



# Location Powers; Our Urban Environment

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## Power from data; Innovative collection projects for smart city applications

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# Speaker and Company Background



## KINROSS, GHANA

Aerial survey of gold mine near Kumasi - for digital mapping data used for future planning of mine sites and volume calculations of stockpiles.



## LESOTHO, AFRICA

Topographical surveys and as-built drawings of school sites.



## ESKOM MAJUBA POWER STATION, SOUTH AFRICA

Measuring and checking alignment of newly built silo platforms; surveying at heights of 75 metres and over.



## DURBAN TO JOHANNESBURG, SOUTH AFRICA

New Multi-Purpose Pipeline, Topographical surveys and underground detection to assist construction.



## KUWAIT

Aerial capture of high resolution imagery of entire country, to assist with detailed planning of engineering functions.



## NEPAL

Aerial LiDAR Surveys for topographic mapping.



## INDIA

Mobile Laser Scanning survey of 2,500km of existing road corridors across 33 cities. Raw data was processed to produce a dense streetscape pointcloud to assist construction of proposed Optical Fibre Cable routes.



## KUALA LUMPUR, MALAYSIA

3D Mesh Model from Unmanned Aerial Vehicle (UAV) Survey for MRT train station upgrade designs.



## SINGAPORE

Mobile Laser Scanning Survey of entire 5,500km road network for Singapore Smart Nation Initiative.



## PAPUA NEW GUINEA

Using a combination of physical field surveys, Airborne LiDAR and high resolution satellite RaDAR data, AAM compiled a comprehensive database of aeronautical information for Papua New Guinea's 29 major airports.



## WELLINGTON AIRPORT, NEW ZEALAND

Developed a cloud-based, web mapping platform to enable maintenance work processes, improving safety and reducing operational risks.



## ULURU, AUSTRALIA

Survey of boundary definitions for Mutitjulu, Community traditional land owners.



## MELBOURNE, AUSTRALIA

Scanning and 3D Modelling of Flinders Street Station for rejuvenation project.





# Buzz words

Big Data

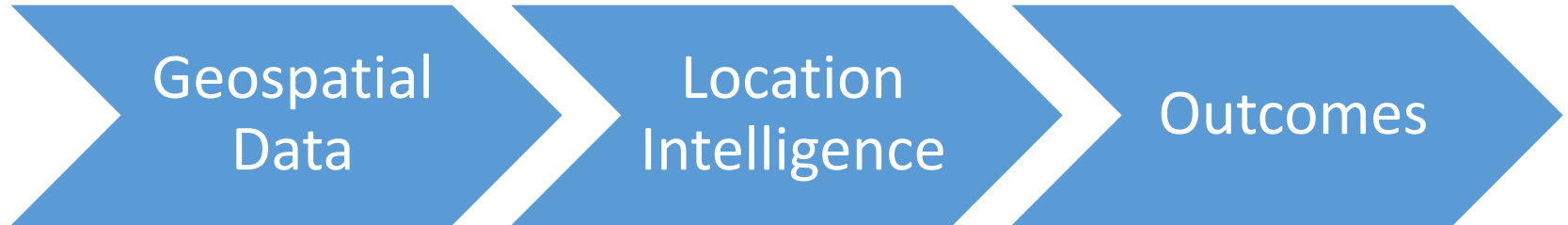
Smart Cities

IoT

Lunch



# Theme





# Example - Trees



Geospatial  
Data

Imagery



# Example - Trees



Location  
Intelligence

Tree count



# Example - Trees



Outcomes

Contractor Management



# Example - Rehabilitation



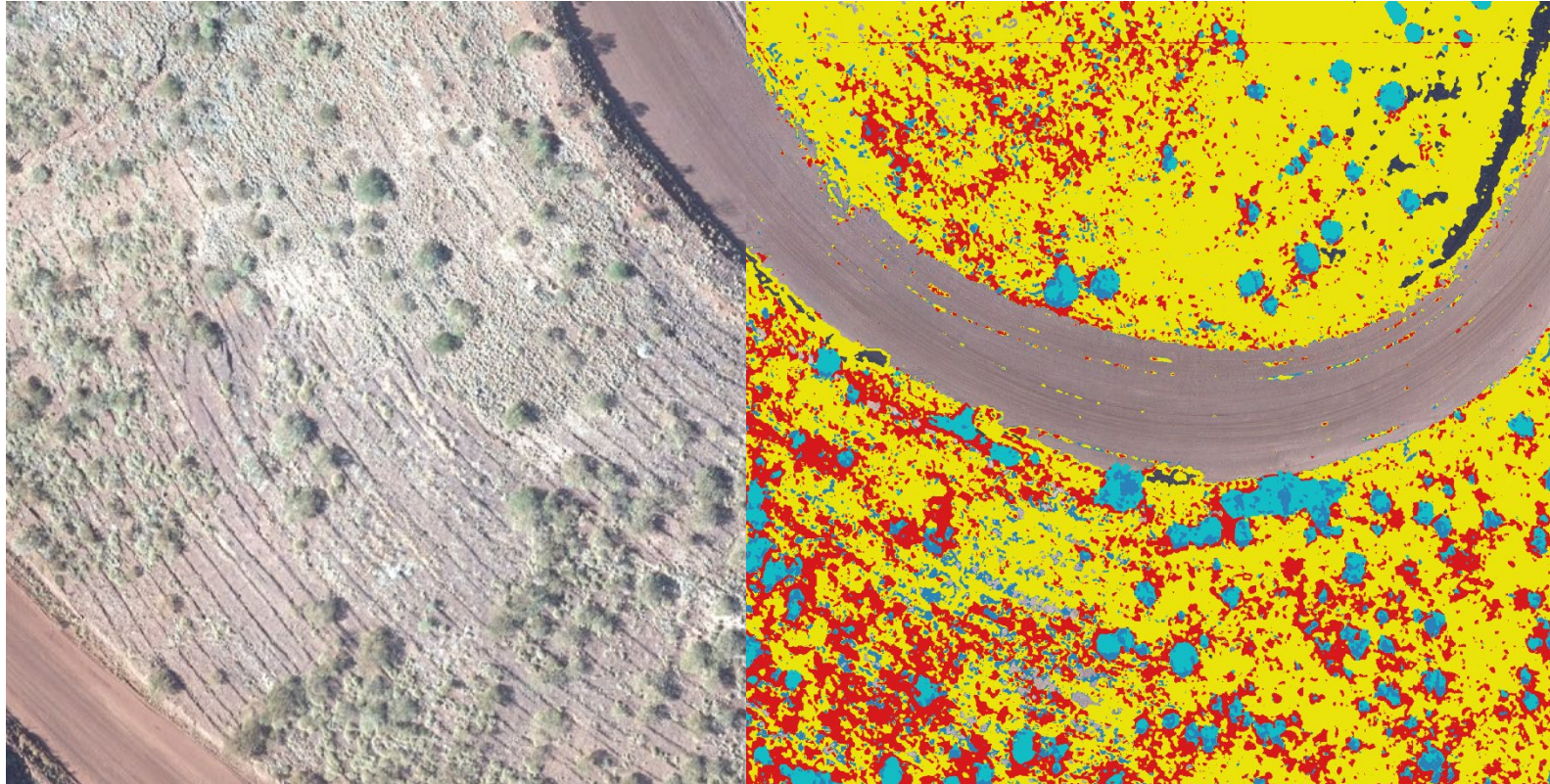
Geospatial  
Data

Imagery





# Example - Rehabilitation



## Legend

### Vegetation classes

- grass-hummock
- shrub-tall
- grass-tussock
- shrub-low
- tree

Location  
Intelligence

Vegetation classes



# Example - Rehabilitation

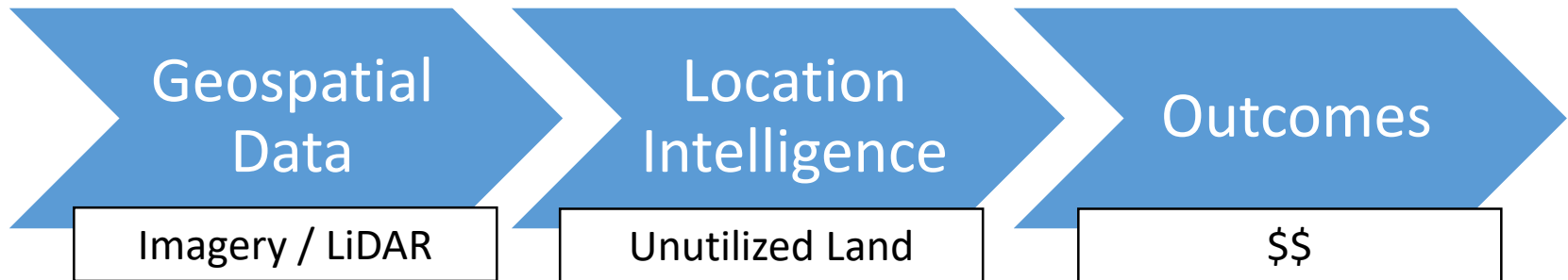


Outcomes

Environment restoration

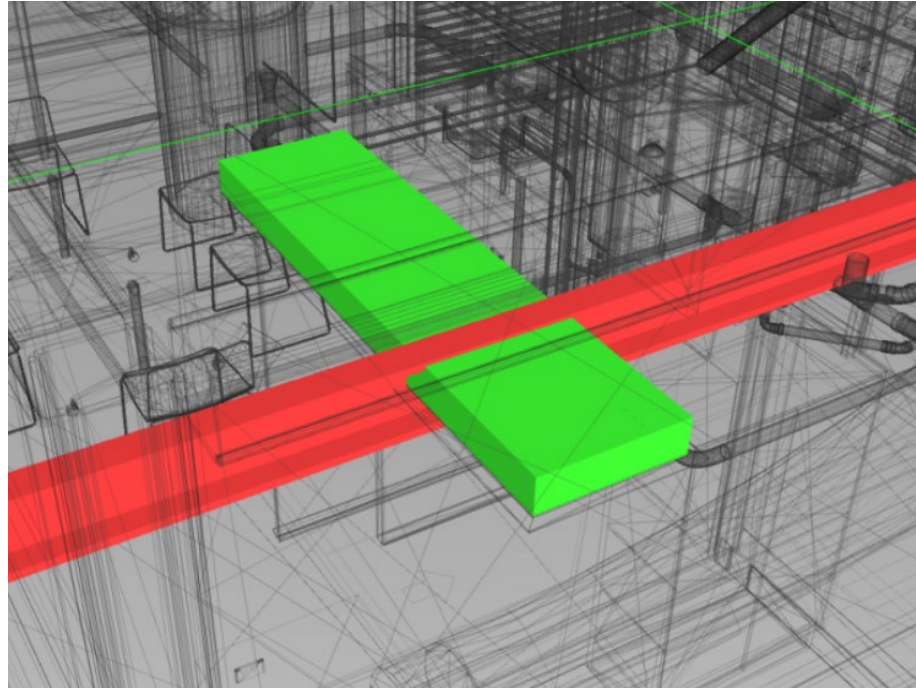


# Example - Forestry





# Example - Construction



Geospatial  
Data

LiDAR / 3D Model

Location  
Intelligence

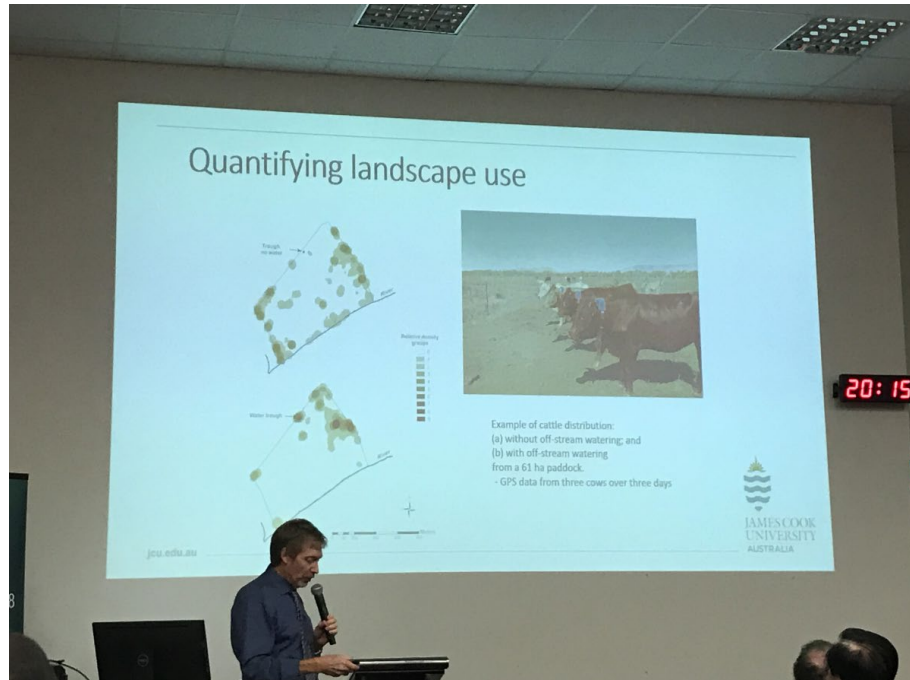
Clash Detection

Outcomes

Better Construction



# Example - Farming



Geospatial  
Data

Basemap / GPS

Location  
Intelligence

Paddock Usage

Outcomes

Healthier Livestock



# Questions for the Audience

- Focus on outcomes – what are the key challenges that businesses, governments and societies are facing / will face in the future?
- How can geospatial / location data be combined with emerging technologies (IoT, Blockchain etc) to address these challenges



# Questions for the Audience

