HH Sheikh Mohammed
@HHShkMohd

Today we launched Dubai Autonomous Transportation Strategy, by 2030, 25% of all trips in Dubai will be driverless
“Dubai has a unique approach, of not only focusing on becoming the smartest city on the Earth by 2017, it also aims to be the world’s happiest place, which makes the initiatives inclusive and these have been widely recognized world over. Derived from Dubai Plan 2021, the measures will lead Dubai to be a city of creative and happy, empowered people, be an inclusive and cohesive society, a competitive knowledge economy, under a pioneering excellent government.”

– Saeed Al Dhaheri, Chairman, Smartworld

Dubai is quickly thrusting towards the title of becoming the “world’s smartest city” by 2017, with over 100 smart initiatives being implemented by the end of 2018 and hundreds more as part of the Dubai Plan 2021.1 Completing this hugely innovative and complex undertaking will require the concerted efforts of dozens of key stakeholders from both the public and private spheres as they attempt to make all of Dubai’s infrastructure, public services and operations into one interconnected whole.

However, making a city truly ‘smart’ means different things to different people. For some, the implementation of eco-friendly technologies and initiatives is the key priority. For others, intelligent collection and use of all manner of data types comes first. For Dubai, smart mobility will be key and the success of its initiatives will be measured using a wide range of key performance indicators developed by the UN’s International Telecommunication Union (ITU). The two-year pilot project will see ITU and the Smart Dubai Initiative collaborate to help the city adopt master plans for sustainable urban development by city administrations, followed by rigorous assessments of the efficiency and sustainability of the city’s smart operations.2

Turning the Index Wheel: A New Approach to Smart City KPIs

In order to accurately assess the progress of a given city’s journey towards achieving ‘smart’ status, ITU have developed a universally applicable set of indicators which Dubai will be the first to test comprehensively. The Smart Dubai Index Wheel is split into six main parts with a number of tangible performance measures contained within each part.3

The six segments, and some of Dubai’s key smart initiatives to improve them, are:

Smart Economy: Dubai is promoting more innovation, new businesses and avenues of opportunity with new smart trade, investment and employment initiatives. For example, a new $545 million fund has been secured to provide financial support for startups to fund and transform their projects.

Smart Mobility and Infrastructure: Dubai’s Roads and Transport Authority (RTA) is building the Enterprise Command

1 The National, Dubai’s smart city ambition is a complex project. 16/12/2015
2 ITU, Dubai first city to trial ITU key performance indicators for smart sustainable cities. 13/05/2015
3 Smart Dubai Initiative, Smart Dubai and the ITU: A New Approach to Smart City KPIs, 22/12/2014
and Control Centre (EC3) which will act as a unified platform linking all city transport networks and traffic control systems.⁴

**Smart ICT:** 250,000 smart meters will be installed in residential, industrial and commercial properties by 2018 as part of the city’s efforts to improve the efficiency of its utilities services and data collection techniques.⁵

**Smart Environment:** 100 green vehicle charging stations will be installed across Dubai to help encourage inhabitants to buy zero emission electric cars.⁶

**Smart Governance:** The Dubai Open Data Law will increase sharing of non-confidential information between government agencies and the public. An integrated platform will encourage collaboration between public and private sectors.⁷

**Smart Living:** Dubai has begun implementing Smart Home, a revolutionary application of smart health technology that uses a network of smart sensors to monitor health information and give prescription reminders, all within the comforts of the patient’s own home.⁸

### Rapid Advances in Smart Mobility

“Dubai is leading the cities of the world by taking a big leap in the adoption of artificial intelligence to serve humanity and establish a global model of the city of the future as we aim to become the world’s largest laboratory for technology and research and development (R&D). Today we put forward clear and precise goals for Dubai Autonomous Transportation Strategy, making it one of the main pillars to achieve a sustainable economy for the emirate.” – HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE

Many of the most visible changes in Dubai under the city’s smart initiative relate to the delivery of smart mobility, as the RTA has nine critical KPIs to achieve in improving the city’s transportation system. In April 2016, the Dubai city planners and the UAE Government demonstrated their commitment to leveraging the latest technology to achieve city-wide smart mobility. As HH Sheikh Mohammed announced on Twitter on 25/04/2016:

“Today we launched Dubai Autonomous Transportation Strategy, by 2030, 25% of all trips in Dubai will be driverless.”

The strategy aims to create almost $6 billion in annual revenues for multiple sectors in Dubai by introducing driverless vehicles that will massively reduce the overall level of transportation costs, carbon emissions and accidents in the city. Further revenue boosts are predicted, due to heightened productivity, since autonomous vehicles will be saving citizens an estimated 396 million hours normally wasted every year due to the inefficiencies of conventional transportation systems.⁹

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⁴ Gulf News, RTA to build new central command centre, 11/06/2016
⁵ eGov Innovation, A look into Dubai’s smart city initiatives, 20/01/2016
⁶ Khaleej Times, Dewa’s schemes in line with the Dubai Smart Initiative, 24/06/2015
⁷ Ibid
⁸ Smart Dubai, Smart Dubai highlights focus on health during UAE eHealth Week, 22/12/2015
⁹ The Urban Developer, Dubai Launches Driverless Car Strategy, 28/06/2016

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By 2030, overall transportation costs are predicted to be cut by 44%, equating to $245 million in savings. Traffic accidents will be down by 12%, as will the city’s carbon emission rates, saving another $950 million annually.\textsuperscript{10}

As well as encouraging the proliferation of autonomous cars, RTA has also been trialling the use of driverless vehicles to provide “last mile solutions” around the city, providing commuters door-to-door connectivity with Dubai Metro and other modes of transport. These trials include the use of EZ10 electric shuttle vehicles, which can seat 10 passengers that can run in both directions as they have no specific front or rear. Currently the EZ10s only occupy a 700-metre trial route in the downtown area but after successful trials the system is expected to be significantly expanded under the Dubai Autonomous Transportation Strategy.\textsuperscript{10}

\textbf{Driving Autonomously to create a smarter, safer and more efficient Dubai}

Smart City initiatives, while specific and unique to the country implementing them, are creating a common global theme of technological innovation and adoption designed to make cities better in a huge variety of ways. Utilising the “internet of Things” approach, with interconnected ICT systems providing much more efficient and sustainable transportation, is revolutionising the way cities are being planned and adapted. Current predictions suggest that the IoT impact on smart cities could reach $1.6 trillion by 2025, with $800 billion of that total affecting transportation.\textsuperscript{12}

Smart mobility will play a central part in Dubai’s smart city journey, with autonomous vehicles representing the key technological innovation that will enable this transformation. As such, the 14-year-long strategy to enact the legislation, integration and operation of autonomous vehicle-based technologies in Dubai will represent billions of dollars of investment and economic opportunities for decades to come.

\textsuperscript{10} Ibid
\textsuperscript{11} Gulf News, Driverless vehicle on trial in Downtown Dubai, 31/08/2016
\textsuperscript{12} Arabnet, Dubai Setting New Standards for Smart Cities, 16/08/2016
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Join Supreme Council of Energy, RTA, DEWA, Uber, Department for Transport UK and the Centre for Connected & Autonomous Vehicles, and more at the 3rd Smart Mobility UAE Forum, to learn about Dubai’s smart mobility initiatives and their requirements to achieve smart city KPIs.

Visit www.smartmobilityuae.com for more information.