Spatial Services

NSW GOVERNMENT

NSW Spatial Digital Twin

Explore, analyse and interact with spatial data like never before

Product and Services Catalogue

Web maps, apps and dashboards

SDT stories platform

Customised digital twins

GIS support

Unlock the power of NSW Spatial Digital Twin

The NSW Spatial Digital Twin (SDT) is transforming how government agencies and councils visualise, interact with and analyse spatial data. By integrating 3D, 4D and real-time data, the SDT enables better decision-making for urban planning, infrastructure, emergency response, environmental management and more.

What is a spatial digital twin?

A customised Spatial Digital Twin is a highly detailed, interactive 3D and 4D digital replica of real world environments. By integrating spatial data, internet of things (IoT) sensors and analytical tools, these dynamic models help government agencies and councils monitor assets, simulate scenarios and make data-driven decisions.

A single, shared source of truth
for spatial data across NSW.

Real-time insights
for smarter, faster decision-making.

Integrated digital solutions
that work together seamlessly.

3D and 4D spatial visualisation
View and interact with highly detailed 3D models of buildings, infrastructure and landscapes.

Real-time data integration
Connect IoT sensors, traffic data, environmental monitoring and live asset tracking.

Scenario simulations
Run predictive models for development planning, risk assessment and emergency response.

Multi system integration
Connect with GIS databases, asset management systems and other spatial data sources.

Dashboards and reporting
Monitor assets, track KPIs and generate interactive reports for stakeholders.

Visualise the NSW Spatial Digital Twin ecosystem

At the heart of the NSW Spatial Digital Twin (SDT) is a shared data management and delivery platform designed to foster collaboration between government agencies, private sector organisations and the community. The Spatial Collaboration Portal provides a secure, scalable environment, where users can benefit from:

1,000+ datasets

Covering all 21 themes of the Foundation Spatial Data Framework (FSDF).
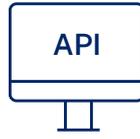
Customer APIs

Datasets accessible via API integration (subject to sharing permissions).

Centralised data access

Avoid duplication by accessing data from a single authoritative location.

Seamless integration

Connect with the Spatial Digital Twin for analysis and decision making.

Enhanced collaboration

Work across agencies, councils and industry to deliver better outcomes.

Data sharing and security

Set permissions to manage who can view or download your datasets.

The portal provides a secure and scalable way to share, manage and integrate your datasets within the Spatial Digital Twin.

Host and manage spatial data
Securely upload, store and control access to your datasets.

Enable data discovery and access
Share spatial data for research, infrastructure planning and more.

Support digital twin integration
Ensure your data is available for visualisation, management and simulation.

Improve data governance
Maintain version control, metadata and sharing permissions.

NSW Spatial Digital Twin (SDT) Explorer

SDT Explorer is New South Wales' powerful, next-generation spatial visualisation platform. Designed to bridge the gap between basic map viewers and advanced GIS software, Explorer delivers a streamlined, user-friendly experience—ideal for professionals seeking fast access to high-quality spatial data and tools.

Key Features

Intuitive Interface
Simplified navigation and interaction for all user levels.

Multi-platform access
Available via the DCS Spatial Services homepage and the Spatial Collaboration Portal.

Advanced 3D visualisation
View terrain, buildings and infrastructure in rich, interactive 3D.

Support and guidance
In-depth user guides help users transition smoothly from legacy systems.

Comprehensive data access
Includes foundational cadastral data, property boundaries, aerial imagery and more.

Empower your spatial decision-making—explore, analyse and share insights with SDT Explorer.
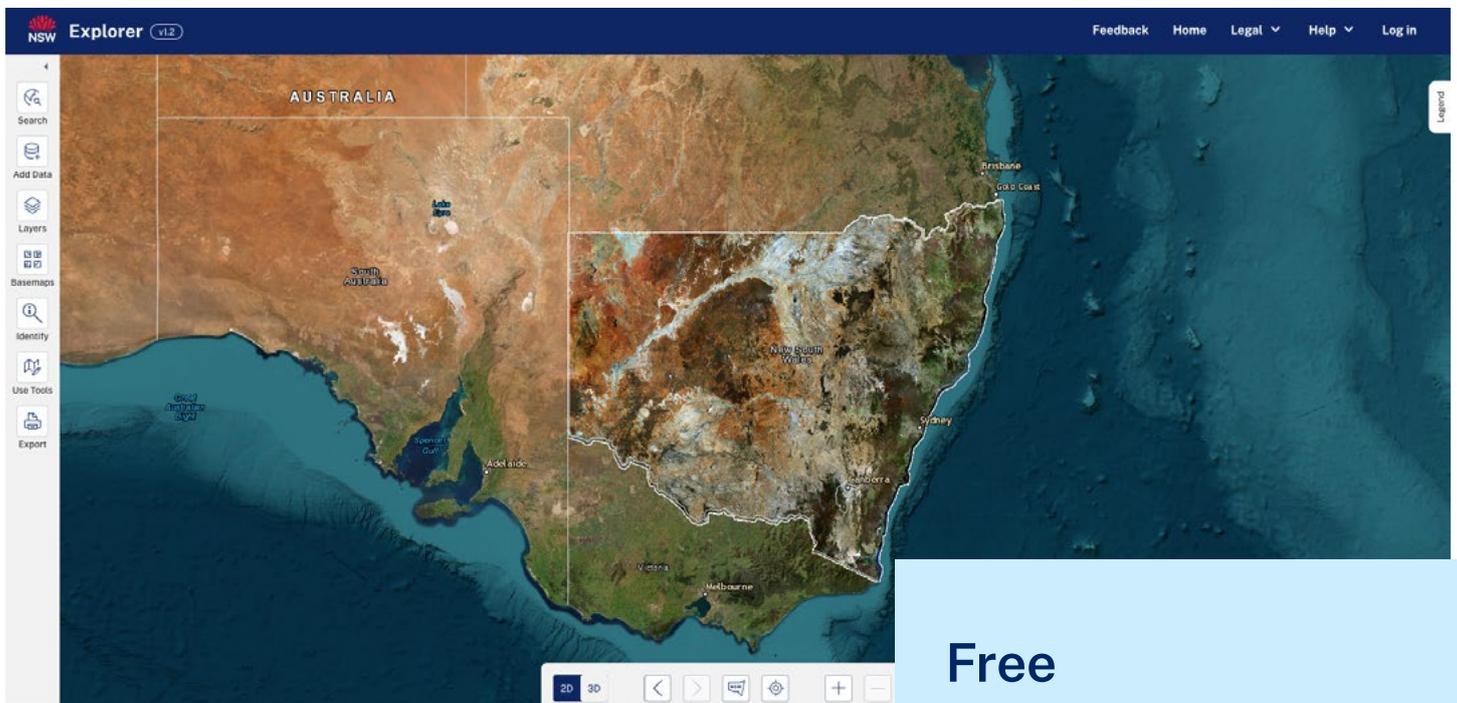
Free

Spatial visualisation and analysis tool

Improved

user experience with all the features and data in 2D quick links.

Enhanced

with the ability to perform on the fly analysis in 3D.

Connect

Tell us about your project needs Want to create a powerful web map, app or dashboard?

Use the QR Code to contact us for a consultation:

How can the NSW Spatial Digital Twin be used?

Urban planning and development
Build interactive maps to visualise land use, zoning, infrastructure projects and community planning.

Asset and infrastructure management
Map assets, monitor maintenance and plan upgrades efficiently.

Environmental monitoring and sustainability
Visualise environmental data, track climate impact and support conservation efforts.

Public engagement and transparency
Share accessible, interactive maps and dashboards with communities and stakeholders.

Emergency incident management
Create real-time dashboards for tracking disasters, resource allocation and response coordination.

Our Spatial Digital Twin Ecosystem

We offer a suite of connected products and services designed to help agencies explore, collaborate and create using spatial data.
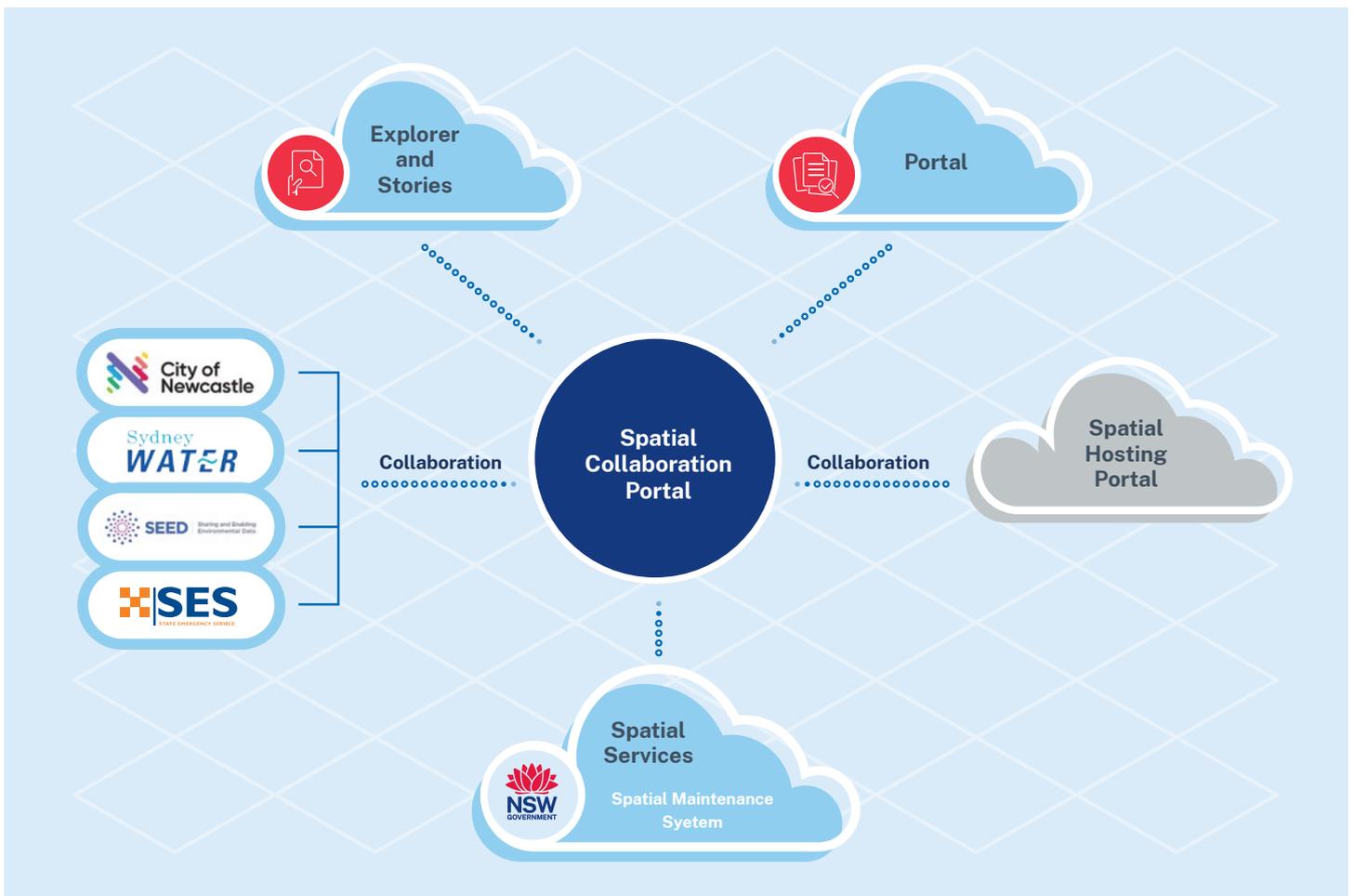
Access and visualise geospatial data   Better insights

Find thousands of trusted datasets.

Visualise and interact with 2D, 3D and real-time spatial data.

Compare, measure and analyse for deeper insights.

Create and share spatial insights   Better collaboration

Integrate your data with NSW's spatial ecosystem.

Create & share high-quality custom maps.

Engage communities with interactive, map-driven stories.

Plan, simulate and act with confidence   Better decisions

Optimise urban planning & infrastructure with simulation and assessments.

Monitor environmental changes & respond to risks.

Inform policies using data-driven decisions.

Faster, smarter, more cost-effective   Better outcomes

Respond quickly and effectively with real-time data.

Make data-backed decisions that reduce errors, uncertainty and improve outcomes.

Reduce rework, avoid costly mistakes and optimise resource allocation.

What are web maps and dashboards?

They are interactive tools that enhance how data is visualised, accessed and analysed, making it more actionable and dynamic. They provide:

- **Data visualisation and exploration**

  Use maps, charts and graphs to present complex data in an interactive and intuitive format. Users can filter, drill down and explore different aspects of the data.

- **Real-time data integration**

  Display live or frequently updated data, allowing for ongoing monitoring and analysis.

- **Interactivity and customisation**

  Enable users to customise views, apply filters and tailor dashboards to specific needs.

- **Centralised data access**

  Provide a single platform for viewing, tracking and analysing key metrics across various datasets.

- **Collaboration and sharing**

  Allow multiple users to access and interact with shared data, improving coordination and communication.

- **Seamless data interoperability**

  Connect with different data sources and applications for a more integrated workflow.

Custom Web Maps, Web Apps and Dashboards

We help NSW government agencies and councils **transform spatial data into interactive web experiences that drive better decision-making, transparency and engagement.**

Whether you need an interactive web map to explore spatial data or a real-time dashboard to track key metrics, we design tailored solutions that bring insights to life.

Web Maps

Amplify your data with integrated maps, analytics and multimedia.

Web Apps

Utilise your webmaps with custom widgets and tools.

Dashboards

Track live data, monitor trends and visualise key metrics.

How can web map and dashboards be used?

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Emergency incident management
Create real-time dashboards for tracking disasters, resource allocation and response coordination.

Fully customised solution

Optimised for mobile and desktop

Ensure a seamless experience on any screen.

Embedded maps and apps

Integrate with other platforms or websites.

Custom branding and theming

Match the design to your organisations branding.

Connect

Tell us about your project needs

Want to create a powerful web map, app or dashboard?

Use the QR Code to contact us for a consultation:

What are SDT Stories?

Not all stories are the same- neither are SDT Stories. Whether you need a single interactive narrative, a dynamic presentation, or a collection of resources, we offer flexible formats to help you communicate your message effectively.

SDT Stories combines maps, multimedia and narratives into an interactive digital experience, helping government agencies and councils inform, engage and inspire action. Whether you're communicating a policy, providing a briefing, sharing project insights, or gathering public feedback, SDT Stories provide a visually compelling and accessible way to present spatial data.

SDT stories allow you to:

- **Combine maps, images, video and text** into an interactive story.

- **Make complex information digestible** for stakeholders and the public.

- **Encourage engagement and feedback** through interactive elements.

City of Sydney
Greening Sydney Strategy

Learn about their Greening Sydney Strategy and the work underway to create a cool, calm and resilient city.

Environment   Flora and Fauna

Population and society   Urbanism

30 May, 2025   Read

Key benefits

Engaging   **Accessible**   **Interactive**   **Immersive**

Connect

Tell us about your project needs

Want to create a compelling SDT Story for your organisation? Let's discuss your vision and develop a tailored solution.

Use the QR Code to contact us for a consultation:

How can SDT Stories be used?

Urban planning and infrastructure
Showcase development plans, zoning changes and future transport projects.

Environmental monitoring and climate action
Communicate biodiversity, water management or bushfire risk assessments.

Community engagement and public awareness
Share historical or cultural stories, public policy updates and interactive reports.

Emergency management and preparedness
Inform residents about evacuation routes, risk zones and disaster recovery plans.

Tourism and heritage
Highlight key attractions, heritage sites and cultural initiatives through interactive storytelling.

Choose the right format for your story

SDT Stories

Combine video, photos, text, audio, maps, 3D scenes and more into a compelling and interactive story that s easy to publish and share.
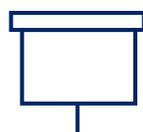
Briefings

Give your presentations meaningful context with interactive maps, 3D scenes, dynamic ArcGIS apps, multimedia and more.
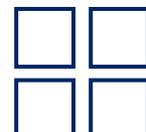
Collections

Large project? Group stories, briefings, multimedia and other ArcGIS items together to share as a cohesive, easily navigable set.

Stories (Beta v0.0.9)

Discover the projects and people shaping NSW

Browse stories by location, topic and government authority

Explore

Customised
Spatial digital twin

Gain a deeper understanding of your assets, infrastructure and environment with a fully customised Digital Twin.

By integrating real-time data, 3D modelling and advanced analytics, we help you create an interactive digital replica of the real world, empowering you to plan, manage and make data-driven decisions with confidence.

How we helped the
NSW Department of Education

The NSW Department of Education (DoE) partnered with us to develop a customised Spatial Digital Twin to manage their school assets across the state. We collaborated to deliver:

- custom asset management system

- Building Information Models

- 3D imagery

- deployment on DoE infrastructure

- deliver training and support material.

By connecting to the Foundation Spatial Data, the NSW Department of Education were able to complete a rapid desktop assessment of site suitability for development.

What our users say

"We see the NSW Spatial Digital Twin as a simple but powerful platform to distribute and visualise data. We used to download the data from the cloud, put it somewhere, then upload to our cloud. Now it's just one step."

Wollongong City Council

From idea to delivery, we work with you every step of the way.

1 **Get in touch**
Tell us about your project needs, goals and vision.

2 **Scoping and discovery**
We'll help define your requirements, audience and desired outcomes.

3 **Gather and prepare content**
We assist in sourcing data, images, media and other materials.

4 **Design and build**
Our team creates your solution, whether it's setting up your account, building a map, dashboard, Story Map, or Digital Twin.

5 **Review and refine**
You provide feedback, we polish the final product.

6 **Launch and support**
We help deploy your solution and offer training and ongoing support.

Connect

Tell us about your project needs

Let's discuss your vision and develop a tailored solution.

Contact us via the Customer Hub.

Learn more about our products and services.

Supporting all government sectors

Infrastructure	Transport	Urban planning	Education	Governance	Water	Energy
Telecommunications	Environment	Emergency	Land and property	Tourism	**Heritage**	Security