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| **Regional Preparatory Meeting for WTDC-17 for Asia and the Pacific (RPM-ASP)**  | P:\SUP\Logos\Post-150th Anniv\ITU-logo-UNblue.jpg |
| **Bali, Indonesia, 21-23 March 2017** |
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| **Director, Telecommunication Development Bureau** |
| INFORMATION DOCUMENT FROM intel CORPORATION ASIA-PACIFIC REGIONAL INITIATIVE ON IOT AND 5G |

I have the honour to transmit herewith the attached document from INTEL Corporation for your information.

Brahima Sanou

BDT Director,

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| **Summary:**This document highlights the benefits of IoT and 5G to national economies and citizens. 5G would boost the benefits of IoT (smart cities, smart transportation, smart agriculture etc.) with the new smart capabilities. Therefore, it would be important to have a relevant regional initiative, while embracing a global perspective in standardization and interoperability, for getting maximum benefit from the advantages of IoT and 5G and their synergy. **Expected results:**To highlight the importance of IoT and 5G for the development in Asia and the Pacific Region. This initiative would help the realisation of Sustainable Development Goals, WSIS targets and other development objectives. Most importantly, it would help to increase the life quality of people in ASP region. **References:**N/A |

**Introduction**

Billions of increasingly smart and connected devices, enabling data-rich consumer services, industrial applications, and cloud applications are driving the need for smarter and more powerful networks. IoT provides proven very important benefits to citizens and national economies. 5G will boost the benefits of IoT and we need the capabilities of 5G for the introduction of new very important IoT applications such as self-driving automobiles with real-time safety communications, intelligent traffic routing, smart cities, connected health innovations and more.

The transition to 5G brings communications and computing together and is a fundamental shift. 5G will be able to provide the higher data rates (1-20 Gbps), much lower latency and capacity needed to enable the Internet of Things (IoT), new service models and immersive user experiences.

According to McKinsey, if policy makers and businesses get it right, IoT could generate up to $11.1 trillion a year in economic value by 2025[[1]](#footnote-1). And according to IHS report 5G will enable $12.3 trillion of global economic output when its full effects are realized and massive IoT deployments will be a key factor for this output[[2]](#footnote-2). Asia Pacific Region needs to get maximum benefit from this opportunity.

**Importance of IoT and 5G for the ASP Region**

**Smart Cities:** Increasing demand for everything from reliable energy to improved air quality and traffic flows will require innovation in urban centers. IoT and 5G will play very important role for the smart cities.

**Smart Transportation:** According to WHO’s “Road Safety Status” report[[3]](#footnote-3); More than 1.2 million people die each year on the world’s roads, making road traffic injuries a leading cause of death globally. Road traffic injuries place a huge economic burden on low- and middle-income countries and are estimated to cost US $518 billion globally and US $65 billion in low-income and middle-income countries, exceeding the total amount received in development assistance[[4]](#footnote-4). 5G will be able to provide smart roads and smart vehicles to prevent the accidents. Cars will talk to each other to avoid accidents and have situational awareness of their environments.

**Smart Health:** 5G networks open up new avenues for the delivery of health care. Instead of bringing patients to a doctor for treatment, 5G networks can connect patients and doctors from across the globe. Connecting more medical devices to IoT will enable doctors to monitor patients without the need for costly in-patient care. Digital imaging can be sent anywhere in the world for analysis, expanding access for patients who live far away from health care providers and lowering the cost of getting a second opinion. Remote surgery will reduce the latency to enable remotely assisted surgery. Specialists are not available in many hospitals and could join a local surgeon remotely to perform procedures which require expert skills.

**Smart Education:** 5G will enter the classroom and bring new ways of learning to students. Augmented Reality, Virtual Reality and Virtual Presence will mean that students will be immersed in a more visual and interactive learning experience where students and teachers may not necessarily be in the same location.

**Smart Water Management and Agriculture**: Solution for smart water management and smart agriculture systems. Such as sensors with wireless connectivity for crop fields can help optimize growing and minimize use of water and fertilizers through more targeted application.

There are more 5G applications, vertical industries (IoT) and details can be seen at “[ITU-R WP5D Contribution 163](http://www.itu.int/md/meetingdoc.asp?lang=en&parent=R15-WP5D-C-0163)”

By establishing and implementing the right IoT and 5G programs (both national and regional level, as part of the global IoT ecosystem), Asia-Pacific region can unlock these benefits for their economies and citizens. Therefore, Asia-Pacific region needs to benefit from the full advantage of IoT and 5G.

**Regional Initiative Proposal**

**Seizing the Benefits of IoT and 5G**

**Objective:** To assist Asia-Pacific Region to seize the benefits of IoT and 5G.

**Expected Results**

-Establishment of National and Regional strategic plans/guidelines to accelerate the IoT and 5G in the region.

-Development of appropriate policy and regulatory framework to boost the IoT and 5G.

-Assistance to countries for the preparation and implementation of IoT, 5G plans and applications.

-Best practices and approaches to accelerate the IoT and 5G, including financing mechanisms.

-Development of the human resources, through training programmes, workshops etc. to exchange expertise.

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1. <http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/the-internet-of-things-the-value-of-digitizing-the-physical-world> [↑](#footnote-ref-1)
2. <https://www.ihs.com/Info/0117/5g-technology-global-economy.html> [↑](#footnote-ref-2)
3. <http://www.who.int/violence_injury_prevention/road_safety_status/2015/en> [↑](#footnote-ref-3)
4. <https://www.cdc.gov/features/globalroadsafety> [↑](#footnote-ref-4)