

# Dublin, an Ideal Test Bed for Smart City Solutions

Taking a challenge based approach to sourcing smart, low cost innovative solutions

**P**ollution, traffic jams, extreme weather events – today's cities face multiple challenges that call for smart and innovative technology solutions.

In order to improve city life and take advantage of emerging opportunities in areas such as Internet of Things and Big Data, the 4 Dublin Local Authorities (Dublin City Council, South Dublin, Fingal & Dun Laoghaire-Rathdown) joined forces and launched a regional 'Smart Dublin' initiative in March 2016.

Factors like excellent network capabilities, a natural tech environment and an innovative mindset place Dublin as a world class test bed for Smart City Solutions. Furthermore, the majority of the top global tech firms all have a major presence and EMEA headquarters in Dublin including Google, Twitter, Facebook, LinkedIn and Microsoft. Dublin is also home to numerous world-class research institutes and

has a vibrant start-up tech scene. 'Smart Dublin' acts as a broker that brings all these different parties together in joint projects that enhance city life and help to create new smart innovative technology solutions.

**Bottom-up approach to identify challenges and deploy and test real solutions.**

Smart Dublin takes a bottom-up approach with regard to tech innovations. "Around ten years ago during the first wave of Smart City programs tech companies came in and tried to solve our challenges with top-down tech solutions which did not work because they underestimated the dynamics and complexities of cities. Today, it is all about identifying and understanding the particular challenges by working closely together with operational staff and wider stakeholder groups.



Dublin is building up its Smart City Credentials: AT&T announce Dublin as its first smart city collaboration outside the US at Mobile World Congress in March 2017.



L-R Smart Cycle Challenge Phase 1 Winners: See.Sense, BikeLook, SmartCharge, HidnSeek and Liberty Bell.

For example we are testing a new challenge based approach and launched a Smart Dublin Cycle Challenge last year, in partnership with Enterprise Ireland where tech companies and start-ups could pitch their solutions and field-test them with the city council," says Jamie Cudden, Smart City Programme Manager, Dublin City Council.

#### **New Approach to smart city procurement innovation pays dividends**

Like most cities, Dublin aims to establish cycling as a viable and safe alternative to cars. Smart Dublin's first challenge launched in March 2016 with €150k of funding with a Smart Cycle Challenge where tech companies and entrepreneurs pitched their solutions to examine their feasibility and field-test them in the city.

In order to further scale up cycling the Smart Dublin Cycle Challenge sought smart low cost innovative solutions that addressed issues such as bicycle safety and security. A total of 98 companies expressed interest, 23 proposals were submitted with 5 companies securing initial feasibility funding contracts worth €12,500 each. Following this 4 of the companies are now prototyping their solutions (€25,000 each) with access to the city's infrastructure and internal city expertise to align their solutions with the needs of the city.

Watch this space for the latest in smart cycling tech and data insights to emerge from Dublin include a whole range of IOT devices including connected lights, bells, security trackers and smart signage.

#### **CONNECTIVITY IS KEY TO THE SMART CITY**

Smart Dublin offers an ideal test bed with multiple connectivity options. "We have recently built out a city-wide experimental LoRa network with our research partners

CONNECT based in Trinity College Dublin (TCD) while Sigfox have a fully available commercial network across Ireland. Vodafone are also planning to deploy a NB-IoT network in mid 2017. We are also building out a WIFI testbed over the coming year. The availability of all these connectivity options creates a fantastic opportunity for locally based IOT companies," says Jamie Cudden.

The Smart Cycle Challenge has been invaluable to the city allowing a number of different technologies to be tested, ranging from RFID, BLE to LPWAN. "For example to enable low cost- low energy tracking of stolen bikes saw one of the participants integrate trackers into bikes using the city-wide LORA network, for example. The real value of this type of engagement is for the city council to understand the potential of new technologies while companies can field-test smart solutions and hopefully scale these services to a global city market."

#### **Three new challenges launched with €600,000 of funding available**

Building on the success of the Smart Cycle Challenge applications are now open until the start of June 2017 to find new innovative smart, low cost solutions to tackle illegal dumping, to address flooding and also to improve wayfinding across the Dublin region (€600,000 in funding available). The winners will be selected by an open competition process run in two phases (feasibility and prototyping). The competition is open to any organisation, developers of ICT and software solution providers, universities and entrepreneurs.

**For more information please visit:**  
[www.smartdublin.ie](http://www.smartdublin.ie)