14th Global Symposium for Regulators
Capitalizing on the potential of the digital world

Monitoring the Implementation of Broadband Plans and Strategies

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Results-oriented performance management

- Key performance indicators
  - measure in order to manage effectively
  - cycle of policy implementation and improvement

Source: author

- Broadband indicators
  - Deployment and availability (established)
  - Adoption and effective use (still developing)

Source: Adapted from OECD

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Regulator roles and coordination

- Regulator may have both lead and support roles - depending on scope and capacity (many dimensions of broadband plans).
- Key areas include
  - ❏ Regulation
  - ❏ Statistics
  - ❏ Spectrum
  - ❏ Consumers
  - ❏ Civil works
  - ❏ Capacity building
  - ❏ eGovernment, education and health sectors

Strategic & cross-sector coordination responsibility

Market reform & monitoring | Human capacity building & awareness raising

Universal service project management & evaluation | Innovation promotion & outreach / feedback

E-government services promotion & evaluation | Management & reporting on public investments

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Monitoring indicators and outcomes

Broadband deployment — adoption — integration		
Broadband network availability	Broadband access & capacity building for effective use	Broadband integration in economy and society
Deployment	Adoption	Integration
Examples: optical fibre cable and wireless broadband access networks	*Examples*: digital literacy programs; community access projects and programs	*Examples*: e-health, e-governance, e-education and e-commerce strategies

Telecommunications indicators

Performance indicators

Outcome measures

Indicators & outcome measures monitor achievements against targets. Performance indicators track program results, costs, benefits & progress against 'process milestones' (e.g., for regulations, agreements or contracts).

Source: author

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Monitoring deployment and availability

- Indicators of availability are established, but their *value can be enhanced* by
  - Providing greater detail down to community level
    – e.g., through interactive online maps
  - Publishing information online
    – to benefit both users and service suppliers
  - Identifying barriers and regularly reviewing progress
    — and publishing progress online (see examples)
  - Monitoring market developments
    – including wholesale access and competition
- In some cases, the status of the enabling framework needs to be checked/monitored to ensure progress with the broadband plan,
  - e.g., regulatory scope and capacity;
  - spectrum and licensing reforms and gateway access;
  - facilitation of civil works and infrastructure sharing.

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Monitoring adoption and effective use

- Identify barriers and monitor progress in overcoming them:
  - Affordable access to services & equipment
    – basic access target (5% income)
  - Gaps in digital literacy
  - Gaps in digital inclusion
  - Identify other concerns (such as service quality, trust, privacy)
- Indicators of adoption and use are still being developed, but most countries have basic ICT statistics
  - including indicators of the number of customers - subscriptions, households, businesses and communities.
  - Additional information may need to come from other agencies, national statistical offices and from commissioned research
- Monitor uptake and use by 'anchor institutions' e.g., schools, colleges, libraries, public safety, medical and community centres

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Adoption and use:
progress, feedback and response

- Specific objectives require focussed reporting *e.g.*, with details for
  - access & uptake for target regions, social strata, micro business
  - health and education *outcomes*.
  - Important to identify information gaps
- Analysis of adoption and use provides feedback to broadband policy and planning process
  - Business users can provide feedback on important issues.
  - Trends in adoption, affordability and demand have implications for policy (*e.g.*, speed and capacity benchmarks).
- Broadband service quality – a transitional issue? – feedback will tell.
  - User complaints have driven some regulators to monitor service quality – experiences differ among countries.
  - Service quality is crucial is broadband becomes fully *integrated* in the economy and society.

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Monitoring the integration phase

- Indicators of a fully integrated broadband environment:
  - ☑ ubiquitous availability of broadband connectivity,
  - ☑ high levels of digital literacy,
  - ☑ full coverage and utilisation of broadband by all key sectors,
  - ☑ well advanced progress with digital inclusion, and
  - ☑ universally affordable access.
  - ☒ Alternatives to online communication difficult or unavailable
    — requiring coordination among other agencies.
- Priorities for regulators in the integration phase?
  - reliability, resilience, security & quality of broadband services,
  - remaining gaps in digital inclusion and affordability, and
  - any remaining barriers to adoption of high speed connectivity.
- Three phases (deployment, adoption, integration) also affect users.

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Example: Broadband-eHealth integration

Sample national eHealth component map - ITU and WHO National eHealth Strategy Toolkit 2012 p 58, based on *National E-Health and Information Principal Committee, National E-Health Strategy, 30 Sept 2008.* Adelaide, Deloitte Touche Tohmatsu, 2008

Online status reports

Source: European Commission, *Digital Agenda Scoreboard 2012. Sidebars on broadband 'availability', 'adoption' and 'integration' added by the author*

Conclusions – issues to consider

- Monitoring and feedback: a key part of broadband plans.
- Shared information (and mapping) supports informed decisions and contributions.
- Indicators of availability, adoption and use of broadband can facilitate international comparisons.
- Adoption indicators relevant to local communities may target socio-economic groups and regions with special needs.
- Process milestones/progress can be published online.
- Contracts, licences, projects and programs can have built-in monitoring and feedback requirements.
- Collaboration beyond the communications sector may benefit from short, medium and long-term perspectives.
- Support national and international work on impacts on social and economic life, reviewing benchmarks if necessary.

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