

MEDIA RELEASE

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Smart Cities Award winners step up in 2020

The smart cities leaders of Australia and New Zealand have accelerated their efforts in 2020, with new technology solutions and innovative projects tackling the challenges of the COVID-19 pandemic head on.

Eighteen winners have been acknowledged across seven categories for their visionary leadership, best practice projects and real-world impact.

The third annual Smart Cities Awards was presented virtually this year by Smart Cities Council Australia New Zealand.

“This year’s winners have played key roles in the national advancement of smart cities across Australia and New Zealand, while also leading a digitally-enabled and data-driven recovery from COVID-19,” says Smart Cities Council’s Executive Director Adam Beck.

The City of Parramatta took home the coveted Leadership City category after rolling out a host of dynamic smart cities projects. Among these is a sensing network on a new 25-hectare development, a parking app which was enhanced in 2020 in response to COVID-19, and Floodsmart Paramatta, Australia’s first automated real time flash flood warning system.

Four individuals were applauded for their leadership. City of Ipswich Mayor Teresa Harding was recognised for delivering Australia’s first ‘smart transparency and integrity hub’. Nicole Stephensen from Ground Up Consulting was presented with an award for her work to reframe privacy as an opportunity, rather than a roadblock.

Sean Audain from Wellington City Council was acknowledged for harnessing technology to build resilience to earthquakes, sea level rise and other natural disasters. Lake Macquarie Council’s Claire Chaikin-Bryan was recognised as an emerging leader for her work to expand the use of IoT, support local innovators and encourage community digital and data literacy.

“Smart cities innovators have been laying solid foundations for several years, and some of these multi-year projects have been rewarded in 2020. But COVID-19 has also accelerated smart cities efforts in 2020, and we are seeing greater data sharing, digitally-supported services and community engagement in smart cities innovation,” Mr Beck adds.

“Together, our winners demonstrate the central role of smart cities in enhancing services for communities, building prosperity and enhancing resilience.” “2020 confirmed that people are at the centre of the smart cities movement.”

More information on each category and winner is found overleaf.

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SMART CITIES AWARDS 2020 WINNERS

POLICY LEADERSHIP

This award recognises government entities that are guiding their smart cities and digital transformation investments using best practice policy.

Winner: City of Darwin - Privacy Framework

The \$10 million “Switching on Darwin” project is the largest single smart city initiative in Australia. Investment in technological infrastructure included public WiFi and environmental sensors, smart parking, lighting and CCTV, as well as wayfinding kiosks. The City aims to use technology and data to support better decision making, provide the community with a safer city, enhance services and reduce energy consumption and costs. The City’s privacy framework applies global privacy best practice and engaged with privacy specialists to establish trusted, transparent relationships with the community.

Highly commended: North Sydney Council – North Sydney Smart Cities Strategy

Council has already developed guidelines, reports and installed 10 electric vehicle charging stations and solar photovoltaics at council facilities. But recognising smart cities are a long-term goal for all local governments, so North Sydney Council has developed a data sharing policy and playbook and internal capacity building program to guide policy development and implementation.

Highly commended: City of Adelaide – 10 Gig City

In October 2020, Adelaide reached a new era of connectivity with completion of Ten Gigabit Adelaide, Australia’s first city-wide fibre optic network. Over the past two years, one thousand commercial buildings across the CBD and North Adelaide have progressively been connected to the enterprise grade fibre network, enabling thousands of businesses and organisations to reliably share high volumes of data at phenomenal 10Gbps data speeds.

DATA LEADERSHIP

This award recognises organisations transforming their actions and investments based on data insights and doing so in a way that respects privacy and promotes social good.

Winner: Moreton Bay Regional Council – Artificial Intelligence

Moreton Bay Regional Council’s \$2 billion road network is its largest asset. In 2019, council installed technology on the dashboard of a council garbage truck, transmitting video footage to the cloud where machine learning algorithms could identify potholes, cracking, line markings and more. After a 12-month trial, council began scaling up the project, with cameras now mounted on 14 waste collection trucks. All 28 trucks will provide 100% regional road coverage by the first quarter of 2021, allowing accurate defect records to be generated for every road every week and supporting data-driven decisions and generating savings for rate payers.

Highly commended: SYSTRA Scott Lister – Level Crossing Removal Program

As part of the Victorian Government’s \$6 billion Level Crossing Removal Project (LXRP), planned disruptions to the rail network require bus services to be deployed. LXRP has contracted SYSTRA and VISEO to build a data-driven platform that optimises planning of replacement services. This data-driven visualisation method allows the disruption planner to quickly construct robust busing strategies, improve decision-making and minimise operational costs, all while improving Victorian transit passenger satisfaction.

Highly commended: City of Greater Geelong – Geelong Data Exchange

Geelong Data Exchange securely stores and allows the exchange of data collected by the city. In making data freely accessible to citizens, businesses, entrepreneurs, students and innovators, new ideas, applications and solutions are being generated. Backed by a strong privacy framework, the exchange hosts all kinds of data –



historic photos, drone imagery, 3D digital twin, financial data, pet registrations, as well as complex IoT sensor data. The 132 datasets offer more than three million records.

FUTURE OF PLACE

This award recognises a project that applies technology and data solutions in the public realm and built environment to deliver outcomes to the economy, society or the environment.

Winner: Lake Macquarie City Council – Smart Beaches

A spate of tragic incidents on NSW beaches in early 2019 highlighted inconsistency in beach data, with authorities collecting varying information on crowd numbers, activity and localised conditions. Manual collection is also a time-consuming and imprecise task for lifeguards. Smart Beaches, an initiative of Lake Macquarie City Council in partnership with Northern Beaches Council and the University of Technology Sydney, uses technology and data to support lifeguard risk assessment and management, allowing them to focus on their primary role of protecting public safety.

Highly commended: Christchurch City Council – EQNet

Sensor technology allows council to measure earthquake shaking levels and ground shaking data at individual buildings, facilitating rapid assessment and enabling real-time evacuation guidance. This ensures that the people of Christchurch have a liveable city where they feel safe to live and work. The project began with a trial of 10 sensors in 2017 and has since expanded to see 150 sensors installed across Christchurch.

Highly commended: City of Canning – Wharf Street Basin

Wharf Street Basin, a stormwater basin in the Canning city centre, has been redeveloped into a new public park. The basin integrates technology to support innovative stormwater management, alongside space for people to relax, a habitat for wildlife and an education space for people to learn about water. The technology in the park measures water quality, weather conditions and power use in real time. Data collected from sensors is freely available online, while an augmented reality app allows visitors to play games and learn about stormwater while using the park.

IMPACT AWARD

This award recognises organisations that have deployed technology and data solutions with a quantifiable impact on the economy, society or the environment.

Winner: City of Casey – Digital Activation Program

The City of Casey's direct care workers are in regular contact with 3,770 people over the age of 70 – and these people were the most likely to be living alone, without digital technology, during the COVID-19 pandemic. The Digital Activation Program was developed in response, with coordinated, ongoing and scalable solution helping vulnerable community members get online with confidence. This included a device borrowing library of tablets with data plans, remote phone support and more than 300 hours of one-on-one digital skills sessions.

Highly commended: Meshed IoT – COVID-19 Pedestrian Index

In a world-first, Meshed and the University of Wollongong have applied pedestrian counting data to better understand the real effects of loss of pedestrian activity at the local level across a variety of public places. The data showed a 68% fall in local activity as a result of social distancing policies across over 100 locations. The data can also help communities respond and recover from the COVID-19 crisis.

Highly commended: Newcastle City Council – Lean in Newy

As part of a comprehensive COVID-19 community and economic support package, an innovative technology-led solution is connecting community organisations and charities with people who want to help. The 'Lean in Newy' app makes it easy for citizens to 'lean in' and in return get rewarded with exclusive discounts from participating local businesses. Lean in Newy has more than 2,000 users, who have engaged in over 4,100



challenge actions. It has generated 60 volunteers supporting charities and not-for-profits, with 50-plus local businesses involved as rewards partners.

SMART CITIES LEADER

This award recognises an individual who has made a significant contribution to advancing the smart cities movement.

Winner Elected Official: Mayor Teresa Harding, City of Ipswich

After corruption and fraud scandals plagued the City of Ipswich, Teresa Harding campaigned for the top job on a platform of transparency and integrity. As the Queensland Government's Director of Open Data Office for nearly five years, Harding had led the state's approach to open data. After being sworn in as mayor, Harding spent her first 100 days delivering a 'smart transparency and integrity hub'. A passionate advocate for better data use to empower smart communities, Harding delivered the hub – the first of its kind in Australia – on 1 July 2020. Now the people of Ipswich have unprecedented access to the city's finances and can provide greater scrutiny over how council spends ratepayers' money to delivery better outcomes.

Winner Private Sector: Nicole Stephensen, Ground Up Consulting

Privacy is traditionally viewed as a compliance issue, and often as a roadblock or drag on innovation. But Nicole Stephensen is passionate about reframing privacy as an opportunity. Stephenson has held diverse roles including executive director of privacy and data protection at the Internet of Things Security Institute for four years. She also has a seat on the advisory board of cybersafety.org, a US-based charity focused on cyber-bullying. As a privacy consultant, Stephensen assists local governments to implement privacy-by-design as a core business function and unpack and address operational privacy issues.

Winner Public Sector: Sean Audain, Wellington City Council

A champion of smart cities in New Zealand, Sean Audain has actively secured investments from governments and private organisations to develop smart city initiatives that make Wellington a more liveable city. Among his projects, Sean has found new ways to use virtual reality to build resilience to earthquakes and sea level rise. He has deployed technology to save lives in the face of natural disasters and create coordinated multi-sector responses. He has experimented with digital twins, audio sensing and artificial intelligence to enhance long-term governance and build a culture of innovation.

Winner Emerging Leader: Claire Chaikin-Bryan, Lake Macquarie Council

As Smart Cities Lead at Lake Macquarie City Council, Claire Chaikin-Bryan has played a pivotal role in expanding the use of IoT in council operations, supporting local innovators and encouraging community digital and data literacy. Chaikin-Bryan has managed the rollout of public LoRaWAN across the whole of Lake Macquarie City, and played a lead role on council's Smart Beaches project. Chaikin-Bryan is also responsible for undertaking sensor selection, onboarding, data integration, storage, visualisation, maintenance and training.

LEADERSHIP CITY

This award recognises local government organisations demonstrating world-leading liveability, workability and sustainability outcomes for their citizens from investment in technology and data solutions.

Winner: City of Parramatta Council

City of Parramatta Council has led a range of dynamic smart cities projects. A sensing network has been installed at the 25-hectare Melrose Park development, for example, to monitor temperature, air quality, noise and stormwater run-off to improve the area's liveability and inform future planning. The Parramatta CBD Parking Finder allows people to plan their trip and park safely and legally – and this technology was enhanced in 2020 with real-time updates on business operating hours, services and special offers in response to COVID-19. Meanwhile Floodsmart Parramatta offers Australia's first automated real time flash flood warning system.



SDG ACTION AWARD

This award recognises organisations harnessing technology and data to progress the United Nations' Sustainable Development Goals.

Winner: City of Canterbury Bankstown – Closing the Loop

In a world first, the City of Canterbury-Bankstown is using AI and machine learning to detect and drive down waste contamination. In early 2020, Council launched a trial using artificial intelligence and machine learning to analyse data captured from waste trucks' GPS and cameras to spot contamination. RFID tags were used to analyse problem areas. A custom-built AI was used to amplify efforts. Previously, human constraints meant only 1.4% of contamination was detected. Using AI, the contamination exposure rate is 68%, giving Council visibility of contamination incidents 130 times faster. What once took 5 years, now takes 14 days.

Highly Commended: City of Melville – Smart Grid

The City of Melville's smart grid system monitors 210 electricity metering points across 18 sites – offices, parks, sporting facilities, libraries, community centres and more. The advanced analytics and control system has helped the city to identify leakages, billing transparently to the tenants and manage the electricity and water consumption across the city to optimise costs. The smart grid system also facilitates predictive maintenance and avoids downtimes.

About the Smart Cities Council

Smart Cities Council is the world's largest network of smart cities companies, practitioners and policy makers. Smart Cities Council envisions a world where digital technology, data and intelligent design are harnessed to create smart, sustainable cities with high-quality living and high-quality jobs. Learn more about the Smart Cities Council: www.smartcitiescouncil.com.

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