



**Hewlett Packard
Enterprise**

Smart Cities

Tom Harrison
Public Sector CTO



What is a Smart City ?

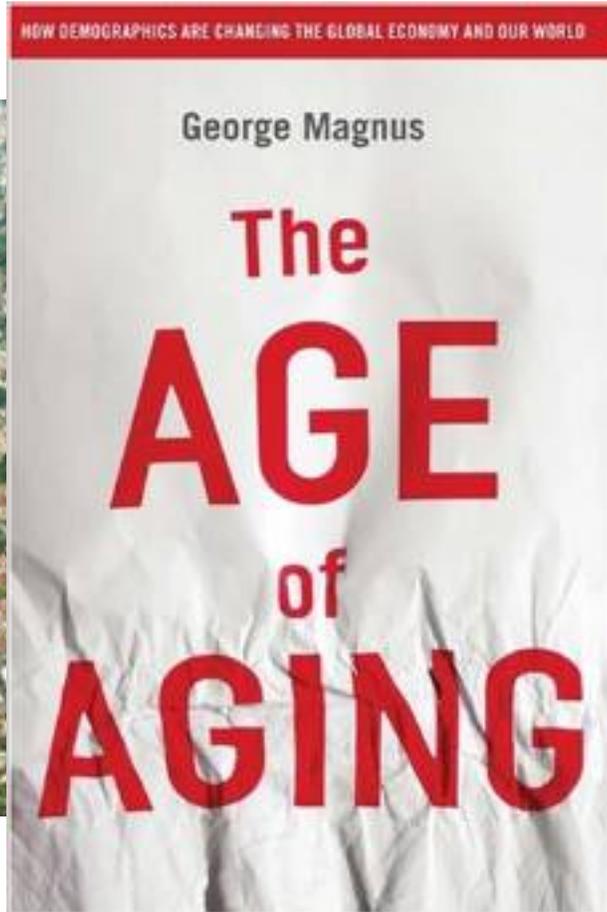
Sustainability, Resilience and Well-being

“Smart cities should be regarded as systems of people interacting with and using flows of energy, materials, services and financing to catalyse **sustainable economic development, resilience, and high quality of life**; these flows and interactions become smart through making strategic use of information and communication infrastructure and services in a process of transparent urban planning and management that is responsive to the social and economic needs of society.”

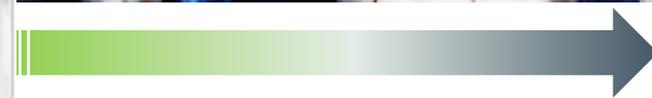


Global Trends

Urbanisation, Digitisation ... and Aging

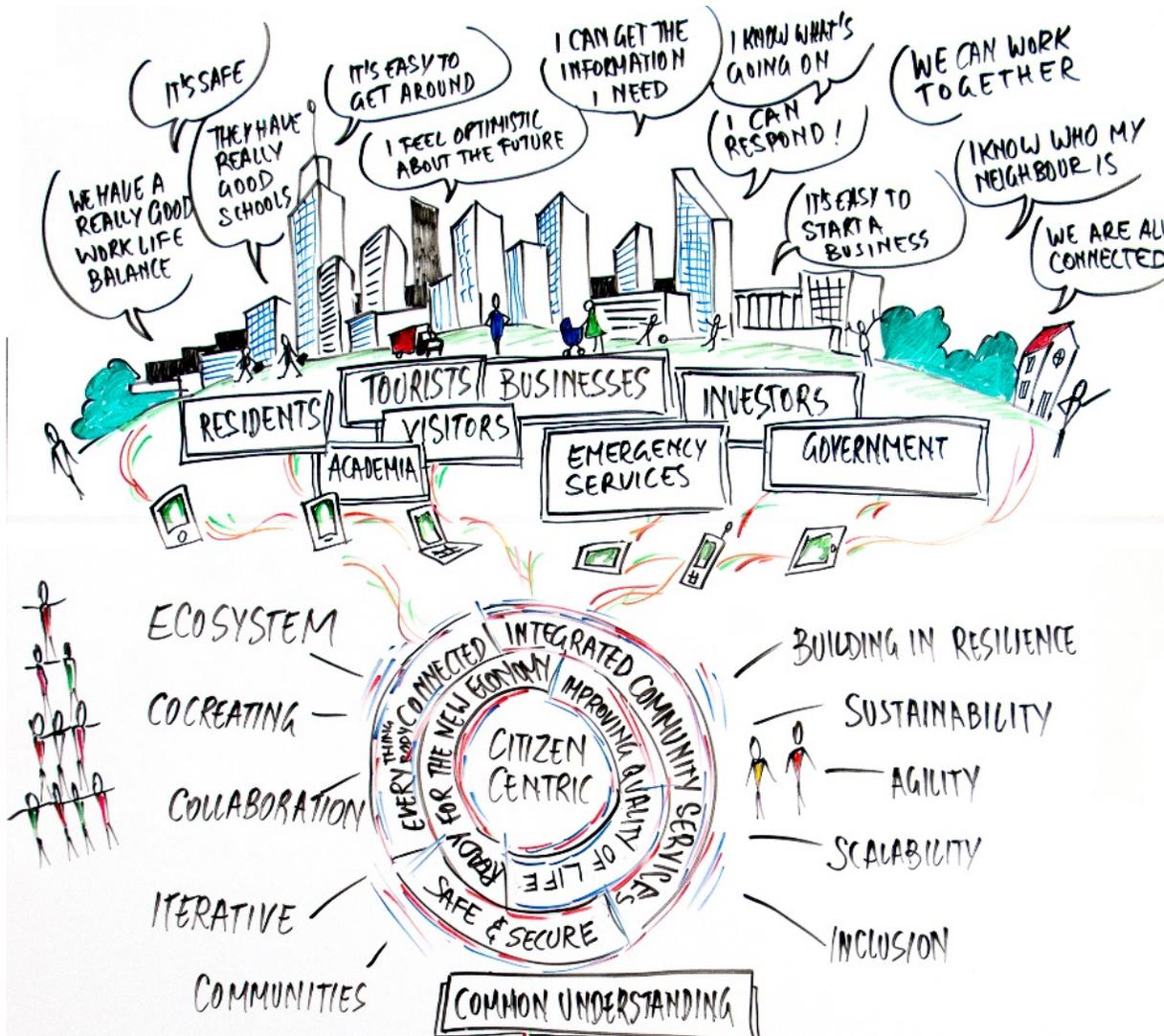


Rural



Digital

A Citizen Centric Approach To Future Nations and Cities



Smart City Domains and Priorities



- Safe City
- Food, water, air quality
- Green spaces
- Culture & recreation



- Healthcare
- Education
- Revenue & Fees Management
- Business Registry
- Single Window Access
- "Ask Only Once"
- MyCity Mobile Application



- Hot House, Innovation Processes
- Collaboration Tools
- New Business Models
- Partnerships, Mentor-Protégé Programs



- Transit systems, ticketing
- Cargo and logistics management
- Border control
- Wireless and connectivity
- Operations dashboard, Command & Control Centers

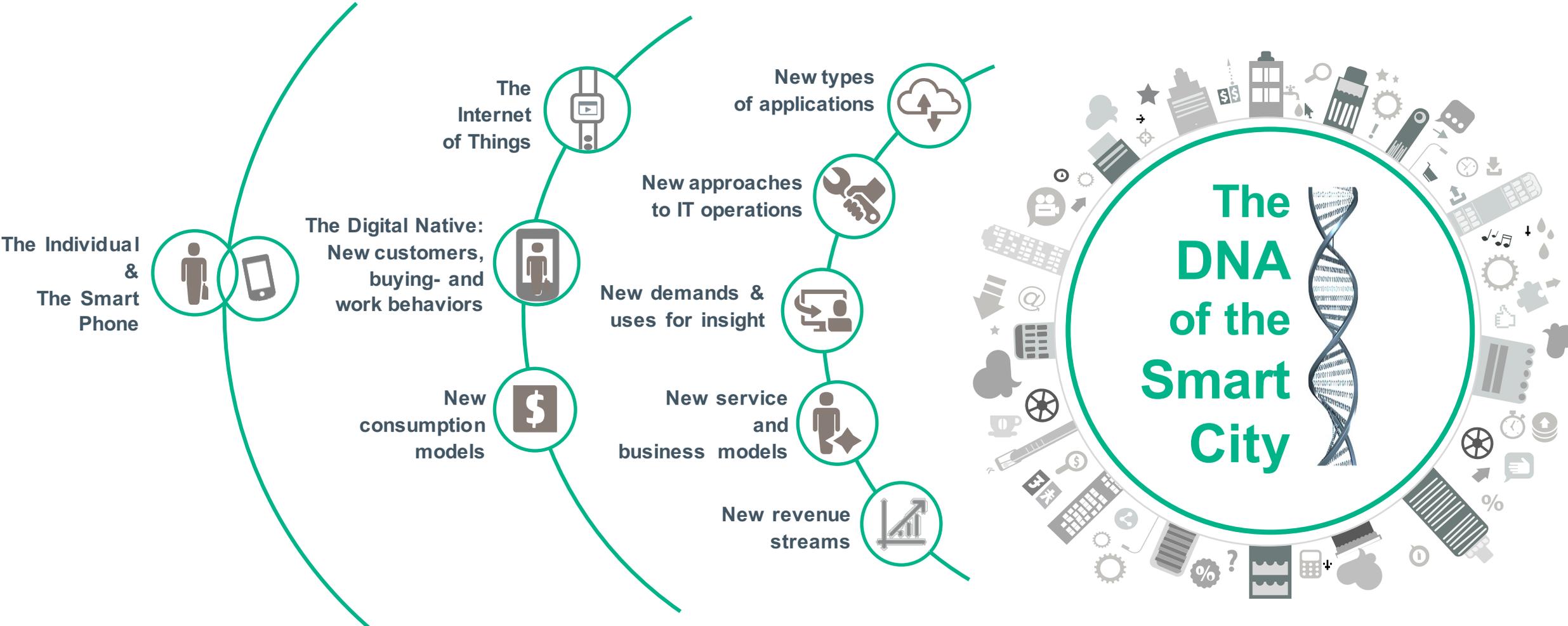


- Portals & Mobile Apps
- Emergency Response Systems
- Applications Modernization
- Infrastructure Modernization
- Collaboration Tools



- Next Gen Incubators
- Education Initiatives, HPU
- Business Registry
- One-Stop Shop for Business Start-up
- IT services for vertical-specific industry clusters

The Smart City Transformation Cycle



Transformation strategy and program of work

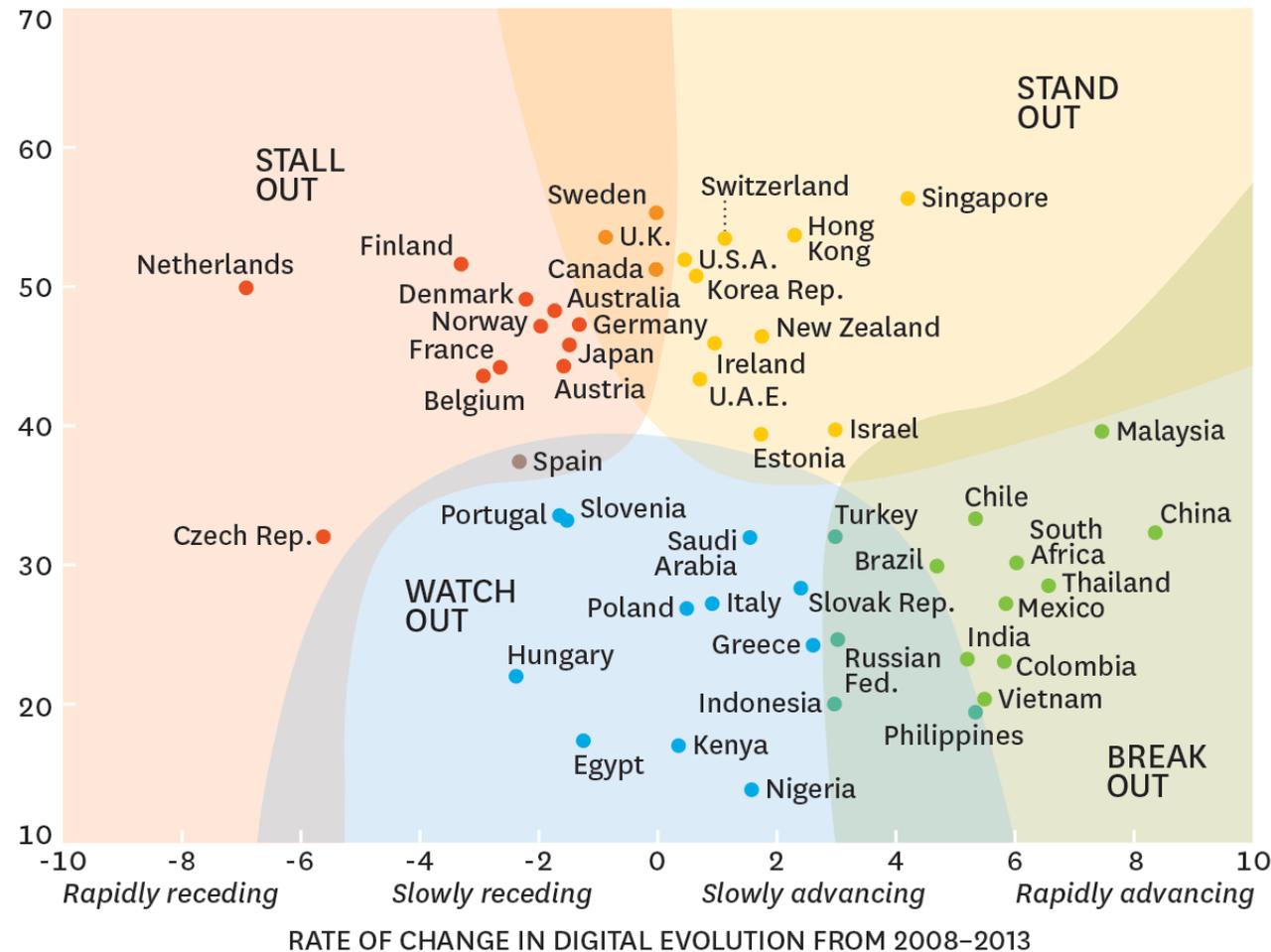
Digital Economy

Why do we need to be serious about a Digital Economy

- The ‘digital economy’ has been defined as ‘the global network of economic and social activities that are enabled by information and communications technologies, such as the internet, mobile and sensor networks.
- This includes conducting communications, financial transactions, education, entertainment and business using computers, phones and other devices. Countries throughout Asia have commitment to becoming leading digital economies, and face competition from comparable countries that have also adopted a focus on promoting a local digital economy. ‘Without open access to appropriate categories of information, a country may not enjoy the potential innovation in the digital economy’.

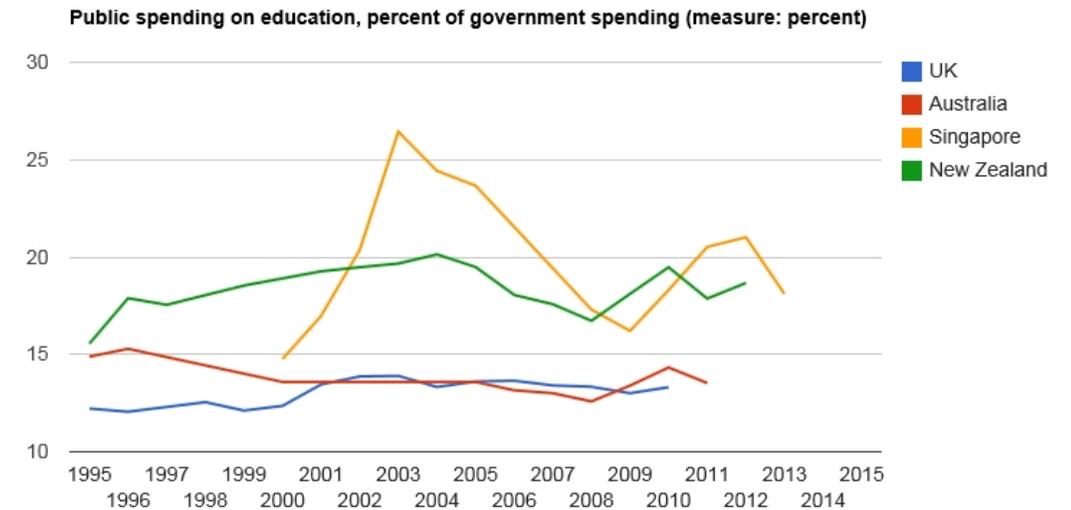
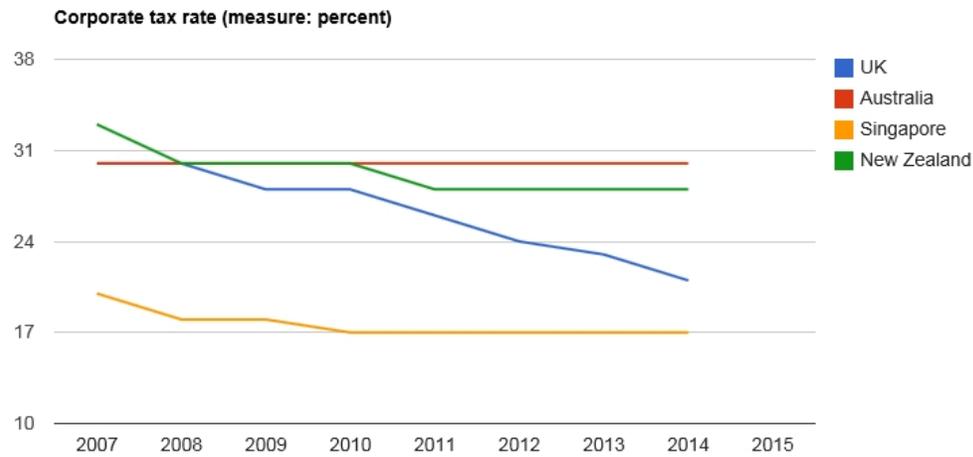
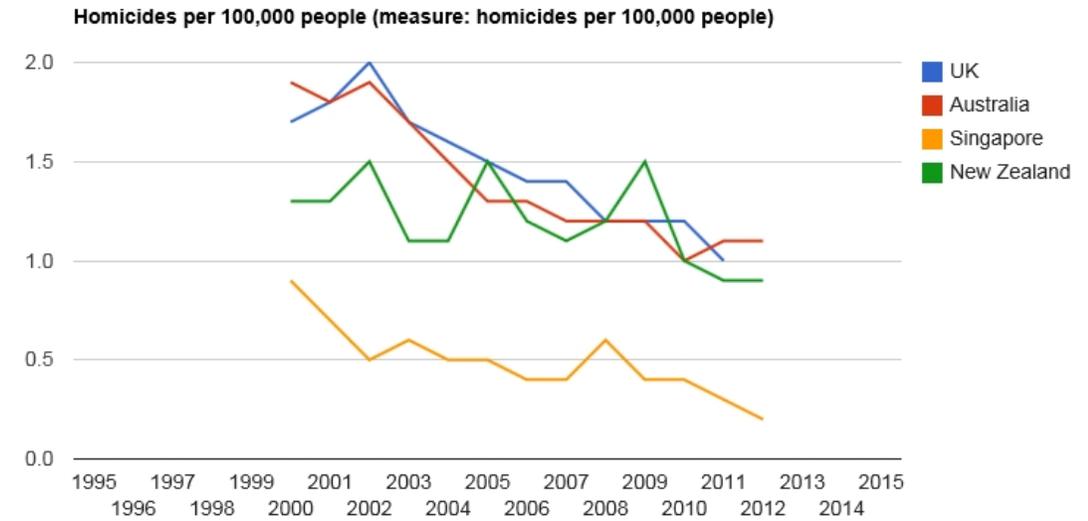
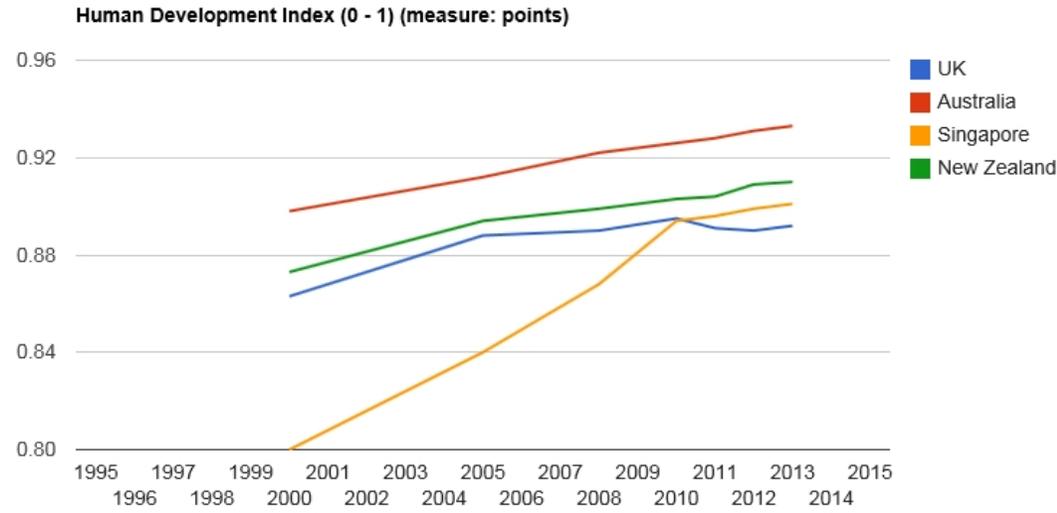
Overview of Digital Economy Index rankings

HOW COUNTRIES SCORED ACROSS FOUR FACTORS ON THE DIGITAL EVOLUTION INDEX (OUT OF 100)



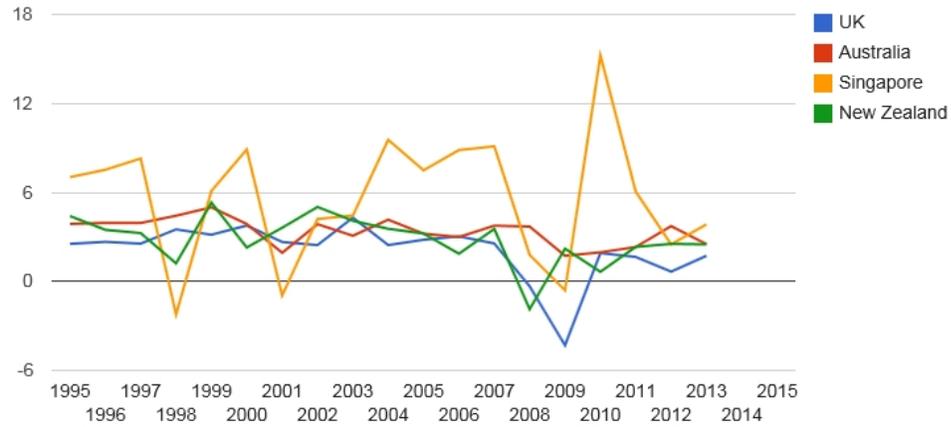
- Stand Out countries have shown high levels of digital development in the past and continue to remain on an upward trajectory.
- Stall Out countries have achieved a high level of evolution in the past but are losing momentum and risk falling behind.
- Break Out countries have the potential to develop strong digital economies. Though their overall score is still low, they are moving upward and are poised to become Stand Out countries in the future.
- Watch Out countries face significant opportunities and challenges, with low scores on both current level and upward motion of their DEI. Some may be able to overcome limitations with clever innovations and stopgap measures, while others seem to be stuck.

Benefits of a Digital Economy - Social

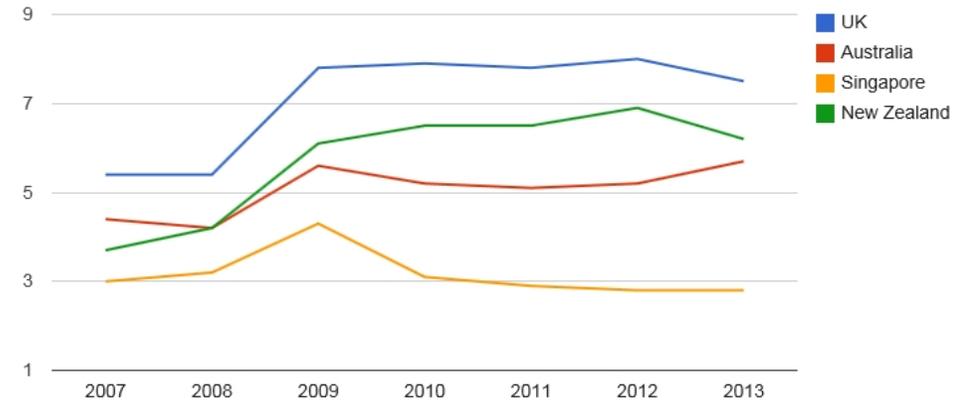


Benefits of a Digital Economy- Economic

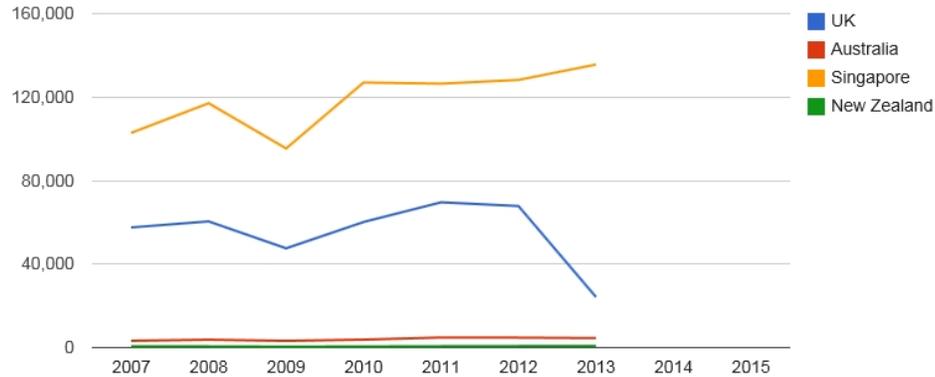
Economic growth: the rate of change of real GDP (measure: percent)



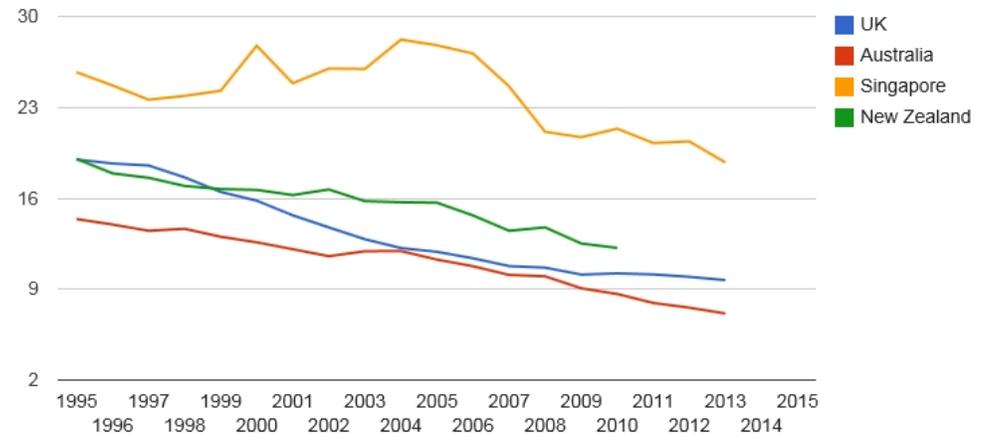
Unemployment rate (measure: percent)



High technology exports (measure: million U.S. dollars)



Value added by the manufacturing sector as percent of GDP (measure: percent)



Services move towards Smart Government

An evolution over time set by Policy and Strategic intent



Information-centric rather than the technology centric model transcending agency boundaries to deliver smarter customer services

Information sharing, access and increased interoperability drives productivity across the public sector

Customers can access the majority of government services when and where they see fit, and that access to information and data is readily available

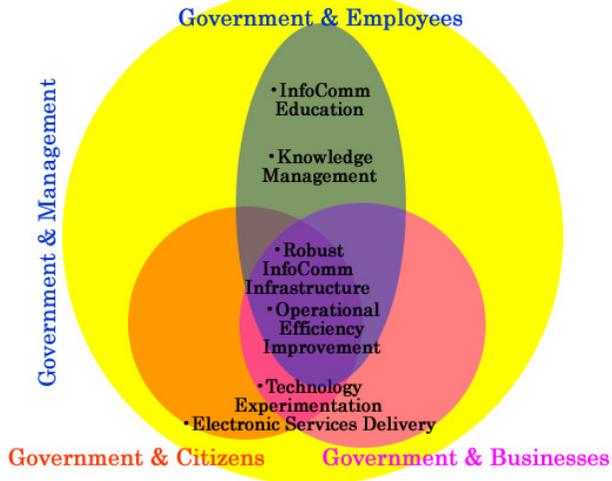
Increased development and uptake of digital service drives a digital economy

Services move towards Smart Government

An evolution over time set by Policy and Strategic intent - Singapore Digital Economy

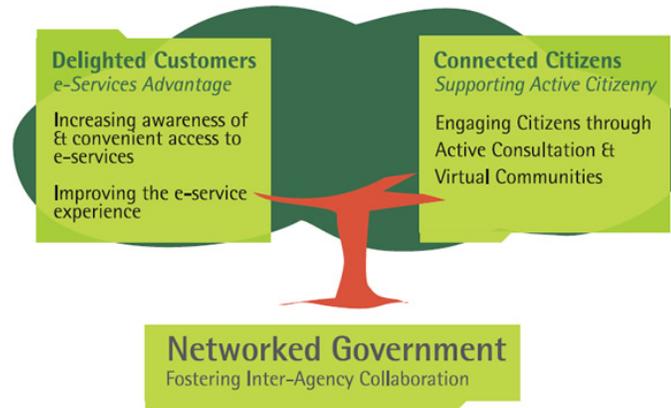


6 Programmes in the e-Government Strategic Framework



E-Government Strategic Framework

Strategies To Realise The Vision & Outcomes



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

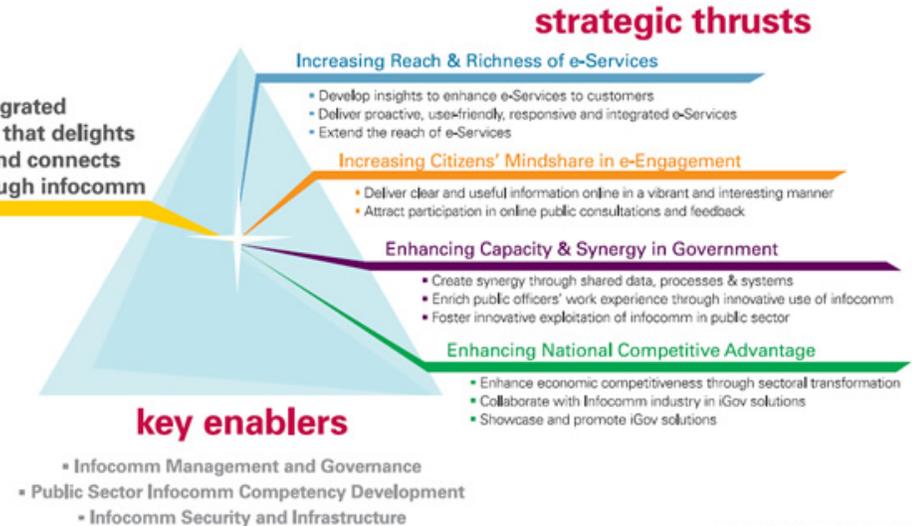
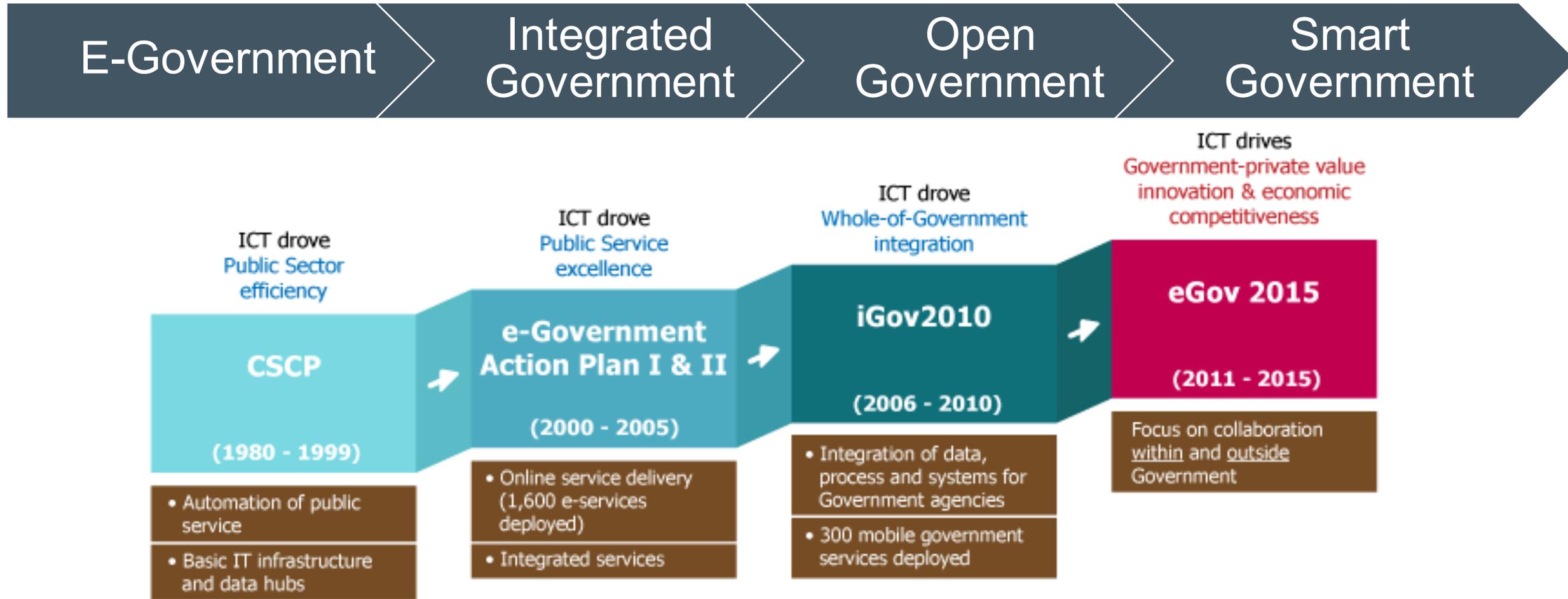


Figure: iGov2010 Strategic Framework

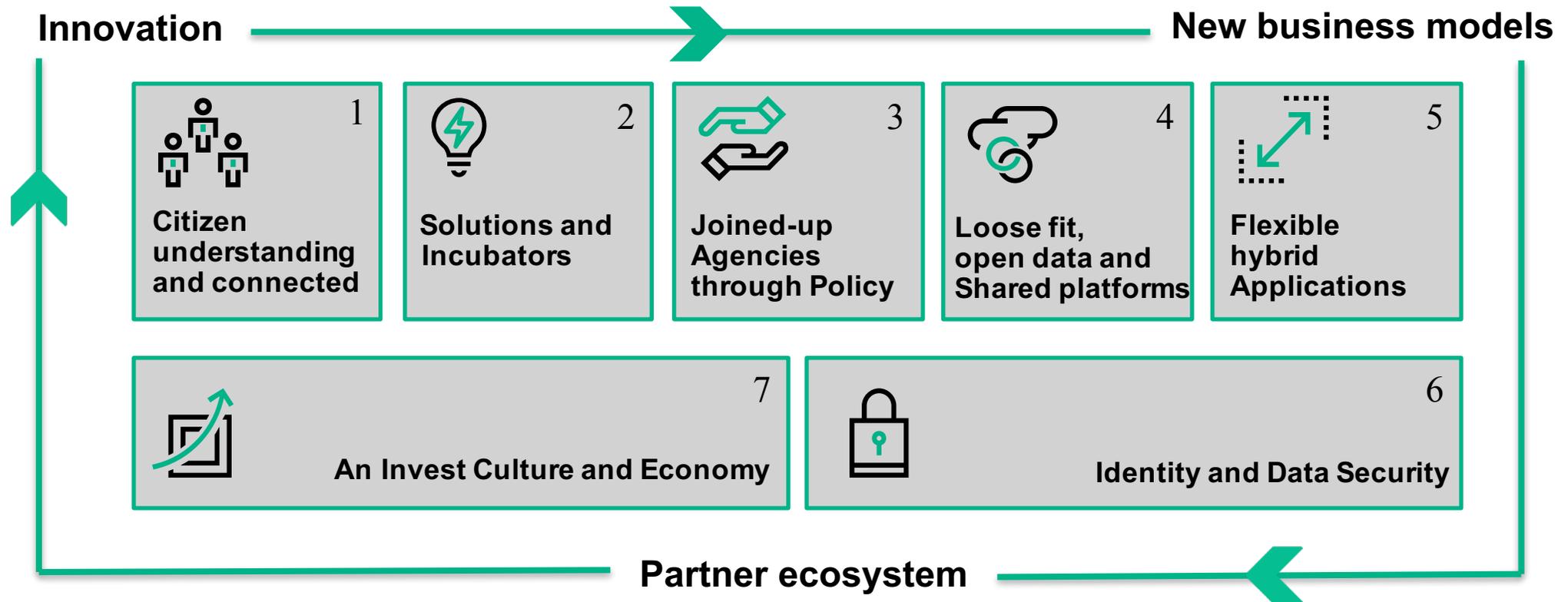
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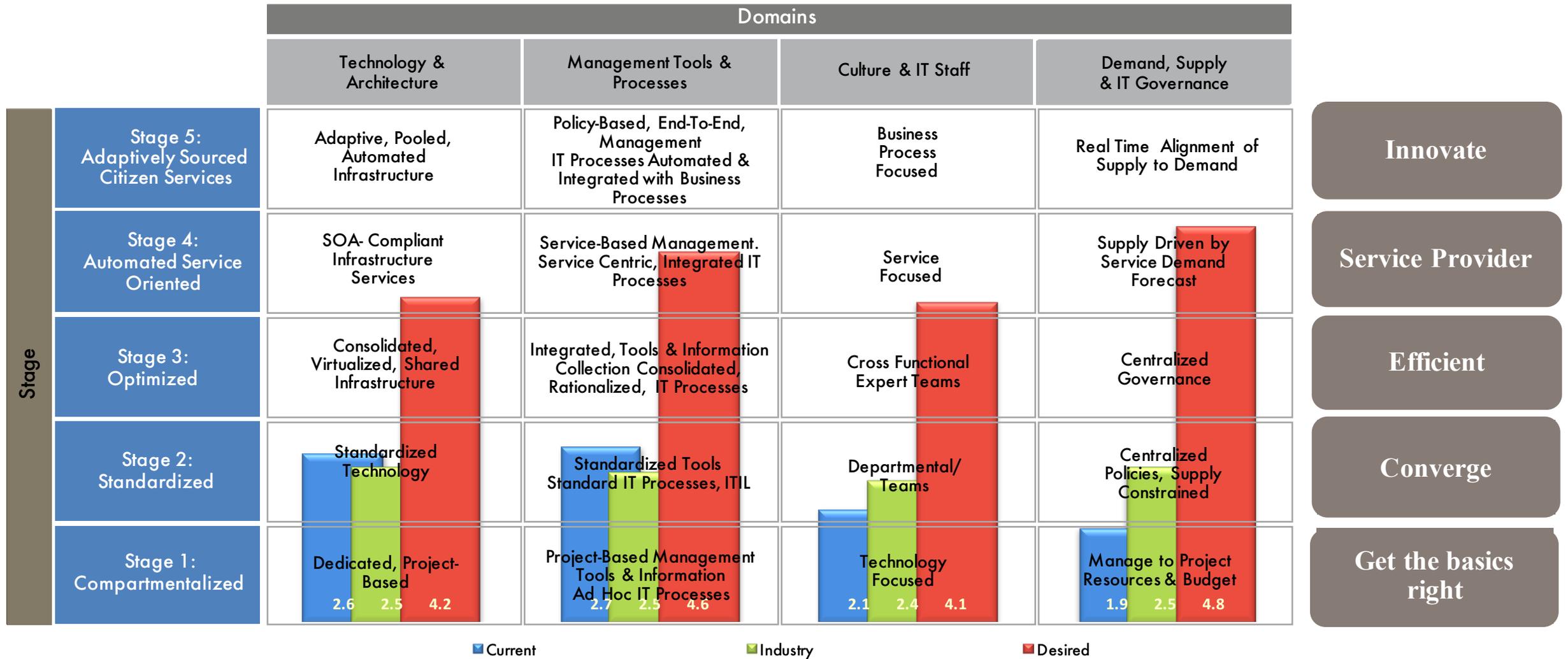


What a Smart City is Built on

7 Pillars + 3 Enablers and Capital

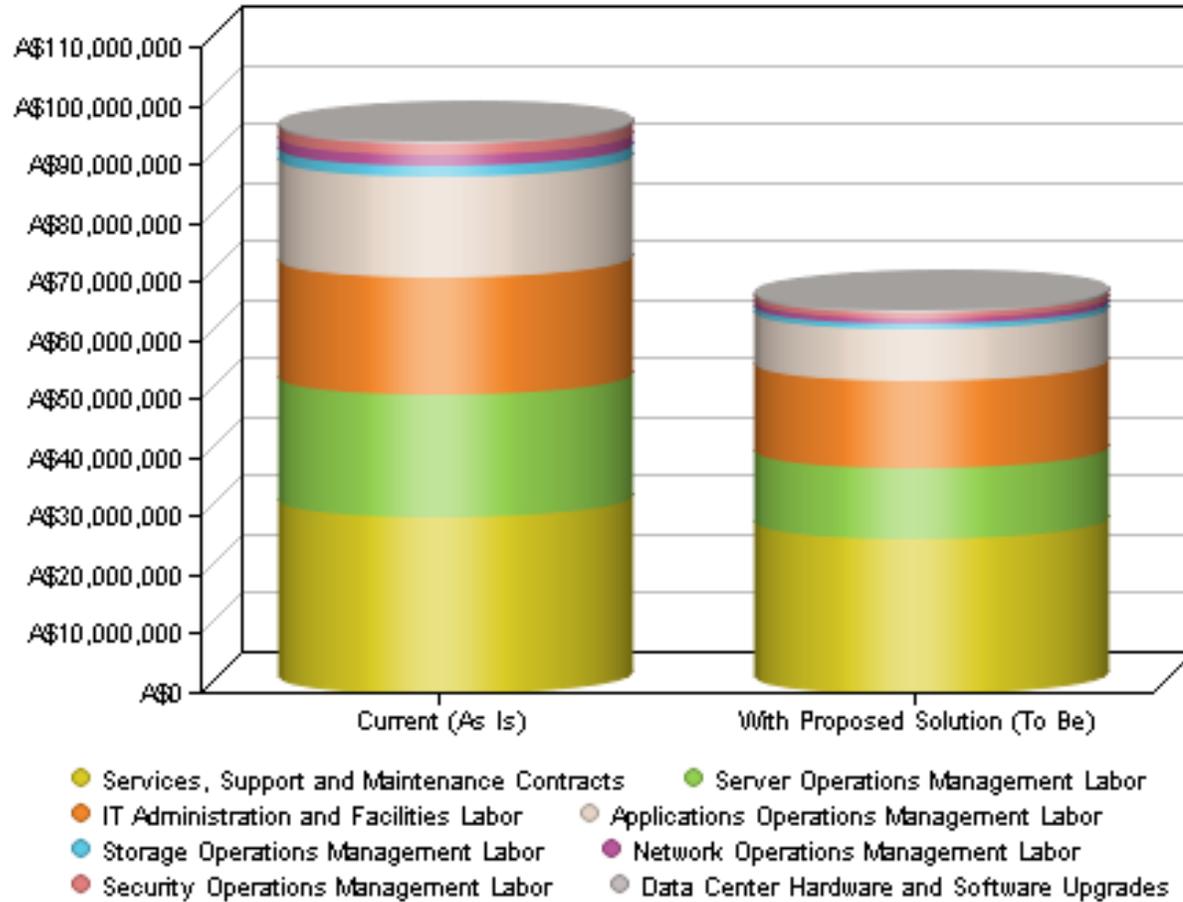


Drive efficiency to improve service delivery

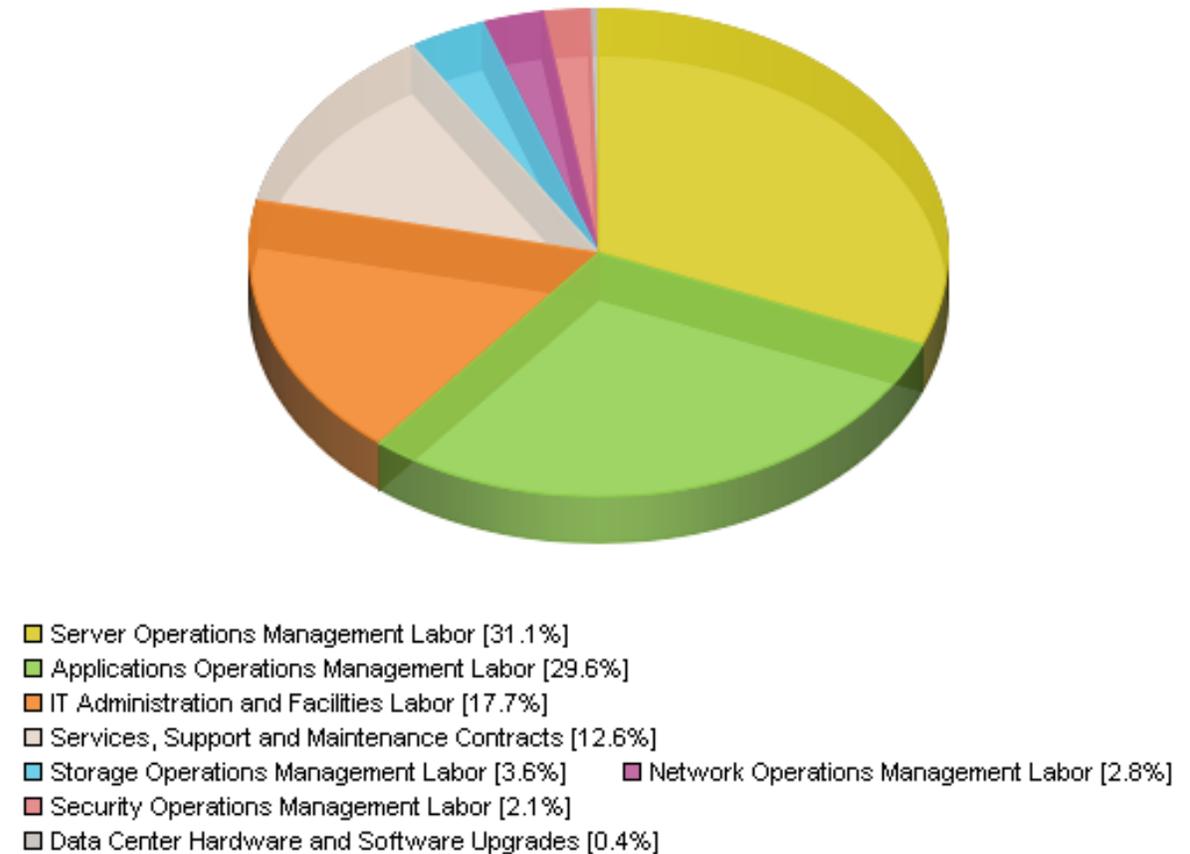


Drive efficiency to free up capital

TCO Comparison - 3 Year Cumulative



Top Benefits



“Ask Once” – Policy Drives Cross-Agency Integration

“It is not a ‘nice to have’ feature but is the new norm for service delivery. Citizens expect immediate answers and immediate service delivery.”

—Luc Chauvin, CIO, Flemish Government



8 Years



Of steady growth

200+



Satisfied customers

Euro 100M



Savings in admin burden

42+ Million



Data items served yearly



Smart City innovation funding

INFRASTRUCTURES AND URBAN DEVELOPMENT

- Free land for innovation hubs
- Community renewable power hubs
- City Rates and taxes fee credits

RESEARCH, INNOVATION AND COMPETITIVENESS

- Research and collaboration hubs
- Industry driven such as health, Industry 4.0
- Tax offsets for companies
- Hackathons

GOVERNMENT TAX OFFSET

- Start up free tax periods
- Reduced corporate tax rates

LOANS AND EQUITY

- Government sponsored loans
- Joint Ventures with offset credit initiatives

