



Establishing the trust anchor in the digital economy: The case for banks to become 'data custodians'

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Abstract

This paper argues that the entry of non-bank and/or non-financial players (eg FinTechs and Big Techs) into the payments and banking industry is eroding the role of banks as 'money custodians'. To survive, banks must therefore embrace new strategic initiatives. This paper discusses how banks can establish themselves as the trust anchor in the digital economy and secure their future relevance and business. Specifically, it presents a strategic roadmap for banks to assume the role of 'data custodian' in the everyday lives of their customers. This role will enable them to provide the secure and reliable exchange and management of data-driven digital transactions across

all sectors in the digital economy. The proposed roadmap describes the key implications for banks to succeed in their new role. The paper concludes with three critical transformation success factors for bank executives to consider in their transformation journey.

We are a founding member of Holland FinTech, a financial technology hub with links to the rest of Europe, the US, the Middle East and Asia. Our team consists of over 60 experienced domain experts who regularly advise a wide range of global organisations.



Establishing the trust anchor in the digital economy: The case for banks to become 'data custodians'

Keywords: data custodian, data economy, digital ecosystem, digital transformation, open banking, digital identity

The case for banks to become data custodians

Banks are at risk of losing their trusted position in payments

Banks established themselves as trusted money custodians by keeping money safe and facilitating the secure transfer of funds. Using payments as an anchor product from which to conduct the cross-selling and upselling of other products (eg savings and lending), banks became indispensable in their customers' everyday financial lives, both in the physical world and the digital realm.

Today, however, competition in the payments and banking space is intensifying. The introduction of the Payment Services Directive (PSD), its revised form (PSD2) and the E-Money Directive have lowered the barriers for non-banks to enter the payments landscape¹ and compete for share in the payments market with a view to providing additional banking services. New entrants, such as third-party providers (TPPs), FinTechs, Big Techs and other brands that embed financial services

into customer experiences, are increasingly enabled to drive innovation and competition in the services layer by offering value propositions on top of the payment infrastructure.² In essence, banks are no longer the sole manufacturers and distributors of payments and other financial products (eg loans)³ and hence risk losing their long-held dominance of the sector.⁴

Regulatory reforms open up new opportunities

The digital economy (ie all economic activity that is conducted through internet-based digital infrastructures) opens up new opportunities for banks to secure customer relevance and new business beyond digital payments. Underlying this trend are European reforms that are democratising access to data assets across the whole economy, such as the General Data Protection Regulation,⁵ the EU Strategy for Data,⁶ the EU Retail Payment Strategy⁷ and the Digital Finance Strategy.⁸ Similar movements are also emerging in other parts of the world, including the Consumer Data Right⁹ in Australia, the California Consumer Privacy Act¹⁰ and Amended Act on the Protection of Personal Information¹¹ in Japan. The rationale and content of the EU reforms are further explained in Figure 1. The reforms and proposed regulations essentially aim to create a digital space where data can be made more available. In addition, they aim to empower customers using digital services to stay

in control of their data. Customers will become increasingly aware of the value of their data and will look for ways to make their data work, outside of the organisations holding said data. This is expected to spark new two-way value exchanges in open digital ecosystems (ie a network of actors, extending across industries, which interact online to create new value in digital ways). As a result, there is an emerging need for data custodians to enable the seamless exchange of data in open, digital ecosystems. The role of a data custodian offers new ways to remain relevant in the domain of (personal) data sharing and access rights.

Becoming the data custodian for data-driven digital transactions

Banks can lay claim to the role of data custodian in their customers' daily lives by engaging in emerging digital ecosystems where data-driven digital transactions take place – and where digital trust is required in the same way as it is for facilitating transactions in the domain of payments.

A data custodian can be defined as an emerging intermediary role in digital ecosystems that provides customers a digital, single point of control to facilitate and manage the controlled exchange of their data between numerous data sources and data recipients.





		Current regulations	Expected upcoming regulations		
Rationale	Content				
		GDPR 2018 Previous Data Protection Directive (1995) does not meet today's citizens' expectations	EU Strategy for Data Feb 2020 Create a single market for data that will ensure EU's global competitiveness	Digital Finance Strategy Sept 2020 Ensure that financial services fit in the new digital age and reduce fragmentation	EU Retail Payment Strategy Sept 2020 Further develop EU payments market to fully reap innovation and opportunities in digital age
		Regulatory reforms provide the legal rights to natural persons regarding processing of personal data. It includes the right to own and control own personal data (right to data portability)	Proposal for regulations and frameworks that empower users to stay in control over their data and create data spaces to make more data available. Incl. expected relevant regulation: <ul style="list-style-type: none"> Digital Governance Act (2020) Data Act (2021) 	Proposal for regulations and frameworks that promote data-driven finance and innovation and removes fragmentation, risks and challenges. Incl. expected relevant regulation: <ul style="list-style-type: none"> Harmonised AML/CTF rules (2024) eIDAS revision (2024) Open Finance framework (2024) 	Proposal for regulation and frameworks that improve the EU position regarding payments and foster innovation. Incl. expected relevant regulation: <ul style="list-style-type: none"> PSD2 revision (2021) Open Finance framework (2024)

Figure 1: EU reforms that democratise access to data and drive data sharing in open, digital ecosystems

Figure 2 provides a visual representation of the data custodian's position in the accessibility layer of a digital ecosystem, effectively facilitating and managing data-driven transactions. This is illustrated with an example use case of a data source (that makes the data available) and a data recipient (that applies the data in a relevant business process).

This use case is currently being co-created by a Dutch consortium in the financial and energy sector. It will be designed to facilitate many-to-many reach, allowing all consumers to share their energy data with all intermediaries and loan providers in the same way.¹²

The use case illustrates the opportunities and how all actors in the digital ecosystem 'win'. The customer (ie house owner in the use case) obtains more control over their energy data,

as they can decide to use their data to access advice or attractive financial value propositions. Financial institutions (ie lenders in the use case) are able to support the transition to a more sustainable society with their new 'green loans' and new value propositions around sustainability advice. Similarly, grid operators can meet their strategic ambition to allow customers to exert more control over their energy data and use this information for applications that provide new value to them.

This is just one example of cross-sectoral data-driven transactions. Many more use cases are expected to emerge as regulatory reforms democratise access to data and open up new opportunities. In this, the data custodian can play a key role in the customer's digital life by enabling seamless access and management of all those access permissions (ie consent management).

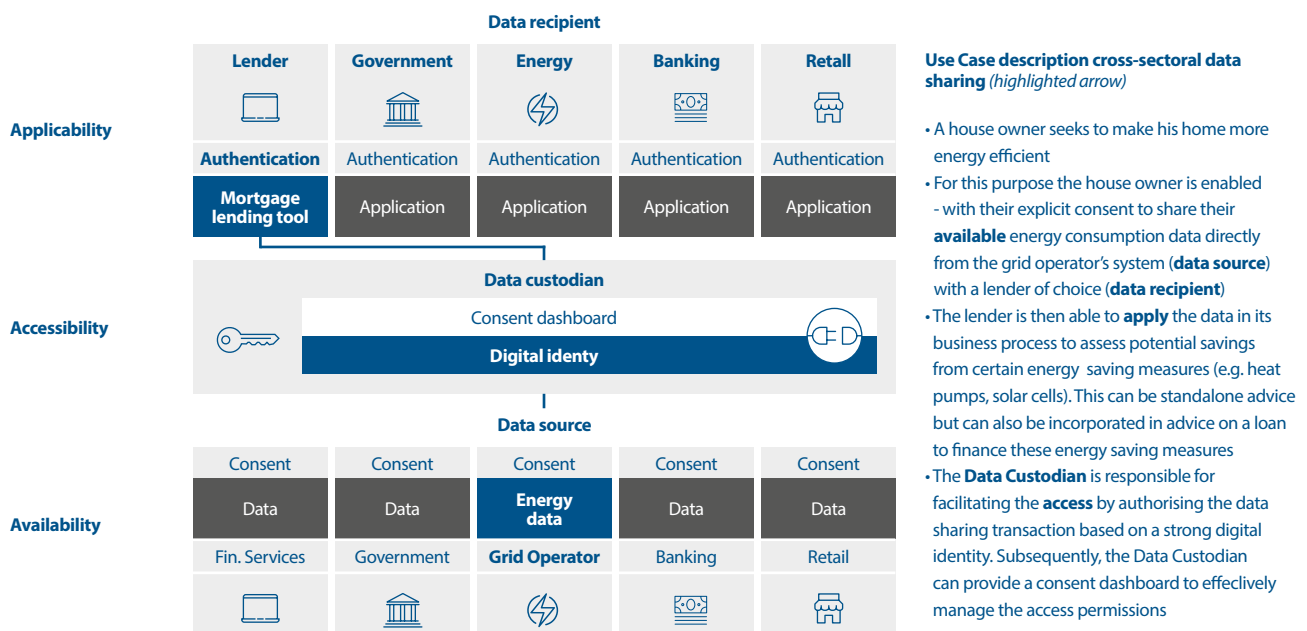


Figure 2: Visual representation of the data custodian role in a digital ecosystem

Banks that position themselves as data custodians will help secure their future relevance in the digital economy in several ways. First, they can increase brand relevance in society by providing their customers with a single point of control for data assets held by a variety of data sources. With this, banks ensure that they stay in contact with their customers on a frequent basis. Secondly, they can create new digital services that are enabled by data-driven digital transactions. Banks have in place the perceived trust and the right capabilities (eg security mechanisms and digital identity) to manage access to customer data in a secure and effective way. That is, control over who can access their data, under what conditions and for what purpose. Note that the data custodian does not receive or have insight into the actual data being exchanged between the data source and data recipient and thus cannot use the data for its own (commercial) purposes.

Perhaps most importantly, banks can make a difference in safeguarding the interests of customers when engaging in data-driven digital transactions. Over the past decade, large platform companies have gained a monopoly on data and are leveraging this for their own purposes.¹³ While there has been some improvement, most customers remain in the dark when it comes to how these companies are collecting and using their personal data.¹⁴

Banks are well positioned to become data custodians

Banks have the credibility, experience and potential to facilitate data-driven digital transactions at scale.¹⁵ As money custodians, banks have laid the foundations for a trusted relationship with their customers. Through their PSD2 and open banking investments, banks have advanced their technological and operational capabilities, and enhanced existing ones.¹⁶ These capabilities can be further leveraged in pursuit of new

business models centred on facilitating digital transactions in the digital economy. Besides this, banks have additional strengths to capitalise on their pursuit of the role of data custodian, as presented in Figure 3.

	Trusted customer relationships Banks are already positioned as trusted 'money custodian' and can leverage this position by becoming the data custodian and intermediary for digital identity
	Strong identification, authentication and authorisation assets Banks can leverage strengths in Know Your Customer (KYC), strong customer authentication (SCA) mechanisms and consent management to give customers a single point of control over their data across sectors
	Valuable data assets Payment data is considered as highly valuable data assets. Valorisation of already available payments data is the first step as Data Innovator towards Data Custodian
	Compliance experience Banks have the necessary and proven ability to design, develop, implement and execute heavily regulated transactional systems and widely adopted cross-sector standards.
	Secure infrastructure Banks' operations and hardware require high levels of security due to sensitive operations. There is a strong rationale to apply 'digital payment-like' mechanisms to data to ensure trust in the envisioned data infrastructure

Figure 3: Core capabilities relevant to the role of banks as data custodians

Further, banks' strengths enable them to compete with US and Chinese Big Tech firms that also have ambitions to facilitate digital transactions in the digital economy.¹⁷ Some of these Big Tech firms have damaged their reputation (eg Facebook through Cambridge Analytica), and struggle to close the trust gap that they have created. This only widens the window of opportunity for banks to step in and leverage their trustworthy reputation. To make a successful transformation to the role of data custodian, and leverage existing capabilities and strengths, bank executives should carefully evaluate their strategic roadmap.

Strategic roadmap for banks to become data custodians

Banks can become data custodians through three mutually reinforcing roles: open bank, digital identity provider and, ultimately, data custodian. The strategic focus, benefits, service types and key implications for banks to succeed in these roles are outlined in the strategic roadmap presented in Figure 4.

Open bank

Banks electing to become open banks can help their customers with the safe reuse of (financial) bank data and functionality in digital ecosystems. Banks are well positioned for this role as it relates closely to their PSD2 compliance (or similar legislation around openness, such as the Consumer Data Right

in Australia) and strategic open banking initiatives (beyond regulatory compliance).

To enable the mandatory account information and payment initiation services under PSD2 and similar services, banks have already put in place the foundations for user consent-based access and management for authorised TPPs.¹⁸ Banks have invested in application programming interface (API) platforms and strong security mechanisms for two-factor authentication to enable their customers to manage consent for financial data and payments. Through this, customers can safely reuse financial data and payment functionality at the point of relevance when interacting and transacting on digital for consent-based access are essential for becoming a data custodian.




	 Role 1: Open bank	 Role 2: Digital Identity Provider	 Role 3: Data Custodian
Strategic focus	PSD2 (and comparable reforms) to safely reuse banking data and functionality for enriching banking and payment experiences on digital platforms	Enable customers to re-use their bank's digital identity in various use cases across public and private sector	Enable transparency and single point of control for many-to-many data sharing across various sectors
Bank benefits	<ul style="list-style-type: none"> Improved innovator reputation and brand enhancement New revenue opportunities New digital distribution channels & reach 	<ul style="list-style-type: none"> Relevance and brand enhancement towards customers and Relying Parties New revenue opportunities Efficiency & cost effectiveness 	<ul style="list-style-type: none"> Relevance and brand enhancement as Data Custodian New revenue opportunities with customer-centric data sharing propositions Trusted position in customer's life
Customer benefits	<ul style="list-style-type: none"> New value-added services based on bank data In control over own financial data and improved security mechanisms 	<ul style="list-style-type: none"> Single identity to be used across services In control over own identity and improved security to reduce chance of data breaches 	<ul style="list-style-type: none"> New value-added services based on data across domains, via a single point of control Removes data vendor lock-ins, brings back balance and facilitates innovation
Service types	<ul style="list-style-type: none"> PSD2 Open Banking 	<ul style="list-style-type: none"> Identity Provider (IDP) <ul style="list-style-type: none"> Authentication Attribute sharing Digital signing 	<ul style="list-style-type: none"> Consent dashboard

Figure 4: Strategic roadmap for banks to become data custodians

Open banks have established a solid starting point to leverage their existing capabilities in order to expand to the other roles defined in the strategic roadmap. By doing this, banks can build their reputation as an innovator in data-driven services, create new revenue opportunities and extend their distribution channels. Additionally, their customers will benefit from value-added services based on banking data and the tools that give them control over their personal (financial) data.

Figure 5 provides examples of customer interactions for banks that assume the role of an open bank.

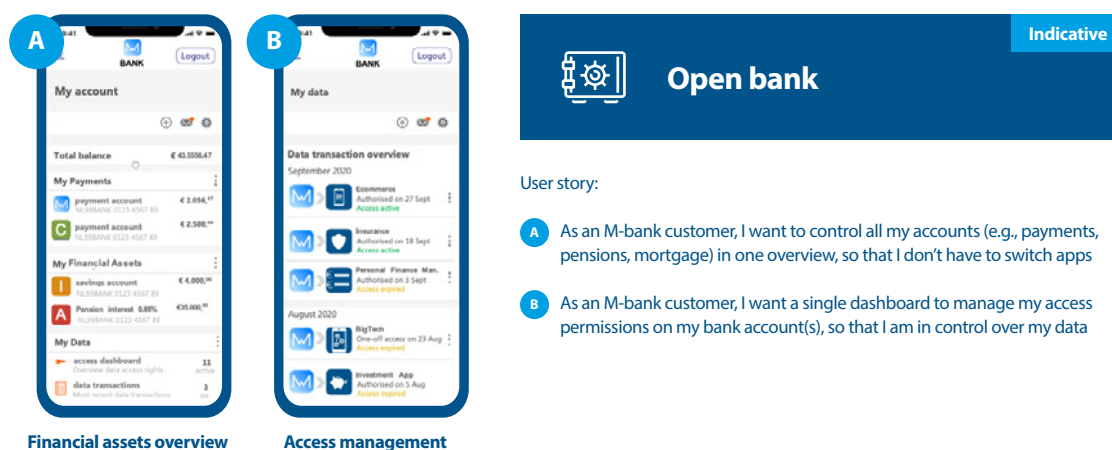


Figure 5: Examples of customer interactions for open banks

Digital identity provider

A second option for banks is to become digital identity providers. Several leading banks are already exploring identity services as part of their open bank role and related strategy. In Sweden, the Netherlands and Canada, for example, customers can reuse their bank-issued security credentials to authenticate, share verified attributes and digitally sign documents with various parties via [BankID](#), [iDIN](#) and [Verified.me](#) respectively.

A digital identity is a representation of a natural person, legal entity or object in the digital domain.

The need for digital identity is expected to grow in the coming years, based on a wide variety of emerging use cases in multiple public and private contexts. In addition, customers are increasingly demanding access to digital services using a single digital identity. Moreover, customers want to be in control of their identity data and reduce the chance of data breaches. The potential scope for banks in digital identity is not

limited to private individuals, but also covers businesses and potentially objects (eg the internet of things). When it comes to opportunities, banks are better positioned than those Big Techs that are also seeing the potential of the digital identity space. Apple, for instance, has recently filed multiple patents on protocols and procedures for digitisation and authentication of personal documents, indicating an update of its current AppleID proposition.¹⁹ However, banks' trusted position in payments and their current identity capabilities, including know your customer (KYC) processes that enable them to issue an identity with a high degree of certainty, provide them with a clear competitive advantage.

Taken as a whole, managing the digital identity of customers is an interesting market for banks to increase relevance and brand awareness in customers' digital lives, generate new revenue streams and potentially drive efficiency in their own compliance processes. Figure 6 provides examples of customer interactions for banks that adopt the role of digital identity provider.

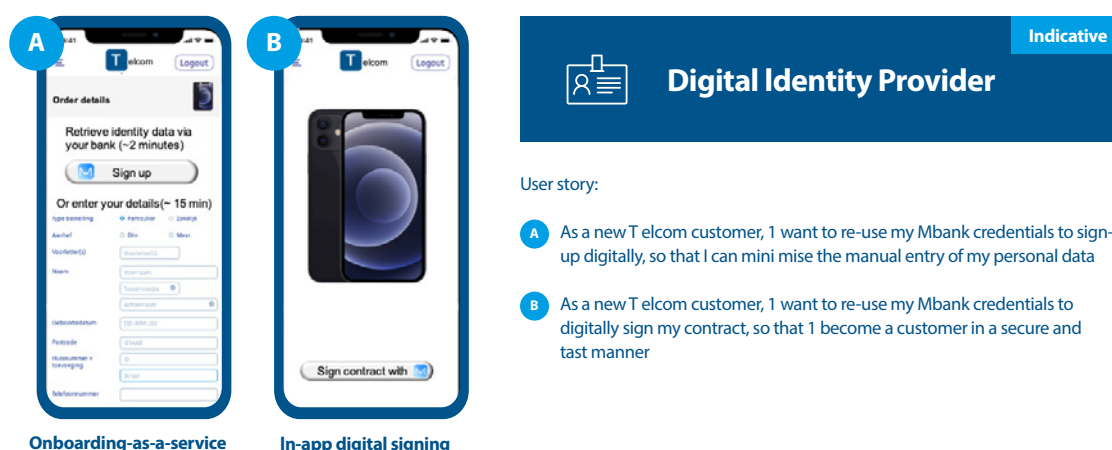


Figure 6: Examples of customer interactions for banks that adopt the role of digital identity provider

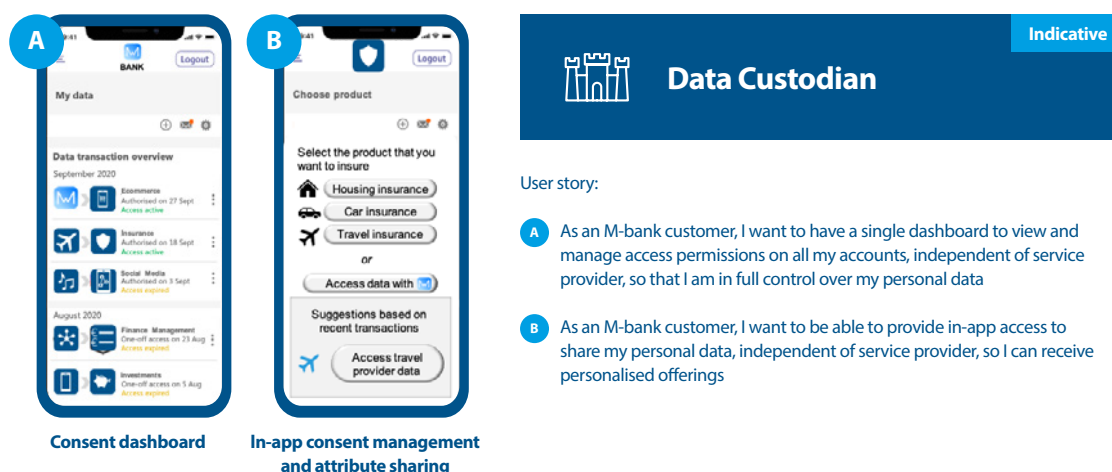


Figure 7: Examples of customer interactions for banks that assume the role of data custodian

Data custodian

Awareness and concerns about data handling, combined with regulation and the growing number of data-driven digital transactions, will continuously drive changes in how customers use and benefit from their data assets. Customers will increasingly want to be empowered to use their own data and create value themselves – essentially turning data into currency. Customers will demand increased transparency and control over their data assets.²⁰ In the role of data custodian, banks can provide customers with a single point of control for their data assets. These services revolve around consent management and digital identity. As open banks, banks gain the required consent management capabilities, while as digital identity providers, banks can leverage their digital identity capabilities outside their own environment.

Due to new and increasing customer interactions, banks playing the role of data custodian are strongly positioned to secure new customer relevance and brand enhancement. The future anchor product of banks revolves around servicing customers with tools for digital identity, consent management and data sharing. Banks can exploit new services in these areas and potentially generate new revenue streams from customer-centric propositions that facilitate control over data and a fair distribution of the benefits created from data. In return, customers will benefit from controlling and sharing their data on their own terms through new value-added services (eg single consent management dashboards). They will no longer experience a data lock-in with their current data providers as they can move their data between providers based on the principle of data portability. Figure 7 provides examples of customer interactions for banks that assume the role of data custodian.

Key considerations for banks

For banks to succeed in the role of data custodian, they must deal with the inherent risks and impact associated with doing business in two-sided markets. Realising relevant reach on both

sides of the market is essential for digital transaction services enabled in each of the three roles. In addition, individual banks must consider the following implications:

- *Acknowledge the importance of banks as a trust anchor in the digital economy and prepare strategic decision-making to secure future relevance:* Banks should recognise that their customers increasingly want to be in control of their own data, and that they must play a crucial part in this to secure future strategic and commercial relevance. There may be more value at stake in facilitating data-driven transactions than in payments.²¹ Based on this mindset, banks should immediately start to secure their future relevance and look beyond short-term regulatory compliance and return on investments (ROI). By preparing today, banks will be serving the customers and their ever-evolving data needs of tomorrow.
- *Reuse existing capabilities to develop new data-driven, customer-centric propositions:* Banks that become open banks and digital identity providers can leverage existing capabilities to become data custodians. Open banks must establish a solid foundation of capabilities with an API infrastructure, strong customer authentication means and seamless consent management services. The key to becoming a data custodian is consent management, inasmuch as each authorisation must be recorded securely and reliably so that the customer always has an up-to-date overview of the parties that have been given access and, if desired, can also withdraw their consent for that access. Next to this, as digital identity providers, banks are proficient at determining customers' digital identities due to their KYC obligations. Digital identity is a foundational building block to facilitate data-driven digital transactions as a data custodian. After all, customers must be reliably identified if they are to irrefutably authorise other parties to access and use particular data. By turning these capabilities into services, banks can take a significant step towards facilitating data-driven digital transactions across the digital economy.

- Monitor existing standardisation initiatives and participate where relevant: In addition to reusing their existing capabilities, banks must ensure the reach of their services in relevant markets. Depending on their strategy and ambitions, banks must strive for interoperability of services in specific digital ecosystems to serve particular customer segments and facilitate multiple relevant use cases.

To become successful data custodians, banks should develop and understand a common language to interact and transact seamlessly in digital ecosystems. Adoption of (a limited set of) data-sharing standards would be beneficial to drive data custodian services at scale. Banks can seek to adhere to existing standards for data sharing and closely monitor and participate in relevant industry initiatives where new standards and rules are being developed.

Existing well-established standards are already available and include, for example, API, digital identity and consent standards such as OAuth, OpenID Connect and User-Managed Access (UMA). Industry initiatives include those of the European Commission aiming to realise interoperable digital identity solutions across Europe and a Single European Data Space. Other initiatives include [GAIA-X](#) and the [International Data Spaces](#), which aim to design a federated data infrastructure with common rules and standards for data sharing. Banks can engage in such initiatives to develop strategic partnerships and start designing their data custodian propositions.

Critical transformation success factors

As they embark on the journey to becoming data custodians, banks must consider three critical transformation success factors:

- *An agreed vision and strategic plan:* For bank executives, the focus should be on developing a solid understanding of the different roles they can take in the digital economy to inform decision-making about the bank's preferred role.
- *A defined approach for partnerships and industry collaboration:* Executives can benefit from partnerships and collaboration models in developing value-adding capabilities to support the execution of their strategy.
- *A future-proofed operating model:* Executives need to transform and future-proof their operating model to meet the growing imperatives for collaboration in digital ecosystems and customer-centric innovation in open business models.

An agreed vision and strategic plan

As mentioned previously, executives at any bank wishing to become a data custodian will need to perform a review of their strategy, objectives and technological and operational capabilities. To break this down, there are three essential actions for banks:

- *Shape the vision and strategy.* The focus should be on developing a solid understanding of the role of data custodian and its potential propositions. Based on this, executives need to define a common understanding of the vision and strategy, complemented by inspirational use cases. This should then be used to inform decision-making.
- *Identify and prioritise opportunities.* Next, bank executives need to identify the most viable business opportunities. This entails developing more detailed cases to prioritise opportunities worthy of further pursuit. In this exercise, executives must focus on new anchor products that secure reach and customer intimacy. In parallel, banks must focus on new value-added services that can attract both users and digital ecosystem participants.
- *Define action plan and capabilities.* For each prioritised opportunity, executives must make a clear action plan that outlines key activities and milestones for the execution of the strategy. Finally, and as outlined in previously, banks must determine how to leverage their existing capabilities effectively for various use cases.

Banks can further strengthen their capabilities by first engaging in open banking. In this case, banks pursue commercial opportunities by voluntarily opening up banking functionalities and data sources beyond the compliance scope of PSD2, while leveraging the API infrastructure and consent management services they put in place for PSD2. For instance, Santander's Loan API enables the bank's business customers to apply for a loan directly via accounting software platforms.²² Meanwhile, Deutsche Bank offers APIs to verify personal identity attributes, thereby seamlessly evolving to the role of digital identity provider.²³

A defined approach for partnerships and industry collaboration

Based on the vision and strategy, banks must identify potential partnerships to enable and/or accelerate the realisation of selected opportunities. Two types of collaboration are relevant for banks achieving their strategic objectives: partnerships and industry collaboration. The rationale and benefits of both collaboration forms are visualised in Figure 8.

- *Partnerships.* Two types of partnerships are relevant. First, banks can forge strategic partnerships with third parties to embed their capabilities (eg control and data-sharing mechanisms) on external platforms. Through this, banks improve and extend their brand presence in new channels and thus secure customer relevance ('be where the customer is'). In return, third parties benefit from trusted and secure services that are fully compliant. Secondly, some banks lack certain capabilities and do not have the ambition to build



Collaboration form	Rationale	Benefits
 Partnerships	Improve competitive offer to improve bank's (and partners) position in the market	<ul style="list-style-type: none"> Increased brand relevance by (new) customer segments Efficiency gains in capabilities
 Industry collaboration	Realise required reach based on (minimal) service interoperability and trust	<ul style="list-style-type: none"> Realise synergies on non-competing elements (e.g., security, technology standards) while allowing for large competitive domain in which individual propositions can flourish Customers can access the entire ecosystem, independent of their bank

Figure 8: Overview of the rationale and benefits of two forms of collaboration

them themselves. Forming partnerships with third parties in and outside financial services can help those banks to tailor their proposition to emerging market needs – as well as to deliver this more quickly.

- *Industry collaboration.* In pursuit of becoming a data custodian, banks can achieve success individually and in partnerships by leveraging their own and newly acquired capabilities to develop services around the secure facilitation of data-driven digital transactions in their preferred ecosystem. However, to enable customers to access data custodian services at scale, anywhere and anytime, a certain degree of industry collaboration may be helpful. For example, banks can collaborate to make services interoperable. Among the potential areas for collaboration, the three most important areas to help grow and mature the ecosystem are as follows:
 - *Standardisation of open banking APIs:* This can reduce the fragmentation created by various open banking standards to prevent weakening cross-border collaboration in the financial sector and beyond. It may also increase the overall competitiveness of new services developed by banks and their ecosystem partners.
 - *Interoperable use of digital identity services:* This can reduce the issue that customers cannot reuse their digital identities provided by banks in various private and public contexts, use cases and across borders. Collaboration with authorities to make digital identity suitable for use cases in the public domain is a key step for banks towards large-scale adoption.
 - *Data custodian interoperability:* This can increase the number of actors that open up stored data based on customer consent through making access, data sharing and consent management mechanisms and standards interoperable.

In parallel to collaboration, banks should also focus on improving their target operating model to scale up their newly developed propositions in various digital contexts and improve time-to-market.

A future-proofed operating model

Banks require a thorough understanding of the new dynamics at play in open, digital ecosystems. They must take the right steps to evolve their current operating model to realise coherence with their daily operations. Many banks have been slow to recognise the importance of fully integrating their open banking and digital identity strategy and activities within their existing operating model. Similarly with regards to the role of data custodian, bank executives must realise that their target operating model needs to evolve.

As visualised in Figure 9, bank executives need to transform and future-proof their operating model to meet the growing imperatives for customer-centric propositions, collaboration in ecosystems based on open business models, and a modern IT infrastructure.

- *Development of customer-centric propositions:* The role of data custodian will allow banks to become a trust anchor in the digital economy and secure their relevance to customers. As this is a new proposition, customer awareness and education will be required to make sure customers embrace these new data propositions. In addition, the design should be simple and appealing so that it is accessible to all customer segments. By continuously measuring and learning about customer needs, new products can be personalised and contextualised.
- *Adaption to collaborative ecosystems and open business models:* As data custodians, banks will operate in open, digital ecosystems where they consume data, services and capabilities as well as expose these to third parties. This impacts the operating model as banks need to seamlessly integrate and embed data, services and capabilities from inside and outside their internal environments. This not only requires integration of these assets between all ecosystem players, but also the development of new viable business models. The opportunities of the data custodian role require new perspectives from commercial and product specialists, including consideration of the impact on legal matters and risk management processes and policies.
- *Modern IT infrastructure:* As a data custodian, a modern IT infrastructure is essential to enable data-driven digital transactions. There are three imperatives for banks to

Making target operating model (TOM) future-proof

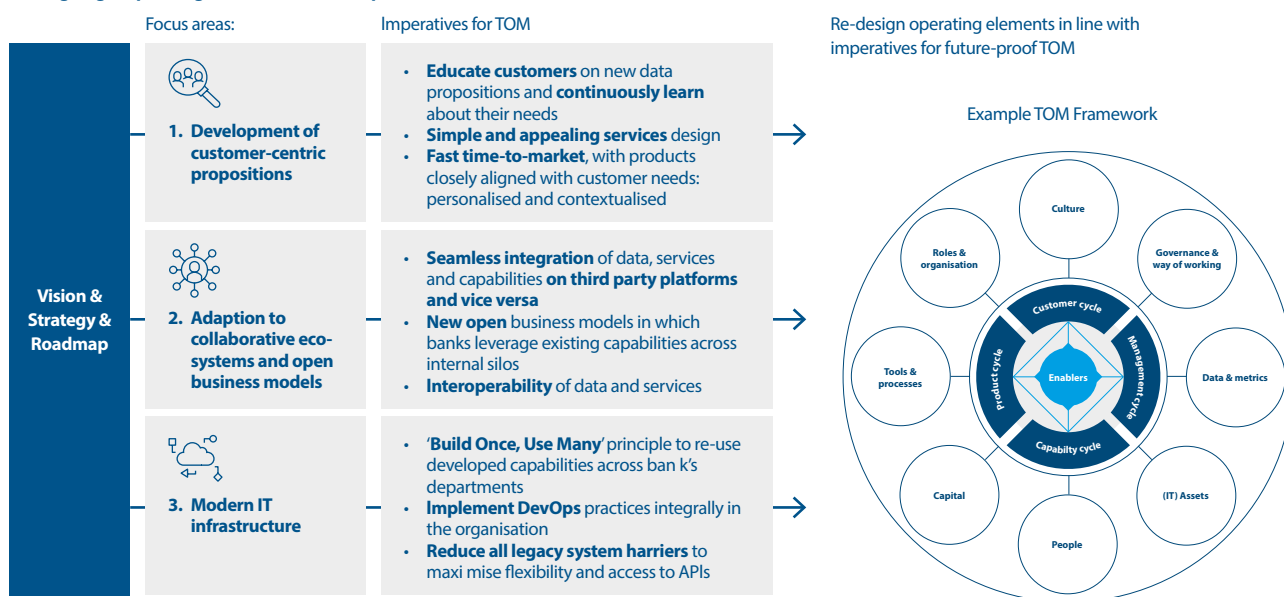


Figure 9: From vision, strategy and roadmap towards a redesigned target operating model

Source: Crosslinx Framework®

adjust their target operating model and modernise their IT infrastructure. First, banks should apply the 'build once, use many' principle in leveraging their digital identity and consent management capabilities. These typically still belong to one department of the bank (eg compliance or risk), and are not fully integrated into daily operations. As a data custodian, these core capabilities should be integrated across silos to be actively reused for various use cases. Secondly, banks should apply DevOps (or a similar practice) in agile style, with DevOps operations and development engineers working together throughout the entire service life cycle. These practices tend to improve effectiveness and the quality of products, as well as shortening the time-to-market for new products. Finally, banks should keep investing in removing legacy systems as part of their digital transformation programmes that aim for infrastructure modernisation.²⁴ Legacy systems can be a burden in realising a flexible and real-time accessible API infrastructure to enable seamless data-sharing.

Key recommendations for bank executives

As their role as money custodians becomes less perceptible, the time is right for banks to assume the role of data custodians. Banks must strengthen their trusted reputation in a digital economy that is increasingly based on data-driven digital transactions. Although recent regulatory reforms aim to democratise access to data, customers lack the tools to manage their data at scale. The role of data custodian could therefore offer a vantage point from which banks can secure their future relevance. Banks are well positioned to lay claim to this role and

provide a digital infrastructure to facilitate data-driven digital transactions. They can leverage their existing capabilities as trusted money custodians, open banks and digital identity providers to become data custodians. Bank executives should take note of the following three recommendations as they embark on their transformation journey:

- *Acknowledge that the role of data custodian is crucial to ensuring future relevance for banks in the digital economy:* Bank executives should recognise that putting customers in control of their data is imperative for future strategic and commercial relevance. Based on this mindset, they should define their vision and strategic objectives for their preferred role in the digital economy as outlined in the strategic roadmap presented in this paper. Executives should immediately start to secure their future relevance and look beyond short-term regulatory compliance and ROI. As data custodians, banks should provide their customers with a single point of control for their data assets. In this role they will be able to capture new types of frequently occurring digital transactions with their customers and therefore become the new trust anchor. This will improve brand relevance, drive innovation in digital transactions by making it an integral part of their digital corporate social responsibility and, ultimately, provide opportunities for new revenue streams.
- *Leverage existing capabilities and participate in standardisation initiatives (where relevant) as banks transform into data custodians:* To become open banks, banks must establish the necessary API infrastructure and consent management services while evolving their digital identity (and strong customer authentication) services. Banks should reuse these capabilities to develop new customer-centric services as data custodians. With these services, banks can take

a significant step towards facilitating data-driven digital transactions in other sectors, beyond financial services. Alongside their internal capabilities, bank executives should define an approach for bilateral partnerships and industry collaboration to develop value-adding capabilities to support the defined strategy and realise relevant reach in the market. In addition, they should closely monitor and align with existing market standards to realise interoperability and further maximise their reach in the digital economy.

- *Future-proof the operating model to move from strategy to execution:* Once their data custodian strategy has been established, bank executives should transform and future-proof their operating model to meet the growing imperatives regarding customer-centric data propositions, collaboration in ecosystems based on open business models and modern IT infrastructure to support data-driven digital transactions.

In summary, bank executives at any bank wishing to participate successfully in the digital economy will need to critically review their digital strategy, approach to partnerships and industry collaboration as well as their capabilities. They should recognise that putting customers in control of their money and data is imperative for future strategic and commercial relevance. Assuming the role of data custodian is the strategic choice for banks that intend to establish themselves as a trust anchor in the digital economy. By preparing today, banks will be better able to serve their customers and their ever-evolving data needs of tomorrow.

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We do this by delivering strategy, product development and implementation support in the domain of Digital Identity, Data Sharing and Payments. Our services capture the entire strategic and operational spectrum of our client's business, the technology they deploy, and the way they respond to local and international regulations.

We have grown from strength to strength since our foundation in 2002 and operate from our offices in Amsterdam, Frankfurt and Berlin. Our head office is located in The Netherlands, where we have the #1 market position.

We are a founding member of Holland FinTech, a financial technology hub with links to the rest of Europe, the US, the Middle East and Asia. Our team consists of over 60 experienced domain experts who regularly advise a wide range of global organisations.