

ICT, The Strategic Enabler Towards A Knowledge Based Society

Shaik Umar, Centre Director,
Infocomm Development Authority of Singapore

26 April 2012



Agenda

- > **Introduction to IDA and Singapore**
- > **Intelligent Nation 2015 (iN2015)**
- > **Sectoral Transformation:**
 - **Transforming the Government**
 - **Transforming the Supply Chain and Logistics Sector**
 - **Transforming the Education Sector**
 - **Transforming the Society**

About IDA



A single government agency responsible for the **planning, policy, regulation** and **industry development** of ICT in Singapore

- > Infocomm Master-Planner and Developer
 - Formulate national infocomm masterplans, policies and technology road maps to leverage ICT for economic development and social growth
- > ICT Industry Champion
 - Create a conducive, innovative, and competitive infocomm environment that is both pro-consumer and pro-business
 - Develop a vibrant infocomm ecosystem
 - Develop an infocomm savvy and globally competitive workforce
- > Chief Information Officer to Government
 - Architect e-government plans and manage infocomm systems deployment in the government



About Singapore

- 
- > Land Area : 707 sq km
 - > Population : 5.18 million (Resident 3.8 million)
 - > GDP : S\$327 billion (US\$262 billion)
 - > GDP Per Capita : S\$63,050 (US\$50,123)
 - > Literacy Rate : 96.1%
 - > Labour Force : 3.14 million
 - > Government Agencies : 15 Ministries, 63 Statutory Boards
 - > Public Sector Officers : > 120,000

Transforming the Nation

ICT as a strategic enabler to drive unlimited possibilities

2006 - 2015

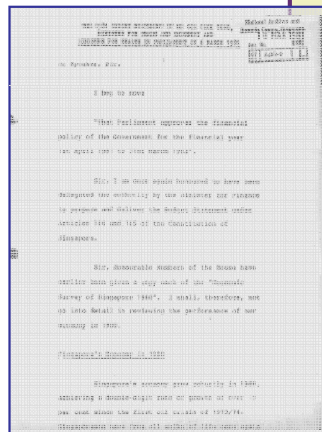
2003 - 2006

2000 - 2003

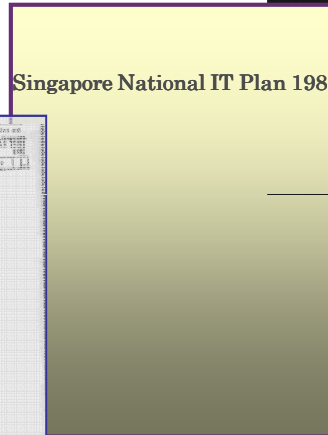
1992 - 1999

1986 - 1991

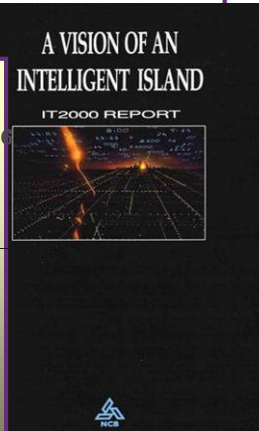
1981 - 1985



**National
Computerisation Plan**
... Communications
Computerisation



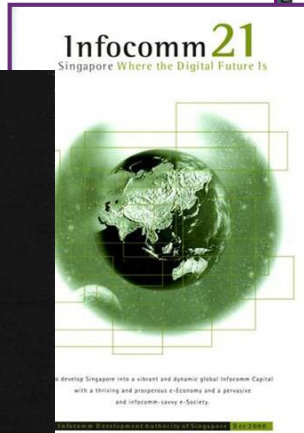
**National IT
Plan**



IT2000

... Connectivity
and Content

... Convergence



Infocomm 21

... Connectedness



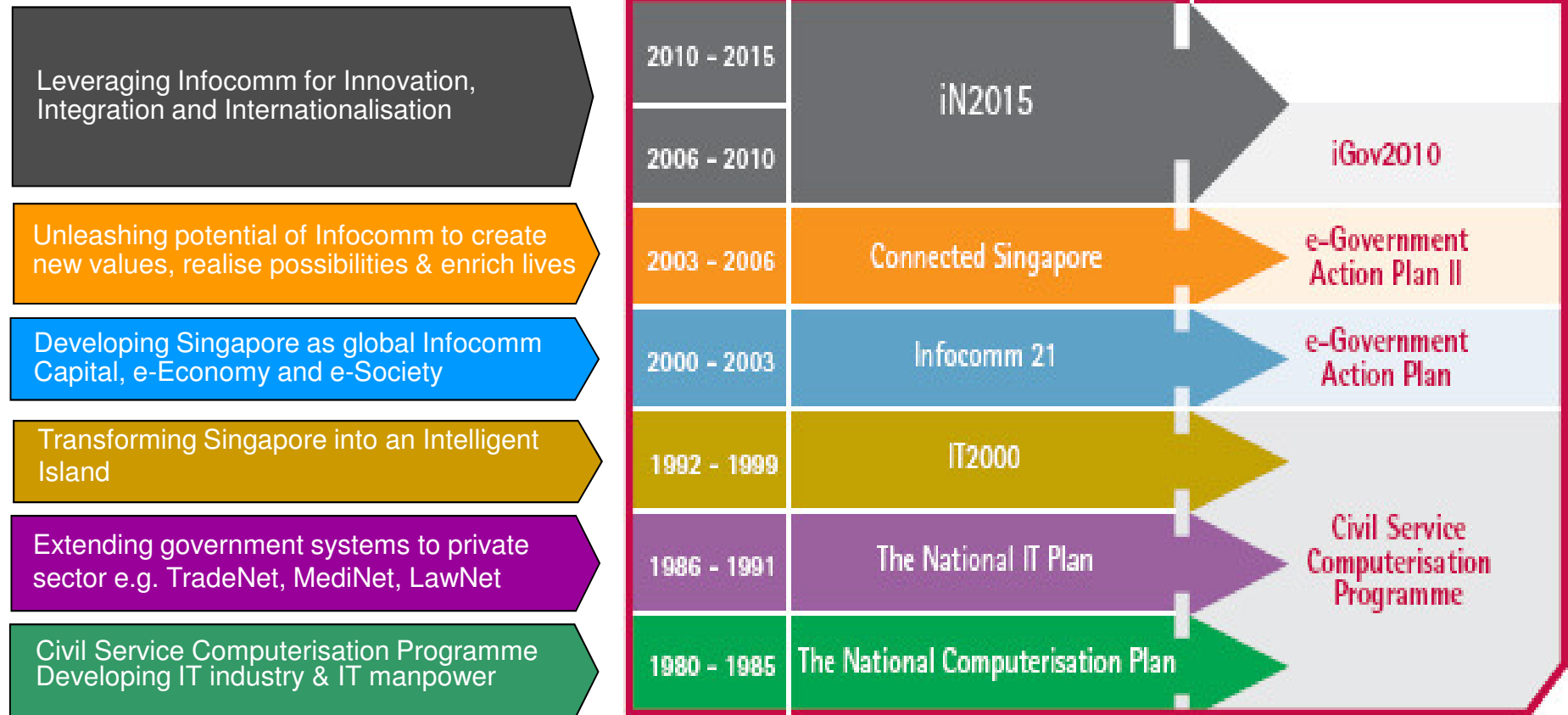
**Connected
Singapore**



Intelligent Nation

... Creation

Six National Strategic ICT Plans



Singapore ICT Landscape

A background image of the Singapore skyline at night, with city lights reflecting on the water. The image is partially obscured by a dark grid overlay where the table is located.

> Households with access to computers	80.0% (2009)
> Internet Penetration to Households	76.0% (2009)
> Broadband Penetration to Homes	152.1% (2009)
> Broadband Penetration to Businesses	87% (2009)
> Mobile Phone Penetration	137.6% (2009)

Singapore ICT Landscape



Infocomm Industry

	2009	2010
Infocomm Industry Revenue (S\$billion)	62.7	70.4
Annual Growth (%)	8.0	12.2
Domestic Revenue (%)	35.5	33.8
Export Revenue (%)	64.5	66.2



Infocomm Manpower

	2009	2010
Infocomm Manpower	140,800	141,300
Annual Growth (%)	1.3	0.4



Infocomm Usage

Households and Individuals

	2009	2010
Households with Access to Computer (%)	83	84
Households with Internet Access (%)	81	82

Business

Business Broadband Adoption (%)	2009	2010
Overall	69	73
< 10 Employees	64	68
10 to 49 Employees	85	88
50 to 199 Employees	95	99
200 & Above Employees	100	99

International Recognition



WASEDA University
World eGovernment

2012: 1st since 2009



THE WORLD BANK

Ease of Doing Business

2012: 1st since 2007

Economist Intelligence Unit

The Economist

eReadiness

2010: 8th

Economist Intelligence Unit

The Economist

Benchmarking IT Industry Competitiveness

2010: 8th



The Global Competitiveness Index

2011: 2nd



Global Information Technology Report

2012: 2nd



World Competitiveness Yearbook

2011: 3rd



United Nations E-Government Survey

2012: 10th

iN2015 < An Intelligent Nation, a Global City, powered by Infocomm

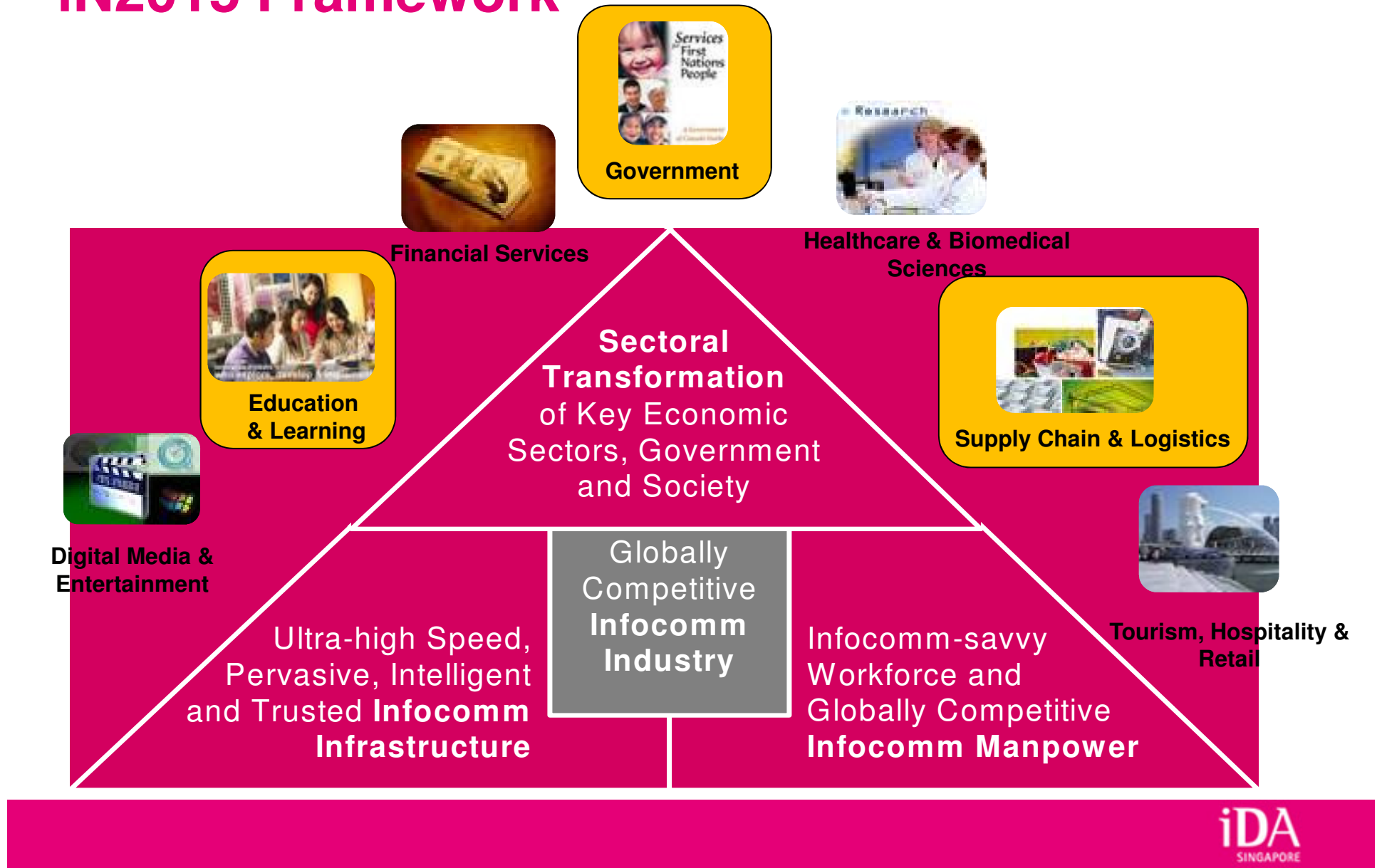


iN2015 Desired Outcomes

- **Enriched lives through infocomm**
- **Enhanced economic competitiveness and innovation through infocomm**
- **Increased growth and competitiveness of the infocomm industry**

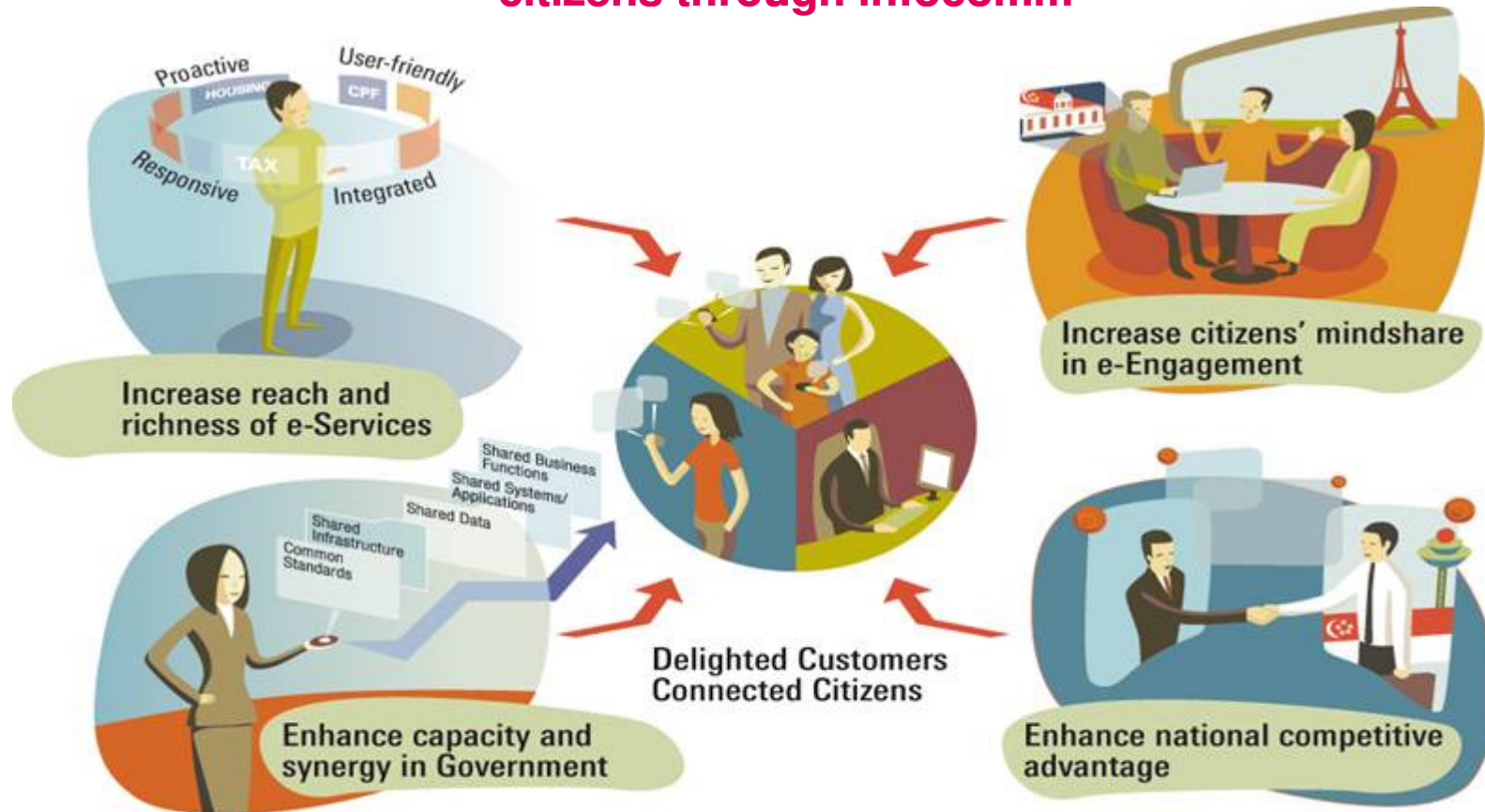


iN2015 Framework



Transforming the Government

To be an Integrated Government that delights customers and connects citizens through infocomm



Transforming Government Services



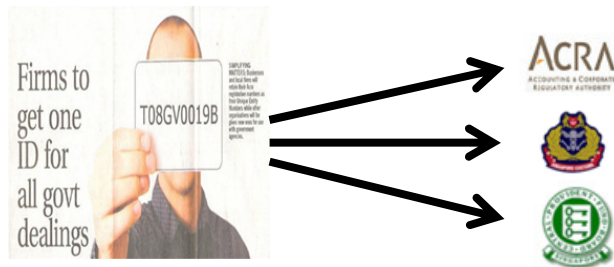
eCitizen:
Govt-to-Citizen Portal
• 1,600 government's e-services



Online Business Licensing Service:
Govt-to-Business Portal
• Over 80 licensing services online
• Over 30,000 business applications online annually



SingPass:
One password to access govt e-services
• Over 3 million registered users
• Over 31 million transactions annually



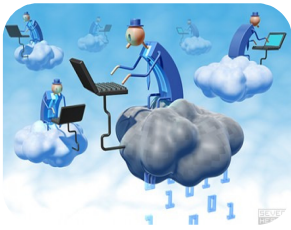
One Unique Identification Number for Each Entity to Interact with Government Agencies
• Over 400,000 entities (companies, societies, associations etc.)



M-Gov:
• Over 300 mobile govt services
• Top 20 "Innovations in Transforming Govt Award" by Harvard University & IBM
• Top 10 finalist for CAPAM International Innovations Award

Collaborative Government (2011-2015)

To be a Collaborative Government that
co-creates and **connects** with our people



Cloud Computing

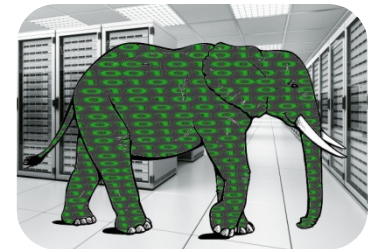


Social Media

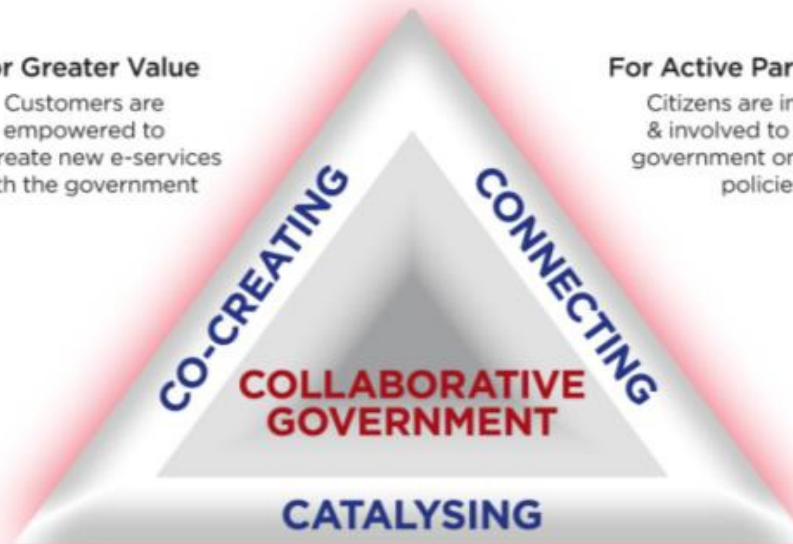


For Greater Value
Customers are
empowered to
co-create new e-services
with the government

For Active Participation
Citizens are informed
& involved to engage
government on national
policies



Big Data



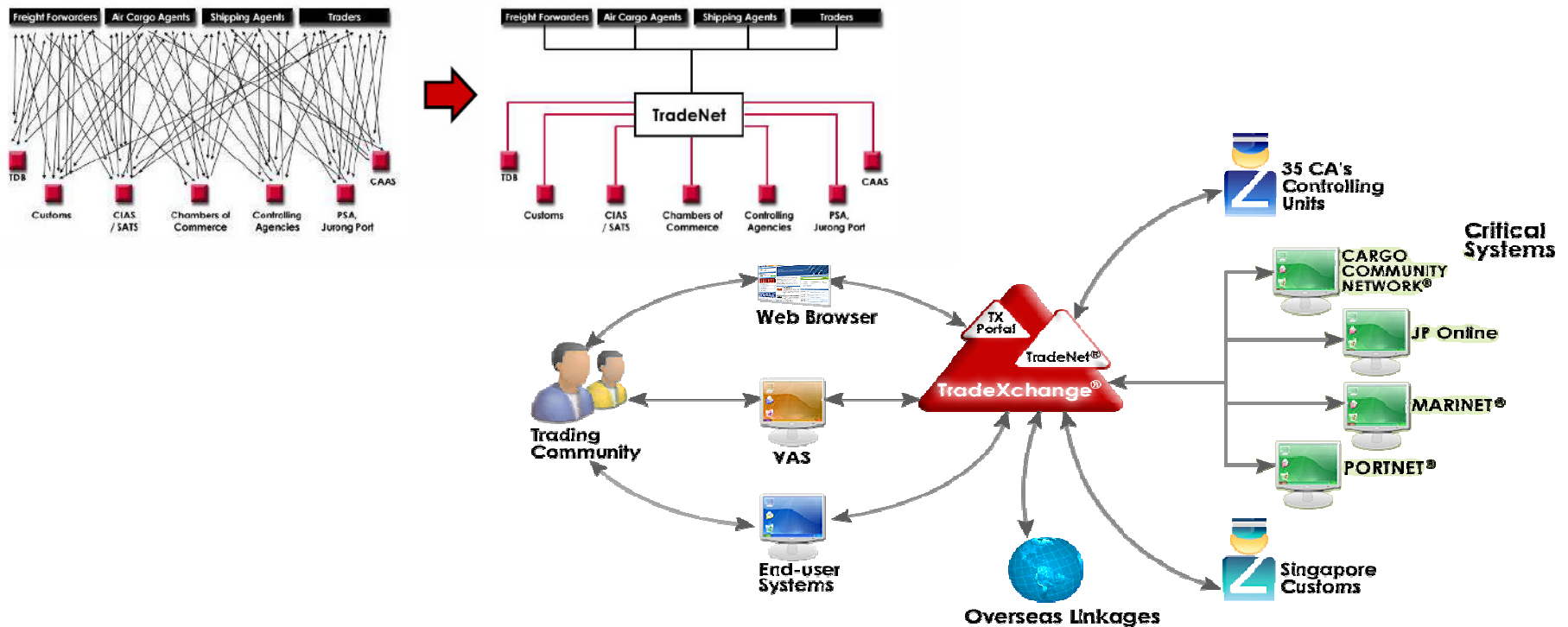
Whole-Of-Government Transformation

Whole-of-government collaboration is enhanced through innovative and sustainable technologies



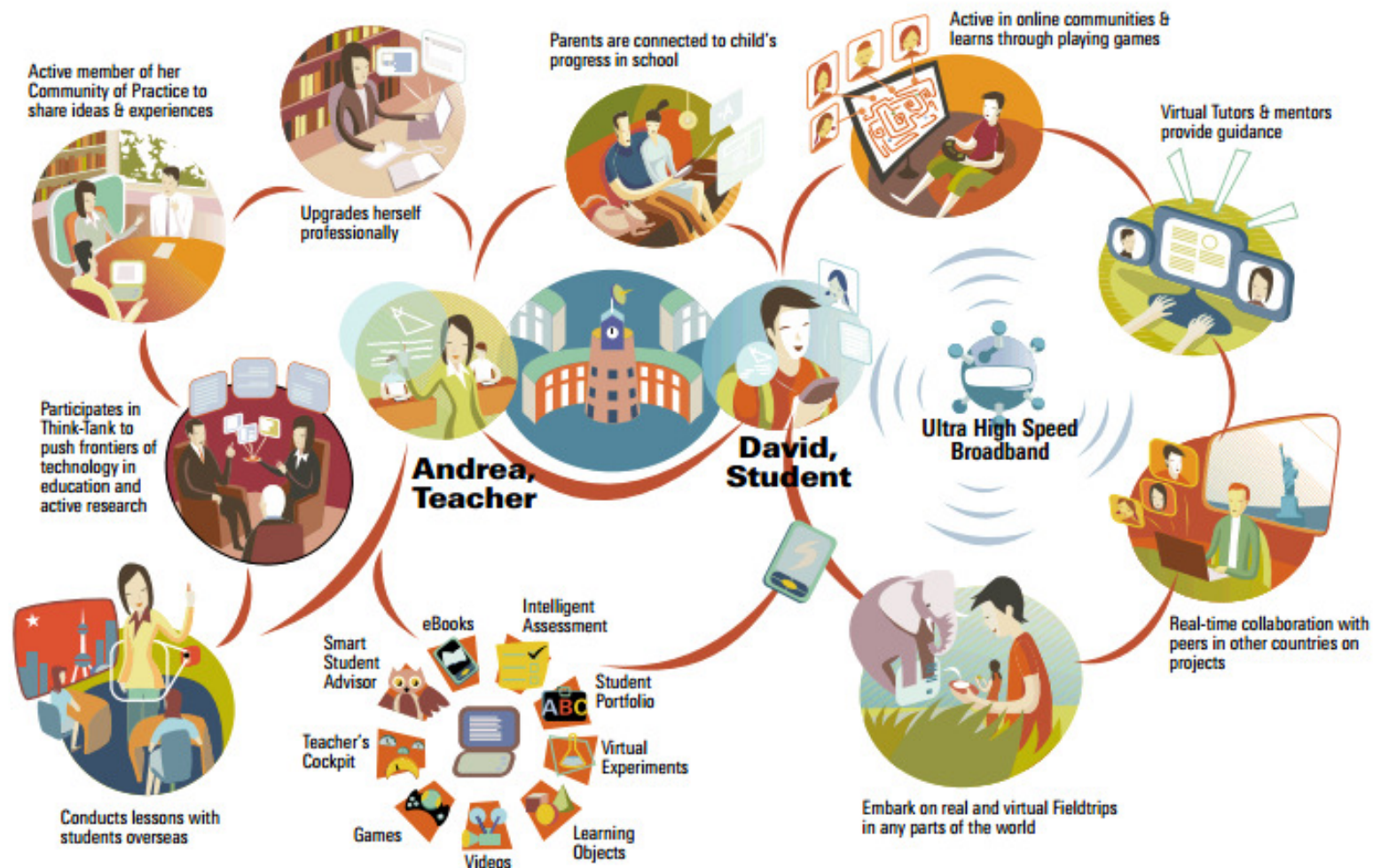
Transforming the Supply Chain and Logistics Sector

World's first nationwide trade clearance system
integrating 35 controlling units' requirements with 7,000+
business rules serving 12,000 users with a volume of
30,000 – 40,000 trade declarations daily



Transforming the Education Sector

EdVantage



Empowering Learners and Engaging Minds, through Infocomm

Today	2015
Teacher centric	Learner centric
Learning in the classroom	Learning beyond the classroom
Didactic learning	Collaborative and investigative learning
Reliance on textbooks	Reliance on “real life” or virtual experience
Local learning resources and expertise	Global learning resources and expertise



**Learning
Paradigms**

Self-Directed Learning
Collaborative Learning
21st Century Learning



Edvantage Approach

School-wide Transformation

Transform the learning and teaching experience in the whole school

Innovation Generation

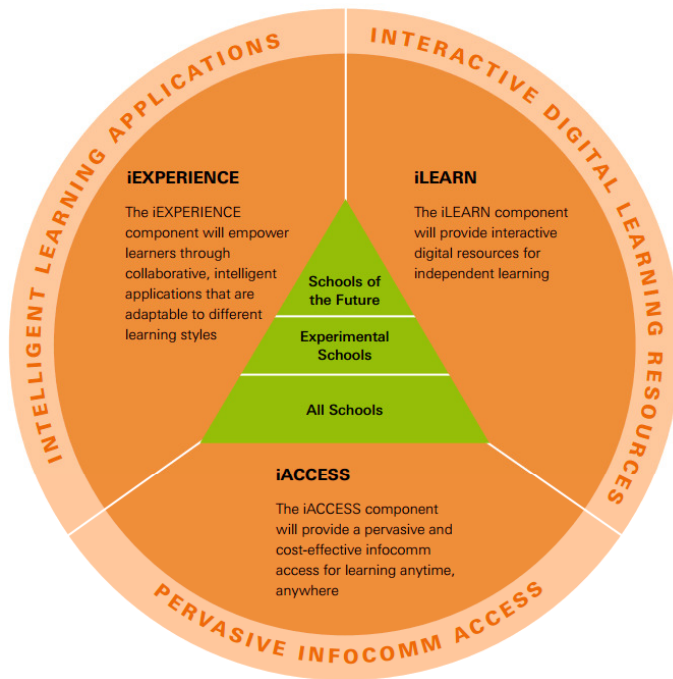
Experiment new areas of education technology

Mass Deployment

Support MOE in rolling out systems to all schools

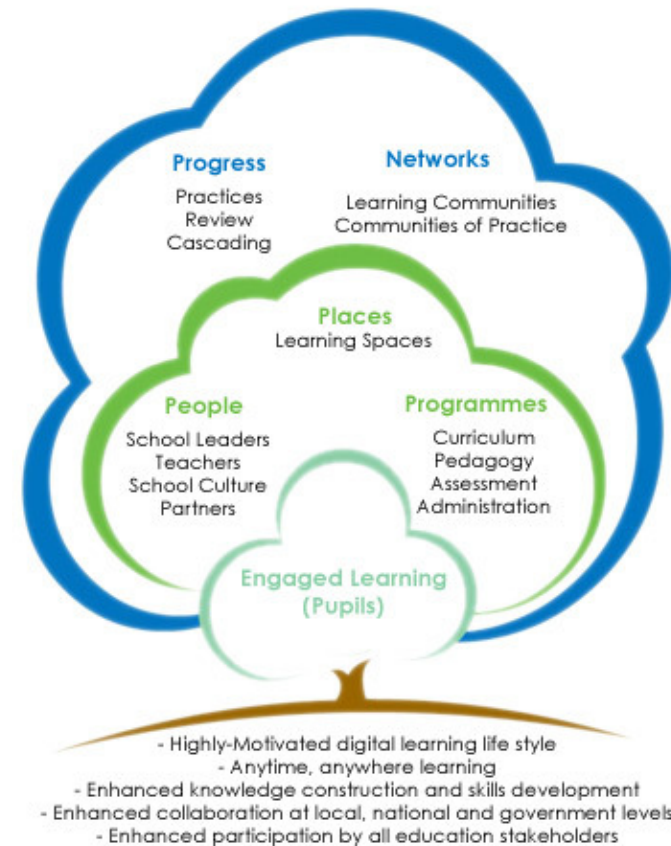


FutureSchool@Singapore

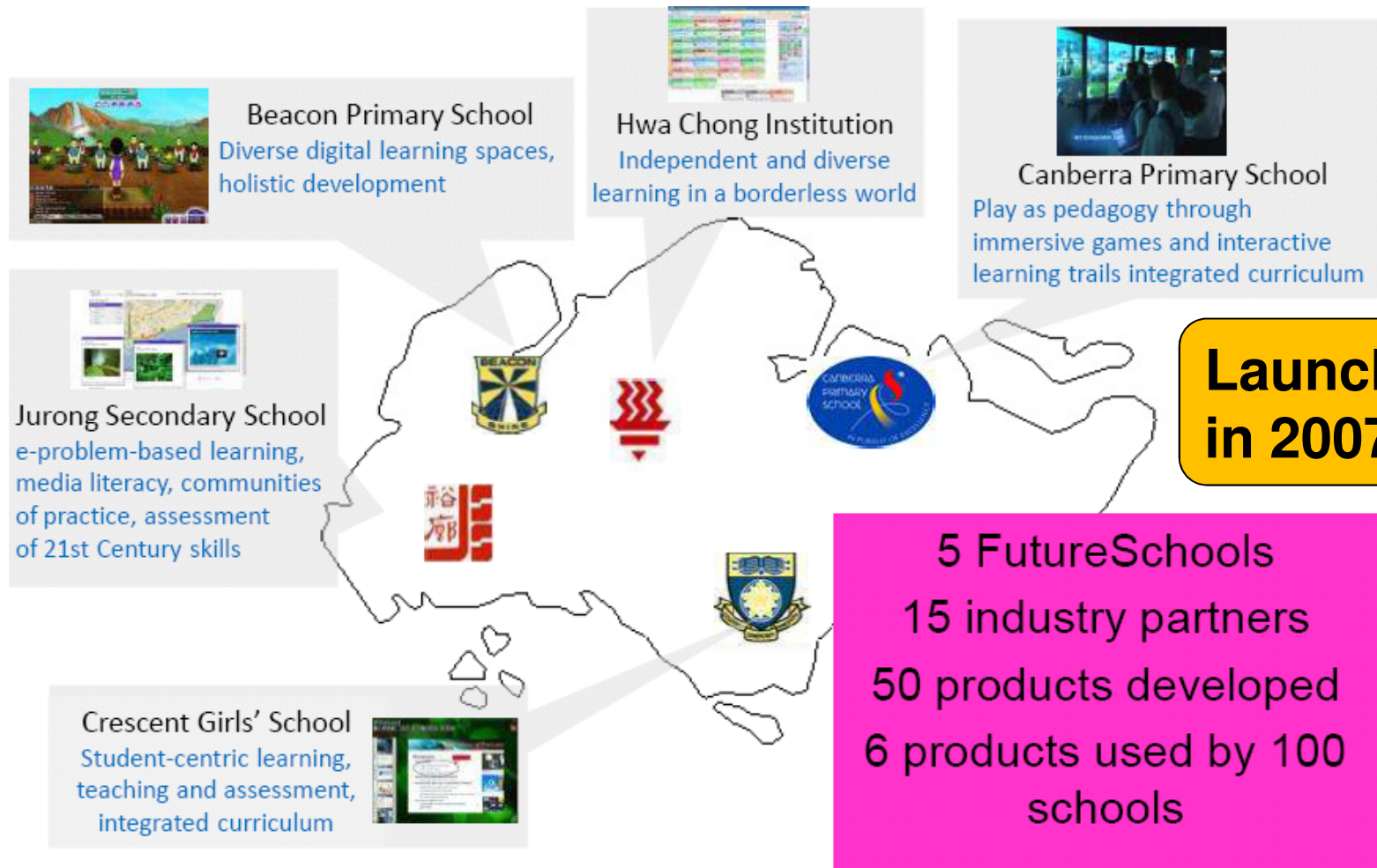


<http://www.youtube.com/watch?v=gWGeluaneWU>

Innovative curriculum, pedagogies and assessment programmes for engaged learning



FutureSchool@Singapore



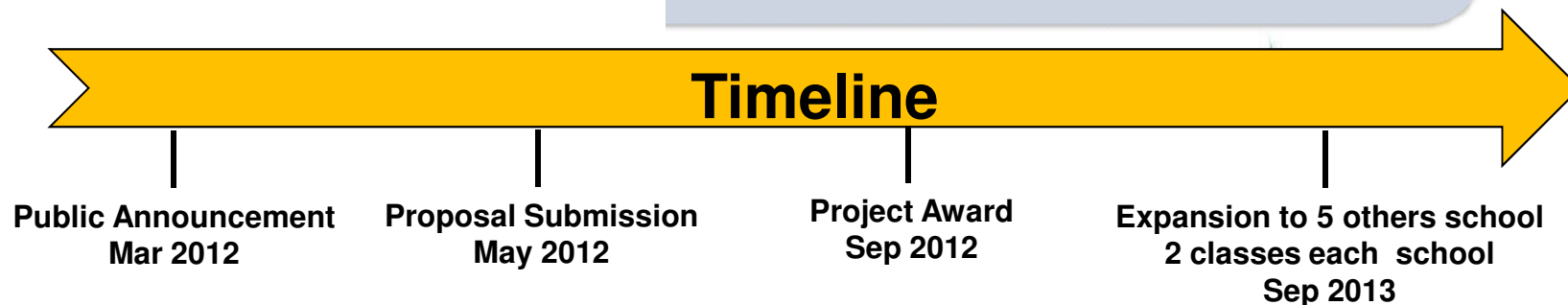
FutureSchool@Singapore Phase 2



- **A.I.C.B (Artificial Intelligence Chat Bots)**
 - Provide learning environment for Self-directed Learning through Inquiry and Socratic questioning
- **Scenario-Based Learning**
 - Simulate authentic learning scenarios
 - Demonstrate understanding of concepts



- **SAILing (Scaffolded Algorithmic Inquiry-based Learning)**
 - Provide learning & assessment system using Cognitive Diagnostic Assessment approach
 - Assess students' progress on content mastery
 - Provide scaffolding agent to guide learning



Transforming the Society

Increasing infocomm sophistication for a vibrant digital lifestyle



Transform people sector organisations
Encourage sophisticated use of infocomm



Transforming the Society

Digital Opportunities for All and Building an iNclusive Digital Society

Senior Citizens



Silver Infocomm Initiative

Needy Students



Neu PC *Plus*

People with Disabilities



Infocomm Accessibility
Centre initiative

CitizenConnect to provide Internet access and personal onsite support to those with difficulties transacting online



"Didn't you get my e-mail?"

SINGAPORE: AN INTELLIGENT NATION, A GLOBAL CITY POWERED BY INFOCOMM

www.ida.gov.sg

www.infocommsingapore.sg



iDA
SINGAPORE