

ASEAN ICT Masterplan (AIM 2015) Review: Statistics & Indicators



ASSOCIATION
OF SOUTHEAST
ASIAN NATIONS



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AIM 2015 Review

In 2013 ASEAN undertook a mid-point review of the ICT Masterplan 2015 (AIM 2015) - to review and evaluate.

There were four objectives

- (1) reviewing progress;
- (2) refocusing resources for on-going development of successful programmes;
- (3) reframing projects to ensure successful completion;
- (4) recommending benchmarks and KPIs for future success





The AIM 2015 Initiatives: Reviewed


AIM 2015 comprised 29 Action Points contributing to six Strategic Thrusts. These were assessed in 3 categories: **completed, on-going** and **at risk**.

Table 1: Status of AIM 2015 Action Points

Status	Action Points	Percentage
Completed	18	62%
On-going	7	24%
At risk	4	14%

86% of AIM 2015's Action Points had been completed or were on track for successful completion. **Four** of the Action Points were evaluated to run the risk of not being fulfilled.

A number of the projects undertaken were reworked or reframed to make completion viable and sensible. In some cases that included rolling aspects of the original programme over into the subsequent 5-year plan.



Review of AIM 2015 Initiatives

Action Points	Status	Recommendations
Strategic Thrust 1: Economic Transformation		
1. Work Towards the Harmonisation of ICT Regulation	Completed	Reframed to reflect long-term process goal; next phase to identify areas of alignment for harmonisation, such as enhancing MRAs (AP 5)
2. Share various PPP models and practices amongst ASEAN countries to formulate PPP models for the implementation of ICT projects	Completed	Explore regular efforts to engage business community in this dialogue
3. A Survey of Business Needs for ICT and Information Exchange	! At risk	Refocused on clear deliverable, and thus timeline could be extended to end 2015; further project to develop areas of data facilitation can be operationalised

Strategic Thrust 2: People Engagement and Empowerment		
4. Survey and study to identify gaps and determine e-services to be developed	Completed	Thailand to formalise and share ASEAN e-Gov Strategic Plan 2020; future work could focus around localisation of e-services
5. Enhance implementation of MRAs	On-going	As their goals to create standards for trade facilitation are similar, work on this AP could be considered in tandem with AP 1, to harmonise ICT regulations.
6. Provide incentives or grants to promote e-services and content development	Completed	Future iterations could be supported; next phase could be to research on the impact of these incentives on the ICT industry
7. Outreach campaign to promote awareness of cyber-security	Completed	Further work by ASEAN could support future efforts to highlight importance of cyber security
8. Study to lower intra-ASEAN roaming charges	Completed	Further work could continue to include collaborations with other regional bodies like the EU
9. Identified Requirements for an Intra-ASEAN Secure Transaction Framework	! At risk	Refocused on a clear delivery; timeline could be extended to 2014 Q4. Goals for APs 9, 18 and 19 could be discussed in tandem with one another for a more holistic information management framework.

Strategic Thrust 3: Innovation		
10. Recognise and reward ICT innovators	Completed	Future iterations of the ASEAN ICT Awards could be supported
11. Ensure every child has access to broadband internet	Completed	Overlaps with AP 25; next phase could be to combine country-level initiatives for broadband rollout and set a date for achieving universal school broadband access
12. Launch the ASEAN CIO Forum	Completed	Future iterations could be supported; future forums could focus on relevant regional issues
13. Announced Establishment of the CoEs	! At risk	Refocused on delivery date; timeline could be extended to 2014 Q4; next step could be on connectivity between CoEs and developing synergies with AMMST
14. Develop and Support ASEAN Digital Content Exchange Platforms	Completed	Refocused to reflect bottom-up approaches which have emerged
15. Promote IPR at ASEAN level to safeguard innovation	On-going	Could be deemed concluded with the dissemination of the workshop report and survey results

Action Points	Status	Recommendations
Strategic Thrust 4: Infrastructure Development		
16. Work towards the Establishment of an ASEAN Broadband Corridor	Completed	Reframed to reflect process-oriented goal; project has completed its first phase and begun phase 2
17. Work Towards the Establishment of an ASEAN Internet Exchange Network	! At risk	Reframed to reflect process-oriented goal; next step could be feasibility study to determine requirements for AIX; timeline could extend to 2015 Q4
18. Work Towards a Common Framework for Network Security	Completed	Goals for APs 9, 18 and 19 could be discussed in tandem with one another for a more holistic information management framework
19. Work Towards a Common Framework for Information Security	Completed	Goals for APs 9, 18 and 19 could be discussed in tandem with one another for a more holistic information management framework. Next phase could be to deliver minimum standards for network security, such as a holistic cyber-security framework for transactions and 2FA, and best practices for information and network management

Strategic Thrust 5: Human Capital Development		
20. Develop a registry of experts and innovators	On-going	Link with national initiatives and include private sector input to forecast ICT manpower needs
21. Create ASEAN ICT Scholarship Programme	On-going	Include private sector input to forecast ICT manpower needs
22. Develop ICT certification and skills upgrading programme	On-going	Could be considered complete with the delivery of the standards definitions; future efforts could align with APs 20 and 21 to equip and facilitate movement of ICT professionals across AMS
23. Establish Framework to Facilitate Movement of ICT Professionals	Completed	Revised to reflect the nature of the framework and could be discussed with AP 22's goals to complete the mapping exercise. Next phase could focus on the implementation and use of the standards across AMS

Strategic Thrust 6: Bridging the Digital Divide		
24. Review of USO or similar policies	Completed	Create a common USO programme for next-generation broadband rollout programme among AMS
25. Prioritise roll-out to schools	Completed	Overlaps with AP 11; next phase could be to combine country-level initiatives for broadband rollout and set a date for achieving universal school broadband access
26. Collaborate between ICT and education sectors within ASEAN	On-going	Could be considered completed following the ICTLT 2014 if takeaways and best practices are consolidated and disseminated for use in a subsequent project of teacher access, training and enhancement. Next phase could be to tie this effort together with USO school access and e-community programme
27. Promote ASEAN integration through exposure to different cultures within ASEAN at an early age	Completed	Future iterations could be replicated in other AMS; similar camps for teachers could be planned
28. Collaborate with relevant ministries	On-going	Deliverable could be to create matrix to identify specific ministries and focal points for effective communication across AMS
29. Engage all AMS in Efforts to Bridge the Digital Divide in ASEAN	Completed	Revised to reflect group effort needed to bridge the digital divide



Recommendations:

Review, Refocus, Reframe

1) 62% of projects completed;

A number of project have been completed. In other cases, projects should be considered “successful” because they’ve set up for iterations (AP12: ASEAN CIO Forum) – resources should be put in place to support regular sessions (or a life cycle proposed) – see asterisks*

2) Some projects reframed for clarity

Some projects have made major headway into having discussions, and in the course of these meetings, it may be useful to reframe the project, eg to work on feasibility studies before going ahead (AP17: ASEAN Internet Exchange)

Some other projects are completed, but through the discussion we can see that the wording of the initiative can be reworked slightly to make the objective more defined (AP1: Harmonizing ICT regulation, AP16: ABC, AP23: MRA for skills certification)

3) ***For better policymaking and agenda-setting institutionalizing statistical indicators needs to be actively considered and developed***

This would be for ICT statistics and an ICT indicator database






KPI Assessment

- Each strategic thrust to have a measurable KPI attached to it
- KPIs to be sourced from public sources
- All strategic thrusts to have relevant attached KPIs and
 - Measurement period needs to be at least 2 years
 - Minimum of 7 AMS to be covered for each KPI

CURRENT


- Nominal GDP (contributed by ICT)
 - Mobile penetration
 - Internet penetration
 - Fixed broadband penetration
 - Wireless broadband penetration
 - ICT manpower
 - Public school broadband access
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KPI Assessment

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- KPIs to be sourced from public sources
- All strategic thrusts to have relevant attached KPIs and
 - Measurement period needs to be at least 2 years
 - Minimum of 7 AMS to be covered for each KPI

PROPOSED

- International bandwidth
 - Unique subscribers
 - ICT Consumption levels
 - ICT R&D programmes
 - ICT PPP initiatives
 - Mobile/secure payments initiatives
 - Govt Information Officers
 - Benchmarked broadband/mobile prices
 - No. of ecommerce startups
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Strategic Thrust 1: Economic Transformation	Status
1. Work towards the harmonization of Harmonize ICT Regulation	Completed
2. Share best PPP model	Completed
3. Share business data in ASEAN	On-going
Strategic Thrust 2: People Engagement and Empowerment	
4. Identify e-services	Completed
5. Enhance implementation of mutual recognition arrangements (MRAs)	On-going
6. Incentives for ASEAN e-services and content	Completed
7. Campaign to promote cyber-security	Completed
8. Study to lower intra-ASEAN roaming charges	Completed
9. Promote secure transactions within ASEAN	On-going
Strategic Thrust 3: Innovation	
10. Reward ICT innovators	Completed
11. Ensure every child has broadband access	Completed
12. ASEAN CIO Forum	Completed
13. Establish Network of CoEs	On-going
14. Develop ASEAN digital content exchange	Completed
15. Promote IPR at ASEAN level	On-going

ASEAN ICT Masterplan 2015 review part1of2

18 Action
points out of 29
(62%) could be
considered
“completed”



Strategic Thrust 4: Infrastructure Development	
16. Work towards the establishment of Establish an ASEAN Broadband Corridor (ABC) – dev a framework to improve bb connex + access in ASEAN; promote affordable bb access to further bridge DD	Completed
17. Study the feasibility of establishing an ASEAN Internet Exchange Network – explore feasibility of improving latency + speeds + lower costs amongst ASEAN ISPs	On-going
18. Develop a framework for network security	Completed
19. Develop common framework for information security	Completed
Strategic Thrust 5: Human Capital Development	
20. Registry of Experts	On-going
21. ASEAN ICT Scholarship programme	On-going
22. Develop ICT certification and skills upgrading programme	On-going
23. Establish MRA for ICT skills certification framework to facilitate movement of ICT professionals	Completed
Strategic Thrust 6: Bridging the Digital Divide	
24. Review of USO of similar policies	Completed
25. Prioritise roll-out to schools	Completed
26. Collaborate between ICT and education sectors	On-going
27. Promote ASEAN integration at an early age	Completed*
28. Collaborate with relevant ministries	On-going
29. Bridge the digital divide within ASEAN	Completed*

ASEAN ICT Masterplan 2015 review part2of2

18 Action points out of 29 (62%) could be considered “completed”



Strategic Thrust 1: Economic Transformation	Status
1. Work towards the harmonization of ICT Regulation	Completed
2. Share best PPP model	Completed
3. Share business data in ASEAN	On-going
Strategic Thrust 2: People Engagement and Empowerment	
4. Identify e-services	Completed
5. Enhance implementation of mutual recognition arrangements (MRAs)	On-going
6. Incentives for ASEAN e-services and content	Completed
7. Campaign to promote cyber-security	Completed
8. Study to lower intra-ASEAN roaming charges	Completed
9. Promote secure transactions within ASEAN	On-going
Strategic Thrust 3: Innovation	
10. Reward ICT innovators	Completed
11. Ensure every child has broadband access	Completed
12. ASEAN CIO Forum	Completed
13. Establish Network of CoEs	On-going
14. Develop ASEAN digital content exchange	Completed
15. Promote IPR at ASEAN level	On-going

ASEAN ICT Masterplan 2015 review part1of2

18 Action points out of 29 (62%) could be considered "completed"



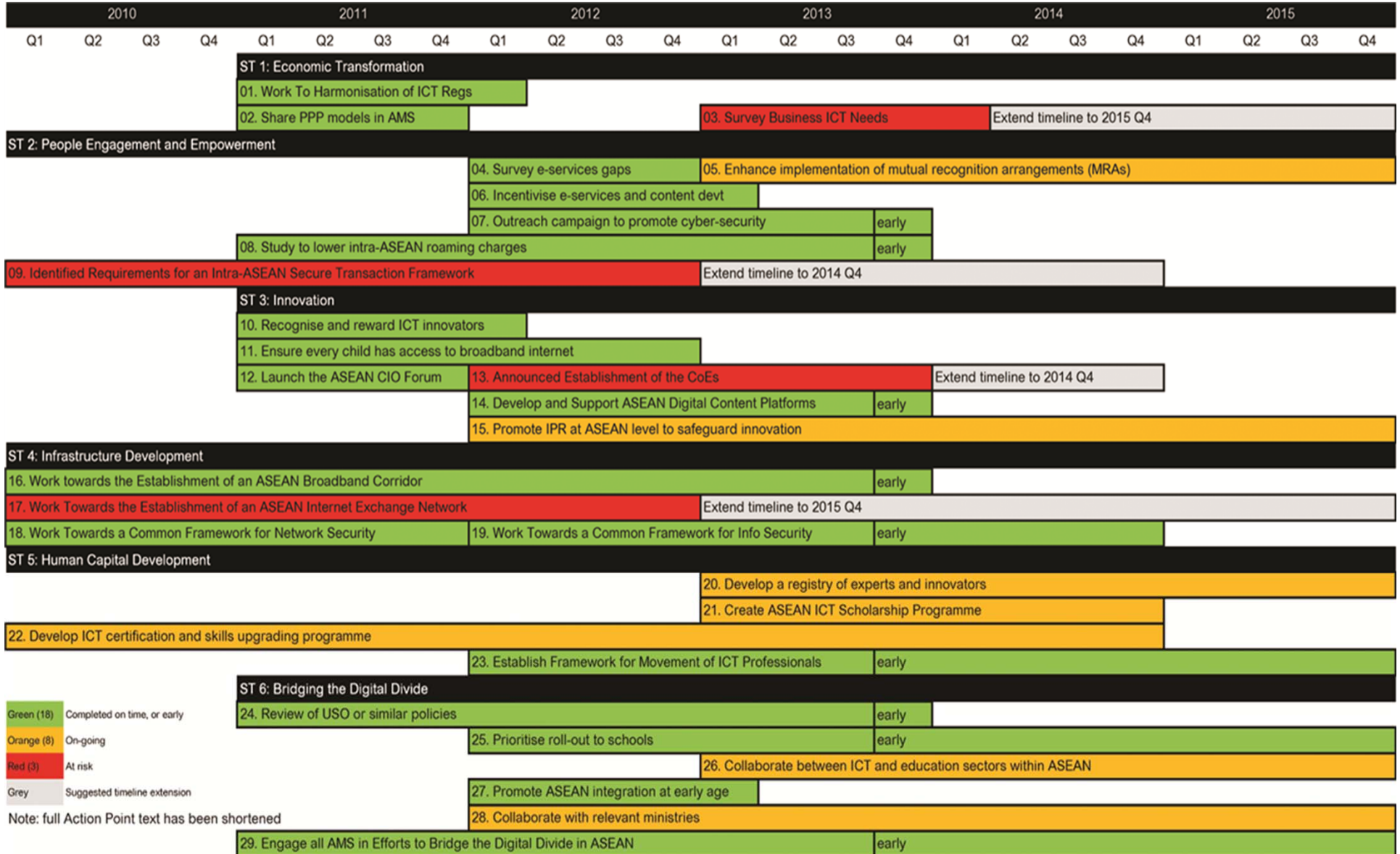
Strategic Thrust 4: Infrastructure Development	
16. Work towards the establishment of an ASEAN Broadband Corridor (ABC)	Completed
17. Study the feasibility of establishing an ASEAN Internet Exchange Network	On-going
18. Develop a framework for network security	Completed
19. Develop common framework for information security	Completed
Strategic Thrust 5: Human Capital Development	
20. Registry of Experts	On-going
21. ASEAN ICT Scholarship programme	On-going
22. Develop ICT certification and skills upgrading programme	On-going
23. Establish framework to facilitate movement of ICT professionals	Completed
Strategic Thrust 6: Bridging the Digital Divide	
24. Review of USO of similar policies	Completed
25. Prioritise roll-out to schools	Completed
26. Collaborate between ICT and education sectors	On-going
27. Promote ASEAN integration at an early age	Completed*
28. Collaborate with relevant ministries	On-going
29. Bridge the digital divide within ASEAN	Completed*

ASEAN ICT Masterplan 2015 review part2of2

18 Action points out of 29 (62%) could be considered “completed”



Revised AIM 2015 Timeline





Success Stories

- 1: ASEAN-EU Workshop on Voice and Data Roaming** *led by Singapore and EU*
 - 2: The ASEAN e-Government Strategic Action Plan** *led by Thailand*
 - 3: ASEAN ICT Awards 2012** *led by Brunei*
 - 4: An Intra-ASEAN Secure Transactions Framework** *led by Thailand*
 - 5: ASEAN ICT Skills Standards Definition and Certification** *led by Thailand*
 - 6: ASEAN Broadband Corridor** *led by Singapore*
 - 7: ASEAN Cyberkids Camp** *led by Malaysia*
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Recommendations

Benchmarks and KPIs for future success

Strategic Thrust 1: Economic Transformation

1. ICT goods exports (percentage of total goods exports)
2. ICT service exports (percentage of service exports, BoP)
3. Nominal GDP with ICT contribution (by percentage)

Strategic Thrust 2: People Engagement and Empowerment

4. Cost per megabyte of download as percentage of GDP per capita
5. Cost per 10-second mobile tariff as percentage of GDP per capita
6. Percentage of firms with an online presence
7. Number of e-Government services available
8. Percentage of business registrations and filings conducted online
9. Number of cyber intrusions (network attacks) per month
10. Number of online monetary transactions per month, and percentage of total transactions (by volume and value)

Strategic Thrust 3: Innovation

11. No. of patent applications by residents

Strategic Thrust 4: Infrastructure Development

12. Broadband subscriptions per 100 population
13. Wireless broadband subscriptions per 100 population
14. Mobile (subscriptions) per 100 population
15. Percentage of individuals using the Internet / Internet penetration (Internet users per 100 people)
16. Secure Internet servers (per 1 million people)
17. International connectivity (international broadband per economy)
18. Average access speed
19. Data centre efficiency level (average power usage effectiveness or PUE)

Strategic Thrust 5: Human Capital Development


20. ICT manpower (in absolute numbers) with tertiary education and above, and percentage growth year-on-year
21. Number of employed ICT professionals and percentage growth year-on-year

Strategic Thrust 6: Bridging the Digital Divide

22. Percentage of public schools with broadband access
23. Percentage of population (15 years+) with financial access (bank or other registered financial account)




ST1: Economic Transformation

1. ICT goods exports (percentage of total goods exports)
 2. ICT service exports (percentage of service exports, BoP)
 3. Nominal GDP with ICT contribution (by percentage)
 4. Public private partnerships (by no., percentage participation, timespan, cost)
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ST2: People Engagement & Empowerment

1. Cost per megabyte of download as percentage of GDP per capita
 2. Cost per 10-second mobile tariff as percentage of GDP per capita
 3. Percentage of firms with an online presence
 - ❖ *Broken out by firms with own website and social media presence*
 4. Number of e-Government services available
 5. Level of e-Government services usage
 - ❖ *Percentage of business registrations and filings conducted online*
 6. Number of cyber intrusions (network attacks) per month (e.g. identity theft, DDoS, website vandalism, etc.)
 7. Number of online monetary transactions (by no./by vol.): so as to remove growth of cyber-crimes resulting from growth of ICT usage.
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ST3: Innovation

1. Number of new enterprises/SMEs started
 - ❖ *Number of companies with virtual offices*
 2. Number of home-grown products entering foreign markets
 3. Number of patent applications by residents
 - ❖ *Note: number of patent registries may be inadequate as a measure of innovation if (1) patents are unavailable (too costly, inconvenient, time-consuming) for average inventors and programmes to access; (2) patents are not adequately enforced within a country*
 4. Number of CIOs
 5. Level of intra-ASEAN digital exchange (traffic)
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ST4: Infrastructure Development

1. Broadband subscriptions per 100 population
 2. Wireless broadband subscriptions per 100 population
 3. Mobile subscriptions per 100 population
 4. Percentage of individuals using the Internet/ Internet penetration (Internet users per 100 population)
 5. Secure Internet servers (per 1 million people)
 6. International connectivity (international broadband per economy)
 7. Average access speed
 8. Data centre efficiency level (average power usage effectiveness, PUE)
 9. IPv6 addresses/ IPv4 addresses
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ST5: Human Capital Development

1. ICT manpower (in absolute numbers) with tertiary education and above, and percentage growth year-on-year
 2. Number of ICT graduates
 3. Number of employed ICT professionals and percentage growth year-on-year
 4. Number of qualified experts under ICT certification/skillsets programme
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ST6: Bridging the Digital Divide

1. Percentage of public schools with broadband access
2. Percentage of population (15 years+) with formal financial access (bank or other registered financial account)





Thank you

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