B. Project details

Introduction

This section includes the key facts for the five technology projects we selected from the dashboard to develop our insights. They are the:

- Human Resources Information Solutions program—the Department of Housing and Public Works

- Laboratory Information System project—the Department of Health

- Accelerating Science Delivery Innovation program—the Department of Environment and Science

- Vessel Traffic Services project—the Department of Transport and Main Roads

- Fleet Management System Replacement project—QFleet, the Department of Housing and Public Works.

Based on research, we have identified factors that can make a difference to the success of projects. They are:

Senior leaders actively lead and challenge.

Projects are aligned to business outcomes.

Internal and external teams work towards the same goals.

The team has the skills and capacity to match the challenge.

Learnings are identified and acted on.

For each of the five programs/projects, we have highlighted the factors that needed greater emphasis. They are identified by the above icons.

Human Resources Information Solutions program (budget: $101.3 million)

The Human Resources Information Solutions program began in September 2012, with an original estimated cost of $101.3 million. Initially, the program was to establish a fully integrated payroll and human capital management solution as

outsourced services. Due to a change in government policy, it changed to implementing payroll and human capital management solutions for four entities: Queensland Fire and Emergency Services, the Queensland Ambulance Service, Queensland Corrective Services, and the Inspector-General Emergency Management.
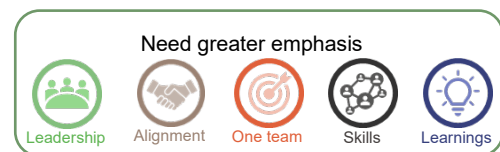
The program involved:

- transitioning all four entities from their legacy system (which was no longer supported by its developer) to a supported payroll system

- implementing human capital management (staff recruitment, performance, and development) solutions.

We previously reported on this program in *Monitoring and managing ICT projects* (Report 1: 2018–19).

Key facts

An executive steering committee leads the program. Two program boards (payroll and integration, and human capital management) support the committee. A representative of the Department of Housing and Public Works is the chair of the committee and the two boards.

Membership of the committee includes senior officers from Queensland Fire and Emergency Services, the Queensland Ambulance Service, and Queensland Corrective Services. Representatives from the Department of the Premier and Cabinet and Queensland Treasury, and program leaders from the Department of Housing and Public Works are observers on the committee, which does not report to any organisational governance committees.

Payroll program

The payroll program involved transitioning the in-scope entities from the legacy system to a supported system. As part of developing this report, we looked at project documents for the transition of Queensland Ambulance Services and Queensland Fire and Emergency Services.

Need greater emphasis

Leadership

Learnings
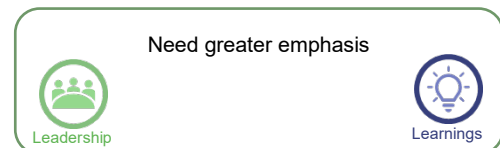
Queensland Shared Services owns and manages both the old and new systems and most of the business processes. It is the existing service provider for the in-scope entities.

The two projects included subject matter experts from the business from the start and the teams included members with technical, change management and project management skills.

Project documents show that there was emphasis on ensuring the new system produced the expected results.

Human capital management program

The implementation of the human capital management program was not as successful.

Need greater emphasis

Leadership   Alignment   One team   Skills   Learnings
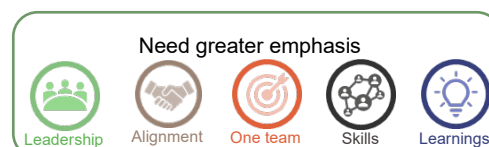
- Queensland Fire and Emergency Services implemented four out of six human capital management modules in December 2017, with the fifth and sixth modules implemented in July 2018 and August 2019, respectively. Project documents indicate that at the time the project closed there was limited uptake of the modules. The project closure report states that the internal and external teams did not always understand the project scope and that capability and expertise were lacking at times.

- Queensland Corrective Services approved a business case for implementing their human capital management system in March 2018. It paused the project in December 2019, stating business priorities and lack of readiness as the main reasons. The cost to date for this project is $6.5 million.

- The Queensland Ambulance Service project did not progress beyond developing the business case. Program documents indicate that work on developing the business case commenced in 2017. The cost of this project is $0.9 million.

Figures 3B1 and 3B2 show the program costs and timelines as recorded in project documents.

Figure 3B1
Total cost of the program

Program component	Actual/budget at 30 June 2020
Program management	$24.6 mil.
Payroll replacement and integration for Queensland Ambulance Service ($12.8 million), Queensland Corrective Services ($5.6 million), the Inspector-General Emergency Management, and Queensland Fire and Emergency Services ($5.3 million) (these projects are completed and closed)	$23.7 mil.
Human capital management solution for Queensland Fire and Emergency Services ($16.2 million) (closed), Queensland Corrective Services ($6.4) (paused), and Queensland Ambulance Service ($0.9 million) (business case complete)	$23.5 mil.
Phase one of time and attendance project, time sheet integration, and integration-as-a-service (completed and closed)	$4.3 mil.
Other, for example: e-timesheet, system stabilisation, design and integration, and business continuity	$8.0 mil.
Actual amount spent	**$84.1 mil.**
Remaining budget to complete projects, and contingency	$17.2 mil.
Total budget	**$101.3 mil.**

Note: Program management is an overhead cost that should be allocated across all the projects.

Source: Queensland Audit Office from Department of Housing and Public Works project documents.

Figure 3B2
**Timeline of key decisions since our last report**
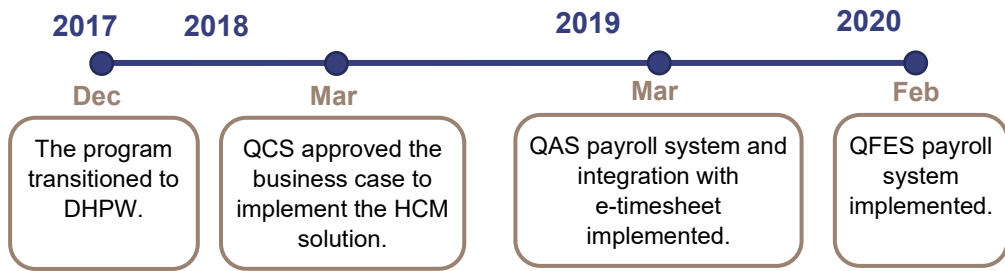
Note: DHPW—Department of Housing and Public Works; QCS—Queensland Corrective Services; QAS—Queensland Ambulance Service; QFES— Queensland Fire and Emergency Services; HCM—human capital management.

Source: Queensland Audit Office from Department of Housing and Public Works project documents.

Laboratory Information System project (budget: $64 million)

The Department of Health started this project in March 2015 to replace its legacy laboratory information system (in operation since 1996). The original estimated cost was $64 million. The Department of Health planned to buy a new, commercial off-the-shelf system for 36 laboratories across the state.
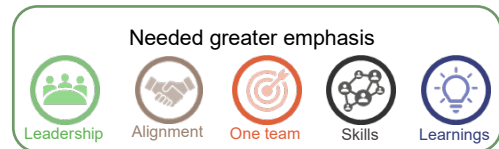
It estimates that it had completed 30 per cent of the project by December 2019 but discontinued the project in June 2020 with actual expenses of $51.4 million.

Key facts

In 2012, Queensland Government reviewed information and communication technology across departments. The report stated that the current laboratory information system was one of the top ten high risk systems and had an end of life in June 2020. The report stated that the Department of Health had advised that they needed seven years lead time to replace the system.

In November 2017, after completing the procurement process and a proof of concept with the preferred supplier, the department endorsed the business case to replace the laboratory information system.

Health Support Queensland, a business unit of the Department of Health, led this project. It was initially set up as a program with five projects. Membership of the program board included executives from across the department (for example, clinician leaders, senior technology service providers, senior users, and senior people from internal audit and legal). The eHealth Executive Committee (the peak digital governance body of the Department of Health) and Health Support Queensland's executive leadership team also received project reports for information.

In January 2018, the department signed the contract with the preferred supplier and in March 2018, the supplier advised the department that the product needed software development. Going into the contract, the department believed that it was a commercial off-the-shelf product and would not need development.

In June 2018, the new project leader commissioned a review that highlighted issues with governance, communications, resource management, and the supplier's ability to deliver the product. In March 2019, the department restructured the project and met with the supplier more often. In August 2019, the department agreed on a minimum acceptable product with the supplier. The department determined that this would extend the project timeline and require additional funding.

In December 2019, the department commissioned a project health check and an internal review and options analysis for the way forward. In these reviews the department found that the business case for the project was significantly over-stated. As part of the options analysis, the department obtained an offer for extending the contract with the existing supplier.

The department also commissioned an external review to confirm the assertions within the options analysis. It determined that the best option was to discontinue the project and upgrade the existing system. The reviews also highlighted that the department still carries the risk of an ageing system and will need to consider replacing it in the future.

Figures 3B3 and 3B4 show the project costs and timelines as recorded in project documents.

Figure 3B3
Project costs

Project component	Actual at 30 June 2020
Project initiation and pre-procurement	$2.4 mil.
Procurement including tender process, proof of concept and business case	$11.6 mil.
Design, build and test	$37.4 mil.
Actual amount spent	**$51.4 mil.**

Note: The remaining budget when this project was cancelled was $12.6 million.

Source: Queensland Audit Office from Department of Health project documents.

Figure 3B4
Timeline of key decisions

2012	2015	2017	2018		
Oct	Oct	Nov	Jan	Mar	Jun
Queensland Government ICT review reported that the system needed replacement.	CBRC approved the preliminary business case to replace the system.	DoH endorsed the business case for the project.	Contract executed.	Supplier advised that development work was needed.	The new project leader commissioned a review. Identified issues with governance and the supplier's ability to deliver the product.

| 2019		2020	
Jan–Jun	Aug	Dec	Mar/Apr
DoH and the supplier exchanged letters about causes of delays. DoH maintained that delays were due to the supplier needing to undertake development.	DoH and the supplier developed a description of the minimum acceptable product.	DoH completed a review and options analysis. It determined that the best option was to terminate the project and upgrade the existing system.	Emergence of COVID-19 pandemic. DoH and the supplier signed a deed of release to discontinue the project.

Note: ICT—information and communication technology; DoH—Department of Health; CBRC—Cabinet Budget Review Committee.

Source: Queensland Audit Office from Department of Health project documents.

Accelerating Science Delivery Innovation program (budget: $42.4 million)

The Science and Technology function, currently a division of the Department of Environment and Science, began this program in July 2017 to refresh critical systems and infrastructure. The estimated cost was $42.4 million.

Need greater emphasis
One team   Skills
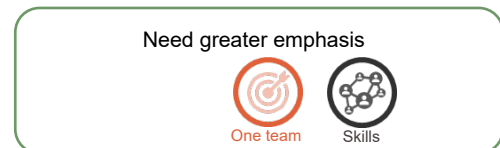
The program includes replacing high performance computing infrastructure, enhancing cloud computing and storage, and implementing digital collaboration technologies for the scientific community across government, industry, and research bodies.

Program documents indicate that one of the expected outcomes is innovation in scientific data that can be used by the government on issues like biodiversity, land use, and the quality of water on the Great Barrier Reef.

Key facts

The strategic steering committee provides strategic guidance to the program leadership team. Members of the committee include representatives from business areas; technology service providers; the Department of Natural Resources, Mines and Energy; Queensland Government Chief Customer and Digital Group; Commonwealth Scientific and Industrial Research Organisation; and the University of Queensland.

The program board is the governance body responsible for running the program. Members include business leaders and senior technology service providers. Each project has a board with relevant representation from the business and suppliers.

The Department of Environment and Science has implemented design principles for this program that enable agility at both program and project levels. Project documents indicate that projects deliver benefits as they progress, and the department reviews them annually. At the review time, the department can close the projects or roll them into other related projects for re-prioritisation, based on business and economic needs.

This program is still in progress. Reports on projects that have closed indicate the project teams had relevant skills and capabilities. However, one closure report indicated that two supplier teams used different systems development methodologies. The project documented learnings relating to communications between internal and external teams. The report also included assessments and learnings for project boards. Figures 3B5 and 3B6 show the program costs and timelines as recorded in project documents.

Figure 3B5
Total cost of the program

Program component	Actual/budget at 30 June 2020
Ecosciences Queensland (economic value and business case)	$0.3 mil
Data improvements and machine learning	$2.5 mil.
Implemented high performance computing, scientific collaboration, and data visualisation	$5.1 mil.
Biodiversity systems modernisation, included digital collections, high speed network connectivity, requirements for survey, ecosystems and sightings platform, and procurement and onboarding of Queensland Biodiversity and Ecology Information System	$6.5 mil.
Soil and land information modernisation, including mobile apps to collect soil data and knowledge, digital soil map management tools and preparation to implement increased open access to the data	$1.4 mil.
Actual amount spent	**$15.8 mil.**
Remaining allocation	$26.6 mil.
Total budget	**$42.4 mil.**

Source: Queensland Audit Office from Department of Environment and Science project documents.

Figure 3B6
## Timeline of key decisions
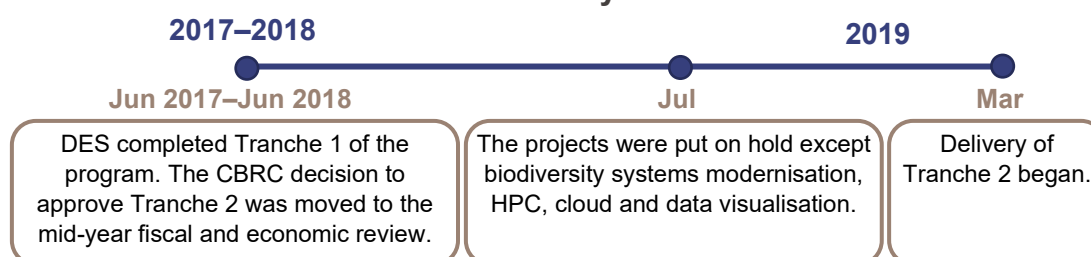
Note: DES—Department of Environment and Science; CBRC—Cabinet Budget Review Committee; HPC—high performance computing.

Source: Queensland Audit Office from Department of Environment and Science project documents.

Vessel Traffic Services project
(budget: $36.2 million)

The Department of Transport and Main Roads began the Vessel Traffic Services project in April 2014. It involves replacing legacy systems with an integrated decision support tool for the department's five vessel traffic service centres in Queensland.

Need greater emphasis

One team   Skills
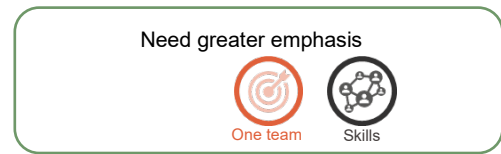
The main types of services at these centres are port operations and coastal services. Their key functions include:

- tracking position and movement of ships along the coast and into the ports

- communicating with the ships and providing guidance if they have a problem

- enabling online booking for ships to enter the ports, and publishing information on ship movements.

Key facts

Maritime Services Queensland, a business unit of the Department of Transport and Main Roads, leads this project. The project board is accountable for the success of the project, with monthly reporting to the project leader. The project board includes business leaders and senior technology service providers.

The project has been in progress for more than six years; it was originally planned to complete in four years. In the first one and a half years, the department selected a preferred supplier and performed a pre-contract analysis to understand the suitability of the software for its technical and operating environment. This resulted in improvements in business practices, and a longer software support period prior to signing the contract.

The suppliers did not deliver the detailed design on time, and there were quality concerns in the testing phase. This was within the first year of awarding the contract.

After experiencing further delays in the project, the department determined a minimum acceptable product for the final component of the software. The project has processes in place to reflect on lessons as it progresses.

Figures 3B7 and 3B8 show the program costs and timelines.

Figure 3B7
Total cost of the project

Project component	Actual/budget at 30 June 2020
Procurement including market scan, tender, selection of preferred supplier and using the software to assess how it fits with the business and what the business can change and standardise	$3.4 mil.
Project planning and design	$4.0 mil.
Ports system build and release	$6.5 mil.
Coastal services (cost to date)	$1.3 mil.
Actual amount spent	**$15.2 mil.**
Remaining budget for project finalisation, including software and hardware support and maintenance over 10 years	$21.0 mil.
Total budget	**$36.2 mil.**

Source: Queensland Audit Office from Department of Transport and Main Roads (DTMR) project documents.

Figure 3B8
**Timeline of key decisions**
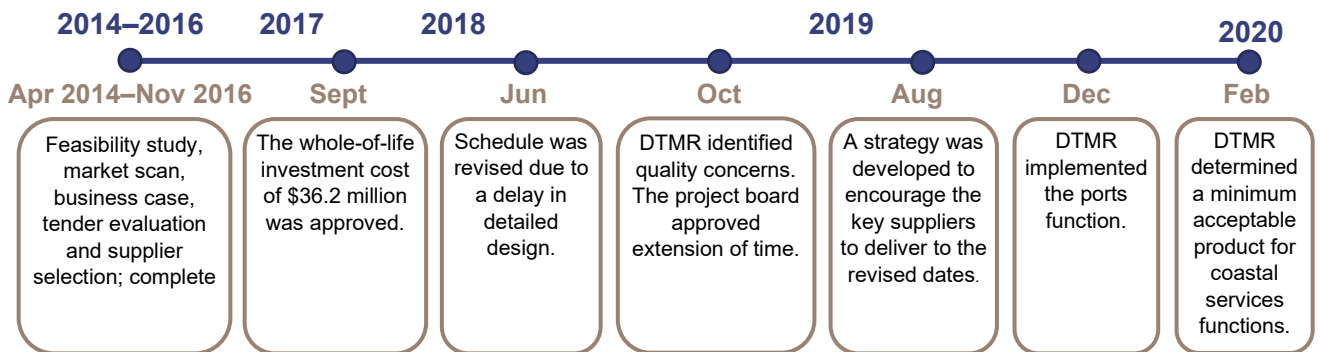
Note: DTMR—Department of Transport and Main Roads.

Source: Queensland Audit Office from Department of Transport and Main Roads (DTMR) project documents.

Fleet Management System Replacement project (budget: $13.9 million)

The Department of Housing and Public Works began a project in 2017 to implement a new fleet management system for an estimated cost of $13.9 million. Other agencies that were part of this project at the beginning were:

Need greater emphasis

Leadership   One team   Skills
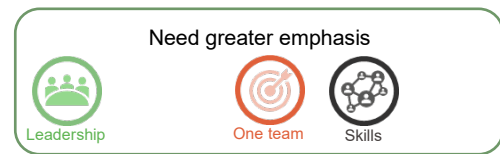
- the Public Safety Business Agency, as the service provider for Queensland Fire and Emergency Services and the Queensland Police Service. The Public Safety Business Agency pulled out of the project in April 2019.

- the Queensland Ambulance Service. It has currently placed its project on hold.

The Department of Housing and Public Works was the lead agency and has entered a standing offer arrangement with the preferred supplier. The Public Safety Business Agency and/or the Queensland Ambulance Service can use this arrangement in the future.

Key facts

QFleet, a business unit within the Department of Housing and Public Works, leads this project. Membership of the project board includes senior business leaders and senior technology service providers.

The project has been in progress for close to three years, per the plans outlined in the business cases. The procurement process took the first two years. During this time, QFleet assessed the software in the new system and performed a gap analysis against its business requirements. QFleet's business areas were involved from the start of this project.

After signing the contract, QFleet completed the gap analysis and started negotiating project timelines. It held workshops with the supplier to develop the implementation plan, but they did not reach agreement. This has caused a pause in the project.
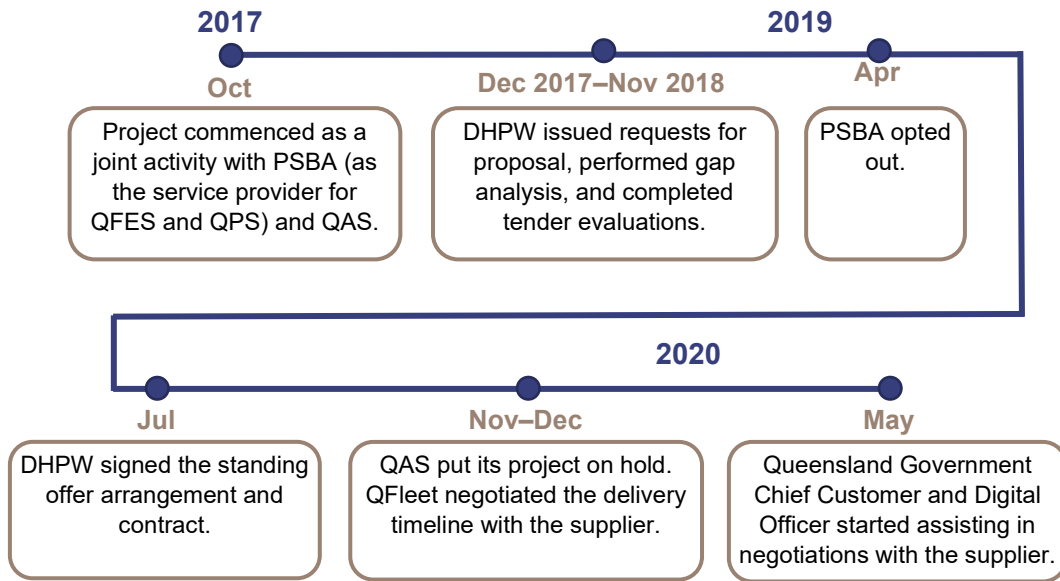
QFleet has re-directed project resources while the Queensland Government Chief Customer and Digital Officer is assisting in negotiating with the supplier for a way forward to implement a minimum acceptable product.

Figure 3B9
Total cost of the project

Project component	Actual/budget at 30 June 2020
Procurement, including tender process, contract negotiation and execution, requirements documents and gap analysis	$2.4 mil.
Implementation phase	$2.5 mil.
Actual amount spent	**$4.9 mil.**
Remaining budget	$9.0 mil.
Total	**$13.9 mil.**

Source: Queensland Audit Office from Department of Housing and Public Works project documents.

Figure 3B10
Timeline of key decisions

2017

2019

Oct

Project commenced as a joint activity with PSBA (as the service provider for QFES and QPS) and QAS.

Dec 2017–Nov 2018

DHPW issued requests for proposal, performed gap analysis, and completed tender evaluations.

Apr

PSBA opted out.

2020

Jul

DHPW signed the standing offer arrangement and contract.

Nov–Dec

QAS put its project on hold. QFleet negotiated the delivery timeline with the supplier.

May

Queensland Government Chief Customer and Digital Officer started assisting in negotiations with the supplier.

Note: PSBA—Public Safety Business Agency; QFES – Queensland Fire and Emergency Services; QPS—Queensland Police Service; QAS—Queensland Ambulance Services; DHPW—Department of Housing and Public Works.

Source: Queensland Audit Office from Department of Housing and Public Works project documents.