

Introduction

I was privileged to have been invited to speak at the Institute of Asset Management Conference in Liverpool in June 2019 with a paper titled “Asset Genetics and Digital Twins Industry Collaboration”. My attendance was supported by IPWEA SA through a grant from the Foundation for the Advancement of Municipal Engineering to help fund some of the costs.

The Conference

The conference was held in Liverpool, UK from the 24th to 26th June 2019, and had a conference focus of Digital Twins and Big Data and its applications in Asset Management.

The conference was attended by approximately 750 people from not only the UK but throughout Europe and from numerous sectors including Local Government, utilities companies, railway and transport network providers. It was a great opportunity to see how different sectors are tackling Asset Management.

Observations

It was very clear that in terms of Asset Management, Australia and in particular South Australia is well and truly a leader in this space. In the UK they are only just moving to having proper Asset Management Plans and taking a long term (10+ year) view of the funding requirements.

Infrastructure/Asset managers in the UK and greater Europe were extremely interested to hear about how we use predictive asset modelling using the digital twin’s model to identify where, when and what we should be doing to our infrastructure. It was very clear that NAMs+ has enabled us to mature our Asset Management Practices far and above that being realized by other countries.

An area in which Australia is not as far advanced is in the use of ‘Big Data’. ‘Big Data’ is extremely large data sets that traditionally have been too big to process. This data can come from sensors such as people movement sensors, WiFi and Bluetooth movement tracking, and high accuracy spatial for example. A number of presenters spoke about how they were making use of these large datasets in decision making; one in particular was describing using big data and real-time data in the motor racing field. Motor Sport teams are able to monitor and process in real-time large-scale data sets and can begin to make adjustments on the fly to enhance the driver’s experience. This is where I see an opportunity for Australia to start to look at and use sensor information and smart technology (Smart Lighting) to begin to move to the next stage of our Asset Management maturity journey.

Lessons Learnt

- The importance of continuing to better manage our assets holistically and ensuring long term financial sustainability
- A smart city is more than fibre to the node. There is a need to consider connected technologies, driverless cars, connected public transport, wireless technologies and all the changes that this may bring to planning new cities, managing our current cities or rebuilding cities.
- Continue to think long term and plan for the future

Conclusion

The conference was an excellent opportunity to hear about international best practice in Asset Management and benchmark Australia against Europe. It was clear that in the area of Asset Management, Australian local government is leading the world and provides best practice, but there

are many opportunities to learn from international best practice particularly in the better use of data and looking at innovative alternatives to the traditional.

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