KEYNOTE BY MR TAN BOON KHAI, CHIEF EXECUTIVE OF SINGAPORE LAND AUTHORITY AT UNITED NATIONS WORLD GEOSPATIAL INFORMATION CONGRESS ON 20TH NOVEMBER 2018, 11:00AM, MOGANSHAN HALL, DEQING INTERNATIONAL CONVENTION CENTRE

Plenary Session 3: Building Smart Societies

Keynote Title: Building a Smart Society: Catalyst for Change

Greetings

1. Your Excellencies, Distinguished Guests, Ladies and Gentlemen.

2. A very good afternoon to you all. I am extremely delighted, and humbled, to be here today, sharing with you on a topic close to my heart – Building Smart Societies.

3. This is an issue which, as a small country, and limited by land resources, Singapore has been thinking about, consciously and conscientiously. It is also an area where the Singapore government has taken the lead and driven various initiatives, as part of our journey towards a Smart Nation.

4. Ultimately, like many of you here, be it from the public or private sectors, we believe that harnessing geospatial technologies and data will allow us to build a better country, and a better world.

5. But before I start, I would like to take a step back, and ask the question: "What does a Smart Society mean to you?" To a small country like Singapore, as William Priest, Chief Executive of the UK Geospatial Commission, said yesterday, **it is really about empowerment**.

6. It is about empowering the government, with its resources and data collected, to make informed decisions to plan and to build the country, for today and tomorrow, for the benefit of citizens.

7. It is about empowering businesses, who need real time geospatial information and data, to make effective business decisions, and to be efficient and productive.

8. It is about empowering citizens, to make meaningful decisions in their everyday activities, and to lead better lives.

9. And when you bring it all together, it is about empowering the community, to participate together responsibly in a well-informed geospatial ecosystem, and to build the future.

10. To illustrate this point on empowerment, let me share with you two examples which we are

doing in Singapore, built on the foundations of geospatial data and information.

11.   The first is an app, which was created by the Civil Defence Force in Singapore. The app is called **MyResponder.** Here's how it works – let's say a man is suffering from a cardiac arrest. When an emergency call is made, the Civil Defence operations centre will, as all other countries would, activate and deploy an ambulance to the scene.

12.   In our case in Singapore, we have a target for the ambulance to reach the victim within 11 to 13 minutes. Geospatially, we know this is possible because we have spread our ambulances around the country.

13.   But there are some limitations. As we all know, in a case of cardiac arrest, every minute counts. Every minute earlier where the victim receives some treatment increases the chances of survival exponentially. In a perfect world, the ambulance would reach the victim within five minutes of the emergency call.

14.   But we know it is not always possible, because we do not have an infinite number of ambulances on standby, and there are also road conditions to contend with. What do we do then?

15.   So in our case, other than deploying the ambulance, once the ops centre receives the call, the officer will also ping out an alert to volunteers

within 400m of the victim's location. We call these volunteers community first responders, and their role is to reach the victim, within minutes, and before the ambulance arrives, to stabilise the victim. The app also highlights nearby Automatic External Defibrillators or AEDs on a map to the community first responders, should the first responders require. Time is of essence when it comes to cardiac arrests, and a responder who responds to the scene where the victim is can substantially increase the victim's survivability.

16.   With more than 72,000 downloads, the app has enabled more than 1,600 such community first responders to arrive at incident scenes to help, and

at the end of last year, there have been 9 survivors, thanks to the app. The app has now proven so successful in galvanising the community that we have now extended its functionality to alert volunteers to cases of minor fires, such as small bins fire, where such fires can be quickly put out by nearby volunteers easily.

17.   Through this app, using geospatial data and technology, and bringing together the community, we have been able to improve the quality of our society as a whole. More importantly, the app empowers decision making and action on the ground, and better decisions are being made, and lives being saved.

18.   Another example which we have is OneMap. Yesterday, you heard the Honourable Minister from Indonesia talk about creating a map where different geospatial layers are brought together for better decision making. In Singapore, we have that map, and we call it ….. OneMap.

19.   What is OneMap? It is an open source data sharing platform built by the government to share geospatial data and services to businesses and the general public. You can download it easily from the app store, and it serves as a common platform for government agencies to share highly localised, granular and authoritative data to businesses and the public.

20. In a smart society, the government doesn't have to do everything. But the government does have a responsibility to enable growth, and through the proliferation of geospatial data in OneMap, businesses and citizens can make queries on businesses, land information and amenities nearby. They can also download datasets or call APIs to develop their own apps and solutions.

21. The nub of it is this - citizens and businesses are able to conveniently access the geospatial data and services they need, 24/7, and are empowered to make better and smarter decisions. Our role, as a government, is to facilitate such an empowerment.

<u>What do Smart Societies need?</u>

22.   Let me now briefly suggest some aspects which

I think is important in Building Smart Societies – the

catalysts, you might say.   The two examples I

highlighted earlier show that it is important to think

how location and geospatial data can be used to

solve societal problems. The Honourable Minister

for Natural Resources highlighted yesterday that

more than 80% of data today involves some

location-element, and this is also something which

Jack Dangermond, whom you also heard yesterday,

believes. It is therefore important to have a "spatial

mind-set", or spatial thinking - **the ability to think**

about how we can use location and geospatial data to solve problem sets.

23.   We need to raise the spatial awareness and the overall mastery of geospatial skillsets, and not only in the geospatial sector, but also in different user sectors. We also need to start young, and where future generation of world leaders understand how location-based data can contribute to making a better tomorrow.

24.   But beyond having the ability to think spatially, it is also important to maintain **diverse skillsets**, which can be integrated with spatial data to solve problems. Most innovation these days comes from a recombination of things that had been invented

before. R&D today is more about applications of technology to different areas, rather than just pure invention of new things. In order for spatial thinking to be impactful, it must also be from, and for, different skillsets. Only then will solutions based on the fundamentals of geospatial data be holistic and complete.

25.   Third, and I believe this is critically important in today's context more than ever – we need to continue to build a culture of experimentation within the geospatial sector. Today's problems are complex problems, and not every solution works the first time. Experimentation is key, and where a solution is successfully, it needs to be scaled up.

26.   At SLA, we recently launched GeoWorks, an industry centre to foster a vibrant geospatial industry ecosystem in Singapore. We learnt that various other countries were also building similar ecosystems in other fields, and we wanted to create an experimental space where geospatial start-ups, companies and government can come together to work on problems and co-create new solutions. At GeoWorks, amongst other things, we conduct challenges to get companies and government to think about how we can apply geospatial data and technologies, such as to optimise logistics or streamline real estate management challenges.

27.   The point is really this – as a government, we might not have all the answers to the problems faced by everyone, but we can, together with everyone else, come together and co-create solutions, through experimentation. You may not get it right the first time round, but you will learn and improve.

A Smart International Community

28.   Finally, what's next from Smart Societies? In Singapore, we aspire to be a Smart Nation, where we intersect data, policies, technology and initiatives to transform our country. Being a Smart Nation allows us to be a better country. But we also

face challenges, and are not immune to uncertainties of the world. Likewise, many countries and cities also have their own respective challenges, which they are trying to solve by becoming "smart".

29.   So, not only does each country need to build its own Smart Society to thrive, but more importantly, we all need to collectively build a Smart International Community, for all of us to learn, to collaborate, and to tackle challenges and solve problems.

30.   Yet, the reality is, we still face a vast geospatial "digital divide" today. Although many countries

have reaped opportunities from an abundance of geospatial data and technology, there are others being left behind.

31.　　Given that all our fates are ultimately intertwined; the challenge here is then how do we come together, and build a Smart International Community collectively? How do we address the digital divide when we have great diversity in size, language, infrastructure and developmental models? The key, to me, is through commonalities in geospatial domains, such as interoperability, open standards and data sharing. Through various platforms at UN-GGIM, and other non-

governmental organisations, much work has been done on this area, but I believe there is much more to do. A truly Smart International Community will not only involve countries and government, but also businesses and citizens, all coming together. And I can think of no better place to start than at this Congress.

Building a Smart Society: Catalyst for Change

32.   Smart Society ultimately is a catalyst for Smart Living, for citizens and for businesses. Geospatial data, by itself, is a leveller. It is the based upon which all other data is integrated on. It can therefore be a way to overcome barriers to entry,

not only in language, and geography, but also in many other areas.

33. We have a great opportunity today for technologists, businesses, geospatial agencies and governments to come together to start the conversation on building a Smart International Community. Let us continue to share with each other our best practices and experiences, and to continue learning. Thank you very much.