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ITEM NO: 6.5.3
DIRECTOR CITY ECONOMY
INNOVATION & LIVEABILITY - KATE
ROFFEY**SMART CITY EXPO WORLD CONGRESS REPORT****Summary**

A delegation of two councilors and two officers attended the 2017 Smart City Expo World Congress (SCEWC) in Barcelona, Spain between 14-16 November 2017.

The Smart City Expo World Congress is billed as an unmissable annual milestone for everyone invested in the transformation of cities and any company within the urban innovation and solutions industry. The Congress is by far the largest of its kind in terms of attendees and exhibitors.

During the conference Dr Adam Mowlam presented our *WynLens – Visualisation, Analysis and Modelling of a Holographic City* project to an audience of global and industry leaders. Following the presentation, Dr Mowlam also participated in a lively expert panel on “Disruptive Mindsets Transforming Cities”.

Throughout the Congress, Wyndham City delegates participated in numerous collaboration discussions on a range of Smart Cities issues. These discussions included conversations with respective city leaders from a number of countries that are at the forefront of Smart City innovations including Israel, Singapore, Taipei, Scandinavian countries and North America. Additionally, extensive conversations were also held with many of the exhibitors at the associated conference Expo, who showcased strategies and technology that potentially had strategic fit and value for the City of Wyndham.

The delegation was also interviewed by Adam Beck, Executive Director at Smart Cities Council Australia New Zealand as part of the Smart Cities Chronicles.

Attachments

Nil

Officers' Declaration of Interests

Under Section 80C of the Local Government Act 1989 (as amended), officers providing advice to Council must disclose any interests, including the type of interest.

Director City Economy Innovation & Liveability - Kate Roffey
In providing this advice as the Director and Co-Author, I have no disclosable interests in this report.

Manager Smart City Office - Adam Mowlam
In providing this advice as the Manager and Co-Author, I have no disclosable interests in this report.

Key Issues

- Report on delegation attendance at the 2017 Smart City Expo World Congress (SCEWC) in Barcelona, Spain between 14-16 November 2017.

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SMART CITY EXPO WORLD CONGRESS REPORT (cont'd)

RECOMMENDATION

That Council:

1. Notes the findings of the conference report.
2. Seeks to establish formal alliance with Smart City Committee.

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ROFFEY**SMART CITY EXPO WORLD CONGRESS REPORT****1. Background**

The SCEWC Conference is the world's leading event for smart cities in the context of urban development. The event, in its seventh year, aims to increase the strength of cities, to identify business opportunities and to establish partnerships and is the largest Smart Cities event of this type in the world. The conference includes both a congress, where a range of Smart Cities conversations are presented by speakers from around the globe, as well as an Exhibition which has more than 600 leading international companies (such as AT&T, Bosch, Cisco, Deutsche Telekom, Fiware, Hexagon, Huawei, Intel, Mastercard, Microsoft, SAP and Siemens) showcasing their technology over 30,000 m² of exhibition floor space.

The event hosted representatives from over 700 metropolises such as Atlanta, Berlin, Busan, Casablanca, Dubai, London, Lyon, Madrid, Montevideo, Moscow, New York City, Puebla, Quebec, Taipei, Tel Aviv and Zhejiang.

The Wyndham delegation attended the SCEWC for a range of purposes, primarily:

1. To conduct a presentation of the *WynLens – Visualisation, Analysis and Modelling of a Holographic City* project to an audience of global industry leaders, and to participate in an expert panel on "Disruptive Mindsets Transforming Cities".
2. To engage in a range of collaborative conversations with world leading smart cities and countries including Israel, The Netherlands, Singapore, Norway, Finland and Denmark.
3. To engage with leading industry innovators including Microsoft, SAP, Cisco, Deutsche Telekom, Fiware, Hexagon, Huawei, Mastercard and Siemens, to better understand exactly where the cutting edge of Smart City innovation lies, and how Wyndham can best leverage the knowledge and technology available to advance our aim to improve Wyndham's liveability through smart initiatives.
4. To attend the congress, which included a vast range of keynote talks and presentations on a range of topics of relevance to the development of smarter and more sustainable cities.
5. As Barcelona is seen to be one of the leading smart cities worldwide, the delegation took the opportunity to study a number of innovative urban projects during the brief visit.

2. Discussion**Conference Summary**

More than 18,750 attendees and 675 exhibitors from more than 120 countries attended the conference. Generally, attendance from Australia and New Zealand is very low (0.16% of all attendees), which is perhaps symbolic of the progress made by Australian governments in transitioning to smart cities. It was evident from both the congress presentations, as well as direct conversations with other cities and countries and leading global companies, that Australia is lagging behind in the Smart Cities space, from both a policy and technological view point.

The conference was structured across three full days. Each day featured the all-day exhibition, as well as keynote / plenary / thematic speakers and a series of discovery and side seminars hosted by cities or mid and top-tier organisations.

The networking opportunities and exhibition were of significant benefit to Wyndham. Topics of particular interest included:

- *Circularity in the City: Opportunities and Challenges* – This session on the circular economy was particularly interesting to Wyndham given the location of key infrastructure such as the Refuse Disposal Facility and the Melbourne Water Western Treatment Plant. The session

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discussed the complexities and opportunities for institutional change, innovative business models and informed policy action that are still largely unknown. Whilst the session outlined several pilot projects, they had not been scaled, much (for example) like smart lighting was three years ago. Technology such as “Waste-to-Energy” (WtE) incineration is an extremely costly solution. Many cities, including Amsterdam spoke about their regret that it removed any incentive for innovation and sustainable redesign higher up the production chain.

- *Innovation Ecosystems Enabling Entrepreneurship in Cities* – This session explored the importance of entrepreneurship to the local economy, with a significant focus on establishing the culture of entrepreneurship and the role of government in creating innovative ecosystems. There were two key presentations by Tel Aviv and the City of Tampere. Whilst the massive success of Tel Aviv is well known, Tampere a city in southern Finland, is less well known. The key learnings from Tampere was their approach to promote innovation in co-operation with universities and their multi-level governance that enabled the city to develop an integrated approach to advance innovation.

It was interesting to note that the theme of presentations at the Congress itself had evolved over the years from being a purely technically focused discussion, to a much more mature discussion around the role the Smart Cities play in delivering sustainable outcomes and equity for all residents utilising the various technological advances available to enable the broader city shaping outcomes. There was of course a full range of cutting edge technological advances on show, as demonstrated by VIMAMA's autonomous people-carrying drones.

Exhibition

In addition to the conference sessions and exhibition by vendors, the change to network with other colleagues in similar situations from different cities was an extremely valuable experience and extensive conversations with cities, for example Amsterdam, Chicago and Catalonia were held and connections established.

The opportunity to research new solutions and discuss current technologies with service experts was very worthwhile for Wyndham. While all the conversations held are too numerous to include in this report, an example of some of the technology-based exhibits that have specific relevance to Wyndham include:

- *Digital Town* – Digital Town is an initiative that helps people search, connect and buy local. The Digital Town platform provides local merchants with a free online storefront. The service is now being used by 22,000 cities. Via an application like Digital Town, Wyndham can create a discoverable online community where residents and visitors take part in our local economic success.
- *The Urban Institute* – UrbanPulse, is an open IoT analytics and smart services platform with an open interface architecture that can connect various data streams, for example cameras, traffic, lighting, energy, water and parking data, as well as data from legacy systems, in real time. While a number of vendors offer smart city dashboards, The Urban Institute application stood out for its simplistic design and robust integration.
- *Sansi* – Although here were a number of smart poles on display, this option stood out because this innovative, all-in-one street light offered a charger for electric vehicles, video surveillance camera, Wi-Fi, parking payment solution, large LED video display, intelligent LED street lighting and a range of other sensors. This smart pole could also be managed remotely allowing the video display to be linked to traffic information, weather and event information.

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- *Metro Taifun*® – Metro Taifun produce a range of automatic solid waste disposal and collection system that remove the need for rubbish bins and curbside bin collections. While these types of systems have been available for some years, the Metro Taifun system has found solutions to a number of issues that limited the viability of earlier vacuum style disposal systems, including exchange of corrodible metal piping for non-corrosive pipes and internal pipe scrubbing systems. As a Council that has already shown leadership in the waste disposal area through initiatives like our solar bins and bottle recycling vendor machines, this is a potential opportunity to again show leadership in this area.

Key Meetings

Whilst the City of Wyndham differs vastly to the City of Boston (for example) and has different needs, fundamentally the challenges and opportunities are similar. Both cities are striving to improve liveability, be more innovative and create more jobs, improve sustainability and so forth.

Many of the attendees the delegates met with shared the same view that cities cannot become smart alone. A key highlight was meeting the Israeli delegation. We shared our experiences with taking services to the people, both elected officials and executive members presented their solution of a mobile “service” bus. The most powerful aspect was how the Federal and State services, such as vehicle registration were being conducted by local officials. The Wyndham delegation recognised that the recent movement by Australia Post and the Digital Transformation Agency to introduce digital ids could indeed propel Australian services to this delivery model.

Cities that are serious about smart cities (liveable cities, innovation and job creation, social and economic development, sustainability and reliance) all have come to the conclusion that they cannot do this alone. National and international collaboration is essential to achieve those goals.

Key Learnings

Wyndham City is in essence at the start of its smart city journey. While we have a range of “smart city” initiatives that have been implemented over the years, such as our extensive solar panel arrays, solar bins and RDF gas capture initiatives, there is much more to be done.

The opportunity to hear from leading experts via the congress presentations, along with the direct discussions Wyndham delegates were able to hold with other cities, countries and exhibitors has provided access to new technologies and thinking that will help shape the further development of our Smart Cities strategies going forward. While these opportunities have provided valuable input for our future thinking, some of the most valuable learning came from the delegation taking advantage of the opportunity to meet with fellow officers and officials from international cities, and understand the successes and failures of previously completed projects.

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LIVEABILITY - KATE ROFFEY**SMART CITY EXPO WORLD CONGRESS REPORT (cont'd)****Other Study Tour Activities**

Whilst the vast majority of the visit to Barcelona was confined to the SCEWC, the delegation took the opportunity to conduct a self-guided tour to understand why Barcelona is a Smart City.

The delegates visited a number of sites around the city including 22@ District – an urban renewal project that converted industrial land to a technology, as well as a knowledge-driven economic hub that has attracted more than 3,000 innovative businesses. The highlight and most interesting aspect of developments in Barcelona was the Superblock of Poblenou. This pilot project removes all but resident vehicles from a large urban space, essentially making the city an area that is more for people than for cars. By removing cars there is a huge increase in the amount of green and recreational spaces available to citizens.

Going Forward

During the Barcelona Study tour, the Federal Government announced Wyndham City had been awarded a significant grant (~\$300k) to continue the development of WynLens, our mixed reality solution targeted at improved collaboration, enhanced community engagement and better enabled decision making.

The grants funded through the Federal Smart Cities and Suburbs program, provide an intriguing comparison to the approach of the Netherlands whereby national policy strives for collaborative work by local councils for local councils. The Australian-Dutch alliance through the Global Smart City and Community Coalition (GSC3) may suggest that it would be envisaged that a bottom-up approach may be strongly considered for the next round of government funding.

For Wyndham City, the identification of government partners for proposed projects in complementary areas is an approach requiring consideration. The opportunity for public sector innovation is clear and Wyndham City needs to be a key player. For maximum value through the reduction of duplication and increasingly coordinated approaches to large scale projects like autonomous vehicles, blockchain and artificial intelligence are viable options even with international partners. Due to the high costs of many smart city projects, collaboration is (perhaps) a necessary solution.

3. Wyndham 2040 Vision

The Smart City Expo World Congress covered a broad range of information and communication technologies that can be used to enhance liveability, sustainability and workability; supported by many methods for broad and active collaboration amongst city stakeholders. Many of which are applicable to the Wyndham 2040 vision.

4. City Plan

3.2.2 Through embracing new technologies and promoting the development of a local knowledge economy, Wyndham will be transformed into a Smart City, thereby enabling new and established business to create employment opportunities and build a financially secure community.

4.2.4 Council will lead Wyndham's evolution in becoming a 'Smart City' by embracing new and emerging technology; working with expert partners; applying innovative ways of problem-solving; and adopting advances in technology to find more effective and efficient solutions.