



Institute for  
Infocomm Research



# TRANSFORMING SINGAPORE INTO A **SMART NATION**



**Inventing The Future**

# INTRODUCTION:

Infocomm and media (ICM) technology is of utmost importance to Singapore. Creative and effective use of technology allows Singapore to connect as a community and enables a better quality of life for all Singaporeans. It also allows Singapore to overcome the constraints of its size and enables its companies to serve global markets.

To create a nation that leads the world in tapping the potential of infocomm and media technology, the Singapore government has launched the Smart Nation Initiative. This initiative allows the nation to act boldly to manage future challenges and dynamically capitalise on possibilities.

“ We will make Singapore a Smart Nation: enabling safer, cleaner and greener urban living, more transport options, better care for the elderly at home, more responsive public services and more opportunities for citizen engagement.

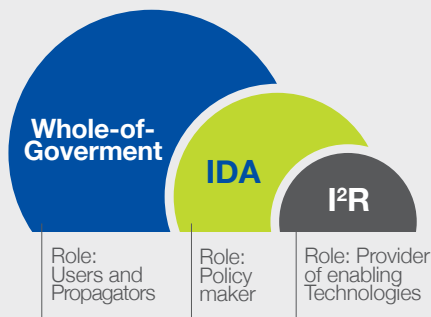
- President Tony Tan, President's Address at the opening of the second session of the Twelfth Parliament

## I²R's Key Focus Towards Realising A Smart Nation

A key driver of the Smart Nation Initiative, I²R seeks to realise the vision of the initiative by focusing on two tracks: **Forging stronger public-public partnership and building closer public-private partnership.**

### Key Focus #1: Government Bodies Brought Together By Common Platforms And Data

A public-public partnership will see government agencies engaged and connected via common platforms to realise a smart nation.



### How it works:

- Government will be the lead user in creating smart, connected and sustainable districts like the upcoming Jurong Lake District. These districts will serve as large-scale test beds that will eventually be scaled up to the national level.
- A system approach will see innovations shared across the whole of government, reducing cost and increasing effectiveness.
- I²R to be the ICM R&D centre for national initiatives, with other government agencies and ministries leveraging on I²R's R&D capabilities.

### Key Focus #2:

#### Collaboration Between Government And Key Stakeholders

The Singapore government invites industry to be a partner in creating new technologies that will enable a smart nation. The government will work hand in hand with corporations to deliver innovative ICM solutions that will optimise our national resources, drive productivity for critical industries, and build globally competitive Singapore-based companies.

### Key Partnership #1:

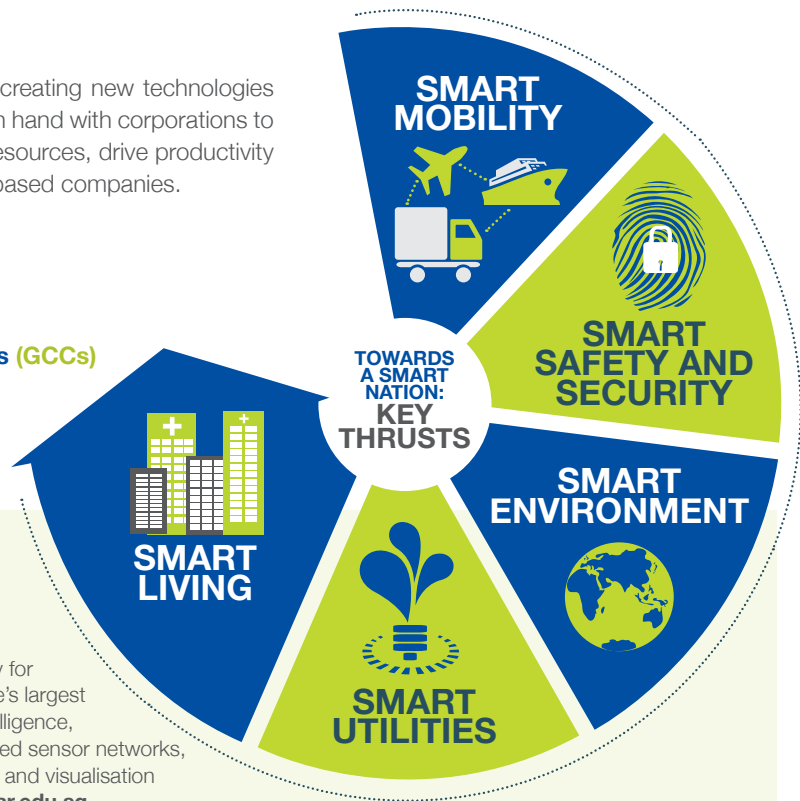
**Government and Multinational Corporations (MNCs)**

### Key Partnership #2:

**Government and Local Globally Competitive Corporations (GCCs)**

### Key Partnership #3:

**Government and Small and Medium Enterprises and Technology Start-ups (SMEs)**



#### About Institute for Infocomm Research (I²R)

The Institute for Infocomm Research (I²R) is a member of the Agency for Science, Technology and Research (A\*STAR) family and is Singapore's largest ICT research institute. Our strategic thrusts are in the spheres of intelligence, communications and media and our research capabilities are in shared sensor networks, public-public/public-private data-sharing platform, big data analytics and visualisation solutions. For more information about I²R, please visit [www.i2r.a-star.edu.sg](http://www.i2r.a-star.edu.sg)

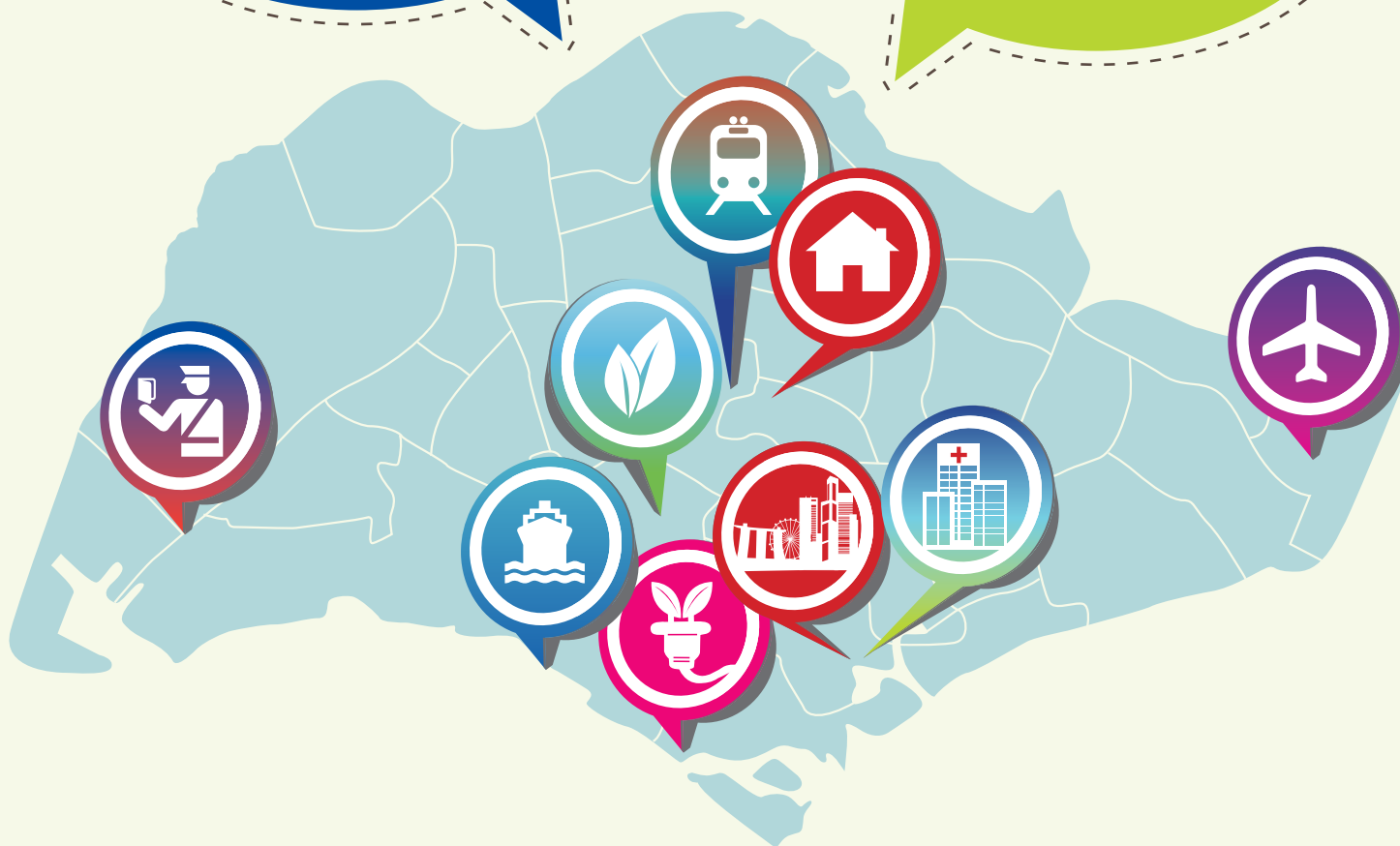
# STRONGER PUBLIC-PUBLIC PARTNERSHIP

## Whole-of I²R for Whole-of-Government

Government agencies will work closer than before so that innovations are implemented across the whole of government. They will do so by pooling resources and, in some cases, by focusing on test bed projects that can be scaled up to the national level.

**I²R** has set up a joint laboratory with **Land Transport Authority (LTA)** to develop a next-generation transportation network that will improve commuters' travel experience.

**The National Healthcare Group (NHG)**, a leader in public healthcare, linked up with I²R to set up the **AVATA (Advanced Vision and Technology Alliance)** innovation laboratory to create advanced technology for safer treatments.



Singapore has the unique opportunity to be the world's first smart nation, where any parts of Singapore can be connected to different parts of Singapore.

- Steve Leonard, Executive Deputy Chairman,  
Infocomm Development Authority of Singapore, at the CommunicAsia 2013 Summit

# CLOSER PUBLIC-PRIVATE PARTNERSHIP

## The **RE**search And **C**ommercialisation **H**ub

### CREATING AN INNOVATION ECONOMY

We recognise that the integration of smart technologies in a smart nation needs to be in tune with economic realities. Hence deep public-private engagement is critical. To achieve this, I<sup>2</sup>R collaborates with corporations to conduct joint research and to co-innovate. The first step taken towards this was the launch of the first wave of joint laboratories by I<sup>2</sup>R. Collectively called REACH @ I<sup>2</sup>R (the **RE**search And **C**ommercialisation **H**ub), these 13 joint laboratories are where collaboration with enterprises will take place.

## 1 Engaging MNCs

A number of MNCs have co-founded joint laboratories with I<sup>2</sup>R. These laboratories create high-value jobs and develop a pool of locally based researchers with deep expertise, which strengthens the foundation of Singapore's knowledge-based economy.

### The I<sup>2</sup>R – McLaren Applied Technologies Joint Laboratory

partnership will explore predictive analytics, modelling and simulation for the transportation, energy, healthcare and wellness industries.

In 2012, Internet giant Baidu and I<sup>2</sup>R established Baidu's first overseas research laboratory called the **Baidu-I<sup>2</sup>R Research Centre (BIRC)** in Singapore. The centre focuses on Natural Language Processing.

## 2 Growing GCCs

I²R works with local globally competitive companies to strengthen their competitiveness in the global market through research and innovation, so that they will grow.

The **NCS Group and I²R** launched a **joint laboratory** to develop Big Data Analytics technology innovations, with focus on harnessing insights and creating value from data assets.

The **I²R-STEE Info-Comm Joint Laboratory** sees ST Electronics (Info-Comm Systems) and I²R pooling their strengths to develop advanced software-defined communication systems.

An alliance between DBS and I²R created the **I²R-DBS Joint Laboratory**, which focuses on creating new ways to engage customers through innovative technology.

## 3 Empowering SMEs and Start-ups

I²R works closely with IDA and SPRING Singapore to support SMEs and technology Start-ups. The goal: To increase the productivity of SMEs by creating ready-to-deploy technology that improves productivity and reduces manpower demands.

With StarHub proven cloud platform technology coupling with I²R SMP technology, **Reachfield IT** combines the cream of the crop technologies and provides a stable, scalable and robust video solution to our existing customers.

**Fosta**, a vibration and noise monitoring company for the building and construction industries, installed a new remote vibration monitoring system that was jointly developed with I²R that will increase productivity by 50%.

I²R spin-off **Knorex** is licensing its ARise augmented reality app to six regional newspapers. The key component in the app is Snap2Tell, an award-winning software developed by I²R.



Institute for  
Infocomm Research

1 Fusionopolis Way #21-01 Connexis (South Tower) Singapore 138632

**Email:** [inddev@i2r.a-star.edu.sg](mailto:inddev@i2r.a-star.edu.sg)

**www.**[i2r.a-star.edu.sg](http://i2r.a-star.edu.sg)



**www.**[facebook.com/i2r.research](https://www.facebook.com/i2r.research)