responsibilities, in addition to the risk escalation process?
- ☐ Can the organisation implement any new services under the project and maintain existing services?

3.1 Project planning

3.1.1 What is project planning and why is it important?

A project plan (sometimes called an implementation plan) outlines how you will deliver your project. Developing a plan and understanding how each element of your IoT-enabled project will be delivered will help mitigate risks that can undermine it.

Given the newness and complexity of IoT-enabled projects and the number of factors that need to be considered to deliver a successful project, it is important to plan upfront.

3.1.2 Things to consider when planning an IoT-enabled project

You need to understand and consider your organisation's goals, strategic directions and your business problem prior to starting your IoT-enabled project. It is worthwhile exploring if your project feeds into a larger portfolio or program of work, such as to 'make your city smarter'. This will help you to achieve alignment between your project and existing priorities.

Take time to consider the needs of your users and customers. Having customers at the centre of your IoT-enabled project can provide a focus for prioritising issues and solutions and ensuring that your project addresses what it is intended to ensure it is successful.

While there is no whole of government project planning policy, organisations may have their own project planning guidelines and/or a Project Management Office to assist with project planning and project management.

3.1.3 Assigning roles, responsibilities and accountability

Projects require adequate oversight and management to ensure that plans are followed, risks are minimised, decisions made remain relevant and benefits are maximised. The multifaceted nature of IoT means it is essential that roles and responsibilities are assigned and understood for each aspect of your project, including data, cybersecurity, privacy, hardware, software applications, and system architecture.

a) Responsibility for data

You need to make certain that clear responsibilities are allocated for IoT data ownership and management. Your organisation's data governance frameworks should identify who has responsibility for your IoT data and who is responsible for giving permission for open data release or data sharing. Data sharing agreements should specify data rights, including whether ownership of the data will be transferred to the third party.

Even under service arrangements, NSW Government agencies are the custodian holding overall accountability and responsibility for their data. A NSW Government agency may delegate its responsibility for the day-to-day creation and management of data to another organisation, but it will continue to have overarching responsibility for the integrity and accountability of its data. These responsibilities are usually delegated to Secretaries or agency heads under different NSW legislation. This means that each NSW Government

agency must ensure that any legal risks are managed and controlled, including ownership and sovereignty issues.

In addition, all data and information assets that are products of NSW public sector bodies fall under the *State Records Act 1998* (NSW). Under the Act, custodians are responsible for the creation, management, protection and maintenance of their datasets, even when these management responsibilities have been delegated to another agency.

See Chapter 5.2 Data considerations for contracting for more information on contractual arrangements around data ownership and responsibilities.

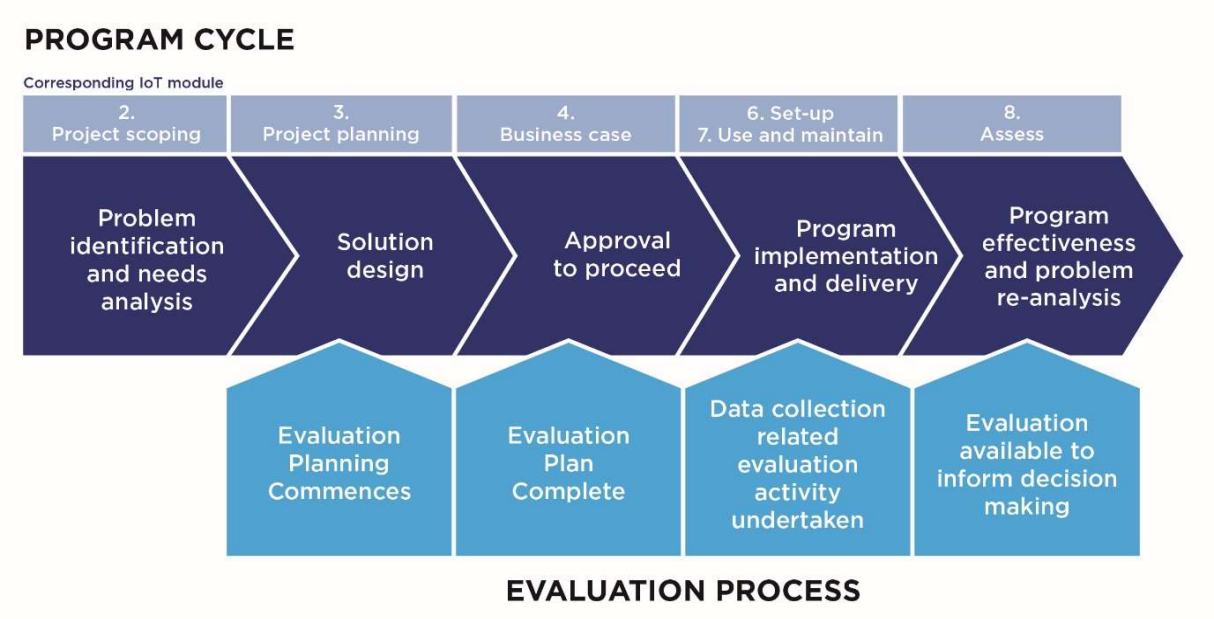
3.1.4 Planning for evaluation

Evaluation planning should start when the project is being designed and planned. Much of the planning for evaluation can be completed before the project has started to be implemented.

Planning for evaluation means that you can set a baseline against which you evaluate the results of your project. You will also know what data and information to collect during the project to support your evaluation. Integrating evaluation with the project cycle supports a stronger, more effective evaluation, and helps to identify outcome measures and KPIs for your business case.

See the Evaluation Toolkit for assistance on developing evaluation plans, and speak to your organisation's Evaluation team. Further information on evaluation can be found in Chapter 8.1 Evaluation.

The evaluation process across the project or program cycle



3.1.5 Checklist of project planning considerations

Below is a checklist of considerations you can use in developing your project plan:

Skills and expertise (see Chapter 2.2 Skills and expertise)

☐ I have access within my organisation to the skills I need to deliver my project

☐ I have access to the necessary people and resources external to my organisation

Roles, responsibilities and accountability (see Chapter 3.1 Project planning)

☐ I have clearly assigned roles and responsibilities for all elements of my project, including for the data that will be generated

Data needs assessment and data obligations (see Chapter 3.3 Data needs assessment and Chapter 3.7 Data obligations)

☐ I understand how the data developed through my project will be collected, transmitted, stored, structured, processed, analysed, used and released

☐ I know who owns the data that is to be collected

☐ I have developed metadata requirements

☐ I am aware of any data-related limitations in my operating environment and how they may impact the use of the IoT-generated data or its integration with work processes

☐ I understand what open data standards are applicable to my project and what data that I collect should be made open

☐ I understand the *State Records Act 1998* (NSW) requirements I must comply with

Risk (see Chapter 3.4 Risks and Obligations)

☐ I understand what risks my project may be exposed to

☐ I have a plan to mitigate identified risks

Privacy (see Chapter 3.5 Privacy)

☐ I understand my organisation's privacy obligations, identified key privacy risks and identified appropriate treatments for those risks

Cyber security (see Chapter 3.6 Cyber Security)

☐ I understand the cyber security requirements that the project will need to consider and address

Technology for IoT (see Chapter 3.8 Technology for IoT)

☐ I know what sort of devices I need, and I know if they already exist or if I need to custom build them

☐ I know what IoT architecture options exist and which one is best for my project

- ☐ I know what products or systems exist (now and in the future) that the IoT solution will need to be interoperable with

- ☐ I understand the network technology that exists in the areas I need to deploy the technology, and the best network to use for my needs now and into the future (e.g. in five years)

Stakeholder engagement (see Chapter 3.2 Stakeholder engagement)

- ☐ I have identified the various parties that will be impacted by the project, including citizens

- ☐ I have a plan to engage with internal and external stakeholders

Assurance (see Chapter 3.9 Assurance)

- ☐ I understand if the project is required to follow any of the NSW Government assurance processes

Evaluation (see Chapter 8.1 Evaluation)

- ☐ I have started to plan how I will evaluate my project and considered what I need to do during the project implementation to ensure I can evaluate it effectively

Additional questions to consider include

- ☐ Launch strategy: I have decided whether the project will begin with a pilot or trial to test and prove a concept or start immediately with a full-scale launch

- ☐ Location logistics associated with equipment installation: I am aware of any issues that need to be addressed and customer needs to consider.

3.1.6 Additional resources

- The Praxis website has extensive resources on project management.

- AS/NZS ISO 9001:2016 *Quality Management Systems – Requirements* is an Australian standard identical to ISO 9001:2015. It specifies requirements for a quality management system (QMS). A QMS is a set of policies, processes, and procedures for planning and execution in the core business area of an organisation (i.e. areas that can impact the organisation's ability to meet customer requirements).