

Infocomm21 Leadership Dialogue

1 AUGUST 2000

Singapore International Exhibition
& Convention Centre

Catalyst for Change

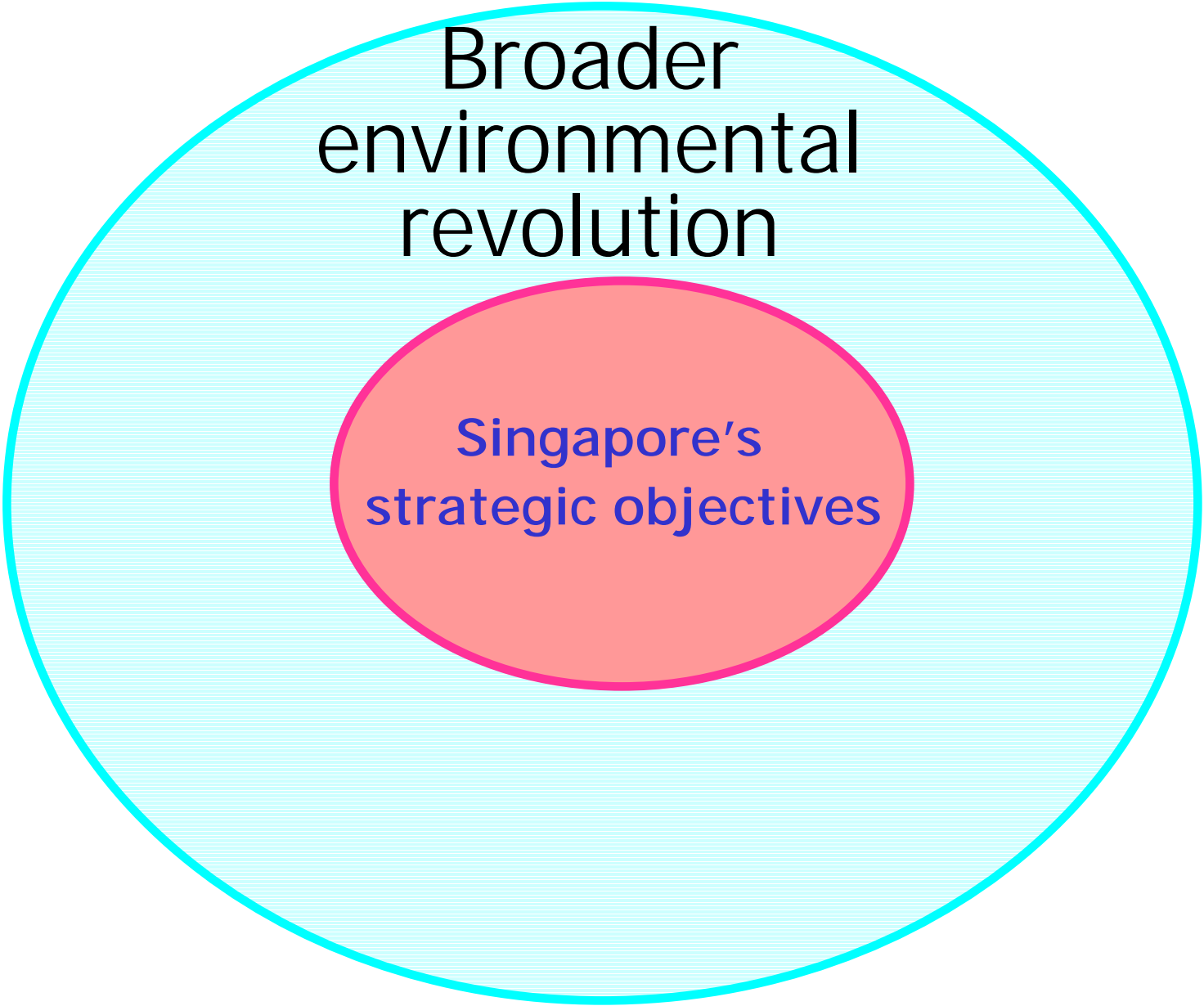
Infocomm 21

Singapore's
Strategic Plan for Infocomm
in the New Economy

Catalyst for Change

IDA's presentation today

- **Minister for Communications & IT Yeo Cheow Tong**
 - final component of Infocomm 21
 - dotcomming the private sector
- **Infocomm 21 - CEO/IDA Yong Ying-I**
- **Collaboration in promotion: S'pore Inc**
 - **ACE/Online Devt Dr Kaizad Heerjee**
 - modus operandi with other economic promotion agencies in promoting and developing services sectors
- **Government-industry partnership**
 - **ACE/Infocomm devt Khoong Hock Yun**
 - IDA's development focus & assistance mechanisms
- **Creating a conducive business environment**
 - **Snr Dir/Policy & Regulation Andy Haire**



Broader
environmental
revolution

Singapore's
strategic objectives

As we rush headlong into the New Economy...

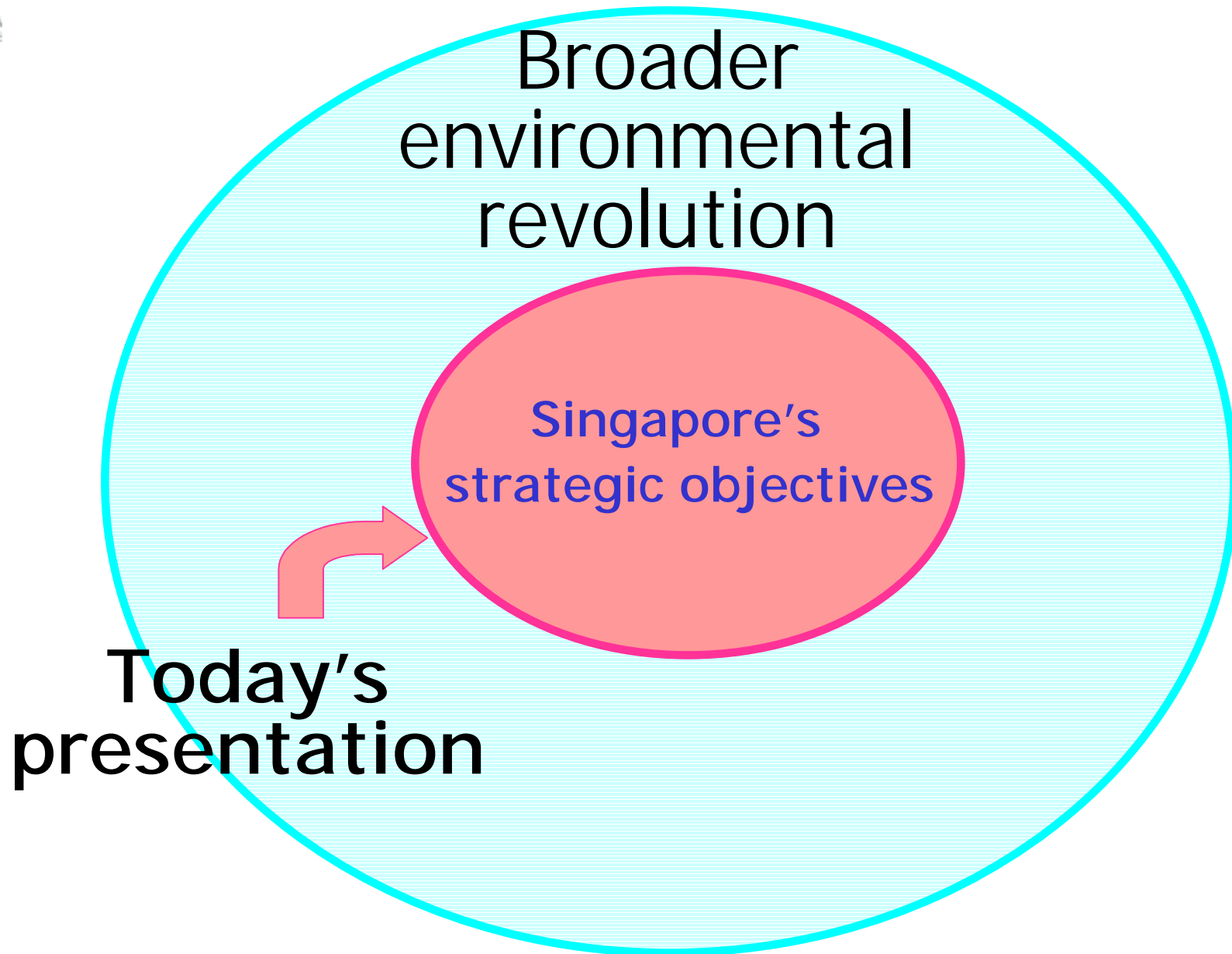
- **It's a whole new world**
 - New breed of companies with new valuation methods
 - New business models based on new types of “fundamentals”
 - An onslaught of new technologies coming out of all types of “garages”
- **What's underlying it**
 - A new revolution
 - A new generation
 - A new lifestyle

New sources of competitive advantage

- **Talent to the fore**
 - a ready pool -- globally sourced; globally oriented
 - to be “imagination capital”, where ideas are hatched
- **Beyond the hard infrastructure, to the soft**
 - Conducive policy, payments, security, legal environment
 - Where entrepreneurs can test-market ideas quickly
- **A ready capital market to finance ideas**
- **And a support network to help our companies flourish**
 - Where human networks thrive
 - Backed by a valued “Singapore brand”

What it Means for You and I

- **A new type of “21” plan**
 - no one knows the answer.....cannot masterplan in a revolution
 - What’s important is a common understanding of what direction to take, and ability to execute with speed and flexibility
- **Direction-setting, but not prescriptive**
 - Provide a guide for the industry
 - Sense-&-respond: responsive to change
- **A new type of partnership**
 - public sector as catalyst, facilitator & educator
 - sharing the vision; helping human networks come together; providing a framework for action



Infocomm 21 : The Vision

Singapore as a
dynamic and vibrant
global Infocomm Capital
with a prosperous Net Economy
& thriving InfoSociety

Infocomm 21 : The Underlying Principles

- **Free-market driven**

- The market works
- Competition is fundamental to innovation and dynamism

- **Private-sector oriented**

- Planning approach must be consultative
 - Private sector to take lead where possible
 - Government acts as catalyst & facilitator, educator and main “anchor tenant”

- **Business is global**

- we must fit within broader environmental developments & global orientation
- competitiveness can be gained ... or lost... rapidly
 - Ireland, Finland, Sweden, S Korea

Infocomm 21 : Key Components

Goals	Key elements
<p>Growing the Infocomm cluster, as key node in global network</p> <p>Part I announced 21 Jan</p> <p>Part II announced 5 Apr</p>	<p>Liberalise the telecommunications market</p> <p>Develop Singapore as an Infocomm hub</p> <ul style="list-style-type: none"> Put in place a conducive biz & regulatory framework Develop the infocomm cluster, <ul style="list-style-type: none"> • IBBMM & wireless Emphasise innovation & new services
<p>Increase competitiveness of Singapore & businesses</p> <p>Announced 1 Aug</p>	<p>Dotcom the "Private" Sector</p> <ul style="list-style-type: none"> Facilitate entry into the online economy Develop an excellent e-commerce infrastructure
<p>Enhance e-lifestyle of Singapore</p> <p>Announced 1 Mar</p>	<p>Dotcom the "People" Sector</p> <ul style="list-style-type: none"> Foster an online lifestyle for all
<p>Create the best eGovernment</p> <p>Announced 6 June</p>	<p>Dotcom the "Public" Sector</p> <ul style="list-style-type: none"> Online Govt services to better serve Singaporeans
<p>Develop sufficient pool of high calibre infocomm manpower</p> <p>Announced 4 Mar</p>	<p>Develop capabilities</p> <ul style="list-style-type: none"> Nurture net-savvy workforce Attract and retain international talent Establish Singapore as e-Learning hub for region

Focus of my presentation

- **Share the framework**
 - Develop Singapore as an Infocomm Hub
 - Build an online nation
 - Dot-com the 3 P's (Private, People and Public Sectors)
 - Deepen our capabilities
- **Distil the key ideas, and the thinking behind them**
- **Other essentials (to be shared subsequently)**
 - Our development focus and assistance mechanisms
 - Our modus operandi with other government agencies
 - The policy and regulatory environment
- **Detailed material on our website**



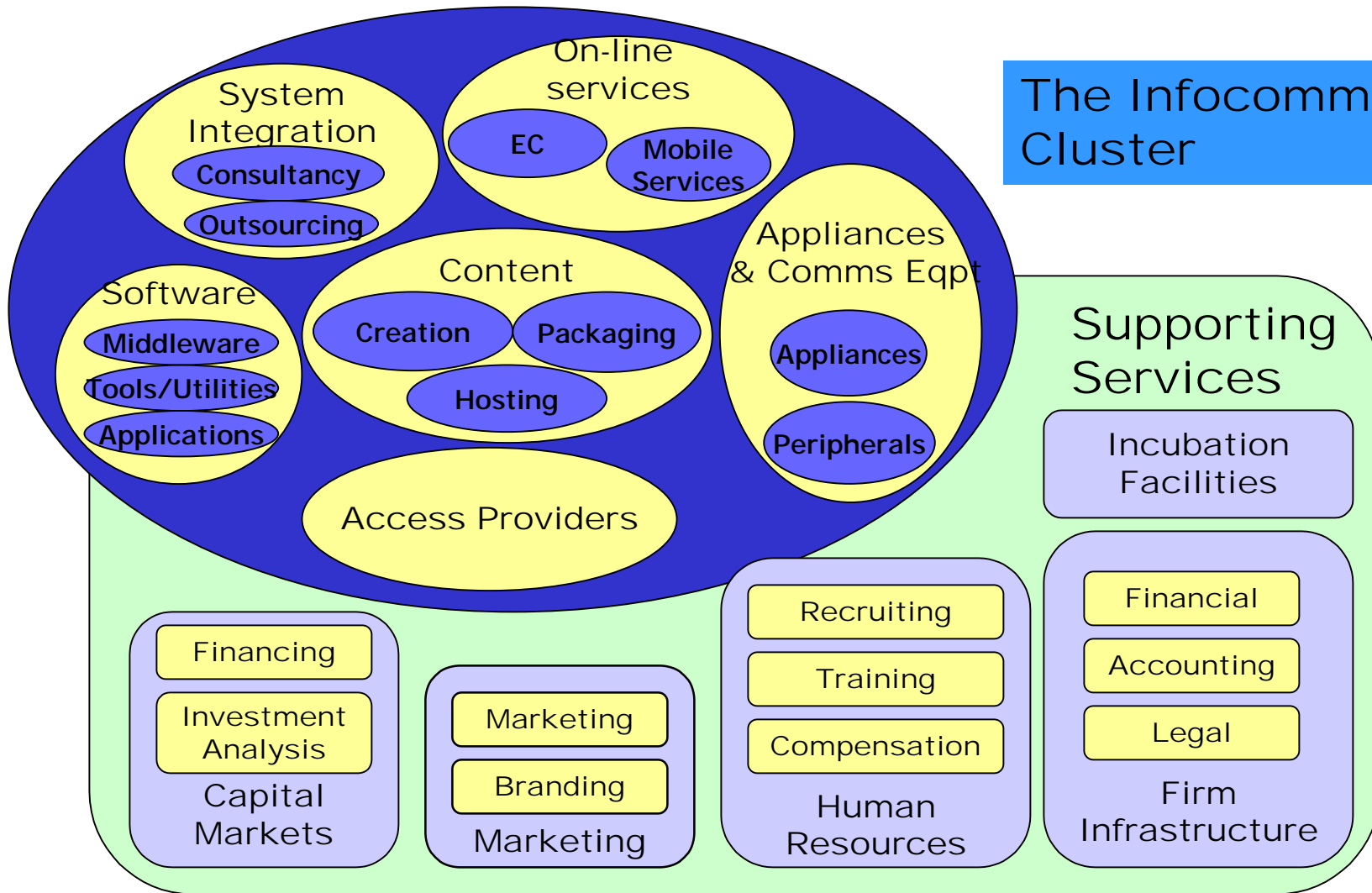
Catalyst for Change

Developing Singapore as an Infocomm Hub

Singapore as an Infocomm hub

- **Liberalise the telecommunications market**
 - **Strengthening Singapore's connections to the world**
 - cables, capacity,
 - **Local market**
 - rolling out full national networks in fixed line, wireless, broadband
 - introducing new services
 - belief that competition is key to innovation & attractive prices
 - a regulatory framework for a new multi-competitor environment
 - **Hubbing Asian operations of global players**
 - growing traffic through Singapore
 - **Helping Singapore companies go global**

Develop the Infocomm Cluster



Develop the Infocomm Cluster : - *A Cluster Development Approach*

- **Strengthen our existing infocomm cluster**
 - Leverage traditional strengths in complex & technically demanding areas
- **Build new strengths**
 - Strengthen IPR foundations
 - New growth sectors : software, high-value services
 - Strategically important areas
 - Connectivity
 - Interactive broadband multimedia (IBBMM)
 - Wireless

Challenge :
how to break out of our comfort zone

Singapore as an Infocomm hub

Catalyst for Change
Infocomm Development

- **Work with the industry to build new strengths**
 - **Exploit infocomm technologies strategic to Singapore**
 - ➡ A technology roadmap that
 - Identifies strategic technologies
 - » Broadband, wireless, e-commerce
 - Fosters technologically secure & strong IPR environ
 - **Hatch new ideas, nurture new businesses**
 - ➡ Partnership programmes e.g. iLIUP
 - ➡ Easy start-up & growth for infocomm tech cos
 - **Leverages our linkages to the world**
 - ➡
 - Cooperation frameworks, starting with India, China
 - Overseas offices, starting with San Francisco
 - Actively helping our companies go regional/global

Develop the Infocomm Cluster :

- *New Growth Areas*

- **A close up of some opportunity areas**

(For 1998 - 2001/2; Source - IDC, Forrester, Paul Kagan & Associates, Ernst & Young)

- Software
 - EC tools 108%
 - Speech/Language 20%
- Services
 - Content Hosting 112%
 - IP Services 47%
 - Consultancy 48%
- E-Commerce
 - B2C & B2B 114%

Challenge :
how to establish a “brandname” for Spore

Develop the Infocomm Cluster - *Best Connected City in Asia*



Developing a vibrant IBBMM cluster

- S-ONE today

- platform for over 200 multimedia applications
- active industry participation with 200 local & foreign partners, \$400m invested

- Increasing demand

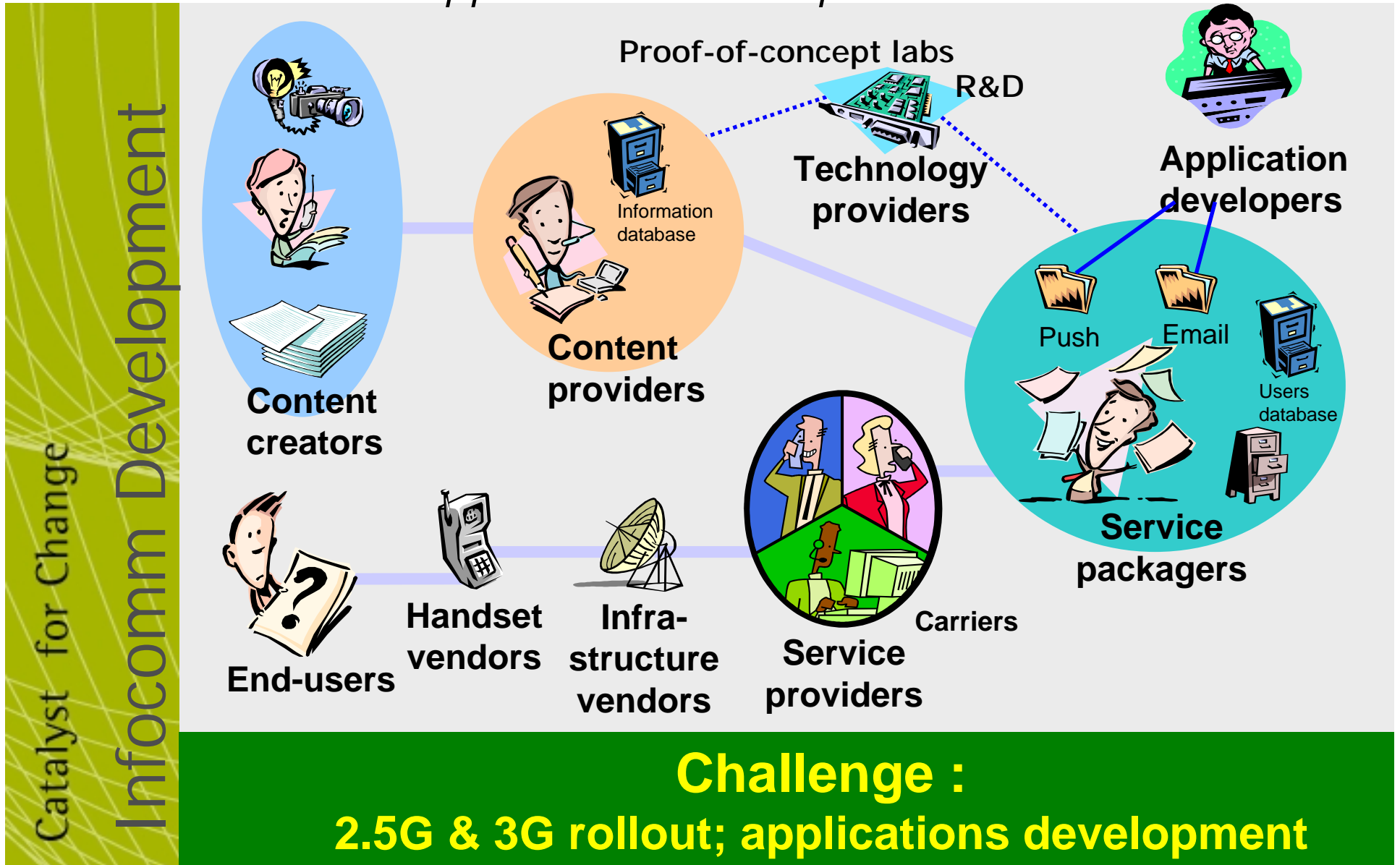
- offset infrastructure & equipment cost
- lower ILC costs
- review QoS framework
- regional/global expansion of customer base thru MNCs localising content here for regional sales

- Increasing supply

- open access policy
- lower cost & risk for trial, development & innovation, with
 - online hosting scheme
 - development of new media services
 - alliances & partnership
 - venture funds

Develop the Infocomm Cluster

- Holistic Approach to Development of Wireless Activities



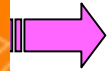
Dotcoming the Private Sector

Catalyst for Change

Dotcoming the Private Sector

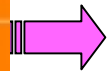
Catalyst for Change
Dotcoming the Private Sector

- **Develop Singapore as a trusted global hub**



- **Brand Singapore as a dot-com hub**

- Develop anchor countries: India, Taiwan, Korea
- Enhance visibility
 - » E-commerce events, industry fora
- Attract international EC hub companies



- **Catalyse the digital transformation**

- Broadbased outreach programmes
 - » including non-english sectors
 - » partnering PSB on SMEs
- Emphasis on high VA sectors
 - » Trading & logs, mfg, finance, e-learning

EC adoption among local enterprises is crucial to growth of e-business

Dotcoming the Private Sector



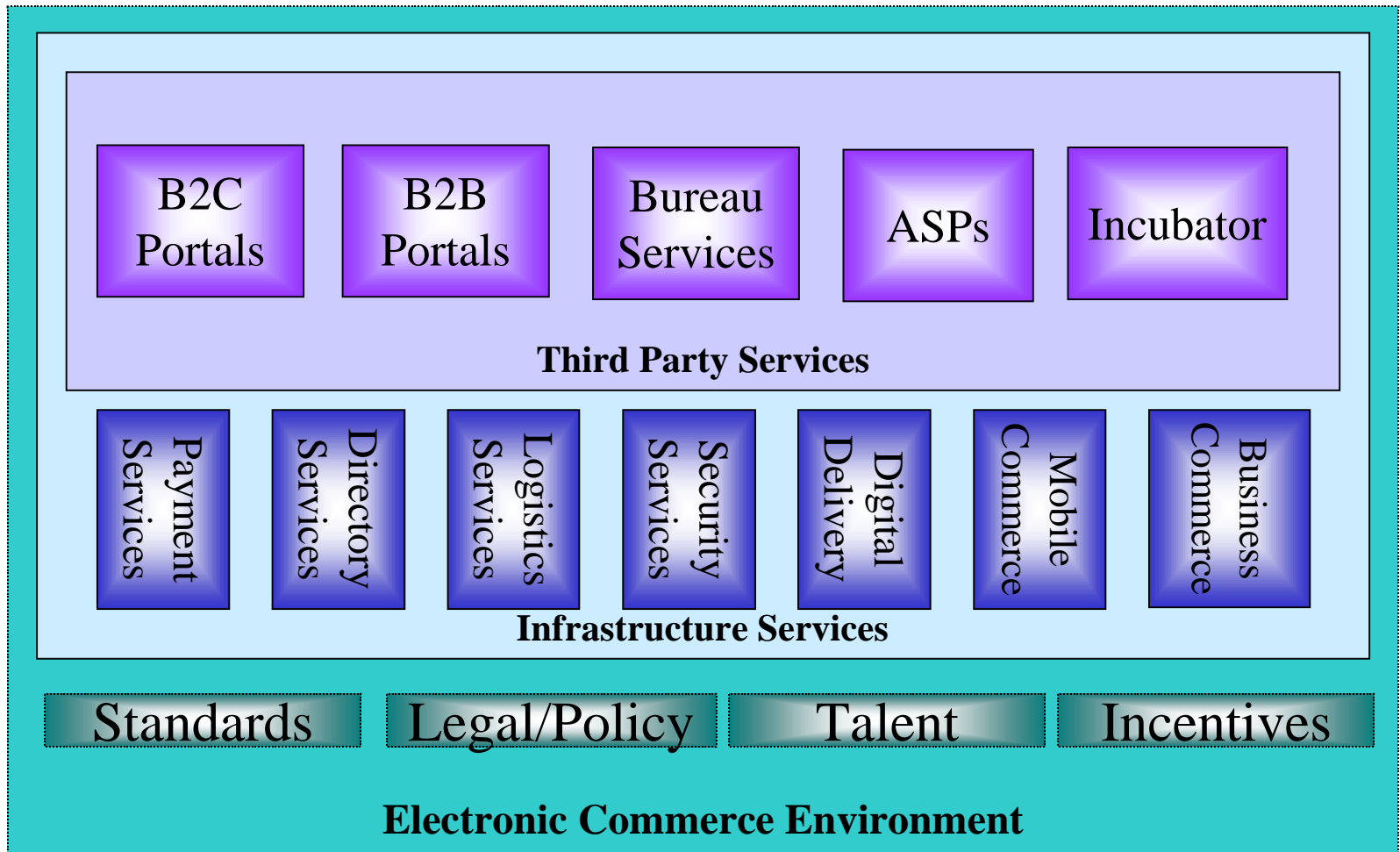
Catalyst for Change
Dotcoming the Private Sector

- Develop Singapore as a trusted global hub
- ➔ • **Spurring consumer demand: education: building trust**
- ➔ • **Laying a robust foundation for e-business**
 - Cost-competitive telecoms as prerequisite
 - E-business Legal and Policy framework
 - » Content hosting
 - » Security
 - » Privacy Protection
 - ★ » Digital Signatures Certification & CAs
 - ★ » Intellectual Property Rights
 - ★ » Complementary Legal Framework

Singapore/Public Sector cannot work in isolation in these areas

E-C Infrastructure Framework

Catalyst for Change
Dotcoming the Private Sector



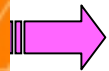
Infrastructure - Hardware, Software, Content, SIs & Consultants, Physical Networking

Dotcoming the People Sector

Catalyst for Change

Dotcoming the People Sector

- \$25m set aside to foster an e-lifestyle and bridge the digital divide



- **Improve accessibility**

- Enhance basic public infrastructure
 - » Free broadband access at community centres
- Ensure affordability to all
 - » e.g. NTUC-PeoplePC partnership



- **Motivate widespread adoption of an e-lifestyle**

- Public outreach programmes
 - » E-festival
 - » Singapore@Work 2000
- Compelling programmes/ applications for daily living as encouragement

Catalyst for Change
Dotcoming the People Sector

Dotcoming the People Sector



- \$25m set aside to foster an e-lifestyle and bridge the digital divide
 - **Bridging the language barrier**
 - Working with industry groups like SCCCI
 - Tamil & Malay Internet committees started
 - **Helping the less fortunate**
 - 2nd hand PCs & training for needy families
 - **Targeted programmes for specific segments**
 - e-Ambassadors as friendly guide
 - for families
 - » families learning together
 - » parental concerns
 - for elderly
 - for disabled

Dotcoming the Public Sector

Catalyst for Change

eGovernment - bridge to citizens

Catalyst for Change
Dotcoming the Public Sector



Your One-Stop Citizen Service Portal



Convenience Of One-Stop Information And Services At Revamped Singapore Government Website

New features include an integrated calendar of events, a single point for giving feedback and search engine.

The newly-revamped Singapore Government website was launched on 1 June 1999.

The revamp, jointly carried out by the Ministry of Information and the Arts (MITA) and the National Computer Board (NCB), marks the first time the site has been changed so comprehensively since it was first set up in 1996.



IRAS launches E-Filing over the Internet

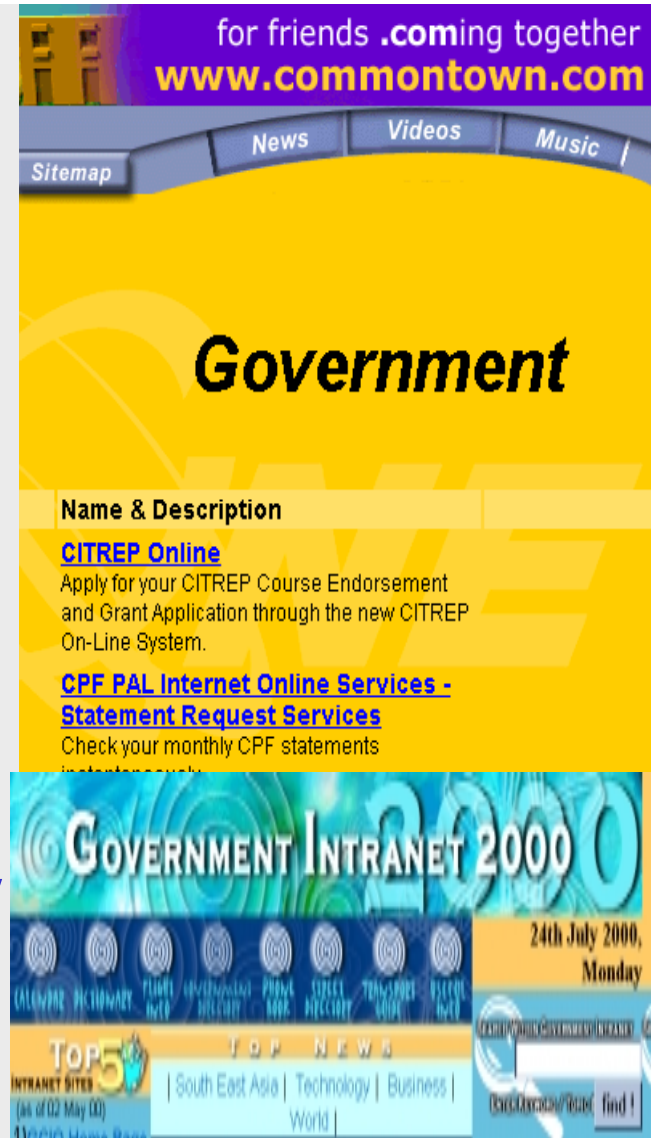
Through the mail, over the phone, and now on the Internet. Filing income tax returns has become even simpler and more convenient with the introduction of electronic filing (E-Filing) over the Internet.

Service Excellence

Catalyst for Change
Dotcoming the Public Sector

- **New and better services to the public**
 - 130 available; 70+ in development
 - e.g. driving license renewal, road taxes
 - beyond automation & efficiency, to creating new value for public
- **Customer-centric**
 - seamless service across agencies
 - customer choice & control
- **Service reliability & availability**
 - 24 hours online services?

www.ida.gov.sg



Innovation

- **Experimentation with technology**
 - small pilots
 - “creative destruction” to keep up with rapid technology & biz model developments
- **New public/private collaboration; new business models**
 - allowing private entities to offer services on government sites
 - corporatise or privatise government functions
 - sharing IPR ownership of public projects with tenderers

Planning for our Manpower Needs

Catalyst for Change

Planning for our Manpower Needs

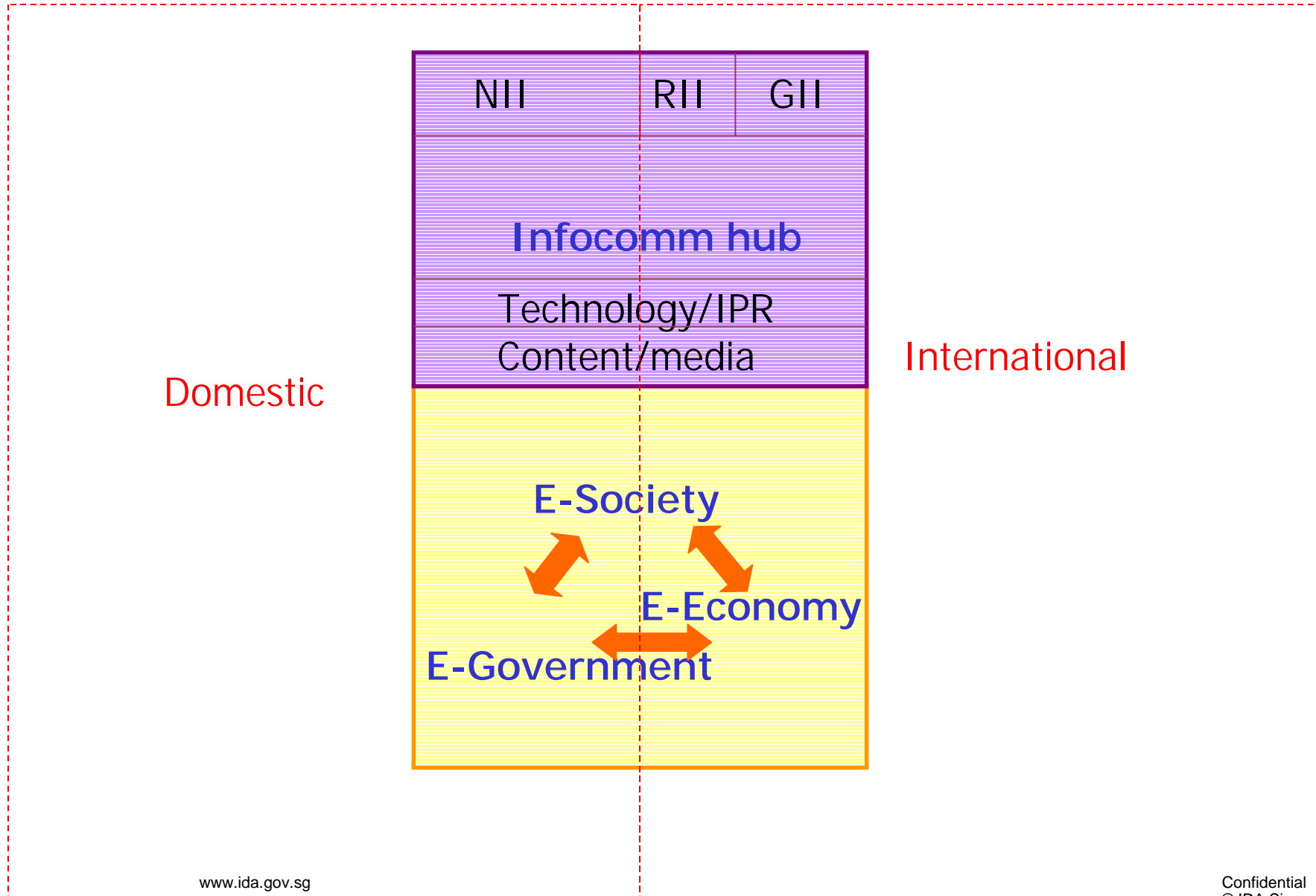
- **Nurture a net-savvy workforce**
 - \$20m manpower conversion programme
 - Upgrading infocomm industry manpower; funding training in hot new areas
 - Upgrading educational curriculum; bringing in world-class teachers; growing exposure to cutting-edge knowledge
- **Attract and retain international infocomm technology talents**
 - In partnership with MOM, aggressive recruitment of international talent; facilitating entry through fast processing and tackling obstacles
- **Establish Singapore as the e-Learning hub for the region**

Fighting the global war for talent

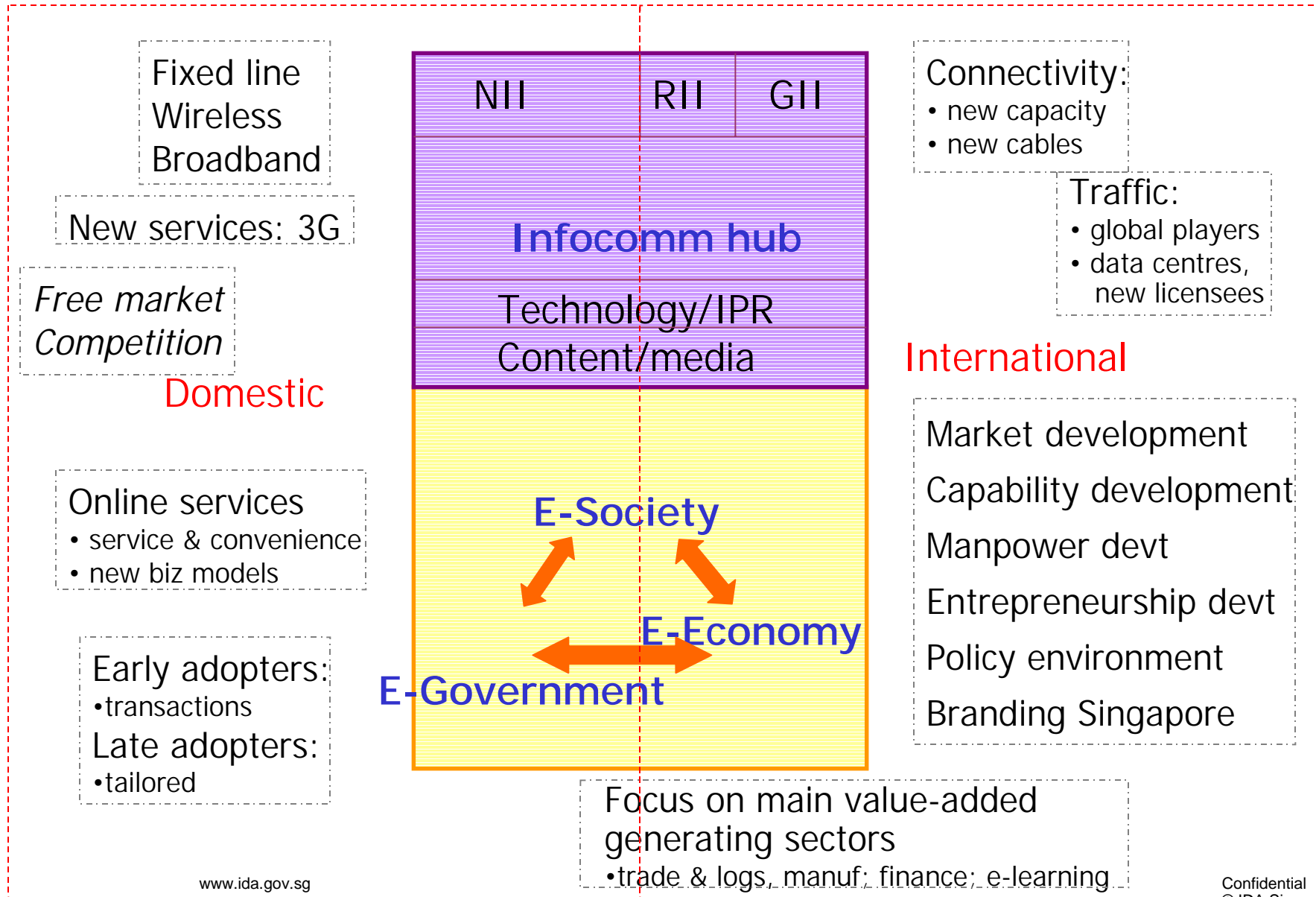
Infocomm 21 Goals

- Infocomm as a major growth sector
- A Leader in developing & deploying Next Generation Technologies
- Vibrant e-Economy, with buzz
- A magnet for infocomm talent around the world
- All Singaporeans enjoying e-lifestyle
- The best eGovernment

Singapore's strategic objectives



Singapore's strategic objectives



Catalyst for Change

*Together, we
make it happen*