

# m-POWERING DEVELOPMENT INITIATIVE



TELECOMMUNICATION DEVELOPMENT BUREAU



# FOREWORD

Mobile technology, in its enormous growth and reach, can empower people.

It can improve their access to education, healthcare, and government services. It can deliver commercial and banking services to individuals anywhere on the move, and to large corporates covering nations.

It can do all of this because of the spread of the mobile phone and networks, now the backbone of the digital world.

The 7 billion mobile subscriptions currently active worldwide are helping people communicate every day. We at ITU want to see this communication become a transformative force for good in socio-economic development, extended as far as possible and as rapidly as possible.

That is why the ITU Telecommunication Development Bureau launched the m-Powering Development Initiative. And that is why we are calling on partners and stakeholders everywhere to come together and work together to create new services for the benefit of everyone, particularly the most disadvantaged.

Mobile is now an unstoppable force. The individuals and organizations supporting the m-Powering Development Initiative are ensuring that it will be positive and transformative, too, for people everywhere.

*Brahima Sanou  
Director, Telecommunication Development Bureau  
International Telecommunication Union*

# 01

## NEW MOBILITY, NEW SERVICES AND A NEW CONCEPT

### THE MODERN WORLD IS, INDISPUTABLY, A MOBILE ONE.

The growth of mobile communications means they now touch, in some form, but usually as a handheld device, nearly everyone, everywhere. On ITU figures, more than 7 billion mobile subscriptions were projected worldwide in 2015, a huge upsurge from the 738 million subscriptions as recently as 2000.

In every sense, mobile is clearly extending its reach. That range is now truly transformative. It can offer a literally in-the-hand access to education, healthcare, government and commercial services of a sophistication and power that would have been unthinkable even a decade ago.





Mobile communications will drive the adoption of entirely new services in health, education, government and commerce, offering enormous benefit to everyone.

This is what the ITU m-Powering Development Initiative really means: taking

## SPURRING DEVELOPMENT

New services will also drive better Internet adoption and usage. In spite of the spread of ICT, 4 billion people — including 851 million people in Least Developed Countries (LDCs) — still do not use the Internet because they have no connectivity or because it is too expensive.

mobile beyond merely voice and data, as a tool for new areas of sustainable development. Mobile is now being spurred on, not merely by its scope, but through rapidly spreading mobile broadband capability offering rich new possibilities.

Alongside the ITU’s own mission and mandate related to development, the m-Powering Development Initiative is aligned with key development goals, such as the United Nations’ Sustainable Development Goals (SDGs) to help address the digital divide.

# 02 THE PUSH FOR MOBILE BROADBAND



Some basic mobile services are already being delivered with 2G mobile technology, now nearly ubiquitous globally.

But 3G mobile broadband is making much more capability possible. Coverage of mobile broadband — at 69 per cent of the global population projected for 2015 — has never been greater, although this is concentrated in urban areas. Rural areas are catching up. ITU

estimates that 29 per cent of the 3.4 billion people worldwide living in rural areas will be covered by 3G mobile broadband by the end of 2015.

## MOBILE BROADBAND OFFERS KEY ADVANTAGES

Mobile broadband such as 3G and new technology generations is important because of the connectivity, capacity and capability it can deliver.

# 3G

# 4G

# 5G

- Connectivity means that rural and remote areas can be reached.
- Capacity means more subscribers can be served at lower costs through better network technology.
- Capability means sophisticated, high quality value added services — even to the most disadvantaged.

Together, they deliver a mobile era of unprecedented richness of socio-economic experience, and one that may incentivise further connectivity.



# 03 OBJECTIVES

The m-Powering Development Initiative seeks to encourage all stakeholders to:

- Harness mobile communications for sustainable development.
- Increase the affordable adoption and usage of these mobile services in rural and remote areas.
- Make good practices and projects scalable.
- Create an enabling environment to foster mobile services, particularly where there is a social need.
- Create synergies with existing initiatives and in service and platform use, and avoid

duplication between initiatives.

- Optimize the use of scarce resources.
- Encourage partnerships between different stakeholders.

In practical terms, the m-Powering Development Initiative:

- Provides comprehensive information available in the field.
- Identifies good practice resources worldwide that can be developed to deliver locally relevant solutions.



- Recommends actions to overcome the systemic challenges involved and provide a road ahead.

All this should be done through partnerships. Communities, governments, national and intergovernmental sectoral organizations, ministries, regulators, civil society organizations, customer associations and representatives, researchers and consultants, and private sector entities are all key stakeholders in this new mobile world.



# 04 PROCESS AND STRUCTURE

The ITU Telecommunication Development Bureau (BDT) established the m-Powering Development Initiative, with the valuable guidance of a high level Advisory Board, composed of senior globally acknowledged experts.

Under the leadership of a Chairman and Vice-Chairman, the m-Powering Development Initiative Advisory Board has identified key areas where mobile plays a major role for sustainable development, and established Working Groups to report on.

The Working Groups currently cover the following areas:

- m-Health
- m-Learning
- m-Commerce
- m-Governance
- m-Sport
- Business models for mobile
- Advocacy
- Resource mobilization
- Innovation

# 05 OUTCOMES

The Initiative is now well underway, having produced its first resources, such as the m-Powering Development Initiative Report 2015. Several efforts and projects have been identified as examples of good practices around the world.

In summary, outcomes to date that need to be collectively addressed are:

- A growing need for advocacy to recognize and deliver the true potential of m-Powered development.
  - A supporting need for enabling regulatory environments.
  - A holistic approach to mobile initiatives.
  - A high focus on the scalability, affordability and sustainability of actions taken.
- A clear need to share examples of mobile development efforts that achieve lasting results and outcomes.



# 06 m-HEALTH

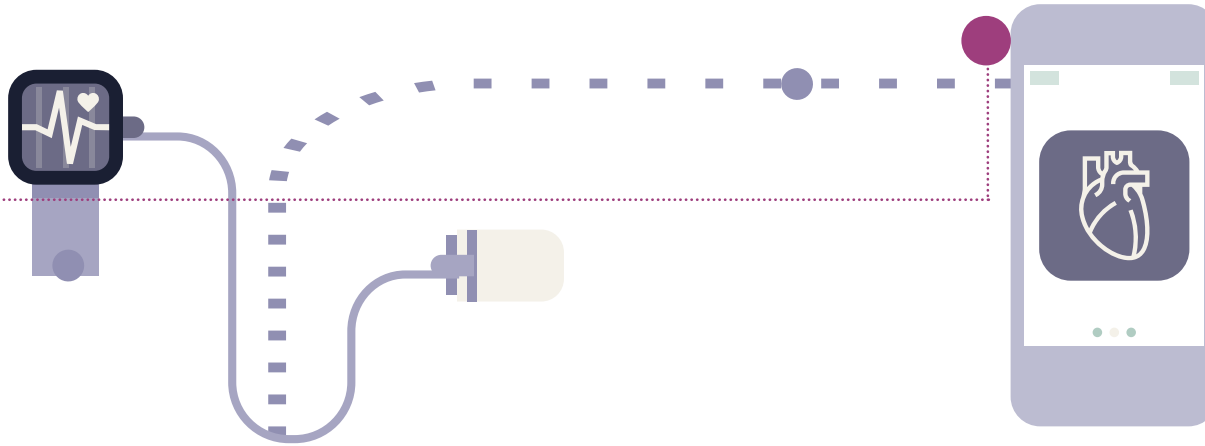
The mobile phone will become an important and practical health tool globally. m-Health projects have already been deployed in the prevention, diagnosis and treatment of illness.

The World Health Organization (WHO) defines m-Health or mobile health as “Medical and public health practice supported by mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants (PDAs), and other wireless devices. m-Health involves the use and capitalization on a mobile phone’s core utility of voice and short messaging service (SMS) as well as more complex functionalities

and applications including general packet radio service (GPRS), third and fourth generation mobile telecommunications (3G and 4G systems), global positioning system (GPS), and Bluetooth technology.”

In projects studied by the m-Powering Development Initiative, even 2G services with basic two-way text (SMS) messaging capability can support valuable patient information and advice services. Other initiatives include:

- Affordable direct-to-doctor consultation systems and specific initiatives such as smoking cessation programmes.



- Diagnosis support such as ultrasound and radiological monitoring by mobile phone.
  - Patient reminders and “smart pills” using mobile phones.
- Mobile can also improve healthcare operation. We can see examples of patient management, birth registration systems, health check-up/missed appointment services, and disease outbreak notification systems using mobile.

### THE ROAD AHEAD

The m-Powering Development Initiative needs to identify good projects and make them sustainable, affordable and scalable.

Despite the global proliferation of pilot projects, few m-Health strategies have yet scaled to national or regional deployment. The Initiative suggests that several strategies could help. These include encouraging more use of evidence-based practices; employing a systems approach for the bigger picture, and making an enabling technical, regulatory, and commercial environment. This should include local engagement of stakeholders, as well as the wider system. Active involvement by governments, ministries, and regulatory agencies will all promote usage and confidence in services.

# 07

## m-LEARNING

Could the mobile phone be part of the classroom of the future?

As with m-Health, it is still very early, but projects around the world show considerable potential. The m-Powering Development Initiative suggests that mobile devices do have the potential to contribute significantly to education and learning globally. m-Learning crosses the arc of another important trend in the global information space: online learning. For this reason, it might be propelled forward at an accelerated rate through the use of mobile technologies.

The m-Powering Development Initiative defines m-Learning as “all kinds of education and learning undertaken through the use of mobile devices”. m-Learning, helped by the prospects globally in online learning, could represent viable options, particularly for those in rural or remote areas who lack access to formal or centralized education systems.

Potentially, the system in providing m-Learning is a rich, but complicated, one. Key stakeholders include national governments and public sector organizations, intergovernmental organizations, private sector organizations, educational and



research institutions, specific stakeholders and alliance networks, and of course individual learners and their own networks.

### THE ROAD AHEAD

In examining worldwide progress, the m-Powering Development activity finds that m-Learning needs to resolve some key challenges, often on a national basis:

- Public sector agencies, educational providers and the ICT community should be fully engaged, and policies joined-up, and the emerging system needs co-ordination.
- Broadband affordability remains an issue in some countries.
- A move towards open platforms and more educational content development tailored for mobile devices should also stimulate m-Learning in disadvantaged areas.
- Successful scaling will also come from high quality, reproducible studies of promising pilot projects.

# 08 m-COMMERCE

The mobile phone could be a touchstone of an entrepreneurship and business revolution, particularly in rural and remote areas. m-Commerce has developed rapidly in the smartphone era, and builds on the already well-established practices of e-Commerce, and so penetration of new services could be facilitated.

The m-Powering Development Initiative sees enormous opportunities in using m-Commerce platforms so that businesses, governments and individuals can transact goods and services anytime, anywhere, facilitating easy access to new markets and encouraging sustainable

development. Due to its central role, the Initiative suggests that m-Commerce is perceived as a tool to leverage all other mobile services. m-Commerce could lay the foundations in many places for decent and sustainable employment.

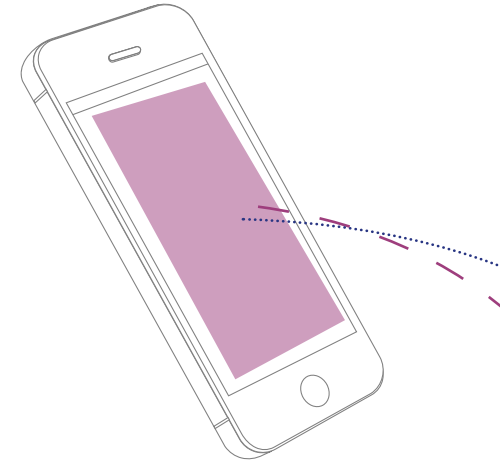
Appropriate supporting technology for mobile communications – particularly in the security dimension – has facilitated increased confidence and trust in services. In turn, this has made possible m-Commerce to expand from a relatively limited set of capabilities to fully-fledged portfolios involving sophisticated business and financial transactions of all kinds.





# 09

## m-GOVERNANCE



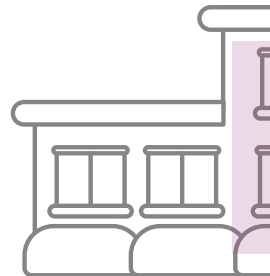
We all deal with public services on a routine and daily basis, but the more remote and disengaged we are, the more problematic, complicated or costly this interaction is likely to be. m-Governance, for the first time, might make a major difference and make that connection between citizens and governments much more useful and effective.

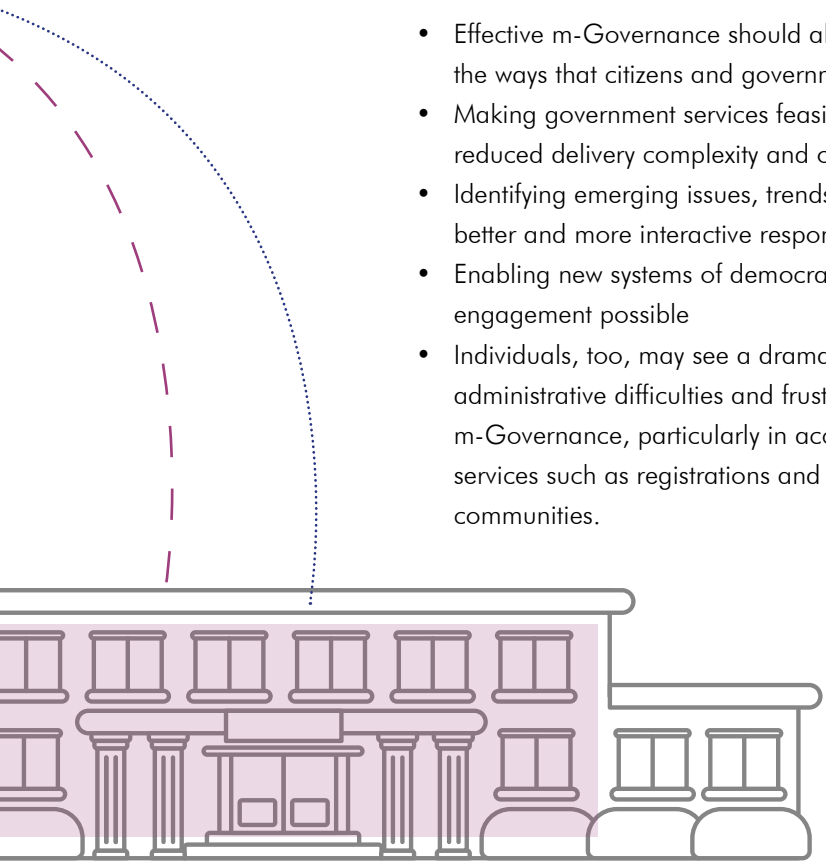
The m-Powering Development Initiative has already suggested that a wide variety of services - from health, weather and travel information to voting interactions – are possible across government. Taken more widely still, we can

expect m-Governance to promote increasing empowerment, engagement and more transparency of government processes.

As the m-Powering Development Initiative has noted, m-Government can offer a substantial range of services:

- Alert services (registration services and alerts).
- Interactive services (learning and interactive services).
- Management services (call centre services).
- Utility services (transactions and other utility services).





- Effective m-Governance should allow a transformation in the ways that citizens and governments can interact:
- Making government services feasible and effective at reduced delivery complexity and operating cost.
- Identifying emerging issues, trends and problems because of better and more interactive response through mobile.
- Enabling new systems of democratic representation and engagement possible
- Individuals, too, may see a dramatic reduction in the administrative difficulties and frustrations through m-Governance, particularly in accessing relatively routine services such as registrations and applications from remote communities.

## THE ROAD AHEAD

Putting m-Governance in place makes a demand on governments themselves to be proactive and strategic in their ICT thinking, and fundamentally to rethink their relationships and engagement with citizens:

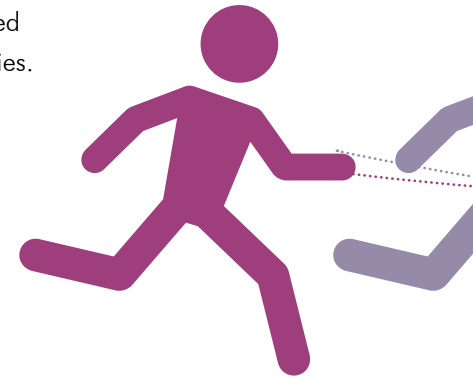
- Planning and implementation on a national scale should reduce the emergence of “islands” of incompatible procedures, processes and technologies.
- Governments themselves should be active users - at scale - of the technologies they advocate to encourage stakeholder experience and trust.

The m-Powering Development Initiative has identified three clear steps of building the m-Governance value chain involving access, content, and application level development, respectively. Nevertheless, given the breadth and potential of the applications on offer, m-Governance is potentially a complex initiative to undertake.

# 10<sub>m</sub>-SPORT

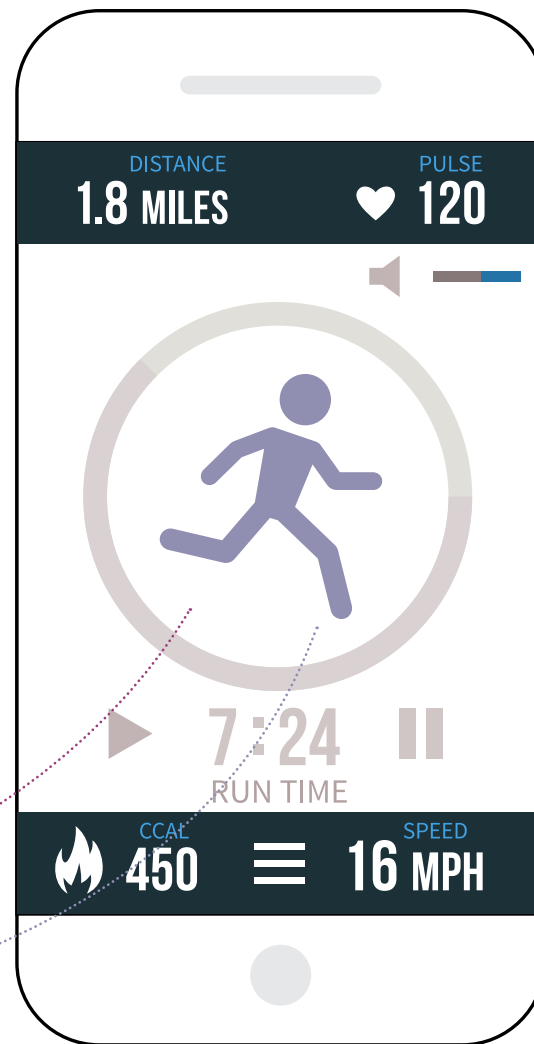
In getting global participation and awareness of the potential for mobile, and in the incubation of advanced and compelling services, there are few more powerful vehicles than sport. In particular, m-Sport represents a potentially stimulating area for the m-Powering Development Initiative to operate in because:

- Fan sports offer ready-made engagement with major national and international sports and large communities.
- This clearly gives an opportunity to increase not only socio-economic value but also sportsmanship and positive community influence and engagement through this channel.
- Better connectivity with advanced services will inevitably improve this interaction and engagement still further, and offer expanded user choice and user-determined possibilities.



### THE ROAD AHEAD

m-Sport, as with the other sectors, relies on a complex but relatively well-defined system to function. Content plays an important role in this system, and the role of intellectual property rights and rights-holders may be significant in the dissemination of content.

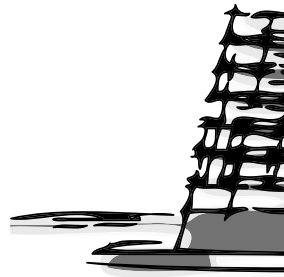


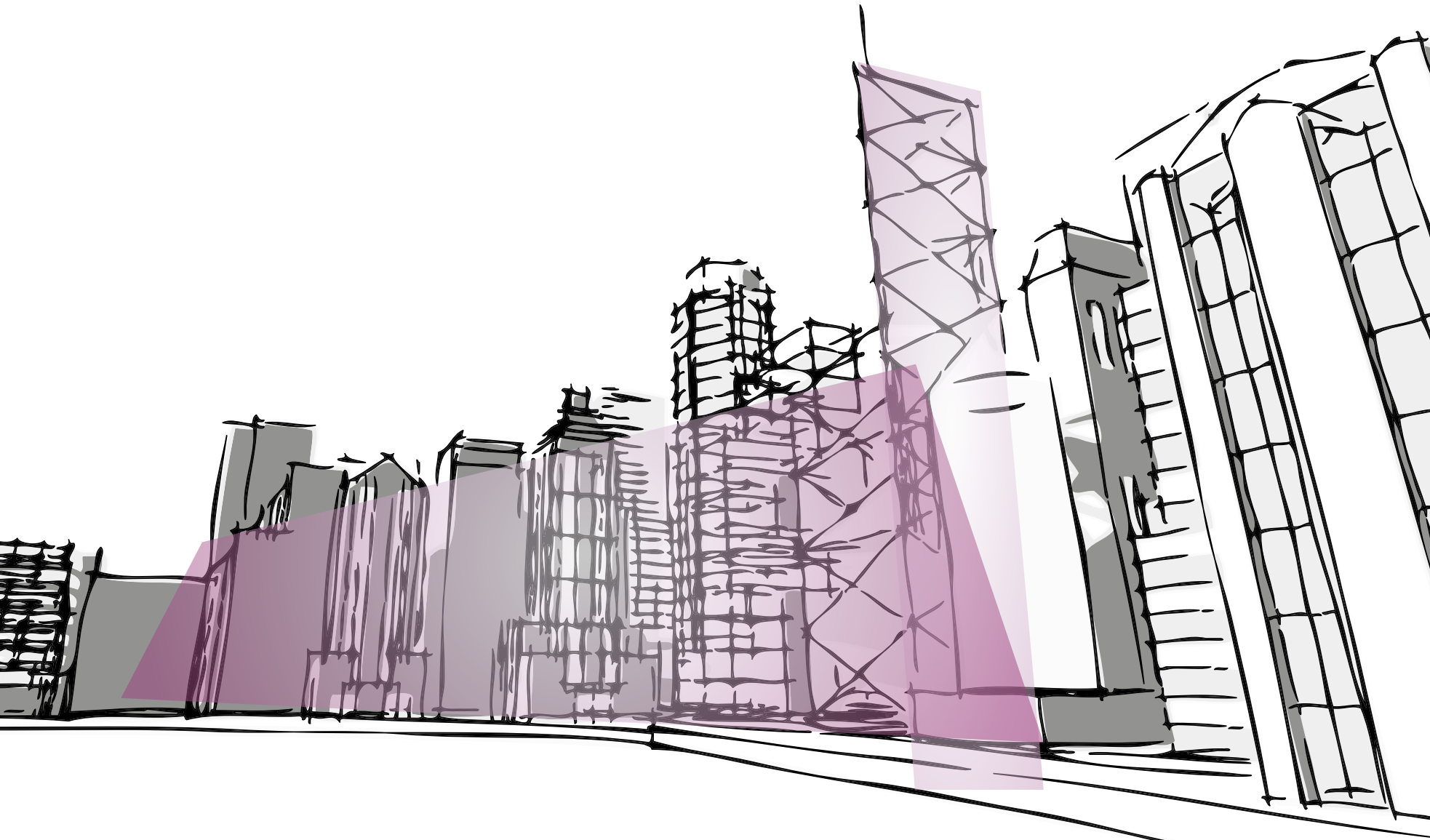
# 11 GOING FORWARD: THE FUTURE NEEDS BUSINESS MODELS

In each m-Powering Development sector, stakeholder engagement is critical. Likely success in each case will come through formulating valuable partnerships linked by robust business models and stakeholder incentives.

The Working Group has already identified some possible value chains and business models involved.

- A business model approach allows for the early identification of key actors and stakeholders, resources, specific issues, and key success factors.
- A clearly defined approach is likely to lend confidence to the emerging strategic partnerships between different stakeholders.
- More specifically, it allows each stakeholder to recognize the context in which other stakeholders operate.





# 12 GOING FORWARD: THE FUTURE REQUIRES CONVINCING ADVOCACY

The ITU m-Powering Development Initiative needs to mobilize resources and innovation to create a future where mobile services are offered in a sustainable, affordable and scalable way in the interests of the poorest and most marginalised. To do this, the Initiative and what it means need to be put firmly on the economic agenda. This will require engagement and advocacy through creative and energetic programmes targeted at key decision makers and influence formers. Here, the m-Powering Development Initiative seeks:

- Worldwide awareness of the potential of mobile technologies for sustainable development, at the leadership level, within the public and private sectors, NGOs and international organizations.
- Fostering and empowerment of future leaders and innovators, particularly young visionaries, to generate ground-breaking innovation and paradigm shifts to bring mobile technologies to global attention. Innovation is likely to be a very pronounced characteristic of mobile development.





- To encourage the right kind of sustainable and long term partnerships everywhere that serve the interests of poor and marginalised people and communities.

The potential for sustainable development with the proper use of mobile technologies is enormous. As the m-Powering Development Initiative shows, the foundations are already in place. Now, we need your support to build on them.

International Telecommunication Union  
Telecommunication Development Bureau  
Place des Nations  
CH-1211 Geneva 20  
Switzerland

<http://www.itu.int/en/ITU-D/Initiatives/m-Powering/Pages/default.aspx>



Printed in Switzerland  
Geneva, 2015  
Photo credits: Shutterstock

