

Partnering to manage spatial information

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Managing spatial information in a collaborative partnership of Government, private sector and academia

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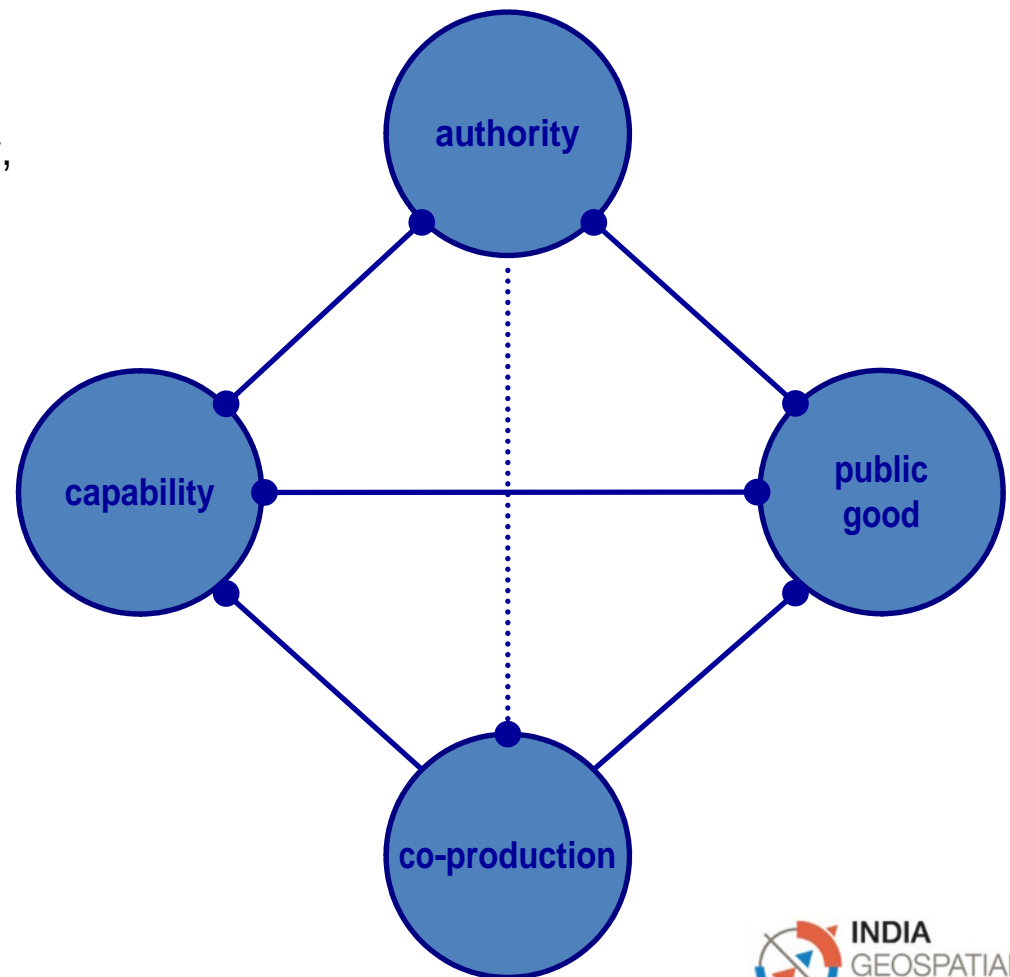


outline

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- ▶ examples
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 - ▼ [Spatial Vision Vicmap books](#)
 - ▼ [Victorian Mapping and Address Service](#)
 - ▼ [Coordinated Imagery Program](#)
 - ▼ [Notification and Edit Service](#)
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- ▶ [research and innovation](#)
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working with industry: the partnering model

- ▶ the strategic triangle
 - ▼ public good driven by capability, and appropriately authorised
- ▶ co-production builds the strategic diamond
 - ▼ strengthens capability, improves public good, but,
 - ▼ authorising environment essential



working with industry: the partnering model

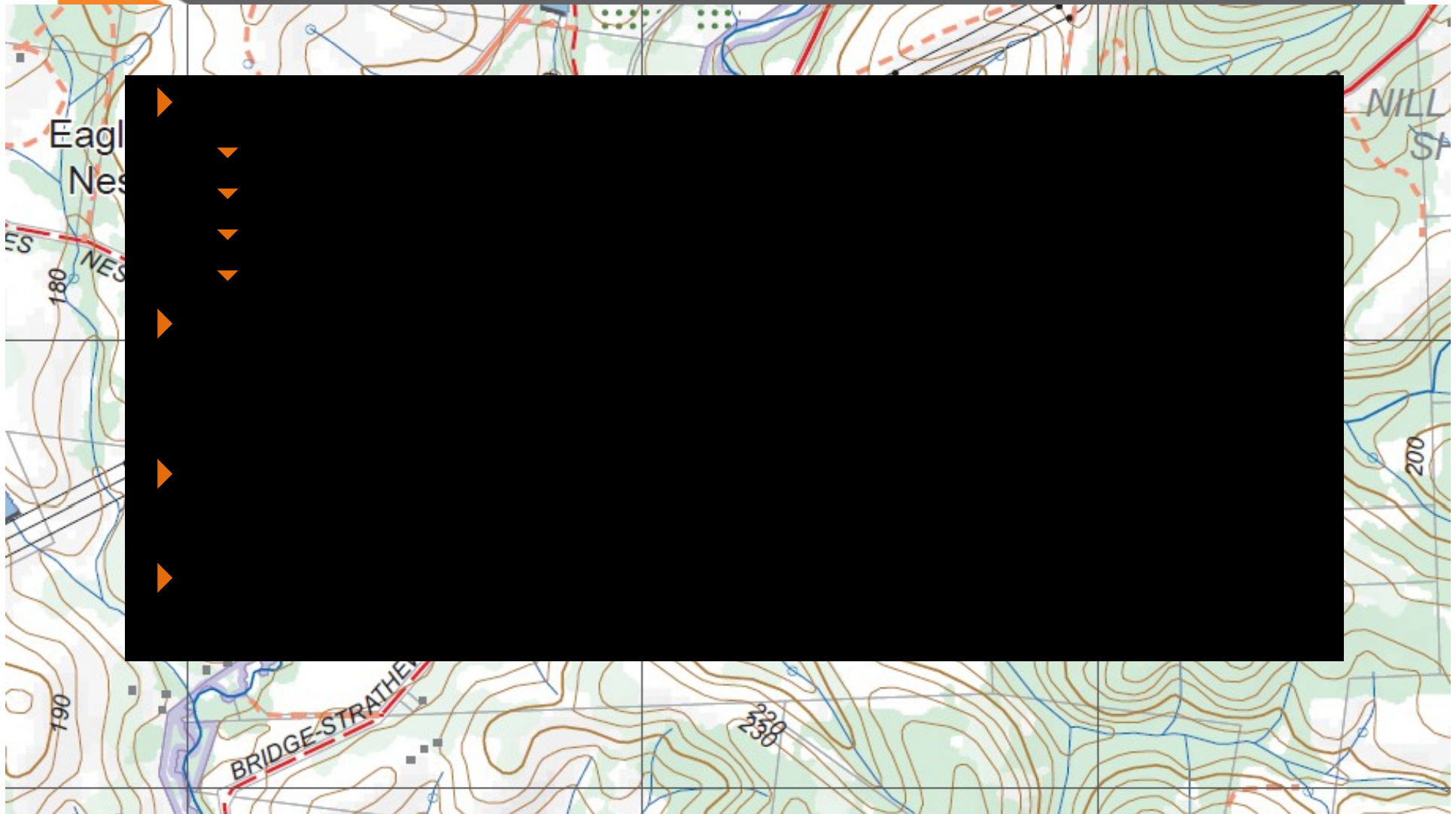
▶ Victoria's experience – partnering:

- ▶ drives progress (get more done with less)
- ▶ reduces tunnel vision, broadens perspective
- ▶ encourages innovation, efficiencies
- ▶ strengthened through the involvement of academia (not appropriate for either a public sector or private sector player)
- ▶ doesn't always come off, acceptance of risk, and a risk management approach

Vicmap maintenance

- ▶ core maintenance and development functions for Vicmap outsourced:
- ▶ contracted roles now in place for over a decade
 - ▼ SKM (Jacobs Engineering Group) the current provider

example: topographic mapping



example: topographic mapping

▶ the core of partnering response:

- ▶ the Spatial Vision Vicmap book series

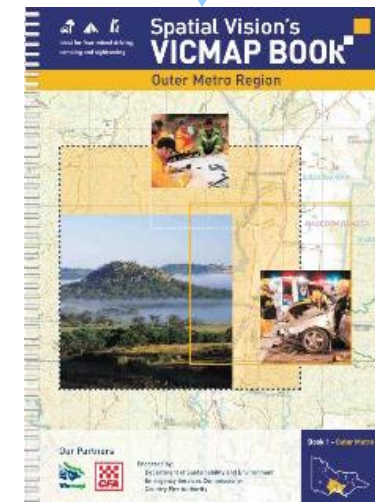
▶ get people and organisations doing what they do best

- ▶ ESOs fight fires, set requirements (customer)
- ▶ DSE maintains, improves data quality (data provider)
- ▶ Spatial Vision produces the mapbooks (operator)

DEPI
manages data custodians, maintains the data, drives quality improvements

ESOs
sets business requirements, defines mapping products to meet those requirements

Spatial Vision
map book production, operational control



example: topographic mapping



example: VMAS

- ▶ by 2005 address management a critical issue
 - ▼ how to get all agencies to a common understanding and use of a single authoritative source of address?
 - ▼ how to get agencies to validate address to prevent incorrect addresses proliferating?
 - ▼ how to tap the high volume address validation activities in key agencies to better inform address maintenance?
- ▶ web services seen as a key enabler
- ▶ significant perceived risk in creating new address management functions and services, especially based on new technologies

example: VMAS

- ▶ the partnering response
- ▶ build and operate tender for Victorian Mapping and Address Service (VMAS) foreshadowed partnering, required tenderers to respond by:
 - ▼ reducing capital and operational costs to the government
 - ▼ improving the address management performance by mining the address validation transactions
- ▶ successful tenderer response included:
 - ▼ marketing the VMAS service to the private sector (under a different brand) now returning 45% of operating costs
 - ▼ closed the loop on address maintenance through notification of address validation failures

example: Coordinated Imagery Program

- ▶ coordinated imagery acquisition for State and local government
- ▶ single set of technical specifications, single set of contract documentation, consolidated procurement process
- ▶ supported by industry and purchase partners
- ▶ has increased the amount of imagery being procured, while reducing costs to industry
- ▶ includes mechanisms to address industry and purchase partner concerns

example: NES

- ▶ need to fundamentally overhaul data maintenance process – too slow, too expensive
 - ▼ paper-based process
 - ▼ multiple participants
 - ▼ long delays
 - ▼ frustration for notifiers
- ▶ Online Notification and Edit (pilot) in 2007-08
- ▶ Notification and Edit Service (NES, full operational system) in 2008-09

example: NES

- ▶ the key requirement: stop making edit/ change decisions (on behalf of others)
 - ▼ decision must be made by custodian
- ▶ the key issue: the need to enrol custodians as the formal point of truth for edit decisions
- ▶ a custodian required for every data type
 - ▼ roads? local government
 - ▼ schools? Department of Education and Early Childhood Development
 - ▼ and so on ...
 - ▼ what to do with potholes?

example: NES

Online Notification & Editing - Microsoft Internet Explorer

DEPARTMENT OF SUSTAINABILITY AND ENVIRONMENT

Online Notification & Editing Demonstration Site

Welcome Demo Demo [Logout](#)

change requester

Map Layers Coordinate Search ViaMap Book Search Address Search Map Toolbox Help

"Click and drag or use arrow keys to pan on the map. Double click will re-centre the map to that point."

Observations [View All](#)

ID	Status	Category	Description	Creation Date	Creator	Status	View
725	Approved	---	Doleman Road ...	01-MAY-2007	oogo_waga	Status	View
724	Approved	---	Kirby Lane Woodvale	01-MAY-2007	oogo_waga	Status	View
722	Approved	---	Camp Road Wo...	01-MAY-2007	oogo_waga	Status	View
721	Under Review	ViaMap Data	DONALD STREE ...	23-APR-2007	DEMOCFA	Status	View
720	New	ViaMap Book	1st foy - 1 ...	05-APR-2007	efa	Status	View
719	Declined	ViaMap Data	The road an ...	00-APR-2007	moarmon	Status	View

Kirby Lane Woodvale the section highlighted in red needs to be removed

Map

Done Trusted sites

example: NES

change requester

The screenshot shows the 'Online Notification & Editing' web application. The header includes the Department of Sustainability and Environment logo and the title 'Online Notification & Editing Demonstration Site'. A 'Map Layers' dialog box is open, showing options to show or hide various map data layers. The main content area features a table of observations and a map of the area. A red highlight is placed on the row for Kirby Lane Woodvale, which is noted as needing to be removed.

ID	Status	Category	Description	Creation Date	Created By	Status	View
725	Approved	---	Doleman Road ...	01-MAY-2007	cagb_wagat	Status	View
724	Approved	---	Kirby Lane Woodvale	01-MAY-2007	cagb_wagat	Status	View
722	Approved	---	Camp Road Woodvale	01-MAY-2007	cagb_wagat	Status	View
721	Under Review	Vicmap Data	DONALD STEE ...	25-APR-2007	DEMOCFA	Status	View
720	New	Vicmap Book	test lay - 1 ...	08-APR-2007	efa	Status	View
719	Declined	Vicmap Data	The road on ...	03-APR-2007	meadman	Status	View

Kirby Lane Woodvale the section highlighted in red needs to be removed

MGA_ZONE55: 252684,5941601 VICMAP_BOOK/S: 50K,5852 C,14, 100K,287 B,15

example: NES

change requester

Status Report

Observation id: 724

Modified Date	Status Description	Review Notes
1/05/2007 3:34:54 PM	Approved	
1/05/2007 3:06:38 PM	Under Review	
1/05/2007 2:45:24 PM	New	

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ID	Status	Category	Description	Creation Date
723	Approved	---	Dokman Road ...	01-MAY-2007
724	Approved	---	Kiby Lane W ...	01-MAY-2007
723	Approved	---	Peelers Lane ...	01-MAY-2007
722	Approved	---	Camp Road Wa ...	01-MAY-2007
721	Under Review	Viamap Data	DONALD STREET ...	23-APR-2007
720	New	Viamap Book	text lay - i ...	05-APR-2007
719	Declined	Viamap Data	The road on ...	03-APR-2007

MGA_ZONE55: 252684,594160 | VICMAP_BOOK(S): 50K 5852 C14, 100K 287 B15

Trusted sites

example: NES

The image displays two overlapping web browser windows. The background window is titled "Road Maintenance Form - Microsoft Internet Explorer" and is from the "DEPARTMENT OF SUSTAINABILITY AND ENVIRONMENT". It shows a "Maintenance Source" form for "Vicmap Road Name Maintenance Form" with fields for Organization (GREATER BENDIGO CITY), Reporting Officer (Graham Gregson), Date (1/16/2007), and Telephone (03 5434 6369). The "Description of Road Name Change" field contains the text: "Kirby Lane Woodvale the section highlighted in red needs to be removed". Below this is a "Localities" dropdown set to "WOODVALE" and a "Detailed Diagram" map showing a road network with a red line segment labeled "WOODVALE". A "Location" table provides coordinates (144.2312, -36.6394), MGA Zone (55), and Baiting (252456, 5941553). The foreground window is titled "Online Notification & Editing - Microsoft Internet Explorer" and shows an "Observation Information" dialog box. The dialog has fields for Observation ID (724), Status (Approved), Priority (High), and Notes. It also includes fields for Category, Object, Status, and Task, each with a dropdown menu. A "Road Maintenance Form" link and an "Update" button are at the bottom of the dialog. In the background, a table lists observation records with columns for ID, Review, Data, STREE..., 2007, DEMO/CFA, Status, View, and Update.

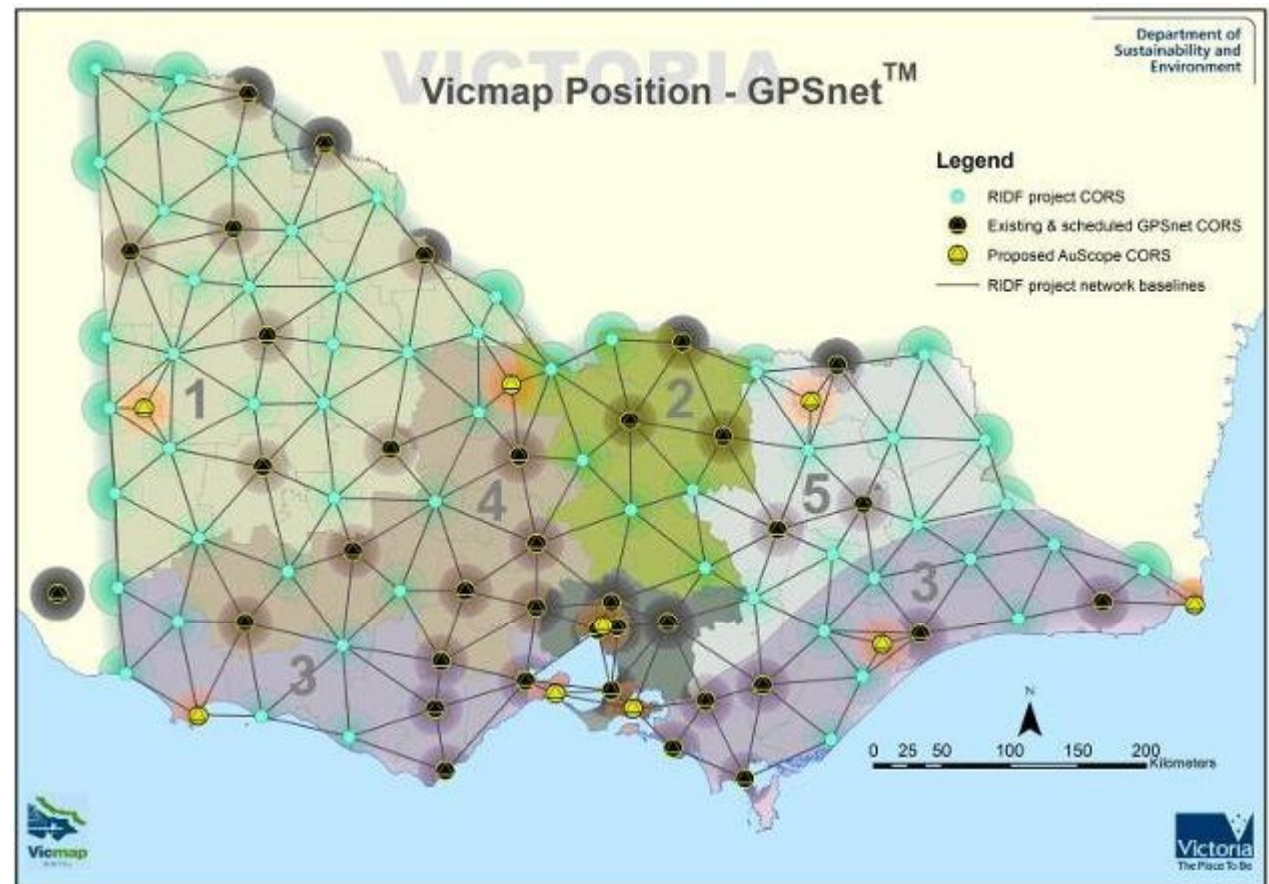
ID	Review	Data	STREE...	2007	DEMO/CFA	Status	View	Update
723								
724								
723								
722								
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720	New	Vicmap Book	test foly - t ...	05-APR-2007	etc	Status	View	Update
719	Declined	Vicmap	The road	03-APR-	...	Status	View	Update

example: NES

- ▶ NESour largest, broadest and most successful partnership
- ▶ 450+ individuals, in 150 organisations, registered NES participants
 - ▼ 79 local governments as notifiers and custodians
 - ▼ Logica and SKM as maintainers and notifiers
 - ▼ ESOs as notifiers and custodians: Country Fire Authority, Emergency Services Telecommunications Authority, Ambulance Victoria, Metropolitan Fire and Emergency Services Brigade, Victoria Police
 - ▼ utilities as notifiers: Barwon Water, Melbourne Water, Yarra Valley Water, Telstra, North East Water, Goulburn Valley Region Water Corporation
 - ▼ state government as notifiers, custodians and maintainers: Park: Victoria, DEECD, DoJ, DHS, DoT, DPCD, DSE, VEC

example: GPSnet

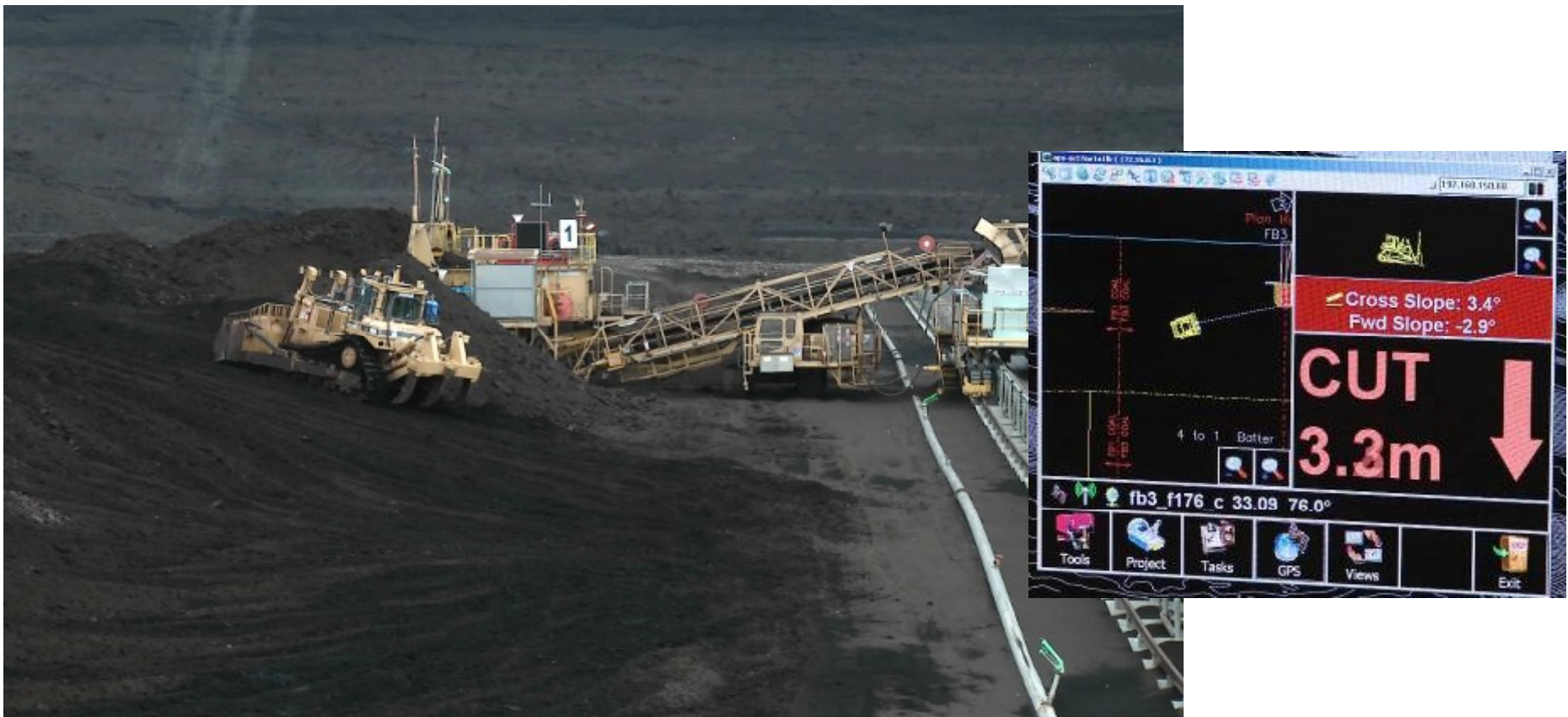
- ▶ **GPSnet:**
 - ▼ statewide
 - ▼ real-time
 - ▼ high reliability
 - ▼ 2cm accurate
 - ▼ audited and recorded
- ▶ network of 107 Continuously Operating Reference Stations (CORS)



example: GPSnet



example: GPSnet



example: GPSnet

- ▶ Lake Bolac CORS positioning and monitoring two agricultural machines
- ▶ >600 licensed users, mostly agriculture, mining, construction, and R&D

The screenshot displays the Trimble VRSNet software interface. The main window shows a network map of GPS stations. A red box highlights a station at Lake Bolac, with a callout box providing details: Station: Lake Bolac, Manufacturer: LEICA, Receiver name: LEICA GRX1200GSPRO, Antenna: LEIAX1202GC-NONE. A blue box labeled "operating machinery" points to two stations on the map. The interface includes a tree view of stations, a map, and a console window at the bottom.

example: GPSnet

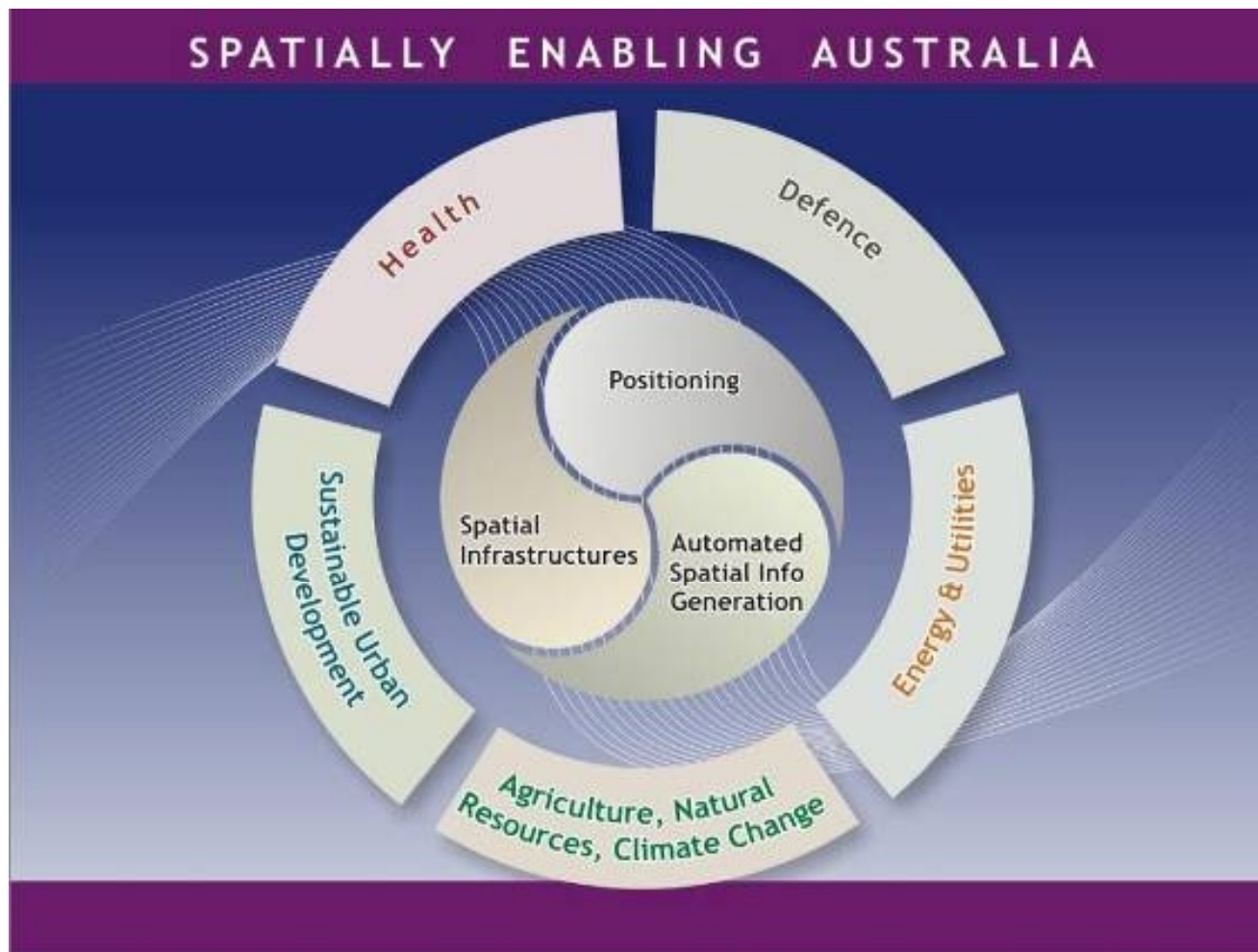
- ▶ Most of the first 30-40 base stations established by industry and ‘volunteered’ into GPSnet
 - ▼ Reduced operating costs, improved reliability, performance
- ▶ leading edge implementation, world class
 - ▼ provides an R&D test bed for Victorian spatial industry
- ▶ key input to CRCSI-2 position program
- ▶ founded on partnerships

research and innovation

▶ Cooperative Research Centre for Spatial Information

INDUSTRY	43PL SME consortium of 75 companies Large Energy utilities & Agriculture
GOVERNMENT (all levels)	ANZLIC - Lands Departments including New Zealand Diverse agencies e.g. Health; Planning and Infrastructure; Environment; Defence; Agriculture
RESEARCH	Universities - 4 Essential and 6 Other Participants including Internationals; and Telethon Institute for Child Health Research

research and innovation



research and innovation



Landgate



Department of Lands

Reliable from the ground up



Australian Government

Geoscience Australia



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43opl

Governance and institutional arrangements

- ▶ Victorian spatial governance and strategy is *whole-of-Victoria*, not just Victorian Government
- ▶ Overall governance by Victorian Spatial Council, multi-sectoral body
 - ▼ Representation from local, state and federal government, private sector, utilities, professions and academia
 - ▼ Independent Chair
 - ▼ Secretariat and policy resourcing from Victorian State Government
 - ▼ <http://www.victorianspatialcouncil.org/>
- ▶ Responsible for setting the Victorian Spatial Information Strategy, encompassing all sectors interests and concerns
- ▶ Institutionalises the partnering model across government, private sector, academia

summary

- ▶ **partnering ‘business as usual’ for Victorian spatial industry**
 - ▼ provides real benefits, achieves more with less
 - ▼ grows an effective and versatile resource base beyond public sector
- ▶ **high level of trust, communication between sectors**
 - ▼ long lead time – began a decade ago
 - ▼ formal governance and institutional arrangements after about five years
- ▶ **in combination, a concerted capability**
 - ▼ healthy industry ‘co-opetition’
 - ▼ able to achieve more collectively than in isolation
- ▶ **government objectives**
 - ▼ do more with less
 - ▼ industry development
- ▶ **infrastructure to support strong R&D and innovation capability**

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Thank you

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