

Implementation of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Property Investment Strategy

Commonwealth Scientific and Industrial Research Organisation

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Canberra ACT

4 June 2020

Dear Mr President
Dear Mr Speaker

In accordance with the authority contained in the *Auditor-General Act 1997*, I have undertaken an independent performance audit in the Commonwealth Scientific and Industrial Research Organisation. The report is titled *Implementation of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Property Investment Strategy*. Pursuant to Senate Standing Order 166 relating to the presentation of documents when the Senate is not sitting, I present the report of this audit to the Parliament.

Following its presentation and receipt, the report will be placed on the Australian National Audit Office's website — <http://www.anao.gov.au>.

Yours sincerely



Grant Hehir
Auditor-General

The Honourable the President of the Senate
The Honourable the Speaker of the House of Representatives
Parliament House
Canberra ACT

AUDITING FOR AUSTRALIA

The Auditor-General is head of the Australian National Audit Office (ANAO). The ANAO assists the Auditor-General to carry out his duties under the *Auditor-General Act 1997* to undertake performance audits, financial statement audits and assurance reviews of Commonwealth public sector bodies and to provide independent reports and advice for the Parliament, the Australian Government and the community. The aim is to improve Commonwealth public sector administration and accountability.

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Audit snapshot

Auditor-General Report No.39 2019–20

Implementation of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Property Investment Strategy



Why did we do this audit?

- ▶ Over \$500 million in public funds was planned to be spent on CSIRO's property investment strategy from 2012–13 to 2021–22 (2012 Property Strategy) to support fit for purpose science facilities.
- ▶ To fund this investment, the CSIRO aimed to reduce its footprint by consolidating and divesting properties valued at more than \$400 million.



Key facts

- ▶ In 2011–12, 83 per cent of CSIRO buildings required significant maintenance and an additional \$175 million in maintenance expenditure was needed over ten years.
- ▶ Adopted in 2012, the 2012 Property Strategy aimed to reduce footprint by 26 per cent and eliminate a forecast annual increase in property operating costs, compared with 2012–13 levels, by 2021–22.
- ▶ Property operating costs rose by an average of seven per cent a year from 2012–13 to 2018–19.
- ▶ The CSIRO adopted a new 2019–29 Property Strategy in August 2019, to support flexible, safe and financially sustainable facilities.



What did we find?

- ▶ The design and implementation of the 2012 Property Strategy was largely not effective.
- ▶ The number of CSIRO sites increased from 55 to 58 sites from 2012 to 2019 and the CSIRO building footprint decreased by 10 per cent from 2013 to 2019.
- ▶ Appropriate governance arrangements were in place for capital works projects but not for divestment projects.
- ▶ The 2019–29 Property Strategy has not been informed by lessons learnt and there has not been an appropriate review of the 2012 property investment strategy. The CSIRO has not established quantifiable targets for the 2019–29 Property Strategy.



What did we recommend?

- ▶ The Auditor-General made five recommendations to the CSIRO to improve monitoring and measurement, governance, risk management, reporting and performance targets.
- ▶ The CSIRO agreed with the recommendations.

\$1.68 billion

value of property portfolio as
at 30 June 2019

58

sites in Australia and overseas as at
30 June 2019

7 per cent

annual rise in property operating
costs from 2012–13 to 2018–19

Summary and recommendations

Background

1. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) has significant holdings of land and buildings. Its portfolio includes more than 665,878 square metres of built environment, 19,000 hectares of land, 333,000 hectares of pastoral leases and 935 buildings. The 58 CSIRO sites include farms, laboratories, glasshouses, manufacturing equipment, supercomputers and telescopes. For financial reporting purposes, the CSIRO's property portfolio is valued at \$1.68 billion.
2. In December 2012 the CSIRO Board endorsed a 10-year CSIRO property investment strategy (the 2012 Property Strategy) to consolidate the organisation's national footprint and align 'infrastructure, science directions and partnerships'. The strategy's key objectives included:
 - stabilising operating expenses and costs of repairs and maintenance;
 - reducing the size of the CSIRO's portfolio;
 - co-locating sites and buildings to encourage partnership in the delivery of science; and
 - delivering fit-for-purpose scientific facilities.

Rationale for undertaking the audit

3. To undertake its specialised science capabilities, the CSIRO requires fit-for-purpose facilities that support science and that will attract and retain leading researchers and scientists. A 10-year property investment strategy was adopted in 2012, at an estimated cost of more than \$500 million, to consolidate property holdings and reduce CSIRO's footprint by 20 per cent with the aim of eliminating the forecast annual increase in operating costs over 2012–13 levels. In 2019, the CSIRO adopted a new 10-year property investment strategy.

Audit objective and criteria

4. The objective of the audit was to assess whether the CSIRO designed and is implementing its property investment strategy in a way that is delivering the intended benefits, and how any lessons learned are being reflected in a new strategy that is being developed. To form a conclusion against the audit objective, the ANAO has adopted the following high level criteria:
 - Is the CSIRO on track to reduce the organisation's property footprint by 20 per cent, and eliminate the forecast annual increase in property operating costs, compared with 2012–13 levels?
 - Did the CSIRO establish effective governance arrangements to support the implementation of its 2012 Property Strategy?
 - Was the development of the 2019–29 Property Strategy (2019 Property Strategy) appropriately informed by analysis and review of the implementation of the 2012 Property Strategy, and the results that have been achieved?

Conclusion

5. The CSIRO did not design and implement its 2012 property investment strategy in a way that is delivering the intended benefits. The 2019 Property Strategy was not sufficiently informed by lessons learned and does not include any performance targets.
6. The CSIRO's approach to measuring its property footprint and operating costs is not effective. The evidence indicates that the CSIRO will not achieve the aim of reducing its property footprint by 26 per cent and eliminate the forecast annual increase in operating costs compared with 2012–13 levels.
7. The CSIRO was not effective in establishing governance arrangements to support the implementation of its 2012 Property Strategy. The CSIRO effectively established its capital investment program, but it did not establish effective arrangements to support its capital divestment program, risk management and reporting to its Board. There have been significant delays with the delivery of the planned divestments (with some divestments having been cancelled). The planned divestments were key to CSIRO reducing its property footprint as well as to provide funds for the capital investment required for its proposed property consolidations, both of which were expected to facilitate a greater proportion of the CSIRO's resources to be spent on scientific and industrial research.
8. The development of the CSIRO's 2019 Property Strategy has been informed by some lessons learnt, but it was not informed by an appropriate review and analysis of its 2012 Property Strategy. The CSIRO has not established quantifiable targets to measure and be accountable for its performance in delivering the 2019 Property Strategy.

Supporting findings

Measurement of the property footprint and operating costs

9. The CSIRO's approach to measuring its property footprint was not effective. The CSIRO developed a National Footprint Tool and financial modelling as a precursor to developing its 2012 Property Strategy but the approach did not inform the measurement of its property portfolio footprint. The CSIRO has not undertaken an overarching review of its property utilisation since 2012. The CSIRO does not include all its leased locations and does not measure land as part of its property portfolio footprint, despite land being central to its research activities.
10. The CSIRO's property footprint has not reduced in accordance with the targets set in the 2012 Property Strategy. The 2012 Property Strategy targeted a 26 per cent reduction in the property footprint and reduction in the number of sites to 41. Planned divestments have been delayed or are no longer planned to progress, and consolidation activity has also been slower than envisaged in the 2012 Property Strategy. As a result, the CSIRO's:
 - number of sites increased by five per cent from 2012–13 to 2018–19;
 - building footprint decreased by 10 per cent between 2013 and 2019, although the CSIRO has not included some of its locations in its calculation meaning the aggregate reduction is less across the entire property portfolio; and
 - land holdings decreased by one per cent between 2013 and 2019.

11. The CSIRO has not developed an effective approach to measure its property operating costs. Some property operating costs are met by CSIRO business units and others are the responsibility of corporate areas but there are no arrangements in place for all costs to be periodically aggregated and analysed. This is significant given eliminating the forecast annual increase in operating costs over 2012–13 levels was a key rationale for adopting the 2012 Property Strategy.

12. The CSIRO's property operating costs in 2018–19 were, in real terms, 43 per cent higher than they were in 2012–13, with an average annual growth rate across this period of seven per cent. The ANAO's analysis is that the CSIRO's property operating costs in 2021–22 are likely to be higher in real terms than they were in 2012–13.

Governance arrangements

13. The CSIRO has established a partly effective framework and arrangements to implement the 2012 Property Strategy. Of note is that the CSIRO:

- developed principles to implement its property strategy, undertook some consultation and identified roles and responsibilities for the management of its property portfolio;
- implemented appropriate governance arrangements for capital works projects but it did not establish effective governance arrangements for divestment projects;
- established effective change management arrangements; and
- did not have a risk management plan in place for the 2012 Property Strategy and has not appropriately managed the risks to implementation including the risk to revenue from divestment projects not progressing as planned.

14. The CSIRO identified appropriate milestones and deliverables for medium and major capital works projects with planned expenditure of at least \$567 million funded in part by property divestments valued at \$401 million. Deliverables were identified but the CSIRO did not establish milestones for the divestments planned for Victoria (Highett and Geelong Belmont) or New South Wales (Armidale Arding) sites. Of 18 capital investment projects between 2013 and 2019, 11 were underway or completed, four were planned and three were not proceeding. Of 12 divestments, three were underway, one had been completed, two were planned and six were not proceeding. Between 2012–13 and 2019–20, the CSIRO spent at least \$295 million on major investments and achieved divestment revenue totalling \$98 million.

15. The CSIRO's reporting to its Board on progress with the implementation of the strategy has not been appropriate. The reporting has not been regular, has not contained information requested by the Board and has not reported on delivering the aims of the 2012 Property Strategy including the realisation of costs and benefits. The CSIRO has provided adequate reports on the costs against budget of capital works projects and the progress of capital works projects and divestments.

Development of a new CSIRO property investment strategy

16. The development of the new property strategy was not informed by: thorough analysis; a review of the implementation of the 2012 Property Strategy and principles agreed by the CSIRO Board; and its commitment to the Government to reduce its property footprint and operating costs. The CSIRO did not develop any quantifiable targets to measure its performance on delivering the 2019 Property Strategy.

17. The CSIRO established a largely appropriate consultation process, but feedback on the need for more detailed planning, including on divestments and cost analysis, was not incorporated into the strategy. A communications plan was developed for the new strategy.

Recommendations

Recommendation no. 1 The CSIRO develop a consistent, transparent and effective approach to measure the entirety of its property portfolio footprint.

Paragraph 2.19

CSIRO response: *Agreed.*

Recommendation no. 2 The CSIRO establish effective governance arrangements for the management of divestment projects including establishing a consistent framework and undertaking detailed planning.

Paragraph 3.20

CSIRO response: *Agreed.*

Recommendation no. 3 The CSIRO develop a property strategy risk management plan to monitor, assess and guide the mitigation of property strategy implementation risks.

Paragraph 3.52

CSIRO response: *Agreed.*

Recommendation no. 4 The CSIRO Executive report at least annually to its Board on the progress in implementing its property strategy and the realisation of benefits.

Paragraph 3.73

CSIRO response: *Agreed.*

Recommendation no. 5 The CSIRO establish quantifiable performance targets for its 2019 Property Strategy.

Paragraph 4.13

CSIRO response: *Agreed.*

Summary of entity response

18. CSIRO did not provide a summary response. CSIRO's full response can be found at Appendix 1.

Key messages for all Australian Government entities

19. Below is a summary of key messages, including instances of good practice, which have been identified in this audit that may be relevant for the operations of other Australian Government entities.

Asset management

- The delivery of complex investment and divestment projects requires strong governance arrangements that incorporate robust planning and appropriate lead times for decision making.
- Setting targets in asset management strategies, and tracking and reporting against targets, provides a clear focus for performance in delivering benefits.
- As entity business needs change, entities need to review and adapt long-term asset management strategies and inform changes through appropriate consultation.
- Major asset management strategies require strong oversight by accountable authorities, such as boards, which should periodically review implementation.
- Entities should actively identify, manage and monitor risks in accordance with organisational risk appetite, risk management policies and guidelines.

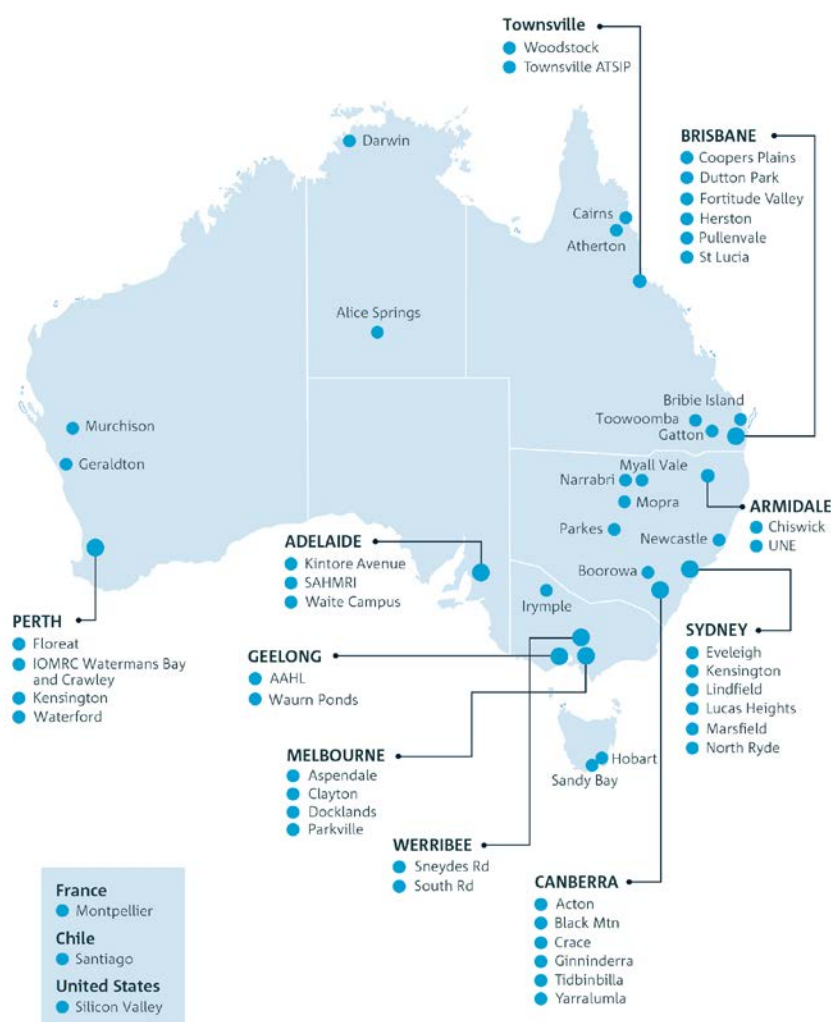
Audit findings

1. Background

Overview

1.1 The Commonwealth Scientific and Industrial Research Organisation (CSIRO) has significant holdings of land and buildings. Its portfolio includes more than 665,878 square metres of built environment, 19,000 hectares of land, 333,000 hectares of pastoral leases and 935 buildings. The 58 CSIRO sites (see Figure 1.1)¹ include farms, laboratories, glasshouses, manufacturing equipment, supercomputers and telescopes. For financial reporting purposes, CSIRO's property portfolio is valued at \$1.68 billion.²

Figure 1.1: CSIRO sites, June 2019



Source: ANAO analysis of CSIRO information.

- 1 Apart from the three identified international sites, the CSIRO has staff in six additional international locations, including in Singapore, Indonesia, Vietnam, and Washington DC (United States).
- 2 This figure includes: CSIRO land and buildings; investment properties; and properties held for sale. Commonwealth Scientific and Industrial Research Organisation, *2018–19 CSIRO Annual Report*, CSIRO, Canberra, 2019, p. 111.

1.2 The CSIRO is Australia's national science agency and CSIRO considers that it is 'one of the largest and most diverse research agencies in the world'.³ It employs 5915 staff (5359 full time equivalent) dispersed across all Australian states and territories. The CSIRO's estimated Budget for 2019–20 is \$1.76 billion, comprising Australian Government and own-sourced revenue including royalties, and cash reserves.⁴

1.3 Table 1.1 summarises the CSIRO Budget and property expenditure from 2012–13 to 2018–19.

Table 1.1: CSIRO Budget and property expenditure, 2012–13 to 2019–20

	Total expenditure \$m	Property expenditure ^b \$m	Property expenditure as a per cent of total expenditure
2012–13	1267.5	157.1	13
2013–14	1270.6	224.9	18
2014–15	1245.3	225.4	18
2015–16	1270.6	171.1	13
2016–17	1292.1	186.3	14
2017–18	1352.5	155.4	11
2018–19	1396.4	197.5	14
2019–20	1437.6 ^a	197.2 ^c	14

Note a: Budgeted expenses for Outcome 1, CSIRO Budget Statements 2019–20.

Note b: A combination of the annual property operating expenditure (provided by the CSIRO to the ANAO) and annual property capital expenditure (reported to the CSIRO Board) for the CSIRO parent entity (excluding controlled entities).

Note c: Estimated property operating expenditure for 2019–20 (provided by the CSIRO to the ANAO) and CSIRO budgeted capital expenditure (reported to the CSIRO Board) for the CSIRO parent entity for 2019–20.

Source: ANAO analysis of CSIRO annual reports; CSIRO information and reporting to the CSIRO Board on property expenditure.

The development of CSIRO's Property Investment Strategy

1.4 In 2011–12, the CSIRO undertook a review of the condition of its property portfolio. The review assessed 83 per cent of CSIRO buildings as needing significant maintenance to preserve operational capability. In addition to budgeted repairs, an additional \$175 million in maintenance expenditure was seen as needed over the next ten years to meet external compliance requirements and certification standards.⁵

3 Commonwealth Scientific and Industrial Research Organisation, Statement of Evidence to The Parliamentary Standing Committee on Public Works Submission 1.0 CSIRO Sydney Consolidation Project New South Wales, CSIRO, Canberra, 31 July 2019, p. 5.

4 The total estimated Budget is for the CSIRO parent entity and its subsidiary (controlled) entities, prepared on an appropriations/cash available basis. It comprises: the CSIRO's opening balance/cash reserves (\$250.3 million), funds from government (\$894.2 million) and funds from other sources (\$613.9 million).

5 National Commission of Audit, 2.2 *Condition of the Commonwealth's infrastructure* [Internet], National Commission of Audit, available from: <https://www.ncoa.gov.au/report/phase-two/part-a/2-2-infrastructure-condition> [accessed September 2019].

1.5 In December 2012 the CSIRO Board endorsed a 10-year CSIRO property investment strategy (the 2012 Property Strategy) to consolidate the organisation's national footprint and align 'infrastructure, science directions and partnerships'. The strategy's key objectives included:

- stabilising operating expenses and costs of repairs and maintenance;
- reducing the size of the CSIRO's portfolio;
- co-locating sites and buildings to encourage partnership in the delivery of science; and
- delivering fit-for-purpose scientific facilities.⁶

1.6 Key elements of the strategy included the:

- consolidation of sites and capital investment for new facilities in the Australian Capital Territory (\$185 million) and Victoria (\$30 million);
- divestment⁷ of CSIRO's 701 hectare Ginninderra field station in the ACT; and
- consolidation of sites in Sydney (New South Wales) — 'relocating staff and capability to reduce CSIRO's footprint' and undertaking renewal works at the Australian Animal Health Laboratory in Geelong (Victoria) 'to ensure the facility meets current and emerging regulatory compliance standards as part of the third of life renewal'.

Legislation, powers and rules

1.7 The CSIRO is a part of the Industry, Science, Energy and Resources portfolio.⁸ It is established and operates under the provisions of the *Science and Industry Research Act 1949* (SIR Act) and is a corporate Commonwealth entity under the *Public Governance, Performance and Accountability Act 2013* (PGPA Act)). The SIR Act defines the CSIRO's primary functions are to:

- carry out scientific research to assist Australian industry, further the interests of the Australian community, contribute to the achievement of Australian national objectives or the performance of the Commonwealth's national and international responsibilities, and carry out any other purpose determined by the Minister; and
- encourage or facilitate the application or utilisation of the results of such research.⁹

1.8 The CSIRO has managed its own property portfolio since the 1920s and has the power to acquire, hold and dispose of property.

1.9 Table 1.2 illustrates how legislation, policy and the Australian Government's property management framework applies to non-corporate Commonwealth entities and the CSIRO.

6 Commonwealth Scientific and Industrial Research Organisation, *Statement of Evidence to The Parliamentary Standing Committee on Public Works Submission 1.0 CSIRO Sydney Consolidation Project New South Wales*, CSIRO, Canberra, 31 July 2019, pp. 5-6.

7 Divestment in this report refers to the sale of a property asset.

8 The Industry, Science, Energy and Resources portfolio comprises the Department of Industry, Science, Energy and Resources, 11 entities (Australian Institute of Marine Science, Australian Nuclear Science and Technology Organisation, Australian Renewable Energy Agency, Clean Energy Finance Corporation, Clean Energy Regulator, Climate Change Authority, the CSIRO, Geoscience Australia, IP Australia, National Offshore Petroleum Safety and Environmental Management Authority, and Northern Australia Infrastructure Facility) and one Government Business Enterprise (Snowy Hydro Ltd).

9 The SIR Act identifies eight secondary functions that include: to carry out services, and make available facilities, in relation to science; international scientific liaison; training of research workers; dissemination of information about science and technology; and publication of scientific and technical reports.

Table 1.2: Legislation, policy and administrative requirements that apply to CSIRO property management

Requirement	Non-corporate Commonwealth entities	CSIRO (as a corporate Commonwealth entity)
Legislation and policy (included within the Commonwealth Property Management Framework)		
PGPA Act ^a	◆	◆
Commonwealth Procurement Rules ^b	◆	◆
Land Acquisition Act	◆	◆
Public Works Committee Act ^c	◆	◆
Commonwealth Property Disposal Policy	◆	◆
Two Stage Capital Works Approval Process ^d	◆	◆
Capital Management Plan	◆	◆
Commonwealth Risk Management Policy ^e	◆	▲
Commonwealth Property Management Framework (administrative requirements)		
Property Management Plan	◆	▲
Property Services Coordinated Procurement Arrangements	◆	■
Lease Endorsement Process	◆	■
Occupational Density Target ^f	◆	■
Whole-of-Government (Australian) Leasing Strategy	◆	■
Australian Government Property Register	◆	■

Legend: ◆ mandatory requirement;

▲ the CSIRO applies a non-mandatory requirement;

■ the CSIRO does not apply a non-mandatory requirement.

Note a: Including the requirement for accountable authorities to establish and maintain appropriate systems and internal controls for the oversight and management of risk.

Note b: As a prescribed corporate Commonwealth entity, CSIRO must comply with the Commonwealth Procurement Rules when performing duties related to procurement.

Note c: Capital works projects valued above \$15 million require Parliament's approval, following an inquiry and recommendation by the Parliamentary Standing Committee on Public Works.

Note d: New policy proposals for capital works which are estimated to have a whole-of-life costs of \$30 million or more being subject to the Australian Government's two stage capital works approval process.

Note e: While the CSIRO is not required to comply with the Commonwealth Risk Management Policy, the CSIRO has an enterprise risk management framework which an internal CSIRO review found is aligned to the policy requirements.

Note f: The CSIRO sets its own benchmarks for density which it states are underpinned and in-line with the Occupational Density Target, but notes that its density target guidelines 'will be applied on a project specific basis and may be varied from time to time to meet operational requirements or building specific limitations'.

Source: Department of Finance and CSIRO documents, ANAO analysis.

Rationale for undertaking the audit

1.10 To undertake its specialised science capabilities, the CSIRO requires fit-for-purpose facilities that support science and that will attract and retain leading researchers and scientists. A 10-year property investment strategy was adopted in 2012, at an estimated cost of more than \$500 million, to consolidate property holdings and reduce the CSIRO's footprint by 20 per cent with the aim of eliminating the forecast annual increase in operating costs over 2012–13 levels. In 2019, the CSIRO adopted a new 10-year property investment strategy.

Audit approach

Audit objective, criteria and scope

1.11 The objective of the audit was to assess whether the CSIRO designed and is implementing its property investment strategy in a way that is delivering the intended benefits, and how any lessons learned are being reflected in a new strategy that is being developed. To form a conclusion against the audit objective, the ANAO has adopted the following high level criteria:

- Is the CSIRO on track to reduce the organisation's property footprint by 20 per cent, and eliminate the forecast annual increase in property operating costs, compared with 2012–13 levels?
- Did the CSIRO establish effective governance arrangements to support the implementation of its 2012 Property Investment Strategy?
- Was the development of the 2019–29 Property Strategy (2019 Property Strategy) appropriately informed by analysis and review of the implementation of the 2012 Property Strategy, and the results that have been achieved?

Audit methodology

1.12 The audit methodology involved:

- review and analysis of relevant documents, including on: governance and administration activities; monitoring and measurement; and advice to CSIRO executives, the Board and the Government;
- consultation with key officials and stakeholders; and
- inspection of science infrastructure and sites where consolidation is occurring.

1.13 The audit was conducted in accordance with the ANAO auditing standards at a cost to the ANAO of \$434,857.

1.14 The team members for this audit were Sandra Dandie, Andrew Gavin and Brian Boyd.

2. Measurement of the property footprint and operating costs

Areas examined

The ANAO examined whether the Commonwealth Scientific and Industrial Research Organisation (CSIRO) developed an effective approach to measure its property footprint and operating costs and how its property strategy, footprint and operating costs have changed since the 2012 Property Investment Strategy (2012 Property Strategy) was adopted.

Conclusion

The CSIRO's approach to measuring its property footprint and operating costs is not effective. The evidence indicates that the CSIRO will not achieve the aim of reducing its property footprint by 26 per cent and eliminate the forecast annual increase in operating costs compared with 2012–13 levels.

Areas for improvement

The ANAO made one recommendation aimed at developing a consistent, transparent and effective approach to monitor and measure the entirety of its property portfolio footprint over time.

The CSIRO should consider its approach and arrangements for the measurement and reporting of total operating costs over time, consistent with the aims of the 2012 Property Strategy.

2.1 The CSIRO developed its 2012 Property Strategy and identified targets for reducing its property footprint by 20 per cent and eliminating its forecast annual increase in operating costs over 2012–13 levels. In order to assess whether the CSIRO is on track to meet its targets, the ANAO examined:

- whether the CSIRO developed an effective approach to measure its property footprint and operating costs; and
- changes in the CSIRO's footprint and operating costs since 2012.

Did the CSIRO develop an effective approach to measure its property footprint?

The CSIRO's approach to measuring its property footprint was not effective. The CSIRO developed a National Footprint Tool and financial modelling as a precursor to developing its 2012 Property Strategy but the approach did not inform the measurement of its property portfolio footprint. The CSIRO has not undertaken an overarching review of its property utilisation since 2012. The CSIRO does not include all its leased locations and does not measure land as part of its property portfolio footprint, despite land being central to its research activities.

The National Footprint Project

2.2 In April 2010, the CSIRO Board received a report from its Executive¹⁰ on the National Footprint Project. The report indicated the project was initiated to '... develop a national view of

¹⁰ The CSIRO Executive refers to CSIRO responsible (directly or through delegation) executives.

CSIRO's current and future footprint directions'. This was to be achieved by the CSIRO reviewing its collaborations with key research partners (universities, publicly funded research agencies and others) and its physical footprint — which was defined and measured through its occupation of sites. The report indicated that:

CSIRO's footprint has been modelled in a Geographical Information System [GIS], with the key challenge being in describing the many forms of relationships between CSIRO, partners, precincts¹¹, collaborations and networks. Using this system, a spatial view of CSIRO's key focus areas has been created.

2.3 The report noted that the GIS modelling would '... help develop insights and answer strategic questions, including existing research precincts and collaborations' and that the project resulted in the:

development of an online National Footprint Project Tool, providing a rich information source which, for the first time, provides a much fuller perspective of CSIRO's sites and interaction and alignment with key research partners.

2.4 The report identified the potential '... future state and interactions' arising from the project, including the activities outlined in Table 2.1.

Table 2.1: National Footprint Project activities

Location	Activities
ACT	Consolidation of sites in the ACT to the CSIRO Black Mountain site.
NSW	Consolidation of sites in Sydney to its North Ryde site ^a in Sydney and the sale of its Lindfield and Marsfield sites and vacating Macquarie University site early in Sydney to fund the consolidation.
Vic.	Consolidation of the Highett and Aspendale sites to Clayton in Melbourne and '... collocation with the University of Melbourne (or other entities) in the Parkville Precinct ...' to free up capital from the Parkville site.
WA	Consolidation to the Kensington site in Perth.
Regional Australia	Colocation in regional areas.

Note a: The CSIRO consolidation to the North Ryde site was reliant upon approval of a concurrent National Measurement Institute (NMI)/Administrative Arrangements Order (AAO) new policy proposal (NPP) based on consolidating its Pymble, Lindfield and Marsfield operations at North Ryde. However, the NMI/AAO Sydney site consolidations NPPs did not proceed.

Source: ANAO analysis of CSIRO information.

2.5 The report indicated that the:

... national footprint and pathway forward emerges which has the following characteristics:

11 The CSIRO Strategy 2011-2015, approved by the Board in June 2011, announced the CSIRO would support the establishment and implementation of five research precincts of global standing in Australia by 2015. The precincts would support research in the plant and agricultural, resource, environmental, materials and manufacturing and human life sciences. The five precincts were established with partners including universities, state governments and industry, in or near universities in Canberra, Brisbane, Perth and Melbourne. More information is at: <https://www.csiro.au/en/About/Strategy-structure/Global-precincts>.

- Initial analysis indicates that transfers are undertaken within existing capital envelope (or through sourcing new capital from existing sources — e.g. EIF [Education Investment Fund]¹²;
- Minimal withdrawal from regional sites — CSIRO's footprint is not diminished.
- Capital now concentrated in approximately 14 large sites (largely owned by CSIRO). While not yet modelled, it is expected operating costs for these sites would be reduced through consolidation and better utilisation of space and repairs and maintenance budgets.
- Operating costs reduced in other sites through collocation with larger entities, namely universities.
- Focus on collaborations with key universities through the assessment and establishment of strategic external engagement plans.

2.6 The modelling project was to inform the development of the CSIRO's:

- National Footprint Roadmap (Roadmap) 'to guide future developments' with '... financial and risk aspects' to be reconciled with the four year capital plan¹³; and ultimately the
- 2012 Property Strategy.¹⁴

2.7 In October 2019 the CSIRO advised the ANAO that the National Footprint Project Tool was not used to inform revisions to its 2012 Property Strategy and planning and measurement of the CSIRO's property footprint over time. The CSIRO advised the ANAO that this was because the tool '... did not deliver what was expected'.

Measuring footprint for the 10-year 2012 Property Strategy

2.8 In February 2012, the CSIRO Board received a report from the CSIRO Executive identifying a number of pressures to the organisation's underlying capital sustainability and capacity to deliver science outcomes. In particular:

- an ageing property portfolio requiring significant expenditure on repairs and maintenance, major refits and upgrades, and replacement of facilities;
- a continuing need to fund capital expenditure on scientific and information technology equipment to deliver science outcomes;
- an absence of cash reserves that means 'CSIRO is now unable to fund the necessary forward program of property maintenance, enhancement and development'; and

12 The EIF was established by the *Nation-building Funds Act 2008*, announced in the 2008–09 Budget. Eligible higher education providers, vocational education and training (VET) providers and research institutions were able to apply for funds for their priority infrastructure projects. The EIF ceased on 1 January 2015.

13 According to the CSIRO, the Roadmap was to provide a '... strategic framework for future investments to improve science focus and partner engagement as well as enabling improved utilisation of space, reduce costs for repairs and maintenance, and reduce environmental impacts from the CSIRO physical footprint'.

14 The strategy was also informed by CSIRO's externally commissioned financial modelling. The CSIRO indicated that the financial modelling was underpinned by the analysis of infrastructure condition and utilisation '... together with an assessment of potential future infrastructure options and producing financial models to support and inform the evolving Property and Property Investment strategies. The financial models recognise the cost of the current land and building portfolio, the remediation costs if retained and the capital investment requirements to deliver a new land and building portfolio'.

- a projected deficit of ‘unfunded’ depreciation.¹⁵

2.9 The CSIRO Executive reported to the CSIRO Board that it was exploring opportunities to consolidate its footprint and was developing a long term property strategy, indicating:

The most significant opportunity for reducing the need for capital is by reducing the physical footprint of CSIRO’s property portfolio. Given that a) CSIRO’s depreciation in 4 years will be in excess of double the level of current government depreciation funding, b) that the level of repairs and maintenance currently undertaken is approximately 50% of international benchmarks, and c) that we believe CSIRO’s science space to be underutilised, there would appear to be both opportunity and benefit to pursue space reduction.

2.10 The CSIRO Board noted identified actions to address the capital challenges including that it was ‘... exploring a strategy to half our physical footprint over the longer term’.

2.11 In October 2012, the CSIRO Executive indicated that its:

- space utilisation was over double government mandated benchmarks (averaging 38 square metres per person), and that there was a shortfall between identified potential capital funding (\$100 million of royalties from the Wireless Local Area Network (WLAN)¹⁶ settlement and \$30 million from the Science and Industry Endowment Fund (SIEF)¹⁷ and the cost of repairs and maintenance over ten years (\$227 million); and
- property strategy would be focussed on avoiding repairs and maintenance on properties identified for vacating or divestment; divesting and optimising return (e.g. public private partnerships or joint ventures) from underutilised high value properties, and concentrating capability where there are duplicate sites undertaking the same science.

2.12 The CSIRO Board, commenting on organisational sustainability cost and revenue initiatives, noted:

- the opportunity to use the precinct strategy to drive productivity and other gains –but noted the risks associated with reducing sites.
- noted that CSIRO is primarily pursuing a capital city consolidation strategy, as opposed to reducing the regional site footprint (with a few exceptions).

15 The Board was advised the unfunded depreciation was due to: the CSIRO receiving capital funding for some projects without an appropriation to cover increased depreciation; asset revaluations; the shorter life of assets; the CSIRO using the proceeds of property sales on capital expenditure; and Government spending priorities that ‘did not favour’ investment in the CSIRO’s infrastructure.

16 Wireless local area network (WLAN) technology, which is used to link devices using wireless communication, was invented by a team of CSIRO scientists in the 1990s. On 1 April 2012, the Government announced the CSIRO had successfully settled litigation in the United States of America to licence WLAN technology and the CSIRO would receive more than \$220 million from the settlement. Further information is available from: <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F2115093%22;src1=sm1>

17 The CSIRO notes that the independent Science and Industry Endowment Fund (SIEF) provides grants to science and scientists for the purposes of assisting Australian industry, furthering the interests of the Australian community and contributing to the achievement of Australian national objectives. Further information is available from: <https://www.csiro.au/en/About/Our-impact/Our-impact-in-action/SIEF>

2.13 The 2012 Property Strategy¹⁸ was approved by the Board in December 2012¹⁹ and included details on:

- the construction of new facilities at the Black Mountain and Clayton sites and relocation of staff from other sites in the Australian Capital Territory (ACT) and Victoria to these sites;
- the divestment of sites in Ginninderra and a portion of Black Mountain (ACT), Highett and Parkville in Melbourne (Victoria), Marsfield and Lindfield in Sydney (NSW) and Darwin (Northern Territory);
- plans for a second phase of the program to consolidate sites in Sydney (NSW); and
- ongoing repairs and maintenance to CSIRO sites in Hobart (Tasmania), Darwin (Northern Territory), the ACT and the Australian Animal Health Laboratory in Geelong (Victoria).

2.14 In its endorsement of the 2012 Property Strategy, the CSIRO Board requested management ensure that ‘... intended benefits are realised’. See paragraph 3.69 for further details on benefit realisation.

2.15 The CSIRO accounted for its property footprint in its 2012 Property Strategy according to its owned or leased buildings (building footprint)²⁰, measured in square metres. The CSIRO did not include all of its leased locations in its assessment of its property footprint.

2.16 The CSIRO’s land footprint is not captured in the CSIRO’s estimation of property footprint, despite conducting scientific research and research in areas such as agriculture, biosecurity and astronomy involving the CSIRO holding sites that are predominantly large tracts of land rather than buildings.

2.17 The CSIRO’s measurement approach has not been reviewed and is not guided by a specific framework, although the CSIRO noted its 2011–12 property utilisation benchmarking study (data collected in 2011) was assessed on building footprint. The CSIRO has not undertaken an overarching review of its property utilisation since the 2012 study²¹ and did not develop a comprehensive approach for monitoring and measuring its property footprint over the ten year life of the 2012 Property Strategy.

2.18 The CSIRO Board Chair and Deputy Chair advised the ANAO that they were unaware that the CSIRO property footprint was measured on the basis of building square metres and did not include square metres of land.

18 The CSIRO has used the terms Property Investment Program, Property Investment Strategy, Property Investment Plan and Property Plan interchangeably.

19 The CSIRO advised its Board that the: Black Mountain consolidation would be funded by WLAN proceeds and existing capital; Clayton consolidation would be funded through the sale of the Ginninderra site and the Parkville relocation would be funded from the sale of the Parkville site.

20 In 2012, the CSIRO’s measurement of building footprint included offices, laboratories, sheds, workshops, glasshouse, residences and animal houses.

21 The CSIRO advised the ANAO in February 2020 that it measures and monitors its property utilisation at the site and building level.

Recommendation no.1

2.19 The CSIRO develop a consistent, transparent and effective approach to measure the entirety of its property portfolio footprint.

CSIRO response: *Agreed.*

2.20 *The CSIRO does apply a consistent, transparent and effective approach to measuring the entirety of its property footprint, although acknowledges that while management regularly reports the property footprint for buildings, it does not include the footprint for land. CSIRO agrees that reporting property footprint data, including both building and land areas across multiple years is beneficial and will report annually from 2019-20.*

How has the CSIRO's property footprint changed since the 2012 Property Strategy was adopted?

The CSIRO's property footprint has not reduced in accordance with the targets set in the 2012 Property Strategy. The 2012 Property Strategy targeted a 26 per cent reduction in the property footprint and reduction in the number of sites to 41. Planned divestments have been delayed or are no longer planned to progress, and consolidation activity has also been slower than envisaged in the 2012 Property Strategy. As a result, the CSIRO's:

- number of sites increased by five per cent from 2012–13 to 2018–19;
- building footprint decreased by 10 per cent between 2013 and 2019, although the CSIRO has not included some of its locations in its calculation meaning the aggregate reduction is less across the entire property portfolio; and
- land holdings decreased by one per cent between 2013 and 2019.

2012 Property Strategy

2.21 The CSIRO Executive reported to its Board that it would achieve an estimated 20 per cent reduction in its property gross floor area (GFA) from implementing its 2012 Property Strategy, shown in Table 2.2.

Table 2.2: Property footprint comparison-gross floor area (GFA)

Property Portfolio	Existing GFA (m ²)	Reduction (%)	Activities identified to impact on footprint	Movement in GFA (m ²)
ACT ^a	129,728	41	Consolidation to Black Mountain, vacate Campbell, Crace, Yarralumla, Acton	-53,707
Vic.	238,764	15	Divestment of Highett and Parkville	-34,940
NSW	150,038	36	Consolidation to North Ryde, NSW, divestment of Lindfield and Marsfield.	-53,318

Property Portfolio	Existing GFA (m ²)	Reduction (%)	Activities identified to impact on footprint	Movement in GFA (m ²)
Qld	87,204	0	—	0
SA	22,159	0	—	0
WA	53,634	0	—	0
Tas.	23,424	0	—	0
NT	4,107	0	—	0
Total	709,058	20		-141,965

Note a: The proposed replacement of the Ginninderra site was considered to have no impact on the property footprint given the calculation was on the basis of building footprint.

Source: ANAO analysis of CSIRO Board papers.

2.22 In February 2013, the Government's agreement was sought for the CSIRO to proceed with a program of rationalisation and realignment of CSIRO property in Canberra (ACT) and Clayton (Victoria) as part of the first phase of implementing the 2012 Property Strategy. The CSIRO Executive reported to its Board on its updated analysis and identified that, after ten years, it expected to have:

- reduced its footprint by 26 per cent²², a revised estimate from the 20 per cent estimate reported to its Board;
- mitigated an estimated \$50.9 million of the additional repairs and maintenance costs over the next ten years; achieved utilisation of accommodation consistent with Australian Government benchmark standards; and
- refreshed its significant capital city sites to be fit for purpose in supporting science outcomes.

2.23 In early 2014, the CSIRO Executive discussed reforms and strategy and reported to its Board the intention to reduce the property portfolio to 41 sites in the context of addressing financial pressures.

2.24 From June 2013 to June 2014, the CSIRO's property portfolio increased from 55 to 57 sites.²³ Sites added over this period include the South Australian Health and Medical Research Institute (Adelaide, South Australia) and Santiago (Chile) (see Table 2.5 for details).

The CSIRO 2015–16 Property Plan

2.25 In 2014, the CSIRO Executive developed the 2015–16 Property Plan (2015 Property Plan) (also see paragraphs 3.22 to 3.26). This accounted for phase two of the 2012 Property Strategy, changes in policy (such as location of the National Measurement Institute (NMI)) and other pressures (impacting on the divestment of sites and ultimately the property footprint).

2.26 The 2015 Property Plan proposed program of work is detailed in Table 2.3.

22 The CSIRO advised the ANAO that this estimate was an updated, more accurate estimate (80 per cent compared to 50 per cent confidence level).

23 CSIRO sites can be owned or leased.

Table 2.3: 2015 Property Plan: program of work

Stabilise operating expenses and costs of repairs and maintenance for the CSIRO's ageing properties to mitigate the need for cuts to science in supporting these otherwise growing property costs.
Reduce the size of the CSIRO's now inefficient and underutilised property portfolio which has evolved in piecemeal fashion over the CSIRO's history while remaining compliant with health and safety requirements and other regulatory standards including space utilisation specifications.
Co-locate sites and buildings (including through lease arrangement where appropriate) with other partners in the Australian innovation system to stimulate and encourage collaboration and partnership in the delivery of science impact, and be close to industry and business centres consistent with the CSIRO's focus on the translation of science and innovation.
Deliver fit-for-purpose flexible ('future proofed') scientific facilities that enable the CSIRO to continue to deliver its science outcomes for national benefit.
Undertake the compliance related upgrade at the Australian Animal Health Laboratory (AAHL) to ensure its continued operation beyond 2017, noting that the CSIRO will pursue co-funding for operating costs that remain unavoidably high due to the specialised nature of the facility.

Source: ANAO analysis of CSIRO information.

2.27 On 11 May 2015, the Government gave its in-principle support to the plan and activities including :

- the joint venture arrangements for the development and sale of the Ginninderra and Marsfield sites and the straight sale of Aspendale, Highett and Parkville and Darwin sites;
- refurbishment of the Lindfield site in Sydney and the minor fit-out of the Eveleigh, Lucas Heights, Newcastle, Clayton, Werribee, Kensington, and Adelaide sites to facilitate the relocation of staff from the North Ryde and Marsfield sites;
- the refurbishment of the Clayton site to facilitate the relocation of staff from the Parkville and Aspendale sites; and
- critical compliance-related capital works at the Australian Animal Health Laboratory.

2.28 Advice to the CSIRO Board had previously identified that the process involved in CSIRO implementing the strategy could '... add 18 months to 2 years' to the timeline of a project.

2.29 The CSIRO Property Plan noted that:

Sale proceeds derived from the divestment of CSIRO sites and the application of part of CSIRO's annual capital funding underpins CSIRO's ability to undertake the construction works envisaged in the Property Plan. A substantial portion of these proceeds are contingent on CSIRO being able to successfully undertake the Ginninderra JV [joint venture].

2.30 By June 2015, the number of sites in CSIRO's property portfolio had declined back to 55 sites with the CSIRO vacating its leased site in Collingwood (Melbourne, Victoria) and divesting its Armidale Arding site (NSW).

The 2019–29 Property Strategy

2.31 In August 2018, CSIRO commenced the development of a 2019–29 Property Strategy (2019 Property Strategy) that was intended to be reviewed annually. The CSIRO Executive reported to its Board in May 2019 that the 2019 Property Strategy would:

... be agile and flexible to accommodate the changing science landscape, while ensuring that facilities are fit for purpose to meet current and future requirements and will

... provide direction on our current capital position, governance, strategic property principles, and decision making frameworks to ensure CSIRO makes the right investment decisions.

2.32 The CSIRO Executive reported to its Board in August 2019 that:

The CSIRO [new] property strategy aims to address a number of issues, challenges and opportunities. Robust planning and longer lead times for decision making will assist the organisation to better manage the complexity of the portfolio more effectively.

2.33 The 2019 Property Strategy, associated priorities (see Table 4.1), and the 2019–20 Property Implementation Plan, endorsed by its Board in August 2019, was to ‘... provide a ten year, holistic view of CSIRO’s property portfolio and the principles and frameworks that are in place to support robust and financially sustainable decision making’. The 2019 Property Strategy activities are detailed in Table 2.5.

Table 2.4: 2019 Property Strategy activities

Activities
ACT and Sydney consolidations, AAHL part-life refurbishment, and Parkville relocation projects.
Myall Vale New Cotton Breeding Research Facilities Project (near Narrabri (NSW), \$17.9 million, 2018–22). The PWC approved the project in November 2018.
Canberra Collections Accommodation Project (up to \$70 million, 2019–20 to 2022–23) consolidate four Canberra-based national insect, wildlife and plant collections in a new Black Mountain site building.
Perth consolidation project (\$16.2 million, 2019–23).
Ten-year lease of newly built office space in the Herston Health Precinct (Brisbane) to accommodate the CSIRO’s e-health research program (\$10.5 million).
Divestment of the Ginninderra, Marsfield, Highett, Geelong Belmont, and Aspendale sites.

Source: ANAO analysis of CSIRO information.

2.34 Although previously planned for divestment, the CSIRO has retained its Parkville site in favour of establishing long-term lease arrangements to generate a rental return for the CSIRO.

2.35 The CSIRO identified some of the challenges related to divestment, citing as an example the Highett site [identified in the 2012 Property Strategy] that had been in progress for over five years. (See Table 3.3 for further details).

2.36 The Ginninderra divestment was noted as being ‘a key component for funding the revitalisation of other CSIRO property infrastructure identified through the 2012 Property Strategy’.

2.37 Between 30 June 2015 and 30 June 2019, the number of sites in CSIRO’s property portfolio increased to 58 sites from 55 sites. Table 2.5 shows the sites added and vacated over the period.

Table 2.5: Changes in CSIRO sites (owned or leased) between June 2015 and June 2019

Sites added	Sites vacated
Australian Technology Park, Sydney (NSW) ^a (leased)	Highett, Melbourne (Vic) (owned)
Kensington, Sydney (NSW) ^a (leased)	Campbell (ACT) (owned)
Spring Hill, Brisbane (Qld) ^a (leased)	Griffith (NSW) (leased)
Weipa (Qld) (leased)	Spring Hill, Brisbane (Qld) (leased)
West Melbourne (Vic.) ^a (leased)	Weipa (Qld) (leased)
Canberra City (ACT) ^a (leased)	West Melbourne (leased)
Fortitude Valley, Brisbane (Qld) (leased)	Canberra City (ACT) ^a (leased)
Docklands, Melbourne (Vic.) (leased)	Belmont, Geelong (Vic) (owned)
Indian Ocean Marine Research Centre, Perth (WA) (leased)	Wodonga (Vic) (leased)
Silicon Valley (USA) (leased)	–
Boorowa (NSW) (owned)	–
University of New England, Armidale (NSW) (leased)	–

Note a: Site added as a result of the merger between the CSIRO and the then NICTA (National ICT Australia), announced in August 2015.

Source: CSIRO Annual Reports.

Changes in CSIRO investment and divestment plans

2.38 The main changes between 2012 Property Strategy and the program of work identified in the 2015 Property Plan and the 2019 Property Strategy are the CSIRO's:

- confirmation of the approach to fund the 2015 Property Plan by divesting Ginninderra through a conditional sale that CSIRO identified was within its statutory powers;
- decision to retain and consolidate its Sydney sites to its Lindfield site, and to vacate its leased North Ryde site;
- retention of its Parkville site to earn a revenue stream through leasing it to a third party;
- commencement of the *Biosecurity Act 2015* that resulted in CSIRO identifying the need to review and re-cost compliance upgrades in the Australian Animal Health Laboratory.

Capital investment progress

2.39 The CSIRO's major and medium capital investment projects that have been completed or are near to completion since 2012 are:

- ACT — construction of a 15,000 to 18,000 square metre building at Black Mountain, refurbish/undertake capital works to existing buildings/demolition of redundant buildings;
- NSW — purchase, construction of infrastructure and capital works at Boorowa to replace the Ginninderra (ACT) site.

- Victoria — refurbishment of buildings/the construction of a new facility in Clayton; and
- Tasmania — Hobart building refurbishment.

2.40 Capital investment projects approved by the Public Works Committee include the Sydney consolidation and Myall Vale upgrade projects. Paragraphs 3.17 to 3.29 and Appendix 2 provides more detail on capital projects and when each project was identified.

Capital divestment progress

2.41 Table 2.6 shows capital divestment projects aligned with the 2012 Property Strategy, 2015 Property Plan and the 2019 Property Strategy. As at November 2019, the CSIRO's Armidale Arding site is the only finalised divestment since 2012. The sale of the CSIRO's Highett and Geelong Belmont sites are to be finalised by 30 June 2020.

2.42 Since 2010, the CSIRO has removed Armidale Chiswick (2012 Property Strategy), the top portion of Black Mountain, Lindfield (2015 Property Plan), Darwin, Parkville and Montpellier (2019 Property Strategy) from its divestment plans.

2.43 The lack of progress in divestments has delayed CSIRO achieving its planned revenue flow and associated reduction in footprint.

Table 2.6: Proposed and achieved divestments

Identified divestments	2010 National Footprint Project	2012 strategy	Expected year — revenue	2015 plan	Expected year — revenue	2019 strategy	Expected year — revenue
Black Mountain (top portion)	–	Identified	2015–16	Removed from divestment plans	–	–	–
Ginninderra	–	Identified	2015–16	Identified	2016–17	Identified	2021–22
Highett	Identified	Identified	2014–15	Identified	2017–18	Identified	2019–20
Parkville	–	Identified	2015–16	Identified	2017–18	Removed from divestment plans	–
Aspendale	Identified	Identified	Not identified	Identified	2024–25	Identified	2024–25
Geelong Belmont	N/A	Identified	2012–13	Not identified	Not identified	Identified	2019–20
Lindfield	Identified	Identified	Not identified	Removed from divestment plans	–	Removed from divestment plans	–
Marsfield	–	Identified	2020–21	Identified	2019–20	Identified	2021–22
Armidale Arding	Identified	Not identified	Not identified	Not identified	2016–17	–	–
Armidale Chiswick	Identified	Removed from divestment plans	Not identified	Removed from divestment plans	Not identified	N/A	–
Darwin	–	Identified	2014–15	Identified	2016–17	Removed from divestment plans	–
Montpellier	–	–	–	Identified	Not identified	Removed from divestment plans	Not identified

Legend:

Green = CSIRO's only finalised divestment; Blue = Sale to be finalised by 30 June 2020; Orange = Removed from CSIRO divestment plans.

Source: ANAO analysis of CSIRO information.

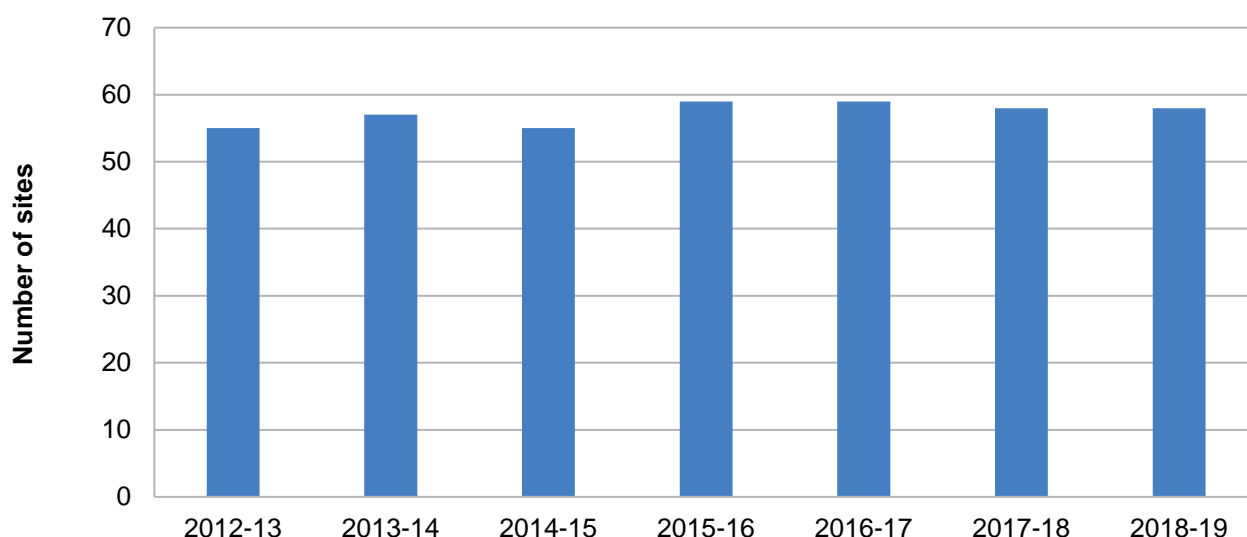
CSIRO's measurement of its footprint

2.44 The CSIRO Business and Infrastructure Services business unit (CBIS) developed and administers the property investment strategy (see paragraphs 3.8 to 3.9 for further detail on CBIS roles and responsibilities). Prior to the commencement of this audit, the CSIRO did not measure its aggregate property footprint to report against its commitment to the Government in its 2012 Property Strategy.

CSIRO site footprint

2.45 Each year the CSIRO identifies in its Annual Report the number of sites it occupies across Australia and internationally. Figure 2.1 shows ANAO analysis on the number of CSIRO sites, as at 30 June, over time. The number of sites increased from 55 to 58 (five per cent) from 2012–13 to 2019–20.

Figure 2.1: Change in the number of CSIRO sites

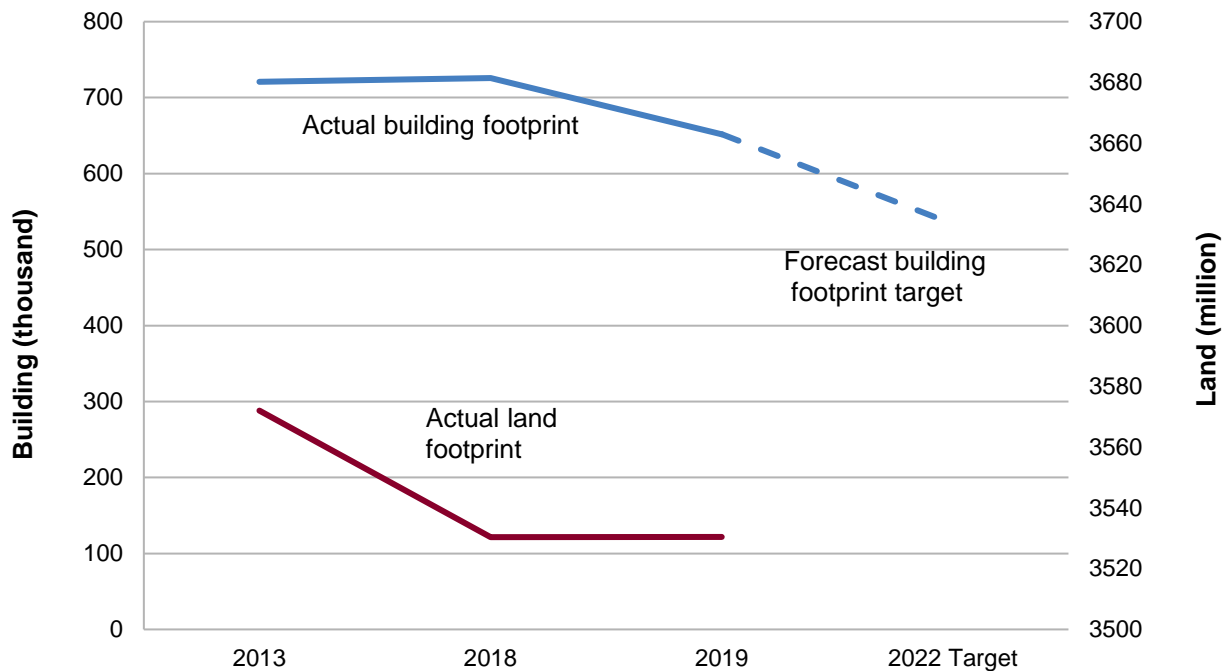


Source: ANAO analysis of CSIRO Annual Reports.

Building and land footprint

2.46 Analysing CSIRO data, the ANAO estimated that the CSIRO had reduced its building footprint by 10 per cent (compared to the CSIRO forecast of 26 per cent) and its land footprint by one per cent from 2013 to 2019, shown in Figure 2.2.

Figure 2.2: Building and land footprint (m²)²⁴



Source: ANAO Analysis of CSIRO data.

2.47 The CSIRO's expectation of meeting its target (26 per cent), based on building footprint, is dependent on no additions to the CSIROs property portfolio, and CSIRO vacating its Crace, Yarralumla (ACT) and North Ryde sites at the end of lease (in mid-2022, mid-2022 and end of 2021 respectively). However, the CSIRO has flagged likely delays to vacating the Crace and North Ryde sites²⁵, the commencement of the Sydney consolidation project including the refurbishment of the Lindfield site, and the sale of the Ginninderra and Marsfield sites by 2021. The CSIRO also identified, in November 2017, that it planned to vacate underutilised sites including its Cairns (end of lease mid-2019 but plans are to extend the lease for one year) and Atherton (owned) sites in Queensland. However, the CSIRO has not identified plans to divest the Atherton site in its 2019 Property Strategy.

2.48 The CSIRO did not regularly review progress in meeting its commitments made to the Government in March 2013 on reducing its property footprint.

24 The CSIRO's estimates of footprint do not include some leased locations, including some overseas locations other than its Montpellier, Santiago and Silicon Valley sites. Overseas locations not included in the CSIRO's measurement of building footprint are Jakarta, Seattle, Washington DC, Singapore and Hanoi.

25 The CSIRO has noted that delays to CSIRO vacating the: Crace site may be required due to delays with the Canberra Collections Building proposal for Black Mountain; and North Ryde due to delays with the Sydney Consolidation Project at Lindfield.

Did the CSIRO develop an effective approach to measure its property operating costs?

The CSIRO has not developed an effective approach to measure its property operating costs. Some property operating costs are met by CSIRO business units and others are the responsibility of corporate areas but there are no arrangements in place for all costs to be periodically aggregated and analysed. This is significant given eliminating the forecast annual increase in operating costs over 2012–13 levels was a key rationale for adopting the 2012 Property Strategy.

2.49 All business units pay an overhead charge for energy, property lease and some other semi-fixed costs according to how many square metres the business unit is occupying and the administration of these costs is managed and reported annually by the CSIRO's Finance business unit (Finance) (see paragraph 3.13 for further details).

2.50 The CBIS scope of services includes payment of some property operating costs (see paragraph 3.9 for further detail). The CBIS pays for costs related to repairs and maintenance on buildings and fencing, security, cleaning and waste.²⁶ The CBIS also pays property overhead costs associated with underutilised accommodation, for instance, when science business units consolidate and there is a resulting reduction in the use of office or laboratory space (a reduction in square meters).

2.51 The CBIS noted that 'specialised requirements such as maintenance of research instruments, or specific research developed structures are the responsibility and cost of the relevant BU [business unit] however, CBIS will provide support where agreed and where resources allow'.

2.52 The CBIS doesn't have visibility over the operating costs for CSIRO as a whole, despite being responsible for the property strategy. There is no arrangement in place between CBIS and Finance that facilitates the measurement and reporting of the CSIRO's total operating costs over time, consistent with the aims of the 2012 Property Strategy.

How have the CSIRO's property operating costs changed since the 2012 Property Strategy was adopted?

The CSIRO's property operating costs in 2018–19 were, in real terms, 43 per cent higher than they were in 2012–13, with an average annual growth rate across this period of seven per cent. The ANAO's analysis is that the CSIRO's property operating costs in 2021–22 are likely to be higher in real terms than they were in 2012–13.

2.53 As noted at paragraph 1.11, the CSIRO aimed to eliminate its forecast annual increase in its operating costs over 2012–13 levels.

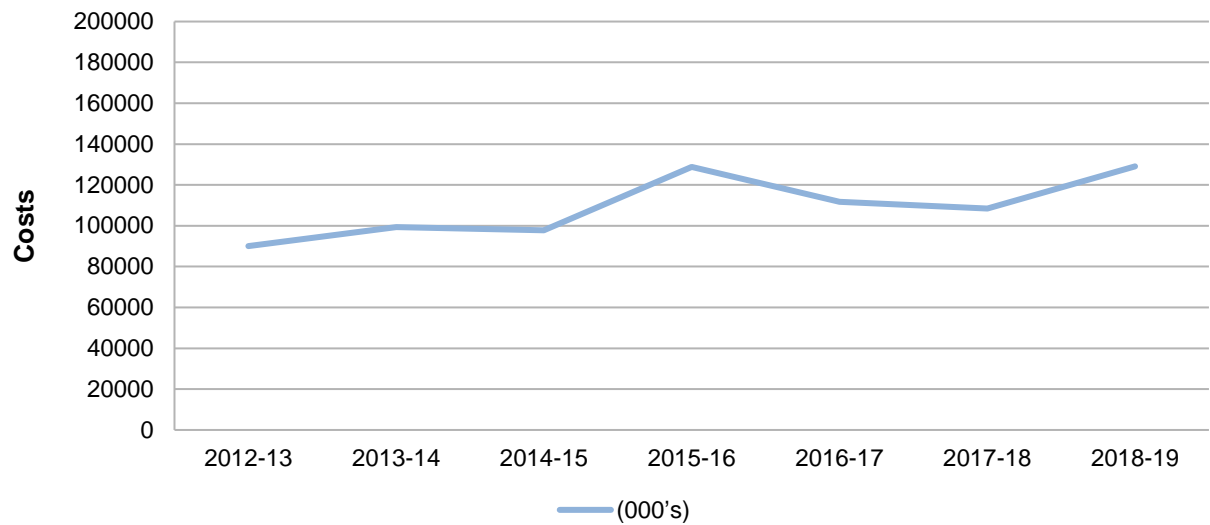
2.54 The CSIRO noted in its 2015 plan that its intention was to deliver an \$11.1 million improvement to the operating position of CSIRO over 10 years including a \$63.6 million reduction in property operating, repairs and maintenance costs.

2.55 Figure 2.3 shows aggregate property related operating costs from 2012–13 to 2018–19, in real terms. Property related costs grew by 43 per cent in real terms from 2012–13 to 2018–19,

²⁶ Science business units are responsible for maintenance and repairs to scientific equipment.

growing by an average of seven per cent annually. The trend, delays and changes in the actions included in the 2012 Property Strategy that were to achieve the targeted reduction means CSIRO’s property operating costs in 2021–22 are likely to be higher in real terms than they were in 2012–13.

Figure 2.3: Aggregate property related operating costs from 2012–13 to 2018–19



Source: ANAO analysis of CSIRO data.

3. Governance arrangements

Areas examined

The ANAO examined whether effective governance arrangements were in place to support the implementation of the 2012 Property Investment Strategy (2012 Property Strategy).

Conclusion

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) was not effective in establishing governance arrangements to support the implementation of its 2012 Property Strategy. The CSIRO effectively established its capital investment program, but it did not establish effective arrangements to support its capital divestment program, risk management and reporting to its Board. There have been significant delays with the delivery of the planned divestments (with some divestments having been cancelled). The planned divestments were key to CSIRO reducing its property footprint as well as to provide funds for the capital investment required for its proposed property consolidations, both of which were expected to facilitate a greater proportion of the CSIRO's resources to be spent on scientific and industrial research.

Areas for improvement

The ANAO made three recommendations aimed at establishing effective governance arrangements for the management of divestment projects; better management of risk; and improved reporting to the CSIRO Board on progress with implementing the property strategy and the realisation of benefits.

3.1 The CSIRO Executive began implementing the 2012 Property Strategy in December 2012. In order to assess whether effective governance arrangements were in place to support implementation, the ANAO examined the:

- CSIRO's governance framework and implementation arrangements, including the management of risks;
- identification of milestones and deliverables; and
- reporting to the CSIRO Board.

Did the CSIRO establish an effective governance framework and arrangements to implement its property investment strategy?

The CSIRO has established a partly effective framework and arrangements to implement the 2012 Property Strategy. Of note is that the CSIRO:

- developed principles to implement its property strategy, undertook some consultation and identified roles and responsibilities for the management of its property portfolio;
- implemented appropriate governance arrangements for capital works projects but it did not establish effective governance arrangements for divestment projects;
- established effective change management arrangements; and
- did not have a risk management plan in place for the 2012 Property Strategy and has not appropriately managed the risks to implementation including the risk to revenue from divestment projects not progressing as planned.

The development of implementation principles

3.2 As noted in paragraph 1.5, the 2012 Property Strategy was endorsed by the CSIRO Board in December 2012. In endorsing the 2012 Property Strategy, the CSIRO Board approved the principles outlined in Table 3.1. The principles were to inform decisions on the CSIRO's management and implementation of its property strategy. However, at the time, the CSIRO Executive did not have a framework to guide prioritisation on property decisions on capital investment and divestment.

Table 3.1: 2012 Property Strategy principles, December 2012

Principles
Appropriate spend of capital expenditure. Minimal but 'necessary' capital expenditure will be directed to reduce ongoing operating expenditure and avoid realising identified planned repairs and maintenance where the medium term goal is to vacate or extensively renovate the building.
Unlocking value in our property portfolio. CSIRO underutilises a number of high value properties that if released will return significant value to the property portfolio to be used in realising the property strategy.
Concentrating capability. A number of sites currently undertake the same or similar science, thereby requiring a duplication of infrastructure. CSIRO can no longer afford to continue to duplicate infrastructure where there is no demonstrable science benefit.
Exploration of potential revenue sources to realise the Property Strategy including: Public Private Partnerships, Joint Ventures and optimising return through disposal of properties.
Financial Sustainability. The Property Strategy seeks to outline the plans for managing CSIRO's Property Portfolio over the next ten years and beyond without a requirement for additional money from the Government for the current scope of work.

Source: ANAO analysis of CSIRO information.

Consultation on the 2012 Property Strategy

3.3 There was no overarching consultation plan implemented to support the 2012 Property Strategy.

3.4 In November 2012, the CBIS advised the CSIRO Executive that 'consultation in respect to the development of the CSIRO property NPP [New Policy Proposal] has included the executive team, Department of Industry, Innovation, Science and Tertiary Education and the Department of Finance and Deregulation'.

3.5 The CSIRO was unable to provide the ANAO with information on any consultation process with its science unit leaders. Subsequently, between August and October 2014, the CSIRO Business and Information Services (CBIS) business unit consulted with science business units and the Executive on a property plan (2015 Property Plan) to support the second phase of the 2012 Property Strategy. In response to the consultation, the CSIRO Executive agreed to examine consolidating in Sydney at the Lindfield site instead of at the North Ryde site as planned in the 2012 Property Strategy. The CBIS also updated the property principles following the consultation.

Roles and responsibilities

3.6 The CSIRO Executive has identified roles and responsibilities for the delivery of property services, planning of capital investments and management of capital works projects. Roles and responsibilities of the Board, Chief Executive and executive team are clearly outlined including in charters and directions statements. The members of the executive team are responsible for

business units including science research and enterprise services functions. Appendix 3 provides further detail on the organisational arrangements and the executive team's breadth of responsibility in the CSIRO.

3.7 The CSIRO Operations Group is responsible for the delivery of the property strategy, led by the Chief Operating Officer (COO). The Operations Group includes the CBIS and Finance business units.

CSIRO Business and Infrastructure Services

3.8 As noted in paragraph 2.44, the CBIS developed and implemented the 2012 Property Strategy and delivers property services to support science. It has almost 250 staff across Australia whose roles include capital works managers, technicians, and stores and logistics officers.

3.9 The CBIS has developed its charter and scope of services that outlines its responsibilities for service provision. CBIS and science unit responsibilities with respect to property are identified in Table 3.2.²⁷ The CBIS monitors space utilisation, consistent with its Accommodation Guidelines, and reviews requirements annually with science business units to determine responsibility for operating costs.

Table 3.2: Summary of scope of service responsibilities, December 2018

CBIS responsibility	Science business unit responsibility
Managing and maintaining facilities — including security, farm services and general cleaning	Maintenance of research instruments or 'specific research developed structures'
Strategic property planning	Where a facility must meet specific regulatory compliance, the responsibility for funding to meet regulatory compliance requirements varies and is to be agreed between CBIS and business unit
Maintaining an asset register, property data and valuations	For farm services, all subdivision fences, other farm roads, stock and crop watering systems and other services deemed as research instruments
Managing underutilised property	Chemical and other hazardous waste disposal
Building and infrastructure-related capital works	Backup power supply
Monitoring and evaluating the condition of facilities	
Managing all lease transactions	
Managing utility supply arrangements and apportionment of utility costs	

Source: The CBIS scope of services.

Oversight of projects

Project Boards and control groups

3.10 Project boards and project control groups (see Figure 3.1) were established to provide oversight for medium (\$1 million to \$15 million) and major (more than \$15 million) value capital

²⁷ The CBIS developed the scope of services in 2017 and last reviewed the document in November 2018. The CBIS noted that it would review the scope of services annually.

works projects.²⁸ The CSIRO Executive did not have a governance structure in place to oversee its proposed divestments (identified in Table 2.6).

Figure 3.1: Roles and responsibilities of project boards and control groups

<p>Project Board</p> <ul style="list-style-type: none"> • A project board provides high-level oversight, and: <ul style="list-style-type: none"> ○ seeks to ensure project risks are managed appropriately; ○ considers and approves any significant change to scope, budget or program; ○ reviews and approves project deliverables or products; and ○ makes recommendations to the Chief Executive Officer or Executive Team. • A Senior Responsible Officer is nominated with overall responsibility of the project to sit on (and usually be Chair of) the project board. The project board members include a senior executive officer or officers, and representatives of business unit/s that will benefit from the project and the CBIS.
<p>Project Control Group</p> <ul style="list-style-type: none"> • A project control group provides direction, management and monitoring of a project, and is responsible for: <ul style="list-style-type: none"> ○ the delivery of projects in accordance with agreed requirements; ○ overseeing management of risk and work health and safety responsibilities; and ○ reporting on the progress of projects and risks to the project board; and referring any significant changes to scope, cost or program to the project board. • The membership includes the business unit/s that will use the facility and the CBIS.

Source: ANAO analysis of CSIRO documents.

3.11 The CSIRO Executive established project boards and control groups to implement capital investment and site remediation projects under the 2012 Property Strategy, 2015 Property Plan and the 2019–29 Property Strategy (2019 Property Strategy), and clearly outlined the roles and responsibilities of the project boards and groups.

Ginninderra, Australian Capital Territory (ACT) divestment project committee

3.12 The Ginninderra Core Leadership Group was established and met for the first time in August 2018 to provide oversight of the Ginninderra divestment. The group has a terms of reference that has been in draft form since October 2019.²⁹

Finance

3.13 The Finance business unit (Finance) works with the CBIS to prepare an annual capital plan, identifying funding for major and minor capital works and maintenance. Finance calculates the rates (per square metre) at which property overhead costs will be allocated to business units for their use of property, and recovers overhead costs. Finance also monitors and reports annually to the Board on capital expenditure.

28 CBIS Executive Managers and State Managers provide oversight of minor works (under \$1 million). A process chart sets out the roles for the planning, evaluation, approval and contracting of minor works.

29 The CSIRO advised the ANAO in January 2020 there was a core team/steering committee in place for the Ginninderra divestment prior to 2018 but it could not locate any documentary evidence of this team/committee.

Capital Management Committee

3.14 The Capital Management Committee oversees the allocation and management of CSIRO's capital budget. Established under the 2019 Property Strategy, the committee's role is to:

- make recommendations on capital expenditure;
- review the allocation of capital budgets;
- monitor expenditure; and
- oversee the development, update and execution of the 2019 Property Strategy.

3.15 Terms of reference clearly outline the committee's role.

Implementation

3.16 As discussed in paragraph 2.13, the CSIRO Executive implemented the 2012 Property Strategy in two phases, commencing in 2012 and in 2015.

Phase one of the property strategy

3.17 In January 2013, the CSIRO Executive submitted proposals to the Government for major capital investment projects to consolidate research to its:

- Black Mountain site (ACT) — costing \$185 million from 2014 to 2020; and
- Clayton site in Melbourne (Victoria) — costing \$30 million from 2013–2016;

3.18 In February 2013, the CSIRO Executive reported to its Board on updates to the CSIRO's annual capital management plan, to reflect the planned property strategy expenditure until 2016–17. The Government approved the CSIRO's capital investment projects in April 2013.³⁰ From September 2013, the CSIRO Executive implemented project boards and control groups (see paragraph 3.10) to oversee capital investment projects. The boards and groups met regularly, established terms of reference, kept meeting papers and recorded action items.

3.19 In December 2013, the CSIRO Executive reviewed and revised its 2014–15 capital expenditure budget to incorporate the approved ACT and Clayton consolidations, and to identify revenue sources, including future divestments, and capital works projects through to 2019–20. The Parliamentary Standing Committee on Public Works (PWC) approved the ACT and Clayton consolidations in March 2014.

30 The CSIRO advised government that the property strategy would be self-funded through divestments (including of the Hightett site), supplemented with internal sources of funding.

Recommendation no.2

3.20 The CSIRO establish effective governance arrangements for the management of divestment projects including establishing a consistent framework and undertaking detailed planning.

CSIRO response: *Agreed.*

3.21 *The CSIRO welcomes ANAO's supportive remarks regarding its established governance framework and process for the effective management of major and significant projects for all investment projects and some divestment projects depending on size. CSIRO will extend this governance framework to be applied to all divestment projects regardless of size.*

Phase two of the property strategy (2015 Property Plan)

3.22 As discussed in paragraph 2.25, the CSIRO Executive developed the 2015 Property Plan (phase two of the 2012 Property Strategy) to consolidate its Sydney operations to the Lindfield site in Sydney (NSW), upgrade the Australian Animal Health Laboratory (AAHL) in Geelong (Victoria), and divest six sites including the Ginninderra (ACT) site (see Box 1) (see Table 2.6 for divestment details). The CBIS commenced a submission to the Government before its Executive approval 'given the urgency behind much of CSIRO's property strategy'. The 2015 Property Plan was not presented for endorsement by the CSIRO Board.

3.23 In giving its in-principle approval to the 2015 Property Plan in May 2015 (discussed in paragraph 2.27), including on the joint venture development of the Ginninderra site, the Government requested a comeback submission for the 2016–17 Budget process to provide further detail on capital expenditure and revenue streams.

Box 1: Ginninderra divestment

The CSIRO has owned the 701 hectare Ginninderra (ACT) site since the late 1950s and used it as an agricultural research field station. In 2014, the CSIRO Executive noted the divestment of the site would provide a 'large portion' of funding for the Sydney consolidation and AAHL part-life refurbishment. The CSIRO Board approved the commencement of the divestment process in 2015, however a governance structure was not documented until 2018. A steering committee (see paragraph 3.12), established in August 2018, has met regularly, noted action items and recorded decisions. From 2015 to 2019 the CSIRO was involved in three unsuccessful attempts at divestment (see timeline in Appendix 4).

To enable the relocation of the field station, the Government announced in September 2015 the CSIRO had purchased a 290 hectare farm in Boorowa (NSW). The 2012 Property Strategy identified the need for a replacement site and the 2015 Property Plan planned for expenditure on it. The CSIRO Executive established a project board and control group in 2016 which have met regularly and considered papers on the infrastructure works on the site.

3.24 In December 2015, the CSIRO Board approved delaying a comeback submission due to 'significant challenges in confirming key elements of the plan'.³¹ The 2018 comeback submission's key elements were:

- the AAHL compliance-related upgrade (entitled the AAHL Part-life Refurbishment Project, \$220 million, 2020–21 to 2025–26);
- works to consolidate Sydney sites to Lindfield (entitled the Sydney Consolidation Project, \$113.6 million, 2020–2022);
- direct sales of the Marsfield (Sydney, NSW); Parkville and Highett (Melbourne, Victoria) sites, which the CSIRO Executive estimated would total \$115.1 million; and
- a \$110 million loan from the Commonwealth to the CSIRO to meet cash flow requirements of the AAHL and Sydney projects, to be repaid from the Ginninderra divestment.

3.25 The comeback differed from the 2015 Property Plan that was agreed in-principle by the CSIRO — requesting the \$110 million loan, removing the divestment of the Darwin (Northern Territory) site due to 'changing market conditions' and postponing the Aspendale (Melbourne, Victoria) divestment due to the higher than expected cost of relocating staff.³² The Government gave its approval in May 2018.

3.26 The PWC approved the Sydney Consolidation Project in October 2019. From September 2016 to January 2020, the CSIRO implemented project boards and control groups to oversee the Sydney, AAHL and Parkville relocation projects. The boards and groups met regularly, established terms of reference, kept meeting papers and recorded action items.

2019–29 Property Strategy

3.27 As shown in Table 2.6, significant investments and divestments were to be implemented between 2012 and 2029. The activities included: ACT (consolidation and divestment of Ginninderra); New South Wales (Sydney consolidation, Myall Vale investment and divestment of Marsfield); Victoria (Clayton consolidation and divestment of Highett, Geelong Belmont and Aspendale); Queensland (Herston Health Precinct investment); and Western Australia (Perth consolidation).

3.28 In 2019, the CSIRO Executive established project boards and control groups for the Myall Vale (NSW) and Perth consolidation (Western Australia) projects. The boards and groups established terms of reference, met regularly, considered papers and noted action items. A project board for the Canberra Collections Accommodation Project was established, with a terms of reference, in November 2019.

3.29 In the 2019 Property Strategy, the CSIRO Executive identified new governance processes for capital investment planning and a property decision-making framework (see Appendix 5 for further

31 Including: agreeing a joint venture partnership with the ACT Government for the Ginninderra divestment; confirming the scope of the AAHL refurbishment; and higher than forecast estimates of the cost of relocating staff from the Parkville and Aspendale sites to Clayton.

32 The CSIRO NPP noted the plans for the Sydney Consolidation Project and AAHL Part-Life Refurbishment project were 'materially consistent' with the 2015 submission. The NPP also identified \$10.9 million in expenditure on a project to relocate staff from the Parkville to Clayton sites (the Parkville Relocation Project), and noted expenditure on the Boorowa property was excluded, as the CSIRO was internally funding the project.

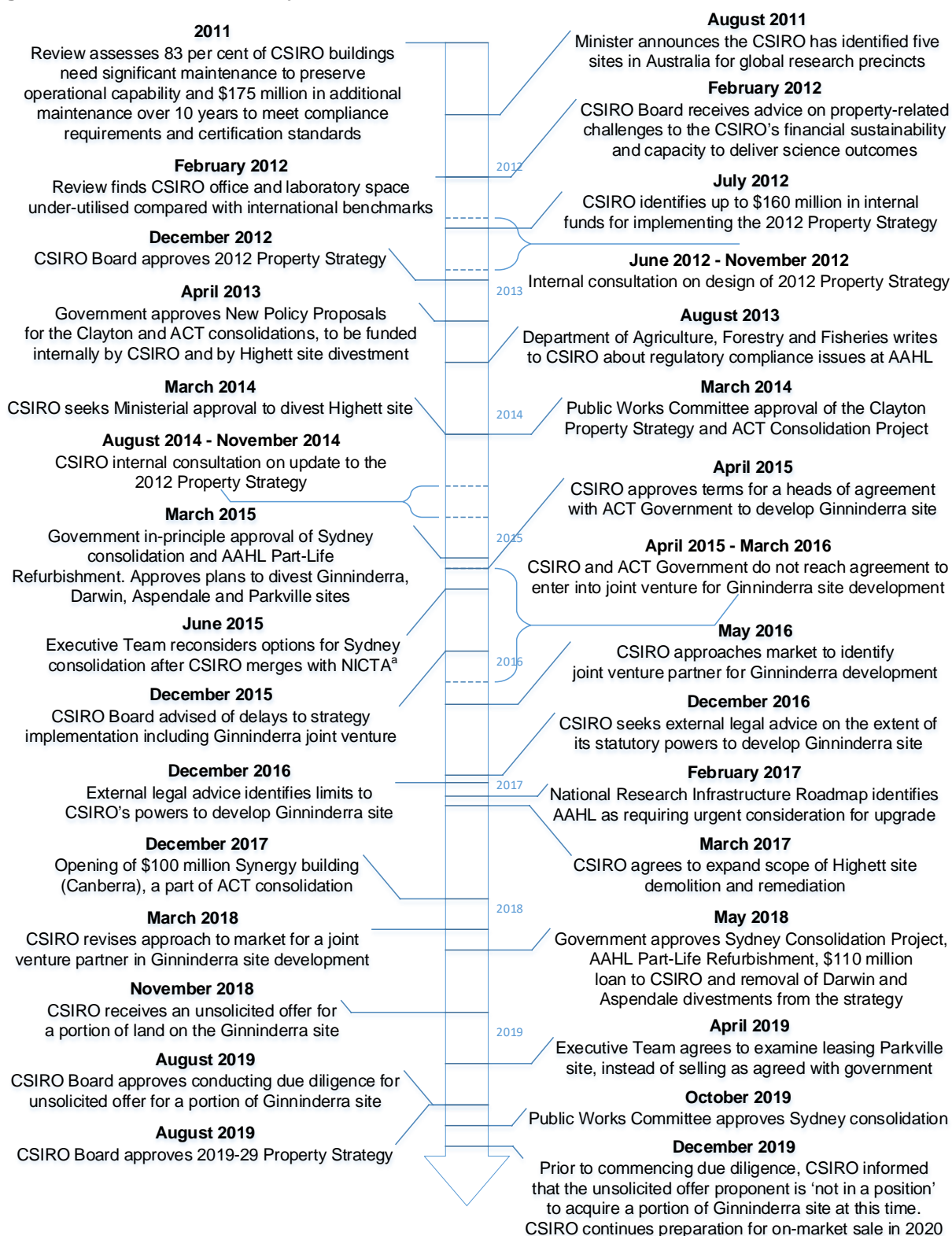
detail), and committed to annual internal reviews of the 2019 Property Strategy and consultation with science business units on their property requirements.

Change management and communication

3.30 CSIRO management planned and implemented change management and communication activities for the ACT, Sydney and Clayton consolidation projects, AAHL Part-Life Refurbishment and Perth consolidation project. Project boards and control groups received regular reports on implementation and noted actions.

3.31 The communication activities for the ACT, Clayton and Sydney consolidation projects, Ginninderra divestment and Highett remediation project included communication with: staff affected by consolidations in the ACT, Melbourne and Sydney; communities around the Ginninderra, Highett and Lindfield sites; and local authorities regarding the Ginninderra, Highett and Lindfield sites.

3.32 Figure 3.2 illustrates key events in the implementation of the strategy.

Figure 3.2: Timeline of key events

Note a: The CSIRO and National ICT Australia (NICTA) merged in August 2015 to create the CSIRO entity, Data61.

Source: ANAO analysis of CSIRO documents.

Risk management

Risk framework

3.33 The CSIRO has an Enterprise Risk Management Framework, risk policy and a procedure that 'sets out the mandatory procedures for the assessment and management of risk'.³³ The CSIRO assesses risks in:

- organisational strategic risk assessments conducted annually, which focus on whole-of-entity and strategic risks;
- operations and business unit services risk assessments, which are conducted annually and captured in risk registers; and
- project level risk assessments, which are specific to a CSIRO project. The assessments are conducted at the beginning of each project or during a project and outcomes are 'captured in a regular status report ... and escalated if necessary'.

3.34 The CSIRO Board Audit and Risk Committee monitors and reports to the Board on the 'adequacy and operation of the risk identification and assessment framework'.

Organisational strategic risk assessments

3.35 The CSIRO Executive noted on three occasions between 2012 and 2018 that implementation of the property strategy depended on the CSIRO's ability to divest properties — in particular, Ginninderra. In 2013, the CSIRO advised the Government that the risk of failing to proceed with the property strategy would compromise the CSIRO's ability to avoid the escalating planned repairs.

3.36 Between 2013 and 2018, a number of events delayed or halted divestments and the return of proceeds to the CSIRO to fund the property strategy. These events, summarised in Table 3.3, were reported to the Board.

Table 3.3: Summary of delays and changes to divestment arrangements, 2013–19

Year	Event
2013	Highett divestment: The CSIRO Executive agreed to a request from the local member of parliament to set aside additional land from the 9.3 hectare Highett site for conservation and open space, impacting the sale price by 'up to \$10 million' or approximately 26 per cent of the expected value at that time.
2016	Ginninderra divestment: Negotiations between the CSIRO Executive and ACT Government to form a joint venture partnership to develop the CSIRO's Ginninderra site were unsuccessful. The CSIRO had forecast to receive more than \$100 million from a joint venture partnership with the ACT Government between 2016–17 and 2019–20.
2016	Ginninderra divestment: The CSIRO Executive received legal advice that 'it is not within the power of CSIRO [under the SIR Act] to carry out the proposed residential development at any scale whatsoever, simply because this will maximise the funds that can be raised from the sale of the Ginninderra property'.
2017	Highett divestment: Following 'Ministerial discussions' with the CSIRO Executive, the CSIRO Board approved the expansion of demolition and remediation works. The demolition of all buildings, full remediation of the site and discovery of additional contamination extended the sale time and the cost from \$4.5 million to \$23 million. ^a

33 An internal review in August 2018 found the framework is aligned with the Commonwealth Risk Management Policy but risk processes and practises are 'inconsistently applied'.

Year	Event
2017	Aspendale and Darwin divestments: Although approved by the Government in 2015 to fund the strategy, the Board agreed to delay the divestment of its Aspendale site and remove the Darwin site from the strategy. ^b
2018	Ginninderra divestment: After revising the terms of its proposed joint venture arrangement (in 2017, in response to legal advice), the CSIRO Executive advised the Board it had revised the approach to market for a partner to develop the Ginninderra site after failing to 'identify a preferred respondent'.
2018	Loan: In March 2018, in order to fund the property strategy, the CSIRO sought and received government approval for a \$110 million loan from the Commonwealth to 'meet the cash flow requirements of the CSIRO AAHL and Sydney Property Plan', to be 'fully repaid through proceeds' of the Ginninderra divestment. The CSIRO will pay an estimated \$13 million in public interest debt repayments to the Commonwealth if the loan is fully drawn down.
2019	Parkville divestment: As noted at paragraph 2.38, the CSIRO Executive decided to retain the Parkville site instead of divesting the site (at odds with what had been agreed by the Government in 2018).

Note a: In November 2017, the CSIRO noted that 'due to delays in CSIRO's ability to sell Highett, the Highett to Clayton project has been completed using CSIRO's cash reserves'. The Highett to Clayton project (\$30 million) involved the relocation of research functions from the Highett site to the Clayton site in Melbourne.

Note b: The CSIRO advised the Government in 2018 it had removed the Darwin and Aspendale sites from the strategy.

Source: ANAO analysis of CSIRO documents.

3.37 The organisational strategic risk assessments between 2012 and 2018 did not include risks to the implementation of the 2012 Property Strategy, including that funding the 2012 Property Strategy depended on realising the planned inflow of funds from divestments.

3.38 In December 2018, the CSIRO Executive identified two new risks (including controls and treatments to address the risks), that were related to the delivery of the property strategy:

- Ginninderra — financial outcomes not realised: described as offers to purchase the site not meeting 'CSIRO's minimum financial threshold' for the divestment project.³⁴
- Scientific Infrastructure, Buildings and Facilities: described as a 'failure to adequately invest in the maintenance of existing facilities and development of strategically aligned new facilities'.³⁵

3.39 In August 2019, the CSIRO Executive reported to its Board that 'there are often sensitivities from a community, political and stakeholder perspective' around the future of CSIRO's sites, and 'sensitivities' for the Ginninderra, Aspendale and Marsfield divestments would require management.

34 The risk was rated 'high', on the basis of an assessment that the financial consequence was moderate (up to \$5 million). The treatments included a multiple option divestment strategy and working closely with Whole-of-Government stakeholders to agree on a suitable divestment model. The CSIRO noted to the ANAO that it had assessed an 'incremental' decrease in revenue — relating to a delay, interest repayments or not meeting the CSIRO's minimum threshold for the divestment — was more likely to occur than a 'sale or no sale' of the site.

35 The risk was rated 'very high'. The controls included the establishment of the Capital Management Committee, development of the 2019 Property Strategy, regular reporting to the executive team, and financial delegations for the purchase and disposal of assets. The treatments included an asset review in 2019–20, complete building condition assessments for key facilities, and implementation of the 2019 Property Strategy.

Risk of exceeding authority

3.40 The CSIRO has 37 leases and 125 other occupancy arrangements³⁶ in place for third party organisations to use portions of the CSIRO's portfolio of owned and leased sites. The majority of arrangements are to third parties who CSIRO identify as paying full commercial rates to CSIRO.

3.41 The CSIRO owns investment properties valued at \$52 million from which it received \$3.2 million in rent in 2018–19, including from tenants in a shopping centre it owns in North Ryde, Sydney. The CSIRO Executive is considering leasing more of its sites, including Parkville (which had been identified for divestment) because 'there remains concerns that the continued divestment of sites is not sustainable (i.e. we will run out of things to sell) and there are other options that may be more financially sustainable'.³⁷

3.42 The December 2016 legal advice to the CSIRO on the Ginninderra joint venture divestment noted that the objective of the development and divestment project — to raise money 'to fund the future performance of the CSIRO's functions' — was 'not in itself sufficient' for the project to be within the 'scope of what is authorised' by the SIR Act:

Whilst we accept that CSIRO has the power to engage in activities that generate revenue, in our view this does not extend to any activities whatsoever simply because they would result in the receipt of funds that would support other activities that are within the scope of CSIRO's functions. If CSIRO's powers were that broad, it would allow CSIRO to do anything whatsoever that is directed towards raising money, even if the activity had nothing to do with science ...

3.43 The CSIRO Executive has not sought advice on the extent to which the SIR Act authorises it to conduct other activities described in paragraphs 3.40 and 3.41, such as leasing a shopping centre for a financial return.³⁸

Operations Group and CBIS risk assessments

3.44 As noted in paragraph 3.7, the Operations Group has key responsibilities with implementing the property strategy. The Operations Group includes the CBIS and Finance business units. Prior to 2018, the Operations Group did not have risk registers in which property strategy risks and treatments could be recorded and monitored. In 2019, the Operations Group identified eight risks. These included two property-related risks: financial outcomes not realised from the Ginninderra divestment, and the risk to scientific infrastructure, buildings and facilities (see paragraph 3.38). The remaining six risks were related to strategic, operational and governance risks for the organisation.³⁹

36 Most of the occupancy arrangements are licences, which are less formal legal arrangements which allow non-exclusive occupancy of a part of a building.

37 The CSIRO also notes the Parkville site is located in an expanding health precinct and the CSIRO is 'actively exploring opportunities to locate its H&B [Health and Biosecurity] capability in this region'.

38 The CSIRO advised the ANAO on 19 May 2020 that it '...does not look to generate revenue from SME's located at our sites, the model we apply is to cover the costs of these entities if a subsidy is not appropriate'.

39 The risks were categorised as strategic (relating to the CSIRO business model, financial sustainability and growth, and scientific infrastructure, buildings and facilities); operational (relating to security, misconduct or fraudulent activity (excluding scientific malfeasance) and governance, business processes and systems); and immediate and emerging (relating to Ginninderra (financial outcomes not realised) and breach of 'child safe' responsibilities).

3.45 In 2019, the CBIS had documented four risks in a register, prepared to inform the Operations Group risks.⁴⁰ Two risks related to investment in facilities and equipment, and these risks were linked with the organisational risk described in paragraph 3.38 of a failure to adequately invest in scientific infrastructure, buildings and facilities. Two risks were related to the security of property and the environmental impact of facilities. The CSIRO advised the ANAO that CBIS does not have its own risk register.

3.46 The CSIRO could not provide an overarching risk plan for the 2012 Property Strategy. It advised the risks it identified to its Board in December 2012 on the implementation of the 2012 Property Strategy ‘... were specific to the Board paper at the time’.

3.47 The CSIRO provided the ANAO with a risk management plan for the 2015 Property Plan, which contained a register of 25 risks to implementation. The highest risk (rated as severe) was ‘funding through proceeds of sale of sites not consistent with capital requirements’. The register identified current controls and the risk owner (the Chief Finance Officer) but did not identify treatments or a timeframe for mitigating the risks.

3.48 The 2019 Property Strategy does not include a risk management plan.

Project risk assessments

3.49 The project boards for the ACT, Sydney, Clayton and Perth consolidation projects; AAHL Part-Life Refurbishment; and the Boorowa and Myall Vale projects have prepared, monitored and updated risk registers. However, these were not integrated with the organisational strategic risk assessments.

3.50 A Ginninderra divestment project risk register was prepared in May 2017 and has been updated since 2018.⁴¹ The Ginninderra Core Leadership Group has not regularly considered the risk register.

3.51 A risk analysis of the Highett sale process was prepared in March 2019 but the CBIS did not have an earlier documented risk register for the divestment. In 2017, the CSIRO Executive established a project control group (separate to the sale process) to oversee the remediation of the site. This group did not have a risk register, but there were ‘standing items that address risk’ in its meeting agenda, including for workplace health and safety, budget, program and environmental issues. The group received regular reports on environmental monitoring and costs. See Box 2 for more information on the Highett divestment.

40 A CBIS risk register dated 2019 identified four risks: CSIRO facilities and equipment (non-scientific) are not safe (high); CSIRO facilities and equipment (non-scientific) do not meet operational requirements (high); CSIRO facilities and equipment (non-scientific) are damaged or stolen (high); and CSIRO facilities and equipment (non-scientific) cause an environmental impact (high).

41 The ‘top five’ risks in the register dated September 2019 were: authority from Federal Government is not granted (high, possible); EPBC (*Environment Protection and Biodiversity Conservation Act 1999*) approval is delayed, denied or conditional (high, possible); Department of Finance approval is delayed, denied or conditional and they do not reimburse the lease variation charge (very high, unlikely); the conditional sale request for proposals process is not successful (very high, unlikely); expressions of interest of sufficient quality not completed by the required release date (high, possible).

Recommendation no.3

3.52 The CSIRO develop a property strategy risk management plan to monitor, assess and guide the mitigation of property strategy implementation risks.

CSIRO response: *Agreed.*

3.53 *CSIRO prepares individual risk management plans for all investment and divestment projects included in the property strategy. These enable CSIRO to monitor, assess and guide the mitigation of property strategy implementation risks. CSIRO sees the merit and benefits in incorporating these individual risk management plans into an overarching risk management plan for the overall property strategy.*

Box 2: Highett divestment

The CSIRO has occupied the 9.3 hectare Highett site, south-east of Melbourne's central business district, since the 1940s and used it for research including into building and solar technology and fluid dynamics. The CSIRO Executive started planning the divestment of the site in 2009 by commissioning initial environmental assessments of the site, however it did not put in place a governance structure including a steering committee, or establish milestones for delivery.

The initial assessments found asbestos containing materials in, and in soil around, the oldest buildings on the site. During demolition works in 2016, additional contamination was found. A project control group was established in 2017 and met regularly to oversee the estimated \$23 million remediation project. Further soil contamination found in 2018, added an estimated \$7 million in costs. In mid-2019, the CSIRO offered the site for sale on the open market and expected settlement in the second quarter of 2020.

Did the CSIRO identify appropriate milestones and deliverables to monitor its progress in implementation?

The CSIRO identified appropriate milestones and deliverables for medium and major capital works projects with planned expenditure of at least \$567 million to be funded in part by property divestments valued at \$401 million. Deliverables were identified but the CSIRO did not establish milestones for the divestments planned for Victoria (Highett and Geelong Belmont) or New South Wales (Armidale Arding) sites. Of 18 capital investment projects between 2013 and 2019, 11 were underway or completed, four were planned and three were not proceeding. Of 12 divestments, three were underway, one had been completed, two were planned and six were not proceeding. Between 2012–13 and 2019–20, the CSIRO spent at least \$295 million on major investments and achieved divestment revenue totalling \$98 million.

3.54 In December 2012, the CSIRO Board papers included an 'illustrative schedule' of key milestones for the delivery of the property strategy. The schedule identified dates for divestments, developments and capital expenditure. CSIRO Board papers did not include an updated schedule after December 2012.

3.55 In December 2012, the CSIRO Board approved the schedule, including planned expenditure of at least \$567 million on capital investment projects and, to fund this investment, property divestments valued at \$400.7 million (2012 prices).⁴²

3.56 Between 2012-13 and 2019-20, the CSIRO had actual expenditure and budgeted expenditure in 2019-20 of \$295.4 million on major investments under the 2012 Property Strategy and 2015 update to the strategy.

3.57 As at March 2020, the CSIRO had achieved divestment revenue (actual and contracted) totalling \$98.2 million. Divestments with a total value of at least \$240.1 million were planned. Divestments identified in the 2012 Property Strategy that were not proceeding, due to updates to the 2012 Property Strategy including the removal of sites planned for sale in 2018 and 2019, had a value of \$121.7 million (2012 prices).

Capital works projects

3.58 The CSIRO identified appropriate milestones and deliverables to enable the monitoring of medium and major capital investments it was planning, implementing or had completed. The milestones included scheduling including for design, procurement, construction of facilities, and staff relocation.

3.59 The CSIRO Executive identified milestones in documents including:

- statements of evidence to the PWC;
- operations reports to the CSIRO Board and Executive between 2013 and 2015; and
- papers prepared for project boards and control groups.

3.60 The CSIRO's operations reports submitted to the CSIRO Executive and the Board tracked progress against the milestones for the consolidations in the ACT and Clayton (Victoria).

3.61 Reports to the CSIRO Board, Executive and the project boards and control groups of the ACT and Clayton projects identify key milestones were met and expenditure was within the approved budgets for the projects.

3.62 Table 3.4 shows the status of 18 proposed capital investment projects, as at December 2019.

42 The updated value of planned expenditure (including for projects approved by government in 2013 and 2018 and expenditure under the 2019 Property Strategy), totalled more than \$743.8 million as at November 2019.

Table 3.4: Progress of capital investment projects

Planned	Underway	Completed	Not proceeding
AAHL refurbishment; Canberra Collections; master planning of Clayton and Waite (SA) sites; and condition assessments of Black Mountain and Clayton sites.	ACT consolidation; Sydney consolidation; Perth consolidation; Myall Vale; Boorowa; Parkville relocation; Herston Health Precinct investment.	Clayton consolidation; Hobart building refurbishment; minor capital works (identified in 2012 for Black Mountain, Clayton, Parkville and North Ryde) projects; site master planning at Black Mountain	Development of North Ryde; Parkville relocation to the Bio21 Human Life precinct at the University of Melbourne (identified in 2012); and the Aspendale relocation to Clayton project (the relocation was identified in 2015 but did not proceed. While the CSIRO plans were to consolidate the site, it had not identified a preferred destination for the relocation).

Source: ANAO analysis of CSIRO information.

Divestments

3.63 The CSIRO Executive did not identify milestones for the Highett, Geelong Belmont and Armidale Arding divestments. Deliverables were identified for the Highett, Armidale Arding and Geelong Belmont site divestments including by contributing to a reduction in the CSIRO's property holdings and release of funds for other capital works projects. The divestment of the Geelong Belmont site was intended to remove from CSIRO's portfolio a building that was no longer 'fit for purpose'. The remediation costs exceeded the sale proceeds.

3.64 The CSIRO Executive identified milestones for the divestment of the Ginninderra site in reports, timelines and schedules prepared in 2016, 2017 and 2010. The documents contained sufficient detail to enable the CSIRO to monitor delivery of the divestment.

3.65 The deliverables for the Ginninderra divestment included: specified revenue, staged up-front payments to the CSIRO, conservation of parts of the site, and incorporation of science projects into development. The CSIRO Executive identified the deliverables in reports to the Board between 2015 and 2019.

3.66 Table 3.5 shows the status of 12 identified divestment projects as at December 2019.

Table 3.5: Progress of divestment projects

Planned	Underway	Completed	Not proceeding
Aspendale; Marsfield	Ginninderra; Highett; Geelong Belmont	Armidale Arding	Darwin; Parkville; Montpellier (France); Armidale Chiswick; Lindfield; Black Mountain (top portion)

Source: ANAO analysis of CSIRO information.

Has the CSIRO provided appropriate reporting on progress with implementation to its Board, including costs against budget and benefits being realised?

The CSIRO's reporting to its Board on progress with the implementation of the strategy has not been appropriate. The reporting has not been regular, has not contained information requested by the Board and has not reported on delivering the aims of the 2012 Property Strategy including the realisation of costs and benefits. The CSIRO has provided adequate reports on the costs against budget of capital works projects and the progress of capital works projects and divestments.

3.67 In December 2012, the CSIRO Board requested that reports on the implementation of the 2012 Property Strategy contain:

- a 'simple governance framework to accompany each paper related to the property plan that helps orient the Board for each individual step'; and
- 'a cost / benefit analysis during the program and at the end to ensure that intended benefits are realised.'

3.68 In the nearly eight years between December 2012 and August 2019, the CSIRO Board received six reports on the implementation of the 2012 Property Strategy, 2015 Property Plan and 2019 Property Strategy, detailed in Table 3.6.

Table 3.6: Reporting to the CSIRO Board: December 2012 to August 2019

Date	Advice
February 2013	New Policy Proposals for the ACT and Clayton consolidation projects had been submitted to the Government for consideration and approval in the 2013–14 Budget process.
December 2015	Delays to implementing the Ginninderra divestment; planning the Sydney consolidation project; and an increase in the estimated costs for the AAHL Part-Life Refurbishment. The CSIRO would not submit a comeback to the Government in the 2016–17 Budget process to seek final approval of the 2015 Property Plan.
April 2017	Plans for a new property strategy, steering committee to inform the development of the strategy, and a decision support model to inform property decisions. Elements of the 2012 Property Strategy had begun to realise some benefits through reduced operating expenditure and increased science collaboration. The benefits were not discussed further.
November 2017	Costs and scope of the AAHL Part-Life Refurbishment and the Sydney consolidation project, and of the preparation of a comeback submission to the Government to seek final approval of the 2015 Property Plan. (The Board approved the comeback submission as a part of the 2018–19 Budget process.)
May 2019	The 2019 Property Strategy. (The Board provided feedback and noted a more 'succinct articulation' would be brought back to the Board.)
August 2019	A revised 2019 Property Strategy and a 2019–20 Implementation Plan (Board approved).

Source: ANAO analysis of CSIRO information

3.69 The CSIRO Board was not provided with the governance framework until 2019 and was not provided with the cost-benefit analysis it had requested. The CSIRO Board also did not receive reports on the progress on the target of reducing operating costs over time (see areas for improvement in Chapter 2) and the realisation of benefits.

3.70 The Chief Finance Officer has reported to the CSIRO Board on the costs against budget of capital works projects, as a part of annual assessments of organisational financial performance.

3.71 The CSIRO Board has received reports on: the progress of delivery of some capital investments and divestments; and operational funding issues. For example, there have been:

- seven papers on the ACT consolidation project from 2013 to 2017;
- eight papers on the Ginninderra divestment from 2015 to 2019;
- two papers on the Highett divestment from 2017 to 2019; and
- two papers on AAHL operational funding (including the joint funding arrangement between the CSIRO and Department of Agriculture and a planned approach to the Government in 2019–20 for possible additional funding).

3.72 The reports addressed implementation issues including changes to project scope, approvals for divestment processes, progress of construction work and divestments, and responsibility for operational funding.

Recommendation no.4

3.73 The CSIRO Executive report at least annually to its Board on the progress in implementing its property strategy and the realisation of benefits.

CSIRO response: *Agreed.*

3.74 *CSIRO initiated a twice-yearly reporting process to the CSIRO Board in August 2019 regarding progress in implementing the property strategy and the realisation of benefits. The first of these reports was provided to the Board on 30 April 2020.*

4. Development of a new CSIRO property investment strategy

Areas examined

The ANAO examined whether development of a new strategy in 2019 was appropriately informed by analysis and review of the implementation of the 2012 Property Investment Strategy (the 2012 Property Strategy), and the results that had been achieved.

Conclusion

The development of the Commonwealth Scientific and Industrial Research Organisation (CSIRO's) 2019–29 Property Strategy (2019 Property Strategy) has been informed by some lessons learnt, but it was not informed by an appropriate review and analysis of its 2012 Property Strategy. The CSIRO has not established quantifiable targets to measure and be accountable for its performance in delivering the 2019 Property Strategy.

Area for improvement

The ANAO made one recommendation aimed at the CSIRO establishing quantifiable performance targets for its 2019 Property Strategy.

4.1 The CSIRO noted its intention to develop a new 10-year property investment strategy in 2017, five years after the 10-year 2012 Property Strategy was developed. In August 2019, the CSIRO established its 2019 Property Strategy. In order to assess whether the CSIRO appropriately developed its new strategy, the ANAO examined:

- whether the 2019 Property Strategy was informed by analysis;
- the review of the implementation of the 2012 Property Strategy; and
- consultation on the new strategy.

Has the development of the CSIRO's 2019 Property Strategy been informed by analysis and appropriate review of the implementation of the 2012 Property Strategy?

The development of the new property strategy was not informed by: thorough analysis; a review of the implementation of the 2012 Property Strategy and principles agreed by the CSIRO Board; and its commitment to the Government to reduce its property footprint and operating costs. The CSIRO did not develop any quantifiable targets to measure its performance on delivering the 2019 Property Strategy.

4.2 In developing its 2019 Property Strategy, the CSIRO commissioned a consultant '... to assist in finalising [the] strategic property plan'. The CSIRO indicated in advice to the ANAO that the consultant reviewed the draft 2019 Property Strategy and recommended the inclusion of a decision-making framework which would provide direction on using decision making criteria to assess whether the CSIRO should hold, divest or invest in property.

4.3 The CSIRO undertook a program of work to establish additional oversight, frameworks and guidance supporting the 2019 Property Strategy, including documenting its capital investment governance processes and establishing its Capital Management Committee (see paragraph 3.14).

4.4 In May 2019, the CSIRO Executive presented the 2019 Property Strategy at the Board meeting. The CSIRO Board was informed that a 'significant challenge in making decisions' in CSIRO with respect to capital allocation is a 'lack of adequately captured and collated information on our portfolio's performance from a property and science perspective'. The gaps identified by the CSIRO Business and Information Services (CBIS) business unit included 'an overall physical condition assessment' to ascertain if facilities and buildings are fit-for-purpose, and master planning at some key sites.

4.5 The CSIRO Board asked the CSIRO Executive to 'provide a more succinct articulation of the property strategy that will provide strategic clarity, priority/focus areas for the next 10 years (including financial/budget implications and funding arrangements) and principles for decision making and development of annual implementation plans (including financial implications, analyses, key cost areas, conditions of facilities and projections)'.

4.6 The CSIRO Board also approved an asset review '... led by its Finance business unit', guided by terms of reference to be conducted in 2019–20 with the proposed scope to include a review of assets, to '... better inform the Executive on the future capital requirements/pressures'.⁴³

4.7 In August 2019, the CSIRO provided the Board with a revised 2019 Property Strategy, to reflect the Board comments at the May 2019 Board meeting. The CSIRO Board: approved the 2019 Property Strategy, including strategic property priorities⁴⁴; agreed to six monthly reporting on implementation; and requested CBIS '... come back with [a] capital plan that will provide options for moving forward'. The CSIRO advised the ANAO on 20 May 2020 that the Board received a report on 30 April 2020, eight months after the implementation of the 2019 Property Strategy, but minutes from that meeting had not been circulated.

4.8 In seeking the CSIRO Board's endorsement of the 2019 Property Strategy, the CSIRO noted learnings on its divestment of its Highett site with respect to planning, consultation and remediation. The Board was advised that 'having longer lead times, sound decision making frameworks and better planning has assisted in minimising these issues to some degree' for the divestment, that had been identified in 2012 Property Strategy. The CSIRO has advised the ANAO that the detailed planning for the divestment of its Marsfield (2021–22 divestment) and Aspendale (2024–25 divestment) sites will commence in the 2020-21 financial year.

4.9 The 2019 Property Strategy has not been informed by lessons learned from analysis or modelling of the 2012 Property Strategy (such as the geographical information systems modelling noted in reporting to the CSIRO Board on the 2010 National Footprint Project that aligned CSIRO's existing footprint with science business unit need) and a review of the implementation of the 2012 Property Strategy or 2015 Property Plan.

4.10 Two areas that are absent from the 2019 Property Strategy are the focus and targets on reducing footprint and operating costs. Table 4.1 shows the priorities identified in 2019 compared to principles in 2012 and business needs in 2015.

43 The CSIRO commissioned consultants (in November 2019) to undertake the review and the CSIRO advised the ANAO on 20 May 2020 that its executive team was advised of the outcome of the review at its meeting on 8 April 2020.

44 CSIRO referred to their property priorities as principles in the 2012 Property Strategy and business needs in the 2015 Property Plan.

Table 4.1: Property principles/business needs/priorities

2012	2015	2019
<p>1. Financial sustainability — The Property Investment Plan outlines the approach to managing CSIRO's Property Portfolio over the next ten years and beyond without a requirement for additional money from Government for the current scope of work;</p> <p>2. Appropriate spend of capital expenditure — minimal but 'necessary' capital expenditure will be prioritised and directed to reduce ongoing operating expenditure and avoid realising identified planned repairs and maintenance where the medium terms goal is to vacate or extensively renovate the building.</p> <p>3. Unlocking value in our property portfolio — the CSIRO will seek to identify opportunities to release value in underutilised assets to return funding to re-invest in maintaining fit for purpose facilities that will facilitate science and research.</p> <p>4. Concentrating capability — as far as possible and practical without compromising science benefit, the CSIRO will seek to consolidate science activities to reduce the number of sites currently requiring a duplication of infrastructure.</p> <p>5. Benchmark standard — the CSIRO's property portfolio need to comply with relevant Commonwealth and State standard and regulations in regard to environmental sustainability and space utilisation.</p> <p>6. Exploration of potential revenue sources to realise the Property Investment Plan including Public Private Partnerships and Joint Ventures.</p>	<p>1. Reduce operating costs and stabilise repairs and maintenance costs across CSIRO's diverse, ageing and large property portfolio while remaining compliant with all regulatory standards;</p> <p>2. Consolidate and co-locate sites to enhance integration between research and development sectors (CSIRO, governments, universities and industry) by further building 'critical mass' in priority science fields through greater partnerships and collaboration;</p> <p>3. Deliver fit-for-purpose, flexible and 'future proofed' scientific facilities that enable CSIRO to continue to deliver its science contribution for national benefit; and</p> <p>4. Undertake necessary capital works to allow the continued operation of National Facilities, specifically the compliance-related upgrade at AAHL.</p>	<p>1. Environmental Sustainability — invest where appropriate in minimising the environmental footprint of facilities and operations while supporting CSIRO's own agenda to support leading environmental practice;</p> <p>2. Consolidate our property footprint — consolidate to sites and locations that align to CSIRO's future needs, improve the utilisation of properties, and optimise investment of limited funds in key sites.</p> <p>3. Leverage strategic infrastructure opportunities — capitalise on planned strategic infrastructure investment by other parties, including within the Commonwealth, state/territory and higher education sectors;</p> <p>4. Align Infrastructure with Science — align CSIRO's infrastructure and facilities with the current and future needs of the Business Units; and</p> <p>5. Invest in maintaining key infrastructure — identify key infrastructure and maintain/upgrade these existing facilities to be fit for purpose.</p>

Source: ANAO analysis of CSIRO information.

4.11 The 2019 Property Strategy noted that CBIS would investigate on an ongoing basis further performance measures and reports. Table 4.2 shows the CSIRO performance metrics outlined in the strategy.

Table 4.2: CSIRO 2019 Property Investment Strategy performance metrics

Metric	Description
Footprint consolidation	Reports on the reduction of the occupiable footprint (m ²) across the portfolio
Environmental performance	Metrics on emission reductions
Property operating costs	Estimates on the reduction of operating costs across the portfolio
Capital investment costs	Project reporting on a project by project basis- cost, time and deliverables
Operating efficiency	Implementation of tools and systems to support space utilisation and management

Source: CSIRO analysis of information.

4.12 The 2019 Property Strategy did not include any associated quantifiable targets to measure the CSIRO's performance, including against its priorities. The CSIRO advised the ANAO on 20 May 2020 that quantifiable targets were presented to the Board on 30 April 2020.

Recommendation no.5

4.13 The CSIRO establish quantifiable performance targets for its 2019 Property Strategy.

CSIRO response: *Agreed.*

4.14 *CSIRO presented quantifiable performance targets for the 2019-29 Property Strategy to the Board on 30 April 2020.*

Has the CSIRO consulted appropriately, including across its business units (science and corporate), when developing its 2019 Property Strategy?

The CSIRO established a largely appropriate consultation process, but feedback on the need for more detailed planning including on divestments and cost analysis was not incorporated into the strategy. A communications plan was developed for the new strategy.

4.15 On 4 February 2019, the CBIS began its consultation process, providing its draft 2019 Property Strategy to representatives from other business units (Research Operation Managers (ROMs)) before being finalised. ROMs met on 11 February 2019 to discuss the draft 2019 Property Strategy and provided their feedback (see Box 3). The final draft of the strategy was provided (for information) to the ROM's on 9 April 2019 before being considered by the CSIRO Executive the same week.

ROM feedback on the draft 2019 Property Strategy

Engagement approach between CBIS and key business unit representatives from other business units was good if centrally coordinated.

The annual review on the overall requirements of business units to determine overlaps, gaps or synergies was a positive element.

Should identify that ‘... specialised scientific equipment at a site, the cost of replacement/rebuild elsewhere and co-location with key collaborators/partners are key elements in assessing fitness for purpose facilities’.

Lacked detail and visibility on prioritisation, implementation and divestment planning (including cost analysis), compliance and maintenance related works.

Did not acknowledge the future investment in potential leased sites that were under consideration.

Was inconsistently applied with respect to the application of accommodation principles.

Funding constraints needed to take into account revenue from leasing, not just from divestments.

Need to identify constraints in accommodation, not just underutilisation, and where growth is expected to be accommodated.

Source: ANAO analysis of CSIRO information.

4.16 CBIS State Managers also provided feedback on the draft 2019 Property Strategy, with concerns being raised around the aim/vision not being sufficiently future focussed with respect to capital planning and operating costs and reflective in terms of considering the impact of past consolidation of property.

4.17 The CBIS informed the CSIRO Executive that it:

worked closely with Site Leaders, ROMs, relevant Business Unit Leaders and CBIS managers to identify infrastructure priorities now and into the future. As a key stakeholder, CSIRO Finance have been heavily engaged in this development of this Strategy.

4.18 Planned wider consultation including with the CSIRO’s Ministerial Parliamentary Liaison Office (noted by the CSIRO Executive to its Board in April 2017) to ‘... clearly understand and determine the political and policy implications of any planned consolidations or divestments’, did not occur.

4.19 Detailed planning and cost analysis was not included in the 2019 Property Strategy and its related implementation plan, despite the CBIS receiving feedback from ROMS identifying it as an issue.

4.20 The CSIRO developed a communications plan to support its 2019 Property Strategy, providing some detail on how the CSIRO intended to communicate with its affiliates, business areas and staff.



Grant Hehir
Auditor-General

Canberra ACT
4 June 2020

Appendices

Appendix 1 Entity response

CSIRO overall response to the ANAO Report

As Australia's national science agency, CSIRO recognises the importance of strong strategic oversight and operating effectiveness for our research facilities, sites and infrastructure to the delivery of benefits for the nation, our people, the economy and the environment.

CSIRO manages a significant proportion of Australia's state-of-the-art science infrastructure and biological collections as well as a complex portfolio that includes 57 domestic sites, three international facilities and more than 950 buildings. These sites and facilities underpin and enable the efforts of our scientists who are solving Australia's greatest challenges through innovative science and technology.

CSIRO's Property Strategy has evolved significantly in the past decade to enable it to: provide high quality facilities; develop dynamic work environments and collaboration hubs; to meet legislative and compliance obligations; and to contain repairs and maintenance costs across ageing infrastructure in many locations.

CSIRO's 2012 Property Strategy evolved in response to changes in science priorities and infrastructure needs. In 2015, machinery of government changes resulted in CSIRO taking on an additional five sites. In addition, properties identified for divestment in the 2012 Property Strategy required extensive remediation works that significantly delayed their sale. While CSIRO consolidation and divestment activities have reduced our building footprint by more than 10 per cent over the past 8 years, factors such as those above have delayed the footprint reduction targeted in the 2012 Strategy.








While this audit is focussed on CSIRO's 2012 Property Strategy, our most recent Strategy was issued in August 2019. It highlights that CSIRO is one of the largest government property holders with a portfolio valued at over \$1.6 billion. The operating cost across the portfolio (owned and leased) is approximately \$120 million per annum. Within this complex system, we are aiming to encourage an innovative working environment for our people, customers and stakeholders, including:










- facilitating collaboration and network development;
- ongoing support for and establish of innovation hubs for SME engagement;
- a vibrant, safe and secure working culture;
- flexible property and facilities that can adapt to meet the evolving and future science needs; and
- environmentally sustainable facilities that continue to lower our emissions and improve our environmental outcomes.

The 2019-29 Property Strategy provides a planning framework articulating investment and divestment principles for decision making to ensure that the property portfolio provides fit-for-purpose infrastructure to support world-class science that is efficient, affordable and sustainable. It is also structured to accommodate future changes which will impact the operating environment of the portfolio such as the implementation of the Decadal Science plan, emerging priorities and other customer focussed initiatives.





CSIRO acknowledges the adverse findings included in the report and the need to ensure we address the shortcomings identified. In particular, we will review recent divestment projects with a view to improve our understanding of the challenges and improve our processes going forward. Also, with the benefit of the learnings from this audit, CSIRO will strengthen its governance, risk management, performance measurement and reporting arrangements as it works to successfully implement the 2019-29 Property Strategy.

Appendix 2 Capital investment works completed/in progress — 2012 Property Strategy, 2015 Property Plan and 2019 Property Strategy

Major and medium capital works				Minor capital works and repairs and maintenance		
State	2012	2015	2019	2012	2015	2019 ^a
ACT	 [Completed] Phase 1 ACT consolidation: Black Mountain — Construction of 15,000 to 18,000 m ² building.	N/A	 [Underway] Phase 2 ACT consolidation: relocation of staff from Yarralumla into refurbished buildings in Black Mountain and relocation of Crace staff into Black Mountain.  [Planned] Construction of a building to accommodate a number of CSIRO's national collections.	 [Completed] Limited planned capital works at Black Mountain to meet health and safety and compliance requirements.	N/A	 [Underway] Phase 2 ACT consolidation: minor works for safety upgrades to existing buildings and demolition of redundant and poorly performing buildings.  [Completed] Site master planning at Black Mountain to support longer term property decisions.  [Planned] Condition assessments of built environment at Black Mountain.

Major and medium capital works				Minor capital works and repairs and maintenance		
Vic	 [Completed] Clayton: refurbishment of existing buildings and the construction of a new facility.	 [Planned] ‘Critical’ compliance-related capital works at the Australian Animal Health Laboratory (AAHL).	 [Underway] Relocation of some staff from Parkville to Clayton.	 [Completed] Limited planned capital works at Clayton and Parkville to meet health and safety and compliance requirements.	N/A	 [Planned] Site master planning at Clayton to support longer term property decisions.
	 [Did not proceed] Parkville: relocation to stage 2 of the Bio21 Human Life Science precinct at the University of Melbourne.	 [Did not proceed] Aspendale relocation to Clayton.	 [Planned] Commencement of the AAHL compliance-related capital works (approved by the government in 2018 after re-costing due to the commencement of the <i>Biosecurity Act 2015</i>).			 [Planned] Condition assessments of built environment at Clayton.

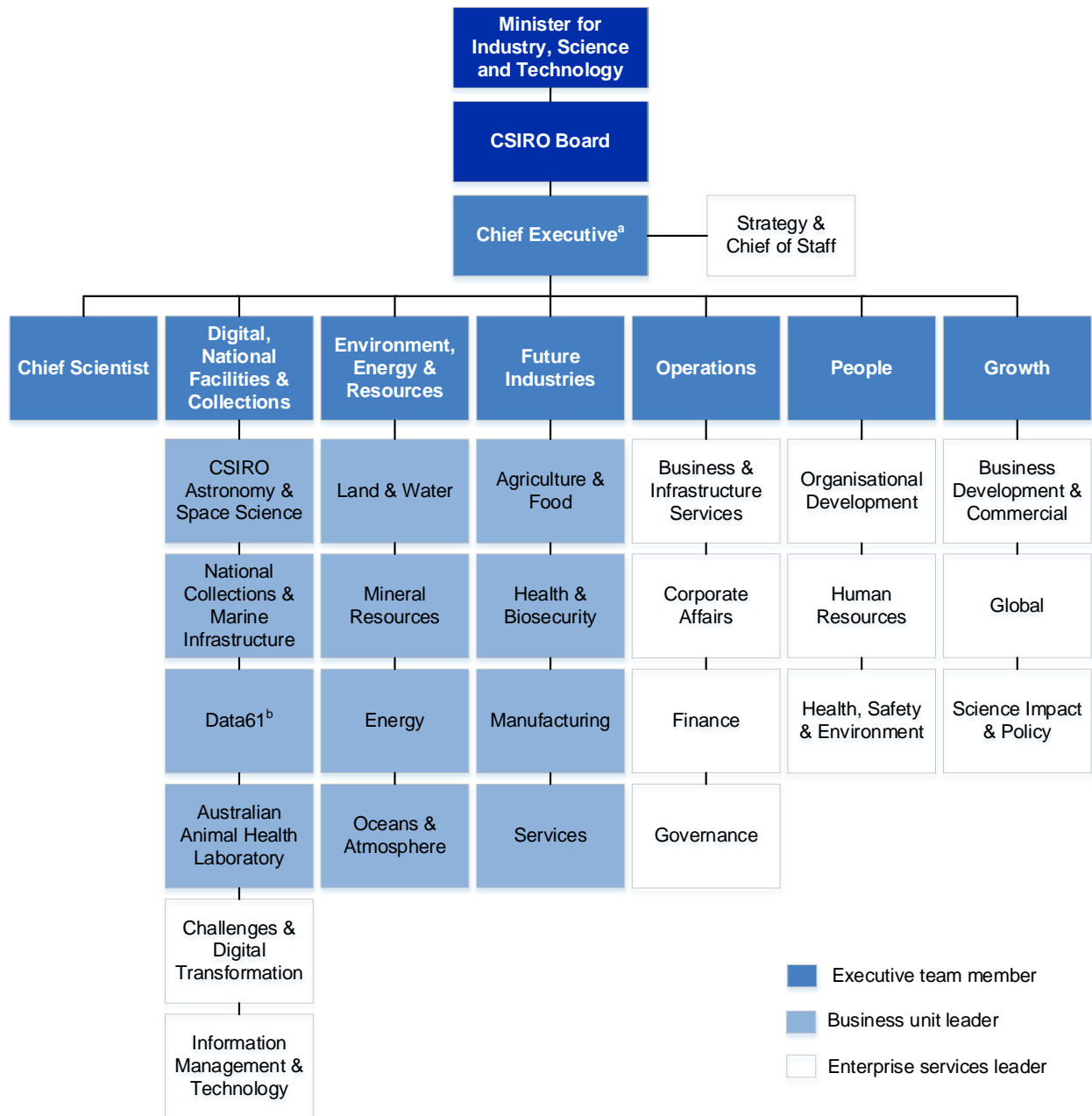
Major and medium capital works				Minor capital works and repairs and maintenance		
NSW	<p>✘ [Did not proceed] Development of North Ryde in Phase 2.</p> <p>● [Completed] Purchase of a field station to replace Ginninderra (ACT).</p>	<p>🕒 [Underway] Sydney consolidation: the refurbishment of Lindfield to accommodate the majority of staff from vacating North Ryde and Marsfield and the minor fit-out of Eveleigh, Lucas Heights and Newcastle sites.</p> <p>● [Completed] Purchase of field station (Boorowa, NSW) to replace Ginninderra (ACT).</p>	<p>🕒 [Underway] Commencement of the Sydney consolidation: refurbishment of Lindfield to accommodate staff/science infrastructure from North Ryde and Marsfield, and other works including relocation of specialist fire testing facilities from North Ryde to another location in NSW.</p> <p>🕒 [Underway] Myall Vale upgrade. Completion of infrastructure at Boorowa field station.</p>	<p>● [Planned] Limited planned capital works at North Ryde to meet health and safety and compliance requirements.</p>	N/A	N/A
Tas.	N/A	<p>● [Completed] Hobart building refurbishment.</p>	N/A	N/A	N/A	N/A

Major and medium capital works				Minor capital works and repairs and maintenance		
WA and SA	 [Completed] Scoping of Perth consolidation	N/A	 [Underway] Perth consolidation: relocate staff from Floreat, Kensington and Waterford to Waterford and Kensington to address underutilisation of space and reduce footprint at Floreat.	N/A	N/A	 [Planned] Site master planning at Waite (SA) to support longer term property decisions.
Qld	N/A	N/A	 [Underway] Relocation of Health & Biosecurity eHealth research group into a new leased building in Herston, Brisbane.	N/A	N/A	N/A

Note a: The 2019–20 Property Strategy Implementation Plan identifies that the CSIRO will invest in large-scale photovoltaic systems in eight sites in multiple states and territories and will make an annual investment in smaller capital works projects and repairs and maintenance.

Source: ANAO analysis of CSIRO information.

Appendix 3 CSIRO organisational structure, February 2020

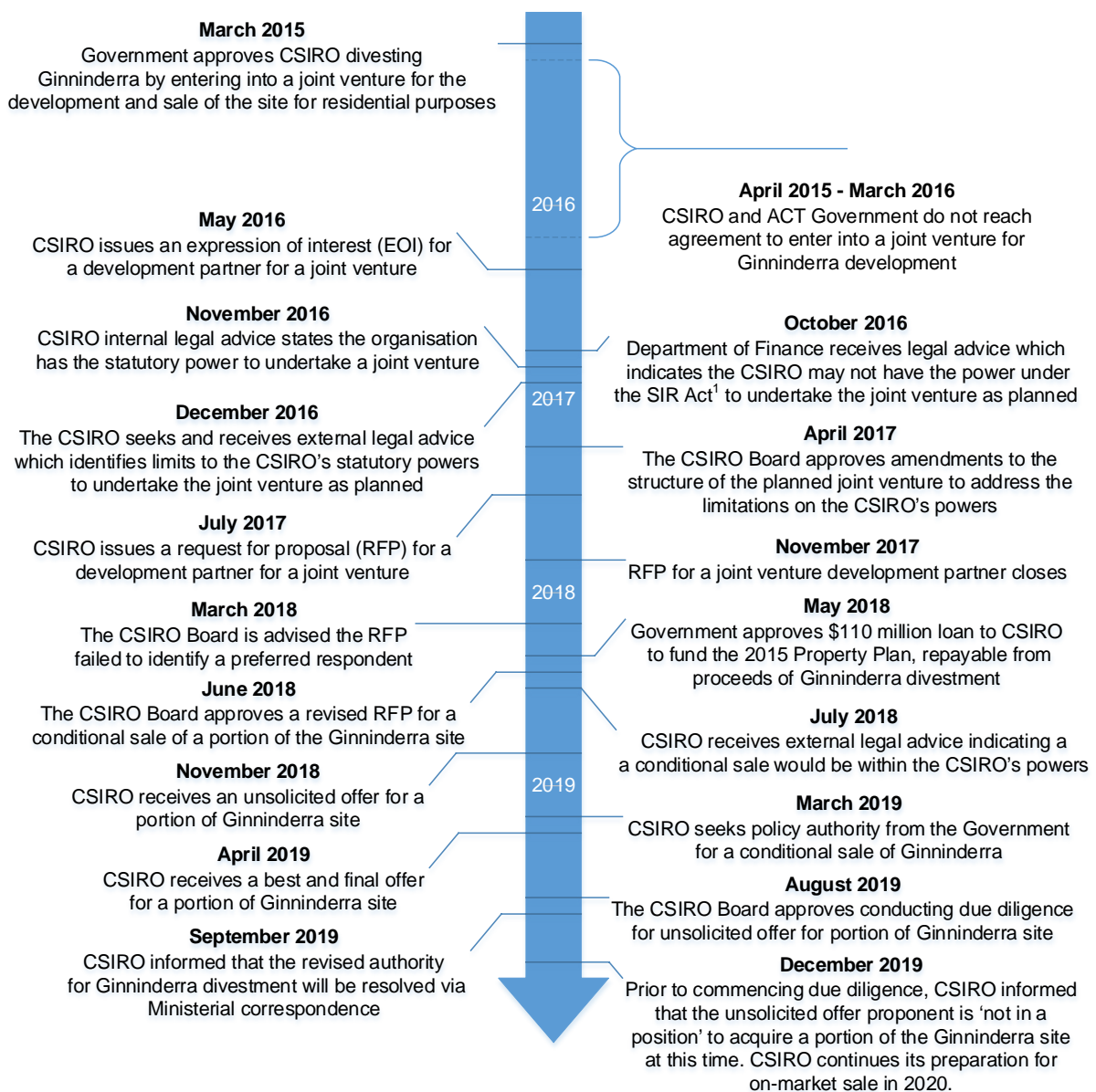


Note a: Not depicted are the Science Industry and Endowment Fund and subsidiaries of CSIRO.

Note b: The Data61 leader is a member of the executive team in an ex-officio role.

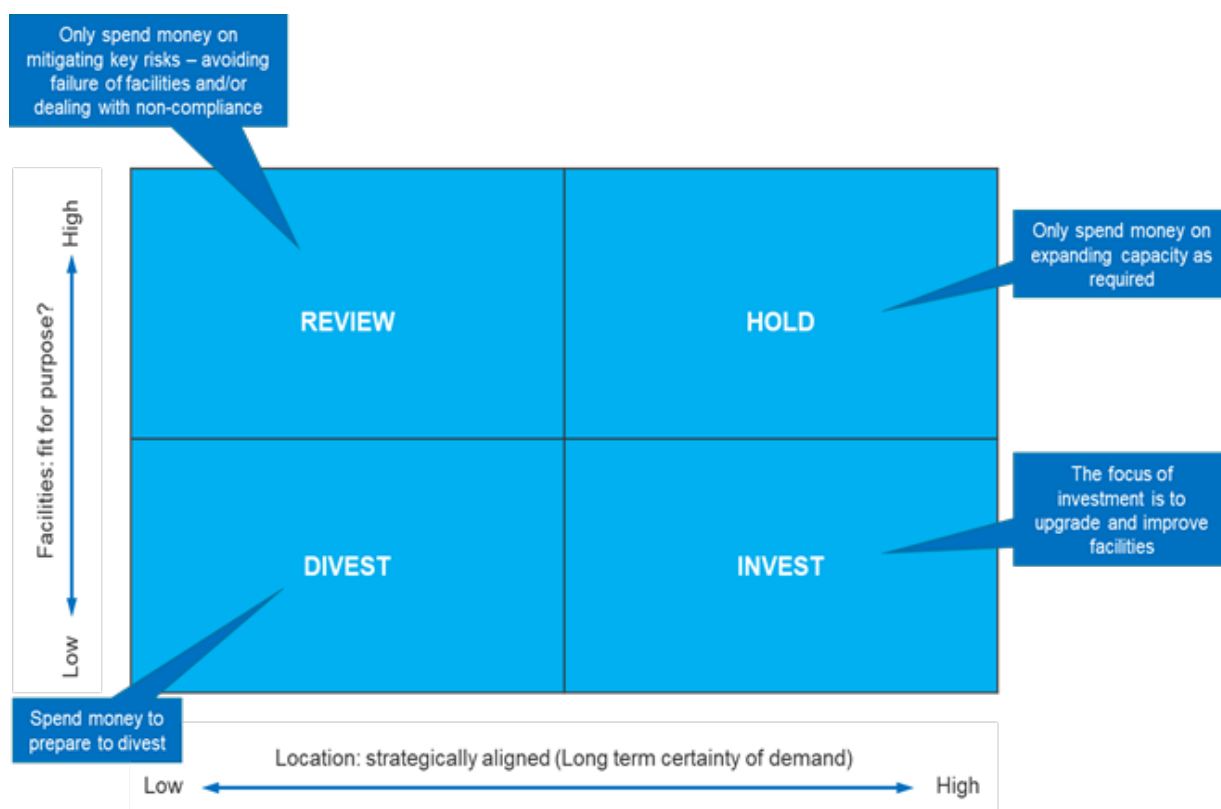
Source: Analysis of CSIRO information.

Appendix 4 Timeline of Ginninderra site sale, 2015–19



Source: ANAO analysis of CSIRO documents.

Appendix 5 Decision-making framework for strategic capital investments



Source: CSIRO 2019–29 Property Strategy.

Description of decision-making framework

Decision	Description
Hold	This is a core or strategic location and facilities onsite do not require significant investment to be fit-for-purpose. Investment here is targeted primarily at maintaining capability and/or expanding capacity, for example to enable staff and operations from other sites to be relocated to this site.
Invest	These properties meet CSIRO's locational requirements however facilities onsite may require significant investment to be fit for purpose. These properties are typically a focus of investment. Long term leases are preferred where the site is not owned by CSIRO.
Review	These properties/locations are identified as not meeting the long term needs of CSIRO. Any investment should only be targeted at maintaining operations, mitigating any key risks in the short term, avoiding failure of facilities or deal with key compliance or other risks. Properties identified as Review could be reclassified as Divest or Hold after an analysis of all options and opportunities.
Divest	These properties/locations do not meet current or future needs and are considered surplus to the organisations requirements. Any investment should be targeted at preparing the site for divestment.

Source: CSIRO 2019–29 Property Strategy.