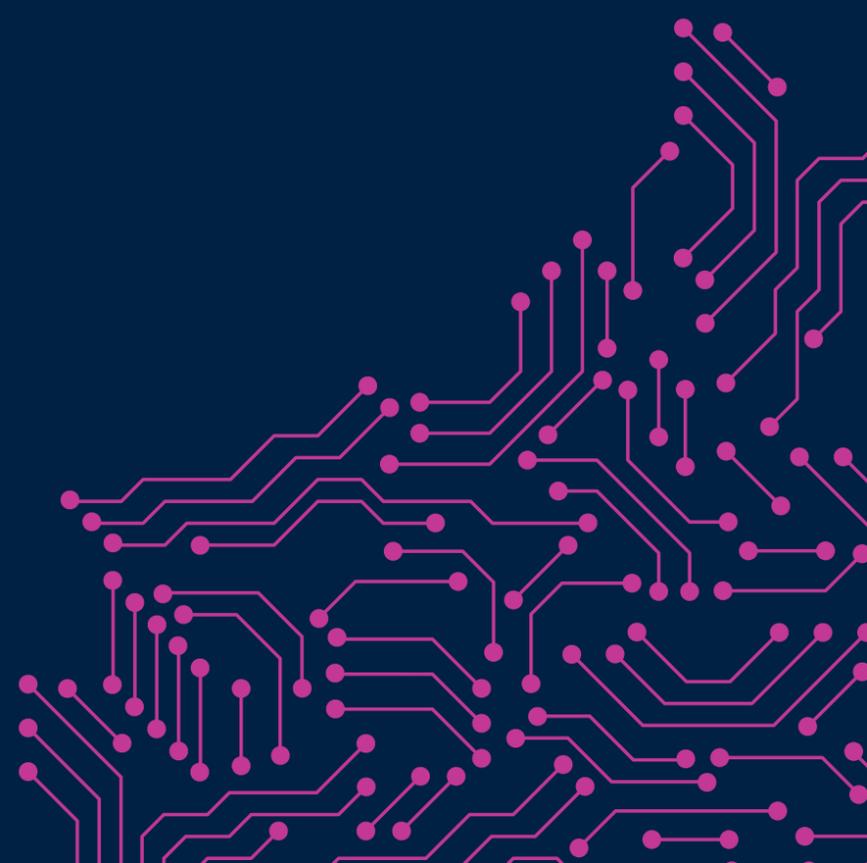
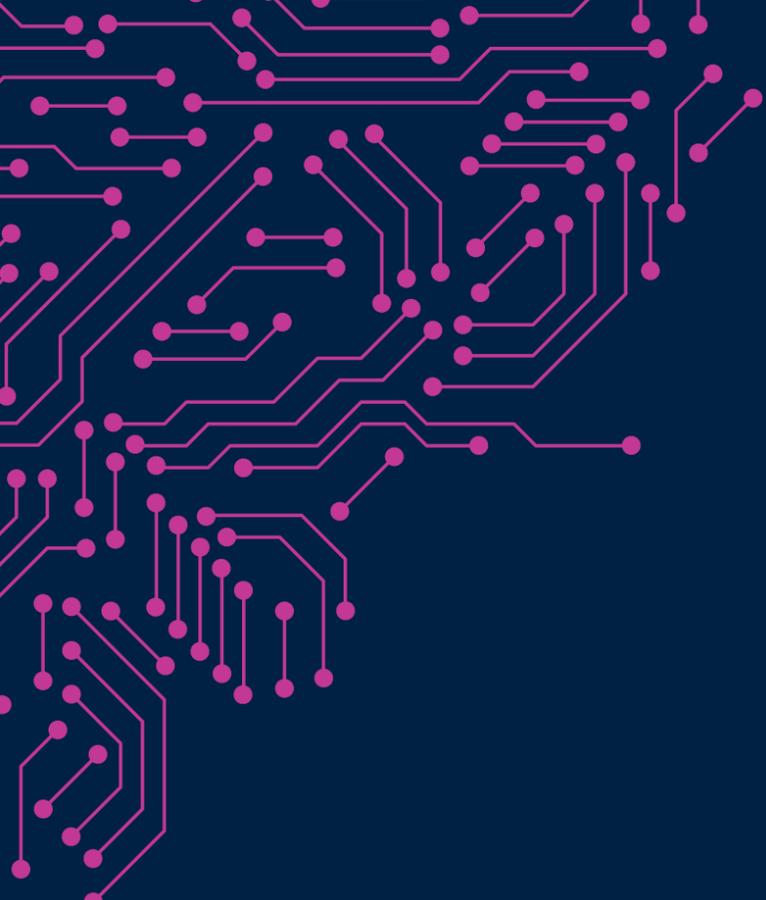


FINTECH, DIGITAL FINANCE AND FUNDING:

# How the development sector is channeling money to digital financial services

MIX | JULY 2020





# Acknowledgements

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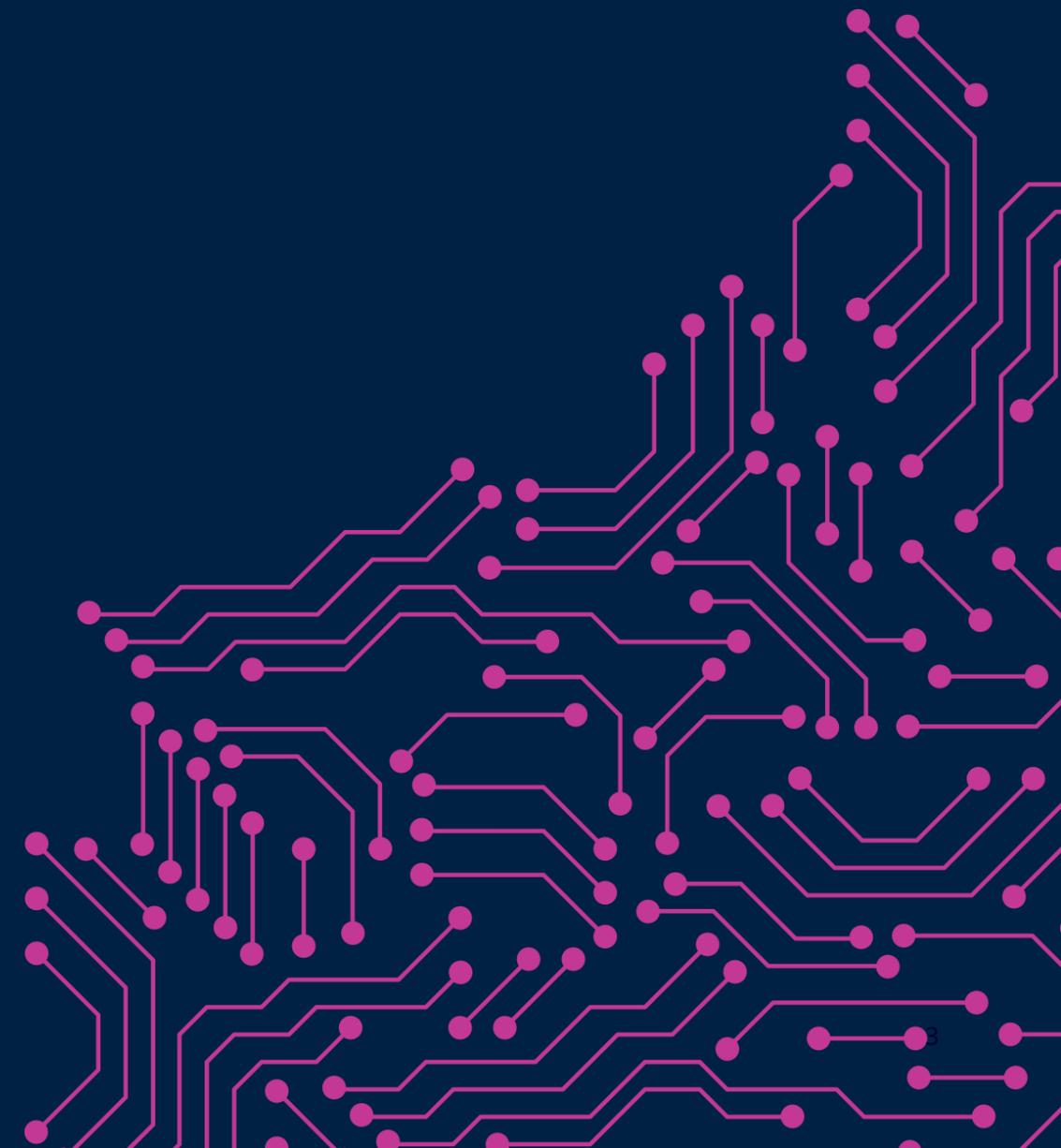
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# Executive Summary

**D**evelopment funders are increasingly embracing the potential of digital financial services (DFS) to promote financial inclusion. As these funders – bilaterals, multilaterals, development finance institutions (DFIs) and private foundations – continue to look for ways to respond to emerging crises and opportunities, the support for digital finance and the ecosystem around it is increasing in prominence. However, until now, we have not had a systematic way of understanding how much funding was committed to DFS and where it was going.

MIX, a unit within the Center for Financial Inclusion, with support from the Bill & Melinda Gates Foundation, has developed a unique new methodology to identify, classify and measure the funding flows going to DFS. This methodology has shone a light on how funding is flowing to DFS, and provided insights that can help the inclusive finance sector better coordinate, fill gaps, and identify new pathways for developing digital financial services for financial inclusion.

**As of the end of 2018, development funders had outstanding commitments of USD 1.95 billion in supporting digital financial services.** This compares to the USD 47 billion identified by the [2018 CGAP Cross-Border Funder Survey](#) supporting the broader financial inclusion ecosystem. In line with the [market systems framework](#),<sup>1</sup> most of this is going to build the market infrastructure (such as networks, research and financial infrastructure) that supports digital financial service providers to innovate.

**Of the development funding that still goes to providers of DFS, funders are increasingly placing their bets on fintechs.**

Funding to support DFS is moving away from established players (such as banks, microfinance institutions and mobile network operators) and towards fintechs. As the DFS industry matures, funding is moving away from grants and into equity.

**Most DFS funding is going to countries with higher levels of financial inclusion.** Although at a regional level most funding flows to Sub-Saharan Africa and South Asia (where financial inclusion levels are, on average, lower than worldwide), relatively little flows to *countries* with the lowest levels of financial inclusion. For example, within Sub-Saharan Africa, larger amounts tend to flow to the countries with relatively few financially excluded people – for example Kenya, Tanzania, and South Africa – than countries with higher levels of exclusion like Ethiopia, the Democratic Republic of Congo, and Sierra Leone.

**DFS projects are mostly a sub-set of financial inclusion projects, but this is changing.** Digital finance is increasingly being mainstreamed in broader digital development work and linked to sectoral projects, such as agriculture and health. A longer-term view on funding to DFS will therefore need to be cognizant of the intersectionality of DFS with other development objectives. This also provides an opportunity to better understand the complex pathways through which DFS and financial inclusion may contribute to the Sustainable Development Goals.

<sup>1</sup> The Market Systems Framework recognizes that the interaction of providers and customers happens within an ecosystem governed by rules and regulations, and is enabled by a range of support functions.

# Introduction

**T**he COVID-19 pandemic has underscored the importance of broad and deep digital financial services (DFS) systems to quickly and efficiently channel money where it is most needed. With the proper digital finance ecosystem in place, governments and development agencies can channel income support payments to low-income households and small businesses. During a crisis, DFS can facilitate consumption smoothing and after a crisis they can expand access to financing for rebuilding livelihoods and kickstarting economic activity. Given the impact of a crisis on individual mobility, whether through lockdowns or natural disasters, countries with effective DFS systems can help their citizens prepare, survive, and rebuild their livelihoods and the broader economy.

Development funders – bilateral and multilateral donors, development finance institutions (DFIs) and private foundations – have played a key role in supporting the growth of these digital financial systems over the past decade. The sector is changing rapidly, not only in response to COVID-19 but also due to rapid technological change and the evolving priorities of the development sector. Increasingly, funders are developing digital development strategies that place digital finance within a broader spectrum of programming, such as education, health and clean energy, that ultimately look ahead to achieving the Sustainable Development Goals (SDGs).

Building an effective digital financial services system requires

planning, coordination, and investment. Given the importance that development funders have attached to digital finance, it is striking that reliable and comprehensive intelligence on funding for DFS is not available. For example, how much has been spent and on what type of projects? The [CGAP Cross-Border Funder Survey](#) demonstrates, for example, that USD 47 billion was committed by development funders in 2018 on financial inclusion programming, but how much of this was for digital financial inclusion? What about projects that originated elsewhere in funding agencies, but that contained a digital finance component? Do we know whether funding for DFS is going to where it is needed the most?

**In order to create an evidence base and understanding of where and how funds flow to DFS, MIX, with support from the Bill & Melinda Gates Foundation, has developed a unique and innovative methodology to identify, classify and measure the funding flows going to DFS.** This project aims to help the inclusive finance sector better coordinate, fill gaps, and identify new pathways for funding the sustainable development of digital financial services for financial inclusion .

**This report highlights four key findings gleaned from an early analysis to test and refine this methodology.** The findings can provide funders with the information to guide their approaches to supporting the development of reliable and effective DFS systems for the benefit of low-income populations around the world.

<sup>2</sup> Development funders support inclusive digital finance through a variety of instruments, including financial instruments and technical assistance, advocacy and coordination; this paper focuses on financial support.

## WHAT ARE DFS FUNDING FLOWS?

Digital financial inclusion (as defined by the G20 [Global Partnership for Financial Inclusion](#) (GPII)) refers to *the use of digital financial services to advance financial inclusion. It involves the deployment of digital means to reach financially excluded and under-served populations with a range of formal financial services suited to their needs, delivered responsibly at a cost affordable to customers and sustainable for providers.* This defines the landscape of projects that are included in the analysis.

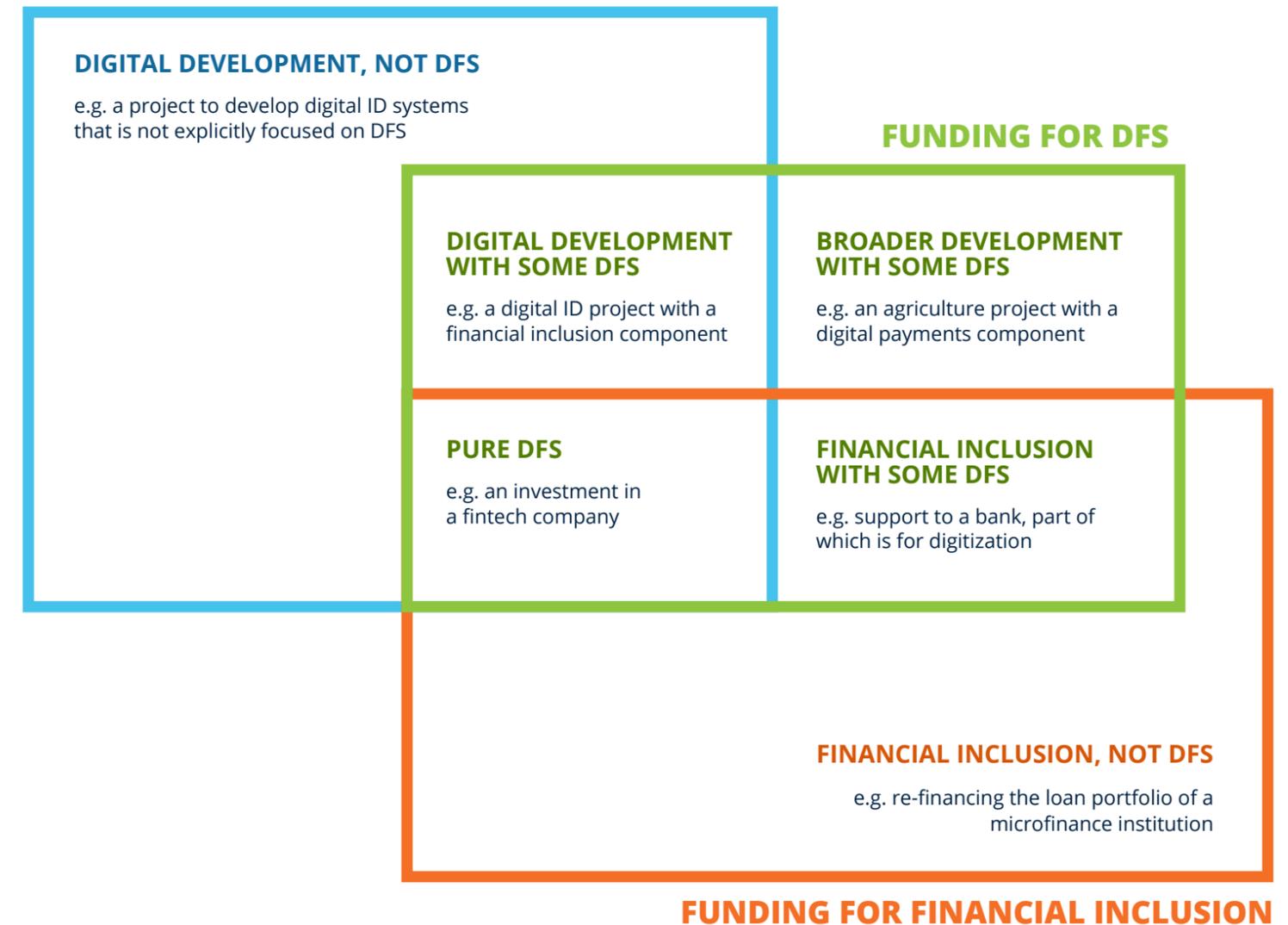
In order to understand the funding going to the sector, definitions and boundaries for what is and isn't a development funding flow for DFS are needed. Here, the following criteria are used. Funding flows are:

- Grants, debt or equity investments
- From development institutions (bilateral and multilateral donors and DFIs) and private foundations
- Cross-border (so not governments spending in their own countries)
- Supporting the use of digital financial services to advance financial inclusion

In most cases DFS funding flows are a sub-set of broader funding for financial inclusion (as captured by the [CGAP Cross-Border Funder Survey](#)). However, as funding for broader digital infrastructure and technology for development (such as digital identification systems for government distribution programs) grows, it also touches on aspects of digital finance. These investments, in what are often called digital enablers or the digital rails for DFS are captured in this analysis insofar as they have specific program objectives or key performance indicators around financial inclusion. The analysis does not capture projects that may be building digital rails for DFS but do not have the explicit focus.

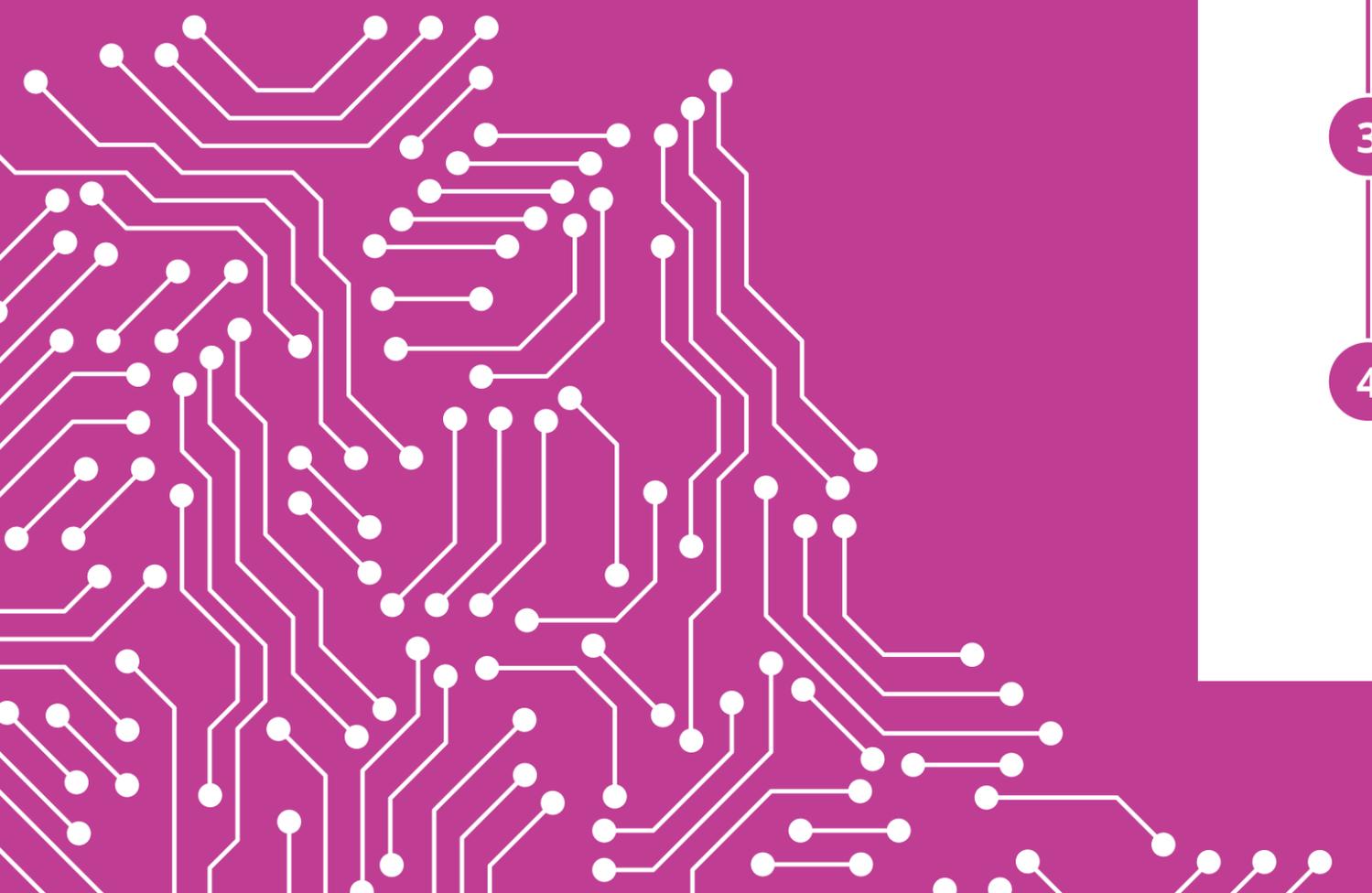
FIGURE 1 DFS FUNDING FLOWS

## FUNDING FOR DIGITAL DEVELOPMENT



The analysis in this report is based on a database compiled by MIX from public resources including [CGAP's Cross-Border Funder Survey](#), the [International Aid Transparency Initiative \(IATI\)](#) and the program documents and individual websites of different funders. This analysis presents one slice of the funding that goes to DFS; it does not include the private funding from commercial investors, which is considerable but would require a different methodology to capture. The data represents outstanding funding commitments for projects active as of the end of 2018, not actual disbursements.

# Key Findings



- 1 As of the end of 2018, development funders had outstanding commitments of USD 1.95 billion supporting digital financial services, with most of it going to build the market infrastructure for DFS.
- 2 Most DFS funding is going to Sub-Saharan Africa, but not necessarily to the countries with the lowest levels of financial inclusion.
- 3 Development funding to financial service providers is moving away from traditional players like banks to fintechs, and the instruments used are shifting from grants to equity.
- 4 DFS projects are mostly a sub-set of financial inclusion projects, but this is changing. There is a growing intersectionality between digital finance and digital development and broader development goals, such as health and education.

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As of the end of 2018, development funders had outstanding commitments of USD 1.95 billion supporting digital financial services, with most of it going to build the market infrastructure for DFS.

Breaking out DFS funding flows into a taxonomy based on the [market systems framework](#), the findings indicate that over 60 percent of DFS funding has gone to the support functions for DFS. This includes significant public funding for financial infrastructure (such as payment systems and agent networks), research, market development programs (such as the [FSD Network](#)), DFS networks and coordinating agencies (such as the [Better than Cash Alliance](#)), and funds that provide ongoing capital to the sector.

FIGURE 2 HOW DFS FUNDING FLOWS ARE SPREAD ACROSS THE MARKET SYSTEMS TAXONOMY



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**Grants – mostly provided by bilateral donors and foundations – account for 45 percent of total funding, and three quarters of this is used to develop the support functions and market infrastructure.** This includes research (such as the [DFS Observatory at Columbia University](#)), and coordination through industry networks such as the [GSMA Mobile Money for the Unbanked](#) initiative. A sizeable amount (USD 60 million) is also going to support the policy and regulatory environment, often to [develop DFS policies and regulatory frameworks](#). This is in line with a [general consensus](#) in the industry that facilitating systemic change requires funders to play a catalytic role to incentivize and enable market actors to perform their functions more effectively.

**Equity funding, which accounts for 42 percent of the total – mostly from DFIs and some investments by foundations – is equally split between financial service providers and support functions.** This is indicative of how funders looking to make some return on their investments have identified fintech<sup>3</sup> as a sector with potential. This stands not only in customer-facing fintechs (those in the core market) but also B2B fintechs that are developing new models for building market infrastructure (such as payment switches) that can have large positive externalities for financial inclusion.

**Debt funding is used relatively little in DFS compared to the broader financial inclusion landscape.** Debt instruments accounted for only 12 percent of DFS funding flows, compared to [69 percent](#) of the funding identified in the 2018 CGAP Funder Survey (where debt is commonly used as an instrument for refinancing MFIs and banks). Around two thirds of the debt funding to DFS was for large multilateral financial sector development programs, with the remainder being debt financing by DFIs to fintechs. The different funding distributions between DFS and overall financial inclusion likely reflect the different stages of market maturity, types of FSP and varying priorities of funders.

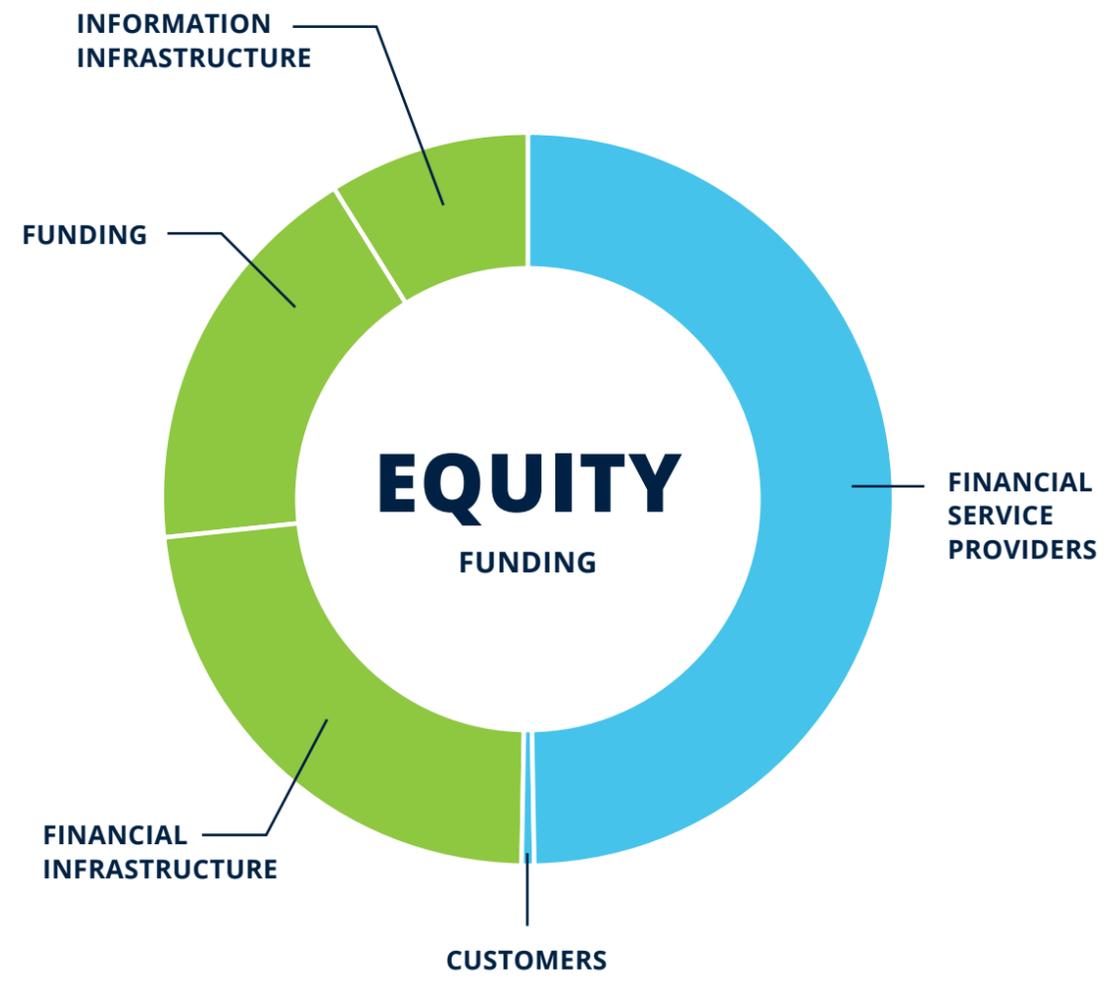
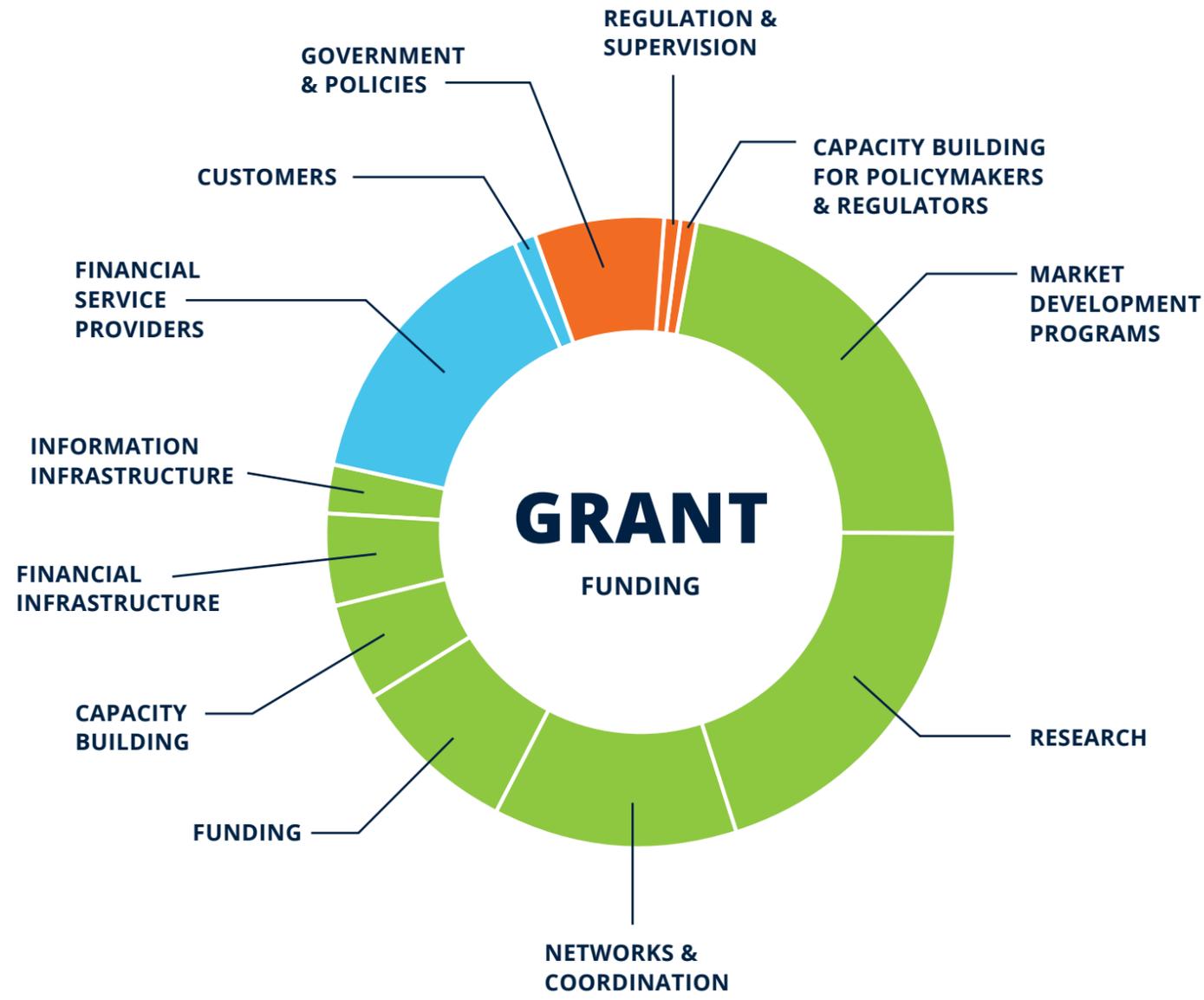
**Compared to the funding of support functions and financial service providers, there is relatively little attention paid to developing the policy and regulatory environment for DFS.** Overall, only 8 percent<sup>4</sup> of projects were supporting governments to develop DFS policies and support regulation and supervision. Though it may be challenging to place a value on an optimal amount of resources to be directed to this area, given the importance of effective policy and regulatory frameworks for DFS (particularly in the light of industry-specific crises like [digital lending in Kenya](#) and broader economic challenges such as COVID-19), it is likely that this is an area that requires more attention from development funders.

<sup>3</sup> Fintechs are defined as *technology-first companies that leverage technology to deliver financial services (so-called B2C fintechs) or companies whose primary business is to provide software tools that enable digital financial services and functions (B2B fintechs)*

<sup>4</sup> This refers to the number of projects, whereas everywhere else in this paper we refer to the value of projects. This is because projects around policies and regulations tend to be smaller in value, and so their importance can be understated by a value-based approach.

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FIGURE 3 THE DIFFERENT DISTRIBUTIONS OF GRANTS AND EQUITY FUNDING



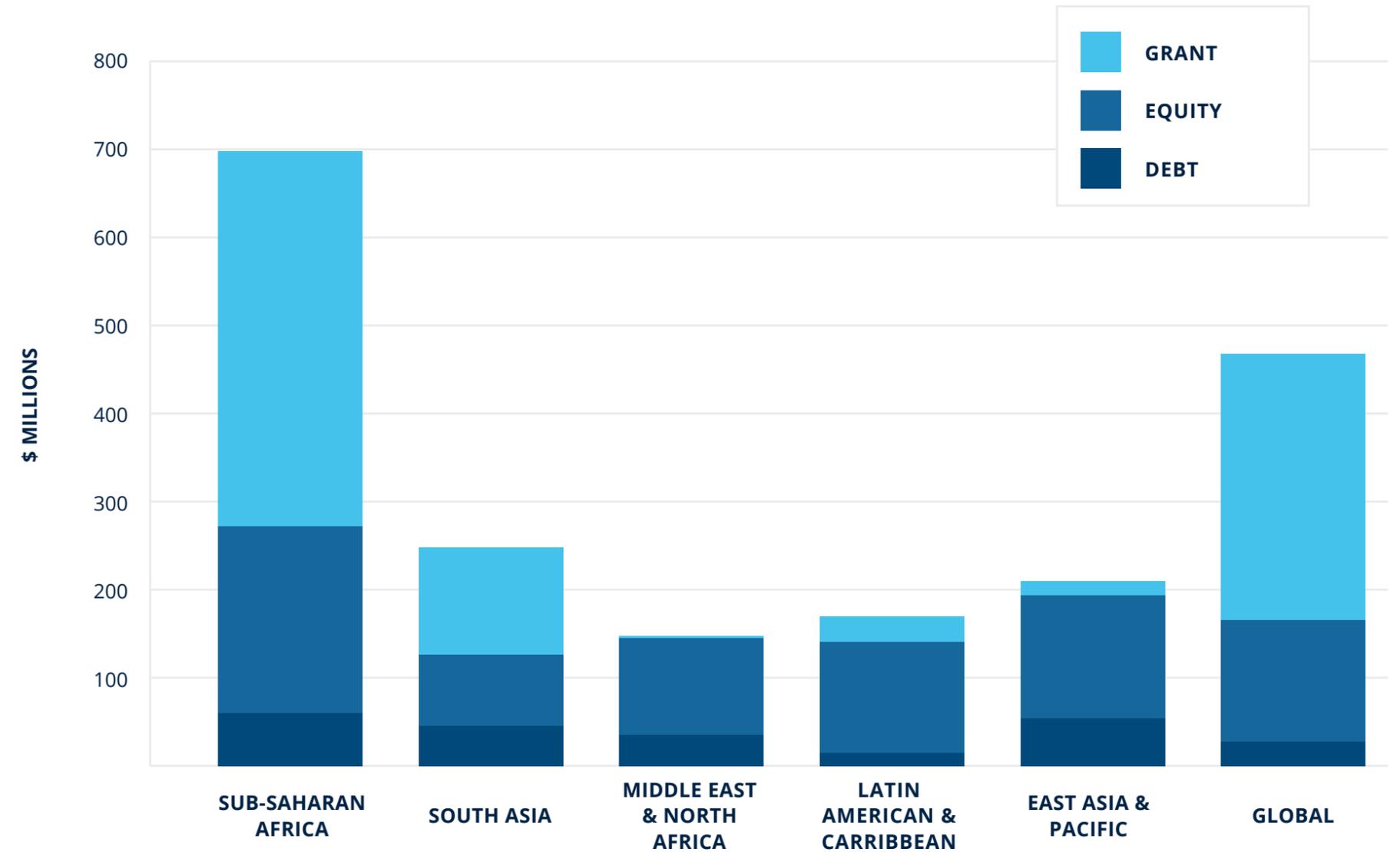
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**Most DFS funding is going to Sub-Saharan Africa, but not necessarily to the countries with the lowest levels of financial inclusion.**

Of all of the identified DFS funding flows, 36 percent were focused on countries in Sub-Saharan Africa. More than half of this was in the form of grants, with 30 percent in equity and the remainder as debt. Funding to South Asia is about a third of that directed to Sub-Saharan Africa, with a similar ratio of instruments. In other regions, there is a strong bias towards equity investments.

FIGURE 4 FUNDING INSTRUMENTS BY REGION<sup>5</sup>



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**Detailed analysis by country demonstrated that most of the funding for DFS was flowing to countries with the *highest* levels of financial inclusion** (as measured by Global Findex)<sup>5</sup>. For example, within Sub-Saharan Africa, larger amounts tend to flow to the countries with relatively high financial inclusion – for example Kenya, Tanzania, and South Africa – than countries with lower levels of financial inclusion like Ethiopia, the Democratic Republic of Congo, and Sierra Leone. For funders, this correlation between higher funding and higher financial inclusion raises questions about possible direction of causality: has funding for DFS helped to increase the levels of financial inclusion, or is it that these countries (which tend to be larger economies) have higher absorptive capacity for larger investment sizes? Either way, it is striking that only 18 percent of country-specific funding goes to the quartile of countries with the lowest levels of financial inclusion.

**For the countries with the lowest levels of financial inclusion, DFS funding is concentrated in support functions (mostly funded by bilateral funders) and policies and regulations (mostly funded by multilaterals).** Funding to FSPs is minimal in the least financially included countries, potentially due to a limited number of providers with the capacity to absorb funding, and riskier investment profiles. As countries become more financially included, the development financing for FSPs increases.

For the most financially included countries, policy and regulatory environments may already be sufficiently mature, and the pre-conditions are in place for more development funding to go directly to FSPs. In addition, rather than grant support, opportunities may exist for funders to invest in financial service providers and support functions, as represented by the equity investments in B2C and B2B fintechs in countries with higher levels of financial inclusion like Brazil, South Africa, and China. Data from [other studies](#) have shown similar concentrations of private investments in more mature fintechs and markets.

**Visibility into this funding landscape allows funders to consider whether funding should be better aligned to countries that exhibit lower levels of financial inclusion.** If the potential of DFS is in opening up the access frontier to people who are otherwise excluded from the financial system, then we may expect to see more DFS funding in countries like Pakistan, the Democratic Republic of Congo, and Myanmar with lower levels of financial inclusion. At the same time, DFS also has value in improving access to and use of financial services by those who are already included. As the DFS sector moves into a new phase of growth, with more funder programming decentralized to the country level, funders will need to clearly articulate their expectations for the role of DFS in financial inclusion, and also generate and use the data to improve how they deploy funds to support those goals.

<sup>5</sup> No funding was identified for Eastern Europe and Central Asia, which may be a function of the methodology inadequately picking up data from funders working the region.

<sup>6</sup> Country-level financial inclusion measured by Global Findex (<https://globalfindex.worldbank.org/>) using the indicator *percentage of adults with an account at a financial institution*.

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FIGURE 5 FUNDING FOR DFS AGAINST LEVELS OF FINANCIAL INCLUSION



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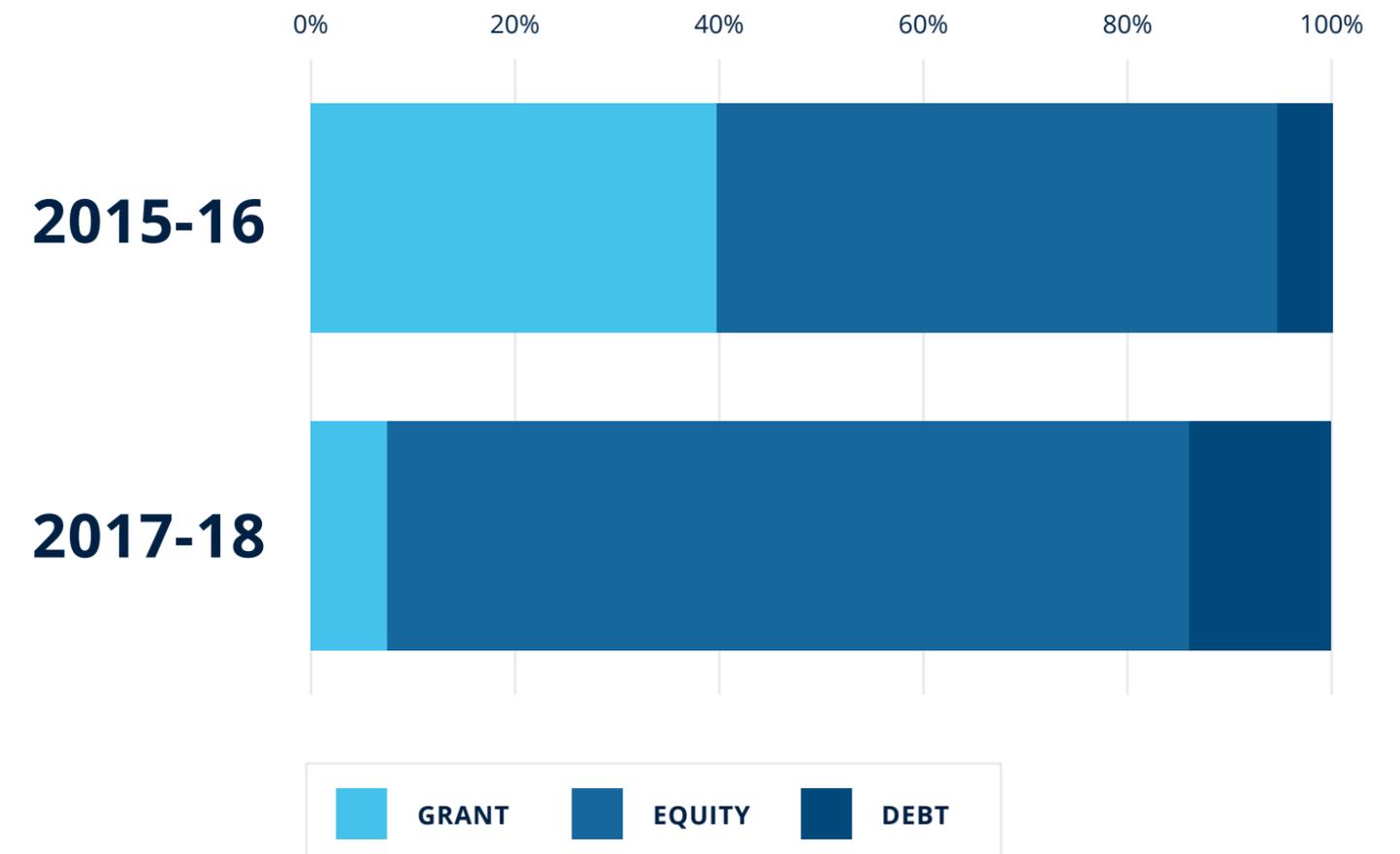
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## Development funding to financial service providers is moving away from traditional players like banks to fintechs, and the instruments used are shifting from grants to equity.

**Funders committed nearly USD 600 million - via grants, equity and debt - to providers of digital financial services.** This includes traditional financial institutions such as banks and microfinance institutions (MFIs) as well as mobile money operators and fintechs.

**The instruments being used by funders to support financial service providers are changing.** For DFS funding that was committed in 2015 and 2016, 40 percent of the funding flowing to financial service providers was in the form of grants. For funding committed in 2017 and 2018, this had fallen to just 7 percent. As grant funding (mainly from foundations and multilaterals) declined, equity from DFIs and foundations increased: in 2017-18, 79 percent of the funding to financial service providers was in the form of equity investments.

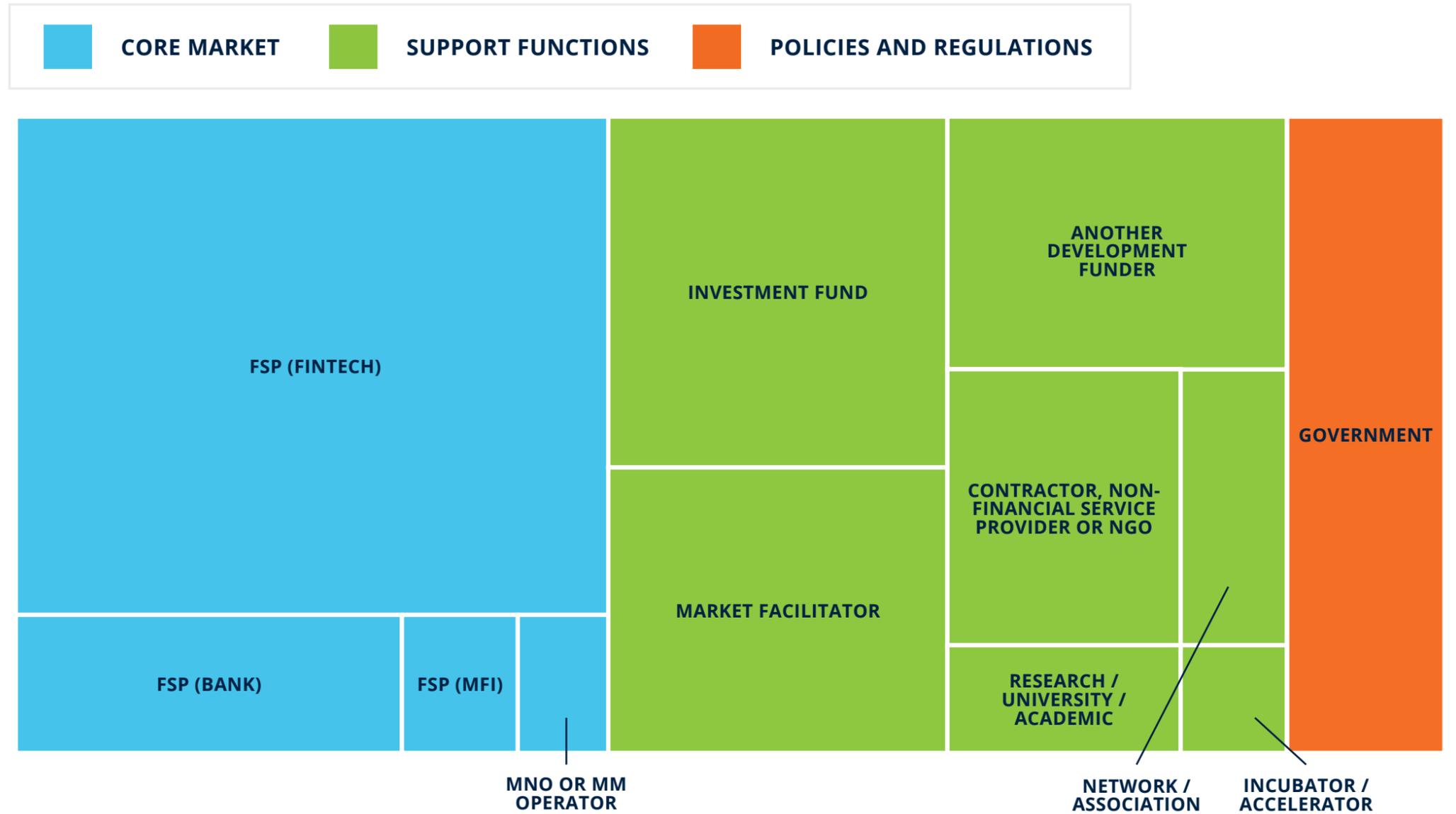
FIGURE 6 HOW THE FUNDING INSTRUMENTS TO THE CORE MARKET HAVE CHANGED OVER TIME



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This may be evidence of grant money successfully playing a catalytic role in funding early risks and then creating the pre-conditions for DFIs (and potentially also impact investors and private capital) to invest equity into FSPs. This investment capital is increasingly concentrated in one part of the digital finance landscape: fintechs. Sixty percent of the funding committed to financial service providers is invested in fintechs, considerably more than has gone to legacy institutions (banks, microfinance institutions (MFIs) and mobile network operators (MNOs) or mobile money operators (MMOs)).

FIGURE 7 FUNDING DISTRIBUTION BY PRIMARY RECIPIENT TYPE



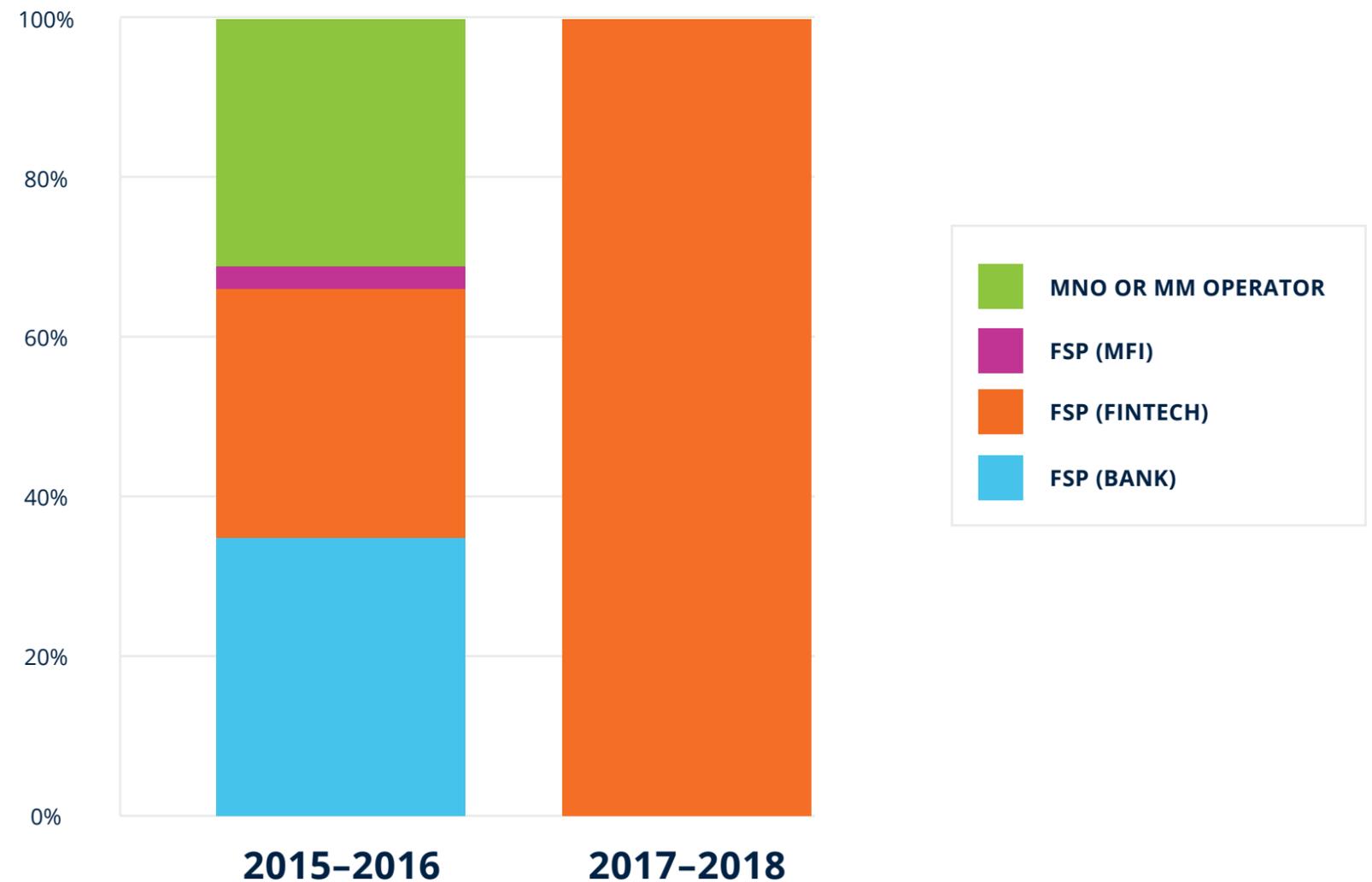
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The annualized data clearly indicates how funders have shifted emphasis in recent years away from supporting the digital growth of legacy institutions and towards newer fintech players. From a portfolio of DFS funding in 2015-16 that was relatively balanced between banks, MNOs and fintechs, funders moved to exclusively funding fintechs in 2017-18. The data shows clearly that fintech is where funders are placing their bets for DFS innovation<sup>7</sup>.

This reflects the [global trend in rapid fintech growth](#), as well as shifts in how innovation is funded by the development sector, with (1) more private foundations and DFIs as well as private capital entering the space and (2) a movement towards supporting new types of institution. This also represents a heavy concentration in one type of digital finance provider. Fintechs have the potential to innovate faster than traditional players and develop more targeted products for low income populations, but they are also often less regulated and more susceptible to changes in the economic environment. This could become a growing risk factor for funders as the effects of the COVID-19 crisis pass through financial systems.

<sup>7</sup> This only represents investments directly from a funder into a financial service provider. Funds that flow from a funder to an FSP through an intermediary, such as an impact investment fund, are not included here.

FIGURE 8 THE CHANGING STRUCTURE OF FUNDING RECIPIENTS IN THE CORE MARKET



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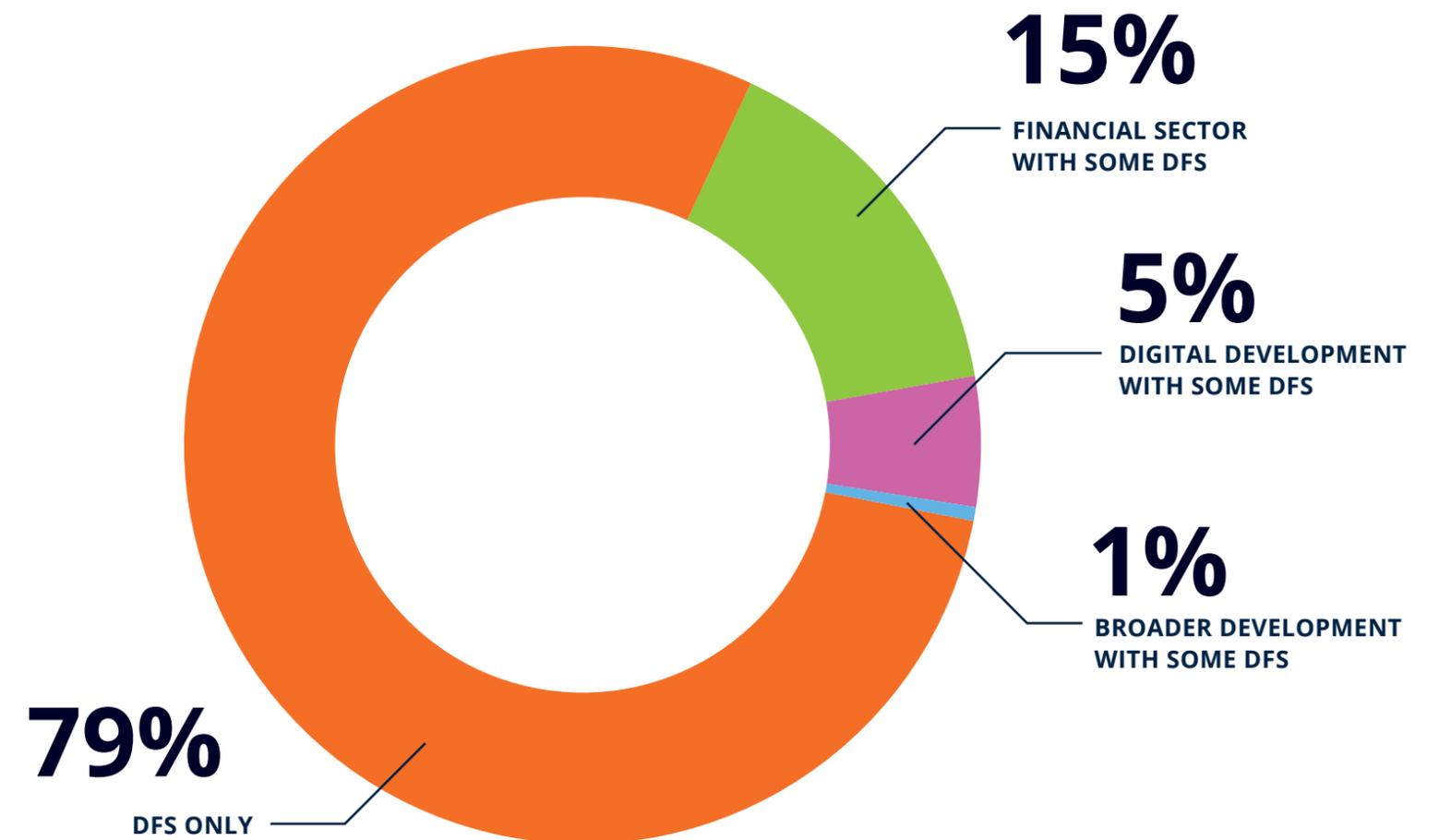
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DFS projects are mostly a sub-set of financial inclusion projects, but this is changing. There is a growing intersectionality between digital finance and digital development and broader development goals, such as health and education.

**Development funder projects supporting DFS are most commonly stand-alone projects**, with digital financial inclusion as their only focus. This is true for 79 percent of the 398 projects identified in the database. A further 15 percent were *financial sector with some DFS*, indicating projects that worked more broadly on financial inclusion but had some component relating to DFS.

FIGURE 9 NUMBER OF PROJECTS BY PROJECT TYPE



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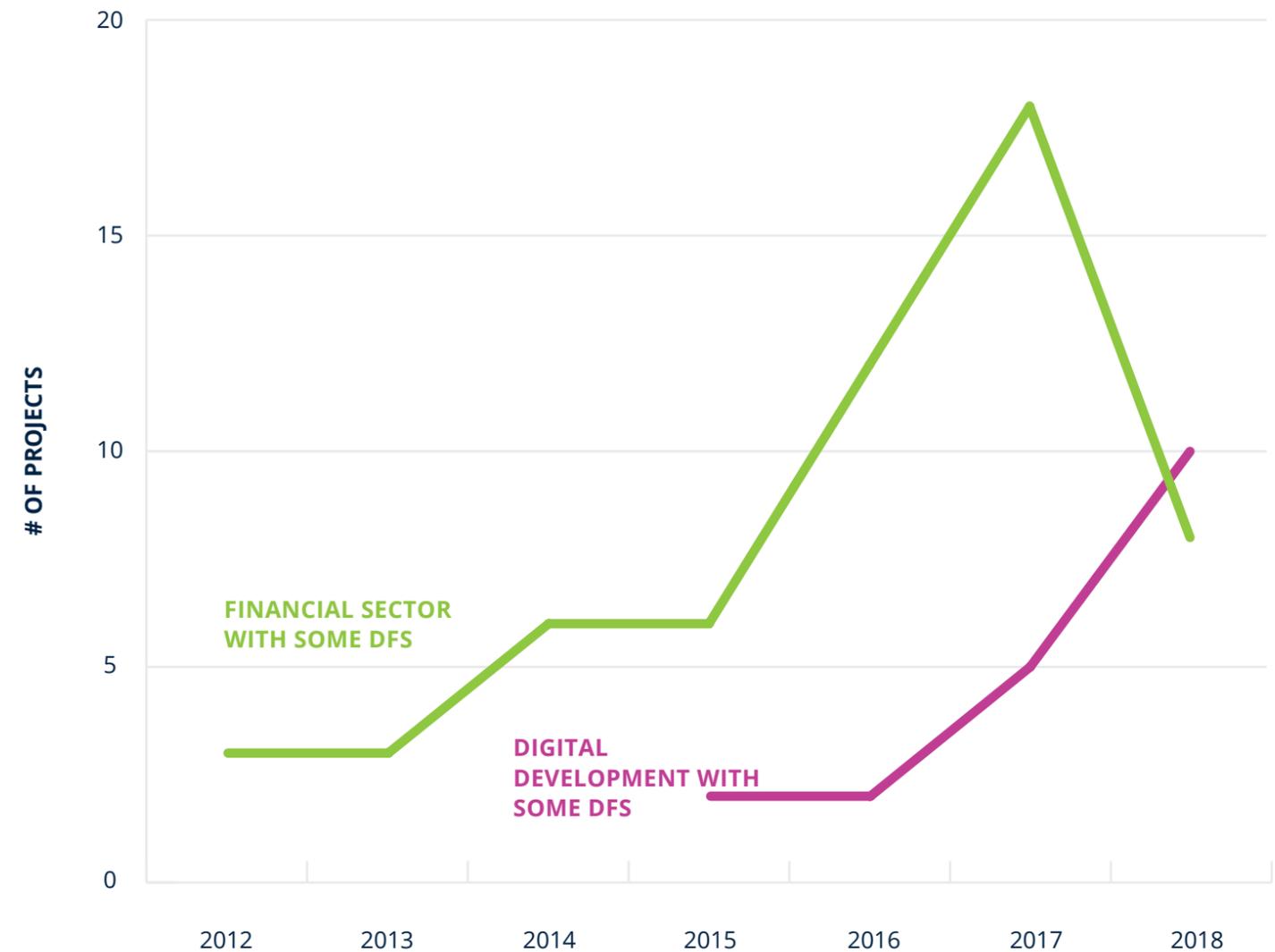
**DFS projects are slowly being embedded into non-traditional financial inclusion departments.** While projects that were broader *digital development with some DFS* were relatively few, they are important as an indication of where development funders may be heading. Of the projects that are *digital development with some DFS*, more than half were in 2018 and a further quarter were in 2017. There is a clear upward trend, and this continues to be visible in the projects we are already seeing coming out of an early review of the 2019 data. In fact, in 2018 the annual number of projects that were *digital development with some DFS* overtook those that were *financial sector with some DFS*.

**It is clear that development partners in other sectors are increasingly recognizing the importance of DFS as a tool to achieve their goals** – for example, a mobile money component of an IFAD<sup>8</sup> agricultural value chain development program. This has important implications for funders’ reporting on DFS programming: if more DFS projects are coming from outside of traditional financial inclusion departments, measuring and analyzing DFS funding must include identifying and measuring the growing portfolio of embedded DFS. Increased availability of this data will allow funders to better track DFS spending and build synergies both internally and externally. But to capture this data, it will require greater internal coordination to ensure these projects are appropriately labelled and reported.

As we move into a new era of financial inclusion programming and DFS is increasingly mainstreamed (integrated with digital economy programming), funders will also need to develop new ways of linking DFS with real sector themes, such as agriculture, health, or clean energy. This is the logical next step and will help us better understand how DFS funding is contributing to the SDGs.

<sup>8</sup> International Fund for Agricultural Development, an agency of the United Nations

FIGURE 10 THE NUMBER OF PROJECTS WITH DFS AS A COMPONENT OF DIGITAL DEVELOPMENT HAS OVERTAKEN THOSE WITH DFS AS COMPONENT OF FINANCIAL INCLUSION



# Looking Ahead

**T**his analysis demonstrates how far DFS funding has come, particularly in helping to build the ecosystem for inclusive DFS. The work done over the past decade, focused on building the support functions for DFS as well as providing capital to DFS providers to innovate and grow, has in many markets undoubtedly helped to build effective digital financial systems.

MIX is collaborating with CGAP to incorporate the methodology used in this analysis to identify, classify and measure DFS funding flows within the 2020 CGAP Cross-Border Funder Survey. Through the data and analysis released by this survey, funders will have a better sense where DFS funding is flowing and be able to identify any changes in trends in the future. However, for this to happen, the quality of reporting of DFS projects by funders is critical – as with any analysis, the quality of the output is largely a function of the quality of the inputs. As digital becomes more pervasive and intertwined with other development goals, and funding for DFS comes from various departments and country offices, funders reporting to the CGAP Cross-Border Funder Survey can help to ensure that funding related to DFS is captured by coordinating internally, across a range of departments (from financial inclusion to digital development to agriculture to health). Clear project descriptions, with strategic objectives and key performance indicators (KPIs) laid out, help in this regard.

The findings in this paper have raised questions about where the sector might go next:

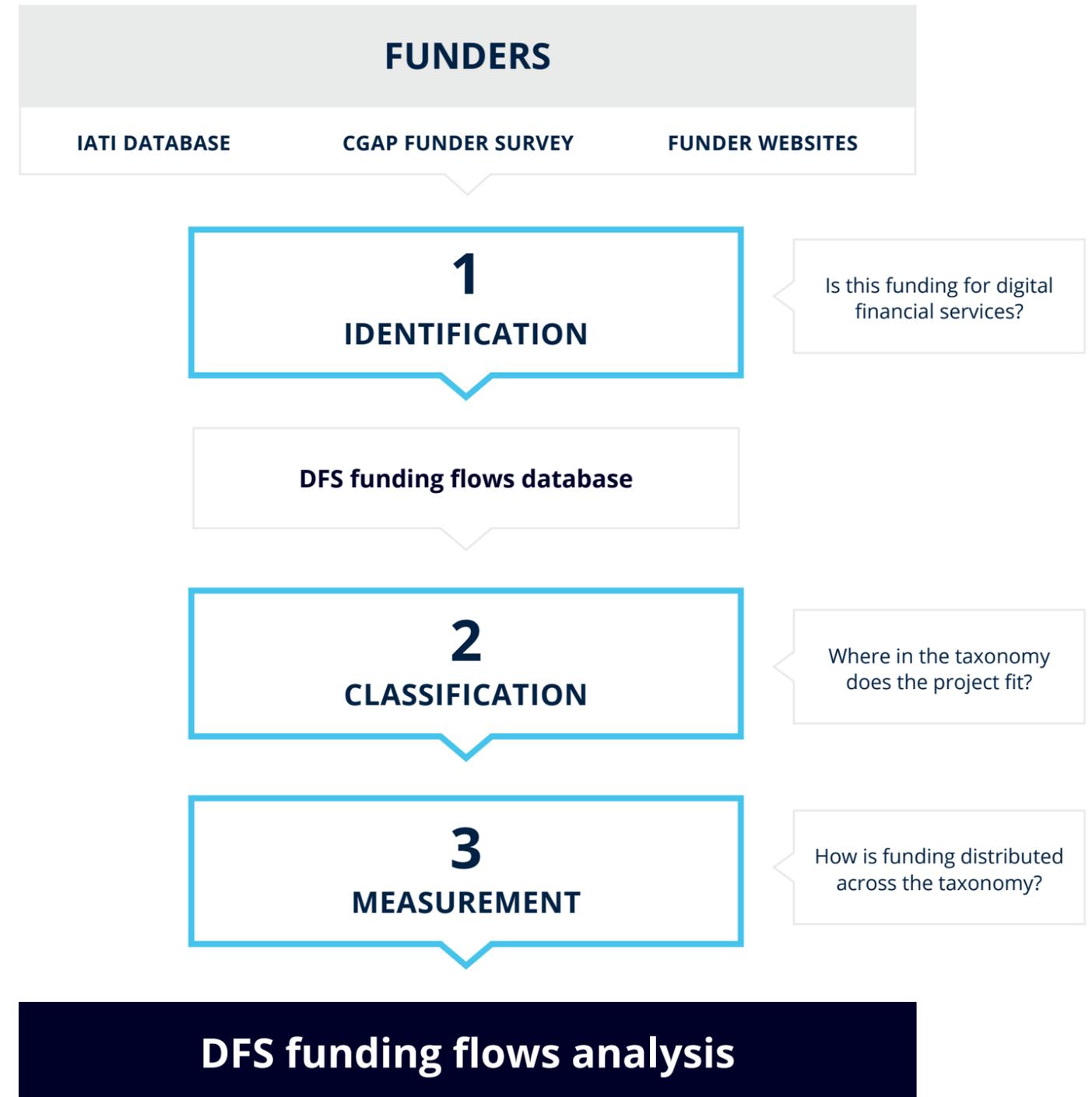
- **As development funders look ahead to a future increasingly shaped by technology and also by global crises, what are pathways through which digital finance can have the most net positive impact on people's livelihoods?**
- **Who are the people with the most to gain from digital finance, and what is the role of development funding in supporting them? How do we ensure that funding is going not only to increase the scale of digital finance but also its meaningful usage?**
- **How do we balance the need for innovation from the fintech hares against the stability provided by the banking tortoises?**
- **How can funders coordinate and improve the sequencing of DFS funding instruments, so that funding to develop the DFS ecosystem can best play a catalytic role in crowding in capital?**

These are big questions for the industry, and any approach to answering them needs to be built on solid data and analysis, which MIX hopes this paper has provided some answers to. With improved and robust data, there is an opportunity to link DFS funding to specific outputs related to the SDGs and hence build a holistic picture of the wider potential impacts of funding for digital financial inclusion. MIX is committed to providing funders with data to inform their decision making in inclusive finance, and will continue to explore these questions.

# Annex: Methodology

The methodology has been developed, tested, piloted and refined between September 2018 and March 2020. It is designed to capture data from funders of digital financial inclusion projects and feed this data through a three-stage process of identification, classification and measurement to provide analysis and reports on the industry.

FIGURE 11 SUMMARY OF METHODOLOGY



## Step 1: Identification

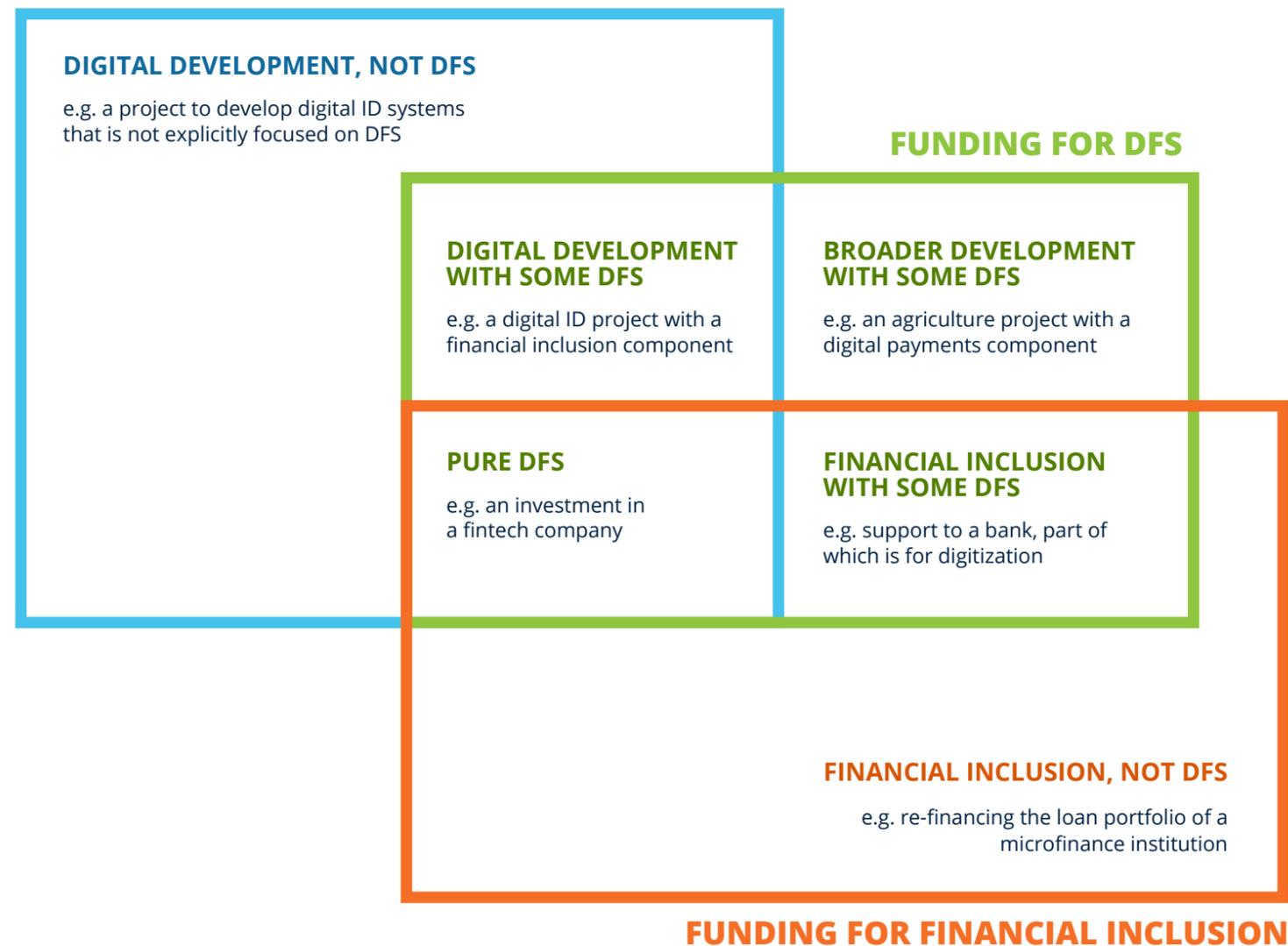
### What are DFS funding flows?

For the purposes of this methodology, DFS funding flows are considered to be those that come from public money or private philanthropic funds that flow across borders to support the growth of digital financial inclusion. The database captures funding commitments, not disbursements, so a three-year commitment of USD 1 million made in 2017 would be accounted for in full in the 2017, 2018 and 2019, and not from 2020 onwards.

Digital financial inclusion (as defined by the G20 [Global Partnership for Financial Inclusion](#) (GPII)) refers to *the use of digital financial services to advance financial inclusion. It involves the deployment of digital means to reach financially excluded and under-served populations with a range of formal financial services suited to their needs, delivered responsibly at a cost affordable to customers and sustainable for providers.* This defines the landscape of projects that are included in the analysis.

FIGURE 1 DFS FUNDING FLOWS

### FUNDING FOR DIGITAL DEVELOPMENT



Funding flows in support of DFS refers to money spent by development institutions – bilateral and multilateral donors, development finance institutions (DFI) and philanthropic foundations – with the objective of growing some aspect of the DFS ecosystem. Funding may be in the form of grant, loan or equity. Funding must flow across borders, meaning that spending by a government in its own country and financed by its own budgetary resources is not included.

While some funding flows go to projects that are purely about digital financial inclusion, others can be parts of larger projects. Funding flows for DFS can be a subset of funding flows for broader financial inclusion goals (of which digital is one part), or they can be a subset of broader digital development goals (of which financial inclusion is one use case). DFS funding flows could also be a part of a broader development program that includes some DFS component – for example an agricultural development program that has a component on digitizing payments to farmers in the value chain.

### How do we identify DFS funding flows?

Some funders have an explicit focus on digital financial inclusion that is made clear in their funding strategies. In these cases, any funding for financial inclusion is therefore automatically considered a DFS funding flow.

For other projects, the objective can be relatively simple to discern from keywords included in project names and descriptions – DFS projects typically contain some combination of terms like “digital finance”, “mobile money”, “electronic payments”, “fintech”, “financial infrastructure” or similar terminology. More than half of projects in the database contain one of these searchable terms in the project description. If it is unclear (for example the project is clearly a financial inclusion project, but it is unclear whether it is a *digital* financial inclusion project) it is sometimes necessary to dig deeper into project documents and funder strategies.

As much as possible the judgment is based on project *intent*: are there stated objectives or monitoring and evaluation (M&E) indicators linked to this project that relate to DFS-specific outcomes,

such as number of users of mobile money or number of digital loans? Where no clear intent to improve some aspect of the DFS ecosystem is identifiable in the publicly available project documents, the funding flow is excluded from the database.

This approach inevitably excludes some equivocal cases that may be considered by some to be part of the enablers of DFS. For example, digital identification projects are a growing area of development spending and digital finance is regularly stated as a use case for these investments. Some may consider these investments to be critical enablers of DFS, as the infrastructure they create can play such a crucial role in DFS ecosystems. However, including all of these flows in the DFS analysis risks biasing the analysis towards funds that have objectives far beyond the DFS ecosystem. Emphasizing the intent and stated objectives of the funder allows for funding flows that are explicit about the DFS use case to be included, while excluding those that are more vaguely about the digital or financial services ecosystem.

## Step 2: Classification

Once projects have been identified as DFS funding flows, MIX has developed a taxonomy for classifying DFS funding flows to help understand where in the DFS ecosystem funding is being distributed. This taxonomy is based on the [market systems framework](#), reflecting a [general consensus](#) within the financial sector development community that the intersection of financial service providers and customers in the core market occurs within an ecosystem formed by an array of support functions and guided by policies and regulations. This approach to classification aligns with the taxonomy used in the CGAP Funder Survey – variations reflect the differences in project types and funding priorities that are specific to *digital* financial inclusion.

The taxonomy first establishes whether a DFS project that is receiving funds is working at (i) the core market; (ii) support functions; or (iii) the policy and regulatory environment (or some combination

of these). The market is then broken out at level two (with guiding examples) to provide a more granular framework for understanding the different types of work supported by DFS funding flows.

Projects are first classified by looking at the primary recipient of the funding. For example, if the primary recipient is a retail financial service provider then the funding goes into the core market. If the recipient is a B2B fintech, then it goes to support functions and financial infrastructure.

The next step for classification is to carry out keyword analysis on the project description to classify by levels one and two of the taxonomy. Certain terms are likely to be indicative of whether a project is at the support functions or the policy and regulations tier, and where the project fits within that tier. For example, terms like “incubation”, “acceleration”, “labs” and “synergies” can be good indicators of projects that would fall under *networks and coordination*. Similarly, keywords like “rules”,

“guidance” and “regulatory” are good indicators for *regulation and supervision* projects. In case this information is not available in the simple project description, projects were classified by digging deeper into project documentation from the individual funder websites.

Based on the primary recipient and the analysis of keywords, all projects can be placed at level one and two of the taxonomy with a reasonable degree of confidence.

The fact that DFS is increasingly seen as a cross-cutting component of financial inclusion programming, rather than a vertical component in its own right, can make DFS components difficult to isolate. Because of this, the taxonomy allows space for *DFS components of market development programs* which may themselves be working at various levels of the market system.

FIGURE 12 DFS FUNDING FLOWS PROJECT TAXONOMY

LEVEL ONE	LEVEL TWO	EXAMPLES
<b>CORE MARKET</b>	Customers	Financial capability and DFS literacy
	Financial service providers	Core business model/product development
		Financing for growing loan portfolio
		Financing for expanding network
<b>SUPPORT FUNCTIONS</b>	Financial infrastructure	Payment infrastructure, e-money, switches, clearing, settlement systems
		Interoperability arrangements
		Shared agent networks
	Research	Core funding for research institutions and think tanks
		DFS studies and research projects
	Information infrastructure	Digital identification relating to DFS
		Data sharing, analytics and reporting platforms
	Networks and coordination	International DFS/fintech networks and associations
		Local DFS/fintech networks, accelerators and incubators
	Capacity building institutions	Training and capacity building institutions for DFS
Funding	Funds investing in DFS/fintech	
Market development programs	DFS components of financial sector deepening programs	
<b>POLICIES AND REGULATIONS</b>	Government and policies	Government DFS policies and strategies
		Digitization of government payments (G2P and P2G)
	Regulation and supervision	DFS rules and regulations (including e-money regulations)
		Cybersecurity and digital financial consumer protection
		Regulatory sandboxes
Capacity building projects	Capacity building projects for policymakers, regulators and supervisors	

## Step 3: Measurement

Once projects have been classified into the taxonomy, the final stage of the methodology is to quantify the amounts of funding flowing to each level. The data for estimating these quantities comes from three primary sources:

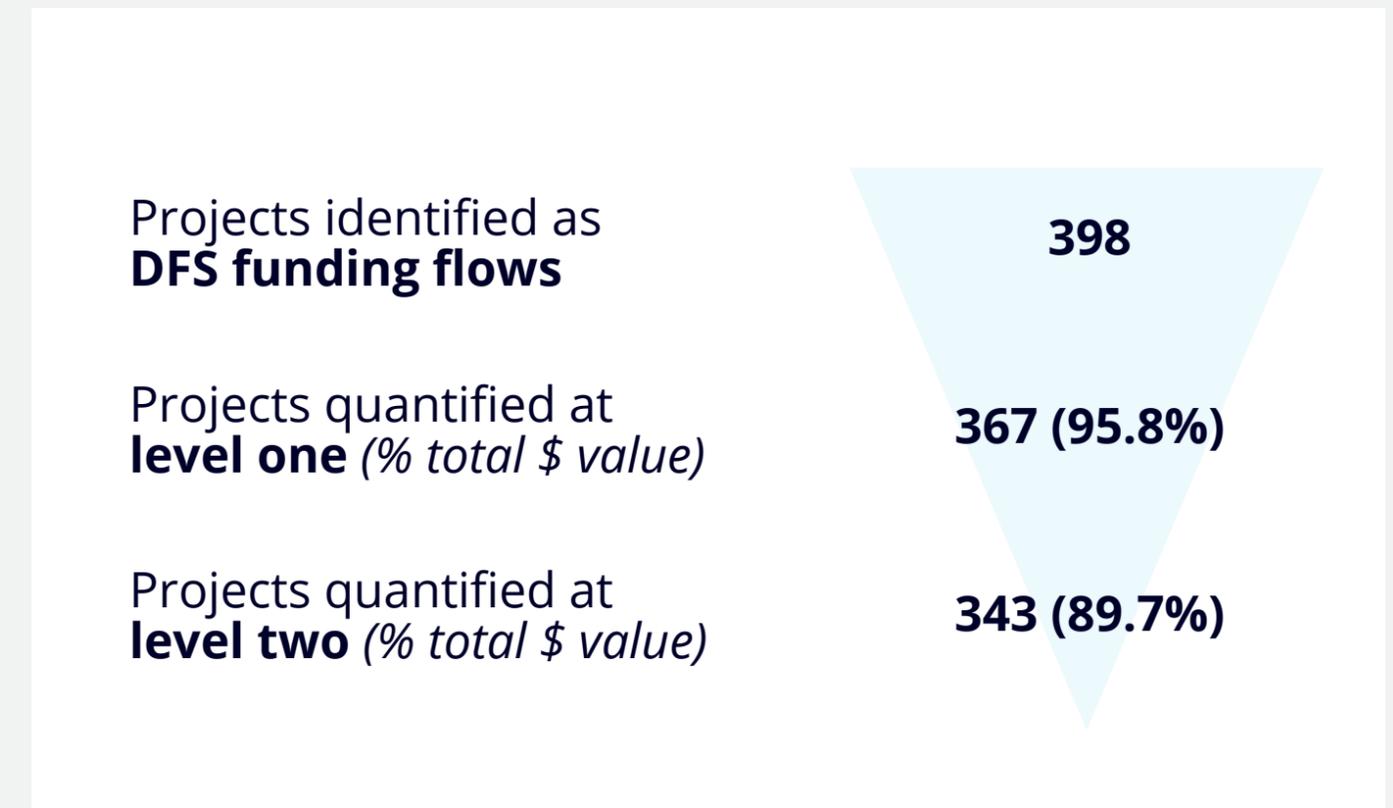
- i. **CGAP Cross-Border Funder Survey** – data is sourced from project documents for those projects flagged as DFS in the CGAP Funder Survey
- ii. **International Aid Transparency Initiative (IATI) database** – this standardized framework for collecting and categorizing development funding flows provides high level funding amounts per project, as well as links, where available, to project documentation.
- iii. **Funder websites** – where further detail is required, for high level funding amounts or a breakdown by project component, project documents that are generally published on the funder’s own web portal are used to provide the information on the amounts.

Data quality and completeness present a challenge for the quantification of funding flows. In most cases, it is possible from analyzing project reporting and documentation, and by comparing to similar projects, to make a good estimate as to how to divide the funding into the taxonomy. This can be more difficult if a project works at multiple parts of the market system (for example providing so funding to core market and also working on regulations for DFS).

In general, funding flows fall into one of three groups. For projects with good data, the funding can be simply filtered through the methodology. If there is some data,

but insufficient to apply the methodology with certainty, then estimation techniques are used based on projects that are comparable in terms of funder type, project type and project size. However, in some cases it proves impossible to identify, classify or measure funding flows using data available in the public domain. These are not included in the analysis until sufficient data can be obtained.

The following diagram shows how the initial number of projects is funneled down into the final analysis.



## Step 3: Measurement (cont.)

There is a trade-off between the level of detail of the analysis and the feasibility of data collection. During this process a handful of very large financial sector development programs were found that ran into the hundreds of millions of U.S. dollars. In some cases, these programs alluded to a digital finance component (for example by including terms like “payments infrastructure”) but neither the project budget nor supporting documents contains any precise breakdown of the commitment. Estimating based on similar projects was not possible due to a lack of comparable funding flows. One approach in this case is to contact the funder directly and delve into the specific project to establish at least an estimate of the DFS component. However, this can be a time-consuming process and the effort has to be measured against the need for analytical depth. This balance is something that will continue to be calibrated as more projects are analyzed through the methodology. For now, these projects are not included in the analysis.