



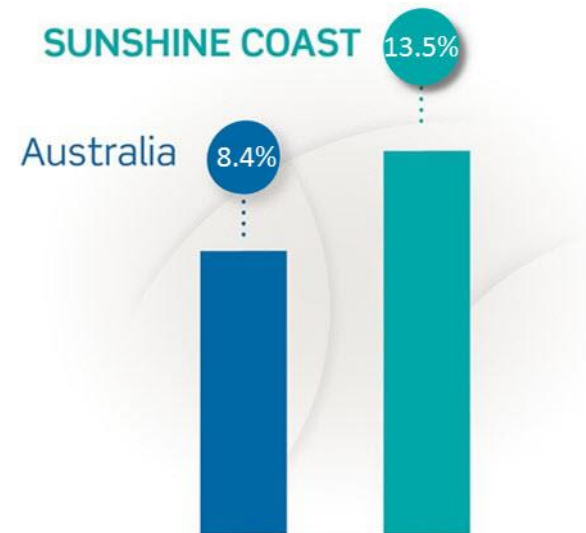
Real World Futures A Regional Perspective

QUT March 2018

Who we are

- Australia's most sustainable region
- 304,000 people → Growing to more than 513,000 people by 2041
- 13.5% population growth rate over 2011-2016 (national = 8.4%)
- 9th largest city (by population) in Australia
- Forecast to have 4th fastest growth rate of any Queensland region between 2016 and 2036

POPULATION GROWTH RATE OVER
FIVE YEAR PERIOD
2011 - 2016



Sources: ABS Population Pyramid (Australia) and
Qld Government Statistical Office (Population projections)

Excelling Now - Bright Future

- Gross Regional Product is more than \$17 billion
→ Forecast to grow to \$33 billion by 2033 (AEC Group 2015-2016)
- One of five non-capital cities nationally that will underpin the productivity of the Australian economy (IA: Australian Infrastructure Plan 2016)
- More than \$2.5 billion in major infrastructure projects and over \$10 billion in private investment underway or in the pipeline
- 9.5+ million visitors in 2016 (overnight +13.5%, international +20%)
- One of the highest levels of business confidence of any region in Queensland (Westpac Group-CCIQ: Pulse Survey of Business Conditions September 2016)
- Unemployment rate at 4.9% (Queensland = 6.2%)
- Building approvals in 2016-2017 at an eight-year high at \$2.12 billion worth of construction – more than double 2011-2012.



Issues for our future work are about technology...

Automation

All hail William Gibson...

Co-working

A relatively high number of co-working locations exist allowing a diversity of businesses to operate. National and international businesses operating from the Sunshine Coast with limited infrastructure

Undersea Cable

Seeking to locate the cable into Mooloolaba – significant opportunities for new industries, improved outcome for existing industries and opportunities for our community

Smart Cities

One of only three Australian regions on the world's Smart 21 communities list for 2018

...and disruptive business models...



Significant competition for existing taxi services. Larger distances for work, social travel adding to popularity, good job growth for operators



Tourism operators and licensed business seeking a common playing field. These operators contribute to a Tourism Levy – private B&B operators generally don't pay the levy to Council



Creating and taking job opportunities for local residents



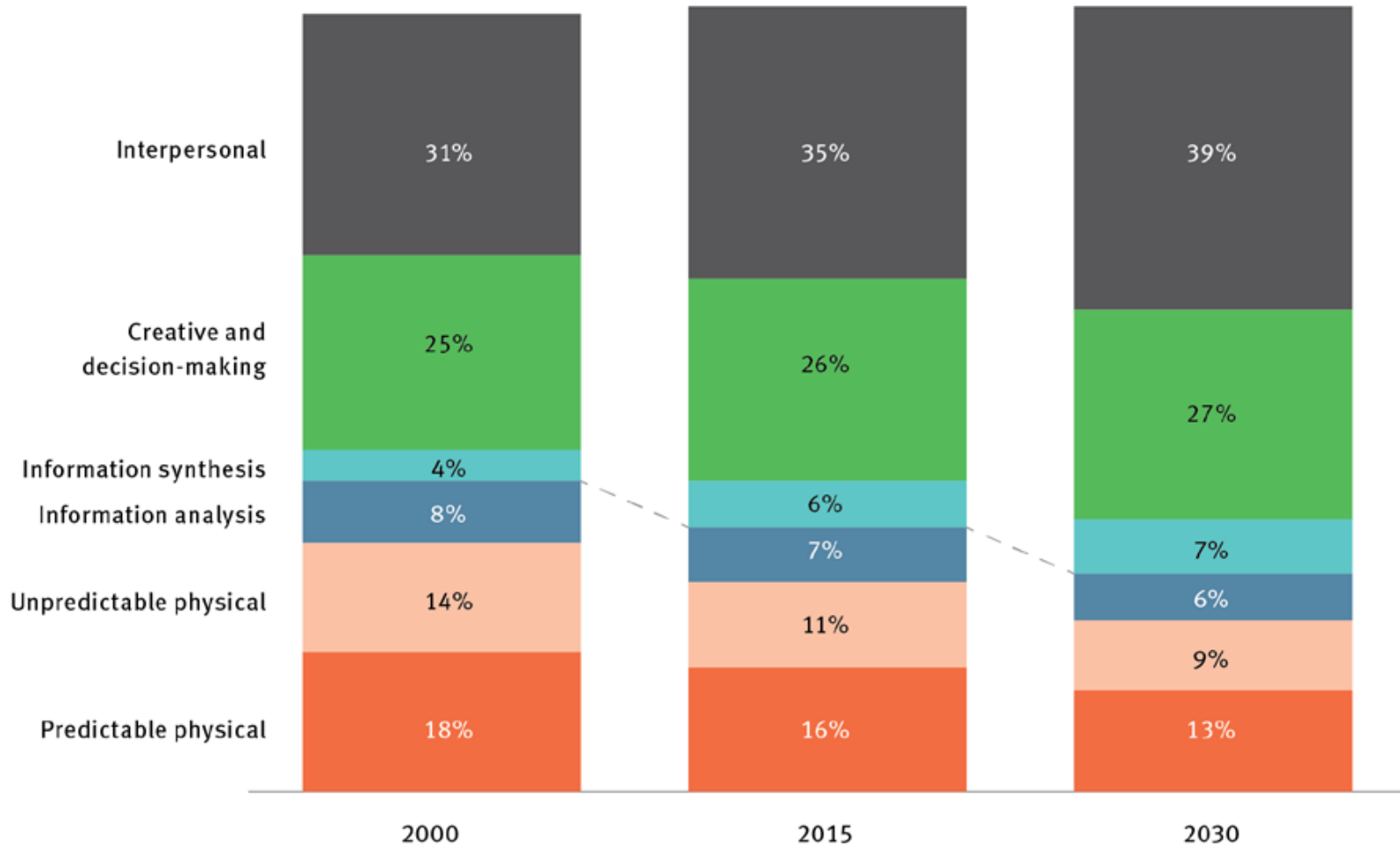
New systems for customer management, HR and Asset Management reducing processing requirements, impacting employment

...about our workforce...

Our workforce

- Workforce Mix
 - What will the jobs of the future be?
 - How will they be affected by next gen automation?
- Workforce Profile:
 - Who will our workers be?
 - How will our workers wish to operate?
- Structural Issues
 - Freelancing economy
- Skills mix required for task
 - STEM, HASS and let's not forget the blue...

Time spent on tasks by Australian Workers



Source: AlphaBeta 2017, The automation advantage, AlphaBeta, Sydney, <<http://www.alphabeta.com/the-automation-advantage>>.

...and about our communities



We are living through a fundamental transformation in the way we work. Automation and ‘thinking machines’ are replacing human tasks and jobs, and changing the skills that organisations are looking for in their people. These momentous changes raise huge organisational, talent and people challenges – at a time when business leaders are already wrestling with unprecedented risks, disruption and political and societal upheaval. “

Workforce of the future 2030 PWC



1,149

Full-time employees
73% 449 women
700 men

162

Part-time employees
9% 154 women
8 men

150

Casual employees
8% 110 women
40 men

Workforce



48%
women



52%
men



23%
Generation Y
(under 37 years)



56%
Generation X
(38-52 years)

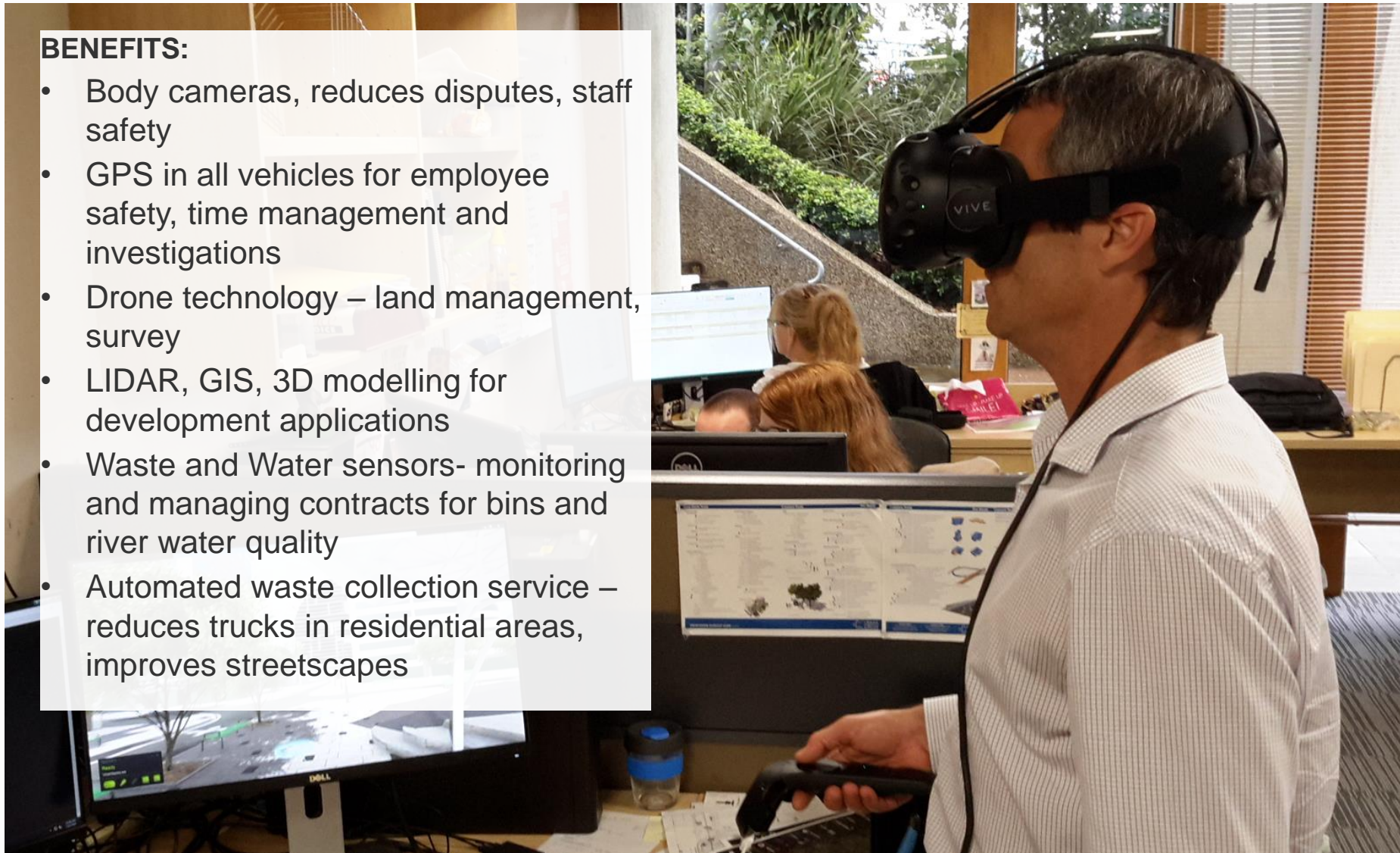


25%
Baby boomers
(over 53 years)

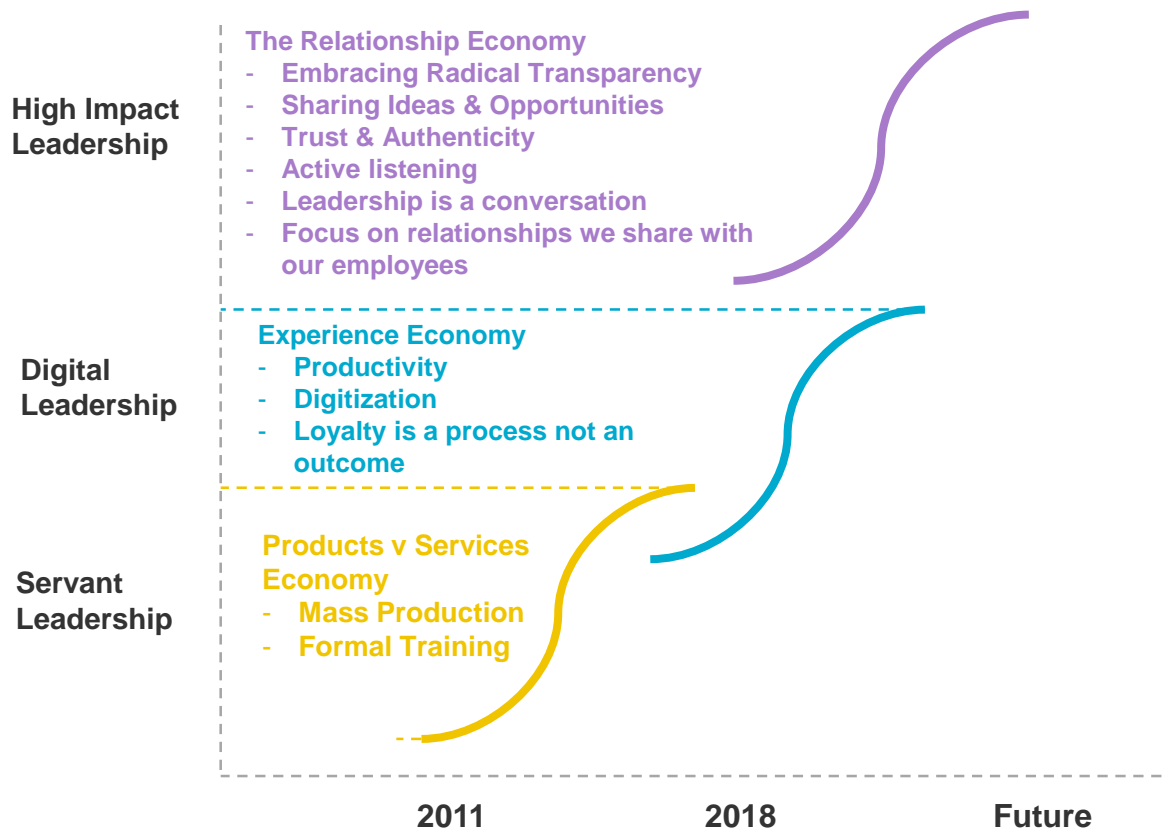


BENEFITS:

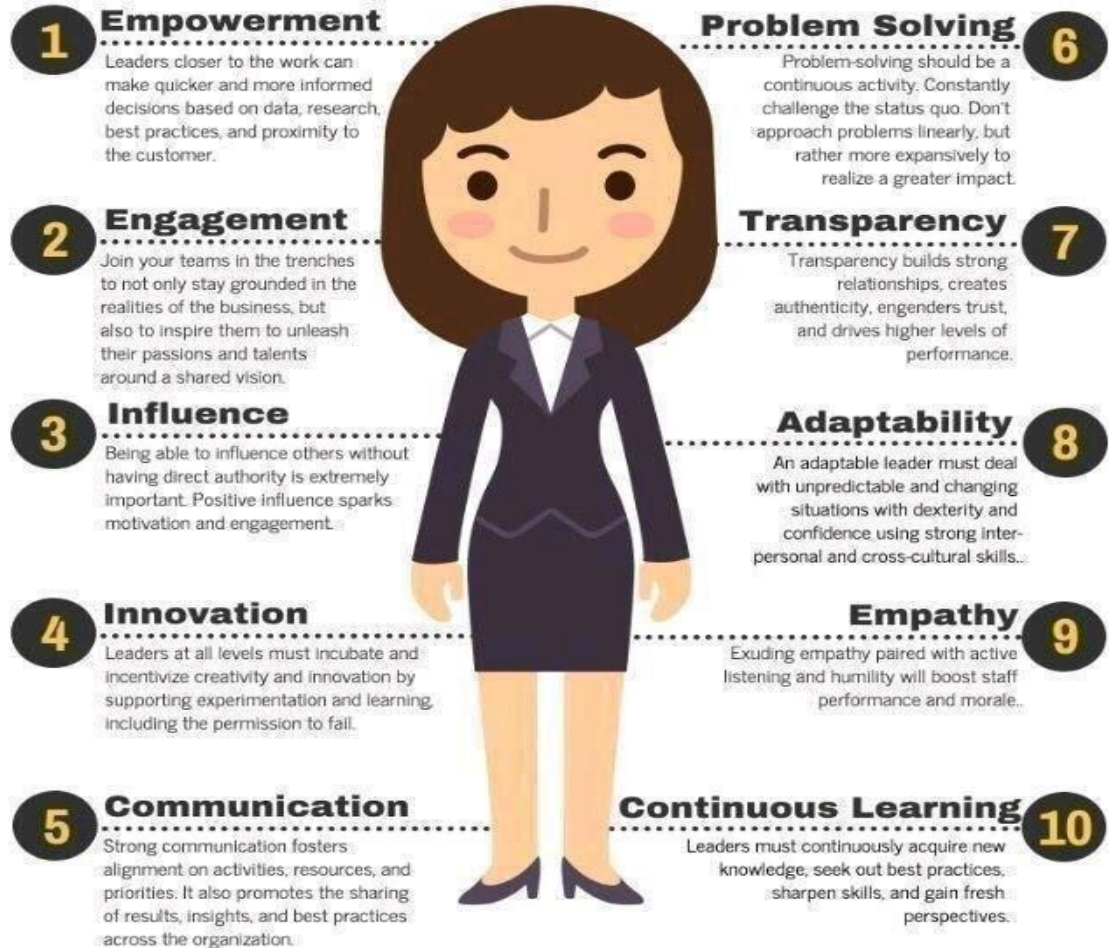
- Body cameras, reduces disputes, staff safety
- GPS in all vehicles for employee safety, time management and investigations
- Drone technology – land management, survey
- LIDAR, GIS, 3D modelling for development applications
- Waste and Water sensors- monitoring and managing contracts for bins and river water quality
- Automated waste collection service – reduces trucks in residential areas, improves streetscapes



We may be in the middle of the Experience economy, but the future of leadership is being disrupted as we enter the Relationship Economy ...



The
QUALITIES OF A GREAT LEADER
IN AN AGE OF DISRUPTION



1. THE ABILITY TO THINK OF NEW SOLUTIONS

- Willingness and ability to create something entirely new.
- Desire to shape the impact of those changes, rather than react to them.

2. BEING COMFORTABLE WITH CHAOS

- Work well in unknown conditions.
- Demonstrate a level of comfort with the chaos

3. AN UNDERSTANDING OF TECHNOLOGY

- Demonstrate a robust understanding of the capabilities, applications, and future potential of emerging technologies.
- Recognition of the fact that technology needs to drive core business functions

4. HIGH EMOTIONAL INTELLIGENCE

- High emotional intelligent
- Understand the need to invest in people.”
- Traits need to include accountability, transparency, fairness, honesty, and an ability to design systems and processes for humans.

5. THE ABILITY TO WORK WITH PEOPLE AND TECHNOLOGY TOGETHER

- Need to understand how to delegate between humans and machines in a way that maximizes the capabilities of both.
- the most future-ready leaders are excited to integrate them into their workforce “

JARED LINDZON
EY JEFF WONG

The plan of action for the future of work

THE TIME TO ACT IS NOW

- Change is already happening, the future of work is now.
- Be dynamic and agile in moving forward
- Be skilled in understanding and adapting to changing needs

LEAD THE CONVERSATION

- Workforce anxiety is the biggest disruptor to innovation
- Engage teams on social platforms eg. Yammer
- Tell the story about the future

BE DYNAMIC AND RADICAL, WHEN IT'S REQUIRED.

- Accept radical change might be required
- Take risks and have no regrets
- Focus on the journey not the short term outcome

FOCUS ON PEOPLE, NOT JOBS

- Nurture agility, adaptability and re-skilling
- Have conversations with your people about the future
- Hire for high EQ with an understanding of the future of work



We think of the future inclusively starting with our customers experience to our peoples experience to the digital solution needed



OPPORTUNITY ⚡ DISASTER MANAGEMENT

The customer experience:

The public receive disaster alerts via SCC app and other channels such as SMS, based on current location and also home, work and favourite locations.

The Employee experience:

The disaster management team are able to instantly send key messages to groups of residents and visitors.

The digital solution:

DDI's developers have connected the Disaster Hub and SCC app with a custom built Notifications Hub, designed by the Solutions Architects. It allows messages to be sent selectively to user groups.

The Customer experience:

Access the Disaster Hub website for road closures, news updates and other information. Automated roadside warning signs warn motorists before a bridge can flood.

The digital solution:

Sensors in creeks and on bridges detect water levels and send data. Roadside warning lights and signs are automatically triggered by rising water levels.

The Employee experience:

DIS's Analysts and the Hydrology team are continually testing and implementing innovative new in-field sensors. Improvements to the Disaster Hub are made continually and other councils now pay a subscription to use the platform in their own regions.

The Customer experience:

Residents are electronically notified of Evacuation Centres opening in their area and are directed to the closest one via a safe route.

The digital solution:

Automated alerts are sent to the app or via SMS, based on the device's location. Navigation features use way-finding algorithms, developed by DIS Spatial Analysts and Data Scientists, to find the safest route, taking into account current and predicted road closures and traffic conditions.

The Employee experience:

Field crews on site rapidly close flooding roads directly within via a mobile device. Details including photos are instantly available to those in the Local Disaster Control Group Command Centre (LDCC CC) to assist with decision making.

The digital solution:

Disaster Management tools such as the Road Closure app are designed and developed by DIS Developers and User Experience experts. The tools are constantly refined to meet the field worker's needs and provide them with an excellent user experience.

The Employee experience:

LDCC staff have access to an array of tools. They can view the current situation - and automated modelling and predictive analytics paints a picture of the emerging situation over the next few hours and days.

The digital solution:

Collected data is available via Application Programmable Interfaces (APIs) and consumed by other solutions such as spatial / mapping and specialised flood modelling tools. DIS's Solution Architects consult with business units to design improvements using technology. The DIS Developers create the integration between the APIs to connect the pieces of the overall solution.

OPPORTUNITY ⚡ GRAFFITI AND FIELD WORK MANAGEMENT

The customer experience:



Sees graffiti, takes a photo and reports it to Council via the SCC app, requesting to be notified when the clean-up is complete.

The digital solution: 📱

The customer's photo is received – the location and type of issue is identified and classified by image analytics. A job is automatically created in the asset, prioritised and allocated. Spatial analytics are used to determine the closest crew with the right tools.

At 1am vapour sensors detected potential graffiti and brightened nearby lights, therefore reducing the clean-up required. A job was automatically created.

The Employee experience:



Council's field crew receive their updated job list on their devices and tend to them in allocated order.

The Employee experience:



The crew arrives on site and begins the clean up.

The digital solution: 📱

As the crew arrives on site the status of the job is automatically changed to 'in progress' based on their location, using 'geo-fencing' features designed spatial experts in DIS.

The Employee experience:



The crew completes the work and adds details of the job, including adding a photo of the now clean wall, and closes the job.

The digital solution: 📱

Corporate systems are updated. Any required restocking of the materials stored on the crew's vehicle is automatically sent to the depot for action. All customer's who reported this incident are automatically notified.

The customer experience:



The customer is alerted via the SCC app that the work has been completed, and views the photo. The customer is able to give optional feedback on quality of service.

The digital solution: 📱

Predictive analytics algorithms automatically perform trend analysis and produce visualisations for business areas. Locations for additional vapour sensors are suggested automatically.

The Employee experience:



The DIS Data Scientists continually analyse and visualise data such as graffiti locations to discover new insights. They are developing algorithms to automatically detect patterns in graffiti locations, providing instant insights for both council and Police.

OPPORTUNITY ⚡ COUNCIL EVENTS

The customer experience:



The public find out about council lead events online. When attending the event, the SCC app helps navigate past event road closures to extra event parking.

The customer experience:



People use social media to share their experience on the Sunshine Coast, as it happens. They can also use it to communicate with event organisers.

The customer experience:



Via their phones, people have access to live information about time changes, weather alerts and other notices from the event organisers.

The customer experience:



Food and drink is purchased from vans at the event, using tap and go payment. Food vendors are grateful for the robust connectivity of the comms network provided by council just for them.

The customer experience:



People enjoy interacting with the public artwork installations and dynamic lighting around the event site, often using features on their phones.

The Employee experience:



Staff add event road closures to council's systems ahead of time.

The Employee experience:



On their tablets and phones, event staff use real-time data on attendees, weather forecasts, traffic and parking and safety incidents for decision making.

The digital solution:



Sensors in public infrastructure such as bins, toilets and taps provide data on usage and status. Network Architects in DIS ensure that segregated, dynamic and robust comms networks keep the vendors and smart infrastructure connected, while also keeping the public online via Wi-Fi.

The digital solution:



The technology in public artwork provides data on how and when people interact with it. Solution Designers in DIS work with council's Public Art Curators and Event Organisers to ensure that technology is used to simultaneously enhance public art experience and measure it's success.

The digital solution:



The roads hub algorithms look at road closures, available parking and traffic conditions. Information is consumed via the SCC app and other navigation apps.

The digital solution:



Public Wi-Fi gives people connectivity. It also counts devices, giving the event team and Queensland Police a real-time indication of the number of people in attendance.

The Employee experience:



After the event, the patterns of attendance numbers and approach routes is used for review and future event planning. Demographic data from SCC app users at the event is also used, and included in the CRMS.

The Employee experience:



Infrastructure staff receive automated alerts from public infrastructure such as failing taps in the toilet blocks, and respond quickly.

The Employee experience:



Data from the public artwork interaction is used to measure what was popular and what wasn't. This informs future briefs and grants.



Thankyou

