



Broadband Plans and Spectrum Roadmaps

Keys to the Success of Digital Societies

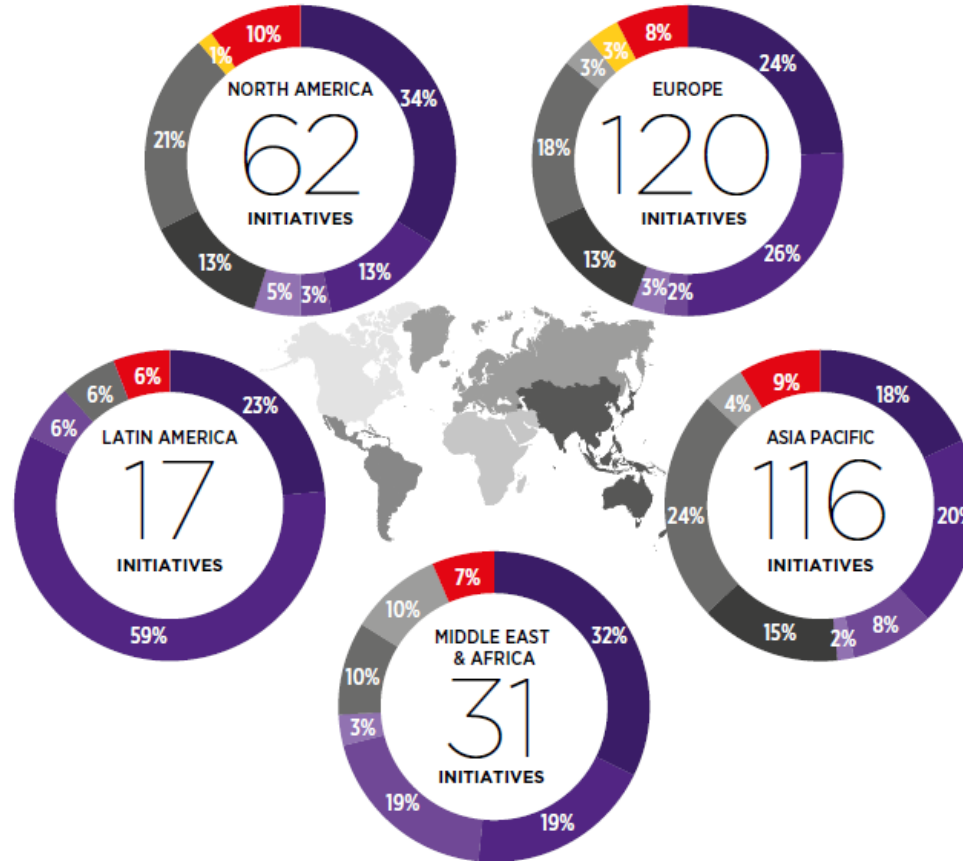
Asia Pacific Digital Societies Policy Forum
Bangkok, 27 April 2016





Digital Economy Plans in the Region

Overview of digital economy initiatives by region



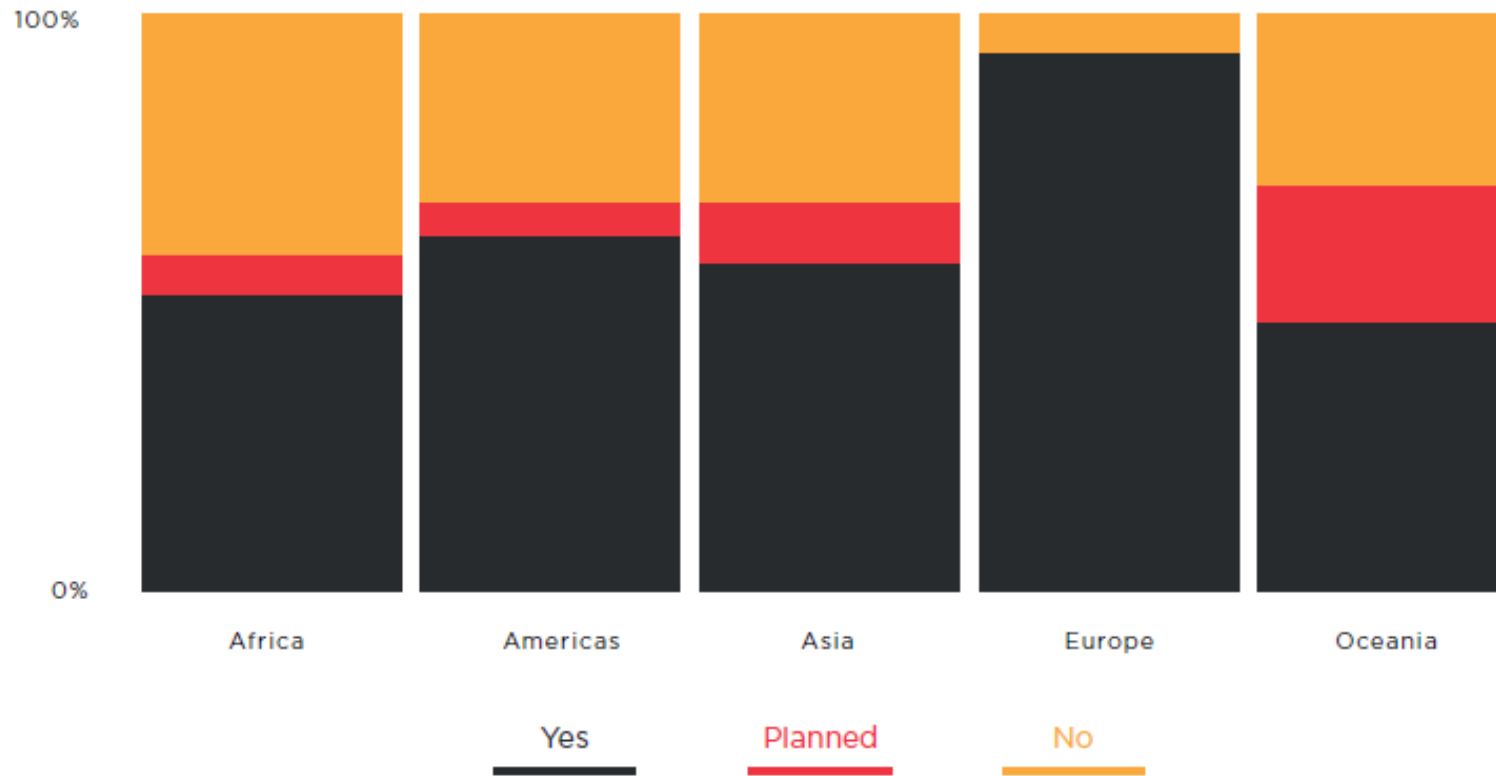
MOBILE HEALTH	MOBILE FINANCIAL SERVICES	MOBILE EDUCATION
SMART HOMES	MOBILE COMMERCE AND ADVERTISING*	CLOUD-BASED SERVICES
MOBILE AGRICULTURE	MOBILE IDENTITY AND SECURITY	VENTURE CAPITAL - ACCELERATOR

Source: Analysys Mason



Regional Comparison of Broadband Plans

Regional status of countries with national broadband plans

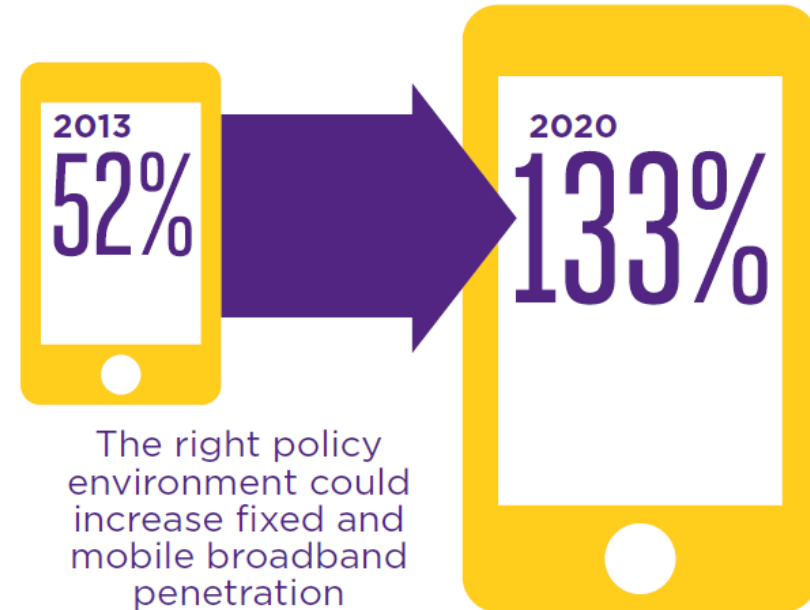




The Right Policy Environment Drives GDP Growth

Increased mobile broadband penetration in Thailand will enable the Government to achieve its digital economy goals and reinforce digital inclusion. The right policy environment could increase fixed and mobile broadband penetration from 52% in 2013 to 133% in 2020, leading to a cumulative GDP increase of USD23 billion (THB730 billion).

The socioeconomic impact of wider mobile broadband access is profound. From improving productivity, driving the creation of new businesses and skilled jobs, to providing access to mobile healthcare and money services and enabling smart cities.



Quality And Coverage Of the Broadband Infrastructure is A Key **Competitive Differentiator** In the Global Economy

Source Analysys Mason



Main Requirements of a National Broadband Plan

1 **Develop a clear roadmap for future spectrum releases**



2 **Remove sector specific taxes and review universal service funds**



3 **Remove barriers to deployment of infrastructure**



Follow WHO guidelines on EMF exposure and enable infrastructure sharing.

4



Facilitate the normal functioning of competition in the mobile sector rather than over-regulating it



Spectrum Roadmap: Why It Matters

A spectrum roadmap is essential to ensure there is enough spectrum to meet surging demand for mobile services

- Increasing pace of mobile technology evolution and the decreasing cycle time for new technology demand increased agility in spectrum management and planning framework
- Balance the time to relocate by the incumbents against the costs of delaying the introduction of new technologies – trade-offs
- Allocate spectrum for new uses in advance of the technology becoming available so that operators have time for planning, capital expenditure and implementation

A spectrum roadmap helps

- Government forecasts future trends and manage its work and risks;
- Industry with increased certainty about the government's future allocation plans and management of radio spectrum.





Key Themes

Key themes for a spectrum roadmap

- Emerging challenges and opportunities to radio spectrum management framework and approach, at least 3 – 5 years into the future
- Identify future technological trends and drivers, and assess their impact on spectrum policy and planning
- Spectrum management work projects and programme planned to address the identified challenges and opportunities
- A roadmap is an evolving document, to be reviewed and updated regularly (annual review is recommended)





Key Challenges

Some key challenges to address

- What spectrum will be available and when:
 - To plan what spectrum operators need to invest in over the near-to-long term to meet rapidly growing data demand (this should encompass coverage & capacity bands, existing and future bands)
- Regulatory certainty:
 - e.g. allocation methodologies, renewal procedure, projects and programme
- Licensing regime:
 - e.g. refarming, resource pricing, spectrum sharing
- Harmonised future spectrum:
 - To reduce equipment costs, limit interference and enable roaming





Spectrum Roadmap Examples

■ Australia

- A Five-year Spectrum Outlook was published annually;
- Outline the ACMA's assessment of the demand for different parts of the radio spectrum;
- Reviewed annually, in particular its spectrum work programme;
- <http://www.acma.gov.au/Industry/Spectrum/Spectrum-projects/5-Year-Spectrum-Outlook>

■ New Zealand

- Released its Radio Spectrum Five Year Outlook 2012-2016 in 2013;
- An update is being planned;
- Stimulated the discussion about the uses of radio spectrum;
- To update and refine the radio spectrum management framework to make it more responsive and effective;
- <http://www.rsm.govt.nz/online-services-resources/publications/annual-reports-and-business-plans/outlook-2012-2016>





Thank You

