

**IPWEA Conference, Hobart**  
**27 August, 2019**

# State Roads Asset Valuation



**Breaking Barriers:**  
**Connecting Engineering and Finance**  
**in Tasmanian State Roads Asset Valuation**  
*Presented by Nataliya Katsman*



## Why change?

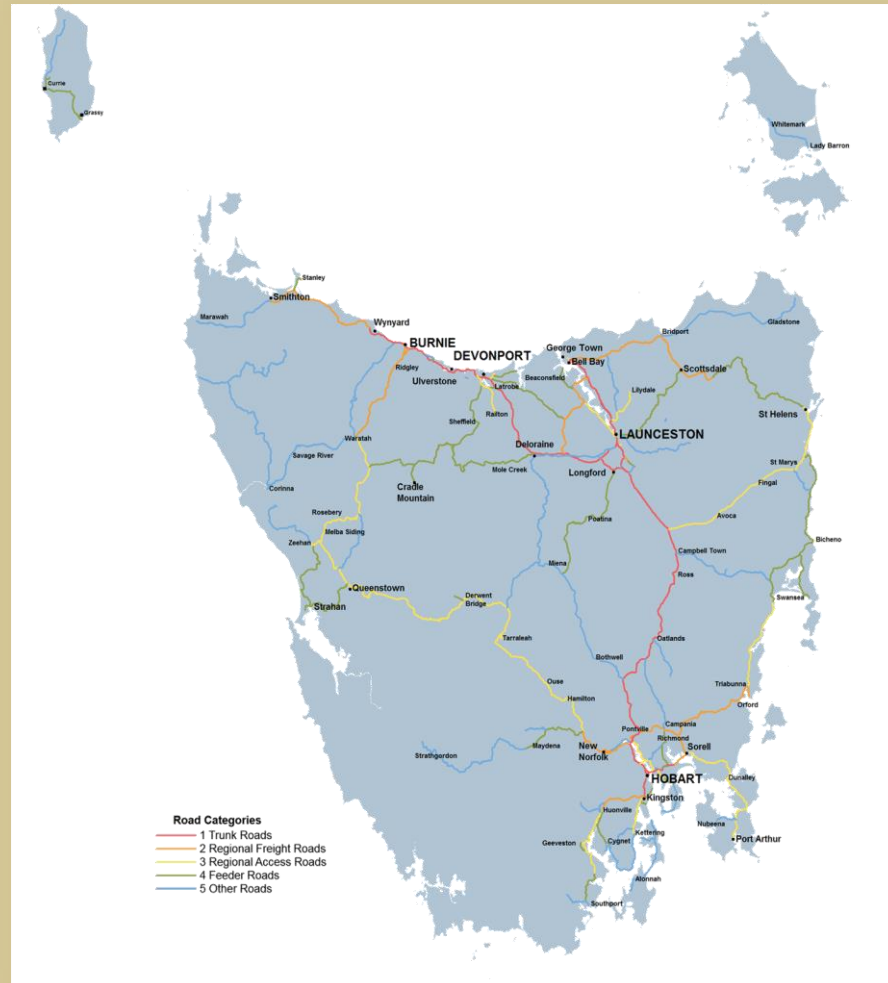
- Report of **Auditor General** 2013-14 – Better understanding of road components and their useful lives
- **Forward Looking Cost Base (FLCB)** modelling data requests, 2017-2018
- **Austroads** Minimum Levels of **Componentisation** for Road Infrastructure Assets: Guideline, 2018
- **Austroads Data Standard** for Road Management and Investment, 2018
- Draft of **ISO 55010** “Asset management — Guidance on the alignment of financial and non-financial functions in asset management”, 2018



# Tasmanian State Roads Asset Valuation

## State Road Network

- 3,775 km of road (of a total 24,000 km road network in Tasmania), over 1300 major structures and various other supporting infrastructure
- \$5.4 billion - more than a quarter of \$19.8 billion total TAS government assets reported in 2019



# Tasmanian State Roads Asset Valuation



## Valuation Scope

### Roads:

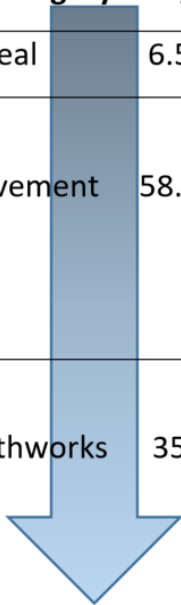
- Seal
- Pavement base
- Pavement sub-base
- Earthworks



## Valuation Method

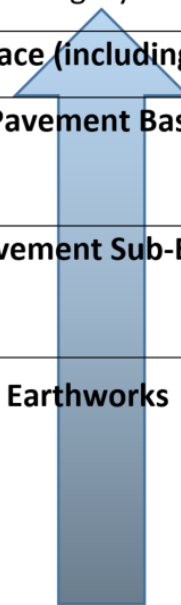
The 2016-17 valuation method

Road category rate, \$/m <sup>2</sup>		
65%	Seal	6.5%
	Pavement	58.5%
Earthworks		35%



New valuation method

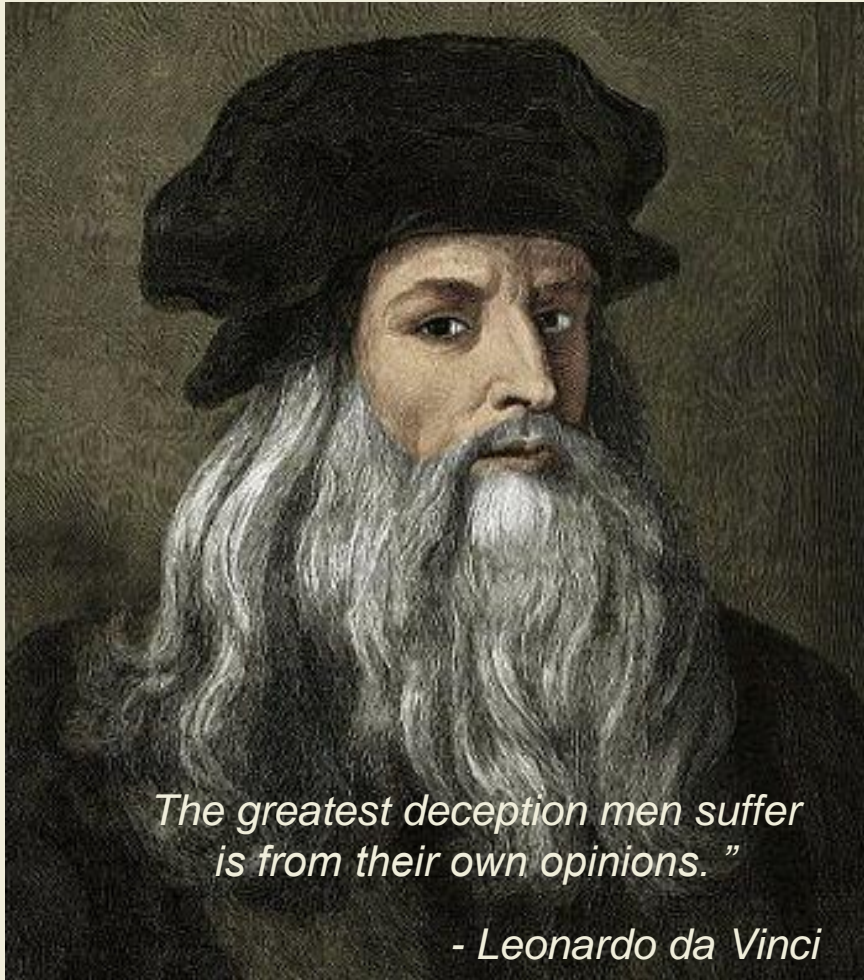
Road category rate, \$/m <sup>2</sup>
Surface (including seal)
Pavement Base
Pavement Sub-Base
Earthworks



## **Stages of asset valuation:**

- Understanding our data inventory and managing metadata;
- Improving accuracy and reliability of road asset components data sets;
- Integrating data sets into a system that facilitates insights to improve asset management and policy making outcomes;
- Adding perspective through sharing data and communicating insights to the public and a broad range of stakeholders.

# Tasmanian State Roads Asset Valuation

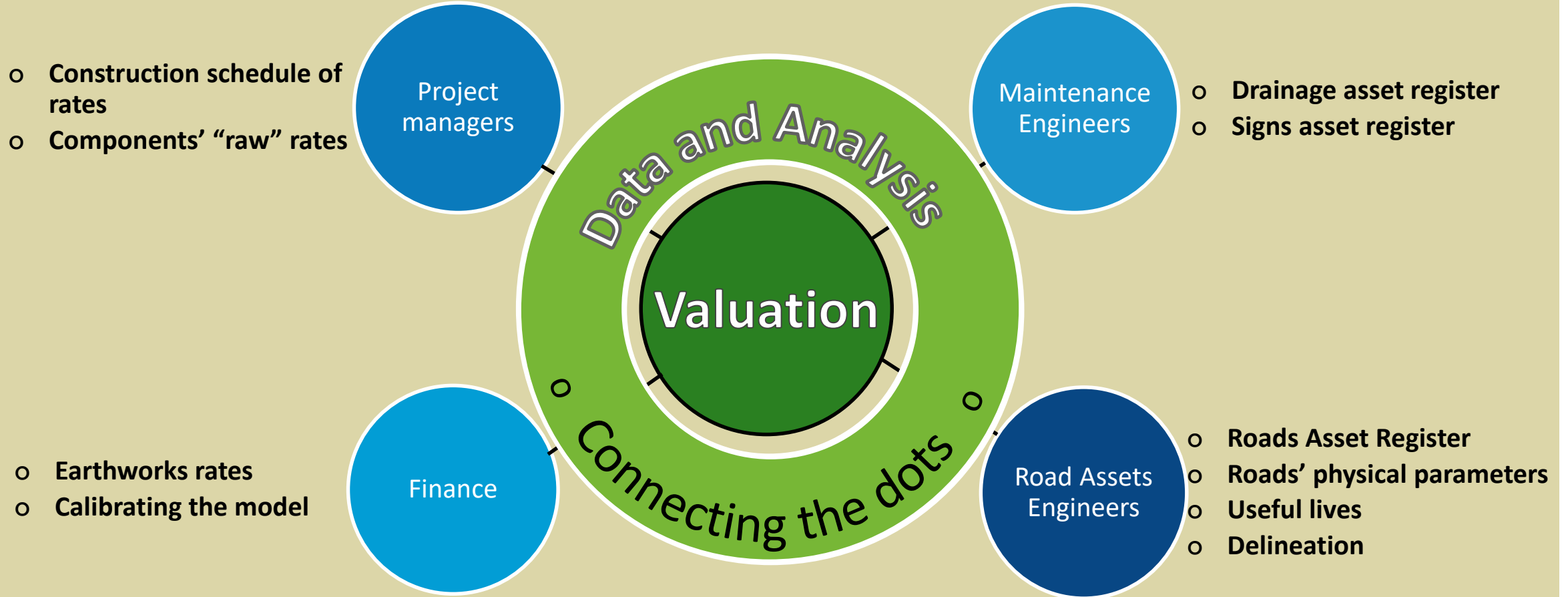


## Our challenges:

- Authoritative source of truth for valuation;
- Awareness and disclosure of what we don't have or know;
- Diversity of asset management challenges should be represented in our data;
- Gap between finance and engineering viewpoints.

# Tasmanian State Roads Asset Valuation

## What went in?





# Tasmanian State Roads Asset Valuation

## SO WHAT'S IN THE RATE?

		Class					
Components		1	2	3	4	5	5us
<b>Seal</b>		<b>17.57</b>	<b>14.09</b>	<b>14.51</b>	<b>12.89</b>	<b>11.65</b>	<b>5.9</b>
	Seal	10	10	10	10	10	5
	Contingency +Traffic management	2	1.5	1.5	1	0.8	0.8
	Asphalt	2.37	0.59	1.51	0.89	0.55	
	Signs	1.2	0.8	0.6	0.5	0.2	0.1
	Delineation	2	1.2	0.9	0.5	0.1	
<b>Base</b>		<b>26.5</b>	<b>23</b>	<b>17.85</b>	<b>15.45</b>	<b>12.175</b>	<b>12.175</b>
	Pavement base	15	15	11.25	11.25	9.375	9.375
	Contingency +Traffic management	4	2.5	1.8	1.5	0.8	0.8
	Safety Barriers	2.5	1.5	0.8	0.5		
	Lighting	2	1	1	0.2		
	Table Drains	3	3	3.00	2	2	2
<b>Sub-Base</b>		<b>70.8</b>	<b>52.45</b>	<b>51.3</b>	<b>38.1</b>	<b>30.6</b>	<b>25.8</b>
	Pavement Sub-base	21	15	15	12	12	12
	Contingency +Traffic management	2	1.5	1.5	1	0.8	0.8
	Kerb and Gutter	7.5	1.5	4	2.1	0.8	
	Pits	12	10	10	5	3	2
	Minor Culverts	28.3	24.45	20.8	18	14	11
<b>Earthworks</b>		<b>60.16</b>	<b>51.01</b>	<b>47.44</b>	<b>43.30</b>	<b>33.09</b>	<b>33.09</b>
	<b>Total Rate per sq.m</b>	<b>175.03</b>	<b>140.55</b>	<b>131.10</b>	<b>109.74</b>	<b>87.51</b>	<b>76.96</b>
	2016/17 rates	172	146	136	124	95	95

***Rates for components that are not reported individually were aggregated into the reported categories based on:***

1. Total value/quantity of a road asset component
2. Split of that asset component between different road categories
3. How does the rate affect total valuation

# Tasmanian State Roads Asset Valuation



## Want to get funding?

Get your data ready and help it to become part of the valuation. Put the price tag on your asset!

# Tasmanian State Roads Asset Valuation

## Is our road data an asset or a liability?

- An **asset** is an economic resource that can be owned or controlled, and that **holds or produces value**
- A **liability** is a legal financial **debt or obligation** that arise during the course of business operations.

## Treating data as an asset

- not only recognizes the costs of data management but acknowledges the value it creates;
- adds flexibility and adaptability in a fast changing infrastructure environment



Image source: <https://www.flickr.com/photos/imagenesalviento/20606503748>



## Stairway to digital



- Importance of culture where data is seen as an asset. Data (as any technology) for its own sake is a waste of time.
- Culture is strategic axis, skills – operational. Only a balanced progress in both areas leads to success.
- Data is an essential part of an organisation's people, systems and processes
- Benefits of fit for purpose data to better servicing our customers as well as for communications with broader stakeholders.
- Treating data as an asset requires leadership and commitment on every level of an organisation.

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