

1ST ANNIVERSARY EDITION

# DIGITAL DEVELOPMENT PARTNERSHIP

2017 ANNUAL REVIEW



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# DIGITAL DEVELOPMENT PARTNERSHIP



# Message from the Senior Director



It is my pleasure to present the DDP 2017 Annual Review, reporting on results, milestones, and strategic direction during the first year of the Digital Development Partnership (DDP).

Currently, the digital economy is growing at an approximate rate of 10 percent per annum (15–25 percent in developing countries), which is significantly higher than that of the global economy, making it a new frontier for development.

Recognizing the transformative impact of digital technologies and solutions in addressing development challenges, a year ago our team embarked on an innovative effort to build a partnership platform for digital innovation and development financing. We called it Digital Development Partnership (DDP) and gave it the motto “Enabling Digital Dividends for All”—inspired by the 2016 World Development Report on Digital Dividends, which laid the DDP’s substantive foundations. Together with the strong support of our launch partners, Finland, Microsoft and GSMA, we officially began the journey at the 2016 World Bank Annual Meetings.

Two aspects highlight the innovative character of DDP. On the one hand, recognizing that a great deal of innovation in digital technologies and business models is private sector driven, DDP has been designed with a clear focus on private sector solutions. This includes the partnership model itself, which is fully open to private sector contributors, along with the more traditional bilateral partners of the World Bank. On the other hand, DDP acknowledges that a lot of knowledge on digital technologies is available but requires implementation and operationalization through the World Bank. We therefore designed DDP as a knowledge partnership; with formal and informal contact points and ways of knowledge exchange for its partners. We will, in the future, maintain these core DDP characteristics—private sector focus and partnership model—and further innovate to leverage their potential to deliver best solutions to World Bank client countries.



At the first anniversary of DDP, we are looking back and we are proud of what this partnership has already accomplished. Across its six focus areas—Data and Indicators, Digital Economy Enabling Environment, Cybersecurity, Internet Access for All, Digital Government, and Mainstreaming Digital Solutions—DDP has launched an ambitious program to develop around 12 new knowledge offerings and assist around 13 client countries through technical assistance and advisory services. Much of the DDP knowledge work is geared towards indicators and benchmarks so that, in the near future, our clients will find it easier to see where they stand in leveraging digital technologies for development, and where they can reinforce their efforts to build the digital economy. A new Massive Open Online Course (MOOC) has boosted awareness for the potential of new technologies. In terms of client country work, highlights of the last year included work in countries as diverse as Peru, where DDP advances innovative technologies and business models to close the gap in broadband connectivity, to Malawi, where DDP is helping with the preparation of a comprehensive Digital Malawi project. Achieving reform progress and development results takes more than a few months, and the high client demand for DDP-supported solutions is a reason for us to continue scaling up and expanding our ambitious agenda.

I would also like to recognize the important strengthening of this new partnership when, in early 2017, Korea and Japan joined as funding and knowledge partners. Conversations at the time underlined the need for DDP to leverage cutting-edge

technologies in areas ranging from the Internet of Things (IoT), to Artificial Intelligence (AI), to mobile applications, as well as the need to strengthen cybersecurity, a necessity wherever digital technologies advance. The technical inputs, along with the funding support made available, will undoubtedly strengthen DDP for the coming years.

DDP's strategic positioning is also increasingly helping to mainstream digital solutions across the World Bank's portfolio. Beyond organizing internal workshops, training and digital development-themed events, DDP has a strategic opportunity to advance the use of digital technology across different topic areas and serve as an entry for a public-private stakeholder approach to advance the digital agenda.

We are immensely appreciative of our donors' and partners' engagement, not only for the financial support which is crucial for our work, but in particular for their strong substantive engagements in this partnership. Congratulations to DDP's first year anniversary—the best is yet to come!



**JOSE LUIS IRIGOYEN**

Senior Director  
Transport and ICT  
The World Bank

# I. A Development Partnership for the Digital Age

While in the past, “digital” was just another term for Information Technology (IT), today’s use of digital technology across sectors and industries, permeating nearly all aspects of social life, the economy, and public sector service delivery, marks the arrival of the digital age.

In reaction, demand for digital solutions is increasing sharply, including in matters of development policy and operations. The availability and scale of digital-driven development solutions has grown significantly, enticing a wide range of stakeholders to rethink how they define and deliver their value propositions, and jointly investing in a culture of technology innovation and adoption.

The World Bank’s 2016 World Development Report (WDR 2016), titled *Digital Dividends*, provided a balanced analysis of the digital dividends that developing countries and emerging economies can expect to reap, while also highlighting the vast digital opportunities and gaps that exist, and the risks if some countries remain left behind the digital revolution. The report further highlighted that merely closing the digital gap through greater internet access may not be sufficient for everyone to enjoy the benefits of the digital revolution, but in fact, countries need to strengthen the necessary analog complements such as skills, business environment, regulation, digital leadership, governance, etc. There is a strong interdependence between different factors allowing for digital progress, emphasizing the need for low- and middle-income countries to comprehensively strengthen their digital infrastructure and develop future-ready digital development strategies and policies (figure 1).

The World Bank’s Digital Development Partnership (DDP) was established in October 2016 to operationalize the key messages of WDR 2016, offer a platform for digital innovation

## The DDP Journey . . .

**January 2016:** Launch of the World Development Report 2016 (WDR 2016) highlighting the digital dividends developing countries can reap

**April 2016:** During the World Bank-IMF Spring Meetings 2016, in a session on the U.S. State Department’s Global Connect Initiative co-hosted by World Bank Group President Jim Kim and Secretary John Kerry, initial discussions on establishing a vehicle to operationalize WDR 2016 were held. Finland expresses its support for such initiative.

**October 2016:** During the World Bank-IMF Annual Meetings 2016, Digital Development Partnership (DDP) launched with Finland, Microsoft and GSMA as founding partners. First DDP Steering Committee meeting.

**December 2016:** Preparation and allocation of funding for first batch of DDP funded activities—US\$2.1 million across 14 activities.

# 2016

CONCEPTION

LAUNCH

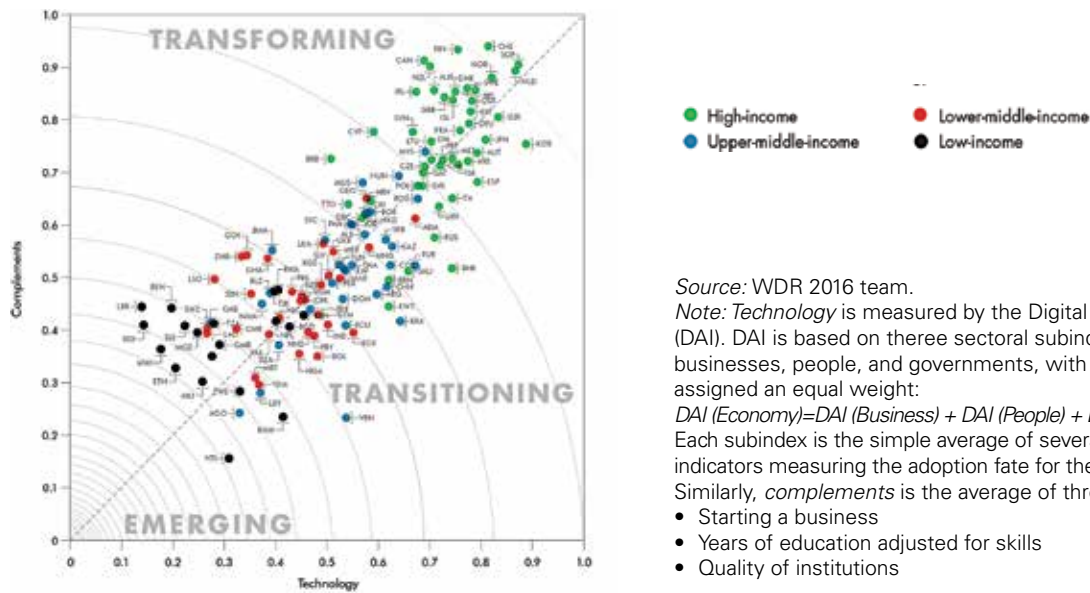


and development financing, and assist low- and middle-income countries to reap the benefits of the digital age. Recognizing that digital progress is primarily private sector driven, DDP brings public and private sector partners together to catalyze support to developing countries in the articulation and implementation of digital development strategies and operational work programs. DDP endeavors to facilitate low- and middle-income countries in making progress along, and/

or leapfrogging through the socio-economic development process, through a methodological and structured approach.

This report captures the initial efforts to meet our digital development aspirations during DDP's first year, and it provides a forward looking perspective towards more progress in year two of its operation.

**FIGURE 1. Technology and its Complements Driving Development Impact**



**February 2017:** Participation at Mobile World Congress 2017 and Steering Committee meeting.

**Spring 2017:** Korea and Japan join DDP as partners.

**Summer 2017:** Preparation and allocation of funding for second batch of DDP funded activities—US\$1.7 million across 11 activities.

**October 2017:** During World Bank-IMF Annual Meetings 2017, DDP first anniversary workshop showcasing key DDP funded activities, and Steering Committee meeting.

**We Are Here**

**January 2018:** First DDP Annual Review published highlighting progress made through year one of operations.

**2019**

## II. Transformational and Integrated Impact

In its first year of implementation, the Digital Development Partnership (DDP) has emerged as a platform for knowledge creation, reform advice, and policy impact to harness digital dividends worldwide.

During 2016/2017, the identification and initiation of strategic activities funded under DDP reinforced the fundamental traits of this partnership: an integrated approach to the digital agenda, a focus on low- and middle-income countries, a partnership dimension including public and private sector partners, and finally a clear impact model, all with the aim to extend the digital dividends of digital technology to all.

This chapter offers a snapshot of DDP work from an overall perspective of the portfolio and intervention approach, highlighting orientation of the work in terms of topics, clients and regional priorities, as well as key features of its engagement and impact model.

### (i) A PORTFOLIO TO FOSTER DIGITAL DEVELOPMENT

The set of thematic issues addressed by DDP is represented by DDP's six priority work areas: **Data and Indicators, Digital Economy Enabling Environment, Cybersecurity, Internet Access for All, Digital Government, and Mainstreaming Digital Solutions**. Five of these priority areas were determined at the launch of the partnership in fall 2016 and proved helpful throughout the first year of the operation of DDP. Cybersecurity was singled out and added as a self-standing work area in spring 2017, in recognition of the relevance of cybersecurity for any digital technology countries and societies adopt.

#### *Six Work Areas*

The portfolio of DDP activities in its first year (fiscal year (FY) 2017) and the expanded DDP workplan for year two (FY 2018) of the partnership show a balanced portfolio in terms of topic coverage, with activities spread across these six work areas.

Extending the benefits of digital technologies to everyone everywhere requires closing the remaining digital divide, especially in internet access.

An important weight of investment in FY17 focused on connectivity-related topics under the **Internet Access for All** work area. **Digital Government** and matters of the **Digital Economy Enabling Environment** had a strong representation in the work program as well, with slightly less support for the knowledge activities pursued under the **Data and Indicators** work area.

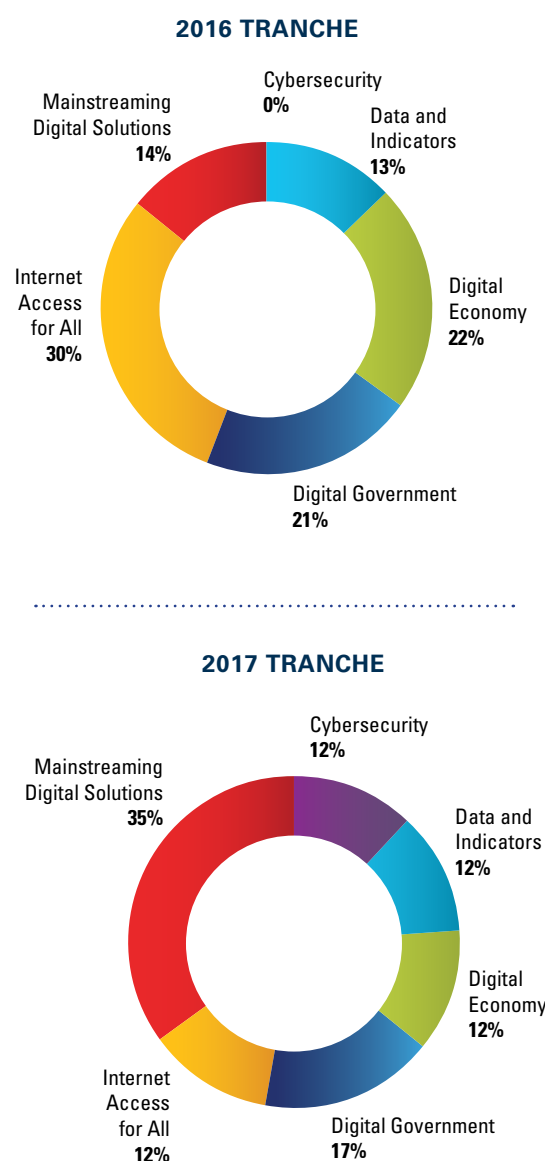
While remaining important, some rebalance is occurring under the latest work program expansion in FY18, through greater support for work on **Mainstreaming Digital Solutions** across sectors and the new work area **Cybersecurity** (figure 2). This is in line with the intervention model of DDP, covering a core agenda of digital development enablers, and opening up a range of sectoral interventions mainstreaming digital solutions across different topics and work areas through a collaborative interphase with other Global Practices (GPs) and teams.

The integrated approach to digital development under DDP is starting to promote increased cross-sectoral collaboration across the World Bank Group (WBG). The DDP team, within the Transport and ICT GP, oversees the coordination of DDP activities, shapes the DDP portfolio and provides digital technology related technical skills and experience. Increasingly, the team has been partnering with colleagues from other GPs to mainstream digital technologies in different sectoral areas, such as with the Poverty GP, the Finance and Markets GP, the Trade and Competitiveness GP, the Transport team, and the World Bank's Development Economics research group (DEC).

### *Global Knowledge and Country-Specific Activities*

While there is no one-size-fits-all formula for different economies to reap the benefits of digital development, there are good practices, common lessons learned, and practical knowledge low- and middle-income countries can jointly profit from. DDP therefore structures its agenda in global knowledge and in country-specific activities.

FIGURE 2. Financial Allocation by Priority Work Areas



Source: DDP

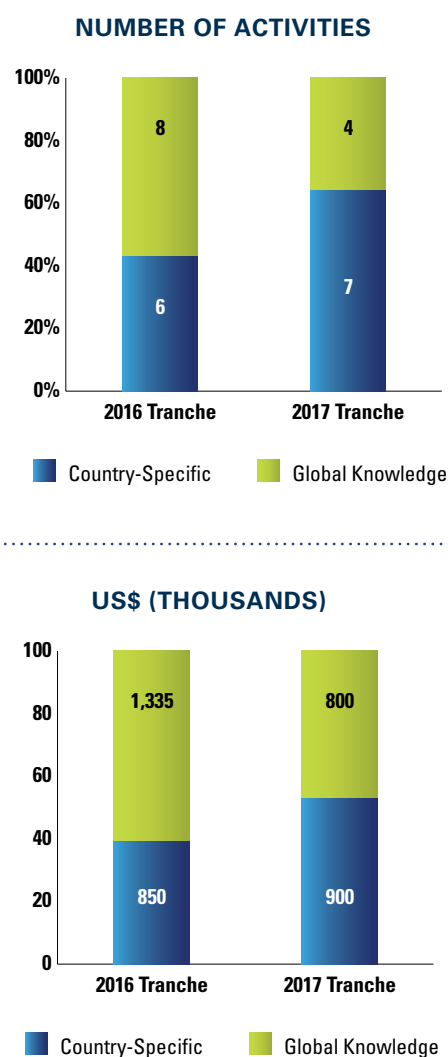
Global knowledge activities develop tools, indicators, analytics, methods, and other knowledge of general relevance. Leveraging the World Bank and DDP donors' strong knowledge base and practical development insights, DDP aims to contribute to the advancement of digital development by generating, gathering and sharing such global knowledge.

Country-specific activities bring this knowledge to application in support of World Bank clients, considering countries' different development paths up to the present moment and distinct development vision for the future, which shape diverse contexts in which to implement the digital agenda. Country-specific activities allow for tailoring strategies and action plans to fit each country's particular context, and address the different nuances of demands by low- and middle-income countries.

In FY17, the first inflow of DDP funding supported the development of 14 activities. A slightly larger share of these activities focused on global knowledge development compared to country-specific technical assistance and reform advisory work (around 60 percent to 40 percent respectively). This share can be considered natural in light of the novelty of DDP, facing a considerable need to invest upfront in new knowledge and solutions (figure 3).

With its second tranche of funding in FY18, the DDP team—in agreement with the Steering Committee—introduced a shift towards higher attention to country-specific activities, devoting a greater proportion of DDP resources to activities responding to specific national demand. More than half of the FY18 DDP funds have been allocated to country-specific analytical and policy work, accounting for 7 out of 11 new activities for this year. This trend is likely to continue as many of the knowledge activities commenced in the first year of DDP operation will deliver their main results/outputs over the next months, which will allow for further replication in additional country applications.

**FIGURE 3. Relative weight of country-specific versus global knowledge activities, 2016 and 2017**



Source: DDP.



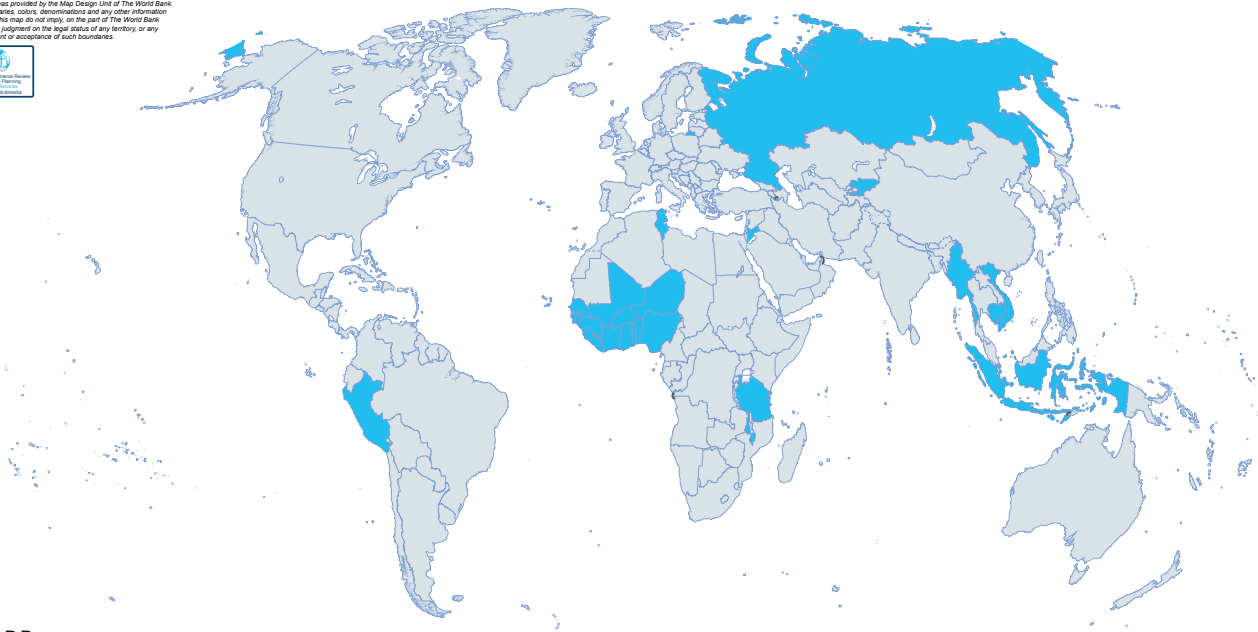
### Country Coverage

DDP, during its first year, discussed in detail the question of how country engagements should be prioritized. When developing the workplan of proposed DDP country activities, there is a range of criteria that the team needs to consider for the selection of a country. Considerations start with client demand (e.g., Is there a client request for the relevant activity in this specific country?), in combination with considerations on the overall DDP portfolio (e.g., Are resources overall allocated in a balanced manner across different regions and topic areas?). Often, regional contexts allow for a focused approach, using one or two suitable countries of a region as a starting point to launch a new agenda in a specific region, be it Central Asia, West Africa, or another region. Sometimes the suggestion is based on a strong case to engage (e.g., because there is urgent client demand and there is a high likelihood that initial DDP funding will lead to a larger engagements such as a World Bank investment project),

sometimes there is more flexibility (e.g., where a proposed activity takes the form of a pilot intervention). Any given country proposition will therefore be the result of a consideration of a range of criteria, including (i) client demand; (ii) opportunity to leverage World Bank investment financing; (iii) donor priority countries; (iv) opportunity to leverage other World Bank or partner engagements; (v) general development relevance; (vi) balance of the portfolio; (vii) opportunity for piloting, replicability, and scale.

On the basis of these criteria, DDP has developed a balanced portfolio during the first year of the partnership, increasingly covering the different regions of the world. The portfolio (existing FY17 and expanded FY18 workplan together) covers 27 countries, including 6 fragile states, across the 5 regions in which the World Bank operates. Around 60 percent of the activities focus on low-income countries, while the rest responds to demands by lower- and upper-middle income countries.

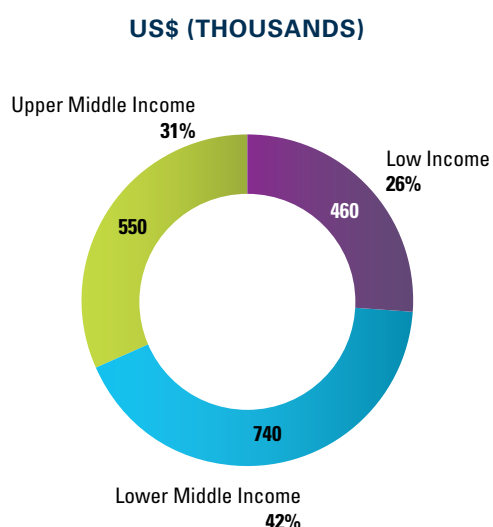
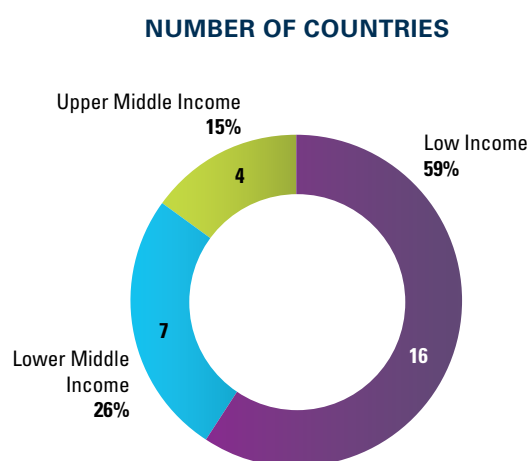
**FIGURE 4. The world through the lens of DDP contributions to country-specific knowledge**



Source: DDP.

Note: The graph includes the activities proposed for immediate launch under second-year funding.

**FIGURE 5. Current DDP country-specific portfolio by country income status**



Source: DDP.

Note: The graph includes the activities proposed for immediate launch under second-year funding.

## (ii) AN IMPACT MODEL GEARED TOWARDS PROGRESS

Since the launch of DDP in fall 2016, moving the digital agenda from individual success stories, from testing and piloting, to the use of replicable and scalable solutions, has been at the heart of the partnership. Often, this is compared with the image of a sandbox where individual approaches can be tested and evaluated and consequently lead to scale and broad impact.

The reform ambition of DDP requires DDP to rely on a clear impact model underpinned with a consistent monitoring and evaluation framework, to be able to articulate the change intended, and track progress towards the achievement of the goals over time. In DDP, monitoring and evaluation (M&E) therefore constitutes a strategic instrument to inform, guide, and evaluate country level work. It helps shape individual projects based on result expectations; it monitors progress towards these expectations over time; and it will assess overall project results and impact after the closure of individual interventions.

Results achieved will usually fall into two categories, (i) improvements of the policy and regulatory frameworks, removing bottlenecks for the development of the digital market and facilitating private sector investments as needed for low- and middle-income countries to reach their development ambitions; (ii) preparation for comprehensive infrastructure investment projects in digital technologies, which will subsequently be financed through a development grant or loan, such as from the World Bank or another development bank.

Developing an effective monitoring and evaluation framework is an effort that takes some time, as the framework and the data collection to track progress in numeric terms needs to grow with the advancements of the program activities. As the DDP is the World Bank's initiative to operationalize the World Bank's 2016 World Development Report (WDR) on Digital Dividends, much of the scientific foundations of the theory of change have been provided in the WDR itself. Other, recent global initiatives such as the comprehensive conceptual work undertaken to define the UN Sustainable Development Goals (SDGs) also contribute to the foundations of the DDP's theory of change.

In its first year of operation, DDP therefore mostly engaged in detailed work to define results parameters to allow measuring main aspects of the theory of change with numeric indicators. The focus of the work was therefore on shaping a practical logframe with standardized parameters allowing linkage of results expectations with results achievements in individual activities. The following highlights the main reform expectations defined as part of this effort for the different DDP work areas:

- In its first workstream on **Data and Indicators**, the DDP program addresses lack of awareness about the opportunities of digital development and lack of information on policy and regulatory impediments in the digital environment. It provides data needed to manage, track, and assess policies and preparedness including use of CDR and other mobile data. Data and benchmarks inform all DDP project work and they support the programmatic advancement of the DDP platform.
- In its second workstream on the **Digital Economy Enabling Environment**, the DDP program mostly looks at rules and regulations for the digital world, including matters of local content, cloud, and online payment, as well as the necessary trust environment for digital technologies. Improved policy and regulatory frameworks will lead to an increase in digital adoption and a higher use of ICT.
- In its third workstream on **Internet Access for All**, the DDP program addresses technical, regulatory, and policy issues to improve internet service availability in its access and cost dimensions. Results consist of a higher degree of internet access at affordable cost for all segments of the population, including remote areas, sparsely populated areas, and groups suffering from exclusion or discrimination (including the gender dimension).
- In its fourth workstream on **Digital Government**, the DDP program assists governments to enhance the transparency and efficiency of service delivery to businesses and consumers by leveraging digital technologies such as e-government platforms. This improves public sector policy development, reduces business and consumer costs, and leads to a higher degree of social inclusion of different societal groups.
- In its fifth workstream on **Mainstreaming Digital Services, Solutions, and Platforms**, the DDP program seeks to integrate digital solutions in sector-specific programs. This work area is a non-exhaustive collaboration space among different teams, with a final goal of fostering the creation of economic value through new data-driven industries, products, and services.



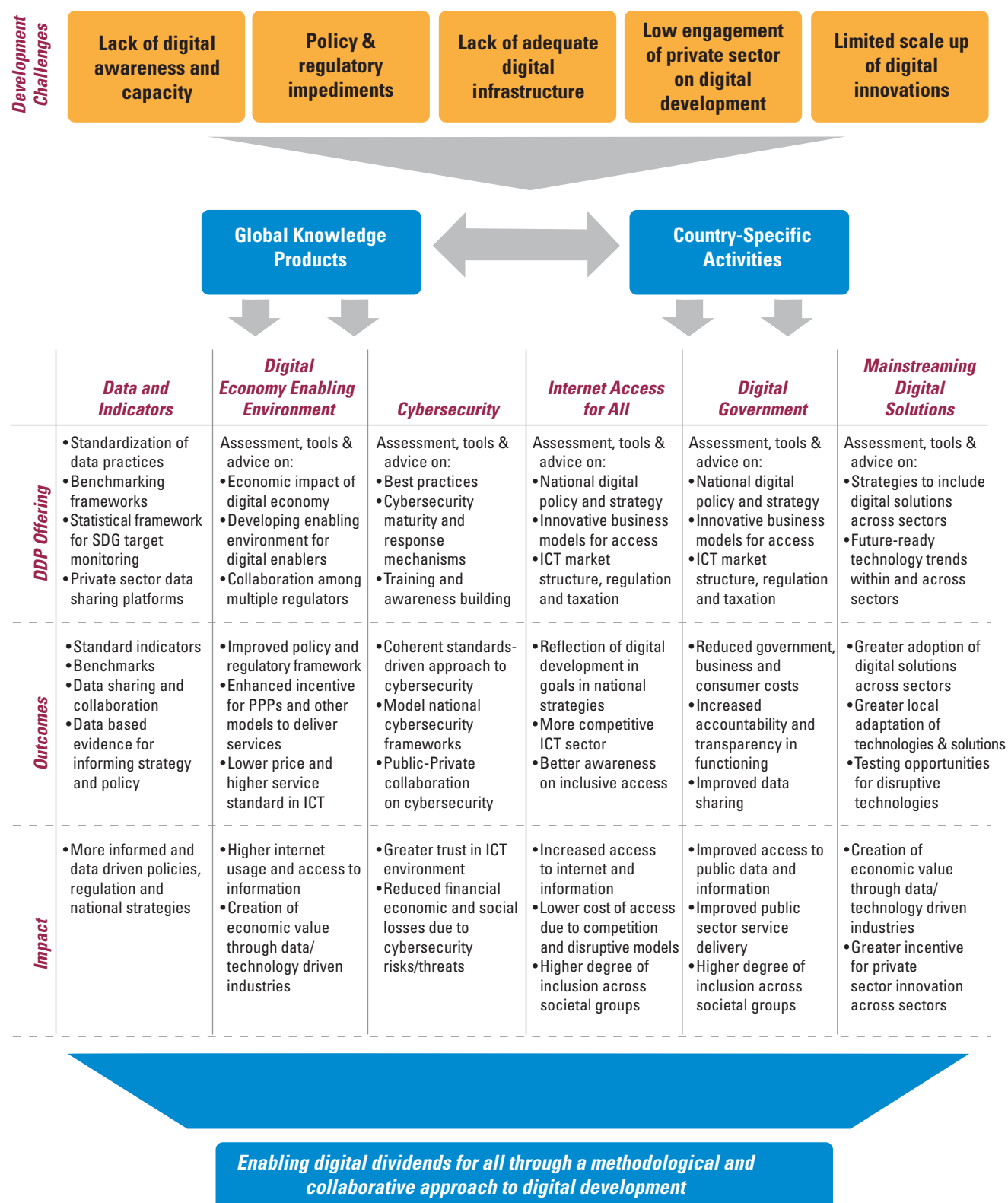
Based on these results expectations, the team defined in more detail output, outcome, and impact indicators, and underpinned every DDP-funded activity with an individual framework. Figure 6 provides an overview of different indicators and dimensions, and Section III (Operational Highlights) offers some insights into the expected results trajectory of the different activities.

As an outlook for FY18, DDP will further deepen its work on M&E. Based on the methodological work undertaken in the first year of the partnership, the second year will dedicate attention to collecting and measuring the different outputs and outcome achievements of the various activities. As these activities progress and show results, monitoring and evaluation will increasingly play an important role as a strategic aspect to support DDP work, and overall help shape the digital development agenda.





FIGURE 6. From Activities to Development Impact: Framework Overview



### **(iii) A FAST-GROWING AGENDA SEEN FROM PUBLIC AND PRIVATE SECTOR LENSES**

In a world where a great deal of the innovation in terms of digital technologies and emerging business models is created by the private sector, and several countries have over many years successfully innovated and created digital solutions for e-government frameworks, a World Bank platform for digital innovation and development financing can profit from taking a collaborative approach; working closely with public and private sector stakeholders. Leveraging knowledge from partners, including in the form of data, technical knowledge, insights into operating environments and regulatory frameworks, and knowledge about innovative business models, all constitute rich sets of experience that World Bank clients are keen to know about, learn from, adjust to their specific situations, and take up as relevant to their needs. DDP therefore, from the outset, was designed as a partnership platform to create space for interaction, knowledge exchange, learning, and joint solution offerings. Much of the foundations of the partnership, including its co-mingled funding base and its Steering Committee structures, reflected this partnership spirit from the beginning.

During the first year of DDP, partners had the opportunity to actively engage with each other and test the opportunities for collaboration. Out of a generally rich and interactive dialogue, more regular forms and channels of interaction and exchange have emerged. The following highlights, in a non-exhaustive form, some of the main aspects of how DDP proceeded in its first year, in terms of cooperation and collaboration toward offering best solutions for low- and middle-income client countries.

#### ***Steering Committee Meetings***

DDP organized a range of Steering Committee meetings and conference calls during the course of its first year. These meetings were an opportunity for engaged conversation to jointly determine priority topics for DDP (within the overall agenda), reflect on World Bank client needs and priority requests for support, and coordinate joint action in terms

of representation of the agenda in public forums. Moving forward, it has been considered helpful that DDP make a clearer distinction between formal Steering Committee meetings and informal meetings for updates and exchange, so as to give exchange within the partnership an effective structure. Regular exchange in FY18 will take place on a quarterly basis.

#### ***Informal Exchange and Collaboration on Knowledge Development***

On a range of topics, DDP has received important ideas and knowledge inputs from its partners, including on questions of connectivity, data and indicator development, and others. As an example, the Toolbox for the Digital Economy (as under development in the ***Digital Economy Enabling Environment*** work area, see below) has profited greatly from tapping into the knowledge and experience of DDP partners, along with other communities of experts. This included knowledge sharing on experiences with digital infrastructure, financial inclusion, big data analytics, and e-government solutions.

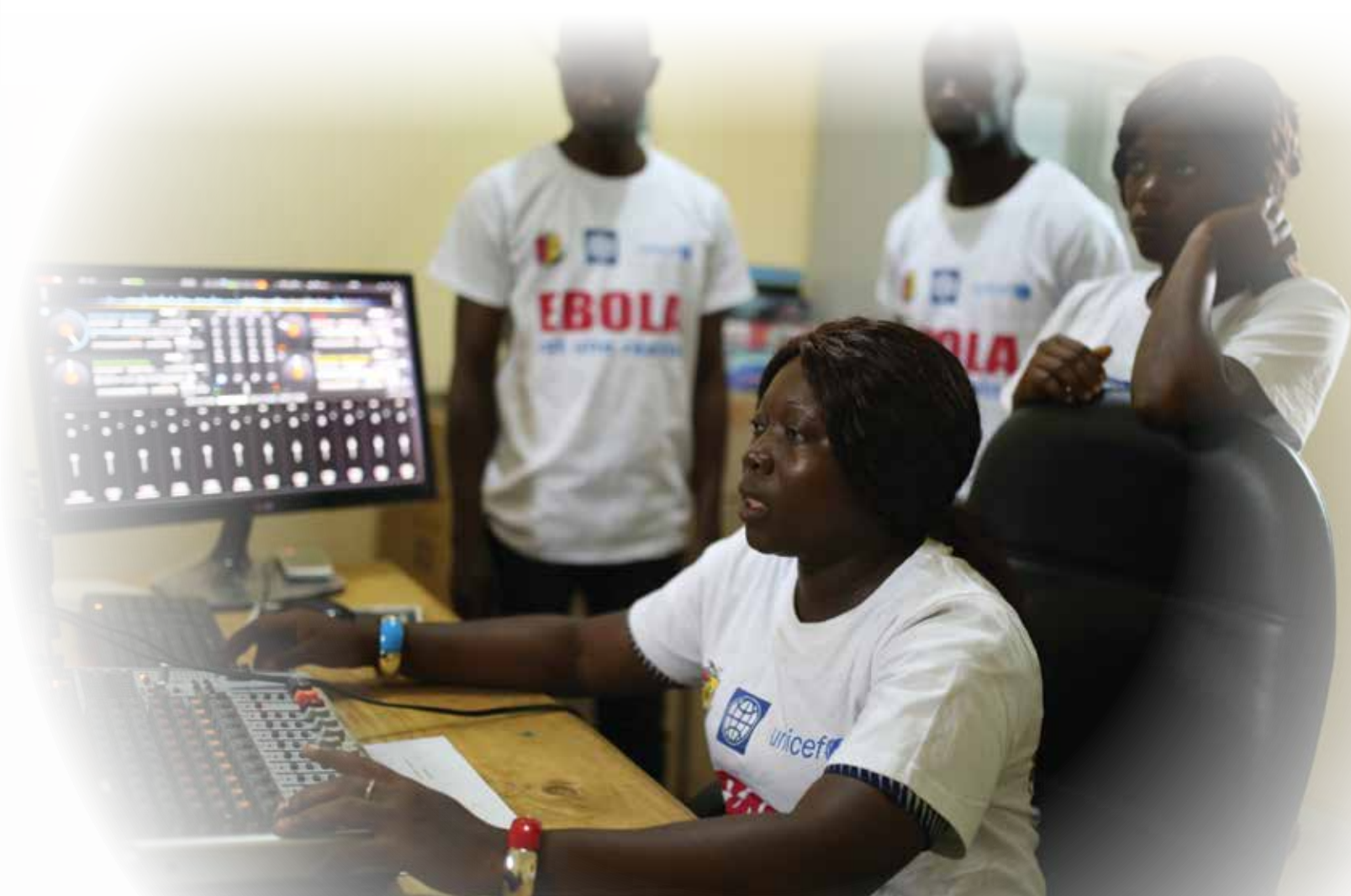
#### ***Joint Representation on the Agenda***

Moving the needle toward making digital a driver for development requires awareness-raising about the opportunities of digital technologies. DDP partners have worked closely together in FY17 to bring the message out. At the World Bank, digital development featured highly on the agenda for the recent World Bank-IMF Spring and Annual Meetings (AMs). Next to high-level sessions, which DDP coordinated or helped inform, DDP also launched its own workshop for partners and clients at the 2017 AMs. Other activities and joint representation included GSMA Mobile World Congress, Microsoft Inspire, GSMA Digital Africa events, SIDA's Stockholm Internet Forum, the Africa leapfrogging event in Dakar, in addition to brown-bag seminars and smaller sessions on different occasions.

### *Private Sector Feedback Loops*

Private sector operators have a rich set of experiences about the business environments they operate in, including knowledge of applicable policy and regulatory frameworks, applied practices, lack of frameworks that would provide legal certainty for the advancement of highly innovative technologies, etc. With growing levels of activities in a larger number of client countries, DDP can profit from such insights and use them in feedback loops. This will allow public sector reforms through the eyes of the private sector, and maximize the opportunities that exist as digital innovation mainstreams into all fields of development.

Also in the future, DDP will retain its collaborative approach to seek private sector solutions and public sector experiences to develop replicable solutions offerings, leverage latest technology and business models, and offer World Bank client countries the best solutions to allow them to leapfrog into the digital age. Regular partnership exchange, informal interactions, and a joint representation of the agenda will continue to constitute main channels for learning and knowledge exchange between partners and clients in FY18.



## III. Operational Highlights

During its first year of operation, DDP has launched an ambitious set of activities. While activities typically require more than one year to produce tangible results, most activities have delivered practical outputs and nearly all are set to showcase their results over the next several months. A few individual activities faced setbacks, mostly due to a changing client context, which required more effort to keep them on track. The following presents the operational highlights in more detail.

### (i) DATA AND INDICATORS

In its first work stream on **Data and Indicators**, DDP scales up the use of data and indicators—including Big Data—to benchmark and advance the readiness of emerging countries to reap digital dividends. DDP addresses the lack of systematic data on access to connectivity and digital solutions, low awareness about the opportunities of digital development, and poor information on policy and regulatory impediments in the digital environment. It provides the data and insights needed to assess, track, and improve digital-related policies and their impact on growth and poverty reduction. Much of the analytics take the form of benchmarks and comparisons, so that low- and middle-income countries are informed about where they stand as regards the adoption of digital technologies, and how they can improve. The evidence collected under the *Data and Indicators* window informs the DDP programmatic advancement and all World Bank engagement on the digital economy.

The **Data and Indicators** activities launched during 2016/2017 comprise a mix of important standard knowledge development, specific engagements to close methodological and knowledge gaps, and work on benchmarks. The execution of *Data and Indicators* activities launched in FY17 is progressing well, leveraging cross-sectoral collaboration within the World Bank Group.

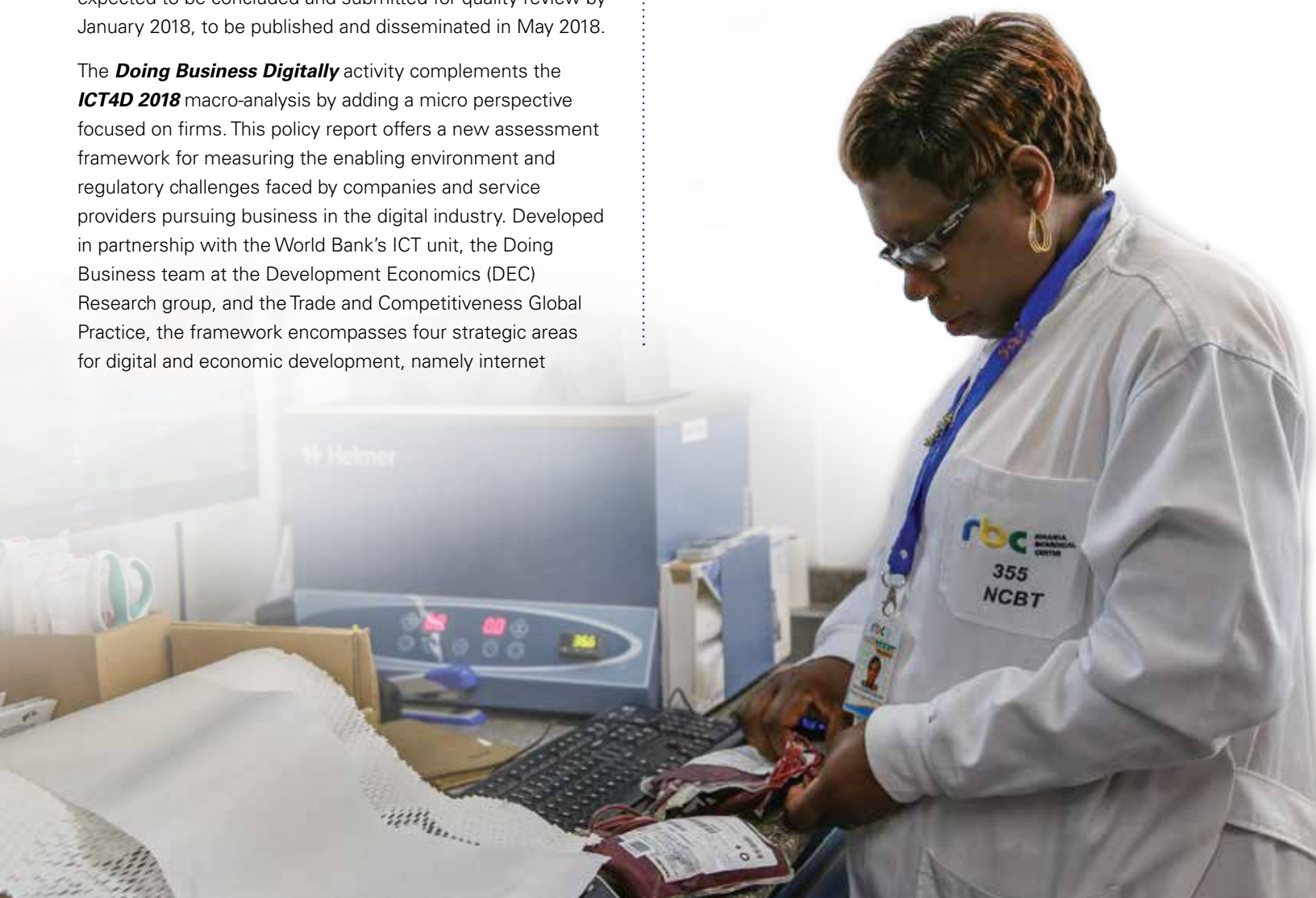
DDP addresses the lack of systematic data on access to connectivity and digital solutions, low awareness about the opportunities of digital development, and poor information on policy and regulatory impediments in the digital environment.



At the macro level, the flagship **Information and Communication for Development (ICT4D) 2018 Report** draws from international experiences to identify challenges and best practices on the adoption of digital economy-related regulations and policies. The 2018 edition of this global analytical and policy series focuses on data-driven development, exploring in detail the potential, and constraints to, Big Data analysis, Open Data, and evidence-based ICT policy making. Using data cleverly can help achieve better development outcomes—uncovering hidden patterns, unexpected relationships, market trends, revealing preferences—which in turn help improve people's lives. Drafting of the ICT4D 2018 report is under way, with three out of six chapters completed. A first full draft of the report is expected to be concluded and submitted for quality review by January 2018, to be published and disseminated in May 2018.

The **Doing Business Digitally** activity complements the **ICT4D 2018** macro-analysis by adding a micro perspective focused on firms. This policy report offers a new assessment framework for measuring the enabling environment and regulatory challenges faced by companies and service providers pursuing business in the digital industry. Developed in partnership with the World Bank's ICT unit, the Doing Business team at the Development Economics (DEC) Research group, and the Trade and Competitiveness Global Practice, the framework encompasses four strategic areas for digital and economic development, namely internet

connectivity, online payment systems, logistics for eCommerce, and regulations for digital markets. *Doing Business Digitally* leverages the high visibility of the World Bank *Doing Business* index to establish itself as a global reference point to evaluate a country's performance in enabling a sound environment to spur digital-related private sector development. The *Doing Business Digitally* methodology has been defined and consolidated in a methodological note including questionnaires. Data collection has started in January 2018 in 20 priority countries. As a medium term impact expectation, this effort—same as all *Doing Business* efforts—is expected to foster policy and regulatory reforms to enable a faster development of the digital economy.



Further, a prototype **ICT Household Survey** is being designed and tested in Tanzania, to obtain data on ICT access and usage with a focus on the poorest population (see box 1, **“Are All Tanzanians Benefitting from Digital Technologies?”**). This evidence provides the empirical base to design the Tanzania National Digital Strategy keeping a pro-poor approach, and improve the effectiveness of ongoing and future World Bank ICT lending portfolio in eradicating extreme poverty and boosting shared prosperity. Disaggregation of data will include the gender dimension, allowing to draw gender specific conclusions and help develop gender specific policy interventions. The design of the Tanzania ICT Household Survey has been finalized and validated with relevant national authorities and DDP partners. Data collection began in November 2017.

Looking ahead to FY18, the portfolio of activities under the **Data and Indicators** window is expected to grow slightly, with one activity added to survey the **use of digital technologies by small and medium-sized enterprises (SMEs)**. The instrument will be tested in a range of different country

## BOX 1. Are All Tanzanians Benefitting from Digital Technologies?

How easy is it to access digital technologies in Tanzania? What are digital platforms used for? Who is benefitting more from the country embracing the digital agenda? The **ICT Household Survey** aims at answering all these questions, and many more, on the coverage and impact of the digital revolution in Tanzania, a rapidly growing economy where poverty is still widespread and inequality is rising.

The first of its kind, the *ICT Household Survey* represents a strategic effort by the World Bank to stress how the digital agenda is not only about growth, but also about poverty reduction and shared prosperity. The questionnaire, jointly designed by the World Bank ICT unit and the Poverty GP with inputs from private partners (GSMA), aims at uncovering patterns of access to mobile and internet networks, and the use of digital platforms such as mobile payments, digital services for business, and e-government services.

This work will leverage the Survey of Well-being via Instant and Frequent Tracking (SWIFT) methodology to collect and analyze data in a cost-effective, timely, and user-friendly manner. While SWIFT does not measure direct impact on poverty using consumption or income data—which is time-consuming and costly to collect—it estimates correlation between demographic and consumption data from the existing national household survey and data gathered through tailored ICT questionnaire. The use of the SWIFT methodology combined with the ICT-focused questionnaire will help to understand the behavior of people with mobile phones and those who are currently outside the implementation of the Tanzania digital agenda.

The *ICT Household Survey* proposal has been presented to relevant authorities in Tanzania during a dedicated workshop held in Dar-es-Salaam in March 2017. The Tanzania Ministry of Works, Transport and Communications, the ICT Commission, the e-Government Agency under the President’s Office of Public Service Management, the Tanzania Communications Regulatory Authority, and the National Bureau of Statistics have welcomed the proposal and confirmed their full commitment to its implementation.

The information collected through the ICT Household Survey will provide quantitative and qualitative information to evaluate the impact of the ongoing World Bank Regional Communications Infrastructure Program, and highlight existing shortcomings and challenges to be addressed in the upcoming Digital Tanzania lending program (2018–2022).

contexts. Additionally, both the government of Ethiopia and the Rwanda Utilities Regulatory Authority have requested World Bank support to conduct an ICTs Household Survey on the model of the analysis financed by DDP in Tanzania. Finally, a country engagement is proposed for Niger to look at the prospects of sharing call data records from mobile operators for applications in the field of poverty assessment, subject to funding availability.

## (ii) DIGITAL ECONOMY ENABLING ENVIRONMENT

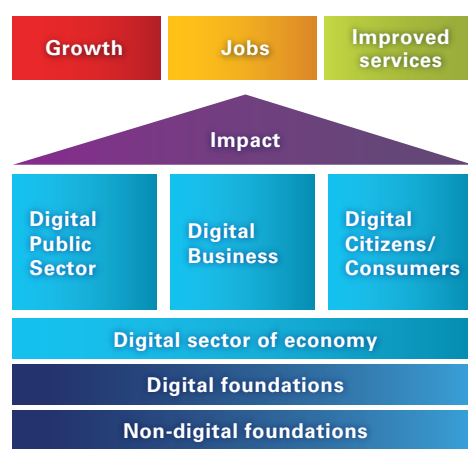
In its second work area, titled **Digital Economy Enabling Environment**, DDP aims to develop knowledge and tools to support low- and middle-income countries in removing bottlenecks to the development of digital ecosystems. The digital economy goes beyond the infusion of information and communications technologies (ICTs) in specific sectors, as it encompasses the broader transformation of the overall economy—including analog components—that make digital solutions possible. Digital infrastructure such as broadband, financial inclusion, relevant intellectual property rights (IPRs) regimes, new technologies including Internet-of-Things (IoT) and advanced analytics, digital security, and skilled human resources, are all fundamental horizontal enablers of the digital economy. To realize the potential benefits of the digital economy and manage its associated risks, it is crucial to strengthen the policy and regulatory framework in a well-coordinated manner across sectors and technologies.

Under the *Digital Economy Enabling Environment* work area, three Global Practices (GPs) in the World Bank—ICT, Finance and Markets, Trade and Competitiveness—are joining efforts to provide comprehensive support to emerging economies to prepare their markets, institutions and people for the digital transformation. Activities in these work streams are co-managed by these three GPs, which leverage knowledge from diverse partners from the private sector and academia as well as the International Finance Corporation (IFC). The multi-stakeholder collaboration is adopting an integrated

approach to develop a comprehensive assessment **Toolbox for the Digital Economy** to enable emerging economies to determine their level of preparedness for the digital economy. The *Toolbox* comprises several analytical pieces:

- (i) An **Integrated Resource Platform**: an easily accessible multi-sectoral, multi-stakeholder inventory of existing resources and frameworks to analyze and assess the enabling environment and analog components of the digital economy, and learn and benchmark across different contexts (global, regional, national).
- (ii) A series of **Analytical Deep Dives on Key Digital Economy Enablers**: a granular analytical program encompassing cross-cutting horizontal enablers of the digital agenda, including infrastructure, finance, innovation and entrepreneurship, technology adoption, regulatory framework, skilled human resources, as well as cutting-edge research on technologies such as Internet of Things (IoT), and big data.
- (iii) Country-specific **Digital Economy Country Assessments (DECAs)**: evidence from the *Integrated Resource Platform* and the *Analytical Deep Dives* is tailored to countries' specific contexts and needs in a *Digital Economy Country Assessment* (DECA). The DECA offers a basis for high-level engagement with countries at different stages of readiness for the digital revolution, including Indonesia, Kyrgyz Republic, Russia, Tanzania, Tunisia, and Vietnam. Many of these countries are being targeted as an entry for a focused, regional approach in adjacent and neighboring countries, in particular in Central Asia and South-East Asia.

FIGURE 7. Conceptual Framework: DECA Methodology



#### A. Assessing Foundations of The Digital Economy

##### I. "Analog Components"

- ✓ National policies and strategies
- ✓ Leadership and institutions
- ✓ Laws, regulations and standards
- ✓ Human capital
- ✓ R&D and ICT Innovation
- ✓ Business environment
- ✓ Trust and security

##### II. Digital Components

- ✓ Digital infrastructure
- ✓ Shared digital platforms
- ✓ New/emerging technologies

#### B. Benchmarking Current DE

- Public sector
- Business
- Citizens/consumers
- Digital economy sector (ICT, content and media)

#### C. Social and Economic Impact

- Overall assessment
- Economic impacts
- Social impacts

The development of the **Integrated Resource Platform**, the **Analytical Deep Dives** and **DECAs** are proceeding in parallel: lessons from country dialogues are feeding into the living design of the pillars of the Toolbox. Each country engagement is structured so as to include an initial assessment to identify ongoing activities, key institutions and human resources related to the digital economy; a prioritization exercise to identify a handful of high-impact interventions; and the development of tailored policy recommendations. The *Digital Economy Enabling Environment* multi-stakeholder platform was formalized in September 2017 in a joint workshop to report on the progress to date on the three different components of the Toolbox and define the steps ahead. Several country engagements are ongoing or about to start.

As an outlook, plans of the *Digital Economy Enabling Environment* work area in FY18 include completing and refining the set of analytical instruments in the Toolbox for the digital economy, and advancing country engagement in Tanzania, Kyrgyz Republic, Tunisia, Indonesia, Vietnam and Russia. Each country case is expected to inform a follow up lending and/or analytical engagement for the World Bank.

### (iii) CYBERSECURITY

Cybersecurity concerns grow in parallel with the adoption of digital services and infrastructure. Recent cyber attacks across the world serve as reminders of the threat and its potential in causing harm to public and private sector organizations alike. As large populations across developing countries go online, their exposure to harmful cyber attacks increases significantly. The lack of awareness, skills and preparedness against cybersecurity threats increases the risk of financial and social loss.

In spring 2017, encouraged by the Government of Japan as a new DDP funding partner and other stakeholders in the digital development space, DDP has started to considerably strengthen its work program on cybersecurity. Formally, the increasing relevance of cybersecurity among the other



DDP topics has been recognized by the opening up of a dedicated DDP Cybersecurity Window to address, in individual cases, the lack of awareness, information and skills on cybersecurity, and to support good practices in the use of cybersecurity tools, safeguards, and risk management instruments.

Planned activities under the **Cybersecurity** work area for FY18 include a mix of global knowledge and country-specific activities, aimed at advancing the capacity of low- and middle-income countries in the development of cybersecurity policies and standards; supporting good practices in the use of cybersecurity tools and risk management instruments; and contributing to introducing safeguards instruments to help prevent breaches and hacks.

Subject to final confirmation with donors and partners, DDP will fund the development of a **Cybersecurity Toolkit** including security policy for deployment where appropriate. This stock-taking of existing international knowledge and country experiences on cybersecurity will help determine how to build up a basic framework of cybersecurity policy and priority order of measures to be taken by the countries.

The technology security part will help determine a relationship between security classifications for services and data applicability of specific cloud models (private cloud, outsourced, hybrid,

PPP); identify steps involved in the decision making on data classification and cloud architecture in the context of security concerns; and provide recommendations on security risks and mitigation measures tailored to the context of low- and middle-income countries. Pilot interventions applying this new cybersecurity guide at the country level are being discussed in the ECOWAS countries as well as in South Asia and Central Asia.

The DDP *Cybersecurity* work program will keep a strong focus on local capacity building and country-specific digital development investment. A **Training Course for Policymakers and Technical Experts** from low- and middle-income countries will be held in Japan, as a first activity to leverage DDP partners' technical experience for the benefits of low- and middle-income countries.



## (iv) INTERNET ACCESS FOR ALL

Access to broadband internet is the main pre-requisite for any digital technology-based development solution. While internet penetration has been growing steadily, more than 4 billion people still do not have internet access, with 90 percent of them living in low- and middle-income countries. Recognizing the centrality of this development challenge, the Sustainable Development Goal (SDG) 9c sets an ambitious target to “significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020”.

Through its fourth work stream, **Internet Access for All**, DDP responds to the need to complete the broadband access agenda, offering knowledge, technical assistance and advisory support to assist emerging countries in enhancing their connectivity. This work covers national policy and strategy, regulation and markets, new technologies and business models, as well as specific aspects of the connectivity development agenda such as social inclusion and gender.

In terms of knowledge development, DDP is funding an assessment titled **Innovative Business Models for Expanding Fiber-Optic Networks and Closing the Access Gaps**. The global knowledge report presents lessons learned from prior cross-border and backbone network deployments, to propose options for new and future business models that can be applied in various country contexts to ensure network access over the middle and last mile. As a joint effort with the IFC’s Technology, Media and Telecommunications (TMT) team, the assessment reviews alternate technologies such as satellite, microwave, balloons and drones; business models such as rural Internet Service Providers (ISP), community GSM and micro-telcos providing connectivity to un/underserved communities; as well as recent market trends of coupling energy and connectivity solutions. Following significant research and consultations with internal and external experts, the detailed work plan, methodology, monitoring and evaluation framework for the *Innovative Business Models for Expanding Fiber-Optic Networks and Closing the Access Gaps* report were defined during the first half of 2017. The first draft of the report

is expected in January 2018. As client demand for innovative business models and new technology solutions for expanding international and national fiber-optic networks is high, the information developed is now starting to inform country-specific activities and projects (both DDP-funded and World Bank investment projects), such as in West Africa, Peru and Malawi (see box 2, **Assessing the Economic Implications of Malawi’s Digital Story**).

In terms of country-specific activities, DDP-funded work in the *Internet Access for All* work area has in FY17 included technical assistance (TA) to explore the **Innovative Use of Spectrum Management in Peru**. In the past, Peru has improved its broadband connectivity through a national fiber-optic backbone network. But with the rise in global demand for high-speed wireless broadband, infrastructure deployment is no longer sufficient to ensure affordable, accessible, high-quality internet in rural or densely populated urban areas. DDP-funded analytical activity is therefore supporting the government in using emerging technology, new frequencies, and resourceful regulation on spectrum allocation to spread digital dividends across populations at lower cost and higher adoption rates. Fieldwork for the *Innovative Use of Spectrum* TA activity in Peru is currently underway. The activity also informs the Peru Digital Inclusion World Bank Project, which is currently in preparation stage.

In East Africa, DDP-funded work helped **Assessing the Economic Implications of Malawi’s Digital Story**. This activity undertook an economic and financial ex-post impact assessment. It was completed in March 2017, and the methodology was replicated in the evaluation of the Digital Malawi project in April 2017. Currently, the team is working on developing short videos to capture lessons learned from the projects, with respect to using PPPs for increasing internet access, the potential for digital development to transform the job market in Malawi, as well as on the use of digital technologies to transform public services delivery (See box 2, *Assessing the Economic Implications of Malawi’s Digital Story*). Based on the assessments undertaken, follow-on projects such as Digital Malawi are incorporating a dedicated gender component, fostering female skills development and female entrepreneurship.

## BOX 2. Assessing the Economic Implications of Malawi's Digital Story

Malawi recently completed the implementation of a Regional Communications Infrastructure Program (RCIP), supported by the World Bank through a US\$20 million credit. The Program supported efforts to lower the cost of international connectivity and spur greater telecoms market competition and infrastructure investments. It utilized an innovative Public-Private-Partnership (PPP) structure to incentivize private sector backbone investment through a long term, bulk purchase of international bandwidth and enterprise services for government.

A recent Economic and Financial Impact Assessment of RCIP, financed by DDP and carried out in spring 2017, estimated that the \$20 million project contributed to an extra \$450-570 million in additional GDP growth over a ten-year period, which means an internal rate of return of between 83 and 91%.

The positive impact of the program helped make the case for adoption of a similar PPP model for national transit and last mile services under the new \$73 million Digital Malawi

Program, Phase I: Digital Foundations Project, approved by the World Bank board in June 2017. This project aims to significantly increase access to affordable, high quality internet services for Malawi's citizens, businesses and government, and to transform public services delivery using digital technologies.

The economic model adopted in the ex-post impact assessment of the RCIP was also replicated for the DDP-funded, ex-ante evaluation of the Digital Malawi program, and assisted in securing financial commitments to the project by demonstrating a strong rate of return on the investment through increased economic growth, government efficiency and improved productivity of citizens and private sector. To facilitate greater outreach, awareness and adoption of PPP-based models for improving internet access, a series of short videos are being developed, highlighting the success and lessons learned from Malawi. The model is expected to be used as part of many of the forthcoming "Digital Africa" projects supported by the World Bank, including Tanzania as the likely next project.





In West Africa, country members of the Economic Community of West African States (ECOWAS) have over the last decade established independent regulatory authorities to oversee the liberalization and constructive development of their telecommunications sectors. DDP supports the **ICT Regulatory Watch Initiative (RWI)** in West Africa to assist ECOWAS member states undertake regulatory and policy reforms and address some of the main market failures. A first draft of the inception report for the *ICT Regulatory Watch Initiative* project in West Africa was delivered in July 2017. Discussions on an operational work plan for roll-out and reform implementation are under discussion. The client has also expressed an interest in furthering greater collaboration and data sharing among ECOWAS states.

As an outlook, activities under the **Internet Access for All** work area in FY18 are planned to build seamlessly on DDP experience and knowledge developed during the FY17 cycle. Among others, the government of Jordan has expressed interest in expanding its government broadband network, connecting public administration offices, schools, and hospitals in main cities and second tier centers, using a PPP model similar to the one implemented in Malawi and evaluated under DDP. Equally, MNOs have supported the conceptualization of the infrastructure program, and can make available vital support in the realization of the broad plans. DDP-funded TA in FY18 will therefore provide an assessment of Jordan's readiness to go digital, a roadmap for the strategic investments and policy reforms needed to enable the transformation of the existing services, and assistance to help implement the policy recommendations through suitable reforms.

## (v) DIGITAL GOVERNMENT

Digital government models offer tremendous opportunities to improve service delivery, foster transparency and efficiency in public administration, and in turn, empower citizens and entrepreneurs. DDP's **Digital Government** work area supports client governments in the development of digital government infrastructure platforms and shared services. Improving knowledge on digital government leadership, public sector IT architecture and governance, data and analytics platforms and interoperability is crucial to augment public sector policy development, reduce business and consumer costs, and lead to a higher degree of social inclusion of different groups in low- and middle-income countries.

In FY17, the highlight of DDP-funded work under the *Digital Government* work area was the development and launch of a **Massive Open Online Course (MOOC)** on digital government and—more broadly—the opportunities of digital technologies for development. Titled **Digital Dividends: Strengthening the Analog Foundation of the Digital Revolution**, this MOOC was the first of its kind, a free, online, graduate level course accessible to policymakers, academia and citizens around the world. It constitutes a good opportunity for broad awareness-raising and basic capacity building in low- and middle-income countries on issues related to the digital development agenda. This comprehensive course includes a specific module for governments interested in upgrading their ability to transact electronically with citizens and businesses (see box 3, **Teaching Digital Dividends: the (MOOC)**).

## BOX 3. Teaching Digital Dividends: the MOOC

Using a variety of learning tools and methodologies, the Digital Dividends MOOC explains the role that the internet plays in economic development, and examines how countries can benefit from the digital revolution by improving their business climates, investing in cutting-edge solutions to pertinent socio-economic problems, and promoting transparent and accountable governance.

The six-week course offers a multi-faceted perspective on the potential and impact of the digital economy, including e-government solutions. In essence, the course helps answer certain key questions, such as, What are the challenges that prevent digital dividends from spreading more rapidly? What are the most important returns to digital investments? What should be done to fully benefit from the digital revolution? What are best practices

in digital government solutions? By covering policy recommendations, up-to-date research and the latest innovations in digital technologies, the course offers value to a wide range of audiences, ranging from students to policymakers, entrepreneurs, and civil society.

The course is available through edX, an online learning and MOOC provider that was jointly formed by Harvard University and MIT in 2012. Publication and delivery of the course is executed with support of the World Bank's Open Learning Campus (the World Bank's unit for general knowledge exchange), which has in the past made available four MOOCs through this platform, enrollments ranging from 10,000 to 18,000 individuals. The Digital Dividends MOOC was launched in November 2017.



The screenshot shows the edX website interface. At the top, the edX logo is on the left, followed by navigation links: Courses, Programs, Schools & Partners, and About. A search bar is on the right. Below the navigation bar, a breadcrumb trail reads: Home > All Subjects > Economics & Finance > Digital Dividends: Strengthening the Analog Foundation of the Digital Revolution. The main content area features a large image of silhouettes of people standing on a beach at night, looking up at a bright light in the sky. To the right of the image, the course title is displayed in large, bold black text: "Digital Dividends: Strengthening the Analog Foundation of the Digital Revolution". Below the title, a paragraph of text reads: "From the World Development Report (WDR) 2016, learn what the internet and related digital technologies can do for your family, business, city and country." At the bottom right of the page, the "Open Learning Campus" logo is displayed, which includes the text "Open Learning Campus" and "WORLD BANK GROUP" next to a globe icon.



In terms of the knowledge agenda advancing under DDP's **e-Government** work area, funding and knowledge made available by DDP partners have provided an opportunity to take a fresh look at the e-government agenda. Technology has advanced rapidly recently, with cloud systems increasingly becoming the backbone for standard government service delivery and sector specific applications. Offering cutting-edge solutions to World Bank clients therefore requires going beyond existing surveys and tools, such as the United Nations e-Government survey, the Cloud Computing Survey, aspects of the existing *Doing Business* Survey, Open Data Readiness Assessment and the Smart Nations Toolkits.

Consequently, work started on a new **Digital Government Assessment Framework**, to build strongly on innovation models and focus on latest technological advancements. The assessment framework, under continuous development, will perform a standardized gap analysis on the digital government capabilities of low- and middle income countries, and it will benchmark these countries' e-government performances against others, establishing goals and targets, identifying areas for improvement, and suggesting necessary instruments to be considered when rolling out an e-government agenda. The development of the toolkit, as well as its implementation in client countries, continues to be a collaborative process, calling on expertise from across the World Bank including teams from the Governance, Trade and Competitiveness, and Finance and Markets GPs, as well as the teams from the Development Economics Group (DEC) and Information Technology Services (ITS). The DDP team is grateful for continued exchange with DDP partners on latest technology trends and business models.

In terms of the country-specific work under DDP's e-government window, an **e-government engagement in Myanmar** advanced less rapidly than had been expected at the launch of the activity. While in the past five years Myanmar has experienced rapid telecommunications sector reforms and steep growth of mobile phone usage, bringing approximately 60 percent of the population online, the opportunity to invest in digital government solutions, rapidly

transform the public sector, and provide efficient and effective service delivery to citizens and businesses in Myanmar remains an important agenda. DDP-funded work so far has focused on early stage engagements with the government to clarify the areas and key services to be digitized in the country.

Going forward, in light of the strengthened knowledge offerings and a clear opportunity to speed up delivery to clients in a larger number of low- and middle-income countries, the expanded work program for FY18 includes several new country specific activities in Cambodia, Kyrgyz Republic, and Vietnam.

## **(vi) MAINSTREAMING DIGITAL SERVICES, SOLUTIONS, AND PLATFORMS**

While some of the DDP work areas are mostly tackled by the core ICT team—such as the connectivity agenda and core digital platforms and solutions—real development progress can nowadays only be achieved if the application of new technologies is effectively leveraged across a large range of sectors. Since its inception, DDP had articulated a workstream dedicated to **Mainstreaming Digital Services, Solutions, and Platforms** across the World Bank and in support of other, international digital development programs. This workstream is designed as a collaboration space between different teams. It saw an evolution during the reporting period.

Initially, the transport sector had been chosen as a priority sector for the advancement of digital solutions, a choice discussed with and endorsed by the Steering Committee. DDP therefore started a deep dive on data standardization, data platforms and advanced analytics for the transportation sector. The **Better Data for Smarter Transportation** analytical platform aims at addressing the lack of data standardization and benchmarking, interoperability of platforms and solutions and more efficient policy design in the transport sector. The increasing use of ICT has made transportation a data-rich industry, generating large amounts of information on

congestion, crash data, human behavior in urban transit, vehicle locations in public transport, and a variety of infrastructure and safety data from multiple sources. The platform aims to provide the necessary framework and build capacities required to utilize these data to develop innovative applications to plan and operate mobility systems more efficiently. The pilot version of the *Better Data for Smarter Transportation* platform is in an advanced stage. Full mainstreaming of the platform across the transport portfolio is expected by December 2018. As an intermediate outcome, the development justification and lessons learned from the development of the *Better Data for Smarter Transportation* are being documented in a white paper, which was presented during the Transforming Transportation Conference in Washington DC, in January 2018.

A small knowledge activity on **Operationalizing Big Data Analytics** was also added, aimed at facilitating the integration of big data analytics in development programs by engaging in a range of interrelated activities, including hands-on support to World Bank operational teams to solve specific development problems, carry out a skills building workshop, and deepen partnerships with big data owners.

The demand for engagement related to digital transformation, digital technologies, and services and platforms is growing rapidly both internally and externally at the World Bank. Consequently, a repositioning of the mainstreaming work stream was discussed in mid-2017, taking a much bolder approach beyond the transport sector. The goal is rather to focus on the development of replicable approaches to integrate technology in a systematic manner in different World Bank projects, through a higher degree of awareness-raising and learning among staff and managers, and through incubation and testing of solutions and technologies within a larger number of WB Global Practices and units.

In this sense, DDP can play a role as a sandbox, to test innovations, and pilot them jointly with other teams.

Looking ahead to FY18, there are three new activities planned under the *Mainstreaming Digital Services, Solutions, and Platforms* window, covering digital technology in the transport sector, the energy sector, as well as climate change solutions. The first activity will support the government of Colombia in designing and implementing a pilot intervention to model an Internet of Things (IoT) use case related to road asset management and monitoring of rural roads. This includes the use of sensors and analytics software to offer instant data sharing and insights on road conditions and safety features. The second activity is planned to mainstream digital solutions in the field of climate risk mitigation, management and resilience, leveraging cutting-edge technologies such as big data analytics and IoT. DDP is also proposed to fund joint engagements with the Energy GP to pilot and scale innovative digital technologies and solutions in the energy sector.



## IV. Looking Ahead - Plans for Fiscal Year 2018

One year into its existence, encouraged by early success and a wave of enthusiasm for its digital development objectives, DDP continues its ambitious path of delivering state-of-the-art digital development solutions to low- and middle-income countries. Plans for FY18 combine the need to deliver on the activities launched over the first year, solidify the solutions offering, and deepen the partnership structures that have been created. At the same time, the partnership is being called upon to stay on a bold growth path, expand its work, increase the partnership, and drastically scale up for more impact. The team will focus on delivering on the former aspects, while consulting closely with its partners on opportunities for growth and expansion as they may develop in concrete form over the months to come. The following highlights some of the plans for FY18 in more detail, and briefly alludes to possible risks that could impede intended advancements.

### *Delivering on the Portfolio*

Many of the activities developed and launched during FY17 will produce their main results in FY18. Delivering on this portfolio remains DDP's key focus. Knowledge products will require careful review before finalization, dissemination, and application in country-specific activities. Country-level work will need to be implemented with strong support for World Bank clients to ensure that desired reforms are fully achieved and start to shift the needle towards reaping the benefits of digital development. Risks to delivering on the portfolio are mostly specific to individual activities, as country contexts can change and in individual cases lead to delays.

### *Expanding the Portfolio*

DDP's FY18 tranche of activities is currently being launched. DDP will focus on a rapid introduction of these additional activities, already urgently awaited by clients in low- and middle-income countries. This will be the main expansion of the portfolio for the fiscal year. Smaller additions or adjustments may be decided at the mid-year Steering Committee Meeting in March 2018. This is meant to address a potential risk in terms of carrying out too many small activities. An expansion of the work program would be possible through an expansion of the partnership in terms of new donor support from new partners.

Many of the activities developed and launched during FY17 will produce their main results in FY18. Delivering on this portfolio remains DDP's key focus.

### *Deepening the Solutions Offer*

Next to the country-specific activities, DDP will also continue to invest in its knowledge and solutions offerings. Standardization and increasing replicability of its knowledge and solutions offerings remain an important objective and—building on some of the products that are forthcoming—consistent application of this knowledge, feedback loops from its application, and incremental improvements can over time deepen and solidify the recent knowledge developments.

### *Mainstreaming Digital Solutions*

In FY18 DDP will make a strategic effort to better position and expand its work on mainstreaming digital solutions across different sectoral and topical applications, such as transport, energy, agriculture, health, and others. This will mean using DDP more strategically to develop a pilot intervention for each of the different sectors in a joint effort of ICT and sector experts, and play an accompanying role as these pilots get replicated and rolled out in greater numbers, under sector-specific programs and funding (see above). Risks in the mainstreaming agenda relate to the systematic roll-out of the agenda, and the need to proceed systematically and avoid a patch-work of efforts.

### *Strengthening Focus on Impact*

As results of the work program become increasingly available, it will be possible to strengthen the focus of the partnership on development impact. This will involve working closely with clients and partners to move from a perspective of outputs (such as studies, assessments, etc.) to a perspective of outcomes and eventually development impact. To support this change of perspective, DDP will also strengthen its monitoring and evaluation of DDP activities through the logframes developed for this purpose, so that a

standardized monitoring of activities can provide evidence on results and impact achieved by the partnership (see above). The main risk in strengthening the focus on results consists in time lags, meaning that the chain from program activities undertaken to changes in the policy environment take time to materialize.

### *Deepening the Partnership*

DDP has in its first year experimented with different modes of engagement with its partners, including the formal Steering Committee meetings and informal channels of exchange. These experiences will, in the second year of DDP, allow for a deepening of the partnership. Small adjustments—such as a better distinction between formal Steering Committee meetings and informal update conference calls—have already been suggested by the Steering Committee and will allow for a more regular and planned schedule of exchange over the course of the year. DDP will keep up its openness for informal exchange and will appreciate inputs and peer review of its knowledge outputs as they become available over the next months.

### *Expanding the Partnership*

DDP is open to a strategic strengthening of the partnership through new funding partners. In this, it will be important to have a clear perspective on value addition and complementarity of different stakeholders' agendas, so that DDP remains a focused effort to foster digital development in its areas of expertise. General interest in DDP indicate that the opportunity to expand the partnership are generally good, and risks are small. The team will be delighted to answer any questions of possibly interested parties on DDP and opportunities to join.

# Annex: Financial Overview of Ongoing DDP-Supported Activities

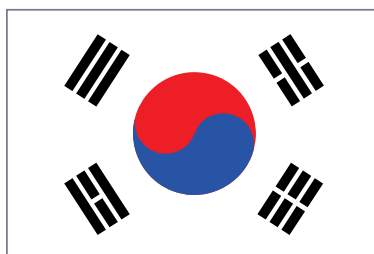
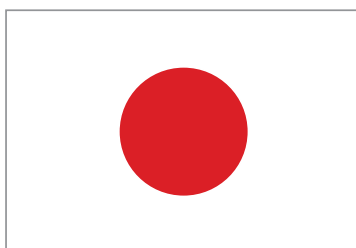
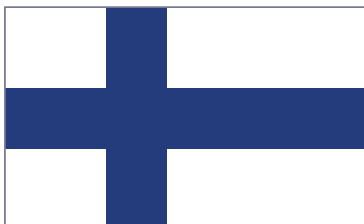
Window	Activity Name	Scope	Description	Allocation	Spending by Dec 2017	Share	Start Date	Closing Date
<b>Data and Indicators</b>	ICT4D Report	Global Knowledge	International evidence and policy experience on “Data Driven Development”	US\$100,000	US\$51,188	51 %	Feb-17	Jun-18
<b>Data and Indicators</b>	Doing Business Digitally	Global Knowledge	Framework for measuring the enabling environment faced by companies pursuing business in the digital industry	US\$50,000	US\$49,990	100 %	Mar-17	Jun-18
<b>Data and Indicators</b>	Tanzania Data Diagnostic	Tanzania	Household survey on ICT usage Tanzania	US\$150,000	US\$127,286	85 %	Feb-17	Jun-18
<b>Digital Economy</b>	Development of the Enabling Environment for Digital Economy	Global Knowledge	Cross-sectoral inventory of assessment instruments for the digital economy, deep-dive analytical work on cutting-edge challenges, and country case studies	US\$275,000	US\$180,634	66 %	Apr-17	Sep-18
<b>Digital Economy</b>	Indonesia: Framework for a Digital Economy	Indonesia	Capacity-development on assessing the enabling framework for the digital economy, and policy recommendations	US\$200,000	US\$27,399	14 %	Jul-17	Mar-19
<b>Internet Access for All</b>	Innovative Business Models for Expanding Fiber-Optic Networks	Global Knowledge	Lessons learned and new models for fiber optic network deployment	US\$250,000	US\$212,936	85 %	Feb-17	May-18
<b>Internet Access for All</b>	ECOWAS: Regulatory Watch Initiative	West Africa	Monitoring of progress and competition in the ICT sector in West Africa	US\$250,000	US\$221,518	89 %	Feb-17	Nov-19



Window	Activity Name	Scope	Description	Allocation	Spending by Dec 2017	Share	Start Date	Closing Date
<b>Internet Access for All</b>	Telling Malawi's Digital Story	Malawi	Impact assessment of the Regional Communications Infrastructure Program and economic analysis of the planned Digital Malawi investment lending project	US\$100,000	US\$71,449	71%	Feb-17	Jun-18
<b>Internet Access for All</b>	Peru: Innovative Use of Spectrum	Peru	Policy recommendations on emerging technology, new frequencies, and resourceful regulation on spectrum allocation	US\$50,000	US\$39,191	78%	Feb-17	Jun-18
<b>Digital Government</b>	e-Government Master Toolkit	Global Knowledge	Review of lessons learned on e-Government	US\$280,000	US\$93,780	33%	Apr-17	Dec-18
<b>Digital Government</b>	Massive Open Online Course (MOOC) on Digital Dividends	Global Knowledge	E-learning course on Digital Dividends (EdX Platform)	US\$80,000	US\$80,000	100%	Mar-17	Jun-17
<b>Digital Government</b>	Myanmar Advanced Digital Solutions	Myanmar	Analytical foundations for the proposed Digital Myanmar investment lending project.	US\$50,000	US\$20,406	41%	Mar-17	Jun-18
<b>Mainstreaming Digital Innovation</b>	Better Data for Smarter Transport	Global Knowledge	Stocktaking of innovative and cost-effective data-driven digital technologies in the area of transport	US\$225,000	US\$39,612	18%	May-17	Dec-18
<b>Mainstreaming Digital Innovation</b>	Operationalizing Big Data Analytics	Global Knowledge	Development of relevant models and training for Big Data interventions	US\$75,000	US\$38,25	51%	Feb-17	Jun-18

## DDP Partners

The following partners currently support DDP:



# Abbreviations and Acronyms

<b>ADB</b>	Asian Development Bank	<b>IPRs</b>	Intellectual Property Rights
<b>AI</b>	Artificial Intelligence	<b>ISP</b>	Internet Service Provider
<b>AMs</b>	(World Bank-IMF) Annual Meetings	<b>M&amp;E</b>	Monitoring and Evaluation
<b>CERT</b>	Computer Emergency Response Team	<b>MOOC</b>	Massive Open Online Course
<b>DDP</b>	Digital Development Partnership	<b>PPP</b>	Public-Private Partnership
<b>DECA</b>	Digital Economy Country Assessment	<b>RAS</b>	Reimbursable Advisory Service
<b>DEC</b>	Development Economics Research Group (World Bank)	<b>RCIP</b>	Regional Communications Infrastructure Program
<b>ECOWAS</b>	Economic Community of West African States	<b>RWI</b>	Regulatory Watch Initiative
<b>FY</b>	Fiscal Year	<b>SDG</b>	Sustainable Development Goals (United Nations)
<b>GP</b>	Global Practice (World Bank)	<b>SME</b>	Small and Medium Sized Enterprise
<b>GSMA</b>	Groupe Speciale Mobile Association	<b>SWIFT</b>	Survey of Well-being via Instant and Frequent Tracking
<b>ICT</b>	Information and Communications Technology	<b>TA</b>	Technical Assistance
<b>ICT4D</b>	Information and Communication Technologies for Development	<b>TMT</b>	Technology, Media and Telecommunications team (IFC)
<b>IFC</b>	International Finance Corporation (World Bank Group)	<b>WDR</b>	World Development Report
<b>IoT</b>	Internet of Things		
<b>IT</b>	Information Technology		



## NOTES





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