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WORLD FINTECH REPORT 2020

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Preface

It's now or never.

The financial services industry has been dealing with the impact of open banking since we published the inaugural *World FinTech Report* in 2017. Fast forward to the World FinTech Report 2020 and the imminent Open X, a multi-sectoral open platform era maximizing the eXperience, and the harsh reality is that FinTechs have moved "from disruption to reality," and banks that haven't embraced effective collaboration with startups are struggling to retain and acquire new customers.

Shaped by hyper-personalized service and mobile-only experience offered by unstoppable and ever-powerful BigTechs and agile challenger banks, consumer expectations are changing in real time. To keep pace, incumbents must embrace Open X and become Inventive Banks, prepared to adopt specialized open ecosystem roles and complementary support from qualified FinTech partners.

No longer simply disruptors, FinTechs have matured to become respected, global players with robust acquisition rates and profitability potential. It is up to incumbents to decide whether to consider FinTechs formidable competitors or enabling allies.

Most banks understand that a positive last-mile experience and an engaging front end are critical to keeping customers happy and loyal. However, less visible middle- and back-office operations – also essential for customer satisfaction – are often neglected. That's why, despite substantial front-end investment, many banks continue to fall short of delivering seamless and personalized customer experience.

Bringing back-end operations up to speed can be an extended journey. Our *World FinTech Report 2020* offers proven methods for banks to join forces with mature FinTechs to map, prioritize, and innovatively enhance their most-critical open platform processes.

Despite synergies and the win-win potential of bank/FinTech collaboration, the frustrating reality is that most partnerships have not paid off. Why? Relationship stumbling blocks and differing corporate cultures prevent collaboration at scale, and innovative solutions are rarely solidified – let alone brought to market.

Effective collaboration requires people, business, and process maturity from both incumbents and FinTechs. Late-stage FinTechs (scaleups) can drive productivity and value based on their last-mile expertise, data management know-how, and mobile-only mentality. Inventive banks can leverage their reach, trust, and business expertise to optimize their assets and remain relevant to an increasingly diverse customer base. This is especially important given the highly uncertain economic outlook caused by never- seen-before risks.

Players with readiness to collaborate at scale and industrialize innovation are the most likely to prosper within the shared Open X ecosystem.

We encourage a focus on business outcomes to help both banks and FinTechs move from proof of concept to the profitability of *applied innovation* or innovation industrialization. First movers will shape Open X roles, standards, and management.

Anirban Bose
Financial Services Strategic Business Unit CEO
& Group Executive Board Member, Capgemini

John Berry
Secretary General, Efma

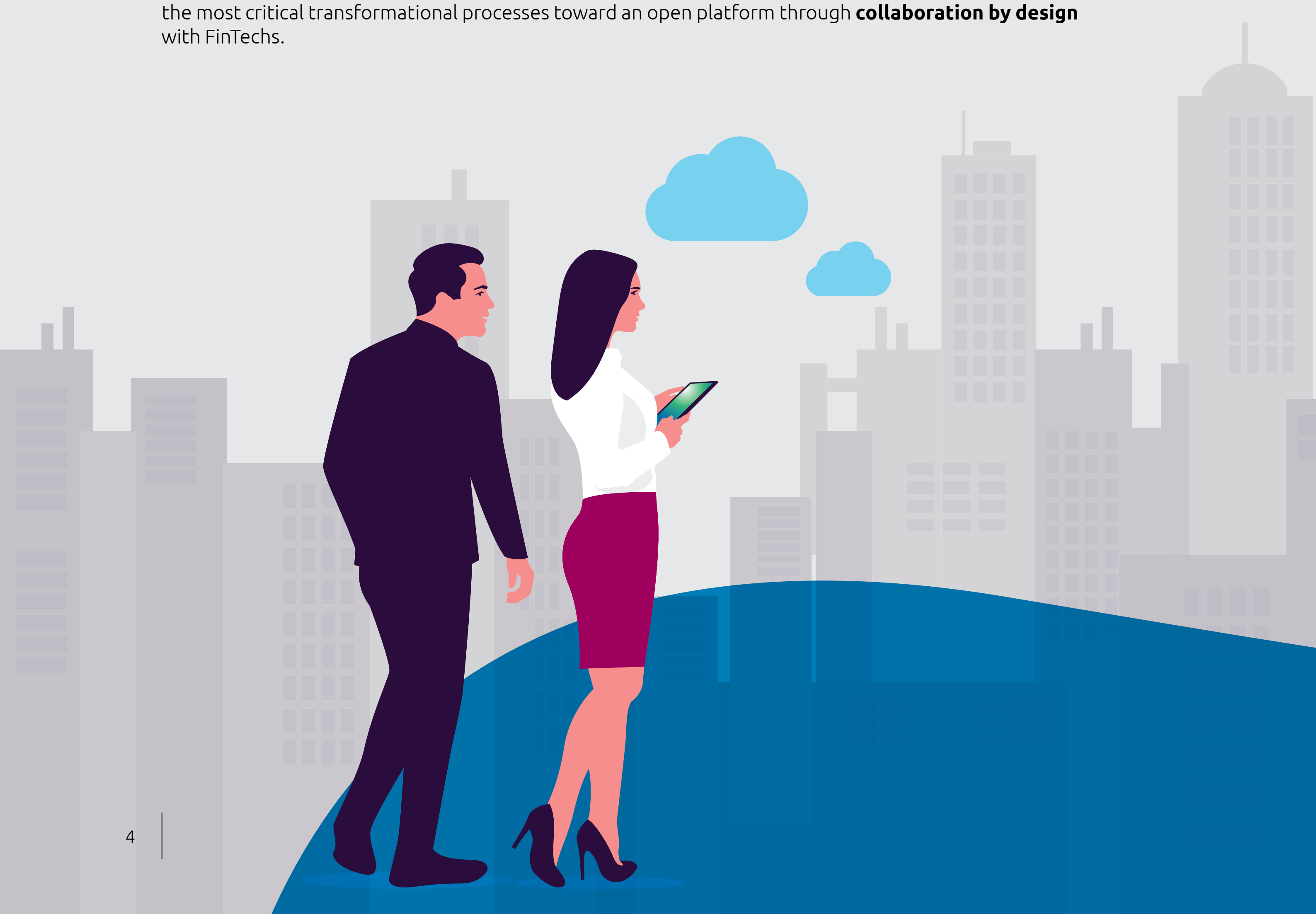
Executive summary

Time's up. To remain relevant, traditional banks must get on board with Open X.

- Consumers expect a lot these days as they have become accustomed to stellar service from BigTechs and challenger banks that leverage their strength – data management – to hyper-personalize customer experience (CX).
- To catch up with new-age players, incumbents must embrace **Open X** (an open platform approach in which participants of all sizes and from across industries work together) and become **Inventive Banks**, prepared to adopt specialized roles in the new, open ecosystem – with collaborative support from qualified FinTech partners.
- FinTechs have moved from **disruption to maturity** to become serious, globally expanding players that are acquiring millions of customers and heading towards profitability. It's time to consider them as tangible competitors or enabling partners.

Last-mile customer experience may be the visible result of Inventive Banking, but middle- and back-office operations are critical for CX, too.

- An engaging front-end requires robust and enabling back-end operations. That's why, despite substantial front-end investments, most banks still fail to offer seamless and personalized CX.
- Firms that ignore middle- and back-office innovation can impede the overall experience they offer their customers and in many cases their core technologies are simply unfit for this new world.
- Bringing middle- and back-office operations up to speed can be daunting. Banks must map and prioritize the most critical transformational processes toward an open platform through **collaboration by design** with FinTechs.



Act now, act together, act at scale: Structure is essential for bank/FinTech partnerships to work.

- Despite obvious synergies between banks and FinTechs, the disappointing reality is that most partnerships have not paid off.
- Incumbents and FinTechs must address their relationship stumbling blocks to industrialize innovation and obtain positive return on investment.
- Effective collaboration requires **people, business,** and **process maturity** on both sides.
  - Late-stage FinTechs (**scaleups**) can deliver productivity-driving value based on their last-mile expertise, data management experience, and mobile-only mentality.
  - **Inventive banks** can leverage their reach, trust, and business expertise to optimize their assets and remain relevant to an increasingly diverse customer base. This is especially important given the highly uncertain economic outlook caused by never- seen-before risks.
- Players that collaborate at scale to industrialize innovation will shine within the shared Open X ecosystem.
- A sharp focus on business outcomes will help both banks and FinTechs move from **open innovation** (proof of concept) to **applied innovation** (innovation industrialization).

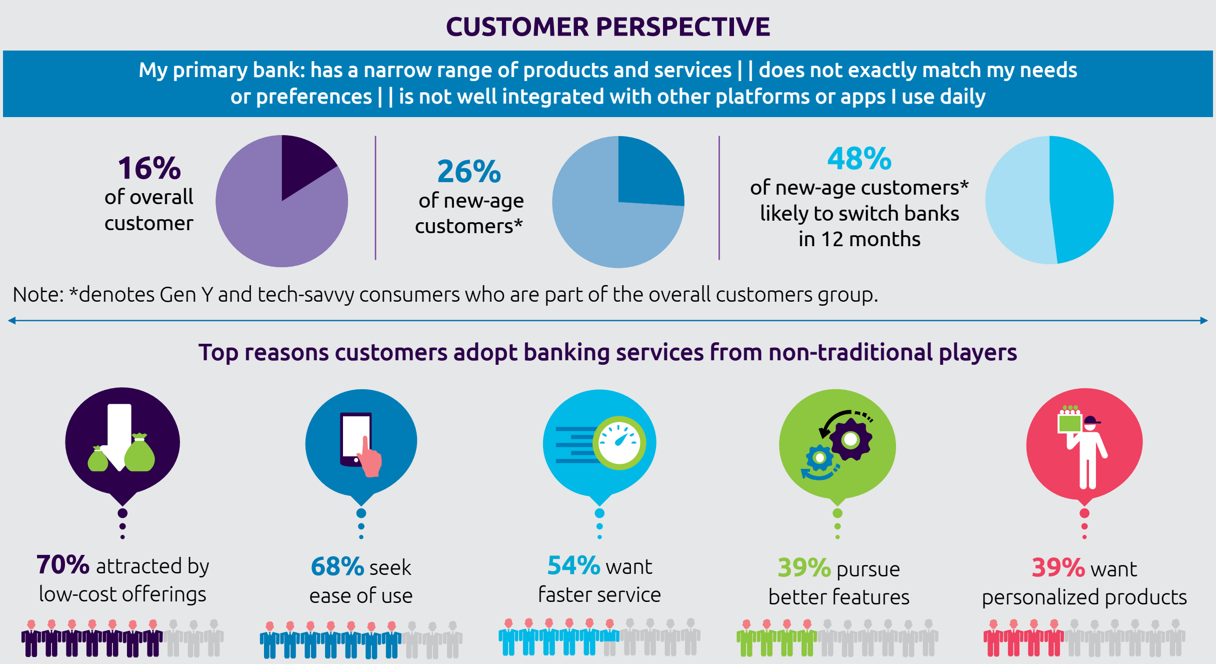
Banks must board the last train to relevancy – the Open X express

BigTechs[1] and challenger banks[2] have opened a Pandora's box of customer expectations. Can banks compete?

The gap between what customers expect and what banks deliver has never been wider. All customers, but in particular the Gen Y[3] and younger, demand a seamless, real-time and hyper-personalized banking experience that complements their digital lifestyle. They expect their banks to offer an experience that matches the convenience of today's popular challenger banks. And they won't hesitate to switch to one that offers hassle-free, relevant products and services (Figure 1).

> *Non-traditional firms have been tackling some of the pain points customers face with incumbent banks. For instance, BigTechs and challenger banks such as N26 offer KYC and onboarding with a fully digital and seamless customer experience; and that is pushing banks to rethink, revamp, and reshape their customer journey."*
>
> **—Laurent Herbillon**
> Director, Open Innovation, BNP Paribas

Figure 1: Impact of BigTechs and challenger banks on the banking industry



Sources: Capgemini Financial Services Analysis, 2019; World Retail Banking Report 2019 – Voice of the Customer Survey.

1 BigTechs are technology giants that dominate their respective sectors, such as Amazon, Ant Financial, Apple, Facebook, Google, and Tencent. BigTech dominance is due to their understanding of the market and its needs, access to vast amounts of customer data, and delivery of delight-inducing products and services.

2 Challenger banks are pure players with a "mobile only" designed banking experience, usually operating in multiple countries. They have their own banking license and are cloud native, operating on an open and evolutive platform. In contrast, neobanks are subsidiaries/affiliates of traditional banks (usually linked to the same core banking system) providing online/mobile experience (with possible access to branches) while usually leveraging the same banking license.

3 Gen Y: Customers who were born between 1983 and 2002.

Capitalizing on the growing demands for improved services, BigTechs and challenger banks are not wasting time when it comes to expanding their offerings and market penetration.

Through an open and evolutive platform, they have strategically evolved and scaled their financial services (FS) capabilities and now pose a tangible threat to established banks.

Many of these players broke into the market with a single offering (often payments) and then ventured into lending, savings, wealth management, and beyond. Tech giants and challenger banks now offer multiple financial services and are aggressively growing their presence through investment in FinTechs globally. (*For additional insights, see Figure A1 and A2 in Appendix).*

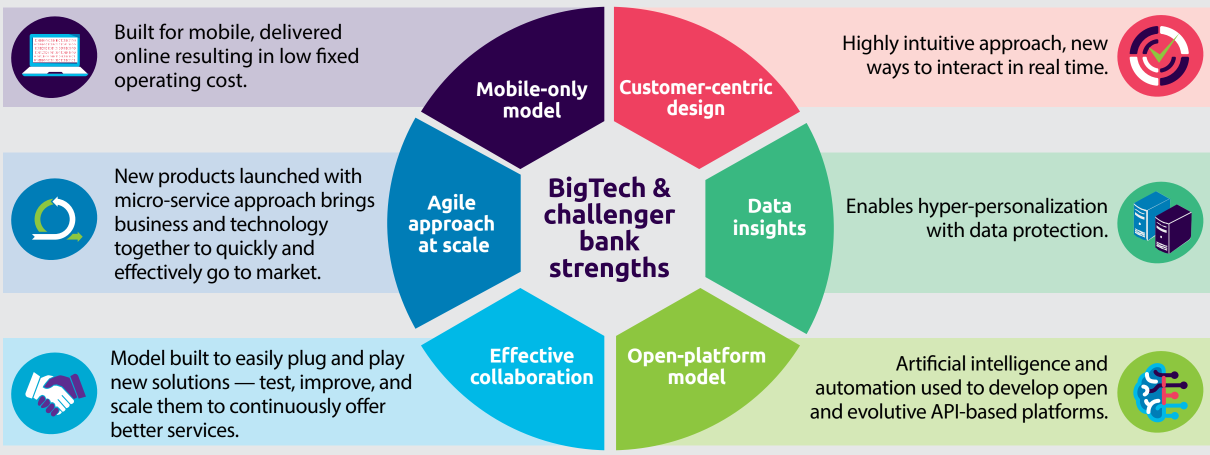
BigTechs and challenger banks have established their position playing on their strengths, leveraging the wealth of data through open and evolving platforms to offer customers a convenient, personalized experience (Figure 2).

A "do-what-you-do-best" approach maximizes impact (and therefore returns), allowing each participant to contribute to customer experience as well as to open ecosystem profitability.

BigTechs and challenger banks are 'born digital, born data.' They can have a data-driven relationship, leveraging data in creative ways to drive customer insights. In contrast, traditional banks are product-driven, with data used for risk behavior only."

—Carlos López-Moctezuma
Global Head of Open Banking, BBVA

Figure 2. BigTechs and challenger banks leverage high-impact capabilities



Sources: Capgemini Financial Services Analysis, 2020; CB Insights, 2019.

Why collaboration counts: FinTechs' specialized tools and expertise can empower banks

FinTechs are maturing and increasing their offerings, market presence, and customer base. The ability to fuse innovative technology expertise with an obsessive customer focus is driving FinTech success, which enhances their attractiveness in terms of partnership suitability. Now more than ever, bank/FinTech collaboration is a powerful strategy to help incumbents across the business value chain fill gaps in operations, regulations, onboarding, data, technology adoption, and CX – to give today's customers what they demand.

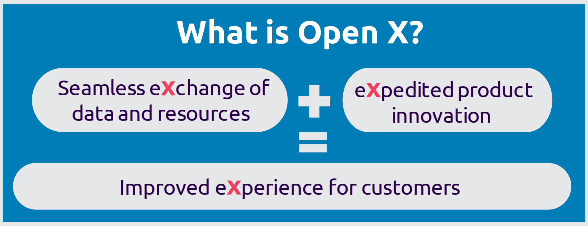
However, collaborating at scale will require traditional banks to identify and prioritize the critical customer journeys they need to reinvent and the initiatives they expect to accomplish by working with FinTechs across open platforms. *See page 14 for more information.*

Examples of challenger banks and incumbents partnering for profitability with FinTechs:

- Berlin-based challenger bank **N26** began a partnership with London-based online money transfer service **TransferWise** to help N26 customers save forex fees when making payments in foreign currencies.[4]
- London-based **Revolut** collaborated with **Currencycloud** (a New York-based API and service provider for cross-border payments) that allows users to transfer currencies from all over the world. Currencycloud gives Revolut customers access to the Currencycloud payment network via APIs that can integrate in two hours, without applying for new regulatory permissions.[5]
- **Commerzbank**, a major German bank, collaborates with **IDnow**, a late-stage German scaleup that uses machine-learning to verify its customers' identities via video on a smartphone or computer. The result? A 50% higher conversion rate, and 30% of Commerzbank customers verifying their identity through IDnow.[6]

Open banking was just the beginning

Although it is a transformational catalyst, open banking is not the FS endpoint. It is a stepping stone to free-flowing information and a sharing-economy ecosystem that is beneficial to all participants as part of the impending era we call "Open X."



So, banks must evaluate where they can most efficiently and profitably play within this open – and sharing – value-creation process. The process begins with collaboration, but that only scratches the surface of the full potential of an open ecosystem. When data and resources are shared, the environment is ripe for innovation, exponentially better products and services, and customer experience that rivals the trendsetters.

Only 6% of banks that have collaborated with FinTechs have achieved their desired and anticipated return on investment. What's more, Bank/FinTech partnerships have focused almost exclusively on front-office operations.[7]

The fact is that banks should also deploy FinTech capabilities across their business value chain to enable seamless data sharing from the front office to the middle and back offices while also transforming back-end operations to connect with third-party partners.

Industrializing an open ecosystem means leveraging FinTech capabilities to create a streamlined platform system that integrates external ecosystem players seamlessly.

There is no denying that customers want to conduct financial transactions through high-engagement channels such as WhatsApp, Slack, WeChat, Amazon, or whatever comes next. Therefore, banks that don't want to become a utility provider with just data pipes (merely transferring data from one place to another without any input) must embrace platform models.[8]

The task ahead is to create **open and evolutive platforms** that act as building blocks to produce and integrate a wide range of relevant products and services to accommodate the fast-paced lives of today's bank customers and their wide-ranging financial needs. **Platformification has become a mantra for successful businesses across different industries**.

Open X ecosystem participants leverage their key strengths.

Open X leapfrogs the compliance-based approach of open banking and moves to a seamless eXchange of data and resources empowered by an eXpedited product innovation cycle that continuously improves customer eXperience (Figure 3).

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[4] N26, "Seamless international money transfers with TransferWise," February 29, 2016, https://n26.com/en-eu/transferwise.

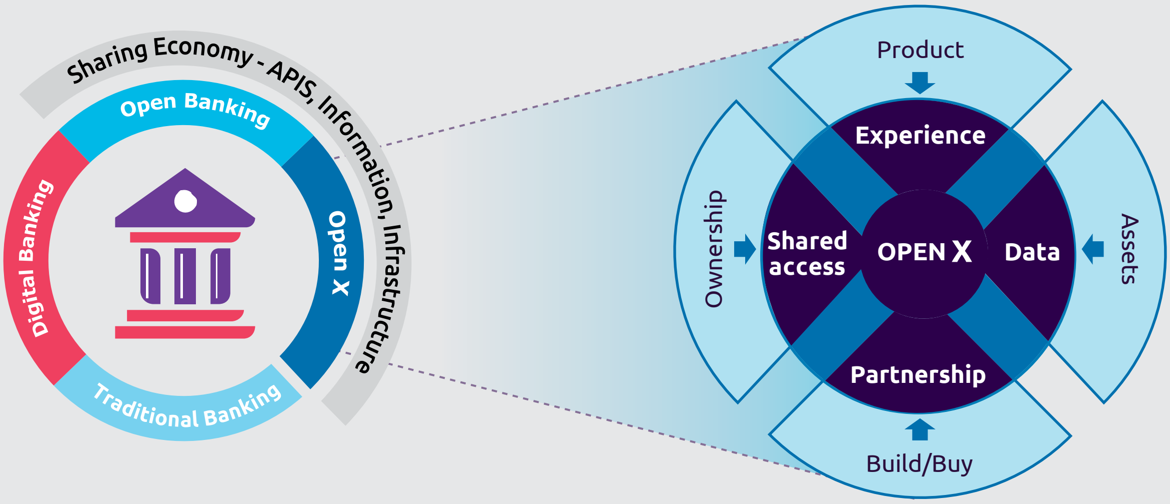
[5] Currencycloud, "Building a global money app with Revolut," April 20, 2016, https://www.currencycloud.com/company/case-study/building-a-global-money-app-with-revolut/.

[6] IDnow, "Case Study: Commerzbank," https://www.idnow.io/docs/case-study/IDnow-CaseStudy_Commerzbank_EN.pdf, accessed February 2020.

[7] Capgemini Retail Banking Report 2019 – Voice of the Customer Survey.

[8] Ibid.

Figure 3. Open X for enhanced CX



Source: Capgemini Financial Services Analysis, 2020.

Uber is a prime example of a non-financial player using the full potential of the Open X ecosystem. Uber customers experience a seamless ride-hailing service with administrative processes in the background and not apparent. Uber built its flagship ride-booking offering on a partnership model with car owners, in which Uber provides a platform. It relies on **Google Maps** for its navigation and ten different payment integrations from credit cards to regional payment methods such as **Paytm** in India, **Venmo** in the US, or **iDEAL** in the Netherlands.[9]

In Mexico, Uber partnered with **BBVA** debit cards so its driver-partners could access real-time payments and debit card spending information by using their smartphone app.[10] With expertise from **Visa** and **Barclays**, Uber launched a credit card in the US that offers Uber cash rewards that consumers can apply as payments in every Uber application.[11]

For its food delivery offering, Uber Eats, it created a three-sided marketplace with customers, restaurant partners, and delivery partners.

By leveraging open APIs and a collaborative ecosystem, Uber is venturing into additional services, including Uber Freight, Uber Works, Uber Voucher, and JUMP bikes and scooters.

It is essential to be present in digital ecosystems like our partnership with Uber–in which Uber operates in the daily lives of our clients and potential clients."

—Carlos López-Moctezuma
Global Head of Open Banking, BBVA

Players must focus on what they do best and then position themselves within the most beneficial Open X ecosystem role.[12] Open X challenges incumbent banks to liberate themselves from long-held mindset barriers to become an **Inventive Bank** – agile, customer-centric specialist prepared to face the new age of financial services. Inventive bank transformation begins with incumbents determining a strengths-based Open X role that will generate maximum value through collaboration with partners (Figure 4).

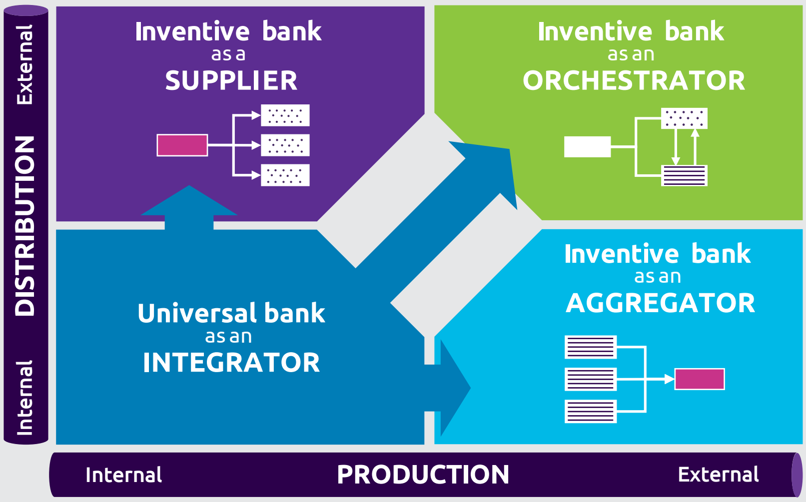
[9] Uber, "Engineering Uber's Next-Gen Payments Platform," December 5, 2018, https://eng.uber.com/payments-platform/.

[10] BBVA, "Uber hails BBVA as it launches Uber Money," https://www.bbva.com/en/uber-hails-bbva-as-it-launches-uber-money/, accessed February 2020.

[11] Barclays, "Uber Credit Card," https://cards.barclaycardus.com/banking/cards/uber-visa-card/, accessed February 2020.

[12] The roles are specific to one business model/solution. A bank can play multiple roles at one time, but for diffent business requirements.

Figure 4. Banking evolution: from open banking integrated bank to Open X inventive bank, with role specialization



The traditional role of **Integrator** applies to banks as "Universal bank" in full control of products and services from development through distribution.

A **Supplier** develops products and services delivered in white-label to a third party for distribution.

An **Aggregator** leverages its distribution channels to distribute under its brand other players' products.

An **Orchestrator** connects Aggregators and Suppliers and ensures their interactions generate maximum value in the open marketplace.

Source: Capgemini Financial Services Analysis, 2020.

While challenger banks and BigTechs are well-positioned for the Orchestrator role, incumbents should choose their role strategically.

Orchestrator success will rely on a reliable core platform and an open infrastructure that leverages data effectively and integrates with other ecosystem players quickly and easily.

Although the Orchestrator role can be lucrative, traditional banks may find it challenging to become a pure-play intermediary. As we noted in the *World FinTech Report 2019*, pure-play orchestrators offer similar competing products and services (possibly including their own) from several players without supplier bias. Incumbents forced to promote their products alongside those of competitors may face conflicts of interest or cannibalization.

Although they may not be pure-play orchestrator candidates, traditional banks can build functionalities to connect and coordinate products and services without cannibalizing their proprietary innovations. They can offer customers value-added services by leveraging complementary FS or non-FS solutions from FinTech firms and third parties.

Nevertheless, most incumbents continue to hold on to their traditional integrated role.

Now is the time, however, for banks to evaluate their strengths and leverage their strongholds, to work with ecosystem partners to fill developmental gaps, and to decide – strategically – which Open X role will be the best fit. **Early movers will have a decidedly competitive advantage**.

In the United States, for example, investment bank **Goldman Sachs** is adopting technology solutions to enable it to extend loans to small- and medium-sized businesses via Amazon's lending platform.[13] And, in early 2020, the Spanish banking group **BBVA** launched a pilot plan with Amazon to sell their FS and non-FS services. The arrangement is part of BBVA's broader strategy to eventually sell digital banking products via the GAFA giants.[14]

Both Goldman Sachs and BBVA seek to leverage Amazon's vast distribution network to sell products. For Amazon, banking partnerships bolster its mission to more widely profit from its enormous marketplace and to get around some regulatory requirements.

[13] Business Insider, "What an Amazon and Goldman Sachs partnership means for Wall Street and fintechs," February 27, 2020, https://www.businessinsider.in/tech/news/what-an-amazon-and-goldman-sachs-partnership-means-for-wall-street-and-fintechs/articleshow/74015178.cms.

[14] Mobile Payments Today, "BBVA launches sales on Amazon with eye towards financial products," January 2, 2020, https://www.mobilepaymentstoday.com/news/bbva-launches-sales-on-amazon-with-eye-towards-financial-products/.

Innovative telecom player disrupts banking through partnerships – Achieves success through a CX focus and an Open X orchestrator role

Business case: **Orange**, a telecom, launched a mobile-only bank in France in 2017 in a bid to diversify its portfolio in the financial services industry. To sustain long-term growth, Orange executives sought new avenues of growth through vertical adjacencies to leverage the value of its telecom infrastructure. After a successful debut at home, **Orange Bank** expanded operations to Spain in November 2019.[15]

Implementation: Orange leveraged the expertise of ecosystem partners to create an experience-led mobile-only bank. Focusing on user experience versus products, Orange collaborated with Munich-based **Wirecard** for contactless payments and the digital-first platform from Amsterdam-based **Backbase** for omnichannel digital banking.[16, 17]

Orange Bank adopted a shared-access strategy via collaborations such as those with **inWebo** for identity and two-factor authentication.[18]

Following a data-driven approach, Orange leverages Watson (**IBM's** artificial intelligence platform for business) to power its Djingo chatbot, and **Salesforce** for CRM to analyze customer data for providing highly customized services.[19]

Tie-ups with **Franfinance** for consumer credit services and Singapore-based **Moneythor** for personal financial management offer additional examples of Orange Bank's partnership-led model.[20, 21]

Results: Assuming an Open X **orchestrator** role, Orange Bank acts as an experience coordinating platform while sourcing the best services/products from other relevant players.

Two years after launching, Orange Bank is on its way from disruption to maturity and handles 344,000 accounts and has issued 122,000 loans.[22]

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[15] Finextra, "Orange Bank launches in Spain," November 26, 2019 https://www.finextra.com/newsarticle/34840/orange-bank-launches-in-spain.

[16] Wirecard, "Wirecard collaborates with Orange Money to launch innovative new digital payment and banking," May 6, 2019, https://www.wirecard.com/en-ap/company/press-releases/wirecard-collaborates-with-orange-money-to-launch-innovative-new-digital-payment-and-banking-service-in-eastern-europe.

[17] FinTech Futures, "Orange Bank goes live with Backbase banking platform," November 13, 2017, https://www.fintechfutures.com/2017/11/orange-bank-goes-live-with-backbase-banking-platform.

[18] The Paypers, "Interview with Didier Perrot, inWebo on authentication and identity management," June 20, 2018, https://thepaypers.com/interviews/interview-with-didier-perrot-inwebo-on-authentication-and-identity-management/773635-38.

[19] Orange, "Orange Bank brings unique customer experience with its virtual advisor powered by IBM Watson," March 6, 2018, https://www.orange.com/en/Press-Room/press-releases/press-releases-2018/Orange-Bank-brings-unique-customer-experience-with-its-virtual-advisor-powered-by-IBM-Watson.

[20] Les Echos, "Orange bets on free services to launch its offensive in banking," April 21, 2017, https://www.lesechos.fr/2017/04/orange-fait-le-pari-de-la-gratuite-pour-lancer-son-offensive-dans-la-banque-170490.

[21] Moneythor, "Orange Bank relies on Moneythor for new digital bank," December 5, 2017, https://www.moneythor.com/2017/12/05/orange-bank-relies-on-moneythor-for-new-digital-bank/.

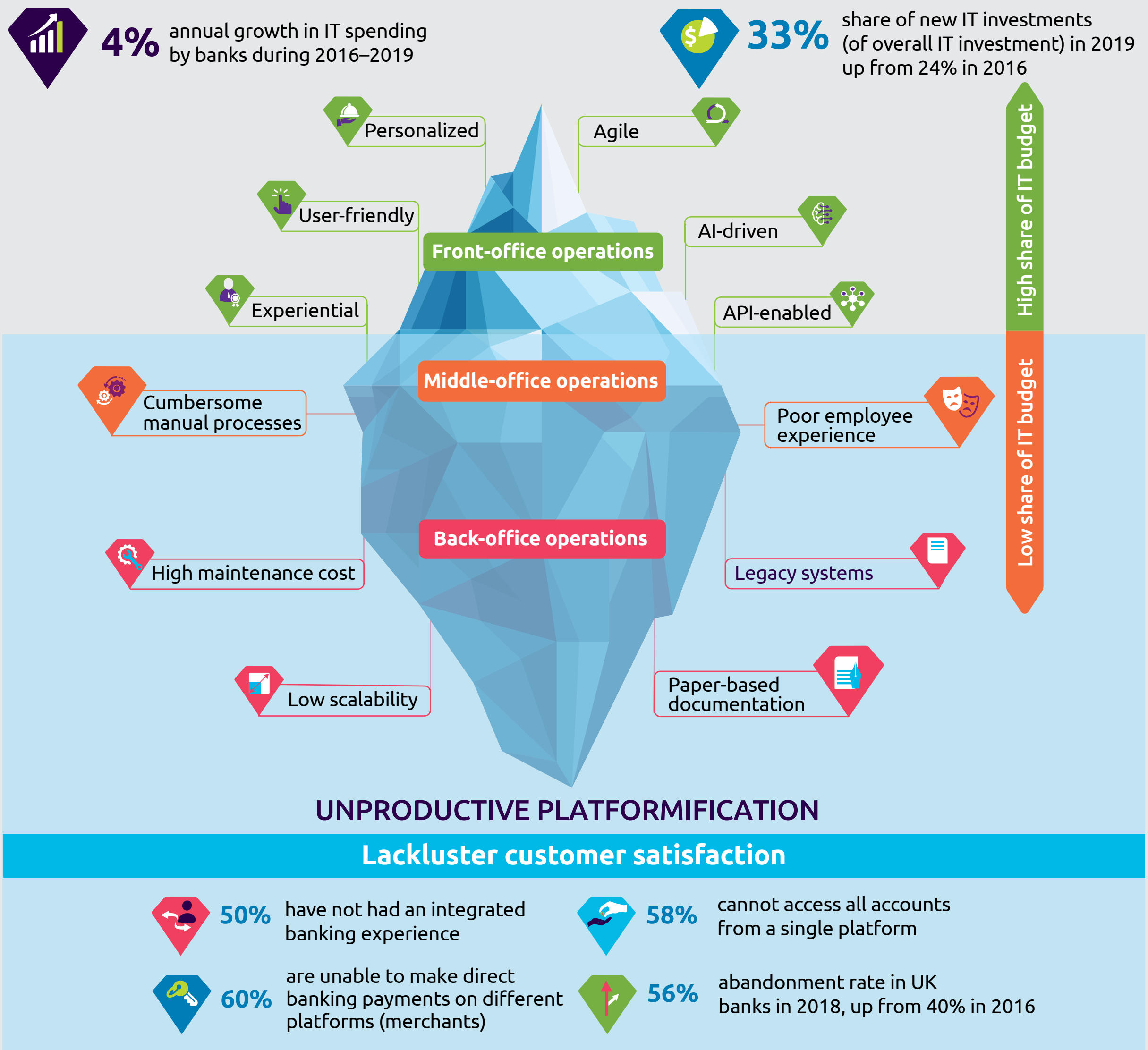
[22] Moneyworld Live, "Orange Q3 driven by growth away from home,"October 29, 2019, https://www.mobileworldlive.com/featured-content/home-banner/orange-q3-driven-by-growth-away-from-home/.

The last mile is merely the visible result of customer experience

But behind the scenes, middle- and back-office operations affect customer perception

In recent years, banks have invested heavily in IT to improve customers' last-mile experience. However, customers remain underwhelmed because they say banking services have not grown to the superstar levels they expect and receive from a few other sectors. The lack of perceivable CX improvement may **stem from banks' bare-bones attention to middle- and back-office operations**. And, now, these ignored behind-the-scenes processes are blunting the positive impact of front-end investments and collaboration (Figure 5).

Figure 5: Unsupported middle-and back-office operations can freeze last-mile performance



Sources[23]: Capgemini Financial Services Analysis 2020; World Retail Banking Report, 2019; Celent, 2019; The Financial Brand, 2019; Signicat, 2018.

As data and technology proliferate, banks are transforming their business models to keep pace with the changing industry landscape and customer expectations. However, continued layering of processes to enable new business models onto legacy infrastructure can hamper efforts to channel investments that drive end-to-end optimization.

Therefore, banks must funnel resources and attention to the middle and back offices and recalibrate these functions with customers' last-mile experience.

Banks' digital renaissance often superficially focuses on the front end. Yet, to succeed in the Open X ecosystem, **banks must optimize and streamline their end-to-end value chain**. Based on the size and scale of operation, a bank could have more than 300 to 800 middle- and back-office processes.[24]

Manual, disconnected, paper-based, and siloed tasks often weigh down these procedures, and impacts new offerings' speed to market and customer response time. The result is fragmented CX.

> *Without changing internal processes, problem areas will be externalized, and banks will be unable to fulfill their customer experience objectives. Thus, it is important to digitize internal processes to generate effective results."*
>
> **—Carlos López-Moctezuma**
> Global Head of Open Banking, BBVA

How middle- and back-office functions became submerged:

Complex business processes	As a result of their traditional product-centric approach, incumbents often layer new models on top of old, which has led to complicated business processes that are difficult to automate.
Compliance-centric architecture	In response to regulatory demands, typical bank IT architecture is complex and implemented intermittently as quick fixes demand. Redesigning these ingrained systems may take years and cost hundreds of millions of dollars.
Lack of agility	Banks struggle to find the skills needed to introduce new automated processes. Historically, IT teams have practiced waterfall methodologies (linear project management) that limit middle- and back-office process automation.
Out of the (business) loop	Many IT transformation teams lack visibility to bank business priorities. Therefore, IT project decisions are made within a silo and without thought to the full spectrum of integration options.

[23] Celent, "Global tech spending forecast, Banking edition 2019," Stephen Greer, Gareth Lodge, Juan Mazzini, and Eiichiro Yanagawa, March 28, 2019, https://www.celent.com/insights/964486482; " The Financial Brand, "Consumers demanding improved digital banking customer engagement," Jim Marous, August 12, 2019, https://thefinancialbrand.com/87006/customer-engagement-digital-banking-cx/; BACS, "The battle to on-board II: The European perspective on digital on-boarding for retail banks," September 2018, https://www.bacs.co.uk/documentlibrary/Current_Account_Switch_Service_discussion_paper_consumer_switching.pdf.

[24] Banking Dive, "Why back-office automation is the secret to better banking," August 1, 2019, https://www.bankingdive.com/spons/why-back-office-automation-is-the-secret-to-better-banking/559849/.

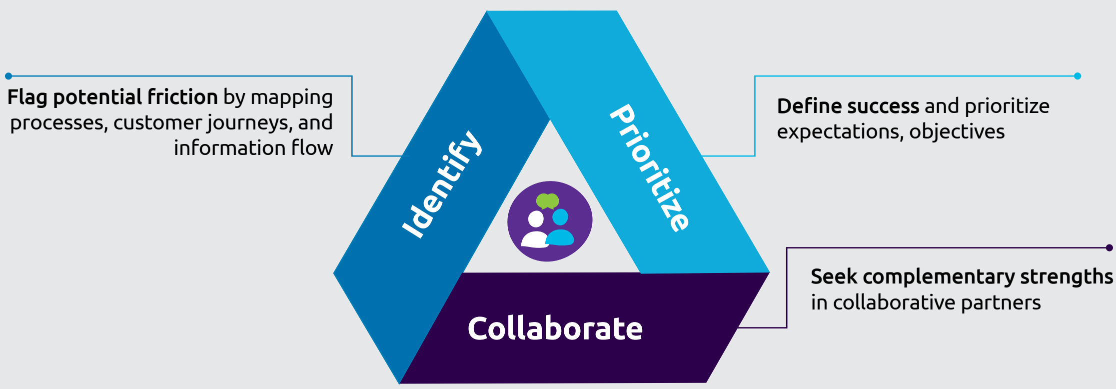
Back-end transformation can be a bumpy ride – avoid potholes with collaboration by design

In the Open X ecosystem, banks need data-driven and customer-centric partnerships to drive middle- and back-office transformation.

Collaboration by design is an approach that draws inspiration from value-sensitive design (VSD) principles. It focuses on seamless CX by enhancing the most high-impact middle- and back-end processes (Figure 6).[25]

Identify: Phase 1 requires the bank to assess its current end-to-end processes to detect friction or bottlenecks. Some banks base digital initiatives on the customer lifecycle to map customer interactions. However, this approach doesn't allow for the impact of the middle and back office on customer experience. A **customer journey-led transformation** is more realistic than a customer lifecycle approach. To connect and map disparate customer interactions, banks must comprehensively plan the journey itinerary (Figure 7).

Figure 6. Collaboration by design in three iterative steps: Identify, Prioritize, Collaborate



Source: Capgemini Financial Services Analysis, 2020.

> *"The flow of becoming a customer is one of the most important for an online platform like Nordnet. To improve this all-important customer journey, we use 'progressive disclosure' to not overwhelm customers with questions and maintain clarity in all communications, including regulatory matters."*
>
> **—Rasmus Järborg,**
> Chief Product Officer, Nordnet

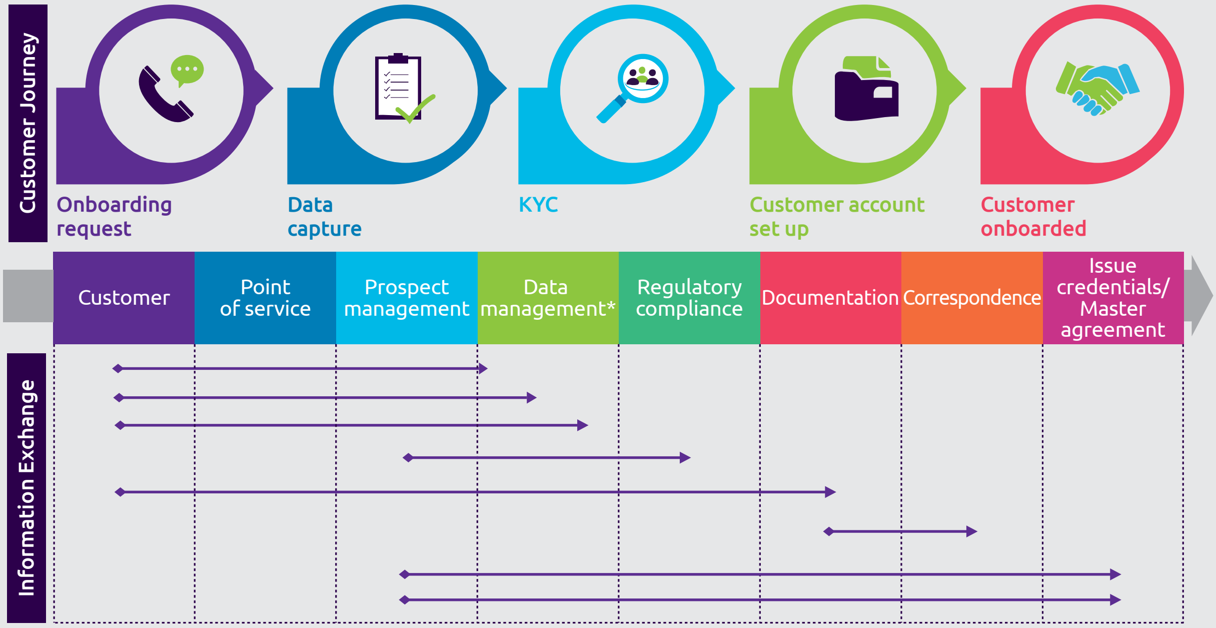
A data-centric journey map – aligned with middle- and back-office processes and information flow – will capture impact at every customer touchpoint. Moreover, journey mapping helps banks organize uncoordinated processes spread across various functional silos around a single end-to-end route. While customer journey mapping as a tool is widely used by banks, it is yet to achieve quality and integration maturity.

For example, **Bank of Montreal** has a Process Center of Excellence that maps customer journeys and uses analytics to derive a data-centric customer route. The bank conducts data analysis on a vast number of customer journeys, which helps it evaluate various tasks and processes. This digital data highlights customer intentions versus actual behavior.[26]

[25] VSD systematically accounts for human values throughout the design process through analyses of direct and indirect stakeholders, distinctions among designer values, values explicitly supported by the technology, and a commitment to progress (not perfection).
University of Washington, Department of Computer Science & Engineering, "Value Sensitive Design," Batya Friedman and David Hendry, June 6, 2019, https://www.vsdesign.org.

[26] DM Magazine, "Embracing Journey Analytics: Interview with Lorei Bieda, Bank of Montreal," Stephen Shaw, January 15, 2019; http://dmn.ca/embracing-journey-analytics/.

Figure 7: Onboarding is one of many customer journeys to be mapped



* Data types: Customer reference data, party data, location data. ⟷ Denotes flow of data within different processes.

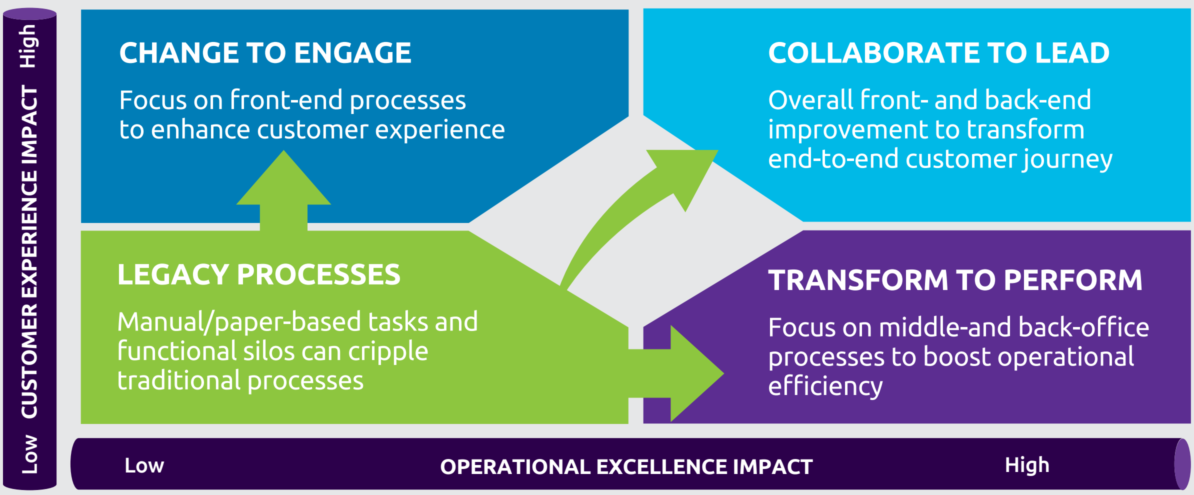
Sources: Capgemini Financial Services Analysis, 2020; BIAN Standard v7.0.

Prioritize: Phase 2 begins with prioritizing middle- and back-office processes by assessing their operational efficiency and impact on customer experience (Figure 8).

Moreover, banks can accept quick-wins or adopt a procedure that may be less impactful but easier to transform. By overlaying middle- or back-office processes with the customer journey, banks can **identify tactical issues** such as paper-based and manual processes, overlapping and redundant processes, and high-cost processes.

Next, the bank must align benefits and expected outcomes with its overall business strategy and

Figure 8: Prioritizing processes to collaborate and transform the end-to-end customer journey



Source: Capgemini Financial Services Analysis, 2020.

priorities. Emerging technologies (such as second generation of RPA, AI, machine learning, and NLP) can be leveraged to optimize or replace existing processes.

Banks then use their findings from phase 2 to envision and create a future-state customer journey that addresses tactical issues and aligns with business priorities.

A future-ready enterprise, equally focused on improving CX and achieving operational excellence, can outperform competition and improve its bottom line by up to 16% over industry peers, according to a recent MIT study.[27]

Collaborate: As part of phase 3 (collaboration by design), incumbents boost their agility and responsiveness to customer expectations by partnering with FinTechs.

Data management, cost reduction, and agility are FinTech competitive advantages, according to the *World FinTech Report 2018*. Traditional banks that digitize their middle- and back-office processes by leveraging FinTech expertise will fold these advantages into their own competitive arsenals.[28] Transformation can augment bank productivity, enhance customer engagement, reduce costs, increase transparency, and boost employee satisfaction. The value captured from effective FinTech partnerships can help incumbents improve top- and bottom-line growth. Moreover, reinvesting these savings can drive continuous process improvements.

A hybrid model that includes in-house development capability as well as collaboration with FinTechs is the way forward in terms of digital transformation for established banks and can help mitigate the risk of attracting bad-fit partners."

—Adizah Tejani
Digital Innovation Lead,
HSBC Retail Banking and Wealth Management

Swedish bank benefits by following the principle of "collaboration by design"

To improve its middle- and back-office processes, Swedish online bank **Nordnet** maps 15 key customer journeys and breaks them down in smaller segments.

Next, the firm evaluates the critical processes on two dimensions – customer experience and operational excellence – to identify areas of improvement (such as cost and degree of manual tasks). This practice helps Nordnet assess technology solutions (including those based on cloud, RPA, or artificial intelligence) to streamline its internal processes.

Lastly, the bank evaluates mature startups with aligned capabilities that can plug into the Nordnet platform quickly.

FinTechs offer innovative enhancements for middle and back offices

Banks should clearly define their business needs, use cases, and goals and then select the best-fit FinTech partner to help build a delight-inducing customer journey (Figure 9).

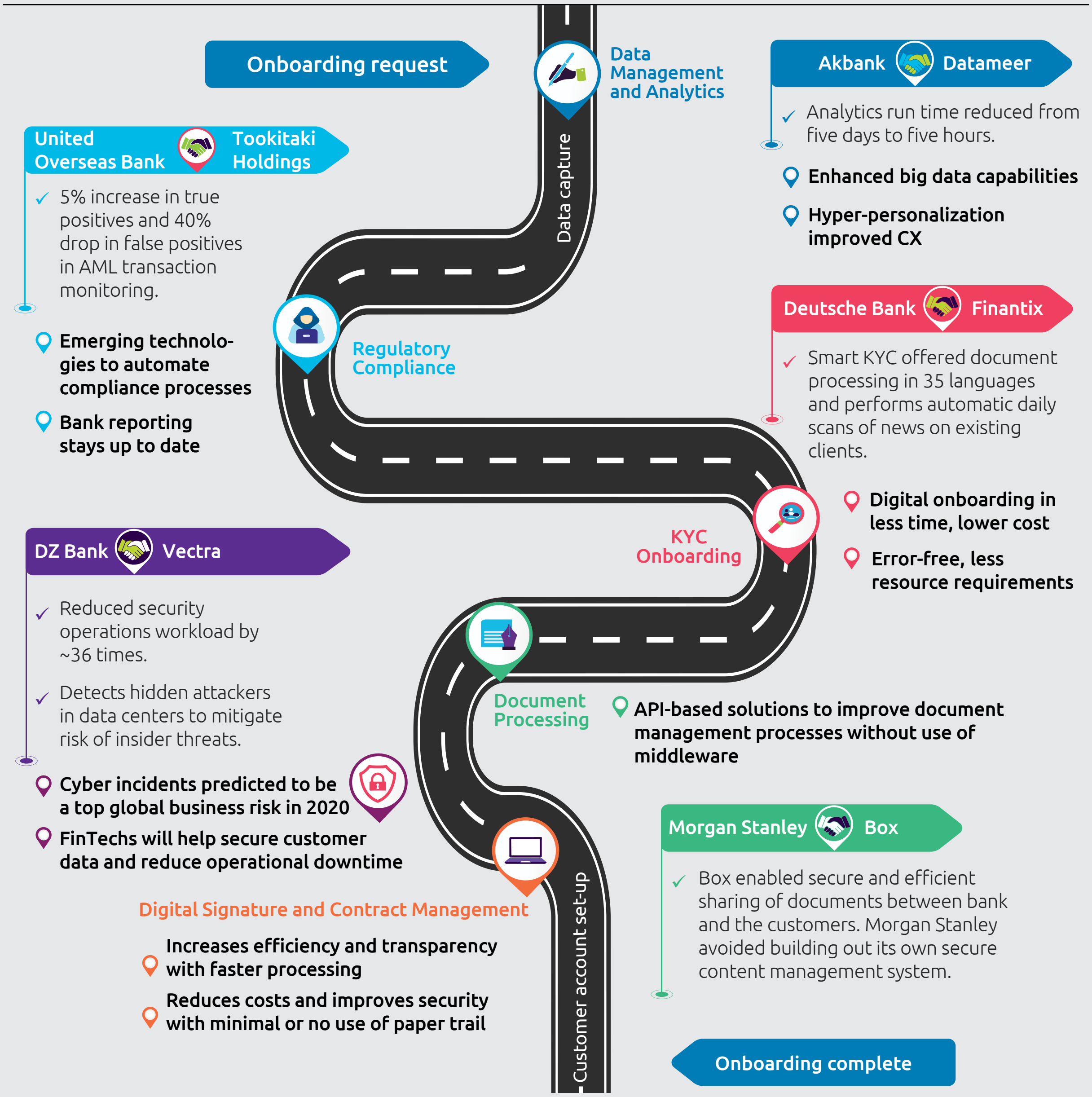
Before banks can change their business models and processes, they must consider data protection/compliance concerns. FinTechs/RegTechs can fill in the gap with trusted data protection and regulation platforms."

—Nicolas Prince
CEO, RegData

[27] MIT Sloan Management Review, "Is your company ready for digital future," Peter Weill and Stephanie L. Woerner, December 4, 2017; https://sloanreview.mit.edu/article/is-your-company-ready-for-a-digital-future/.

[28] Capgemini, "World FinTech Report 2018," 2018; https://www.capgemini.com/wp-content/uploads/2018/02/world-fintech-report-wftr-2018.pdf.

Figure 9: FinTechs enable a better customer onboarding process



Sources[29]: Capgemini Financial Services Analysis, 2020; Datameer, The Business Times; Vectra; Private Banker International; Business Insider; Insurance Business America; Medium.

[29] Datameer, January 2018, https://www.datameer.com/wp-content/uploads/2018/01/akbank-case-study.pdf; United Overseas Bank Limited, August 24, 2018, https://www.uob.com.sg/web-resources/uobgroup/pdf/newsroom/2018/UOB-and-Tookitaki-strengthen-combat-against-money-laundering.pdf; Vectra, https://content.vectra.ai/rs/748-MCE-447/images/CaseStudy_2019_DZ_Bank_Achieving_security_and_privacy_English.pdf; Private Banker International, July 4, 2019, https://www.verdict.co.uk/private-banker-international/news/deutsche-bank-uses-ai-streamline-kyc; Business Insider, July 29, 2019, https://www.businessinsider.com/morgan-stanley-launches-digital-vault-for-wealth-management-2019-7?IR=T; Insurance Business America, January 27, 2020, https://www.insurancebusinessmag.com/us/news/breaking-news/these-are-the-top-10-business-risks-around-the-world-in-2020-211542.aspx; Medium, June 1, 2019, https://medium.com/esignly/best-electronic-signatures-solutions-for-banking-finance-industry-89a75888f192.

Santander UK improved the customer journey by digitizing onboarding and reducing the process from days to minutes

Business case: In its efforts to improve the customer journey, **Santander UK** sought to align its business model with customer needs. The bank embarked on a mission in 2019 to transform its onboarding process by harnessing the power of digital.[30]

The bank's onboarding process was plagued with unreliable response times and lengthy completion and needed an overhaul. By automating and digitalizing the process, Santander UK sought to take a step toward a digital bank to differentiate itself from other incumbents. To accomplish this goal, the bank actively collaborated with various FinTech firms.[31]

Implementation: Santander embraced design thinking and an agile approach to create both **customer-centric** and **employee-centric** onboarding processes. The bank organized a cross-functional team of stakeholders to **prioritize** critical processes in the end-to-end customer onboarding journey.

Santander adopted an API-based strategy with robotic process automation functionality as its digital onboarding framework. Throughout the project, the bank **reimagined the onboarding experience** from its customers' and employees' perspectives, which helped to define expected benefits from the transformation.

The bank **collaborated** with FinTech firms to improve or replace processes and to optimize its end-to-end customer onboarding journey. Collaborative partners included **Quadient** (dynamic form functionality), **Comply Advantage** (AML), **DocuSign** (digital signature capabilities), **DueDil** (KYB), **TransUnion** (KYC), and **nCino** (bank operating system).[32, 33, 34]

Results: The new digital system reduced customer onboarding time from seven days to just 15 minutes, when compared with the traditional in-branch process. Moreover, Santander UK expects to reduce costs annually to the tune of millions of pounds.[35]

Further, collaboration with FinTechs helped the bank adopt novel technologies and streamline its middle- and back-office processes. For instance, the cloud-based platform from US-based nCino helped the bank replace manual processes and 13 disparate legacy systems to a single end-to-end solution.

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30 Santander, "Digital onboarding to improve our customers' experience," https://www.santander.com/en/stories/digital-onboarding-to-improve-our-customers-experience%20, accessed February 2019.

31 Efma, "Banking Innovation of the Month: Transforming SMEs' Onboarding by Santander," July 16, 2019, https://www.efma.com/article/detail/31607.

32 Computerworld, "How Santander UK cut customer onboarding from days to hours," Charlotte Trueman, October 28, 2019, https://www.computerworld.com/article/3448544/how-santander-uk-cut-customer-onboarding-from-days-to-hours.html.

33 Finextra, "Santander UK adopts nCino Bank Operating System to replace 13 legacy systems," September 26, 2019, https://www.finextra.com/pressarticle/80047/santander-uk-adopts-ncino-bank-operating-system-to-replace-13-legacy-systems.

34 Quadient, "Outperform at Onboarding: Put the Customer First," Rob Daleman, May 28, 2019, https://www.quadient.com/blog/outperform-onboarding-put-customer-first.

35 Efma, "Banking Innovation of the Month: Transforming SMEs' Onboarding by Santander," July 16, 2019, https://www.efma.com/article/detail/31607.

Structure is essential for bank/FinTech partnership effectiveness

The disappointing reality of many bank/FinTech partnerships

Now, more than ever, incumbent banks and FinTechs are convinced that collaborative partnerships offer win-win synergies. But success looks different for each participant, and a lack of focus leads to unimpressive results and dissatisfaction all around.[36]

Neither partner meets objectives	Lackluster returns
• More than two out of three bank executives are disappointed by collaborative open banking implementation initiatives. • Partners' strategic priorities and KPIs do not align. – Goals not achieved	• Three-quarters of banking executives said they did not achieve productive results from collaboration. • Unstructured collaboration often results in an ineffective assessment of partner strengths and a poor balance of assets. – Unquantifiable return on investment

Failure is not an option

We've heard it before. But now, with an uber-competitive Open X environment on the horizon, there is little leeway for incumbents and FinTechs to waste time or resources on partnerships that don't yield results.

FinTechs are not immune to typical startup shortcomings, and they frequently bring a zealous newcomer mindset to collaborative efforts, often to the frustration of traditional partners.[37]

[36] Capgemini, World Retail Banking Report 2019, October 29, 2019, https://worldretailbankingreport.com/resources/world-retail-banking-report-2019/.

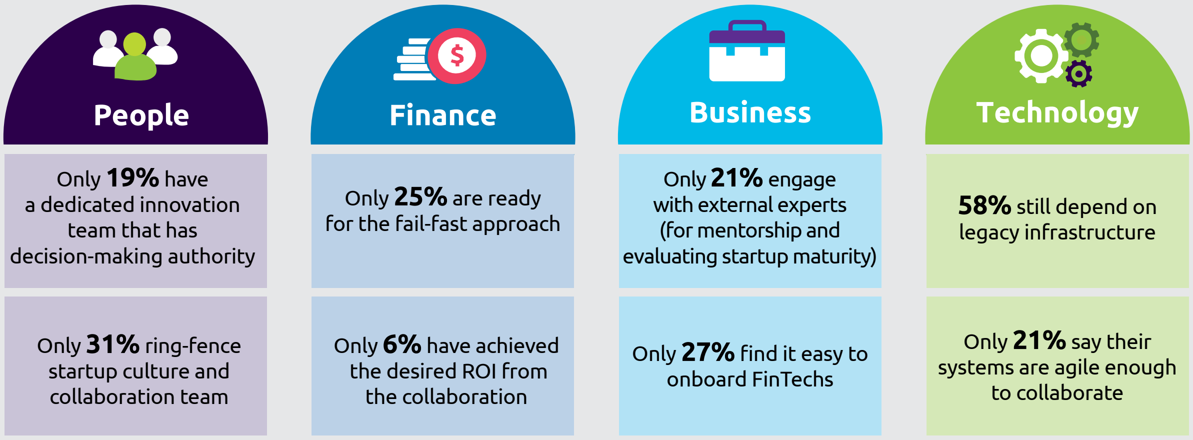
[37] Capgemini, World FinTech Report 2019, June 4, 2019, https://www.capgemini.com/es-es/wp-content/uploads/sites/16/2019/06/World-FinTech-Report-WFTR-2019_Web.pdf.

Perception vs reality: Collaboration through FinTech eyes

Organizational culture	• **Seven out of 10** FinTech firms don't see eye-to-eye (culturally, organizationally) with their collaborative bank partner • Banks' legacy infrastructure and complex processes impede FinTechs' naturally fast-paced work style – The result? A cultural gap that hinders collaborative results
Process barriers	• **More than 70%** of FinTechs say they are frustrated by incumbents' process barriers • Comfortable within a flat organizational structure, FinTechs are exasperated by banks' highly siloed environment – Intricate business lines often obstruct navigation and direct communication
Funding	• **Half** of FinTechs don't have the funds to scale their operations • And for early stage FinTechs, low strategic financing makes operational expansion and product commercialization difficult[38]
Leadership involvement	• **Six out of 10** FinTechs perceive a lack of requisite CXO-level commitment from their partner bank • Apparent disinterest from high-level bank influencers leads to commitment issues and collaboration breakdown[39]
Mismatched alliance	• **More than half** of FinTech executives say they have not identified the right collaborative partner • FinTech misunderstanding about the bank and its business problem, or the product and its scalability, tend to create a mismatch during collaboration – The project eventually fails

Collaboration preparedness remains a low priority for incumbents

Figure 10. Banks' collaboration frustration



Sources: Capgemini Financial Services Analysis, 2020; World Retail Banking Report 2019.

[38] Forbes, "10 Key Issues For Fintech Startup Companies," Richard D. Harroch and Melissa Guzy, October 12, 2019, https://www.forbes.com/sites/allbusiness/2019/10/12/fintech-startup-companies-key-challenges/#3244bf193e45.

[39] The Finanser by Chris Skinner, "Banks and FinTech Partnerships: a Clash of Extremes," Chris M Skinner, July 11, 2019, https://thefinanser.com/2019/07/banks-and-fintech-partnerships-a-clash-of-extremes.html/.

Why are successful partnerships so rare? Let us count the ways.

Ownership dilemma: Banks approach innovation with the end goal of owning it, which limits the variety of offerings they can provide and drive customers away to other players.

Bureaucracy: Many banks have various functional units operating in silos, and before a partnership is approved, each group must sign off. This time-consuming approach does not bode well for nimble FinTechs.[40]

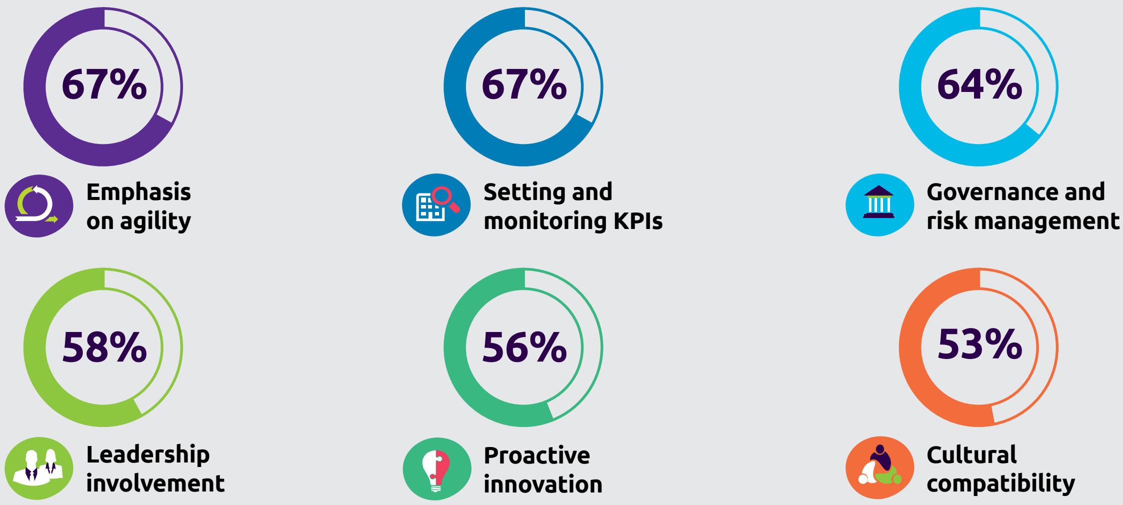
Cost of innovation: Hindered by technology spending constraints, banks must sometimes take shortcuts and apply innovation to only a segment of the value chain, which can end up delaying or forcing the cancellation of a product launch.

Both incumbent banks and FinTechs require maturity and collaboration readiness skills to mitigate partnership challenges.

Effective collaboration requires people, business, and process maturity – on both sides

Sustainable partnerships are the need of the hour, as both banks and FinTechs seek to make the most of collaborations. FinTechs must move from early stage startup behaviors to those of a scaleup if they hope to industrialize or commercialize their innovations. Leading collaboration best practices reveal a direct path to FinTech maturity[41] (Figure 11).

Figure 11. Collaboration best practices: FinTech perspective (%)



Sources: Capgemini Financial Services Analysis, 2020; World Retail Banking Report 2019.

[40] Ibid.

[41] A scaleup is a mature startup that has raised more than EUR 1 million in funding or is profitable, has a full-time employed top management team, and has sustainable business traction (>EUR 200K revenue per year).

To turn best practices into action, FinTechs must develop specific desirable characteristics. A structured assessment can determine which capabilities must be enhanced to attract suitable bank partners and effectively collaborate.

- **Product:** FinTechs should convert their innovation into a minimum viable product. To create a matured disruption, FinTechs should assess their product's scalability and commercial capability.
- **Management:** While FinTechs take pride in their fast-paced culture, it is essential to build cohesiveness by mapping skill sets to the needs of their collaborative partner. A vision-driven partner bolstered by a startup culture can achieve faster turnaround and higher delivery capabilities.
- **Business model:** A FinTech's product/ solution go-live date should fit with market trends. Strategic positioning will target customers with the most potential demand for the innovation.
- **Funding:** To ensure adequate funding for expanding operations, FinTechs need to establish credibility among potential investors. Efficient working capital management with the right brand traction can help to finance the industrialization of the innovation.

> *For a large organization such as HSBC, it is imperative to partner with startups that have experience navigating within a complex environment. Thus, we usually work with scaleups."*
>
> **—Adizah Tejani**
> Digital Innovation Lead, HSBC Retail Banking and Wealth Management

Capgemini's scaleup qualification program evaluates FinTech maturity through 360-degree analysis.

The program evaluates the maturity of scaleups to effectively collaborate at scale with financial institutions by determining whether the firm has the necessary characteristics for long-term success. Participants are evaluated based on People, Finance, Business, and Technology pillars.[42] (For a who's who of scaleup program participants, see Figure A3, page 29.)

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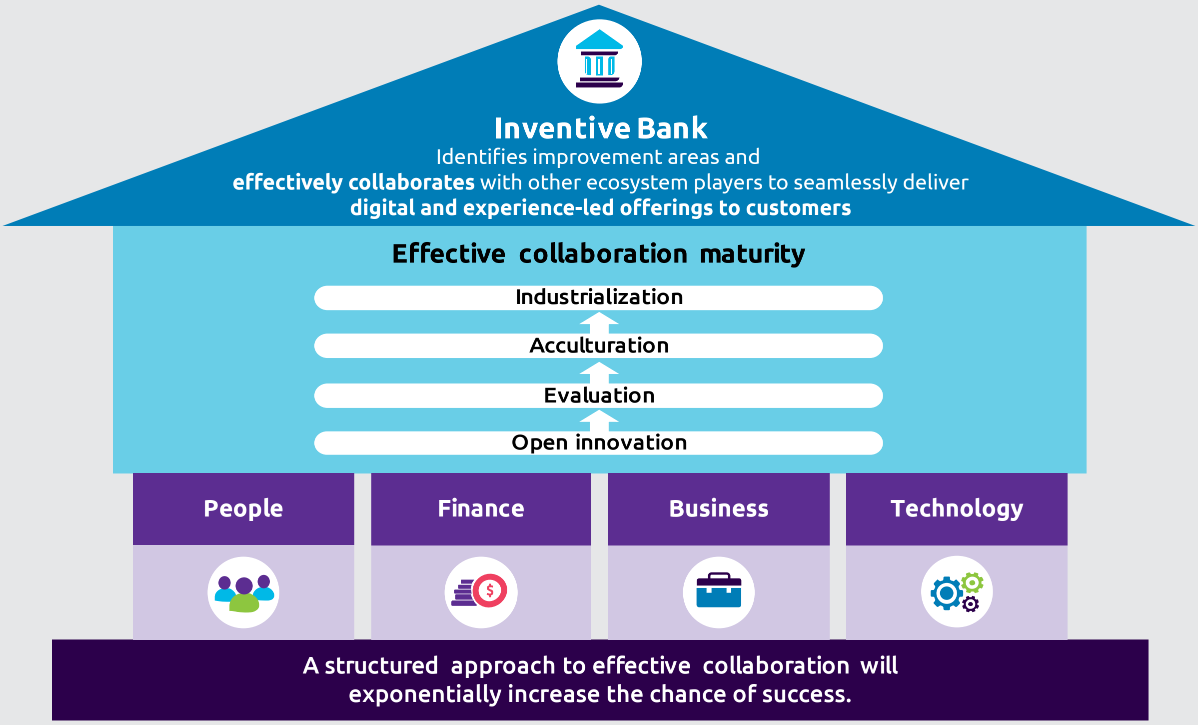
[42] The Capgemini ScaleUp Qualification is a systematic, global and time-effective automated process, leveraging Capgemini's expertise in Technology, Cybersecurity, Insights & Data, and Consulting to identify and qualify the most-prepared scaleups for efficient and effective collaboration with financial institutions. https://scaleup-qualification.capgemini.com/qualification/process.

At the same time, banks within the Open X sharing ecosystem must evolve to become **inventive banks**. The focus of an inventive bank is three-staged, with the first step being platformication or deciding the foundation technology on which to accelerate the design, and build the next generation of banking. Thereafter, a gap analysis can help the bank determine which competencies should be bolstered and then decide which ecosystem players might help to shore up weaknesses – with the end-game intent to provide customers with digital and experience-centric offerings. Finally, an end to end strategy with design, build, and operations expertise can help realize the value of the innovation and deliver at scale (Figure 12).

Figure 12: Integrated framework of an inventive bank



Source: Capgemini Financial Services Analysis, 2020.

To become inventive, incumbent banks must gauge their current readiness to collaborate at scale compared with global peers.

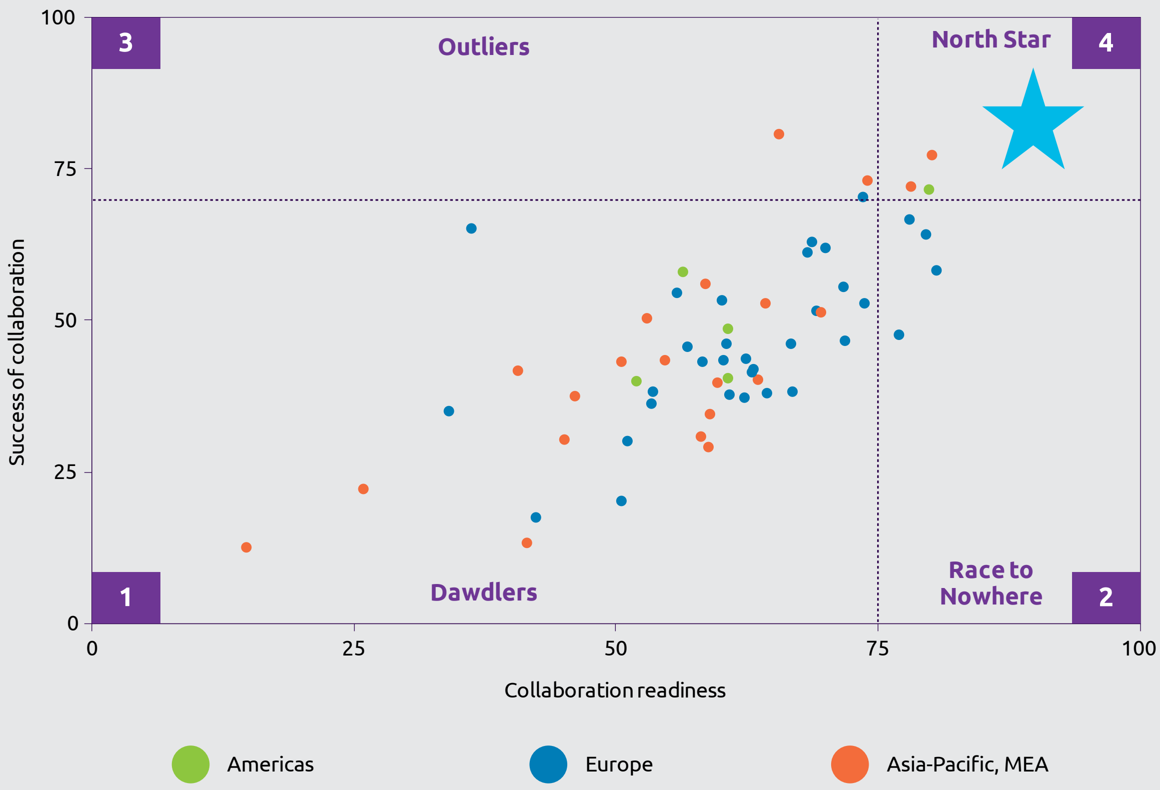
Capgemini's **Open X Readiness Index**, a benchmarking tool, introduced in the *World Retail Banking Report 2019*, measures where banks stand today in their collaboration readiness (Figure 13).

Around **60 banks from across regions have thus far participated in the Open X Readiness Index**, with most finding they are far from reaching North Star success. The banks were measured across People, Finance, Business, and Technology pillars, and mapped to the four stages of collaboration (Open Innovation, Evaluation, Acculturation, and Industrialization).

Most banks struggled to build collaboration readiness in the People and Finance pillars, after encountering issues, especially when it came to Acculturation. For additional insights, see Figure A4 of Appendix, page 30.

Analysis of the top 20% of Open X Readiness Index participants offers insight into the inventive bank transformational journey. Structured around four pillars, incumbents can customize and adapt the identified best practices.

Figure 13. Collaboration readiness vs. success: Bank perspective (%)



Note: For detailed methodology, see page 32.

Sources: Capgemini Financial Services Analysis, 2020; World Retail Banking Report 2019.

What traits help a bank to collaborate effectively?

People

- **A dedicated collaboration team:** Collaboration-ready banks (that participated in the Open X Readiness Index) invested in a dedicated and autonomous FinTech collaboration team composed of at least 10 employees with a mix of startup and enterprise collaboration experience. This team can intercede to reduce friction between bank and FinTech stakeholders, particularly during the sometimes sensitive acculturation and industrialization phases.
- **Intrapreneurship:** Top banks encouraged intrapreneurship and offered their FinTech collaboration team timely upskilling on the latest digital capabilities. Driving an innovation culture supported by training and awareness of evolving technologies will help banks to understand and onboard the most-likely-to-succeed FinTech partner.

Finance

- **A fail-fast approach:** Open X Readiness Index leaders exhibited financial willingness to adopt a fail-fast approach to innovation. A fail-fast approach helps determine the value of an idea as well as how to quickly pivot to cut losses, which makes it useful when working to industrialize the collaboration.
- **Monitoring the FinTech field:** A majority of banks that gauged the FinTech landscape by investing in hackathons, accelerators, and other mediums reported higher collaborative success. A financed FinTech evaluation phase can help to ensure a suitable fit for a particular business case, be it in the front end, middle or back office.

Business

- **Solution scalability assessment:** Collaboration-primed banks engaged with FinTechs that offered high scalability. The right FinTech partner and scalable go-to-market solutions helped to industrialize the collaboration to meet targeted business outcomes.

- **External trusted parties:**
  High engagement with trusted third parties during the collaboration phase was a common theme among the effective collaborators. External subject matter experts and consultants can drive the partnerships to success with their specific know-how of market needs and real-world knowledge of working with diverse dynamics.

Technology

- **Be an early mover:**
  Though risky, successful banks were either early-adopters or among the early majority of those adopting new technologies – and they reported high technological synergies with FinTechs. Embracing digital transformation by investing in emerging technologies can help to shrink digital chasm in middle- and back-office processes while also making onboarding with FinTechs easier.
- **Reduce legacy system dependency:**
  Top banks reported medium to low dependence on legacy systems. They moved away from legacy systems into an open and evolutive platform such as based on cloud, which optimized integration with FinTechs from an IT perspective. It also helped to improve operational effectiveness in middle- and back-office processes while continuing to boost CX in the front end. With reduced legacy system dependency, banks can define and deploy new business models that can be replicated leveraging component reusability.

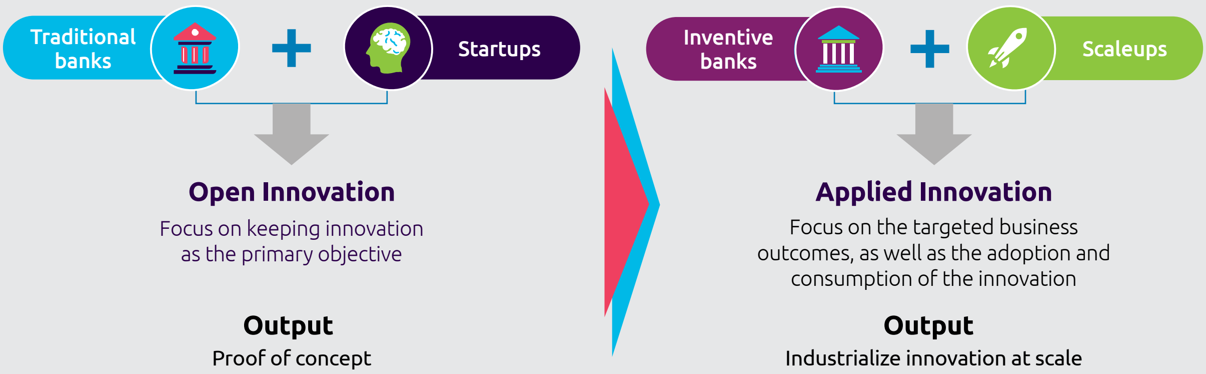
Players that collaborate at scale to industrialize innovation will shine within the Open X sharing economy

As banks and FinTechs develop collaborative maturity, they will drive innovation across the value chain more effectively. When an Open X-ready bank collaborates with a vetted FinTech scaleup, it can deliver an industrialized and scalable experience. Effective collaboration spurs the transition from an innovation-centric model (open innovation) to a business-focused approach in which the innovative solution is adopted and consumed at scale (applied innovation).

The way forward for bank/FinTech survival in the Open X era is applied innovation to scale up operations and leverage partner strengths (Figure 14).

> *Start as a provider but in parallel evangelize how the bank can become a partner that is involved in business cases vs use cases. Propose a model that enables the bank to sell a new service to clients. That is key to ensuring partnership success and sustainability."*
>
> **—Nicolas Prince**
> CEO, RegData

Figure 14: The journey from open innovation to applied innovation



Source: Capgemini Financial Services Analysis, 2020.

BBVA leverages applied innovation to bring products to market, lower operational costs, and boost mobile banking

Business case: **BBVA** seeks to retain its leadership standing within the dynamic, increasingly competitive financial services industry. The group aims to be a data-driven and customer-centric organization while also operating efficiently. As BBVA actively explores the FinTech arena, it also focuses on collaborative projects to help drive its core businesses.[43]

Implementation: With **Open X** approaching, BBVA effectively played to its strengths by taking up the **Supplier** role, in its collaboration with Uber, in Mexico. BBVA offers digital bank accounts and other services to Uber drivers and delivery partners via Uber's mobile app. Linked to the co-branded (Mastercard) international *Driver Partner Debit Card*, BBVA's products are, for the first time, operating in a third-party app.[44] In another first, BBVA assumed a Financial **Aggregator** role by offering customers access to products they have with other financial services providers.[45] Through this integration, the bank provides customers an overall analysis of their financial health to enrich their engagement.

BBVA prioritizes **operational efficiency** and **consistent user experience** across regions, just like the BigTechs. BBVA has identified best practices for global products to streamline middle- and back-office processes, speeding up product development. The recognized best practices include standardization of APIs, focus on design and user experience, and the use of data and behavioral economics while following the principles of transparency, clarity, and responsibility. For example, BBVA plans to roll out its biometric **digital onboarding** process, already available in Spain, to other countries by reusing globally designed components. Veridas, a BBVA joint venture with Spanish startup **Das-Nano**, helped develop these biometric solutions.[46]

As the digital onboarding case illustrates, effective collaboration powered BBVA's **inventive banking** transformation. BBVA's dedicated autonomous team, *Open Innovation*, enables connection with the FinTech ecosystem and has spawned 300+ interactions between entrepreneurs and the bank's business areas.[47]

BBVA has adopted a fail-fast approach through its *Fast Track* program, which facilitates work between identified startups and its business units. As part of the program, pilot tests involving 17 business areas were carried out in 2019 to determine BBVA's financial readiness for such an approach.

BBVA practices **applied innovation** through scaleup collaboration to industrialize innovative products and services. As business opportunities arise, the bank selects mature FinTech firms most likely to bring BBVA solutions to market.

How? Through initiatives such as *Open Marketplace*, a platform (with more than 2,000 registered startups and 170+ business units) that pairs business cases and suitable partners. BBVA also organizes events such as an *Open Talent competition*, *Open Innovation Acceleration* program, and *Open Talks* that foster discussion about new technologies and support the FinTech landscape.

To develop its in-house technological capabilities and boost collaboration, BBVA is entering into strategic alliances. It is working with **Intel** to develop internal skills in areas such as data storage and processing, using artificial intelligence.

Results: BBVA's global product strategy, featuring reusable code and technology, has helped to reduce the time to market for solutions by nearly 50% while lowering costs by 40%.[48]

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43 BBVA, "The four pillars of digital strategy," March 4, 2019, https://www.bbva.com/en/the-four-pillars-of-bbvas-digital-strategy/.

44 BBVA, "BBVA, in alliance with Uber, launches first banking product in Mexico that operates in third party app," July 2, 2019, https://www.bbva.com/en/bbva-in-alliance-with-uber-launches-the-first-banking-product-in-mexico-that-operates-in-a-third-party-app/.

45 BBVA, "BBVA's roll out of global products and services is delivering real results," December 10, 2018, https://www.bbva.com/en/bbvas-roll-out-of-global-products-and-services-is-delivering-real-results/.

46 Ibid.

47 BBVA, "BBVA explored collaboration with over 300 startups in 2019," December 26, 2019, https://www.bbva.com/en/bbva-explored-collaboration-with-over-300-startups-in-2019.

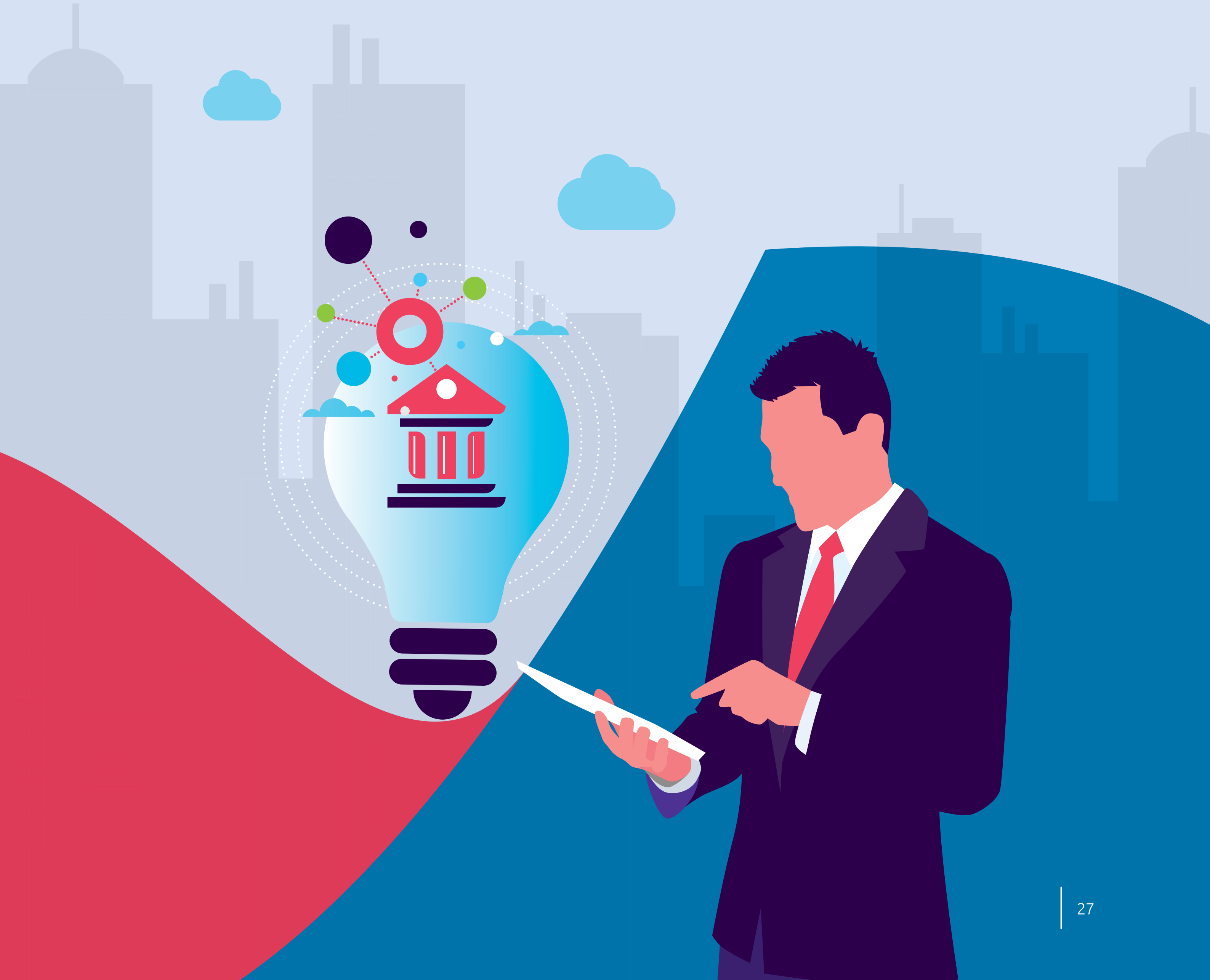
48 BBVA, "BBVA's roll out of global products and services is delivering real results," December 10, 2018, https://www.bbva.com/en/bbvas-roll-out-of-global-products-and-services-is-delivering-real-results/.

Meanwhile, as a result of match-up initiatives with 300+ startups in 2019, BBVA Open Innovation carried out 16 pilot tests with scaleup participants, with a third of the collaborative projects advancing to the marketing phase by early 2020. What's more, 38 solutions are in the definition and implementation phases.[49]

BBVA crossed the 50% digital tipping point in 2019, which means that more than half of BBVA's customers use mobile banking to engage with the bank. Using a structured approach for collaboration and focusing on operational efficiencies in the middle and back office, BBVA has embraced Open X and is moving toward applied innovation.[50]

> *The most important thing now is partnerships – be it with FinTechs or bigger firms or firms operating in other industries – wherever you can find opportunities to share an idea to create experiences jointly. Collaborations are not just win-win; they are win-win-win."*
>
> **—Carlos López-Moctezuma**
> Global Head of Open Banking, BBVA

[49] BBVA, "BBVA explored collaboration with over 300 startups in 2019," December 26, 2019, https://www.bbva.com/en/bbva-explored-collaboration-with-over-300-startups-in-2019/.
[50] BBVA, "BBVA digital highlights from 2019," December 20, 2019, https://www.bbva.com/en/bbva-digital-highlights-from-2019/.



Appendix

Figure A1. BigTechs – from disruption to maturity

BigTechs	From strong player in other industries	To mature player in finance
	2004	2018
Ant Financial	**2004:** Alipay launched (online and mobile payment platform). **2008:** Alipay adopted by ~150 mn users with a transaction volume of ~USD100 mn (RMB700 mn).	**2018:** Ant's money market fund (Yu'e Bao) becomes world's largest money market fund with USD168 bn AUM. **2019:** All of China's mutual fund managers are on the Ant Marketplace (Ant Fortune) platform that reaches ~180 mn users.
	2007	2016
Amazon	**2007:** Amazon Pay launched.	**2016:** Amazon Pay reaches 33 mn customers in 170 countries; 2X transaction volume from 2015. **2017:** Amazon Lending facilitates USD3 bn in loans to 20,000+ SMBs in the US, Japan, and the UK. **2020:** In talks with Goldman Sachs to offer small business loans; BBVA piloting to make sales on the platform.
	2013	2018
Tencent	**2013:** WeChat Pay launched, first-ever QR code and in-app wallet payment. **2015:** ~USD550 bn in payments processed by WeChat pay.	**2018:** WeChat Pay has 40% market share of China's mobile payment market of ~USD40 trn and processing more than 1 bn transactions daily. Wealth management platform (Licaitong') manages ~USD88 bn of customer assets.
	2014	2019
Apple	**2014:** Apple Pay launched (mobile payment and digital wallet service). **2016:** Apple pay adopted by ~70 mn users.	**2019:** Apple Pay processes more than 10 bn transactions and used by ~400 mn users. Apple partners with Goldman Sachs to launch credit card.
	2015	2018
Google	**2015:** Launch of Android Pay, later rebranded as Google Play in 2018.	**2018:** Google Pay revenue increases by 92% y-o-y in India. **2019:** Expansion to 17 countries with 62 banks supporting the platform.

Sources[51]: Capgemini Financial Services Analysis, 2020; CB Insights 2019; Ant Financial; Amazon; Tencent; Apple, Google.

[51] Alipay.com, April 1, 2009, https://www.alibabagroup.com/en/news/press_pdf/p090401.pdf; Retail Dive, February 7, 2017, https://www.retaildive.com/news/amazon-payments-users-hit-33m-transactions-nearly-double/435687; Business Wire, June 8, 2017, https://www.businesswire.com/news/home/20170608005415/en/Amazon-Loans-3-Billion-20000-Small-Businesses; Business Insider, February 27, 2020, https://www.businessinsider.in/tech/news/what-an-amazon-and-goldman-sachs-partnership-means-for-wall-street-and-fintechs/articleshow/74015178.cms; Walk The Chat, March 26, 2019, https://walkthechat.com/tencent-annual-report-2018-stagnating-gaming-revenues-payments-ads-growth; Caixin, March 22, 2019, https://www.caixinglobal.com/2019-03-22/chart-of-the-day-chinas-mobile-payment-transaction-volume-hits-4151-trillion-in-2018-101395789.html; CNET, March 25, 2019, https://www.cnet.com/news/apple-reveals-big-numbers; Statista, https://www.statista.com/statistics/911914/number-apple-pay-users; The Economist, August 22, 2019, https://www.economist.com/finance-and-economics/2019/08/22/apple-and-goldman-sachs-launch-their-credit-card; Financial Express, October 24, 2019, https://www.financialexpress.com/industry/google-pay-india-revenue-increases-92-to-rs-3-76-crore/1744444; GSM Arena, November 20, 2019, https://www.gsmarena.com/google_pay_expands_availability_in_17_countries-news-40184.php.

Figure A2. Challenger banks – from disruption to maturity

Challenger banks	From early-stage market disruptor	To solid presence
	2014	2018
Atom Bank	**2014:** Launched in UK. **Value proposition:** First digital-only, branchless bank.	**2018:** Reached 65,000 customers in the UK with EUR1.8 bn in retail deposits.
	2015	2018
Revolut	**2015:** Launched in the UK. **Value proposition:** Prepaid debit card, no-fee currency exchange, no-commission stock trading, cryptocurrency exchange, peer-to-peer payments.	**2018:** Revenue grows to EUR58.2 mn, from EUR12.7 mn in 2017; 7 mn users with 3.7 mn active users. Further plans to expand to new markets including Singapore, Japan, and the US.
	2015	2019
N26	**2015:** Launched without a banking license. **Value proposition:** Offers an interface with the back-end run by Wirecard.	**2019:** ~3.5 mn customers in 24 European markets; ~16 mn transactions per month. Operations across the Eurozone, Switzerland, the US, and plans to move into Brazil.
	2016	2019
Starling Bank	**2016:** Banking licence obtained. **Value proposition:** Used "data-led insights" to give customers a clear picture of their entire financial situation from a single account.	**2019:** Hits 1 mn customers mark, including 80,000 business customers. Further focus on expanding services for business clients. Set to achieve EUR1 bn in deposits.
	2017	2019
Monzo	**2017:** Banking license obtained. **Value proposition:** To build a current account that lives on customer's smartphone and gives them control of their money.	**2019:** Reaches 3 mn accounts in the UK with ~EUR4.9 mn in net interest income.

Sources[52]: Capgemini Financial Services Analysis, 2020, Atom Bank, Revolut, N26, Starling Bank, Monzo.

Figure A3: Capgemini ScaleUp Qualification – making collaboration effective[53]

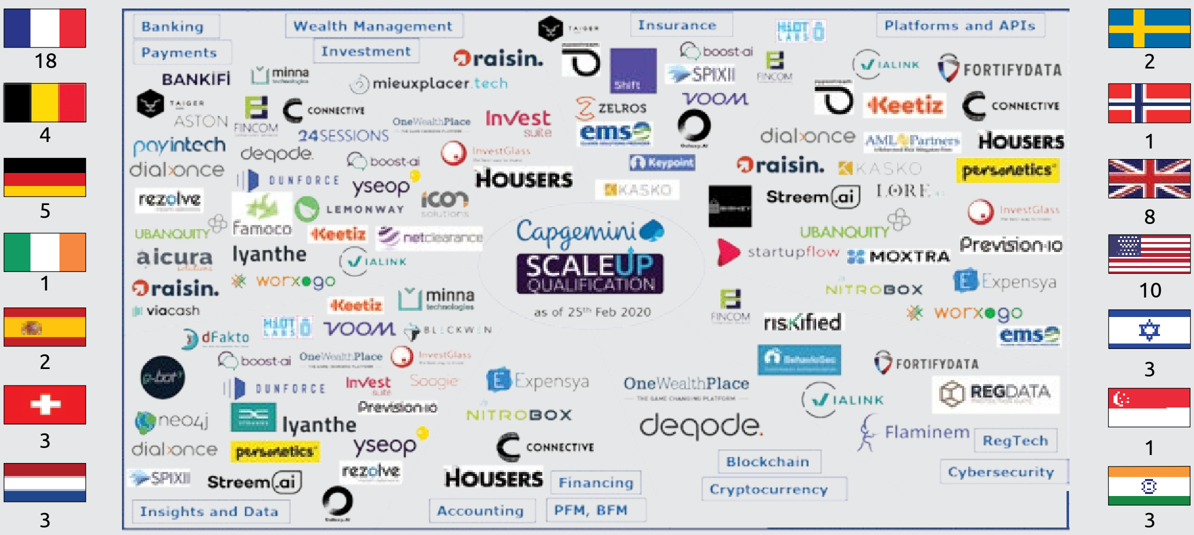


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Figure A4: Collaboration readiness vs. success: Bank perspective (%) across People, Finance, Business and Technology pillars

Note: Based on survey participation by 59 banks.

1. **Dawdlers**: Unpreparedness in readiness a key reason for not being successful
2. **Race to nowhere**: Banks having overall readiness but did not achieve success
3. **Outliers**: Exceptions, where collaboration success was achieved without substantial efforts on overall readiness
4. **North Star**: High preparedness in overall readiness a key reason for achieving success

Sources: Capgemini Financial Services Analysis, 2019; 2019 Retail Banking Executive Interview Survey, Capgemini Global Financial Services.

Methodology

Scope and research sources

The *World FinTech Report 2020* draws on research insights from the 2020 Global FinTech Executive Interviews and the Capgemini Open X Readiness Index.

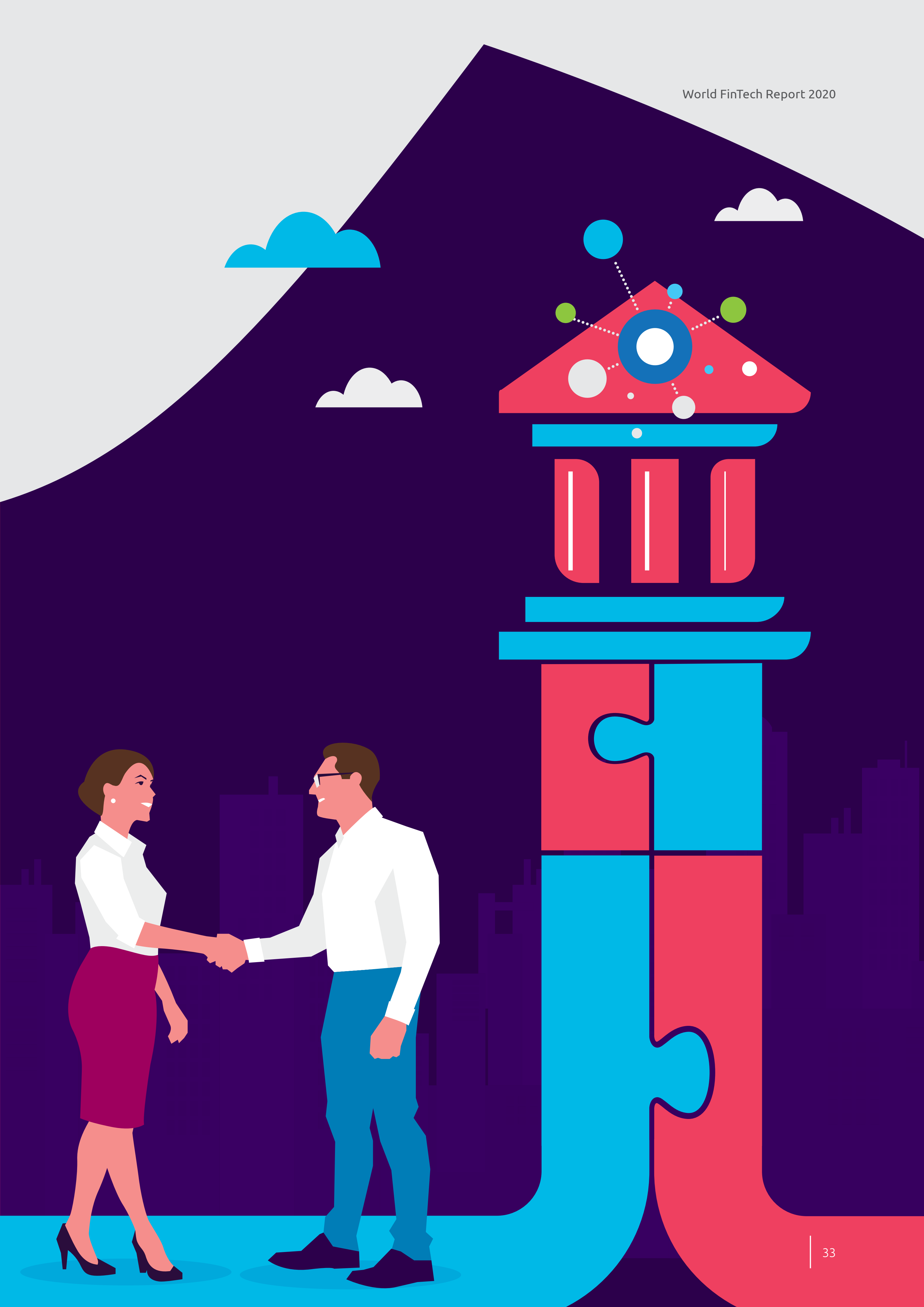
2020 global FinTech executive interviews

The 2020 edition of the report includes insights from focused interviews with senior banking executives of leading banks across regions.

Capgemini Open X Readiness Index

The Capgemini Open X Readiness Index evaluates banks based on 98 data points to judge banks on their collaboration readiness across four pillars – People, Finance, Business, and Technology. Each parameter was assigned appropriate weightage, and final scores were mapped on a scatter plot (by rebasing score on 100). We represented banks' view of readiness to collaboration on the X-axis (overall and for individual parameters), and on the Y-axis, we have banks view on their collaboration success. We took the average of the top 20% banks as a point of readiness and consider an overall score of 70 as a benchmark for collaboration success. Key definitions:

1. **Dawdlers:** Poor or insufficient preparation/ readiness contributed to mediocre success.
2. **Race to nowhere:** Banks that had overall readiness but did not achieve success.
3. **Outliers:** Exceptions, firms that achieved success without substantial collaboration readiness.
4. **North Star:** Banks that were highly prepared and ready for collaboration, were most likely to attain success.



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