



# INVESTMENT POLICY MONITOR



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## Promoting investment in the digital economy

### H I G H L I G H T S

- The development of the digital economy is a key objective for almost all countries. Many countries and economies have adopted digital development strategies. An UNCTAD survey of the investment dimension in more than 100 digital development strategies shows that almost all such strategies acknowledge the need for investment.
- However, hardly any strategy contains a specific 'investment chapter'; most strategies discuss investment needs only at a general level. Less than 25 per cent contain details on investment requirements for infrastructure, and less than 5 per cent on investment needs beyond infrastructure, including for the development of digital industries.
- Policy measures to promote investment proposed in digital development strategies tend to focus on improving the enabling (sectoral) regulatory framework. Other measures include incentives and general facilitation, digital standards, and clusters and incubators for digital business development.
- Less than half of digital development strategies consider foreign investment as a source of finance. Investment promotion agencies (IPAs) mostly do not feature in the plans.
- Responses to a separate UNCTAD global survey of IPAs confirm that they are generally not involved in the formulation of digital strategies. Nevertheless, for most IPAs, the promotion of investment in digital infrastructure, digital firms, and the development of linkages in the digital sector, are priority objectives.
- However, while incentives and facilitation measures are frequently proposed in digital development strategies, only a minority of IPAs confirms the availability of investment promotion instruments for the digital economy.
- The results of the two surveys suggest that policy coordination, between investment authorities on the one hand and ministries and public institutions charged with digital development on the other, could be improved.
- The forthcoming *World Investment Report 2017*, on Investment and the Digital Economy, will include policy recommendations on how to strengthen the investment dimension in digital development strategies.

## 1. Introduction

The digital economy – the application of internet-based digital technologies to the production and trade of goods and services – is becoming an ever more important part of the global economy. The transition to a digital economy is a key driver of growth and development because it can provide a boost to productivity across all sectors, as well as new opportunities for business and entrepreneurial activity and new avenues to access overseas markets.

There is, however, a significant digital divide today between developed and emerging economies, on the one hand, and lower-income developing countries, on the other. These gaps are well recognized by policymakers at both national and international levels. At the international level, the Sustainable Development Goals (SDGs) include a specific target to increase the availability and affordability of internet access. Increased internet access is also widely acknowledged to be instrumental for the achievement of many of the other SDG goals, such as those on poverty reduction, health, education and economic growth. At the national level, there has also been a significant focus on closing the digital divide. In many countries, this is reflected in digital development strategies and investment promotion priorities.

This Special Issue of the Investment Policy Monitor presents the findings of two recent UNCTAD surveys of digital development strategies and of investment promotion agencies (IPAs) for the forthcoming *World Investment Report 2017*, on Investment and the Digital Economy.

## 2. Investment promotion and digital development strategies

### a. Background: Mapping the investment dimension in digital development strategies

Many countries have formulated digital development strategies in support of the digital economy. Digital strategies, including broadband strategies, are cross-sectoral plans that address different policy objectives related to the development of a digital economy and society. Common objectives include the development of broadband infrastructure, the promotion of the digital sector, strengthening of e-government, encouraging adoption of digital technologies by businesses and SMEs, and the promotion of general ICT skills and competencies. The goals in any country's strategy generally depend on the level of digital adoption, with less digitalized economies focusing more on connectivity and promoting digital skills and adoption, and more digitalized economies seeking to upgrade to high-speed internet and to promote user and data protection.

For the forthcoming *World Investment Report 2017*, UNCTAD examined to what extent digital strategies address investment needs, and whether foreign investment is considered as a source of finance. The research focused on investment needs related to two specific digital-development objectives, namely broadband infrastructure development and digital business development.

Based on the International Telecommunication Union (ITU) database of digital strategies and additional desktop research, UNCTAD identified 102 digital strategies covering all regions of the world.<sup>1</sup> The strategies include 30 plans that exclusively address broadband infrastructure, 6 that focus on digital business development and 61 covering both areas<sup>2</sup> – resulting in 91 broadband development plans and 67 digital business development plans (table 1). About 60 per cent of the examined strategies were adopted in 2012 or later.

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<sup>1</sup> Also includes the digital strategy of ASEAN. For some countries, more than one strategy is included.

<sup>2</sup> Five plans neither include broadband infrastructure nor digital business objectives, but instead exclusively address other digital development objectives, such as general digital participation and inclusion of vulnerable groups, education, cyber security, consumer protection or e-Governance.

**Table 1. Digital development strategies by region, by objective (Number of strategies)**

	All strategies	Broadband infrastructure objectives	Digital business objectives
Developed economies	32	27	21
Developing economies	59	54	40
<i>Africa</i>	25	23	17
<i>Asia and Oceania</i>	16	15	9
<i>Latin America and the Caribbean</i>	18	16	14
Transition economies	11	10	6
<b>Total</b>	<b>102</b>	<b>91</b>	<b>67</b>

Source: UNCTAD digital strategies survey.

To assess in how far financing plays a role in digital strategies, three main questions were addressed: (1) Does the strategy include a dedicated section addressing financing needs, and, specifically, does it identify required assets or estimate any amount of investment needed? (2) Does it identify potential sources of finance, such as public or private investment, PPPs, foreign investment or other? and (3) Does it refer to any relevant policy measures to promote or facilitate the financing of the plans? Special attention was given to the potential role of foreign investment and of investment promotion agencies.

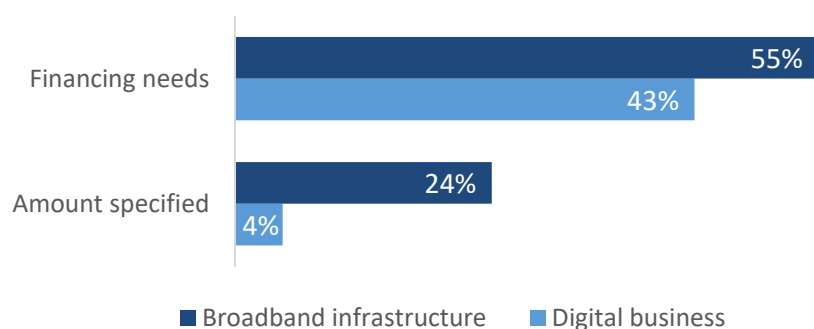
### b. Investment needs

Although the development of digital infrastructure and of a digital industry will necessarily involve significant amounts of investment in most countries – a fact acknowledged in the majority of digital development strategies – many strategies fail to address the investment dimension or discuss investment needs only at a very general level. Investment requirements are marginally more often discussed in relation to the infrastructure component (figure 1).

Even where strategies deal explicitly with 'investment needs', the detail varies enormously, ranging from a short reference in an overview table of projects, to a few sentences, to a full section. In almost all cases, the content remains quite general and cannot be interpreted as a detailed and structured 'investment chapter'.

In addition, investment needs are mostly referred to with little detail on the type or quantity of investment required. Only 24 per cent of the strategies dealing with broadband infrastructure and 4 per cent of strategies dealing with digital business development refer to the costs. Where amounts are specified structured calculations of the costs are rare; some strategies make reference to a general estimate without any further explanation, a few include details on specific project costs.

**Figure 1. Digital development objectives and investment needs, by objective (Share of strategies)**



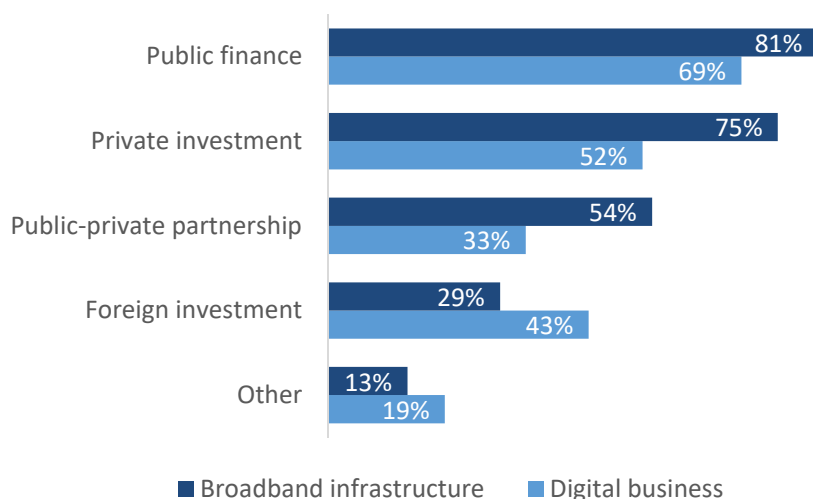
Source: UNCTAD digital strategies survey.

## c. Sources of finance

### 1. Public and private sources of finance

Despite the lack of detail on investment requirements, more than 90 per cent of digital development strategies refer to one or more specific sources of finance for digital development. Public funding is the most frequently cited source of finance, followed by private funding and PPPs (figure 2).

**Figure 2. Digital development objectives and sources of financing, by objective (Share of strategies)**



Source: UNCTAD digital strategies survey.

Public funding of broadband infrastructure and digital industry projects can be disbursed through direct or indirect means. While most strategies introduce direct public funding methods (e.g. State budget, special funds, and State financial aid), some strategies include indirect public funding methods (e.g. tax rebates, import duty exemptions). Two strategies specify that public funding of broadband infrastructure is to be ensured through the budget of State-owned enterprises, while one strategy put forward privatization as a source of public funds.

The majority of strategies also specify that public funding needs to be supplemented by private sector investment, e.g. by telecommunications and digital sector firms, venture capital, the financial sector and other investors. Strategies can contain very general and broad language in respect to private funding; for example, only recognizing the need to (1) support and attract private investments to fund ICT projects, (2) foster partnerships and collaboration between the private and public sector, or (3) preserve the central role of private investment in the digital economy.

Numerous strategies refer to public-private partnerships (PPPs) as a complementary source of finance. The most widespread approach consists of a general reference to synergies between the public and the private sector. In some cases, additional criteria are mentioned like the use of this business model when the private sector alone is reluctant to invest or when there is a need of investment in rural or remote areas. Residual approaches entail the establishment of special purpose vehicle companies, or reference to specific projects like data centres and geospatial data.

Some strategies also list other forms of financing sources. The most recurrent approach is a reference to official development assistance by institutional donors like the World Bank. In some strategies, other international organizations like the International Telecommunication Union (ITU) or the United Nations Educational, Scientific and Cultural Organization (UNESCO) are involved. Many European countries rely on the EU cohesion or pre-accession funds.

### 2. Foreign investment

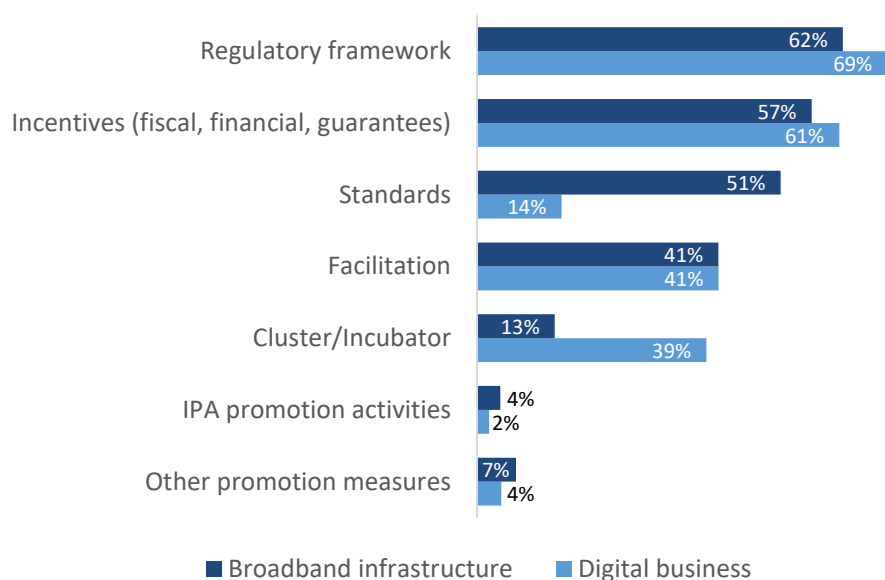
Less than half of digital strategies explicitly deal with the role of foreign investment. Foreign investment is considered more frequently in broader strategies for the development of digital businesses (figure 2). Three (partially overlapping) elements can be distinguished:

1. Strategies with an FDI component often underline the need to promote foreign investment as a means to develop the domestic broadband infrastructure. While many of these strategies are limited to this general objective, some give further details on where foreign investment is needed and what policy tools should be employed to make the country an attractive investment destination.
2. Numerous strategies also deal with the issue of linkages between foreign investment and domestic firms in the digital and related sectors. This can include partnerships or joint ventures between foreign and domestic companies to build broadband infrastructure. It can also include promoting linkages between foreign digital firms and domestic suppliers or local start-ups. One strategy targets at strategic alliances between foreign companies and the State. Some strategies seek to attract foreign investment through digital business clusters or mention the objective that linkages result in domestic upgrading.
3. Where strategies specify the types of activities in which foreign investment can play a role, apart from broadband infrastructure, these include digital services development, e-commerce or, more generally, research and development. One strategy highlights the ITES/BPO<sup>3</sup> industry. In another case, 'value added activities' are mentioned in the context of the telecommunication sector.

#### d. Investment promotion and facilitation

To promote and facilitate investment in broadband infrastructure or the digital industry, countries have included a range of policy tools in their strategies. These tend to focus on the strengthening of sector-specific regulations, as well as incentives and investment facilitation. While the development of digital standards takes a large share among the strategies including broadband infrastructure objectives, developing clusters or incubators takes a high proportion in the strategies including digital business objectives. A small minority of strategies explicitly acknowledges a role for investment promotion agencies (figure 3).

**Figure 3. Investment promotion and facilitation measures, by objective (Share of strategies)**



Source: UNCTAD digital strategies survey.

#### 1. Investment incentives

Among the strategies acknowledging the importance of private investment in broadband infrastructure development, 57 per cent propose the use of fiscal or financial incentives.<sup>4</sup> Similarly, in the case of strategies dealing with digital businesses, 61 per cent propose investment incentives (figure 3). Most fiscal incentives include tax reductions, including

<sup>3</sup> Information Technology Enabled Service/Business Process Outsourcing.

<sup>4</sup> Only includes those strategies that include references to any private investment needs (incl. private investment, PPPs and foreign investment).

tax credits or rebates, or the reduction of import duties. Financial incentives feature largely in the form of funds for investment, equity partnerships such as joint ventures, subsidies, credits and loans, and vouchers issued to SMEs.

## 2. Investment facilitation

Elements of investment facilitation can be found in 41 per cent of both strategies dealing with broadband infrastructure and strategies dealing with digital business development. Many of the proposed measures focus on facilitating entry of businesses, including the simplification or removal of licensing or permit requirements; streamlining of infrastructure development processes or identifying licensable areas or segments of the broadband sector, for instance the profiling of a licensable spectrum in broadband distribution. In addition, some measures focus on facilitating delivery of government information, including through electronic means (online platform), a single government portal providing general promotional information, specific government services, or other specialized services such as 'matchmaking'.

## 3. The role of investment promotion agencies

The role of investment promotion agencies (IPAs) is practically non-existent in digital development strategies. Only four of those strategies that acknowledge the importance of private investment foresee a specific role for their domestic IPAs. The most prominent approach is to promote foreign investment in the development of broadband infrastructure (e.g. through one-stop shops). In one case, the promotion agency is tasked with additional responsibilities, ranging from the participation in specific projects to the monitoring of the implementation of certain norms.

In digital strategies, IPAs are also given a relatively marginal role in comparison to other facilitators, such as clusters or incubators.

## 4. Other policy instruments

### *Investment-related regulatory framework*

Numerous digital strategies refer to the investment-related regulatory framework. In particular, they underline the need to amend and improve competition legislation, data protection rules, cybercrime laws, and intellectual property rights. Some other strategies do not include such details, but state in a more general manner that the country should provide an effective legal and regulatory framework to facilitate and encourage the development of the digital sector and the wider digital economy.

### *Clusters/Incubators*

Clusters or incubators are recorded in 13 per cent of strategies dealing with broadband infrastructure and 39 per cent of strategies dealing with digital business development. Most strategies refer to the establishment of business incubators for digital start-ups. Others envisage the establishment of IT Parks or certified incubator hubs, often linked to academic institutions.

### *Other promotional measures*

Some strategies include a variety of additional promotion tools. The most recurrent measure consists in the establishment of a competence centre as a way to spur the digital sector and enhance the usage of shared infrastructure. Other promotion instruments range from the establishment of advisory councils to the creation of ad hoc dispute resolution mechanisms.

## 3. Investment promotion agencies and the digital economy

### a. Background: UNCTAD survey of investment promotion agencies

From February to March 2017, UNCTAD conducted a survey of 276 investment promotion agencies on their prospects for foreign direct investment (FDI) and investment promotion and the digital economy.<sup>5</sup> A total of 93 questionnaires were completed, representing an overall response rate of 34 per cent. A geographical breakdown of the responses shows a relatively high response from agencies in Latin America and the Caribbean (table 2).

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<sup>5</sup> The cut-off date for the survey is 23 March 2017.

**Table 2. Response rates, by region (Number of respondents and share)**

	UNCTAD IPA database		Respondents		Response rate
Developed economies	62	22%	23	25%	37%
Developing economies	189	68%	63	68%	33%
<i>Africa</i>	61	22%	21	23%	34%
<i>Latin America and the Caribbean</i>	53	19%	23	25%	43%
<i>Asia and Oceania</i>	75	27%	19	20%	25%
Transition economies	25	9%	7	8%	28%
<b>Total</b>	<b>276</b>	<b>100%</b>	<b>93</b>	<b>100%</b>	<b>34%</b>

Source: UNCTAD.

The survey of IPAs confirms the importance of the digital economy, with more than 80 per cent of respondents considering it among the priority objectives of investment promotion (table 3). Only 8 of the 93 agencies responding to the survey indicate that this is not a priority area.

**Table 3. Priority of development of the digital economy (Number of respondents)**

	Priority		
	Yes	No	Do not know
Developed economies	22	1	0
Developing economies	49	7	7
<i>Africa</i>	18	2	1
<i>Latin America and the Caribbean</i>	17	3	3
<i>Asia and Oceania</i>	14	2	3
Transition economies	6	0	1
<b>Total</b>	<b>77</b>	<b>8</b>	<b>8</b>

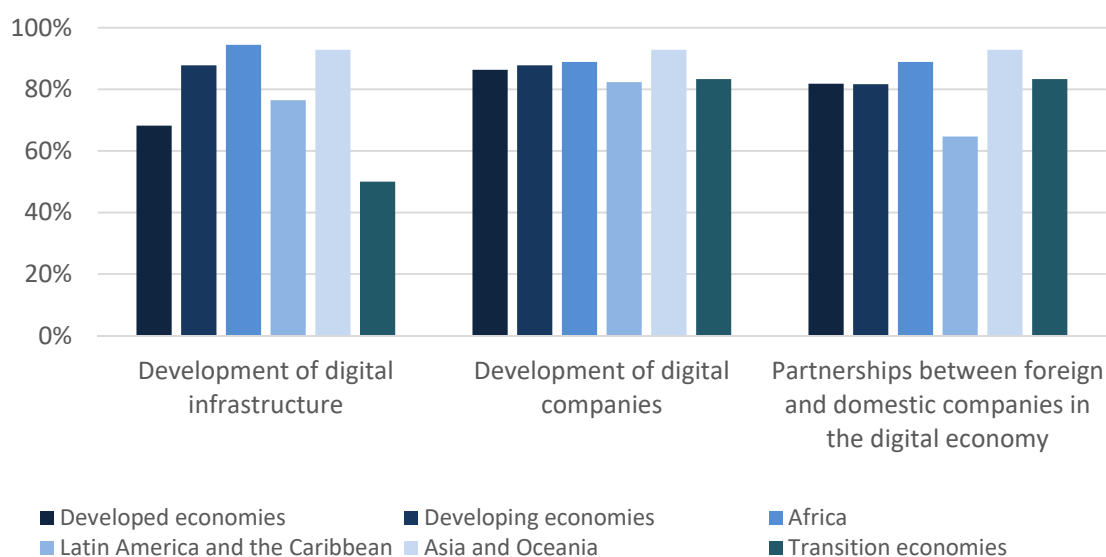
Source: UNCTAD IPAs survey.

## b. Areas for investment promotion

Investment promotion can play a key role in the development of both broadband infrastructure and the development of a digital industry. In fact, despite the limited role assigned to IPAs in digital development strategies, most agencies consider these two areas as a priority for investment promotion (figure 4). This suggests that policy coordination, between investment authorities on the one hand and ministries and public institutions charged with digital development on the other, could be improved.

The level of priority that IPAs assign to the promotion of investment into broadband and digital industries varies, mostly reflecting the current level of development in the countries where they are based. Most promotion agencies in developing regions target the development of digital infrastructure, while this is, to lesser extent, the case for developed countries and transition economies. On the other hand, almost all IPAs promote investments into digital companies or seek domestic-foreign partnerships to develop the digital economy.

**Figure 4. Priority areas for investment promotion (Share of responses)**

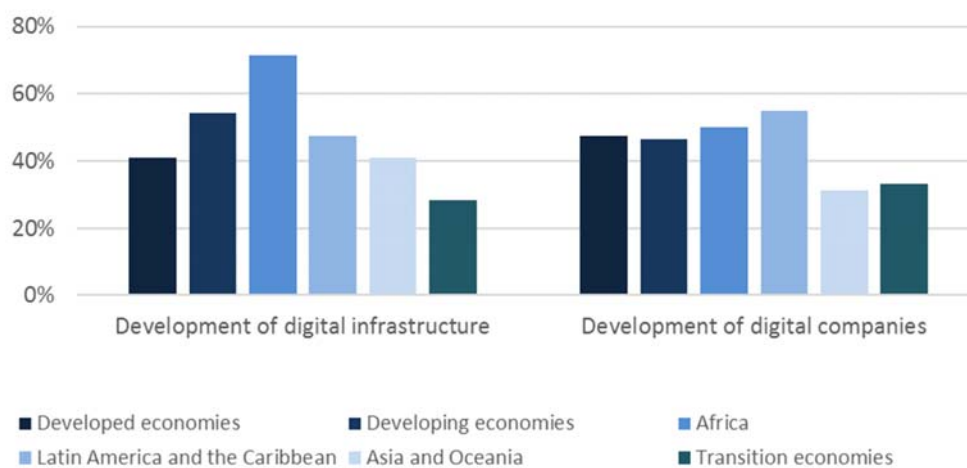


Source: UNCTAD IPAs Survey.

### c. Use of specific promotion instruments

Despite the evidence from the survey on digital development strategies, in which investment incentives and other facilitation measures are among the more frequently proposed initiatives to promote private investment, only about half of the investment promotion agencies indicate that their country has any incentives or other instruments in place that are specifically designed to attract investment into the digital economy (figure 5). Therefore, there could be a potential implementation gap when it comes to investment promotion. For digital infrastructure development, promotion instruments are more common among developing countries (in particular in Africa) than in developed or transition economies. Regarding the support for investment in digital companies, promotion instruments are somewhat more common in Latin America and the Caribbean, and less so in Asia and transition economies.

**Figure 5. Use of incentives or other instruments that are specifically designed to attract investment into the digital economy (Share of responses)**



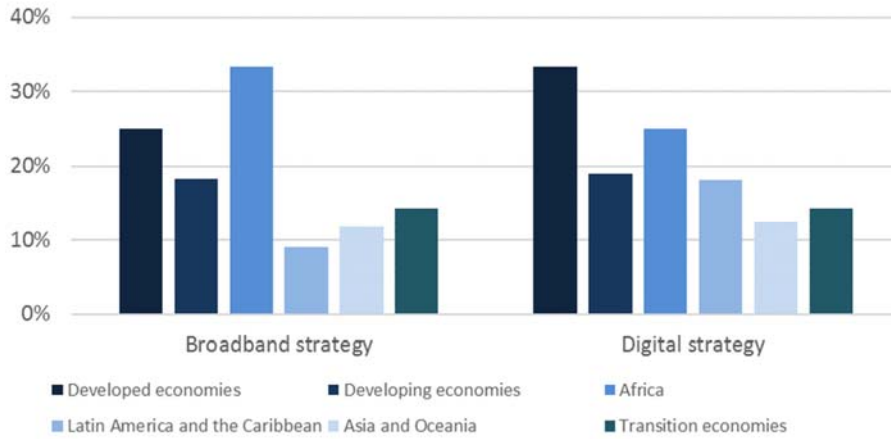
Source: UNCTAD IPAs Survey.



#### d. Investment promotion agencies and digital strategies

In line with the findings of the digital strategies survey, only about one in five investment promotion agencies indicate that they have been involved in the formulation of a broadband strategy or digital development strategy (figure 6). This confirms that there could be a coordination gap between investment authorities on the one hand and ministries and public institutions charged with digital development on the other. In general, coordination is most common in developed countries, in particular regarding digital strategies, and in Africa, in particular for broadband strategies.

**Figure 6. IPA involvement in the formulation of digital development strategies (Share of responses)**



Source: UNCTAD IPAs Survey.

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Considering the pressing need to increase investment in digital infrastructure and businesses, policymakers in charge of investment, on the one hand, and digital development, on the other, should work synergistically. The forthcoming *World Investment Report 2017*, on Investment and the Digital Economy, will provide policy recommendations on how to strengthen the investment dimension in digital development strategies.



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