



“GOING DIGITAL”: TOWARDS AN INTEGRATED POLICY FRAMEWORK FOR MAKING THE DIGITAL TRANSFORMATION WORK FOR GROWTH AND WELL-BEING



Digital technologies are radically changing our lives!

2005



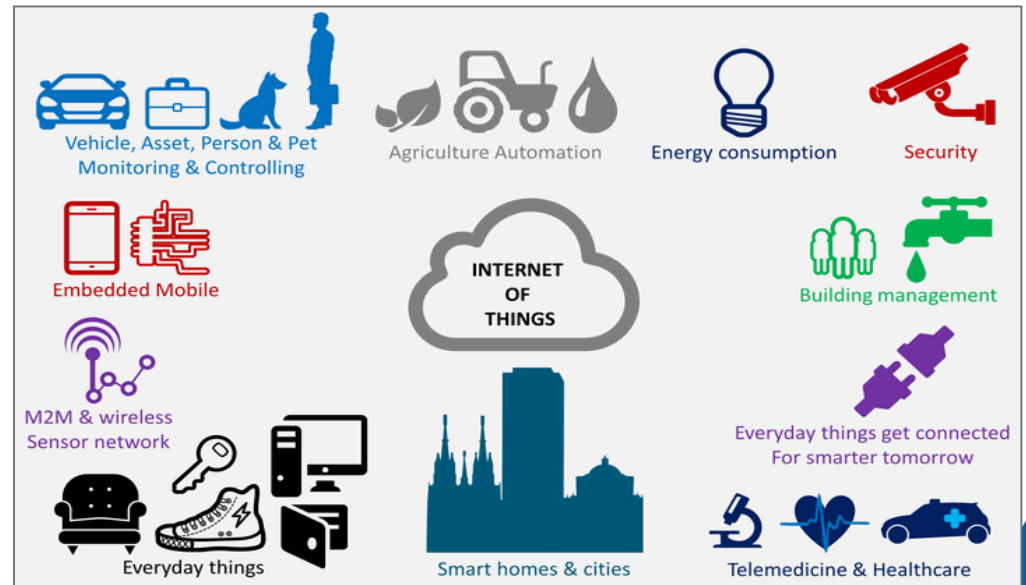
2013





Use of an ecosystem of digital technologies...

- Enables a new wave of digital transformation that:
 - Builds on digitisation and interconnectedness (the Internet)
 - Is more than the sum of its parts
 - And includes technologies such as:
 - Cloud computing
 - Internet of Things
 - Big data
 - Robotics
 - 3D printing
 - Artificial Intelligence
 - Distributed ledgers
 - ...





... is a game-changer providing new opportunities and enabling new business models

I can afford this house, by renting it out.



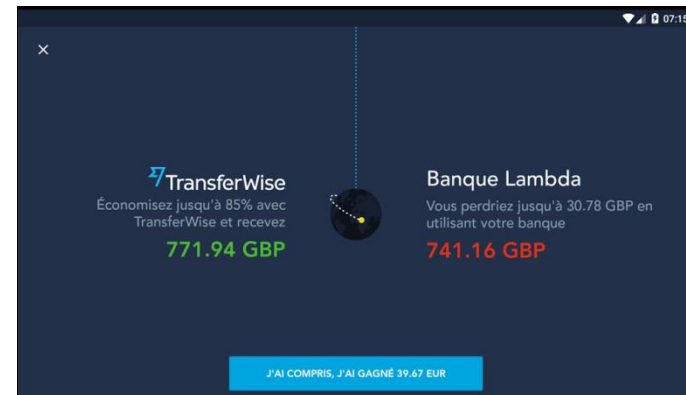
I don't need a car, I need mobility.



With drones, I can get deliveries anywhere.



I don't need a bank, I can use a platform.

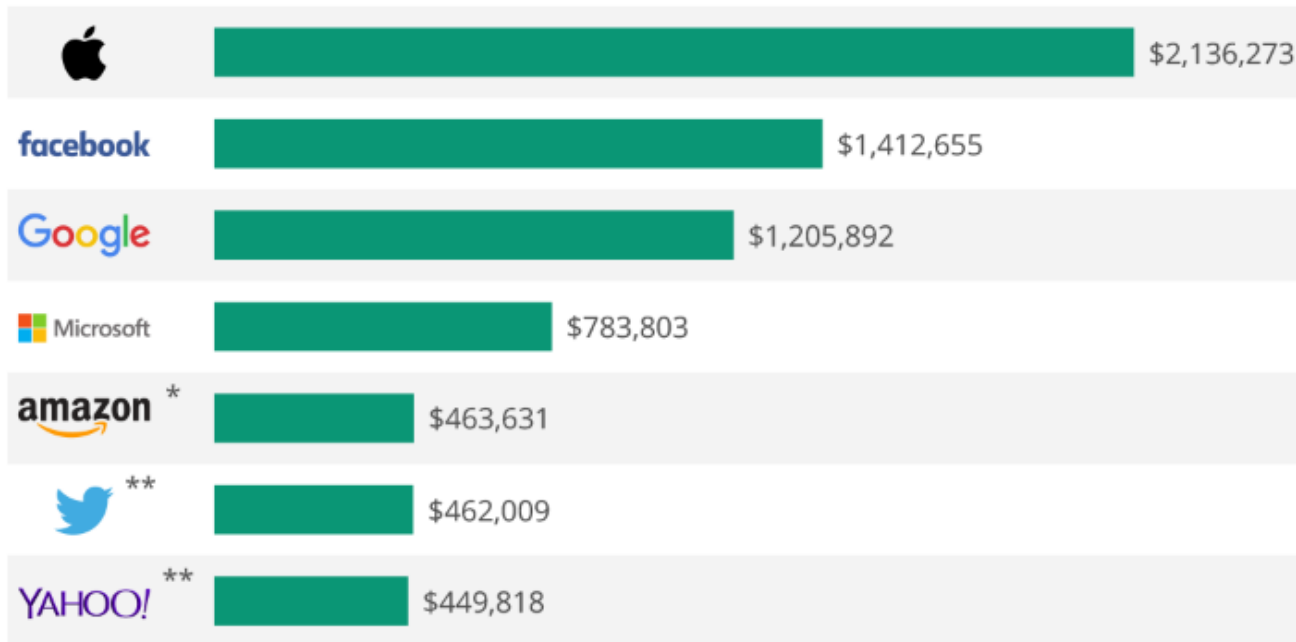




...and “winner-take-a-lot” outcomes.

Tech  Chart of the Day

Tech Companies' Revenue per Employee in 2015



* Amazon's employee count includes part-time employees

** Twelve months ending September 2015



These firms are different in many aspects

1990s

Top-3 US Automakers

- Revenues: 250B\$
- Market cap: 36B\$
- **Employees: 1.2M**

2014

Top-3 US Tech

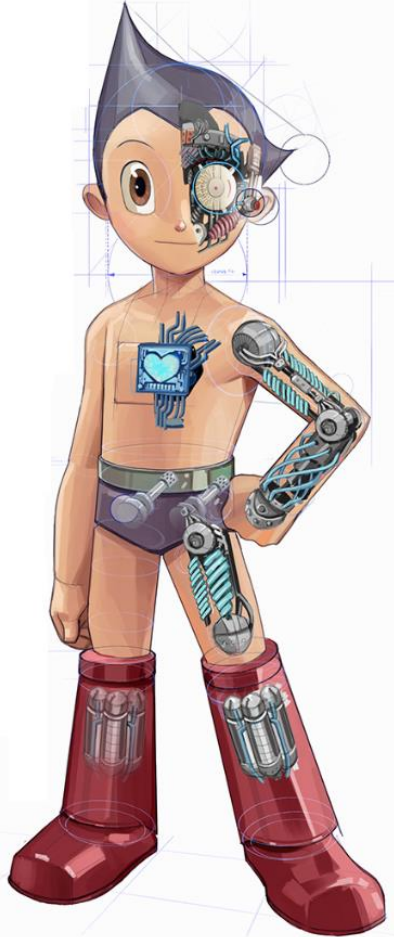
- Revenues: 247B\$
- Market cap: 1T\$
- **Employees: 137K**

Source: “Competition at the digital edge: “hyperscale” businesses,”
McKinsey Insights, accessed 4 March 2015

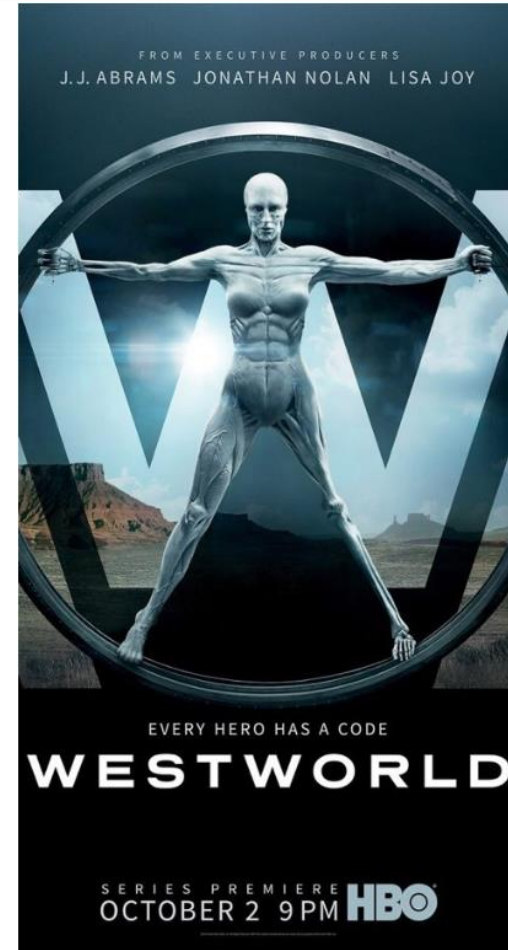


What's next?

Astro Boy (1952)



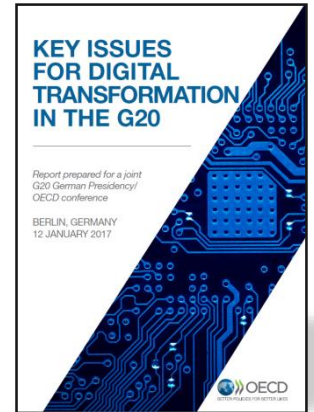
Westworld (2016)





Going Digital Launch on 12 January 2017 in Berlin

Joint OECD-German G20 Presidency Conference





Objectives of OECD Going Digital Project

- Understand the digital transformation and its impacts on the economy and society
- Provide policymakers with the tools needed to develop a forward-looking, whole-of-government policy response
- Help overcome the gap between technology and policy development



Approach to help countries develop a coherent strategy

- Identify and analyse core aspects (“vectors”) of digital transformation
- Develop an integrated policy framework based on the active engagement and input from across OECD policy domains



Vectors of Digital Transformation

Scale, Scope and Speed

1. Scale without Mass
2. Panoramic Scope
3. Speed: Temporal and Intertemporal Dynamics

Ownership, Assets and Economic Value

4. Intangible assets and the new forms of value creation

Relationships, Markets and Ecosystems

5. Transformation of space
6. Empowerment of the edges
7. Platforms and Ecosystems



Scale without Mass



WhatsApp: 300 M users, 50B message/day, 55 employees



Netflix: USD8.8B revenue, 3500 employees



Dropbox: 500M users, 1.2B files stored/day, 1200 employees

Challenges policies that target firms by measure of mass (e.g. employees) and competition policy



Panoramic Scope



- Smart:**
- **Phone**
 - **Camera**
 - **MP3**
 - **Maps**
 - **Credit Card**
 - ...

**Longtail may lead to winner-take-most environment:
complex products require converged policies**



Intangible capital and the new forms of value creation



Intangible assets



Servicification

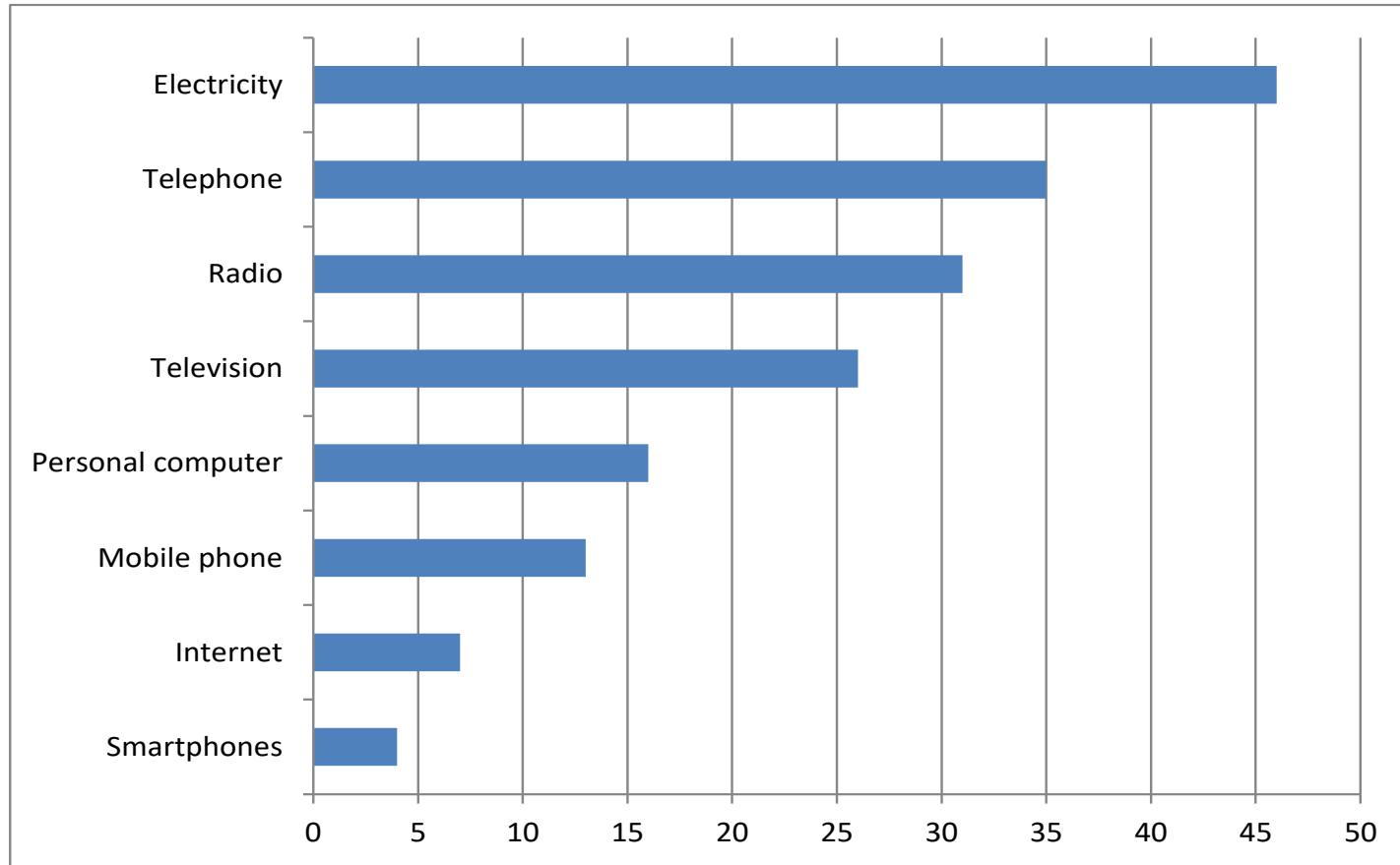


Challenges policies directed at capital, e.g. tax incentives or accounting rules, trade policy (goods vs services)



Speed: Temporal dynamics

Years until used by 25% of US population



Challenges legacy policies and slow policy making - speed may promote policy “arbitrage” strategies



Transformation of space



Challenges policies that rely on geographical location, e.g. education, corporate and labour tax, trade rules of origin



Empowerment of the Edges



**Challenges policies that rely on a central point of control
(e.g. media)**



Platforms and Eco-systems



New intermediaries, new interlocking systems that challenge legacy regulations and policies designed for traditional business models and markets

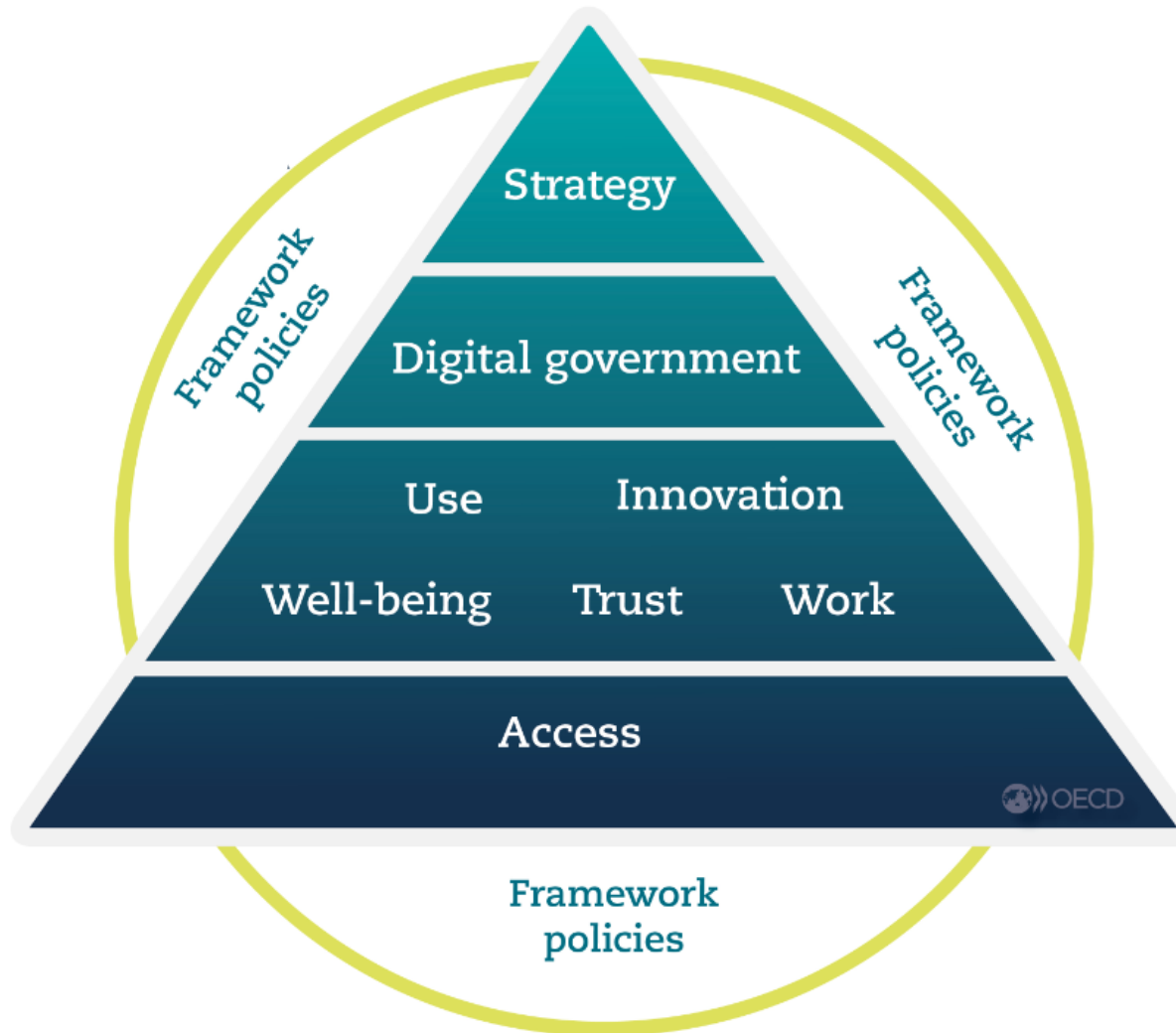


Why an integrated policy framework?

- The digital transformation cuts across traditional policy silos and challenges actors and policies
- Reduce the gap between technological developments and policy frameworks
- Policies must be co-ordinated and integrated both within and across levels of government



Integrated policy framework



Strategy
Digital government
Use
Innovation
Well-being
Trust
Work
Access
Framework policies



Framework policies (including market openness)



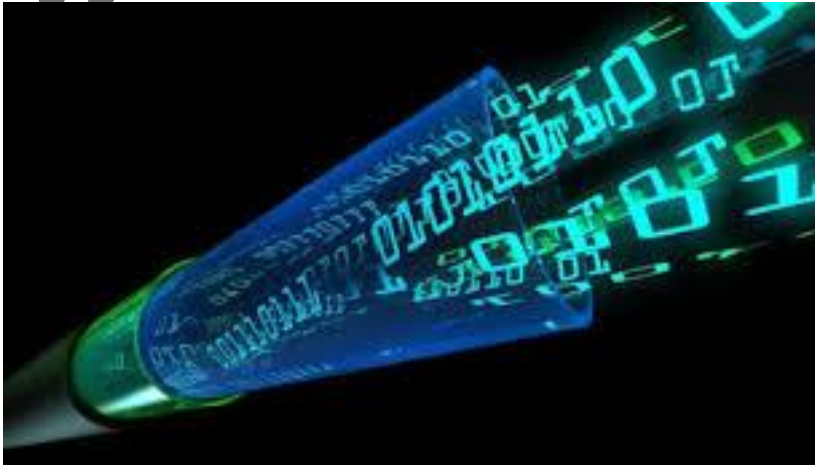
Innovative Practice: Severance pay system in Austria

- The Austrian severance pay system is built around the idea of individual accounts that allow workers to build up severance pay rights and carry them from one job to the next
- This system reduces disincentives to mobility inherent in standard forms of severance pay, which are often linked to the specific job.

Key policy domains: Trade, investment, competition, tax, fiscal policy, financial markets, labour markets and consumer policy.



Access



Innovative Practice: Mexican telecomm reform (incl. *red compartida*)

- In 2012, the Mexican telecom sector was highly concentrated with high prices
- Regulatory reform based on OECD recommendations boosted competition, lowered prices, increased quality; 50+ million additional mobile broadband subscriptions added between 2012-17
- *Red compartida* (shared wholesale wireless network) played a role

Key policy domains: Infrastructure and services policy; investment; competition; financial markets; regional development; telecommunications policies.



Use



- Competences include digital literacy as well as information processing, communication and digital content production skills.

Innovative Practice: INCoDe.2030 – The Portuguese National Initiative on Digital Competences

- Aims to broaden digital literacy, promote employability and professional training.
- Enables citizens to benchmark their level of digital skill (e.g. DigComp2.0) to identify knowledge gaps.
- Specific programmes target disenfranchised groups.

Key policy domains: Skills; privacy; innovation; digital security; competition and entrepreneurship.



Innovation



- Increased regulatory certainty for innovative new business models may help reduce some of the uncertainties associated with being a 'first-mover'.

Innovative Practice: UK's Project Innovate

- In 2014, the UK launched Project Innovate, which enabled innovative, digitally enabled financial start-ups to test innovative products and business models in the real market.
- Cohorts of start-ups were accepted on application, upon demonstration of objective, benefits to consumers and the relevant limits to testing.
- Participants reported reduced time-to-market, potentially at lower cost.

Key policy domains: Science; technology; innovation; entrepreneurship; regulatory reform.



Trust



Innovative Practice: German initiative on IT Security in Industry

- SMEs may lack digital security expertise and face resource constraints; useful approaches include the development of SME-specific risk management guidance tools and incentives.
- The German initiative 'IT Security in Industry' (*IT Sicherheit in der Wirtschaft*) aims to improve the security of SMEs by offering a free digital security check that considers the implications of new directives like the EU General Data Protection Regulation.
- The programme also offers malware and virus checks and disseminates information about ICT security, data protection and ongoing privacy and risk management.

Key policy domains: Privacy; digital security; insurance; energy; financial markets; skills; SMEs; consumer policy; and financial crime detection.



Work



- Job Security Councils cover almost 80% of the Swedish labour force. The Councils are developed and financed based on collective agreements between social partners in specific industries and sectors.

Innovative Practice: Job Security Councils in Sweden

- Job Security Councils provide transitional services to displaced workers and tailored advice and counselling services to both employers and trade unions, often at the very early stages of the unemployment process.
- The majority of re-employment offers to displaced workers are made before the end of the formal redundancy transition period.

Key policy domains: Skill policies; labour markets; education sector; social and welfare policies.



Well-being



- The IDI data helps understand the economic and social outcomes of specific groups and households over time, and thus develop more sophisticated methods of targeting public services.

Innovative Practice: Citizen-based analytics for better social investment in New Zealand

- The New Zealand Integrated Data infrastructure (IDI) facilitates targeted and more effective social expenditure.
- The IDI gathers over 166 billion points of longitudinally-linked and de-identified data about health and safety, justice, benefits and social services, tax and income, education and training, student loans and allowances, travel and migration and family and households from a range of sources.

Key policy domains: Skills polices; social development; education; health; distributional policies (e.g. fiscal policy); environmental policy; security and personal safety.



Digital government



Key policy domain: Public governance.



Strategy



- The GSP facilitates information sharing with citizens, increases transparency and access to administratively collected data. It also provides access to core public services (e.g. pensions, social security, taxation, etc).

Innovative Practice: Japanese Government Shared Platform

- Integrated data can help facilitate a strategic, whole-of-government approach to policymaking in the digital age.
- The Japanese Roadmap for Renovating Government Information Systems (2013) aimed to consolidate disparate IT systems across departments and tiers of government into a Government Shared Platform (GSP).

Key policy domains: Public governance; regulatory reform; international regulatory co-operation.

