National Map

Putting government spatial data, which was previously difficult to access, into the hands of community, software developers and industry will act as a key enabler of innovation and boost to government and industry productivity.

Working for the Australian Department of Communications (and working closely with partner Geoscience Australia), the Terria team developed the software for the National Map initiative, which makes it possible for everyone to benefit from the masses of data stored in government databases.

The availability of this data is prompting new business and providing better services to the community. The National Map website also acts as an incentive to government to release more data, in a searchable and reusable format, into the community.

Project Background

Based on open data, the project is providing an improved data infrastructure and visualisation capability for Australians in accessing government data.

The aim of the initiative is to bring together dispersed information which has been collected and produced by governments at all levels and in all functions, into an easily searchable, viewable and fully customisable map-based view.

The sort of searchable data that is available is varied and includes data about broadband coverage, location of surface water and waste management facilities, infrastructure developments such as gas lines, and electoral boundaries.

What is the technology?

The National Map has been designed to be a fully open framework. The web front-end uses NICTA's TerriaJS™ software and connects directly to data servers at each government agency using open protocols and open data formats.

Any data viewed in the National Map can easily be directly accessed for use outside the National Map.

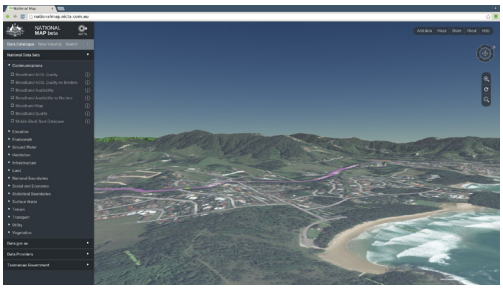
As well as getting data directly from government agencies, the National Map gets data directly from the Australian government data site *data.gov.au*. The National Map is also now used as a previewer for spatial data sets in the *data.com.au* site.

The National Map website could eventually assist with the visualisation management of environmental information, such as ecosystems, koala movements, salinity and air quality.

NICTA's unique approach

Relying on the strong geospatial visualisation skills at NICTA, the software uses Cesium, an open source WebGL virtual globe and map engine, which NICTA is co-developing with an international community of developers.

NICTA is also building specialised web services using TerriaJS™ for customers which provide additional functionality, such as specialised spatial data analytics.



Collaborators

The National Map is an initiative that NICTA has built for the Department of Communications.

It has also partnered with Geoscience Australia on the project and worked with many other government agencies in providing access to their services.

Status

The National Map is available at *http://nationalmap.gov.au* and is used as a spatial data previewer at *http://data.gov.au.*

For more information about TerriaJS™ and the National Map, and to see sites developed using TerriaJS™, go to *http://terria.io.*

Business Contact
Peter Leihn
Director, Environment Business Team
Director, NICTA Victoria
Peter.Leihn@nicta.com.au

Technical Contact
Bill Simpson-Young
Director, Engineering and Technology Development
Bill.Simpson-Young@nicta.com.au

FINALIST INNOVATION CeBIT AU BUSINESS AWARDS 2015

The National Map project is part of the Environment Business Team, developing leading edge predictive analytics and spatial visualisation tools for improved environmental resource management.

NICTA

Leading the Way

NICTA is Australia's Information and Communications Technology (ICT) Research Centre of Excellence, driving innovation through high quality research, research training, commercialisation and contract research.

NICTA has the largest concentration of ICT researchers in Australia. Our research focuses on use-inspired basic research that benefits industry, the community and the national interest.

NICTA has strong research capability in:
- Software Systems
- Mobile Systems
- Machine Learning
- Computer Vision
- Optimisation.

Our Business Teams are the market focus of our research capabilities:
- Broadband and the Digital Economy
- Infrastructure, Transport and Logistics
- Security
- Environment.

NICTA researchers work on Business Team projects supported by:
- An Engineering and Technology Development Team
- IP, Legal and other professional support.

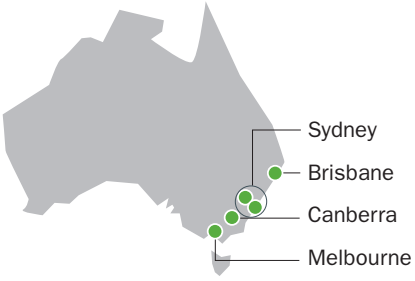
Our work as a world-class research institute and Centre of Excellence in science and innovation brings together many of Australia's and the world's top ICT researchers. NICTA provides them with the facilities and support they require, making imagination to impact a reality.

NICTA's unique approach fosters and develops ICT research. We work closely with both industry and other research institutions to solve problems and make breakthroughs in ICT with real impact. NICTA's focus on use-inspired research means our projects have direct relevance to the challenges faced by business, government and individuals around the world. The result is breakthrough technologies that provide commercial opportunities and have a positive impact on Australia's export earnings.

Terria is a NICTA company specialising in software for web-based spatial data analytics and visualisation. Our federated spatial data exploration technology enables compelling spatial data websites such as the Australian National Map, the Australian Renewable Energy Mapping Infrastructure and the UNEPFI Global Risk Map.

Our spatial predictive analytics technology provides a range of advanced spatial detailing, summarisation and prediction techniques. We provide a web-based platform which combines our federated spatial data discovery technology with our analytics technology to provide advanced spatial data analytics for a large number of industries including environment, energy, finance, and demographics.

www.nicta.com.au



twitter.com/nicta

www.facebook.com/NationalICTA

Australian Government

NSW Trade & Investment

State Government Victoria

Queensland Government

Australian National University · DEAKIN · Federation · Griffith University · La Trobe University · Macquarie University · Monash University · QUT · RMIT University · Swinburne · The University of Adelaide · The University of Melbourne · UNSW · The University of Newcastle · University of Western Sydney · The University of Queensland · University of South Australia · The University of Sydney · University of Technology Sydney · University of Canberra · UTAS