



# The best data scientists in Australia - all in one place

CSIRO's Data61 - Australia's Largest Data Innovation Network

The NSW Government now has access to the nation's best data scientists and engineers, through a strategic partnership with CSIRO's Data61 - Australia's largest data innovation network - to help NSW Government agencies solve challenges, find efficiencies and innovate at the forefront of new technology and thinking...

An applied R&D partner, Data61 can draw on deep capability in a range of data-focused disciplines to scope and develop new solutions to challenging problems, or support future-focused decision making.

## Data61 has...



**1100+**

Employees  
(With 300+ students)



**30**

University Partners



**124**

Corporate Partners

## Capabilities include

- Data visualisation
- Predictive analytics and simulation
- AI and machine learning
- Robotics

### CSIRO'S DATA61 CAN HELP:

|                                                |                                                       |
|------------------------------------------------|-------------------------------------------------------|
| Predict patterns and trends                    | Map and workshop potential technology options         |
| Provide in-depth analysis on complex problems  | Build a business case with a proof of concept project |
| Safely manage data privacy and confidentiality | Supply cyber security expertise                       |
| Link disparate datasets to support analysis    | Automate routine tasks                                |

## Data-driven approach to building new technology

---

Data61 takes a collaborative approach to R&D, designing potential solutions to meet current needs and challenges, with an eye to future needs and technologies. Data61 focuses on building solutions which agencies directly own and co-develop going forward, rather than purchase or licence in.

## Predict the future

---

Data61's predictive analytics capability has supported a number of NSW Government agencies to identify and prevent potential problems, before they occur.

### Case Study

Data61 is helping Roads and Maritime Services NSW to maximise the life of the Sydney Harbour Bridge road deck. Using 2400 sensors fitted to the bridge, they are collecting and continuously assessing data on the road condition to provide an early warning of problems, well before bridge commuters are affected.

## Four-stage approach to development:

---



## Leapfrog into new technologies

---

Data61 works at the cutting edge of research, to test out new trends and fast track research and design outcomes to a final whole-of-government use.

### Case Study

Data61's advanced failure prediction tool allows Sydney Water to minimise costly, disruptive condition assessments on water pipes by using machine learning to understand the life cycle of water pipes, and prioritise the selection of pipes to assess.

### How it works

---

The streamlined model established by the whole-of-government agreement allows agencies to quickly engage Data61 through pre-prepared contractual arrangements. This eliminates the need to go to market or develop a bespoke contract. Agencies will need to cover the costs of their engagements. This NSW Government agreement with Data61 is in place until 31 December 2019.

## Securely collect and use data

---

Data61 is working with NSW Government agencies on ways to ensure data is safely collected and used, so insights can be gained without compromising privacy or confidentiality.

### Case Study

Data61 and the NSW Data Analytics Centre are collaborating on the development of a Confidential Computing platform to provide the ability to work across multiple datasets without any of the data leaving its secure source. Using a combination of machine learning, encryption and multiparty technologies it will mean organisations won't need to disclose the data in its raw form, keeping the source data both private and up-to-date.

## Want to know more?

Discuss your potential project with DFSI, who manage the engagement: [data61agreement@finance.nsw.gov.au](mailto:data61agreement@finance.nsw.gov.au), or with Data61's Government and Stakeholder Relationships team: [collaborate@data61.csiro.au](mailto:collaborate@data61.csiro.au)

Or visit [www.digital.nsw.gov.au/data61](http://www.digital.nsw.gov.au/data61) to know more.

