

INVESTMENT PROMOTION AND THE DIGITAL ECONOMY: A COMPARATIVE ANALYSIS OF INVESTMENT PROMOTION PRACTICES ACROSS THE OECD

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KEY FINDINGS

Promoting investment in the digital economy

- ▶ Investment promotion agencies (IPAs) are at the forefront of government efforts to attract foreign direct investment (FDI) in the digital economy, with the top sectors promoted being: (1) software development; (2) data centres and cloud computing; (3) information communication and technology, and connectivity infrastructure; (4) digital health; and (5) artificial intelligence (AI) and machine learning.
- ▶ OECD IPAs are increasing the share of resources used to attract FDI in the digital economy compared to other sectors. While just over half dedicated at least 25% of their resources to the promotion of digital FDI before the COVID-19 crisis, this share has increased to over three quarters amid the pandemic and is foreseen to reach more than 90% in the near future.
- ▶ The main strengths identified by IPAs to attract digital FDI are a favourable business environment, the availability of digital skills and a favourable ecosystem, while major challenges include the lack of adequate skills, inefficient public institutions and a poor legal framework. Policy measures such as digital clusters and incubators as well as targeted investor outreach are more widely used than fiscal and non-fiscal incentives or broader supporting policies.
- ▶ While a minority of IPAs are actively participating in the design of national digital transformation strategies, 56% are occasionally consulted and almost a quarter not at all. IPAs are involved in other activities to increase the impact of FDI on the digital transformation, notably the promotion of digital innovation and research & development, digital-related policy advocacy and showcasing national flagship digital initiatives.

Using digital tools to promote and facilitate investment

- ▶ Over 90% of OECD IPAs pointed out that the pandemic accelerated the use of digital tools in their operations. The majority use social media campaigns, videoconferencing and internal e-communication. More sophisticated mechanisms to attract FDI – such as virtual site selection visits, digital customer support service and AI-based marketing – are less frequently used.

- ▶ As digitalisation is influencing the way IPAs operate, most IPAs report that digitalisation is prompting them to reduce the number of overseas trips and to adopt new techniques for investor outreach and targeting. Fewer IPAs are adjusting their monitoring and evaluation tools and the nature of their services, and a small minority of decisions seem to have a negative impact on human resources.
- ▶ All OECD IPAs report a certain extent of digitalisation of the process to invest and set up a business in their country, with nearly half having the majority of procedures online and over 30% having a fully digitalised process. Digital customer relationship manager systems are used by almost half of IPAs in their investment facilitation and aftercare efforts. Only a quarter host a digital portal for the digital delivery of services.
- ▶ In the future, the majority of OECD IPAs plan to extend the use of digital tools, particularly for promotion activities (investment generation, image building and FDI prioritisation) and to a lesser extent for investment facilitation and aftercare. The main challenges identified to expand IPA digitalisation are the cost of technology and the lack of adequate skills and experience.

Introduction

The digital economy has a profound impact on the global economic landscape. It has given rise to new firms and industries, transformed business models in traditional industries, and reshaped the organisation of the global economy (Gestrin M. and J. Staudt, 2018). It has also affected the way governments operate and deliver public services. Digitalisation is rapidly expanding, accelerated by the social and economic consequences of the COVID-19 pandemic, which plunged global FDI flows by 35% in 2020 compared to 2019. As these flows rebounded to USD 870 in the first half of 2021, more than double the flows recorded in the last half of 2020 (OECD, 2021), such investments are a key component of a resilient, sustainable and inclusive economic recovery. Many governments around the world have also placed investment in the digital economy at the centre of their recovery policies and plans.

The concept of digital economy can be understood and measured differently, making it difficult to design, implement and monitor effective policy actions. The OECD provides a broad definition of the digital economy, which incorporates all economic activity reliant on, or enhanced by, the use of digital inputs, including digital technologies, infrastructure, services and data. It refers to all producers and consumers, including government, that are utilising these digital inputs in their economic activities (OECD, 2020a). The digital economy creates new opportunities for growth and well-being, but also involves challenges for many policy communities, including the international investment one.

This policy note explores the different ways in which the digital economy affects investment promotion. As FDI can be a key driver of digital growth and transformation, IPAs are increasingly seeking to attract firms operating in digital sectors or activities. In turn, IPAs also need to undergo their own digitalisation to become more efficient and improve their performance. Investment promotion practices need to respond to the challenges posed by new technologies and adapt new business models – particularly in the COVID-19 context (OECD, 2020b). Digitalisation can also be an important component of governments' efforts to facilitate investment and simplify related procedures.

The findings presented in this note are based on the results of the *OECD survey on investment promotion and digitalisation* (Box 1), received from 36 national IPAs across the OECD, and complemented by additional research and analysis. The first part explores IPA efforts to promote investment in the digital economy while the second reviews their own internal digital transformation. It includes comparative evidence of investment promotion practices and experiences across OECD countries. The note was discussed with IPAs at the sixth OECD IPA Network Meeting on 13 October 2021.

Box 1. The OECD Survey on Investment Promotion and Digitalisation

In light of the rapid digital transformation of the economy, accelerated by the COVID-19 crisis context, the OECD designed a survey to collect systematic information on investment promotion and digitalisation. It aimed first to explore how IPAs have adapted their priorities to promote FDI in the digital economy and second to gain insight into how IPAs have adjusted their ways of working with digital solutions to attract and assist firms.

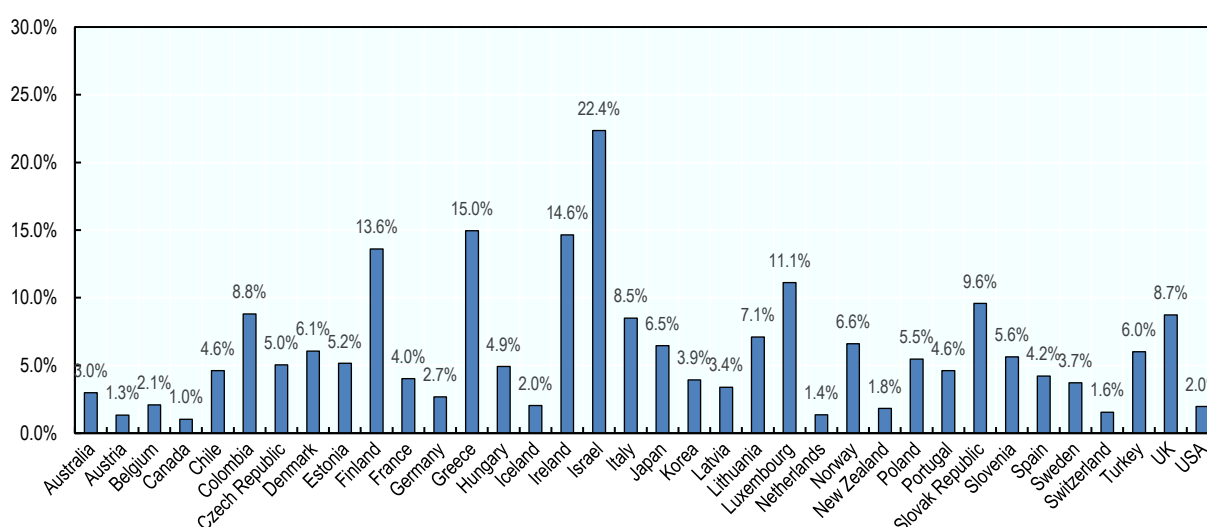
The survey was shared with IPA representatives from OECD countries in the form of an online questionnaire, which was completed between April and June 2021. The dataset includes national IPAs from the following 36 countries: Australia, Austria, Canada, Chile, Colombia, Costa Rica, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, Japan, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The data and information gathered through this survey serve as the primary source for this policy note.¹

1. Promoting investment in the digital economy

OECD countries have been actively attracting FDI to boost productivity, enhance overall competitiveness and support sustainable economic growth. As the digital economy has become a major driver of growth and innovation, it has also become a top priority for investment promotion. Virtually all countries are increasingly seeking to attract FDI in the digital economy, but not all have done so to the same extent. The share of FDI in the Information and Technology (IT) sector varies significantly across OECD countries (Figure 1). While the IT sector only partly reflects the digital economy's magnitude, it provides insights into the scope of digital FDI across the OECD.²

Figure 1. FDI stock in Information and Technology, 2019

(as a percentage of total FDI stock)



Notes: Information and Technology includes: 1) Publishing, computer programming and consultancy, information service activities, 2) Motion picture, video, television programme production; programming and broadcasting activities, and 3) Telecommunications; IT figures used for Belgium, Germany, the Netherlands, the Slovak Republic, Spain and the United Kingdom refer to 2018; data for FDI positions by industry are not available for Costa Rica and Mexico.

Source: Authors based on OECD FDI statistics (<https://stats.oecd.org>).

IPAs are at the forefront of government efforts to attract digital FDI, adopting – and adapting if needed – their investment promotion objectives and priorities. The sectors they target, the resources they dedicate, the tools they use and their role in broader digitalisation efforts are all key components of IPAs’ efforts to support the development of the digital economy through FDI. They need to leverage their economies’ main strengths and opportunities while also addressing potential challenges.

1.1. Objectives and priorities of IPAs

As countries seek to promote FDI in the digital economy, IPAs can undertake a panoply of activities to attract, help establish and retain investors. Their main mission is to attract inward investment to support economic growth and development through job creation, trade integration, and transfer of technology and knowhow. Increasingly, FDI is also expected to address more fundamental challenges, such as the ecological and digital transformation.

Overall, among OECD IPAs, fostering innovation and productivity was found to be the most important objective that IPAs seek to achieve through FDI promotion, according to the results of the *OECD survey on investment promotion and digitalisation* (Table 1). Other objectives such as providing quality jobs for all citizens, and promoting an open, export-oriented economy integrated in global value chains were also valued highly. Although the enabling of the digital transformation of the economy was seen by IPAs as an important objective, it ranked lower in importance. Some agencies indicated the importance of FDI promotion to support other government objectives, such as developing the indigenous Maori community in New Zealand or boosting the economy after the COVID-19 pandemic in Finland. Such objectives are not necessarily mutually exclusive – increasing the digital capacity and transformation of the economy is a prioritised objective in itself, while also essential for the immediate recovery and long-term resilience post COVID-19 (Stephenson, 2020).

Table 1. Main investment promotion objectives

(Ratings are from 1 to 5, where 1 = less important and 5 = more important)

Objectives	Average ratings
Fostering innovation and productivity	4.8
Providing quality jobs for all citizens	4.5
Promoting an open export-oriented economy integrated in global value chains	4.4
Supporting the development of less developed regions	4.2
Enabling the digital transformation of the economy	4.0
Supporting the transition to a low carbon economy	4.0

Note: IPAs responded to the following question: “What are the main objectives that your IPA and government seek to achieve through FDI promotion?”.

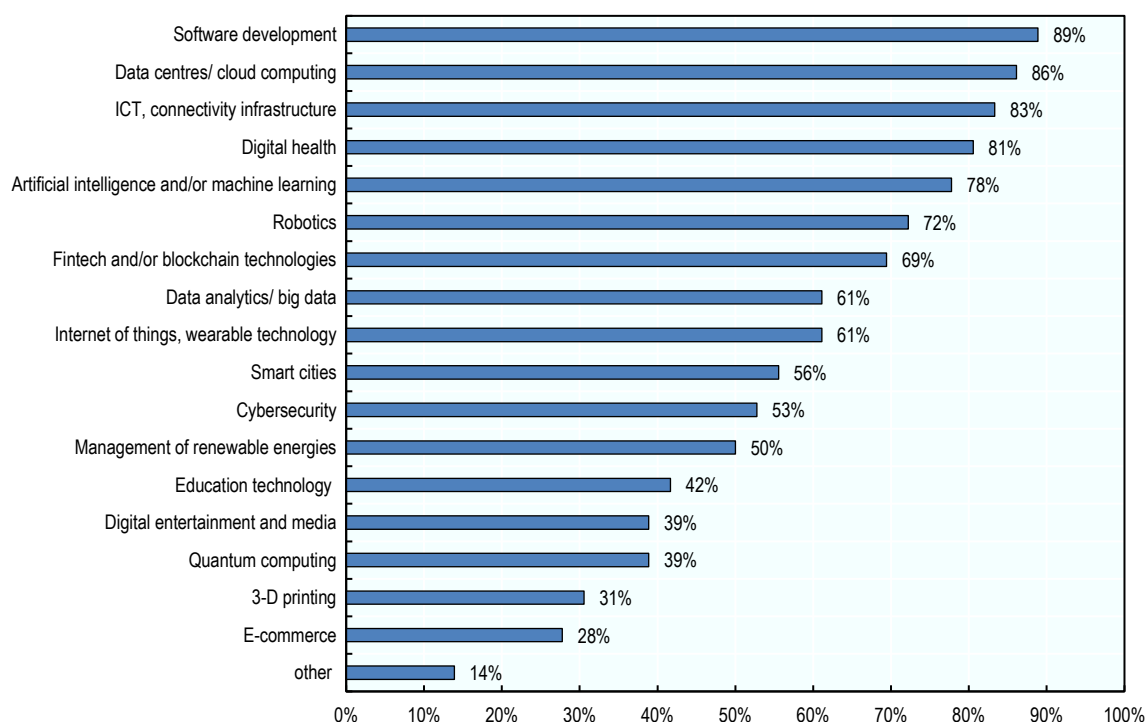
Source: OECD survey on investment promotion and digitalisation, 2021.

The importance of prioritising digitalisation is further highlighted, as all participating IPAs actively promote and target sectors and industries in the digital economy, with an average of 10 different digital industries actively promoted (among a list of 17). The top sectors include: software development; data centres and cloud computing; and Information Communication and Technology (ICT), followed closely by digital health and AI (Figure 2). FDI in e-commerce is the least promoted industry in the list despite its accelerated expansion towards new firms, customers and types of products during the COVID-19 crisis (OECD, 2020c), owing perhaps in part to the ambiguous employment effects.

IPA prioritisation strategies differ from one country to another, including in the digital economy. As Germany and Ireland both actively target all 17 of the digital industries listed in the survey, other IPAs such as Colombia, Italy, Mexico and Norway have a more focused approach by limiting their marketing efforts to a small number of industries (see Annex A for more specific data on individual approaches).

Figure 2. Share of IPAs targeting specific industries in the digital economy

(as a percentage of total IPAs)



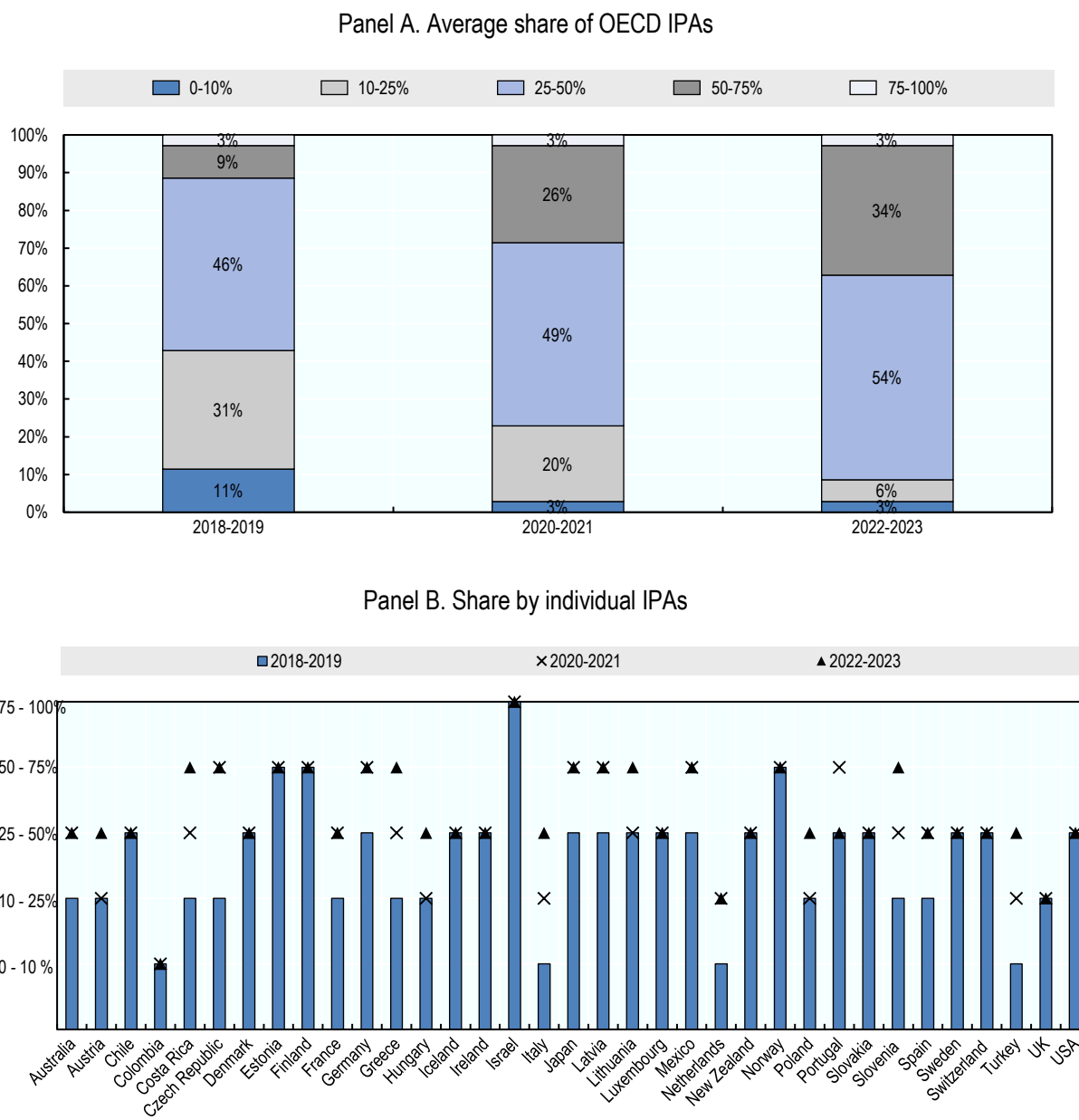
Note: IPAs responded to the following question: "What are the sectors/industries of the digital economy your IPA actively promotes and targets?".

Source: OECD survey on investment promotion and digitalisation, 2021.

While attracting FDI in digital sectors predates the COVID-19 pandemic, the crisis has served as a catalyst for further prioritising the digital economy. IPAs have increased their share of resources – time and staff – dedicated to attracting FDI in digital sectors compared to other sectors from the pre-pandemic period (2018-19) to the COVID-19 period (2020-21), with plans to increase this share further in the near-term (2022-23) (Figure 3, Panel A). While 58% of OECD IPAs dedicated at least 25% of their resources to promoting digital FDI before the crisis, this share increased to over three quarters (78%) amid the pandemic and is foreseen to reach the vast majority of agencies in the near future (91%).

Invest in Israel dedicates the most resources towards attracting FDI in digital sectors compared to other OECD IPAs with 75-100% of resources over all three time periods, followed by Estonia, Finland and Norway with 50-75% of resources (Figure 3, Panel B). A number of other IPAs – notably those from Australia, Costa Rica, the Czech Republic, France, Germany, Greece, Italy, Japan, Latvia, Mexico, the Netherlands, Portugal Slovenia, Spain and Turkey – have all increased their share of resources for attracting FDI in digital sectors since the crisis and some of them expect to increase them even more in the near future. Austria, Hungary, Lithuania and Poland have not increased these resources during the crisis, but expect to do so in 2022-23.

Figure 3. Share of resources IPAs dedicate to promote the digital economy compared to all sectors



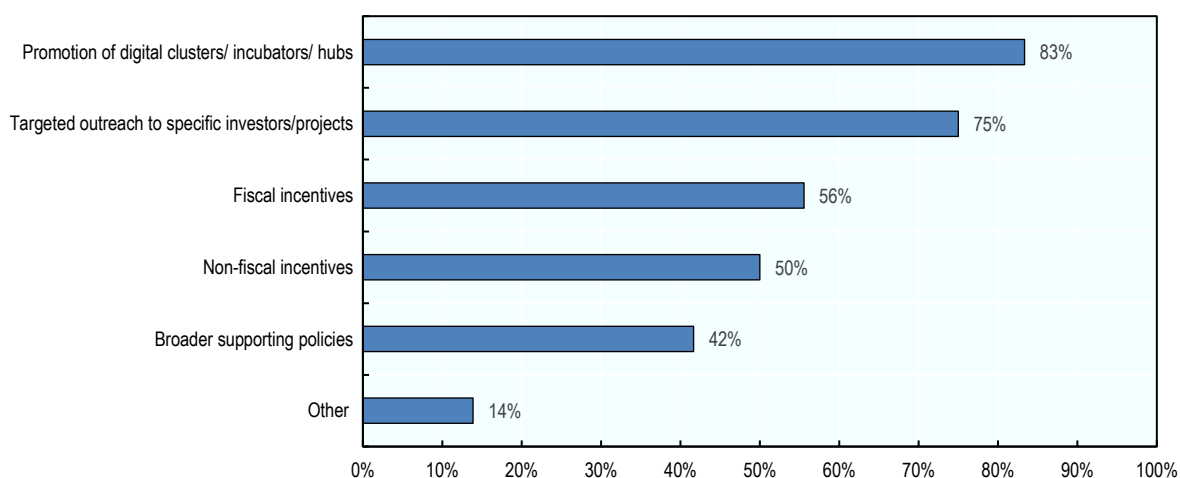
Note: IPAs were asked the following questions: "What share of resources (time, staff) does your IPA dedicate to attract FDI in digital sectors as compared to other sectors? Please indicate your estimates for the pre-pandemic period (2018-2019), COVID-19 periods (2020-2021) and short term future (2022-23)".
 Source: OECD survey on investment promotion and digitalisation, 2021.

1.2. Policies, strengths and challenges to promote digital FDI

IPAs have a variety of tools at their disposal to attract FDI in the digital economy: promotion of digital clusters, incubators and hubs is the main tool used, followed by targeted outreach to specific investors and projects (Figure 4). Fiscal and non-fiscal incentives are used to a lesser extent by agencies to directly target digital investment, although some IPAs find it an important policy tool. CINDE Costa Rica and New Zealand Trade and Enterprise (NZTE), for example, noted the lack of fiscal incentives as a major challenge to attract FDI in the digital economy.

Figure 4. Main policy tools used to attract FDI in the digital economy

(as a percentage of total IPAs)



Note: IPAs were asked the following question: “What are the main tools used to attract FDI in the digital economy in your country?”.

Source: OECD survey on investment promotion and digitalisation, 2021.

OECD IPAs, on average, stated that having a favourable, stable business environment was their country’s most important attribute as an attractive destination for investments in the digital economy (Table 2). This is aligned with the broader principles of the OECD Policy Framework for Investment highlighting that all firms – no matter their origin, size or sector in which they operate – need a sound, transparent and predictable business environment to invest and flourish (OECD, 2015).³ These findings are echoed by a global survey of investment decision makers in firms administered by the World Economic Forum in 2020. They found that the level of digital skills in the economy, regulatory stability and predictability as well as national and local regulatory frameworks were the most important factors for investing abroad in the digital economy (Stephenson, 2020).

Table 2. Main strengths and challenges to attract FDI in the digital economy

(Ranking based on the OECD average from reported IPAs)

	Strengths	Challenges
1	Favourable, stable business environment (overall)	Lack of digital skills and human capital
2	Availability of digital skills and human capital	Insufficient and inefficient public institutions and services
3	Favourable ecosystem	A challenging legal framework for digital investments
4	Favourable environment for R&D and digital innovation	Lack of adequate ecosystems
5	High-quality digital connectivity infrastructure and knowledge-based economy	Cumbersome FDI screening mechanisms or other rules/practices linked to national security concerns
6	Conducive legal framework	Underdeveloped digital infrastructure
7	Supportive and efficient public institutions and e-government services	Poor environment for digital R&D and innovation
8		Poor business environment (overall)

Note: IPAs were asked the following questions “What makes your country an attractive destination for investments in the digital economy?” and “What are your country’s main challenges to attract FDI in the digital economy?”.

Source: OECD survey on investment promotion and digitalisation, 2021.

The availability of digital skills and human capital; a favourable ecosystem and a favourable environment for research and development (R&D) and digital innovation; high quality digital connectivity infrastructure and knowledge-based economy; and a conducive legal framework were all also deemed important in attracting FDI in the digital economy. Conversely, OECD IPAs stated that the lack of digital

skills and human capital was the biggest challenge to attract FDI in the digital economy, followed by insufficient and inefficient public institutions and services, and a challenging legal framework for digital investments. Digital skills and human capital appear essential to attract digital FDI, as they are perceived as both an important strength and challenge. Favourable and adequate digital ecosystems also rank high in both categories.

Challenges that affect FDI for digital investments may also differ within a country, which may not affect the overall level of FDI but may lead to domestic inequalities. This was made evident by SelectUSA, which noted that the relatively unequal digital infrastructure within the United States, while not affecting overall FDI, could impact digital opportunities in different locations at subnational level. The issue of digital divide at the national level, and the intent to rectify it, is reflected in many countries' digital development strategies and investment promotion priorities (UNCTAD, 2017).

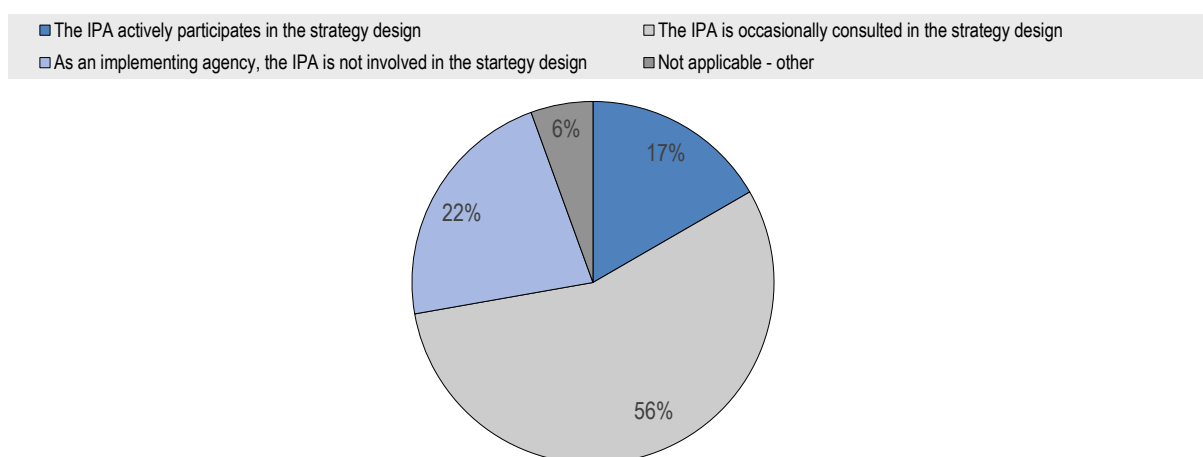
1.3. The role of IPAs in the broader digital transformation strategy

Digital transformation strategies are meant to adopt a whole-of-government approach in defining policy priorities, setting objectives and outlining actions for implementation.⁴ They encompass policies from different areas to develop the digital economy for growth, well-being and inclusiveness – while designing and implementing such policies may be a complex challenge for policymakers, successful digital transformation strategies can produce substantial benefits (OECD, 2020d). The OECD Going Digital Integrated Policy Framework and Going Digital Toolkit aim to help countries shape their digital transformation policies to achieve these goals.⁵ Investment promotion plays a critical part in these strategies, as private investment is necessary to build, expand and maintain digital infrastructure (e.g. broadband networks) and the complementary assets such as knowledge based capital (e.g. R&D).

Depending on their governments' institutional architecture and on their influence in investment and digital policymaking, IPAs can be more or less involved in preparing their country's digital transformation strategy. As most OECD IPAs are implementing or operational agencies, 56% of them are thus occasionally consulted in their government's digitalisation strategy design, while 22% are not involved at all (Figure 5). Only 17% of IPAs (Australia, Estonia, Israel, Italy, Mexico and the United Kingdom) are actively participating in the digitalisation strategy design.

Figure 5. IPAs' involvement in their government's digitalisation strategy design

(as a percentage of total IPAs)



Note: IPAs were asked the following question: "Is your IPA involved in the design of your government's broader digitalisation strategy?"
 Source: OECD survey on investment promotion and digitalisation, 2021.

A survey of 93 IPAs conducted by UNCTAD in 2017 on their prospects for investment promotion in the digital economy, found that the role of IPAs was practically non-existent in digital development

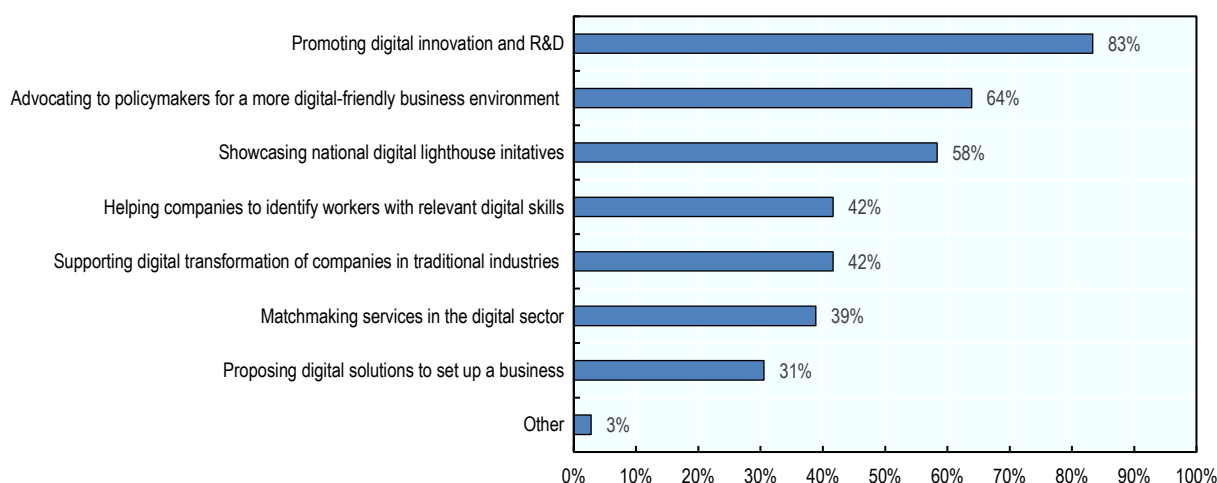
strategies. This was juxtaposed with the acknowledgement that IPAs considered the development of digital infrastructures and the digital industry as priority areas for investment promotion, thus suggesting that policy co-ordination between investment authorities and ministries and public institutions charged with digital development had room for improvement (UNCTAD, 2017). Compared with the results of the 2021 OECD survey, it suggests that either this relationship has indeed improved in the subsequent years or perhaps that OECD IPAs are more instrumental in the formation of digital strategies than their counterparts in non-OECD economies.

Apart from attracting FDI in the digital economy, IPAs can have other responsibilities to increase the impact of FDI on digital transformation. Most IPAs participate in promoting digital innovation and R&D, followed by advocating to policymakers for a more digital-friendly business environment and showcasing national digital lighthouse initiatives (Figure 6). IPAs' role to promote innovation and R&D is rapidly evolving, as 56% of them had innovation promotion as an official mandate in addition to inward foreign investment promotion in 2017 (OECD, 2018). While not necessarily integrating it as an official mandate, this clearly shows a tendency towards increased support for digital innovation and R&D promotion by IPAs. This is a welcome development from firms' perspective, as they believe that support for starting digital businesses, including from IPAs, is one of the most important elements in deciding whether to adopt new digital technologies (Stephenson, 2020).

Similarly, IPAs' important role as policy advocates, including on digital policies, reflects their unique role at the intersection of government and business (de Crombrughe, 2019). Policy advocacy activities, aiming to improve the investment climate, are becoming ever more important in the COVID-19 context, as FDI flows declined and policy uncertainty persists (2020b). Overall, all OECD IPAs are involved in other digital-related activities and services on a regular basis (3.6 activities on average out of 9 possible activities). The agencies from Israel, Luxembourg and the United Kingdom conduct all seven of the digital-related activities listed in the survey.

Figure 6. Digital-related activities performed by IPAs

(as a percentage of total IPAs)



Note: IPAs were asked the following question: "Does your IPA conduct other digital-related activities on a regular basis?".

Source: OECD survey on investment promotion and digitalisation, 2021.

Additionally, as non-equity modes of entry are on the rise in the context of increased digitalisation, IPAs could be tempted to adjust their investment promotion strategy accordingly.⁶ Respondents were split when it came to considering reshaping their strategy to address non-equity modes of entry, with half considering it, a minority (19%) seriously considering or planning it and just less than a third not considering it at all.

These findings suggest that while non-equity modes of investment are becoming more important for IPAs, traditional types of investments, particularly greenfield FDI and to a lesser extent mergers and acquisitions, are still the main priority and focus of IPAs. These conclusions are in line with the 2020 Global Investment Promotion Agencies Survey carried out by the World Bank Group (WBG) and the World Association of Investment Promotion Agencies (WAIPA) that found that 47% of IPAs surveyed were not considering non-equity modes of investment (Sanchiz Vicente and Omic, 2020).

2. Using digital tools to promote and facilitate FDI

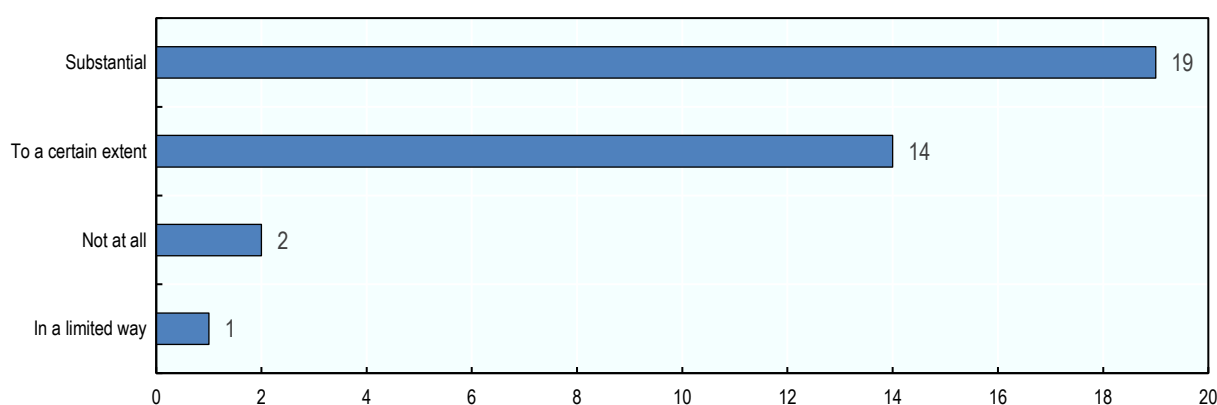
In addition to attracting digital FDI to support the digital transformation and modernisation of their economy, IPAs also need to undergo their own digitalisation to become more efficient and improve their performance. Investment promotion practices need to adopt new technologies and adapt to new business models. Digitalisation can also be an important component of governments' efforts to facilitate new investments and simplify related procedures.

2.1. The role of the pandemic in the IPAs' digital transformation

While many IPAs embraced digital transformation prior to the pandemic, the COVID-19 crisis has acted as a catalyst for the use of digital tools. The vast majority of OECD IPAs pointed out that the pandemic prompted the use of digital tools in their investment promotion activities, either substantially (53%) or to a certain extent (39%) (Figure 7). Previous OECD research found that IPAs rapidly switched to the use of creative digital tools and solutions to attract and assist firms in the first months of the pandemic (OECD, 2020b). IDA Ireland, for example, increased its use of digital tools for investment promotion following the onset of the COVID-19 pandemic (Box 2). According to the WAIPA-WBG survey, 64% of IPAs also organised webinars and e-meetings to gain knowledge of their main needs and concerns (Sanchiz Vicente and Omic, 2020).

Figure 7. Role of the COVID-19 pandemic in the use of digital tools by IPAs

(number of IPAs)



Note: IPAs were asked the following question: "To what extent has the COVID-19 pandemic prompted the use of digital tools in your investment promotion activities as compared to the pre-pandemic period?"

Source: OECD survey on investment promotion and digitalisation, 2021

As digitalisation and the development of digital tools is influencing the way IPAs operate and conduct their activities, it can lead to strategic internal decisions and reforms. Most IPAs have stated that the development of digital tools is prompting them to reduce the number of overseas trips while over three quarters have adopted new techniques to conduct investor outreach and targeting (Figure 8). About half are adjusting their monitoring and evaluation tools as well as their investor servicing and facilitation

tools. Few decisions seem to have had a negative impact on IPA staff, notably the number of staff, the number of offices abroad and the recruitment criteria.

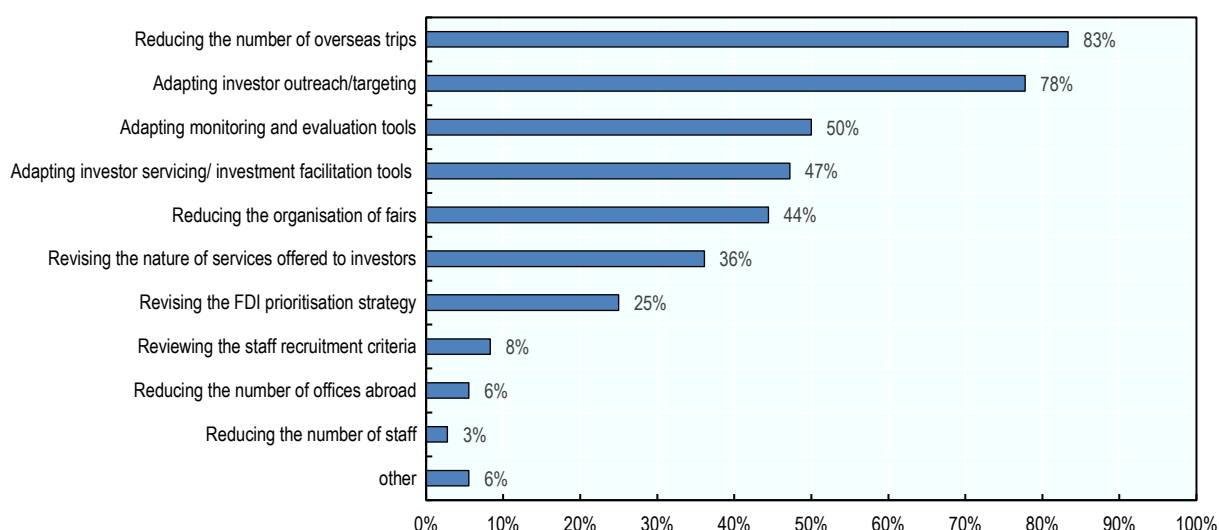
Box 2. IDA Ireland’s use of digitalisation in its COVID-19 response plan

IDA Ireland increased its use of digital tools following the onset of the COVID-19 pandemic, although this trend was to further incorporate and expand existing digital tools that were used by the agency prior to the pandemic. IDA Ireland engaged extensively with client companies through various platforms on a one-on-one basis and also through online events and webinars. It developed new customised tools over the course of 2020 to enable where possible investments to be won remotely, including the facilitation of remote site visits by client companies. IDA Ireland also made use of its digital capacities to provide a COVID-19 response plan that included a dedicated COVID-19 webpage and offered client companies support to access management consultancy services and online webinars to train their staff to support business continuity in the operations of client companies at the height of the pandemic.

Source: IDA Ireland

Figure 8. Influence of digitalisation on IPA strategic decisions

(as a percentage of total IPAs)



Note: IPAs were asked the following question: “Has the development of digital tools influenced strategic decisions of your IPA (both for the recent past and for the future)?”.

Source: OECD survey on investment promotion and digitalisation, 2021.

2.2. Main digital tools used to promote and facilitate investment

IPAs have a wide array of tools at their disposal to conduct their core investment promotion and facilitation functions, notably in terms of image building, investment generation, investment facilitation and retention, and policy advocacy.⁷ Digitalisation can help them in their marketing and attraction efforts as well as in their facilitation and aftercare services.

Social media campaigns are used almost unanimously by OECD IPAs to promote and attract FDI (Figure 9, Panel A). Most IPAs use LinkedIn for social media campaigns, while other platforms include Twitter, YouTube, Facebook, Podcasts, Instagram, Google campaign Manager and Hootsuite. According to the WBG/WAIPA survey, LinkedIn is the most effective social media platform for identifying and recruiting staff, identifying investors and gathering investor intelligence while Facebook is the preferred platform to inform the general public about the value of an IPA’s activities (Sanchiz Vicente

and Omic, 2020). Other tools used by a majority of IPAs include videoconferencing, e-meetings, webinars, virtual fairs as well as internal communications, management and collaboration tools are also widely used by IPAs.

Conversely, more sophisticated tools to attract foreign investors are less frequently used, notably virtual site selection visits, digital customer support service and AI-based marketing. About half of IPAs use big data analytics, for example to predict investors' behaviour or to prioritise and target specific investors accordingly. Many of these digital tools are meant to provide information to prospective and existing innovators through innovative means (Box 3). The IPAs from Costa Rica, Estonia, Finland, Israel and Turkey are among those that currently use the largest array of digital tools in their promotion efforts (Figure 9, Panel B). Many others are developing the use of such tools.

Box 3. Examples of digital tools used to raise awareness of investment opportunities

Business Finland

In addition to social media platforms, Business Finland has launched a podcast series – *Future with Finland* – in 2021. Business Finland utilises this platform to share the experiences of industry experts whose companies are achieving success in the Finnish market, covering topics such as digitalisation, innovation and AI.

New Zealand Trade and Enterprise

NZTE runs virtual investment showcases where companies can pitch for capital in a live showcase format that is broadcasted globally and where investors and prospective investors join online. In early 2021, as a direct response to COVID-19 and in order to have a digital channel incorporated in their business model, NZTE launched a free online platform – Live Deals – to connect qualified investors with live investment opportunities in New Zealand as well as with potential investees and partners. NZTE's investment education platform, InvestED, provides courses with short videos, exercises and instructional content curated by the NZTE investment team for investees to learn about the capital raising process.

Business Sweden

Business Sweden provides an interactive online site selection map to ease investment attraction and facilitation by finding available sites best suitable for potential businesses. Their site finder showcases the best locations to investors, with around 150 larger greenfield and brownfield sites promoted. Each site is presented with specifics such as property type, size, infrastructure details and suitable sectors along with pictures. The online interactive map also encompasses information and analysis around a location, such as where specific industry clusters are located and type of demographics, talent pool or how many potential customers are reachable within different radius or drive-time zones from each location.

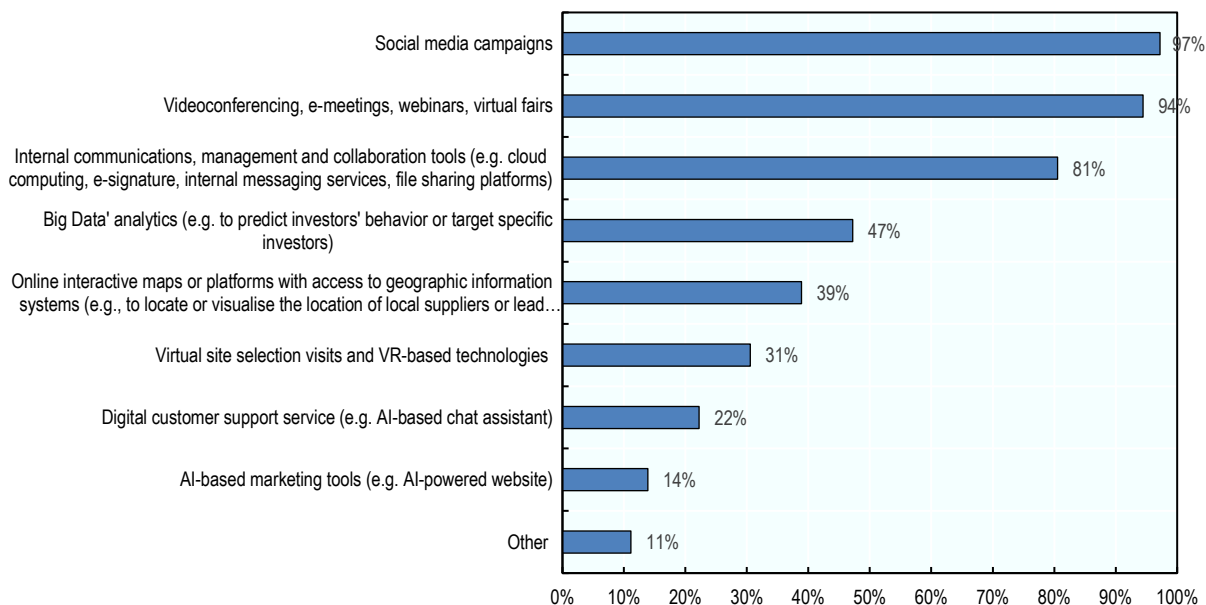
Switzerland Global Enterprise

Switzerland Global Enterprise's digital tool – *Switzerland Business Navigator* – assists potential investors by satisfying customer needs digitally and providing support through the whole customer journey. The tool provides business development support and helps investors find a location for a particular business with an option to compare locations based on certain criteria. It provides information on demographics, business and industry data, potential talent pool and the community for each particular region, canton or city. The service makes use of visualising big data and provides detailed information such as the amount of industry clusters in a specific area, top start-ups, real estate prices, corporate taxes, infrastructure, etc.

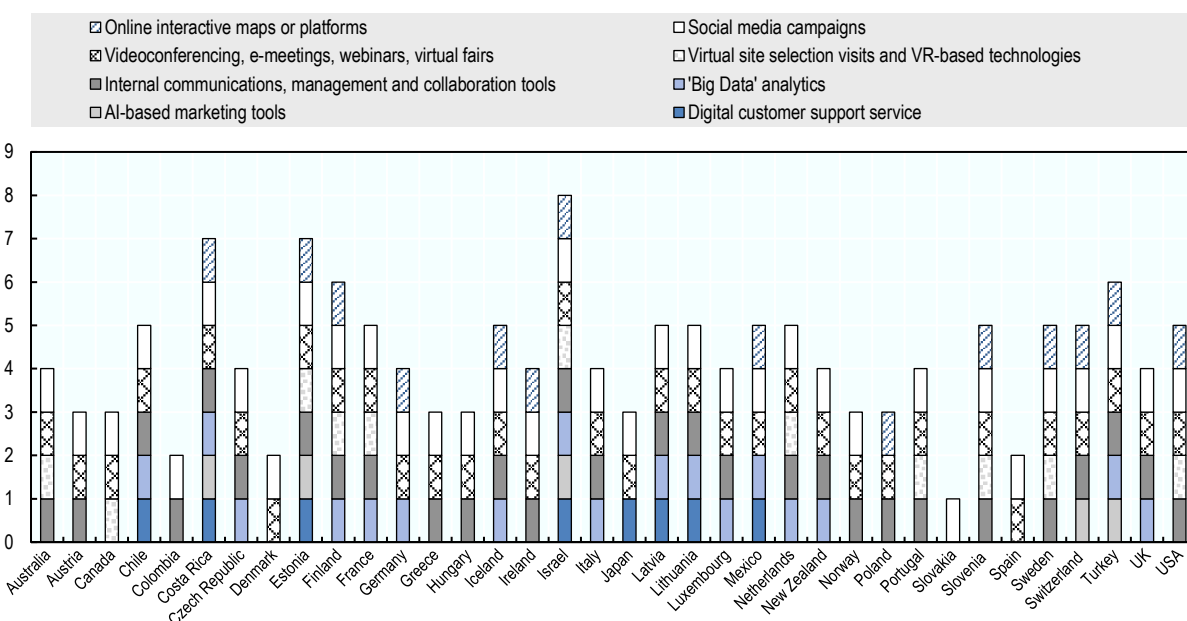
Source: Business Finland, NZTE, Business Sweden and Switzerland Global Enterprise.

Figure 9. Scope of digital tools used by IPAs to promote and attract FDI

Panel A: As a percentage of total IPAs



Panel B: By individual IPAs



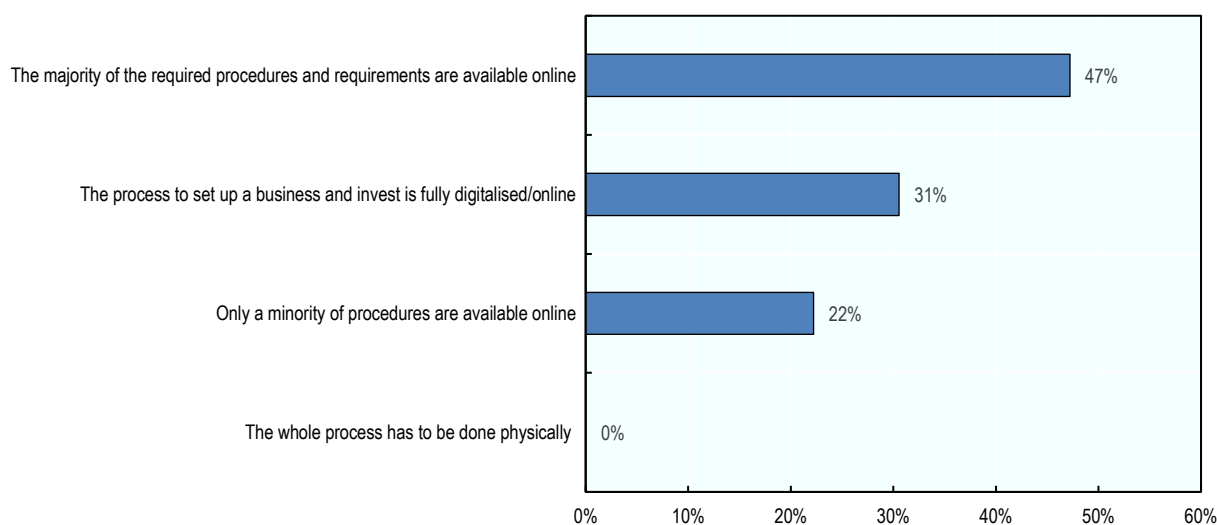
Note: IPAs were asked the following question: "What digital tools does your IPA use to promote and attract FDI?".

Source: OECD survey on investment promotion and digitalisation, 2021.

Digitalisation can also support investment facilitation, which is usually associated with investor servicing and aftercare activities by IPAs but also with broader government services to increase the transparency of the legal framework, improve the process to establish and expand a business, and reduce administrative burden (Novik and de Crombrughe, 2018). All OECD IPAs report a certain extent of digitalised procedures to invest and set up a business in their country. While just below half have the majority of the required procedures and requirements available online, 31% have the entire process to set up a business and invest fully online (Figure 10).

Figure 10. Digitalisation of the process to set up a business and invest

(as a percentage of respondents)



Note: IPAs were asked the following question: “In terms of investment facilitation, to what extent is the process to invest and set up a business digitalised in your country?”

Source: OECD survey on investment promotion and digitalisation, 2021.

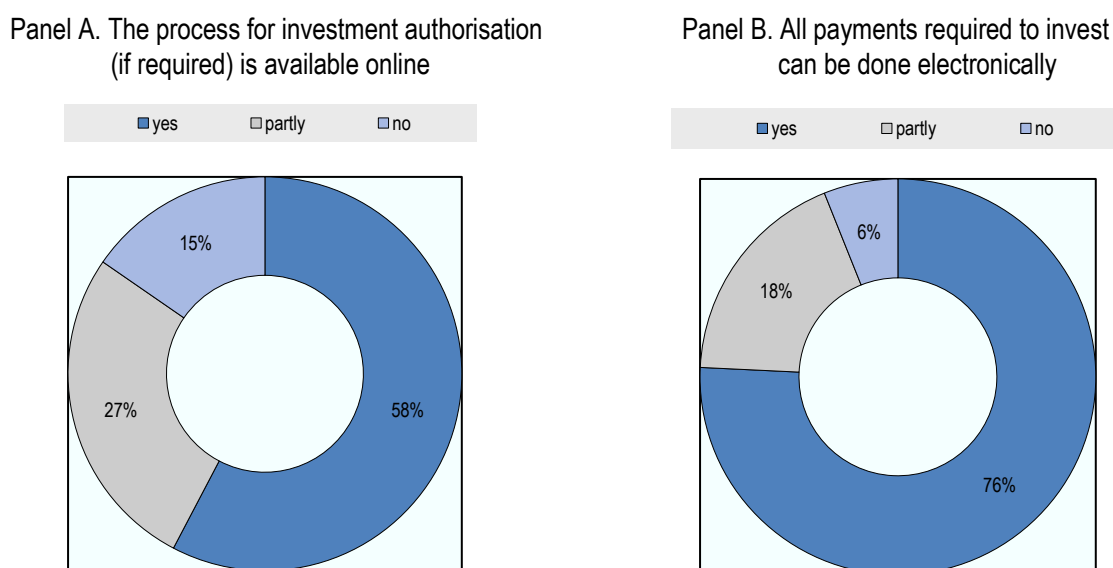
Conversely, 22% of countries have only a minority of the procedures available online. IPAs also report that a majority of specific procedures can be done online, including to request an investment authorisation whenever necessary (Figure 11, Panel A) and to perform the required payments in the investment process (Figure 11, Panel B). Some countries have established digitalised tailor-made processes according to the profile of the investors (Box 4).

Box 4. Israel’s online and tailored investment manual

Israel has embraced digitalisation with their entire process to set up a business and invest being fully online, including the procedures related to the investment authorisation and required payments. Invest in Israel’s website provides a short questionnaire that makes an investing manual specific to the needs of the investor according to the company profile. The online tailored investment manual provides the necessary information on registering the company, land tenure, building permits, business licensing, operations as well as information on grants and benefits. The manual details the necessary steps and documents as well as the costs and time frame for each aspect of the investment process.

Source: Invest in Israel

Figure 11. Availability of specific online procedures (as reported by IPAs)

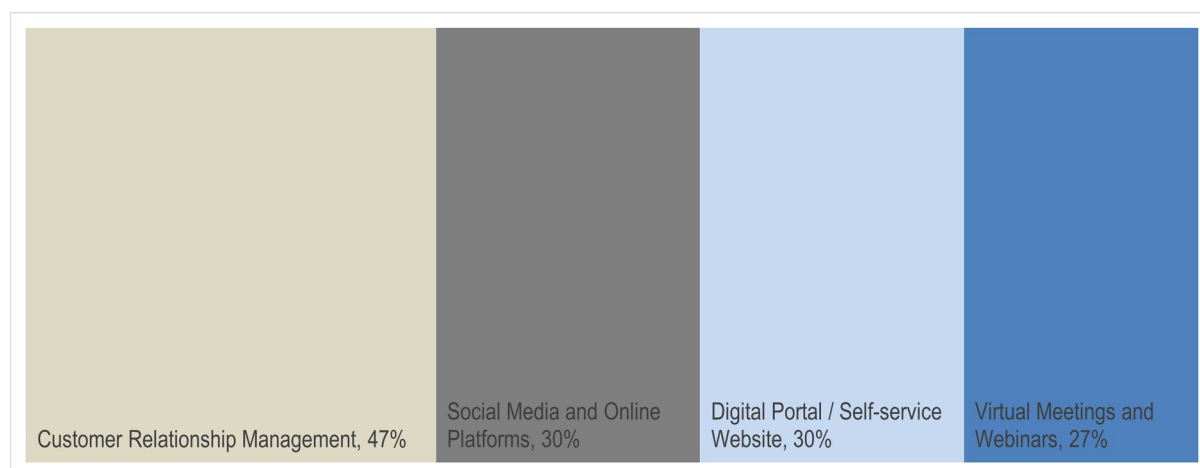


Source: OECD survey on investment promotion and digitalisation, 2021.

IPAs can support their governments' broader investment facilitation efforts with targeted facilitation, retention and aftercare services, including using digital tools. The main digital tools used by IPAs in this regard are digital customer relationship management (CRM) systems, used by almost half of the agencies to track information on the progress of their facilitation and aftercare activities (Figure 12). Some specific examples of the use of these digital tools for investment facilitation and retention are illustrated in Box 5.

Figure 12. Main digital tools used by IPAs for investment facilitation, retention and aftercare

(as a percentage of total IPAs)



Note: IPAs were asked the following question: "Please briefly explain the digital tools used by your IPA to conduct investment facilitation, retention and aftercare activities."

Source: OECD survey on investment promotion and digitalisation, 2021.

Box 5. Digital investment facilitation and aftercare tools used by IPAs

Invest Lithuania

Invest Lithuania has established a CRM system to support their facilitation and retention efforts that allows them to view the whole customer's journey digitally in one place from automated marketing campaigns to investment projects. All communication between Invest Lithuania and their clients, including any problems during the investment process as well as the investment parameters, are tracked here. The system also provides reminders for investment advisors to perform "health check-ups" with their clients to ensure a high level of customer service.

CzechInvest

CzechInvest makes use of a CRM and a Power BI that encompasses a power business intelligence tool that analyses the data and displays in real time current projects and statistics (e.g., number of projects, amount of investment). The business intelligence tool is also used to analyse and show macroeconomic data in real time, which allows all employees to have access to this data and have it readily available to update and provide to their clients. Similarly, it is possible to access regional benchmarking and a database of local partners.

CINDE Costa Rica

As part of their investors' services, CINDE Costa Rica incorporates digital tools in their talent development initiatives, such as their FutureUp programme that is directed at matching the supply of knowledge economy jobs with the demand. The programme uses an AI-based digital employment orientation platform that predicts and recommends learning paths to ensure users' employability opportunities, personalised based on experience, capabilities and interests.

Source: Invest Lithuania, CzechInvest and CINDE.

CRM systems are a crucial component of IPAs' monitoring and evaluation (M&E) systems (Sztajerowska, 2019). They have become an increasingly more important tool in light of COVID-19, where features such as a well-developed client database with readily available essential information can allow agencies to avoid pitfalls such as communication and information gaps due to remote work (OECD, 2020b). Digitalisation can also help change the way investment promotion is evaluated, as granular information can more easily be generated and stored via digital means (Sztajerowska and Volpe Martincus, 2021). The United Kingdom's Department for International Trade (DIT), for example, seeks to improve its M&E framework thanks to the digitisation of services and data collection (Box 6).

Box 6. DIT's objective to improve M&E through digitalisation

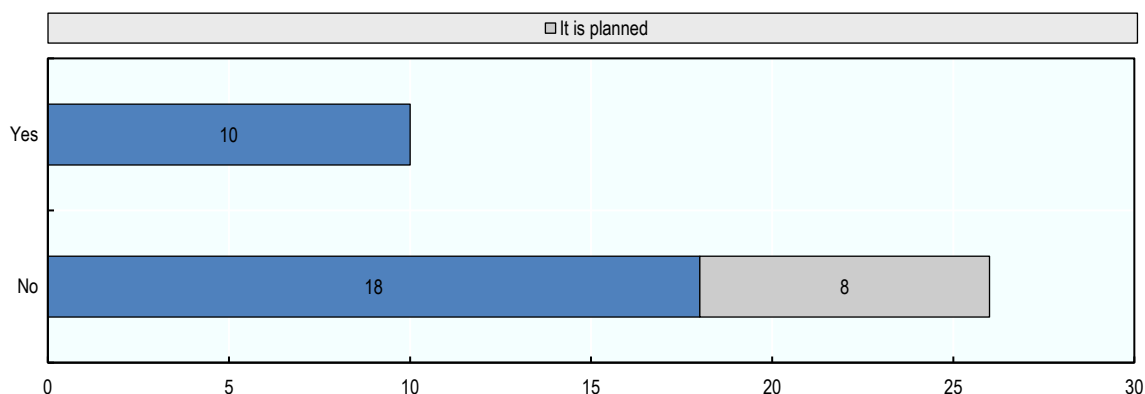
Digitalisation of both services and data collection enables the potential for deeper monitoring and evaluation. Designing digitalised solutions within the same underlying M&E framework strengthens the insights the investment journey yields through effectiveness of series, productivity of DIT and accuracy of data collection. This, in turn, improves survey instruments and helps understanding the satisfaction of the services they deliver and how this can be directly linked to the M&E framework. The aim is that digitalisation will enable the long-term vision that DIT will continue to improve in regard to the services they provide to their clients.

Source: DIT.

IPAs can also support the transparency of the business establishment process, notably by hosting a digital portal or single window for the digital delivery of services to customers. While only 28% of OECD IPAs have such a mechanism in place, less than a quarter is considering developing one (Figure 13).

Figure 13. IPAs with an investor portal for the digital delivery of services

(number of IPAs)



Note: IPAs were asked the following question: “Does your IPA host an investor portal or single window for the digital delivery of services to customers? If no, is it planned?”

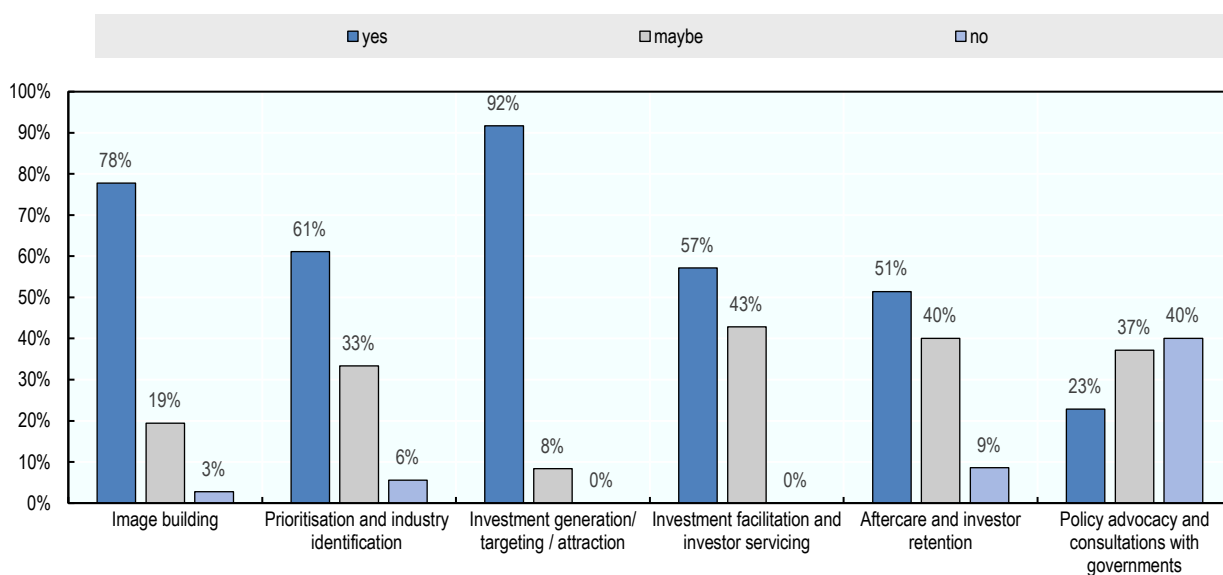
Source: OECD survey on investment promotion and digitalisation, 2021.

2.3. The way forward

As highlighted above, a majority of IPAs are considering putting further emphasis on digital FDI promotion in the near future. Similarly, the vast majority of OECD IPAs plan to extend the use of digital tools and processes in their investment promotion and facilitation activities. As this is not necessarily possible or easy for all IPA functions, it is particularly prominent for investment generation and image building as well as for prioritisation and industry identification purposes (Figure 14). Policy advocacy, by its very nature, is the function for which IPAs least expect the expansion of digital tools, while investment facilitation and aftercare are those for which IPAs are most uncertain.

Figure 14. Estimate use of digital tools and processes by IPAs in the future

(as a percentage of total IPAs by function or activity)



Note: IPAs were asked the following question: “Are you planning to extend the use of digital tools and processes for investment promotion and facilitation in the future?”

Source: OECD survey on investment promotion and digitalisation, 2021.

The increasing digitalisation of IPAs does not come without challenges, however. The main hurdles identified by OECD IPAs to integrate digital tools in their activities are costly technology, lack of adequate skills or training and lack of experience (Table 3). This suggests that it is key to allocate adequate budgets to IPAs to equip them with the technologies and skills necessary for their digital transformation. The difficulty to monitor and evaluate the effectiveness of digital tools and the potential lack of evidence of their impact on FDI project realisation are perceived as moderate challenges. While inter-institutional co-ordination is not identified as a major challenge, it is still an important aspect that reflects the convening role of IPAs on investment policy development within government, including those related to digitalisation (OECD, 2018).

Table 3. Main challenges to integrate digital tools in IPA activities

(Ratings are from 1 to 5, where 1 = more important and 5 = less important)

Challenges	Average ratings
Costly technology	3.03
Lack of adequate skills or training	3.17
Lack of experience	3.17
Difficult to monitor and evaluate	3.49
Insufficient evidence of efficiency and impact on FDI project realisation	3.60
Necessity to co-ordinate with other agencies	3.66
Difficult to change the corporate culture	3.71

Note: IPAs were asked the following question: "What are the main challenges for integrating digital tools in your IPA's core activities?"
Source: OECD survey on investment promotion and digitalisation, 2021.

While IPAs seek to overcome challenges to attract investment in the digital economy and integrate digital solutions in their activities and strategies, the OECD will maintain the ongoing dialogue within the OECD IPA Network on the implications of the digital economy and digitalisation on investment promotion practitioners. Some lessons learned emerge that would deserve to be further explored in the future:

Promoting investment in the digital economy:

- There are large disparities among the different sectors of the digital economy that are primarily targeted by IPAs (i.e. software development, data centres, ICT, digital health and AI) and those that are being a low priority, such as e-commerce, 3-D printing, and digital entertainment and media. While most IPAs seem to attract the same digital industries, few countries choose to specialise in a selected number of digital sectors, potentially reflecting the rapid evolution of the digital economy. As a targeted approach can sometimes yield better results, IPAs need to strike a balance between adopting a wide-ranging strategy and being more selective in the digital industries prioritised for investment promotion.
- A favourable business environment, the availability of digital skills and a favourable ecosystem are identified as the most important attributes to attract digital FDI. This highlights IPAs' important role in promoting digital clusters in their FDI attraction efforts, supporting digital innovation and R&D, and advocating for more digital-friendly policies. Digitalisation can also act as simplifier and enabler of enhanced public-private communication, eventually leading to business climate improvements.
- The lack of digital skills and human capital is the main challenge addressed by IPAs to attract FDI in the digital economy. This reinforces the need for IPAs to be more involved in creating an attractive labour market for the digital economy and in helping companies identify the workers with the necessary digital skills.
- As many IPAs are seeking to attract investments in AI from developers of AI models or firms that use AI applications, IPAs and policymakers need to build trust in AI and other new technologies, including in terms of the regulatory systems that support or promote AI uses?⁸

Using digital tools to promote and facilitate investment:

- While many agencies report that their digital tools have expanded and will expand further, it seems a number of IPAs are mostly building on existing tools like social media, rather than shifting to online investment promotion tools. In this context, the main challenges identified by IPAs to expand their digitalisation process are the cost of technology and the lack of adequate skills and experience, but challenges related to the measurement of activities and organisational aspects also prevail. IPA digitalisation is a long-term process and requires a corporate strategy.
- Digitalisation of IPAs is not yet fundamentally changing how they plan to do investment promotion, as they report that reducing overseas trips and adapting investor outreach are the main strategic internal changes. In the long run, IPAs may plan to further transform their business models beyond cutting travel costs to develop new FDI attraction techniques, improve their M&E frameworks and adapt the nature of services offered to investors, but this could have more profound organisational implications.
- In terms of investment facilitation, many procedures and requirements to invest and set up a business are still not accessible online, although the COVID-19 pandemic has accelerated the digitalisation of investment procedures. Successful digitalisation of investment procedures requires a whole-of-government approach. The availability of e-government services makes a real difference for firms when they establish, operate and expand.

Annex A. IPA prioritisation strategies in the digital economy

Table A.1. Sectors and industries of the digital economy actively promoted by individual IPAs across the OECD

	Australia	Austria	Canada	Chile	Colombia	Costa Rica	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Iceland	Ireland	Israel	Italy	Japan	Latvia	Lithuania	Luxembourg	Mexico	Netherlands	New Zealand	Norway	Poland	Portugal	Slovak Republic	Slovenia	Spain	Sweden	Switzerland	Turkey	United Kingdom	United States					
ICT, connectivity infrastructure	√	√	√	√	√		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√				
E-commerce												√	√			√			√				√	√						√				√	√	√	√				
Software development		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√			√	√	√	√	√	√	√	√	√	√	√	√			
Robotics	√	√	√	√			√	√	√	√		√		√		√	√		√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√	√	√	√			
Quantum computing	√	√	√					√		√	√	√				√	√		√			√		√			√									√		√			
Data centres / cloud computing	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√		
Digital entertainment & media	√		√			√						√			√	√	√				√		√	√	√				√	√					√		√	√			
Cybersecurity	√	√	√			√	√		√	√	√	√				√	√		√			√		√			√	√				√			√	√	√	√			
Internet of things, wearable technology	√	√					√		√	√	√	√	√			√	√		√	√	√	√	√	√			√	√			√	√	√	√	√	√	√	√	√		
Digital health	√	√	√			√		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	
Education technology	√								√	√	√	√	√			√			√	√	√	√	√	√	√						√			√	√	√	√	√	√		
Data analytics / big data			√			√	√			√		√	√	√	√	√	√	√	√	√	√	√	√	√	√			√	√		√	√		√	√	√	√	√	√	√	
Artificial intelligence / machine learning	√	√	√	√			√	√	√	√		√		√		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Fintech / blockchain	√		√	√	√	√			√	√		√			√	√	√		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Smart cities	√		√				√		√	√	√	√	√		√	√	√		√	√	√	√	√	√	√			√	√	√	√	√	√	√	√	√	√	√	√	√	√
Management of renewable energies	√		√						√	√	√	√	√		√	√	√		√	√	√	√	√	√	√	√			√	√					√	√	√	√	√	√	√
3-D printing		√										√				√	√		√	√	√	√	√	√	√							√	√	√	√	√	√	√	√	√	√
Other				√								√				√							√	√	√	√	√														

Source: OECD survey on investment promotion and digitalisation, 2021.

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Notes

¹ The same survey was used for a parallel project on investment promotion and digitalisation in the Middle East and North Africa (see [EU-OECD Programme on Investment in the Mediterranean](#)).

² Digital FDI refers, in this note, to investment in all sectors of the digital economy, as defined in the introduction.

³ The [OECD Policy Framework for Investment](#) aims to mobilise private investment that supports steady economic growth and sustainable development, contributing to the economic and social well-being of people around the world. Drawing on international good practices, it proposes guidance in twelve policy fields critically important for improving the quality of a country's enabling environment for investment.

⁴ According to the OECD, "digitisation is the conversion of analogue data and processes into a machine-readable format. Digitalisation is the use of digital technologies and data as well as interconnection that results in new or changes to existing activities. Digital transformation refers to the economic and societal effects of digitisation and digitalisation" (OECD, 2019, p.18).

⁵ The OECD Going Digital Integrated Policy Framework highlights seven interrelated policy dimensions needed to bring together multiple policy domains: access, use, innovation, jobs, society, trust and market openness. All policy dimensions as well as a consideration of transversal policy issues (e.g. gender, skills, digital government and data governance) need to be considered for successful digital transformation strategies. The [OECD Going Digital Toolkit](#) helps countries assess their state of digital development and formulate policies in response.

⁶ Non-equity modes of investment are flexible in nature and are rising in importance due to their ability to disperse knowledge, technology and skills (UNCTAD, 2011).

⁷ The work of IPAs is usually categorised into four core functions (OECD, 2018): (i) image building consists of fostering the positive image of the country and branding it as a profitable investment destination; (ii) investment generation deals with direct marketing techniques targeting specific sectors, markets, projects, activities and investors; (iii) investment facilitation and retention is about helping investors establish, operate and expand; and (iv) policy advocacy aims to identify investment climate bottlenecks and provide recommendations to address them.

⁸ The OECD considers that AI is a general-purpose technology that has the potential to improve the welfare and well-being of people, to contribute to positive sustainable global economic activity, to increase innovation and productivity, and to help respond to key global challenges. Alongside benefits, AI also raises challenges for our societies and economies. Against this background, the OECD developed the [OECD Principles on AI](#) to provide a set of internationally-agreed principles and recommendations to promote AI that is innovative and trustworthy and that respects human rights and democratic values.

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