



**Pyramid Research**

## **Access to Broadband**

**Focusing on demand stimulation strategies**

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# Overview

- Development benefits of broadband access
- Current state of broadband penetration: some useful metrics in emerging regions
- National plans focused on demand stimulation strategies

# Development benefits from broadband access, especially from mobile broadband, are clear in many sectors and to the economy in general

## Education

- Increased access to educational tools and materials for students, teachers and administrators; m-education contributes to higher literacy and even school attendance rates

## Health

- Provides the opportunity to collect and disseminate critical health information and increases access to medical/emergency services

## Agriculture

- Improved crop management, reduced travel time and increased incomes

## Finance/Banking

- Affordable and reliable access to banking services

## E-Government

- Provides governments a more effective way to inform and serve their citizens

## Local Entrepreneurship

- Increased ICT-related local businesses and opportunities

## Cross-Cutting Issues

- contributions to gender and social equality and human rights

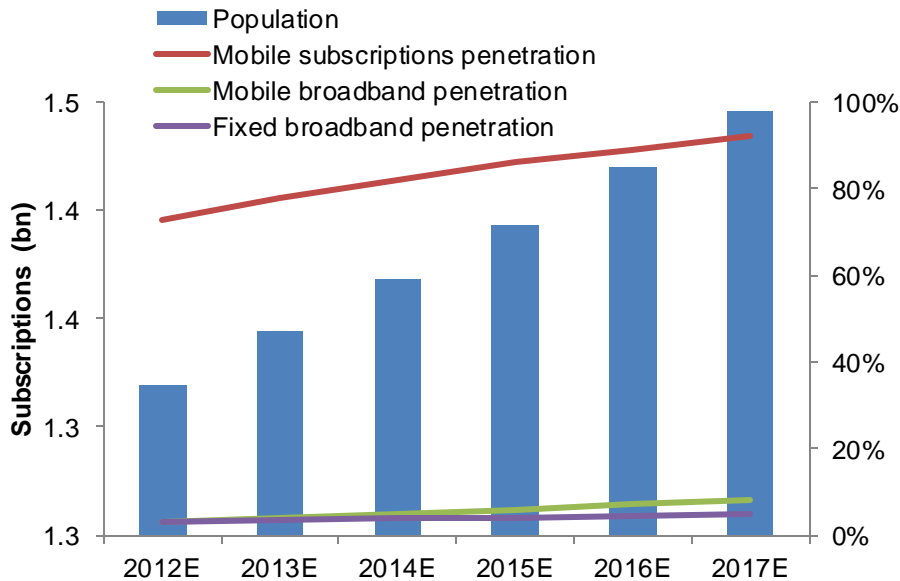
## It is therefore critical to address existing restrictions and gaps to ensure that the benefits of broadband and ICT become a reality

- **An enabling regulatory and policy environment**, focused on open markets, fair competition and a converged market.
- **Cost of devices and services are still high for many low-income populations, particularly women.**
- Lack of reliable **infrastructure** in rural and remote areas is still a problem.
- **Rural-urban gaps are significant at many levels.**
- **Literacy rates** affect the ability to take full advantage of mobiles.
- **Cultural and social concerns** affect women's and men's ability to access and use mobile technology.
- **Limited recognition of and knowledge about the current gaps by stakeholders in the ICT ecosystem.**

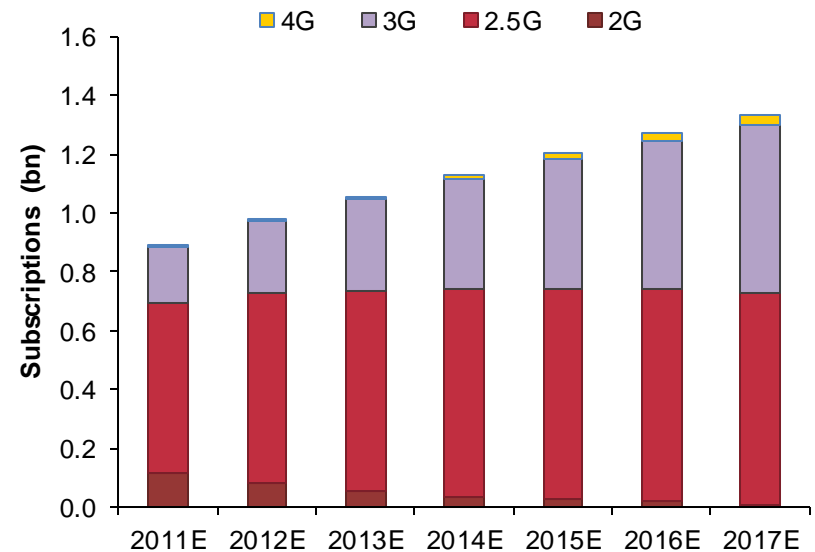
# There have been tremendous developments in the sector, particularly with increased access to mobile phones, but broadband still has a long way to go

In Africa and the Middle East, despite strong mobile growth, mobile broadband uptake will only reach about 8% in 2017, with 2.5G being the dominant technology

**MOBILE SUBSCRIPTIONS AND BROADBAND PENETRATION, AME 2011-2017**



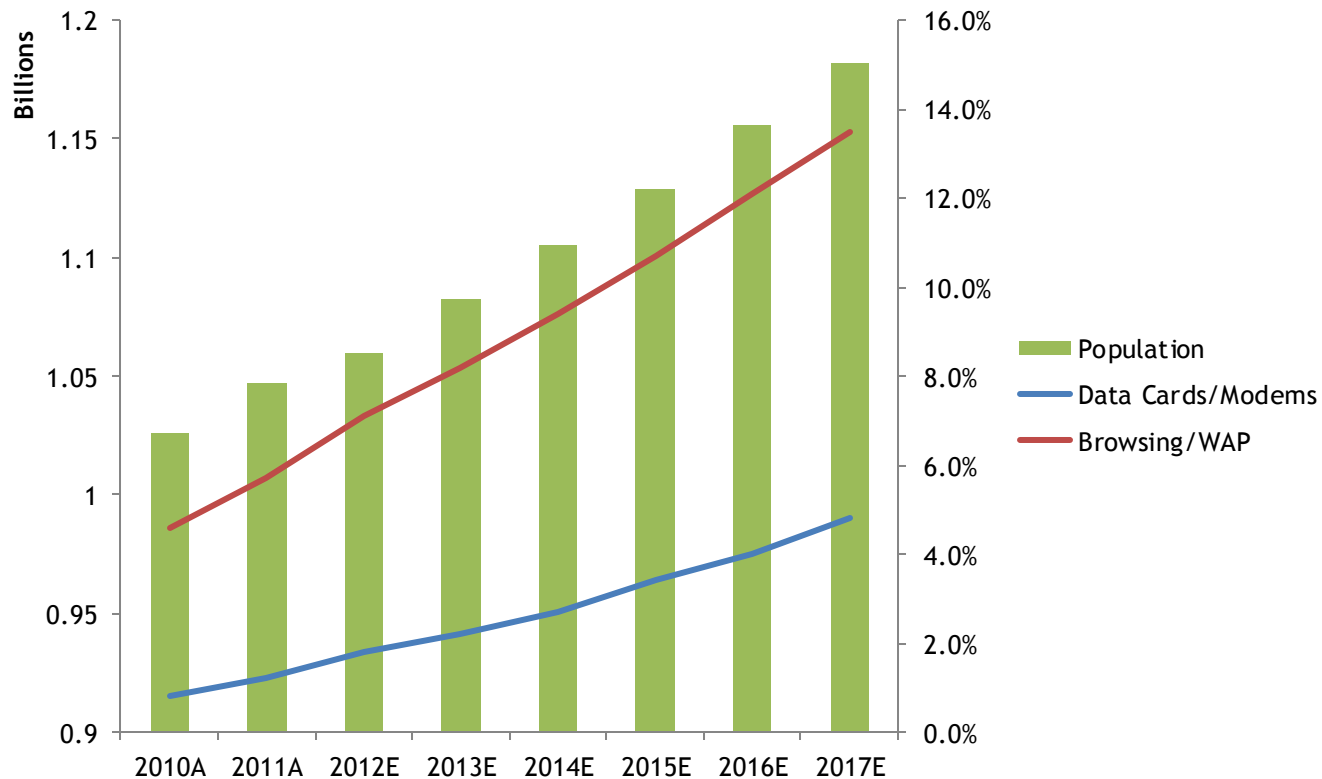
**SUBSCRIPTIONS BY TECHNOLOGY GENERATION, AME 2011-2017**



Source: Pyramid Research, Q2 2012 Forecast

# In Africa, despite our prediction of strong growth for mobile broadband (CAGR of 22% for mobile data cards/modem and 14% for browsing/WAP), penetration levels will remain relatively low by 2017

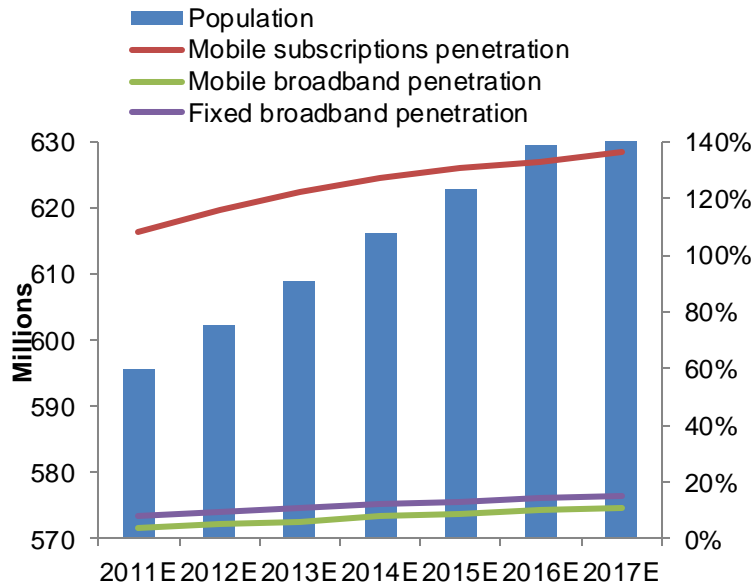
Mobile data card/modem users and browsing/WAP users penetration of population, 2010-2017, North and sub-Saharan Africa



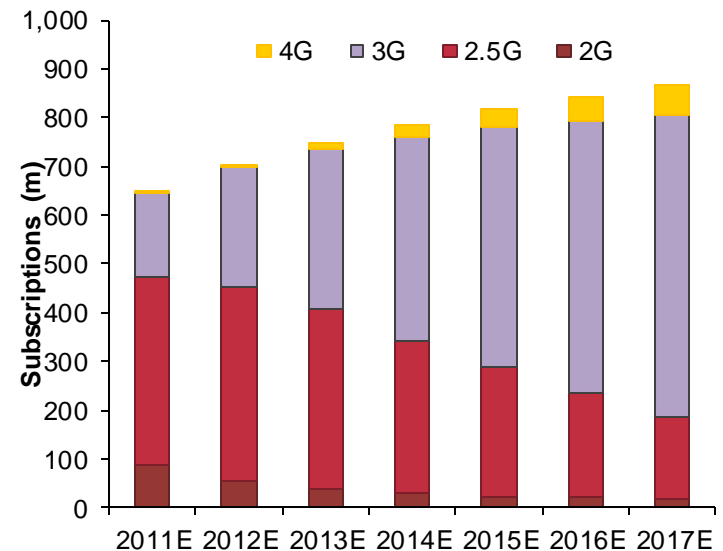
Source: Pyramid Research, Q2 2012 Forecast

# In Latin America, mobile broadband penetration will reach 11% in 2017, with fixed broadband at about 15%

**MOBILE SUBSCRIPTIONS AND BROADBAND PENETRATION, LATAM 2011-2017**



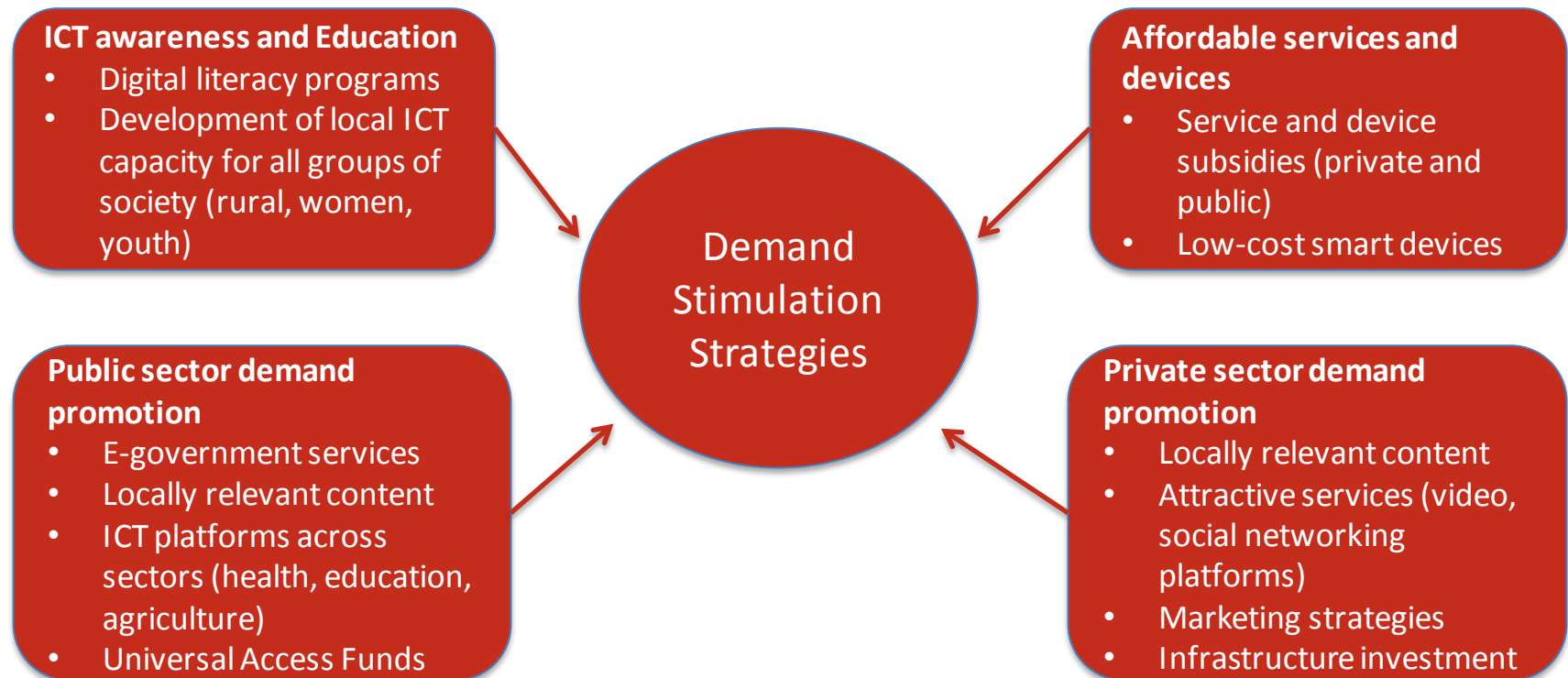
**SUBSCRIPTIONS BY TECHNOLOGY GENERATION, LATAM 2011-2017**



Source: Pyramid Research, Q2 2012 Forecast

# Governments across emerging regions are developing ICT policies and national broadband plans to drive investment and development in the sector

Demand Stimulation Strategies are especially critical to ensure the development of a digitally literate consumer able to afford and use ICT





# In Africa, national policies and plans are paving the path to access

In **Rwanda**, Under the leadership of President Paul Kagame, the **“Vision 2020” plan** established four key development phases:

- Creation of conditions to support a technology-based economy (2000-2005)
- Infrastructure development (2005-2010)
- Preparing the citizenry for the realities of the new economy (2010-2015)
- Use of ICTs to achieve middle-income status nationally (2015-2020)



In **Uganda**, the current National ICT Policy has set goals to improve broadband access by 2013:

- Better integrate ICTs into school curricula and form ICT model schools. About half of all secondary schools have been provided with Internet-enabled computers.
- Making online content available in local languages. Regional websites provide information on local government services and issues in local languages.
- The deployment of e-health services. 98 ICT health projects have been implemented to streamline the delivery of health services



# In Latin America, Colombia and Brazil have become models of good practices for the region and elsewhere

In **Colombia**, the government launched its national broadband plan, “Vive Digital,” in October 2010. Based on a clear framework aiming to build a strong digital ecosystem in the country by 2014, the plan makes both supply (infrastructure) and demand (services, applications and users) considerations to achieve its goals.

- The first phase of a broadband development project guided by Compartel and completed in 2010 provided connectivity for 4,857 educational institutions and 121 health centers. A second phase of the plan to be completed year-end 2011 was expected to benefit 363 libraries.
- As part of the Digital Literacy project, Compartel has opened 1,669 community telecenters which offer seven courses that help the public develop ICT skills.

In **Brazil**, the National Broadband Plan — Programa Nacional de Banda Larga (PNBL) — was officially launched in May 2010.

With the goal to connect 72% of Brazil’s households to broadband by 2014, the plan outlines the government’s program to invest in and mobilize private investment in broadband infrastructure, as well as several regulatory measures to increase competition, make additional spectrum available, and promote infrastructure sharing, among other measures.



## In Asia, governments promote the development of local content and leverage the benefit of public-private partnerships to ensure access to broadband

In **Vietnam**, government gave priority for broadband development in rural areas through 2020.

By encouraging private sector investment in broadband development in rural public hospitals and schools, it hopes to develop this infrastructure more evenly throughout the country while also narrowing the digital gap.

In areas of extreme poverty, state-supported programs supply and help individuals and businesses use Internet services. Plans also exist to stimulate the digital content industry to help boost uptake.

Under its National Broadband Plan (NBP), aiming to reach 75% of households with broadband by 2015, the government of **Malaysia** will not directly fund or build an expensive broadband backbone in the country. Instead, the Malaysian government will make investments in broadband connectivity and services provided through local/regional government organizations

The Malaysian Communications and Multimedia Commission established the Universal Service Provision Fund (USPF) in 1998 and has funded several access centers and notebooks for school children.



## **Experience shows that there are three key action areas that those in the ecosystem need to focus on to ensure continued development towards broadband access**

- The development of coherent and wholistic national policies and plans with clear targets and strong government commitment
- Clear regulatory frameworks that promote competition and investment in the sector, including updated licensing regimes and well planned spectrum allocations
- Coordinated demand stimulation strategies to ensure that consumers can indeed adopt and benefit from broadband access

# THANK YOU!

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