

The Changing Face of Surveying

8 September 20



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Environment
Land, Water
and Planning

Land Use Victoria:

- Structure
- Purpose
- Government Land Information Service

Current Environment – the changing of an age:

- Government
- Technology
- Users

Impact on Surveyors and Spatial Professionals

The changing role of Surveyors and Spatial Professionals

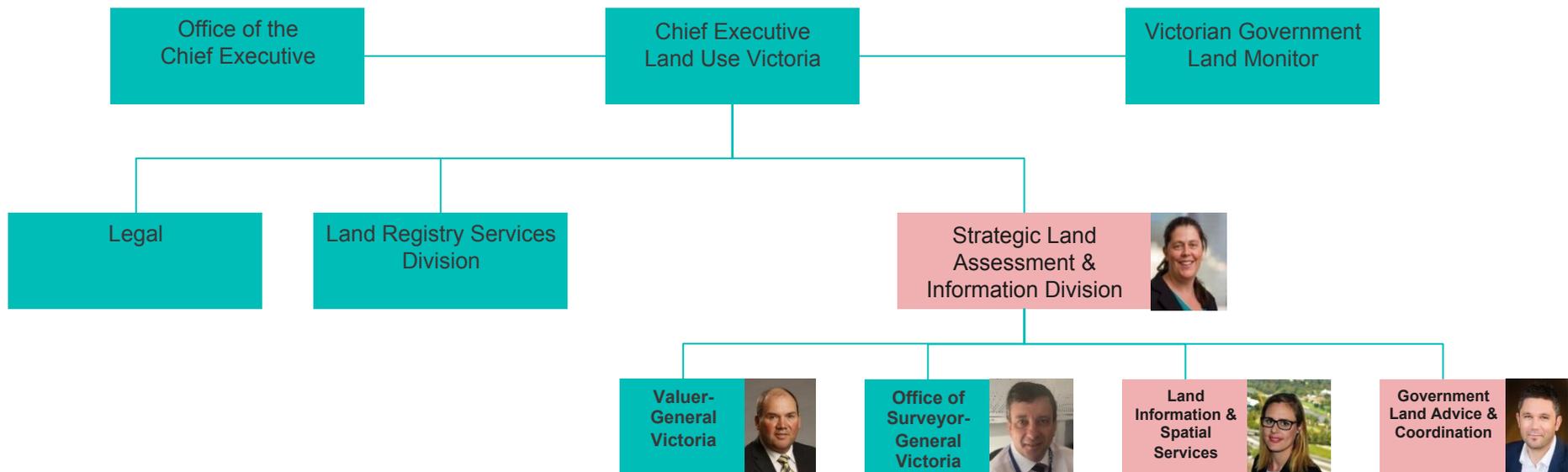
The Big Questions

Question and Answer

Land Use Victoria (LUV) was formed in late 2016.

Provide strategic advice on state government's land holdings.

Consolidated Land Victoria, Vicmap and Victorian Government Land Monitor (VGLM) functions.



Existing functions

New functions

Government land: some desired outcomes

Better decisions are made to deliver public value from government's \$114 billion land portfolio.

A **single Victorian framework** is developed to guide decision making about government land.

A **comprehensive understanding of the Victorian Government's land asset** to inform a holistic view across departments of the best future use of government land.

Information about government land is made **readily accessible** to government and the public.

Greater public and economic value is delivered from DELWP's foundational spatial services offerings, through stronger connections with industry and users spatial products.

LUV's rich history in land administration is complemented by a strong spatial capability

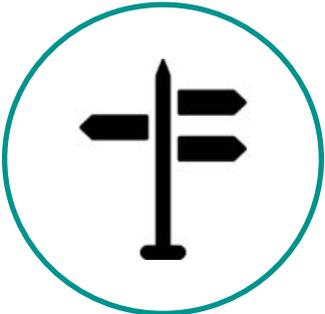
Spatial and survey functions within LUV



Map Data Services



Coordinated Imagery Program



Office of Geographic Names



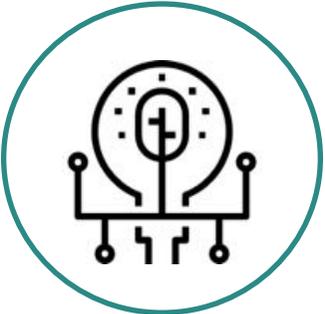
Surveyors Registration Board of Victoria



Satellite Survey (GPSNet)



Industry engagement



Digital Innovation



Surveying Services



Victoria's home for spatial data and surveying services

Government Land Information Service (GLIS)



Department
Land, Urban
and Planning

Government Land Information Service

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Government Land Information Service

A single point of information for all government
land in Victoria

 Melbourne, Victoria

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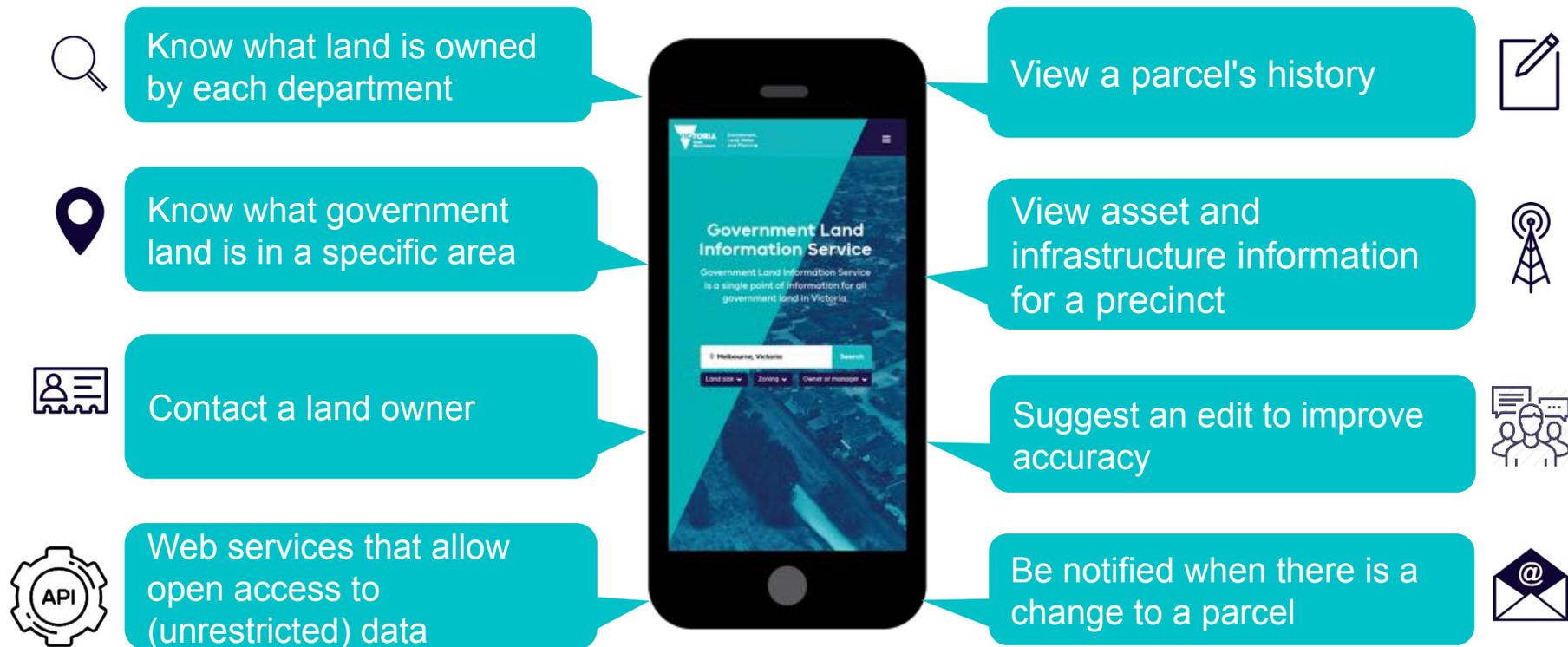
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GLIS will iteratively incorporate new datasets and features to enhance its usability



Over the last 70 years we have experienced:

- The Atomic Age
- The Jet Age
- The Space Age
- The Information Age, Computer Age

Since the 1990s the internet has assisted in the explosion of the information age

Some suggest the combination of the Internet of Things, GNSS and Mobile Communications has created a Digital Disruption

Others suggest this is the new Digital Age:

- Everything is connected
- Social interaction is based around connected devices
- Everything is monitored, tracked or streamed
- Positioning is at the heart of this interconnectivity

Opinions do not alter the fact, our environment has changed

Focus on digital transactions

Commercialising government services

PEXA – electronic title transactions



SAW land titles registry leased for \$2.6 billion to Hastings Funds Management, First State Super

Dismay at privatisation of SA's land titles office

Banks eye Vic land titles sale

Laser scanning and lidar

Robotic surveying

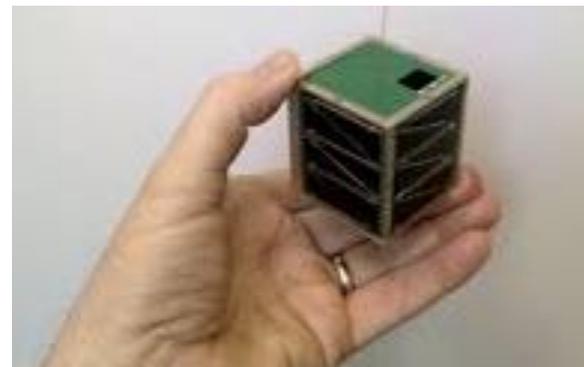
UAVs and drones

Nano and micro satellites

Geoscience Australia Data Cube

Satellite Based Augmentations Systems (SBAS)

And these are just in the surveying and spatial domains



Information available at the click of a button

Anytime, anywhere

Age is no barrier

The number of platforms is growing exponentially

Users want to give real time feedback – through their preferred social media

Expect immediate responses from all service providers including government





WIFI IS THE NEW AIR

Data Capture - Measurement will be come the realm of machines:

- Safer
- Quicker
- More accurate

Data Management - Our processes will be automated and driven by machine learning:

- Repeatable
- Limited human involvement
- Faster delivery, better customer satisfaction

Data visualisation – Data will be delivered digitally and used for integrating with other data and information, including virtual or augmented reality applications:

- The presentation of the data will be driven by the user not the creator

Management of the Foundation Spatial Data themes:

- Geodesy and Positioning underpins all foundation layers
- Land Parcel and Property (Cadaastre) is at the heart of all land information systems
- Administrative Boundaries, Geocoded Addressing, Elevation and Depth, Imagery, Land Use and Land Cover, Place Naming, Topography, Transport, Water

Understands the theory and practical application of error analysis

Ability to certify or give assurance on the data is still required

The surveyor or spatial professional is the best person and most qualified to make these decisions and provide advice

What about BIG DATA?

Have we considered machine learning or artificial intelligence?

What if we choose not to embrace these new capabilities?

For our profession to have the ability to adapt, we must work together

The collective creativity, intelligence and diversity of our profession is key to resolving the challenges before us

We have a vision Cadastre 2034 – it is up to us to adapt to our environment and make it a reality

“The only thing that is constant is change”

Heraclitus



Thanks