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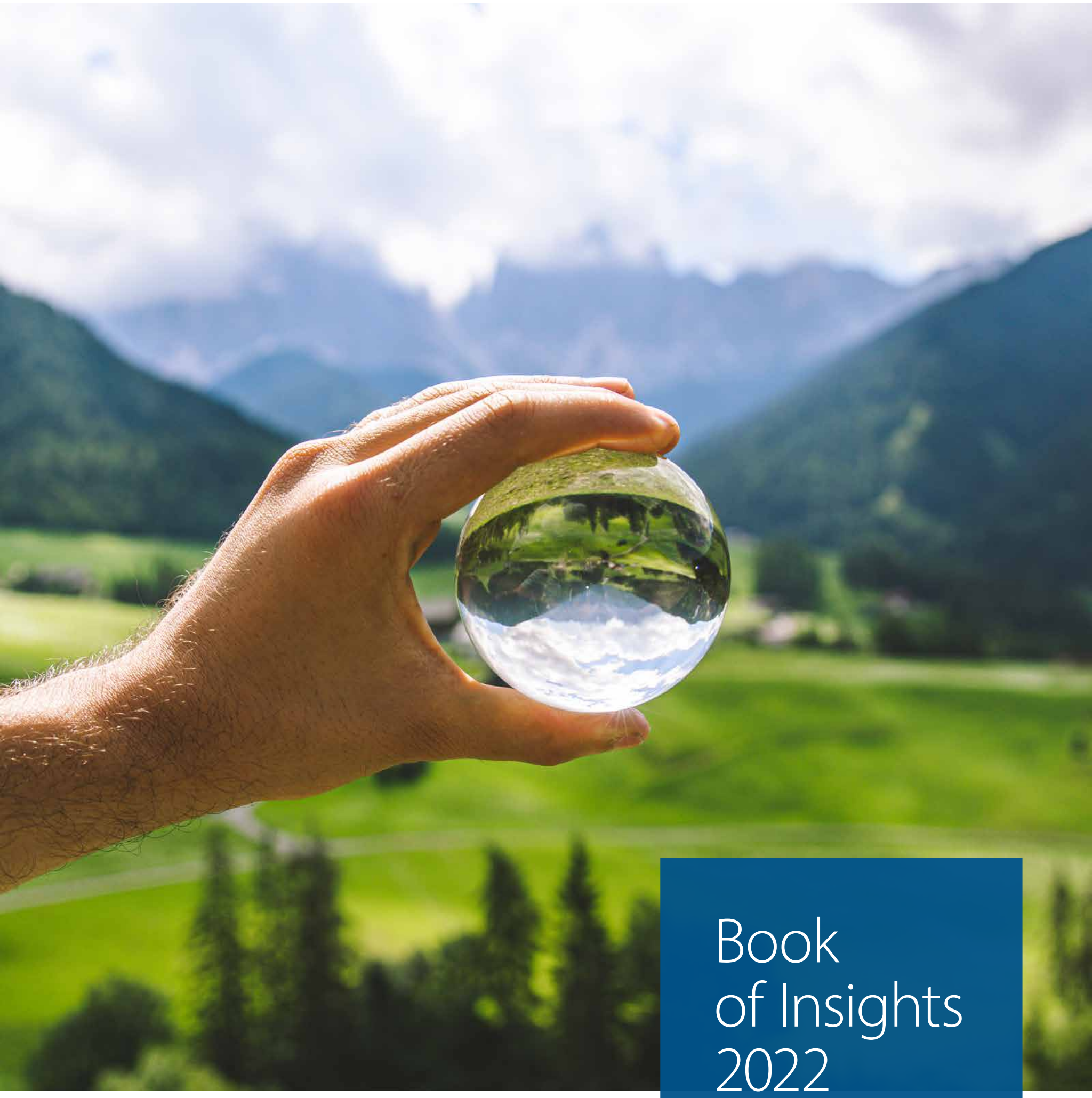

Book of Insights 2022

January 2022

#EverythingTransaction

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Foreword

Dear reader,

This Book of Insights is a compilation of our articles, blogs, interviews, videos and podcasts from 2021. We hope you enjoy this recap of what was yet another eventful year in the digital transactions community.

Happy reading!

The INNOPAY team

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A well-structured approach to building Open Banking business cases will help you identify, measure and monitor the creation of business value

15 January 2021

Mounaim Cortet

To receive exclusive access to an extended Paper which expands on the ideas developed here, click the link at the end of this Blog to download "Build a resilient approach to measuring and monitoring your Open Banking business case".

Open Banking is a key component in many banks' digital transformation programmes, with strategic objectives becoming more ambitious and business transformations more substantial.

To support Open Banking leaders in delivering sustainable value in this new and relatively uncertain domain, banks should implement a well-structured approach to identifying value pockets, as well as measuring and tracking the realisation of business value.

This systematic approach will build bottom-up commitment to value realisation from lines of business, and provide meaningful executive information to enable full control of the strategic course of action of API initiatives.

We have defined three key steps to support Open Banking leaders to build and monitor Open Banking business cases more effectively.

1. **Identify, quantify and prioritise API value pockets on an ongoing basis**

- Determine strategic focus areas for exploration of value pockets in Open Banking and identify related business value drivers. These areas should be based on market, competitive and customer developments and an internal capability assessment, as well as on sound and well-structured business cases for specific API domains.
- Using tools such as the INNOPAY Open Banking Monitor and TPP radar, periodically assess whether the assumptions about market dynamics, competitor value propositions and client demand are still correct and update the value pocket pipeline and roadmap accordingly.

2. **Incorporate into a KPI framework and ensure commitment**

- Incorporate value pockets and related business value drivers into a solid framework of KPIs. This will enable the bank to measure and monitor the business value generated by API propositions within its prioritised API domains as well as to evaluate strategic Open Banking outcomes such as developer experience, partner ecosystem growth, end-customer experience and adoption.
- Establish commitment to KPIs from business leaders involved in the realisation of the API propositions.
- Ensure that KPI metrics are based on actual and credible data. This will generate reliable management information to drive strategic decision-making during execution.

3. **Embed and track value creation**

- Put the KPI framework into action by tracking and reporting. This will enable Open Banking leaders to continuously evaluate the return on investments, communicate about the realisation and, if needed, adjust the strategic course of action.

Author
Mounaim Cortet

ORIGINAL BLOG

GET IN TOUCH

BLOG

Findings from the INNOPAY Open Insurance Monitor: front-running insurers and banks are making inroads

18 January 2021

Mounaim Cortet

Maarten Bakker

Marnix de Kroon

Insurers have noticed how digital ecosystems enhance value creation in other industries. Executives across the globe are now looking for ways to capitalise on these insights in their own sector, and several front-running insurers and also banks are already making inroads. That is one of the key findings from the INNOPAY Open Insurance Monitor, which keeps track of the development of the global Open Insurance landscape. Read on for more from the INNOPAY Open Insurance Monitor as the basis for kick-starting your own Open Insurance journey.

Open Insurance is about sharing vast and ever-growing volumes of structured data in a digital ecosystem to stimulate the creation of new and innovative insurance-related propositions for consumers. When customers are made the focal point of new business models, new opportunities continuously arise for cross-sectoral partnerships, platforms or collaborative efforts.

Ping An Insurance: Digital ecosystems are essential for the future of insurance
One example which demonstrates the powerful implications that digital ecosystems can have for business-model transformation in the insurance industry is Ping An Insurance.

Since its launch in Asia in 1988, Ping An Insurance has become one of the largest insurance companies in the world and is consistently ranked as the top global insurance brand. One of the keys to its success has been the creation of a digital ecosystem in the insurance industry. The company goes beyond selling insurance products, offering its customers an ecosystem of services such as Ping An Good Doctor, PingAnfang, and Autohome to address their health, housing, and mobility needs. By stocking the ecosystem with its own subsidiaries, this approach generates a substantial number of new customers and access to vast and increasing amounts of data.

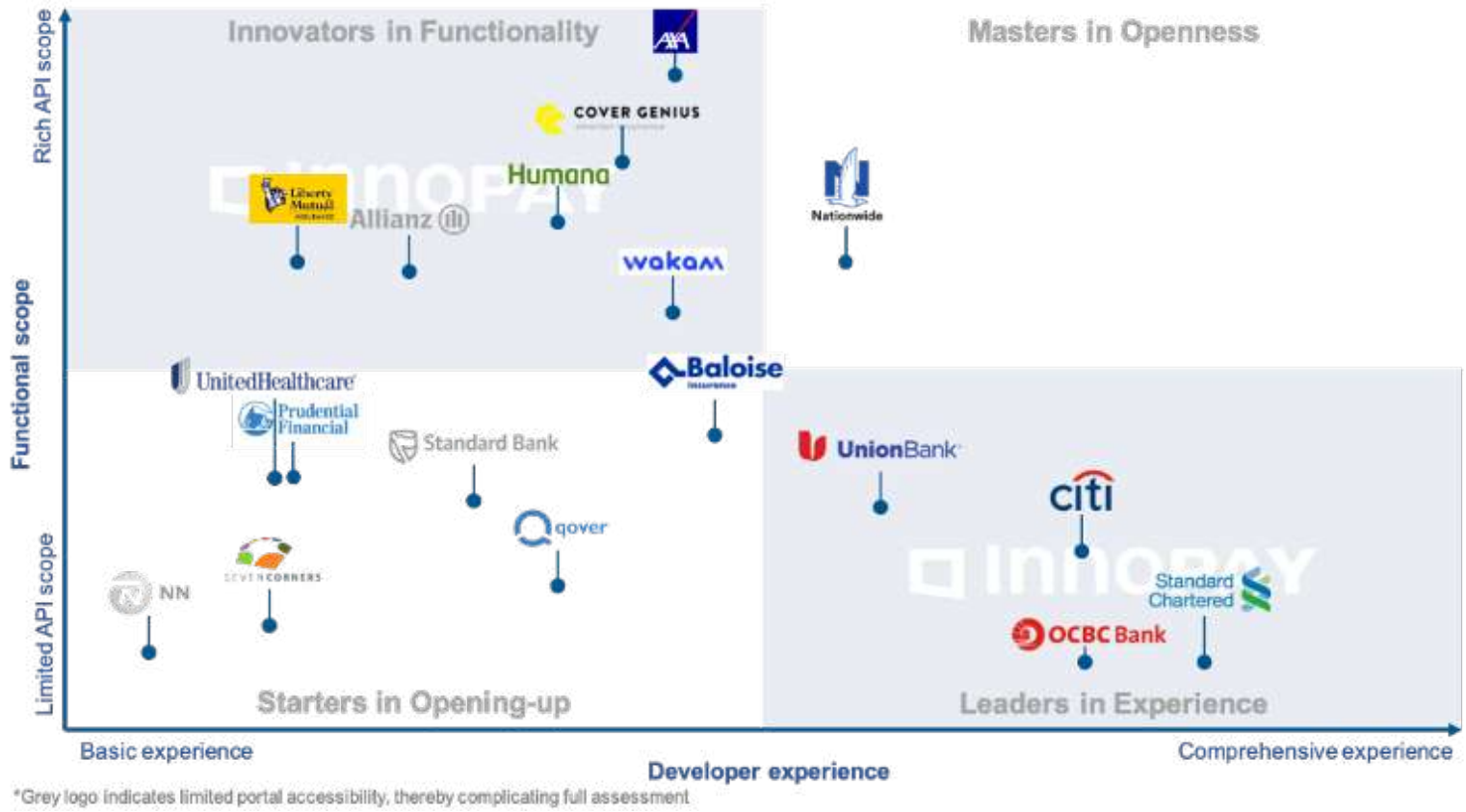
While Ping An may be a unique case in Asia, insurers have taken notice and executives across the globe are looking for ways to capture the value of digital ecosystems.

This means that it is crucial for insurance companies to allow third parties (e.g. banks, fintech, aggregators, mobility providers, etc.) to access their data, products and services, and also for them to be present – and relevant – in their customers' digital ecosystems. Like Open Banking, Open Insurance initiatives drive API-enabled access to insurance data, products and services.

A rich API portfolio supports the best service provision towards customers and partners within third-party platforms. It is also important for insurers to offer a good developer experience in order to create the optimal environment for collaborative partnerships and innovation.

The Innopay Open Insurance Monitor helps insurers to get better insights and kick-start their own Open Insurance journey.
INNOPAY has launched the Open Insurance Monitor (OIM) to continuously measure and benchmark the functional scope of APIs and the developer experience offered in the insurance landscape (see figure 1). It enables insurers to see where they are, follow their progress and identify their gaps as input for their own open insurance journey.

It considers organisations around the world that publish insurance APIs via developer portals, including insurers, insurtech and banks.



*Grey logo indicates limited portal accessibility, thereby complicating full assessment

Figure 1: Overview of the Open Insurance Monitor

The methodology is based on the successful and market-leading Open Banking Monitor.

Three insights from the Innopay Open Insurance Monitor

1. Lack of focus on developer experience

The OIM reveals that insurers' first efforts are mostly aimed at establishing a rich API portfolio with insurance-related functionality, with minimal focus on the developer experience.

The top left corner of Figure 2 shows several insurers leading the way as Innovators of Functionality. AXA offers a wide variety of functionality in most components of the insurance value chain and for multiple types of insurance products. These services include quoting and selling insurance, claims management and service-provider support during the execution of services to clients. Cover Genius also offers services in multiple components of the value chain, including services for product origination as well as claims management. Health insurer Humana provides a wide variety of API services such as enrolment in medical care programmes, retrieval of medical information and supporting functionality for medical professionals during the execution of services.

Analysis reveals that insurers are still only in the early stages in terms of creating the developer experience. Although most insurers have taken initial steps in providing API documentation, there is a strong focus on the technical aspect or specifications of APIs. The developer experience could often be further improved by increasing developer usability (e.g. tools, tutorials) and engaging with the community to spur collaboration and innovation.

2. Banks are making inroads too

Unsurprisingly, the banks included in the OIM offer a more advanced developer experience due to their Open Banking efforts and investments. Extending their API portfolios with insurance services would further boost their bancassurance models.

The OIM identified a small group of banks that offer insurance services through APIs. This is the next wave of bancassurance and is an interesting revenue model for Open Banking. Thanks to their Open Banking capabilities, the banks included all have a solid basis in terms of API documentation and developer usability. Standard Chartered sets itself apart through features for community development such as regularly posting news articles and organising hackathons and other types of events. OCBC emerges as a good all-round player in all components of developer experience, while Citi stands out in terms of developer usability by supporting fast onboarding and providing instruction guides for calling APIs, authentication and the sandbox environment. However, the scope of insurance-related functionality at these banks is still limited. If they decide to further extend their API portfolios with related services, they will move towards becoming Masters in Openness which will further boost their bancassurance models.

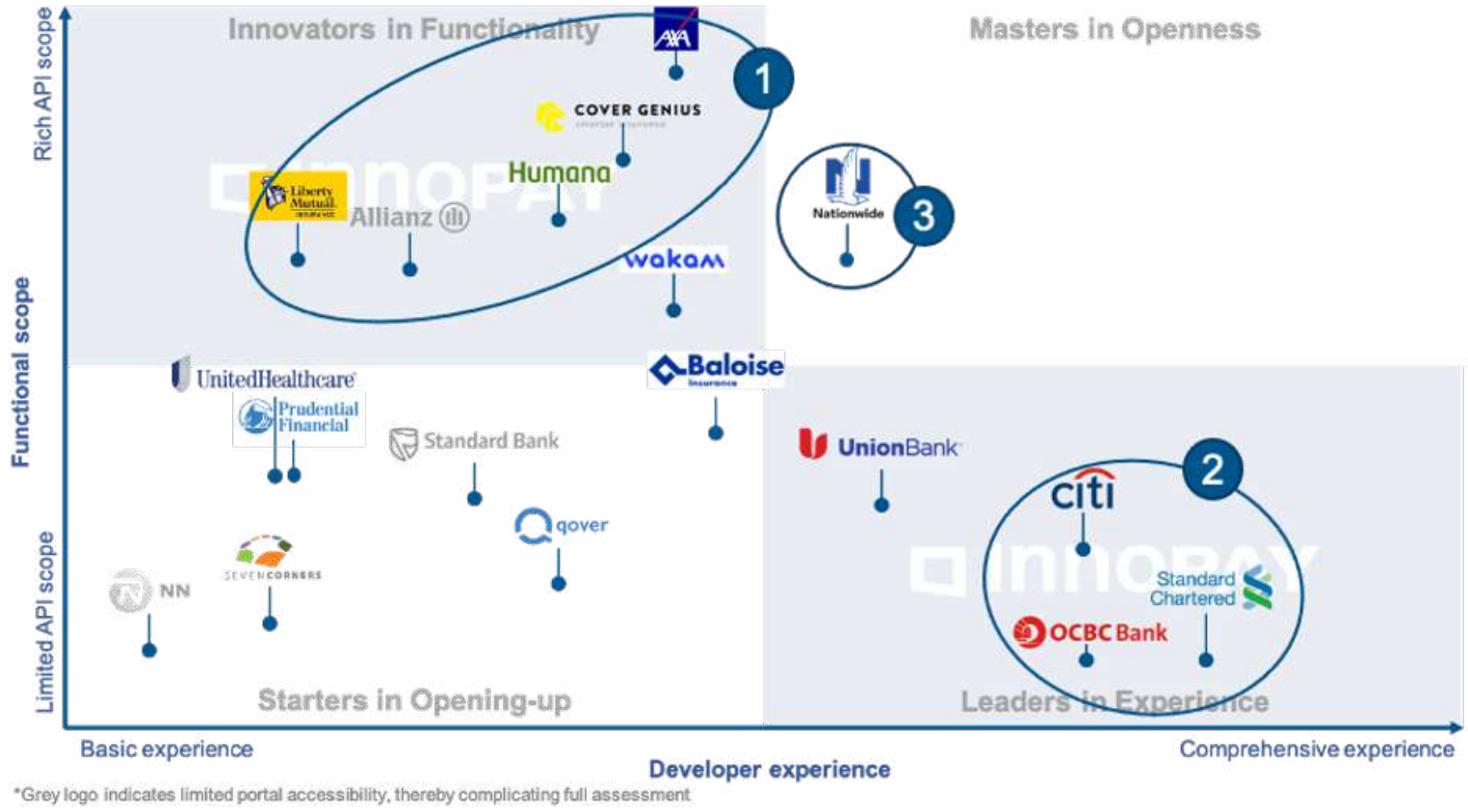


Figure 2: Insights from the INNOPAY Open Insurance Monitor

3. Insurers are lagging behind in openness

Benchmarking against the Masters in Openness from the Open Banking Monitor (e.g. National Bank of Greece and Deutsche Bank) reveals that insurers still have a long way to go in terms of openness. In fact, out of all the parties analysed, only one is currently a Master in Openness: the US-based insurance company Nationwide, thanks to offering a variety of insurance APIs plus enhancing the developer experience through clear documentation and good developer usability.

Nationwide's extensive API portfolio currently consists of a variety of services for information retrieval, insurance quoting and issuing policies as well as APIs aimed at policy servicing. Further portfolio extension could be achieved by including API services for managing claims and supporting service providers. Besides providing clear technical API documentation, Nationwide sets itself apart from other developer portals by emphasising the business potential of its APIs through feature display and use cases, as well as offering good developer usability.

NO OVERALL WINNER

As with Open Banking, there is currently no overall winner in the Open Insurance landscape based on the INNOPAY Developer Portal capability model, as depicted in Figure 3.

Kick-start your own Open Insurance Journey with insights from the Innopay Open Insurance Monitor

Now that Open Insurance is visibly taking off, insurers need to start thinking about strategies to open up their business, develop the necessary capabilities and create digital ecosystems.

At INNOPAY, as experienced strategy consultants in digital transactions and Open Banking, we can combine our thorough understanding of the insurance market with expertise in the design, set-up and optimisation of developer portals.

To discuss further insights from the Open Insurance Monitor or for help in exploring concrete opportunities, please do not hesitate to contact Maarten Bakker or Mounaim Cortet.

Note:

INNOPAY's Open Insurance Monitor assesses publicly available developer portals with insurance APIs. If you feel that your organisation should also be included in the Open Insurance Monitor, please inform us by sending an email to marnix.dekroon@innopay.com.

Figure 3: Scoring per capability, based on the INNOPAY Developer Portal capability model

Authors

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ORIGINAL BLOG

GET IN TOUCH

BLOG

5 key steps towards a scalable and inclusive digital MaaS ecosystem with the customer in control

1 March 2021

Pepijn Groen

Tjerk van Dalen

Public transport operators (PTOs) and new mobility providers all share the same ambition with Mobility as a Service (MaaS): to move users away from car ownership towards consumable mobility options offered as a service. How? By making commuting with MaaS as convenient, flexible and seamless as car ownership. To achieve MaaS, including seamless travel connections, data sharing between users and the various providers in the mobility spectrum is essential. This requires a joint MaaS ecosystem and a common set of legally enforceable rules and agreements. This blog provides a view on open-data-driven MaaS ecosystems and provides five key steps towards their realisation.

Open MaaS Ecosystems facilitate better data-driven propositions

Technological developments (e.g. APIs), regulatory changes (e.g. CDR, GDPR, PSD2) and collaborative mindsets enable digital collaboration between players in value chains. These collaborative partnerships are aimed at developing new business models, innovating services and reducing inefficiencies. Ultimately, these partnerships evolve into digital ecosystems in which data and functionalities and user experience are shared. Such collaborative ecosystems in which users have control of their data, have already been established in a wide range of industries, such as the energy, mortgage and logistics industries (i.e. EDSN, HDN, iSHARE).

A digital ecosystem for MaaS should integrate the services of PTOs, mobility providers (e.g. car sharing, bike sharing), data providers, tech vendors and other parties to optimise multimodal travelling. For example, PTOs and sharing initiatives can integrate existing propositions to improve interoperability between single mobility options and provide more personalised offerings, while data providers can accelerate access to services and optimise journey planning across various modalities. A visual representation of an open MaaS ecosystem is provided in Figure 1, showing similar providers grouped together in the layers.

The more closely ecosystem players work together, the more convenience can be achieved in multimodal travel propositions. For example, integration of public transport and other mobility providers results in MaaS propositions (e.g. Whim) that allow for interoperable travel connections. Deeper ecosystem integration of MaaS with alternative third parties offers further opportunities to optimise the user experience (e.g. food delivery, discounts on destination services).

'Customer in control' is a key principle in the formation of ecosystems'

For multimodal travel to compete with car ownership, it is essential to allow customers to digitally onboard services and plan their journeys as quickly and easily as possible. INNOPAY strongly believes that a MaaS ecosystem provides the most value, trust and adoption when customers have control over their personal data. Passengers should be able to access services quickly and trigger data exchanges between ecosystem players (e.g. account information, travel preferences, travel and transaction history) to generate optimal travel options at all times. This should be done based on a verified customer identity and a form of 'digital consent management'. Digital consent management allows customers to control who can access what types of personal data and to specify these access rights, preferably in a centralised dashboard. This allows customers to determine from which ecosystem players they would like to receive services.

Five essential steps towards developing a data-sharing trust framework for a scalable and inclusive Maas system

At present, MaaS is still often developed on the basis of bilateral agreements and temporary pilot projects. An open and inclusive MaaS ecosystem is required for further upscaling and successful realisation.

PTOs and mobility providers are already collaborating in some contexts to accelerate inclusiveness and tackle various challenges in multimodal travel related to topics such as

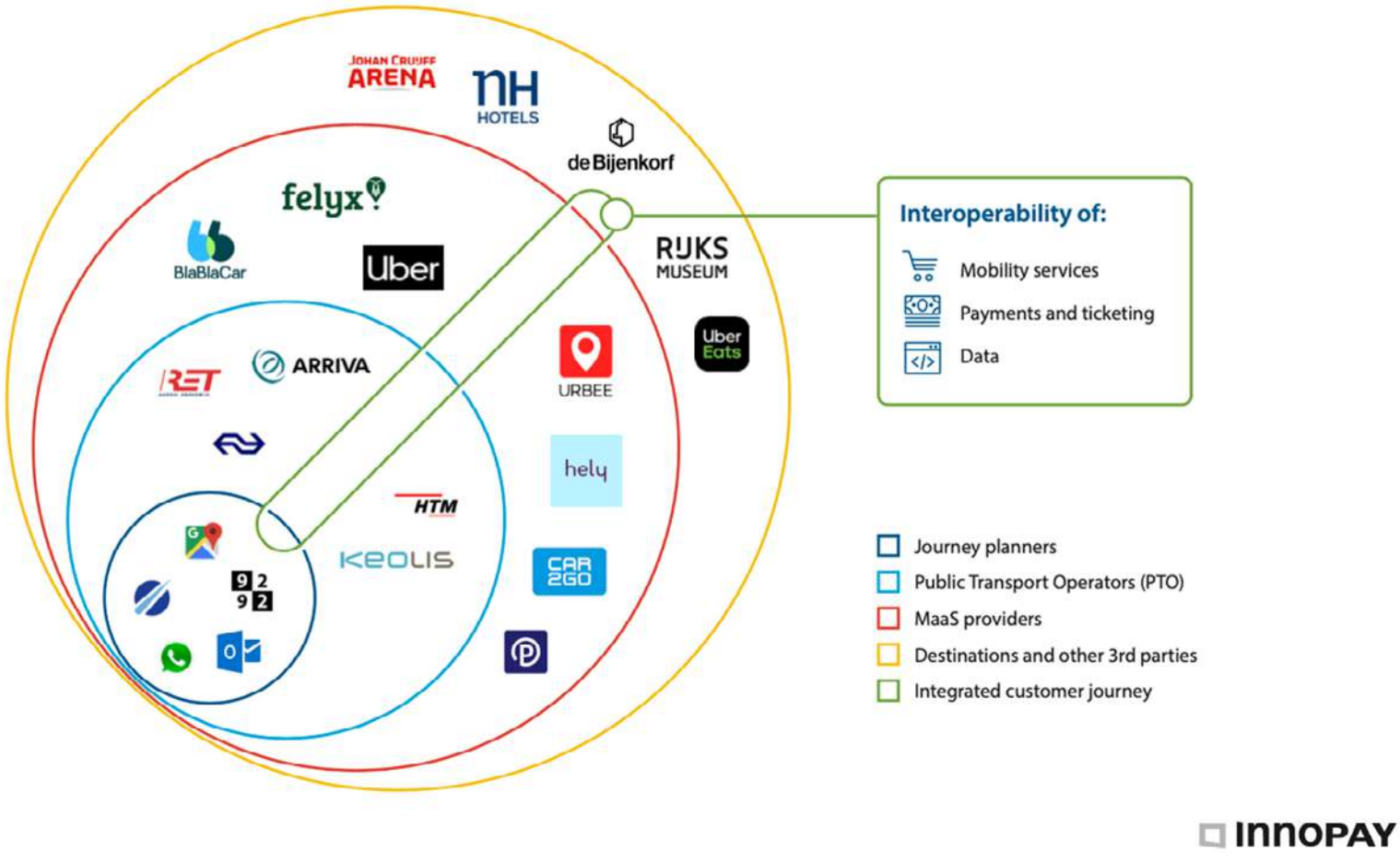

Figure 1: A non-exhaustive example of a Dutch MaaS ecosystem

payments and ticketing (e.g. Dutch OV-chipkaart, Swedish Samtrafiken) and planning (e.g. Google Maps, CityMapper, Waze). These existing partnerships could serve as a foundation for further maturing into an open mobility ecosystem.
Based on INNOPAY's experience, the five essential steps towards developing a trust framework for MaaS are summarised in Figure 2, including key activities and deliverables.

The five key steps towards developing a trust framework for MaaS are:

1. Vision

Develop a shared vision and common ground, and engage an initial coalition ('critical mass') of mobility players with significant geographical reach to develop the data-sharing trust framework

2. Scope

Identify relevant use cases of integrated customer journeys with real added value for customers and all players involved and define the initial scope for the trust framework

3. Creation

Develop a set of agreements on the business, legal, operational, functional and technical (BLOFT) aspects to set up the trust framework that ensures reliable and secure facilitation of data sharing between users and providers

4. Implementation

Implement the trust framework with the participants in the initial coalition and test use cases

5. Growth and diversification

After a few use cases have been successfully implemented, participants can further explore growth opportunities. This step includes adding participants and layers to the ecosystem to increase the user base and added value

If you are a mobility provider and you are interested in further exploring the opportunities of an open mobility ecosystem, please feel free to contact pepijn.groen@innopay.com.

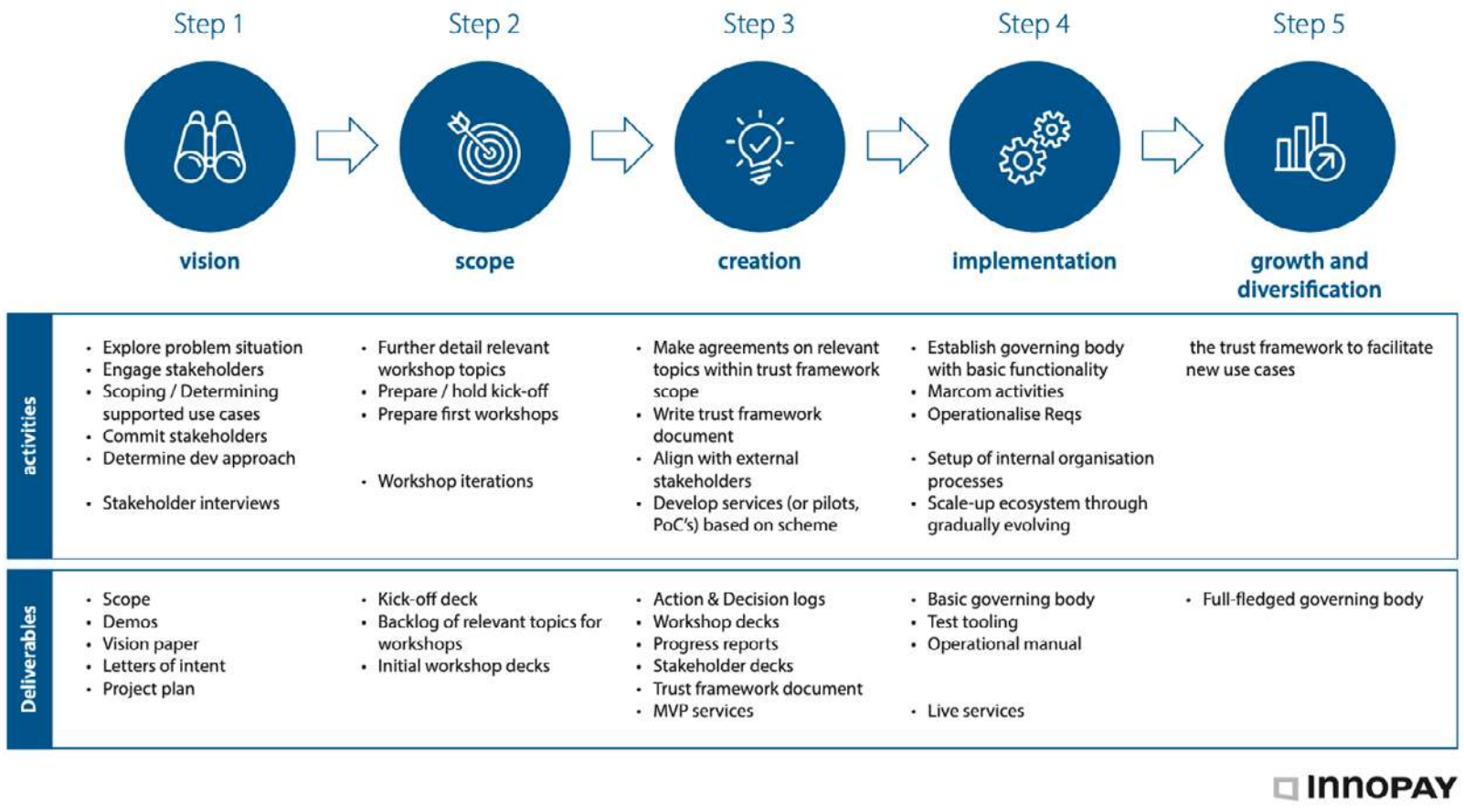

Figure 2: Five key steps towards developing a data-sharing trust framework for a MaaS ecosystem, including activities and deliverables.

Authors
Pepijn Groen and Tjerk van Dalen

ORIGINAL BLOG

GET IN TOUCH

BLOG

Decentralised finance paves the way towards a more democratic financial system

10 May 2021

Shikko Nijland

Douwe Lycklama

Around a decade ago, the global Decentralised Finance (DeFi) movement started to develop financial applications that no longer required traditional central financial intermediaries such as banks and exchanges.

The DeFi movement is based on the disrupting perspective that existing financial products and services can be recreated, utilising a decentralised architecture, that operates without the control of centralised companies and governments. Instead, the products and services leverage existing technology-based protocols, smart contracts and cryptocurrencies. In effect, DeFi can offer anyone with an internet connection access to a global and open peer-to-peer alternative to the current financial system. As such, DeFi has significant disruptive potential and is poised to impact the current financial system and its players in markets such as international remittance, lending and borrowing, derivatives, payments and asset transfer.

Looking at the Total Value Locked (TVL) in the smart contracts of all projects – which is the common measure of DeFi's success – indicates that the movement seems to be gathering momentum. LTM grew by a factor of 20 to approximately USD 16 billion in 2020, and that growth is clearly still accelerating rapidly as the TVL currently stands at USD 66 billion (as of 30 April 2021). To put this in perspective, this is approximately 6% of the valuation of Bitcoin.

The primary added value of DeFi is that users no longer have to place their trust in financial institutions, which are often accused of being too opaque and complex for customers to scrutinise. With DeFi, trust is an insoluble part of the code which is quite often open source and thus transparent. This greatly reduces the likelihood of corruption or manipulation within the system. Therefore, DeFi could be described as a move from 'institutional trust' towards 'infrastructural trust'.

Moreover, DeFi could enable people to gain access to a wider range of financial services, irrespective of their country of origin, their financial status and other traditional parameters. In terms of regulation, the focus is merely on the so-called 'on and off ramps', i.e. where fiat money is exchanged for crypto tokens. Typically, these are the institutional exchanges (e.g. Coinbase, Gemini, Kraken) which have become regulated in the past years.

Due to the underlying technology and infrastructural trust, DeFi-based products are in principle more affordable, more efficient, more secure and more easily available to a greater percentage of the population. This reduces the number of unbanked individuals and makes it a more inclusive and digitally sustainable monetary system than the traditional one. For example, in contrast to 0% interest rates for savings accounts in the regular financial system, savers with DeFi products can currently earn 5-15% annually on their digitised dollars. Similarly, thanks to removing unnecessary intermediaries, DeFi-based services can offer significantly faster and cheaper funds transfers, opening up benefits for senders and recipients alike.

However, decentralisation is not without risks and challenges – especially at such an early stage in the product life cycle. For instance, although blockchain technology itself is secure, a proper and adequate approach to the governance, security and quality of the code and the smart contracts is essential. Additionally, access to DeFi products requires the use of cryptocurrencies, which many people still find difficult to understand. Nevertheless, DeFi is expected to continue to expand exponentially as cryptocurrencies become more widely adopted and more blockchains are developed.

At INNOPAY, we are monitoring the developments in the emerging DeFi market very closely. If you want to learn more about how blockchain is disrupting the financial services industry or how to develop DeFi products for your company, contact INNOPAY and we'll be pleased to help.

Authors

Shikko Nijland and Douwe Lycklama

ORIGINAL BLOG

GET IN TOUCH

BLOG

How a compliant-by-design operating model preserves scalability and enables growth for Fintechs

8 June 2021

Josje Fiolet

Willem Mosterd

Marnix de Kroon

Fintechs will have no choice but to comply with the requirements of the Digital Finance Strategy, but they can decide whether to regard compliance as merely a cost driver or as a growth driver. This blog focuses on that consideration and outlines how the right organisational structure can enable a Fintech to not only achieve and maintain compliance, but also to actively leverage it for scalability and growth.

Over the past decade, many Fintech players have emerged who challenged the status quo with their agility and customer-centric propositions. While the changing market structures resulting from innovation have contributed to the growth of the digital economy, they have also led to fragmentation of the digital market space and new/amplified risks for consumers and businesses, such as security breaches, privacy scandals, money laundering and poor consumer protection. The European Commission (EC) is keen to further safeguard financial stability and consumer protection within the financial ecosystem and to promote a level playing field between existing financial institutions and new entrants in order to stimulate innovation.

To this end, the EC has initiated various regulations in the past couple of years, such as the PSD2, GDPR, AMLD and, most recently, the EU Digital Finance Strategy (DFS). Expected to come into force in 2024, the DFS outlines the objectives and priorities in moving towards a Digital Single Market within the EU. One new principle is that of 'same activity, same risk, same rules', which means that all entities involved in a specific regulated activity should be subject to the same rules, regardless of their nature or legal status. This will inevitably result in a future of ever-changing and increasing regulatory compliance that will especially impact on Fintechs.

Strategic directions: is compliance a cost driver or a value driver?

How can Fintechs respond to this prospect? They face a choice between two main strategic directions: they can decide to perceive compliance merely as an unavoidable cost driver (reactive response), or they can view the need to comply with the EU's rules as a strategic opportunity to enable growth (proactive response).

When working with Fintechs and scaling organisations, we often see that they view compliance as a cost driver. Commonly, they make it the responsibility of a single staff function which is typically seen as the 'says-no department' by the business line. Then, as soon as the Fintechs start to increase in size, their operating model appears to hinder further growth. Often, manual solutions to comply with regulations are stacked and are only embedded in the organisation's daily activities to a limited extent. As a result, their complexity and cost per revenue increase while their ability to scale declines, as illustrated in Figure 1(a). Such organisations tend to fight only the symptoms of their operating model no longer being 'fit for purpose', rather than the cause. In the long term, this leads to diminishing shareholder value.

A scalable operating model facilitates growth

Now more than ever, Fintechs must be able to deal with the changing compliance requirements if they are to maintain their ability to scale and grow. This calls for a scalable operating model that is able to embed compliance requirements in their daily activities in terms of continuous implementation of legislation, directives, guidelines and policies for mitigating risks of their organisational activities. Importantly, compliance requirements not only stem from regulatory developments, but also from expectations of clients, partner, investors and employees regarding general good business practices and behaviour. In return for the necessary upfront investment in such an operating model, Fintechs can expect to benefit from strategic advantage, improved competitive positioning and long-term growth.

Figure 1: Cost driver (a) vs. value driver (b) response to compliance shown as cost in relation to revenue. © INNOPAY. All rights reserved.

Fintechs need to transition to a compliant-by-design operating model

To maintain the ability to scale, we advise Fintechs to embrace a more proactive approach to compliance based on a compliant-by-design operating model. This ensures that responsibility for compliance is shared throughout the organisation and is embedded into the daily activities. Maintaining the ability to execute and scale leads to lower cost per revenue in the long run, as shown in Figure 1(b). While this requires an initial investment, business leaders must see the longer-term perspective and understand that it will ultimately result in strategic advantage, improved competitive positioning and increased shareholder value.

A compliant-by-design operating model requires a shift in both the organisational mindset and the organisational activities, and starts with the following:

1. Embed foundational principles to support the compliant-by-design approach

The first step is to establish clear foundational principles that guide the organisational change as they set a clear tone from the top down and are communicated throughout the organisation. Figure 2 presents five exemplary principles to be embedded, as an alternative to how compliance is often addressed in practice.

FROM:	TO:
compliance as a staff function	compliance as an integrated part of business
from isolated and manual processes	embedded and automated processes
reactive response to requirements	proactive engagement in shaping requirements
ever expanding compliance team	scalable and outsouring approach
compliance perceived as cost burden	compliance as means for strategic growth and cost reduction

Figure 2: Five exemplary principles for a compliant-by-design operating model.

2. Establish a coherent view of the operating model

After laying down the foundational principles, the organisation needs to establish a coherent view of the organisation's operating model. This helps business units and individual employees to understand their role and contribution to the set strategic objectives. Absence of such a coherent view tends to cause misalignment between the strategy and the daily operations of the organisation (see Figure 3).

Interdependencies between elements of the operating model should be made clear in order to obtain insight into the impact of change on the organisation. Compliance requirements tend to affect several different elements of the operating model, but in practice they are often treated as stand-alone requirements, leading to point solutions that increase the overall complexity in the organisation's daily activities and hinder long-term scalability.

This can be illustrated by the implementation of new AML requirements where point solutions are often created by adjusting just the existing tools and processes of the Operations and/or Compliance team, leading to more bureaucracy. The proper approach would be to treat it as a service development and take the company perspective of how it supports or impacts the client propositions and overall performance. Then the right decisions can be made regarding how to meet the AML requirements: within the Operations and/or Compliance team only, or by adjusting the sales process or even market focus, for example.

The first step towards a compliant-by-design operating model

Failure to adequately embed compliance requirements is likely to hinder the future growth of any organisation whereas a compliant-by-design approach will boost the longer-term outlook, which is why this topic is particularly relevant for Fintechs who are in the process of scaling up their business. As experienced consultants in Operating Model Design, INNOPAY can help you to define how your organisation can deal with compliance requirements without losing your key strengths and scalability. If you would like to discuss the opportunities, feel free to reach out to Josje Fiolet.

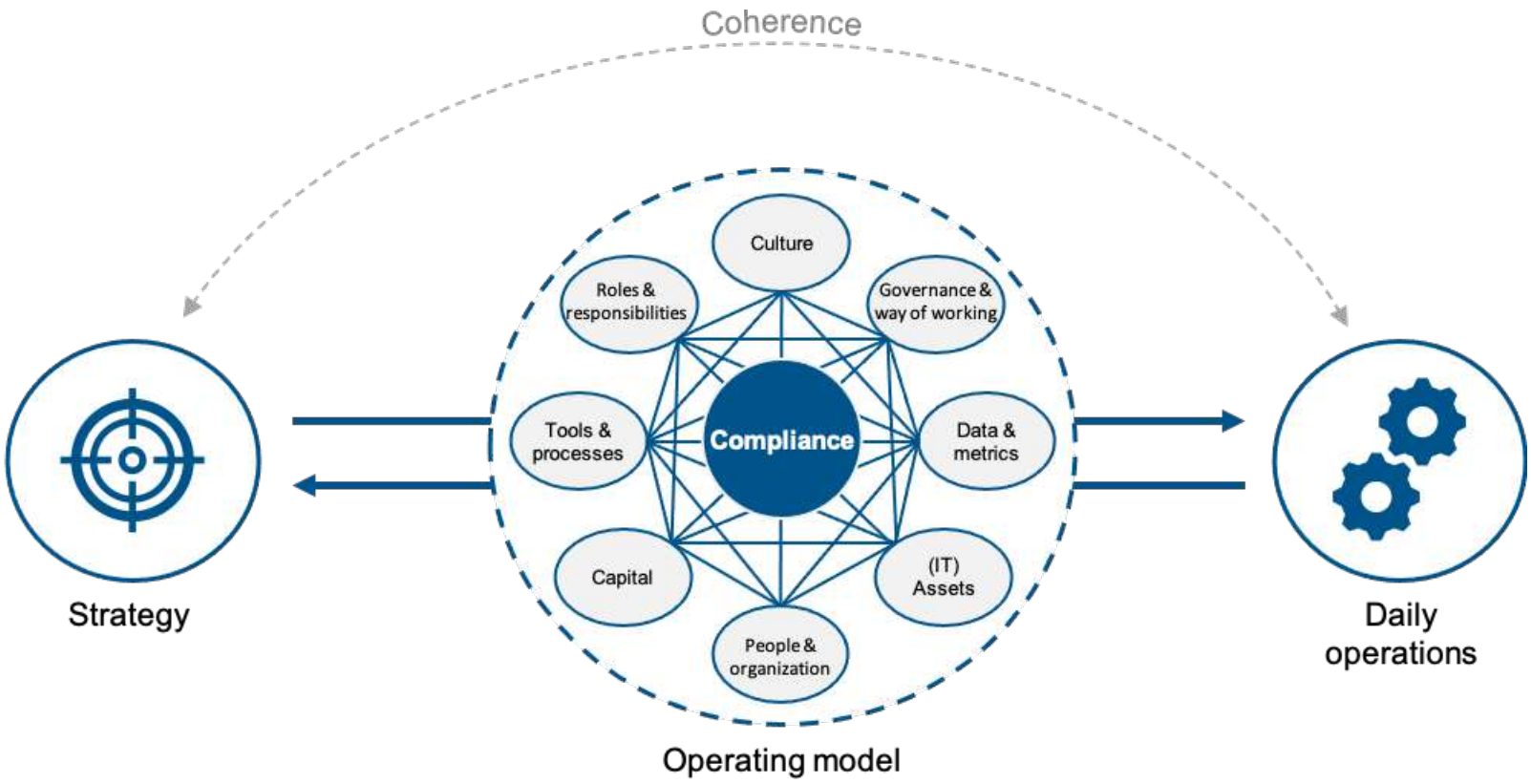

Figure 3: A well-functioning compliant-by-design operating model creates coherence between strategy and daily operations. © INNOPAY. All rights reserved.

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ORIGINAL BLOG

GET IN TOUCH

BLOG

A paradigm shift towards Near-Zero-Knowledge e-commerce

24 June 2021

Vincent Jansen

Constantijn Molengraaf

Leon Kluiters

Near-Zero-Knowledge e-commerce could allow e-commerce businesses to structurally reduce their cybersecurity costs, minimise reputational damage caused by data breaches and increase digital trust while offering the same user experience and revenue potential as today.

E-commerce businesses of all sizes gather personal information for various reasons, including to execute the broad range of e-commerce functions, improve the user experience and boost their revenue potential. The benefits of collecting and distributing personal information are obvious, but protecting that same personal information is becoming increasingly costly for e-commerce companies from an information security perspective.

Despite this, e-commerce businesses do not appear to be challenging the status quo by actively searching for alternatives that allow them to maintain the same level of functionality without collecting personal information; there is a notable lack of development – and use – of such alternatives. This is all the more surprising because a suitable alternative already exists: Near-Zero-Knowledge (NZK) e-commerce.

At INNOPAY, we believe that NZK e-commerce could allow e-commerce businesses to structurally reduce their information security costs, minimise reputational damage caused by data breaches and increase digital trust while offering the same user experience and revenue potential.

Data breaches

In 2013, a cyberattack on US retailer Target resulted in the loss of credit card and personal information from 110 million customers (Global Trade magazine, 2020). More recently, earlier this year, the Netherlands' biggest data breach to date resulted in e-commerce business Allekabels losing personal data from 3.6 million Dutch and Belgian users (Heliview, 2021).

There could be various operational reasons why Target and Allekabels suffered these breaches (e.g. lack of cybersecurity, mismanagement, ignorance) but ultimately they only occurred because the customer information they collected made them interesting targets for cybercriminals. And since Target and Allekabels are far from unique in gathering personal information about their customers, the next major breach is only a matter of time.

In fact, e-commerce businesses of all sizes are currently collecting personal information (see Figure 1) to execute the broad range of e-commerce functions and manage the associated risks. For example, personal details such as name and address are used to process shipments, payment details are used to make transactions easier for returning customers, and a customer's date of birth could be used to send them a personalised birthday gift such as a voucher. Personal information could also be used to build comprehensive customer profiles for marketing purposes, offer payment products and other value-added services, as well as to manage payment/fraud-related risks.

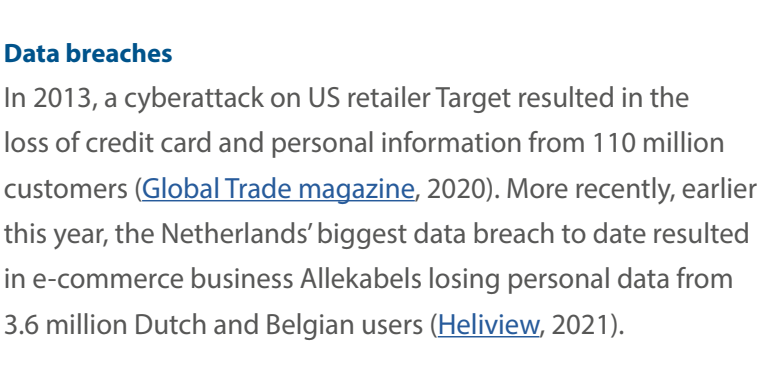

Figure 1: Personal information is collected to execute the various e-commerce functions. © INNOPAY. All rights reserved.

Moreover, since e-commerce businesses work with numerous specialised partners and providers, the personal information they accumulate is often shared and thus duplicated.
For example, Amazon could potentially share personal information with an entire web of third-party service providers (see Figure 2).

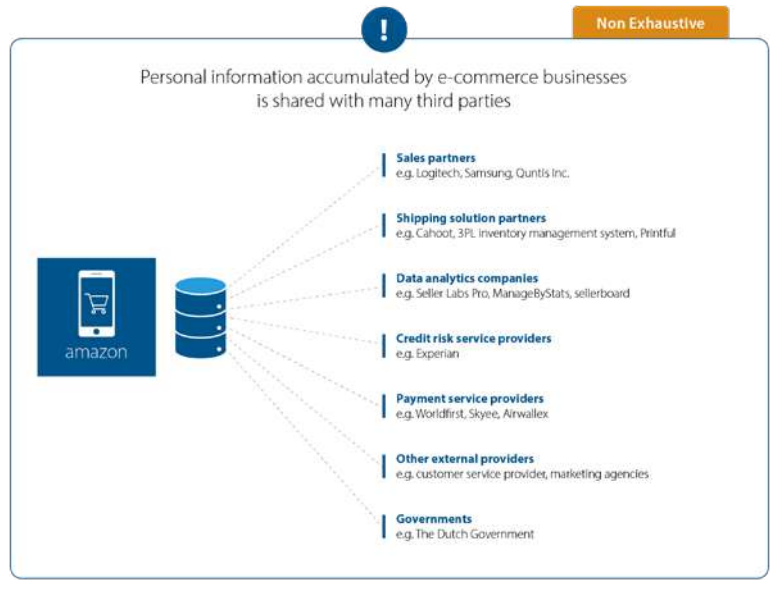

Figure 2: Personal information is shared with others (Amazon.com, sellercentral.amazon.com). © INNOPAY. All rights reserved.

Protecting information is increating costs of doing business

While there are obvious benefits to accumulating and distributing personal information, protecting that information is one of the key factors driving the rise in information security-related costs for e-commerce businesses. After all, if companies lose the personal information they have accumulated from customers – whether due to leaks, breaches or hacks – they can face heavy fines by regulatory bodies (e.g. the EU's GDPR stipulates fines of up to 4% of global turnover (IT Governance) for reputational damage). These costs and damages will most likely rise further as the e-commerce market and the information security-related market continue to grow.
A growing e-commerce market, both in terms of the number of businesses and the revenue per business (see Figure 3), increases the reputational risks and size of fines plus it makes the e-commerce market in general a more attractive target for cyberattacks.

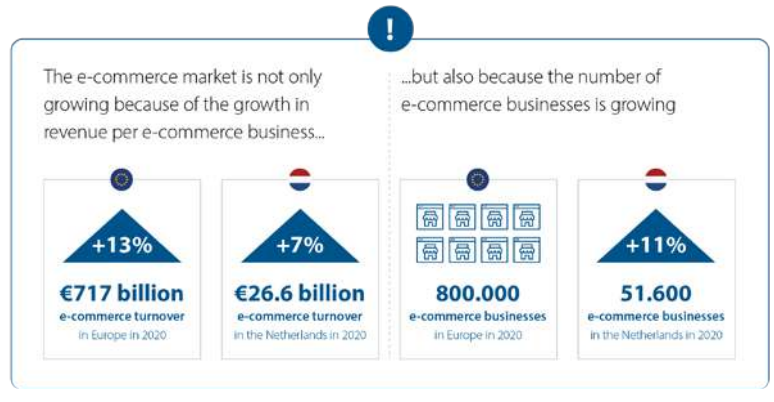

Figure 3: The e-commerce market is growing (e-commercenews, e-commercenews, Thuiswinkel.org). © INNOPAY. All rights reserved.

The information security-related market also shows strong growth, both in terms of costs associated with data breaches and cybersecurity-related spending by organisations (see Figure 4).

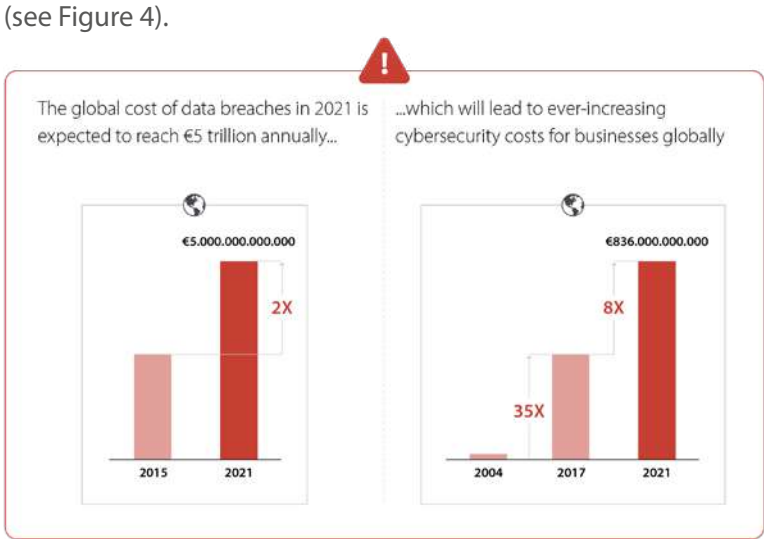

Figure 4: The cybercrime market is growing (Upguard 2021, Cybersecurity Ventures 2020).

Since the current e-commerce system stimulates the gathering of personal information, e-commerce businesses appear unable to structurally reduce these costs and risks. There is little to no use of alternatives that do not require the collection of personal information and, because e-commerce businesses are not actively challenging the status quo by searching for such solutions, no new alternatives are being developed.

The alternative: Near-Zero knowledge E-commerce

This raises the question of whether it is even possible to shift the e-commerce paradigm towards a system offering the same benefits, while drastically decreasing the collection and distribution of personal information in order to structurally reduce security-related costs. At INNOPAY we believe that it is possible. The solution is called Near-Zero-Knowledge e-commerce: a paradigm shift in which the collection, distribution and burden of handling personal information is offloaded from e-commerce businesses onto specialised third parties, called identity service providers, who manage customers' digital identities.

In the case of Near-Zero-Knowledge e-commerce, all businesses in the e-commerce ecosystem would only have access to the personal information required to offer their services. On a simplified level, this could work as follows: at the customer's request, the identity provider creates a token to be used in the e-commerce ecosystem. This token enables the e-commerce business and other service providers to recognise the customer and request from the identity provider the personal information needed to perform their service. Personal information shared by the identity provider is used exclusively to perform the service and then deleted afterwards. In this scenario, only the identity provider has to store and protect the personal information, thus enabling e-commerce businesses and their service providers to structurally reduce their information security-related costs.

The identity service provider could be a small, specialised third party, but the role could also be fulfilled by large e-commerce businesses. In the Netherlands, for example, Bol.com is already partially doing this by offering customers the option to sign in to the Albert Heijn and Waardijk web shops using their Bol.com login details.

The ingredients for developing such solutions are already widely available. Contribute to driving this paradigm shift and join us in further exploring NZK e-commerce together. After all, the less you know, the more you grow…

Authors
Vincent Jansen, Constantijn Molengraaf and Leon Kluiters

ORIGINAL BLOG

GET IN TOUCH

BLOG

INNOPAY Open Insurance Monitor update: Insurtechs on the rise while incumbents are in limbo

23 July 2021

Mounaim Cortet

Maarten Bakker

Marnix de Kroon

Open Insurance continues to be the next game changer in insurance. The second edition of the INNOPAY Open Insurance Monitor, which keeps track of how the global Open Insurance landscape is evolving, reveals a rise in the number of Insurtech players who are providing access by connecting insurers with digital ecosystems. Meanwhile, one API marketplace has become the first in incorporating Open Insurance services in its digital offering. Based on our analysis of the findings, we can conclude that the traditional industry players – incumbent insurers and banks – still seem in no rush to strengthen their currently weaker position in order to capture the value from Open Insurance. Read on for more insights from the INNOPAY Open Insurance Monitor as the basis for kick-starting your own Open Insurance journey.

The Global Open Insurance trend is expanding, albeit slowly

The updated edition of the Open Insurance Monitor includes several new players with insurance API propositions, both Insurtechs and Open Insurance marketplaces. We can draw the following three key insights from the latest INNOPAY Open Insurance Monitor:

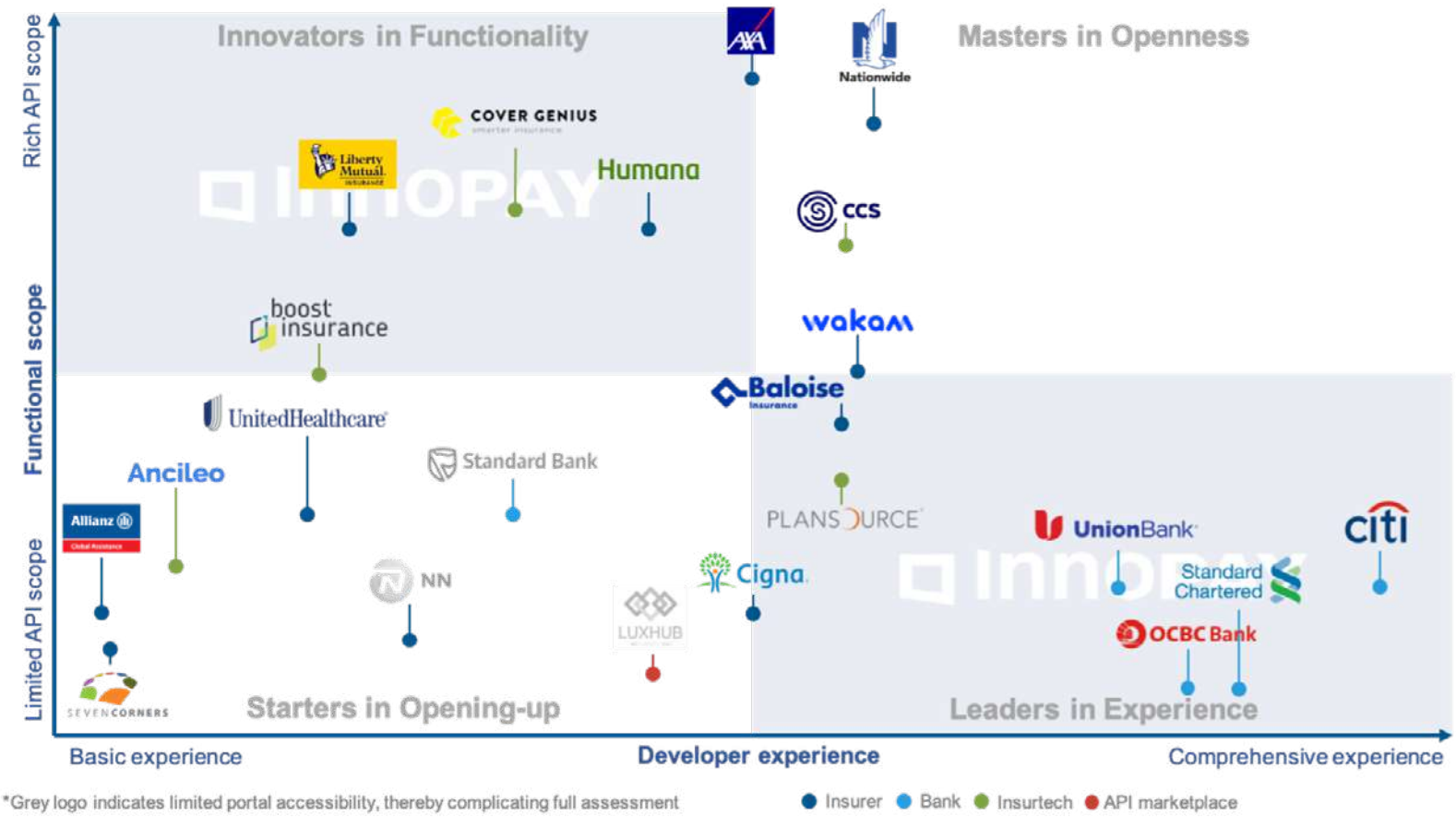

Figure 1: INNOPAY Open Insurance Monitor v2.0, May 2021.

1. Insurtechs are entering the game

Most of the new entrants in this edition of the Open Insurance Monitor are Insurtech players. They all offer 'insurance as a service' that facilitates integration between insurers and third-party sales channels, with the developer portal environment as part of the offering. However, there is significant variation in the amount of functionality they offer, the level of developer experience and how they position themselves.

Boost and Ancileo, both located on the left of the spectrum, have a relatively small API scope focused on quotation, purchase and insurance policy modification. Although their developer experience is also relatively limited, they make up for it with clear API documentation that contains the necessary components for adequate interpretation and usage of the APIs. Meanwhile, Plansource offers benefits APIs as part of its complete HR solution to provide employing organisations a direct connection with insurance carriers for employees to have a seamless benefits shopping experience. The APIs include services for plan subscription and retrieval of relevant coverage data.

Another notable Insurtech is Dutch-based CCS, which positions itself solidly on both axes. CCS has a wide API scope that covers multiple components of the insurance value chain, plus it acts as an API marketplace for its customers. Its developer experience is more advanced than its Insurtech peers. For example, CCS offers proper developer usability features such as automatic onboarding, SDKs and app management & analytics functionality.

2. API marketplaces as a one-stop shop for insurance services

API marketplaces offer a variety of different API services from different providers, thus functioning as a one-stop shop for organisations that are looking to strengthen their capabilities through external APIs. The marketplace serves as a single integration layer, thereby reducing the implementation hassle. LUXHUB is the first to integrate insurance services into its marketplace environment. It recently announced a new partnership with Baloise to provide mortgage insurance quotations directly to banks. As part of this new partnership, LUXHUB now publishes quotation and subscription request APIs on its portal. Although Baloise already had its own developer portal in place aimed at retail insurance, this partnership enables Baloise to directly integrate with core banking systems via the LUXHUB marketplace.

3. Existing players are not yet shifting focus

As highlighted in the first edition of the Open Insurance Monitor, insurers appear to be focused mostly on establishing their API portfolio, with their top priority being API documentation to allow developers to understand and use their APIs properly. There is little to suggest that insurers are

shifting their focus towards other developer portal capabilities, while some extension of the API portfolio can be witnessed. For example, Nationwide has added several new API functionalities, including within its Life domain, thereby moving closer to AXA as a functional innovator.

The same holds true for banks, whose superior developer experience is a result of their earlier Open Banking investments and efforts. Their insurance-related API scope remains limited, but a few of them are further improving their developer experience. For instance, Citibank has further strengthened its developer usability with analytics and group role functionalities within app management and has enhanced community development by showcasing partner projects for inspiration. Meanwhile, Standard Chartered has launched an academy via its developer portal, where developers can improve their knowledge and skills on topics such as cloud transformation, APIs and emerging technologies. This feature is unique in both the Open Banking and Open Insurance space.

Insurers need to start deciding how to compete against or benefit from these tech players

The INNOPAY Open Insurance Monitor demonstrates that Open Insurance has been progressing slowly, but the presence of Insurtech and API marketplaces in the Open Insurance space seems to suggest that the pace is accelerating. This presents incumbents with a choice: either fight the competition, team up with these tech-savvy new entrants or a combination of the two. The 'no regrets' move for insurers (and also banks) would be to extend their own API portfolio and develop the necessary Open Insurance capabilities themselves. This would pave the way for an innovation platform that enables partnerships to be leveraged at scale. Insurtechs can play a role in this, for instance by providing direct access to a vast amount of different digital ecosystems for (white-label) product distribution. Since a wait-and-see approach is clearly no option, insurers need to carefully weigh up their choices and make the right decisions to safeguard their future position.

If you would like to explore which Open Insurance strategies and partnerships best suit your business, don't hesitate to reach out to Maarten Bakker or Mounaim Cortet.

The Open Insurance Monitor is continuously in development. If you think your organisation should be included in the monitor, please send an e-mail to Marnix de Kroon.

Figure 2: Also this release has no overall winner within the INNOPAY Developer Portal Capability Model

Authors

Maarten Bakker, Marnix de Kroon and Mounaim Cortet

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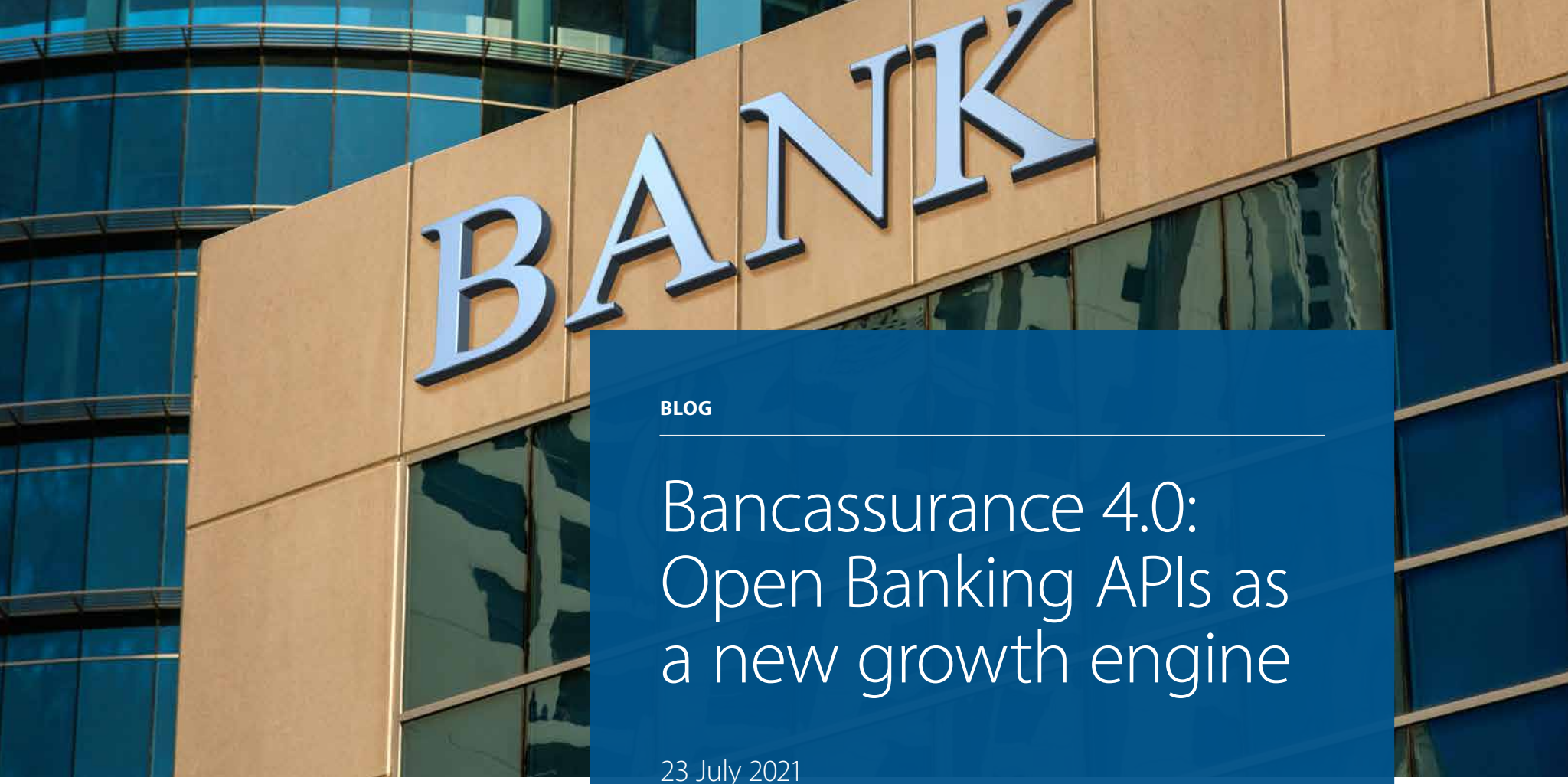

BLOG

Bancassurance 4.0: Open Banking APIs as a new growth engine

23 July 2021

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INNOPAY

Customer interaction and product distribution is increasingly taking place at new forefronts: at the point of interaction of digital journeys in third-party channels. The rapid rate of digitalisation is also driving the next phase of bancassurance. Banks need to start preparing for this right now – not only to protect their market share, but also to ensure they don't miss out on the emerging blue ocean opportunities. In this article, we explain why and how Open Banking capabilities can be leveraged for new personalised Open API bancassurance propositions in order to increase customer relevance.

The era of low – and even negative – interest rates does not seem likely to end any time soon. Banks across the globe are responding by looking for new fee-based growth pockets to partially offset the declining margins on their balance sheets. The current European insurance market accounts for roughly EUR 1,300 billion, including an estimated EUR 250 billion involving bancassurance. Growing their bancassurance business can thus generate substantial fee-based or commission-based income for banks. In a world with soaring customer expectations and exponential growth of new digital ecosystems, innovation is imperative to secure a foothold in this market.

Open Apis provide new opportunities for insurance and ushers in the next phase of bancasurance

Banks have long relied on their own physical and digital channels as the main distribution point for insurance products and as the key touchpoint for engaging

with their clients. Nowadays, however, insurance product offerings and insights can increasingly be found at the point of interaction within third-party channels. Digital channels have gained further importance since the outbreak of COVID-19 and this trend is expected to accelerate. Two thirds of bank executives across the globe believe that the bank branch model will be dead within five years as a result of digitalisation. Therefore, the next logical step for bancassurance is to play a role within new digital ecosystems based on open APIs, thereby ushering in the next phase of the bancassurance distribution model (see Figure 1). By pursuing an Open API strategy, banks can create new customer relevance, leverage their presence in new digital ecosystems, drive innovation and create new revenue streams.

Banks are ideally positioned to capitalise on this blue ocean opportunity

As part of their strategic Open Banking initiatives, banks already provide third-party platforms with access to banking products and data. Numerous banks have recognised the potential of API-enabled distribution. Some banks expose lending products via APIs to accounting platforms, for instance, enabling their users to apply for a new loan directly from within the accounting platform.

The Open Banking journey has put banks in the hot seat for insurance product distribution due to a strong set of capabilities they have acquired along the way:

- **Banks have a large client base, relevant data assets and frequent digital client interaction**
  Banks have built a large customer base with frequent digital interaction and have consequently developed trusted relationships. As a result, banks possess a wide range of financial and non-financial customer data (e.g. payments data, investments, insurance policies, etc.). Banking clients are comfortable with managing their finances online, making banks a logical and trusted party to be involved in their digital journeys and transactions on third-party platforms. This large client base also makes banks an attractive partner for third parties.

- **Banks have a licensed, secure and regulated infrastructure**
  Due to their PSD2 compliance and Open Banking efforts, banks can offer licensed third-party platforms safe access to their API environment (including developer portal). This enables trusted and shared use of the bank's products, services and data, and easy, scalable and secure integration with third-party platforms. Banks therefore have a significant head start on other parties (e.g. insurers) who are still several years away from developing this crucial capability.

- **Banks have well-established digital identities of their customers and authentication/authorisation capabilities in place**
  Having established digital identity of customers is key for personalised API-driven insurance. Strong customer authentication and authorisation capabilities are required to participate in open digital ecosystems to interact with others, provide access to account data and digitally engage in legal agreements such as insurance policies. Banks already have these capabilities due to their thorough KYC processes in combination with authentication and authorisation mechanisms derived from Open Banking. This gives banks a clear competitive edge over insurance companies, InsurTechs and BigTechs.

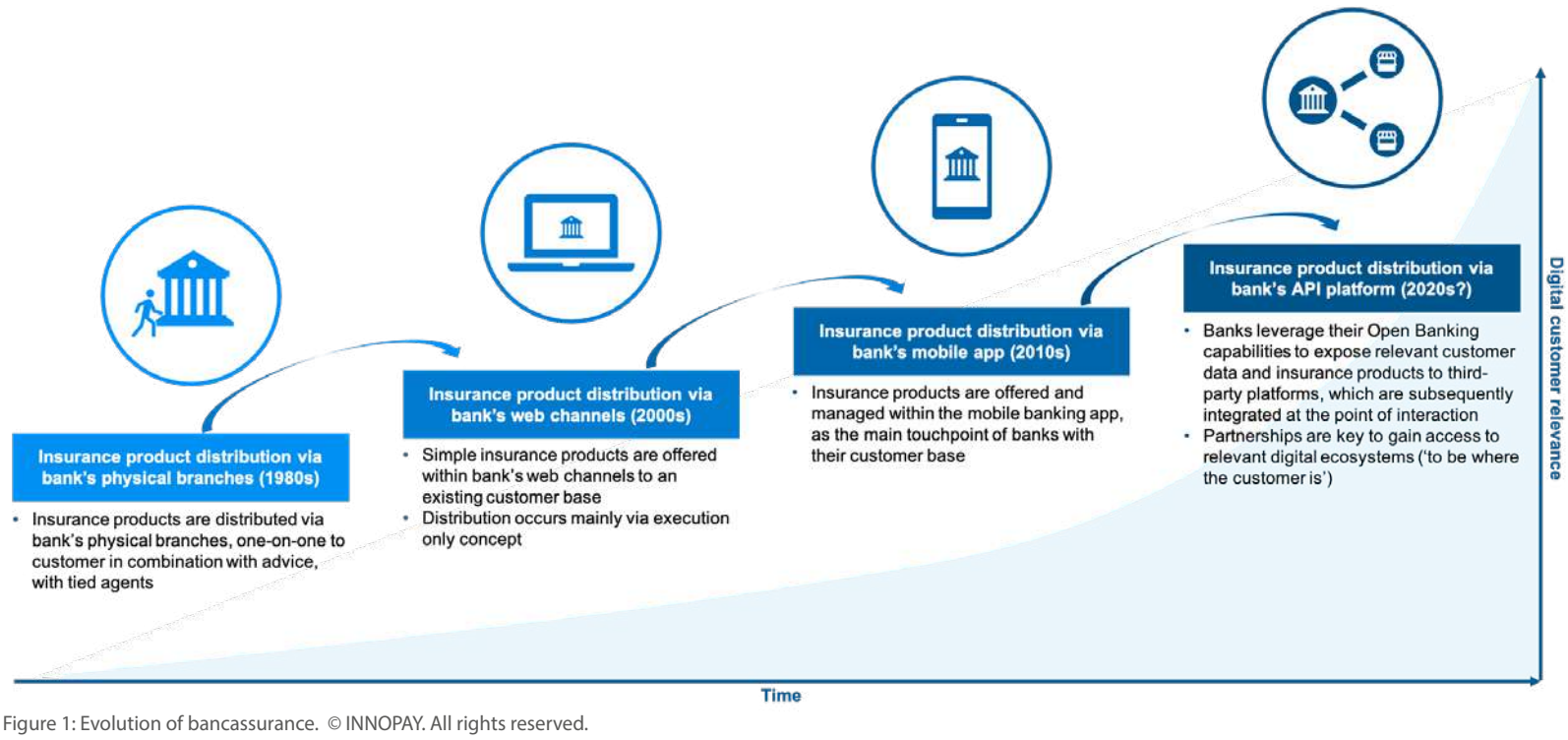

Figure 1: Evolution of bancassurance.

How could it look for the customer?

So banks have a unique opportunity to develop new Open API propositions. But how can this create new value for customers? At INNOPAY, we regularly explain this to our clients using a bancassurance case from the travel sector (as illustrated in Figures 2 and 3). In this example from airline KLM, when booking a flight passengers can check their existing insurance coverage in real time. Based on that personalised insight, they can then decide to buy extra coverage for that trip. Once the personalised coverage is activated, clients can see and manage their coverage in the banking app. Customers thus gain an integrated and personalised digital experience tailored to their specific needs with all the necessary information in one place.

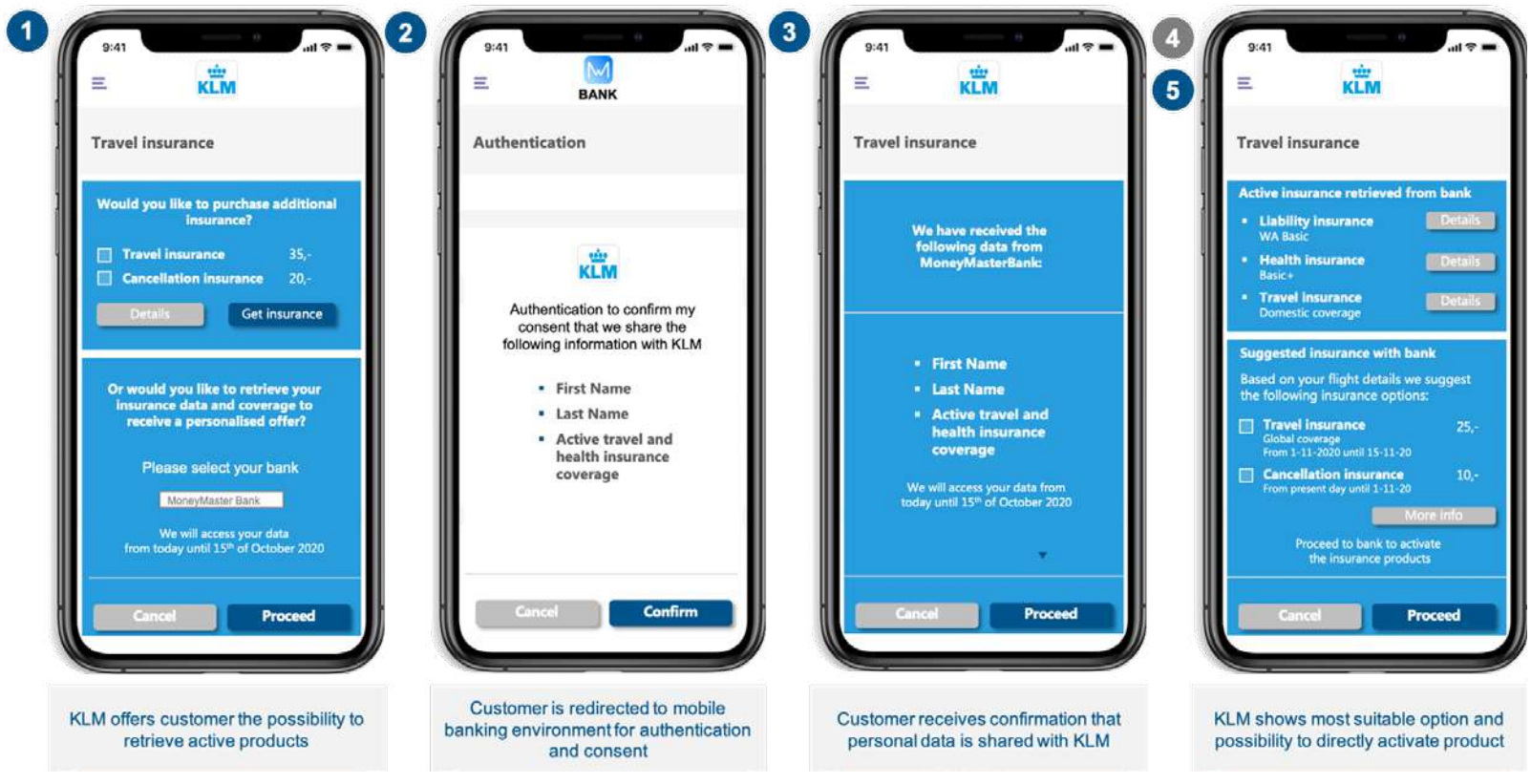

Figure 2: Use case part 1 – Client authenticates their consent for the sharing of their personal data with the airline. © INNOPAY. All rights reserved.

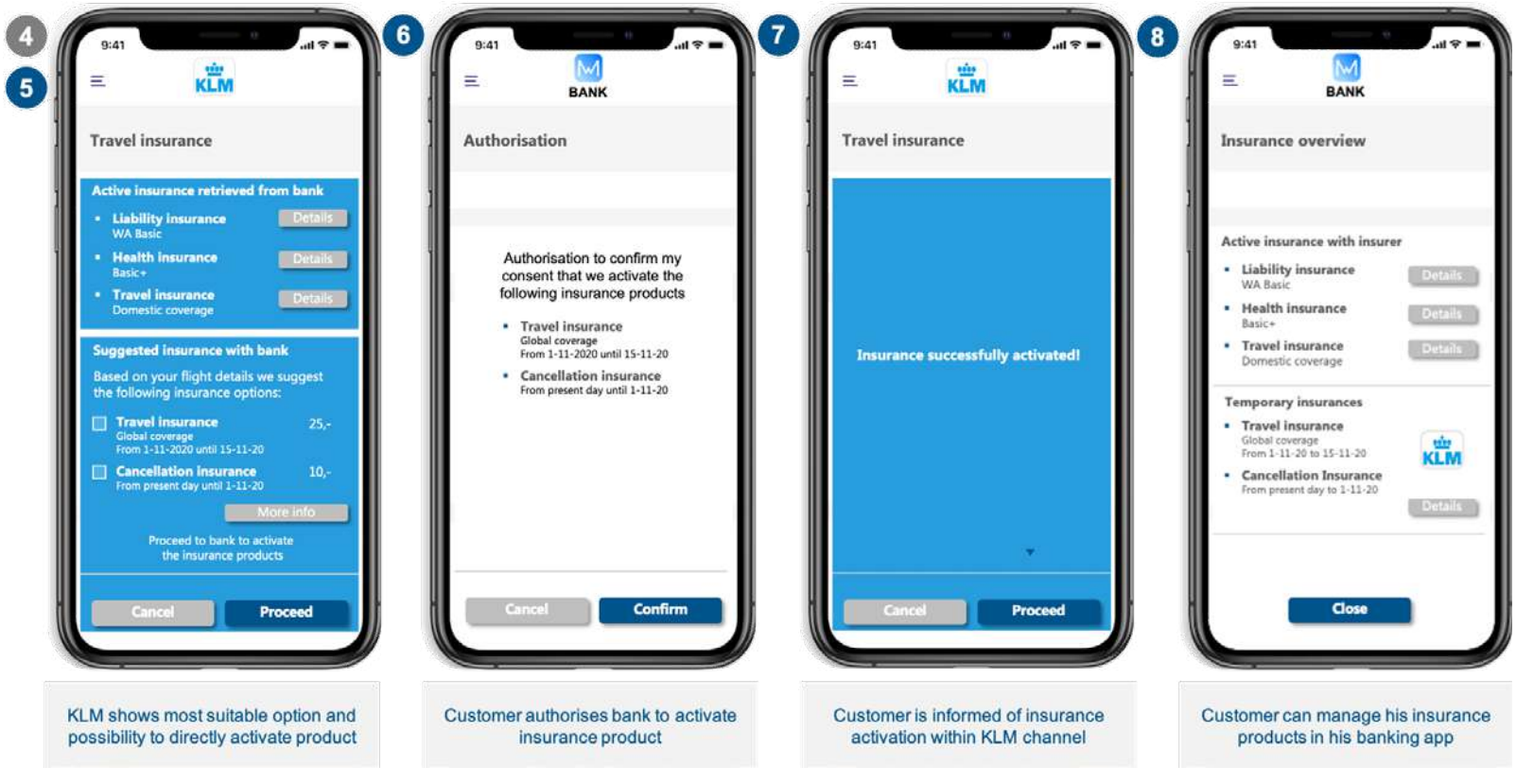

Figure 3: Use case part 2 – Client receives a personalised insurance offer and authorises purchase. © INNOPAY. All rights reserved.

Tapping into this opportunity calls for the right strategy, partnerships and operating model

According to the market insights from our Open Insurance Monitor and interviews with key industry players (banks, insurers, InsurTechs), some front-running banks are already moving into this space in a bid to stay ahead of their competition. Banks that limit themselves to distribution via their current channels will see their share of wallet decline as their competitors are taking part in new digital ecosystems. Most importantly, they will miss out on the opportunity to increase the resilience of their business model and to become more relevant for their clients.

Three must-do actions for banks that want to seize this emerging opportunity within bancassurance:

1. **Define the right strategy and business model.** Banks need to define their Open API strategy, business model and use cases for distributing insurance products
2. **Engage in digital ecosystem partnerships.** Banks need to engage in new partnerships to gain access to the ecosystems they want to be part of in order to meet new customers' needs
3. **Prepare the operating model.** Banks need to review their current operating model and define how they can integrate key Open API insurance distribution initiatives into the daily operations

Prepare for the next phase of bancassurance

Digitalisation is shifting insurance product distribution from the organisation's own channels to the point of interaction within open digital ecosystems. Banks that fail to position themselves at the forefront will not only see their share of wallet decrease, but will also miss out on the opportunity to increase their relevance and build a more resilient business model during these uncertain times. If you would like to explore how to prepare for the next phase of bancassurance, do not hesitate to contact Maarten Bakker or Mounaim Cortet.

Authors

Maarten Bakker, Marnix de Kroon, Mounaim Cortet and Vincent de Rijke

ORIGINAL BLOG

GET IN TOUCH

BLOG

Why should banks prioritise becoming the new 'Data Custodians' of the digital economy?

31 July 2021

Mounaim Cortet

Maarten Bakker

Pepijn Groen

Denise Hoppenbrouwer

INNOPAY

To access to an extended paper which expands on the concepts introduced here, click the link at the end of this blog to download 'Establishing the trust anchor in the digital economy: the case for banks to become 'Data Custodians'. The original article was initially published in the Journal of Payments Strategy & Systems (peer-reviewed).

Banks' traditional role as 'Money Custodian' is increasingly threatened by the entry of non-bank and/or non-financial players into the payments and banking space. Now is the time for bank executives to embark on new strategic initiatives to assume the role of 'Data Custodian' in the digital economy.

This new role will support banks in securing their future relevance by establishing themselves as the trust anchor in the digital economy. Banks will provide the secure and reliable exchange and management of data-driven digital transactions in today's world of open, digital ecosystems.

To support banks to assume this new role of Data Custodian, INNOPAY has developed a strategic roadmap and highlighted key implications and critical success factors for bank executives to consider on their transformation journey.

Why should banks assume the new role of data custodian?

There are a number of compelling reasons why banks should now seek to evolve from being a Money Custodian to also become customers' preferred Data Custodian in the digital economy.

1. Banks are at risk of losing their trusted position in payments

Competition in the payments and banking space is becoming increasingly frenetic, and banks no longer possess a monopoly of payments and other financial products. New regulations have lowered the barriers to entry for non-banks, and new entrants from different backgrounds are driving innovation and competition by embedding financial services in customer journeys.

2. Regulatory reforms that aim to democratise access to data, open up new opportunities

Supported by a raft of reforms and proposed regulations, customers are becoming increasingly savvy about the value that their data represents and will seek to capitalise on this. As a consequence, there is an emerging need for Data Custodians to enable the seamless and trusted exchange of data, while safeguarding the interests of customers. By assuming this role, banks can secure customer relevance and new business beyond digital payments.

3. Banks can secure their future relevance by becoming the Data Custodian in data-driven digital transactions

Banks which act as Data Custodians will help to secure their future relevance in several ways:

- Increased brand relevance by providing customers with a single point of control for their data assets
- Creation of new digital services that are enabled by data-driven digital transactions
- Reversing the dynamic for large platform companies to monopolise customer data

4. Banks are well-positioned to become Data Custodians and facilitate digital transactions

Banks have the credibility and experience to facilitate data-driven digital transactions at scale. They already have a trusted relationship with their customers, and they have further strengthened their technological and operational capabilities through their PSD2, digital identity and Open Banking investments.

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.

Role 1: Open Bank

Open Bank is a role in which banks facilitate their customers to safely re-use (financial) bank data and functionality in digital ecosystems. Banks are well-positioned for this role as it relates closely to their existing PSD2 and Open Banking initiatives. As such they have already developed important building blocks for consent-based access which are essential to become a Data Custodian.

Role 2: Digital Identity Provider

Next to being an Open Bank, banks can evolve towards becoming a Digital Identity Provider. The need for digital identity is growing, and banks are well-positioned in comparison to BigTechs due to their trusted position in payments and their current digital identity capabilities. Managing digital identities will help banks to increase relevance and brand awareness in their customers' digital lives, generate new revenue streams and potentially drive efficiency in their own compliance processes.

Role 3: Data Custodian

Building on their capabilities as Open Banks and Digital Identity Providers, the future anchor product of banks (as Data Custodians) 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 the extended Paper, we look in detail at the key implications for banks to consider across these three mutually reinforcing roles, focusing on: strategic decision-making to secure future relevance; re-using existing capabilities to develop new data-driven, customer-centric propositions; and monitoring existing standardisation initiatives and participating where relevant.

Three critical transformation succes factors for banks

Banks need to consider three critical transformation success factors as they embark on the journey to becoming a Data Custodian:

1. 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. They will need to perform a review of their strategy,

objectives and technological and operational capabilities, concentrating on:

- Shaping the vision and strategy
- Identifying and prioritising opportunities
- Defining an action plan and capabilities

2. Defined approach for partnerships and industry collaboration

Based on the vision and strategy, banks need to identify potential partnerships to enable and/or accelerate the realisation of selected opportunities. Two types of collaboration are relevant for banks to progress their strategic objectives: partnerships and industry collaboration.

3. Future-proofed the operating model

Many banks have been slow to recognise the importance of fully integrating their Open Banking 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. Executives must transform and future-proof their operating model to meet the growing imperatives for:

- Development of customer-centric propositions
- Adaptation to collaborative ecosystems and open business models
- Modern IT infrastructure

Key recommendations for bank executives

As their role as Money Custodian diminishes, the time is right for banks to secure their future relevance by assuming the role of Data Custodian. As bank executives embark on their transformation journey, we make three recommendations:

1. Acknowledge that the role of Data Custodian is crucial to ensuring future relevance for banks in the digital economy

Executives should recognise that providing their customers with a single point of control for their data assets will enable them to:

- Capture new types of frequently occurring digital transactions
- Become the new trust anchor in the digital economy
- Generate new revenue streams

2. Leverage existing capabilities and participate in standardisation initiatives (where relevant) as banks transform towards the role of Data Custodian

Banks should re-use their Open Banking capabilities to develop new customer-centric services as Data Custodians. Additionally, executives should define an approach for bilateral partnerships and industry collaboration to develop value-adding capabilities, as well as aligning with existing market standards to increase interoperability and maximise reach in the digital economy.

3. 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 needs 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, assuming the role of Data Custodian is the strategic choice for banks which intend to establish themselves as the trust anchor in the digital economy. By preparing today, banks will be able to better serve their customers and their ever-evolving data needs of tomorrow.

Authors

Mounaim Cortet, Maarten Bakker, Pepijn Groen en Denise Hoppenbrouwer

ORIGINAL BLOG

GET IN TOUCH

Toekomst van het Betalingsverkeer

BLOG

The future of payments – it's time for big steps!

13 September 2021

Josje Fiolet

The 2021 edition of Euroforum's annual conference on the future of payments ('Toekomst van het Betalingsverkeer') – which took place in Amsterdam's Beurs van Berlage on 9 September and was actually held as a physical event rather than a virtual one – attracted over 200 attendees. INNOPAY's Josje Fiolet was among them, and she has written a blog to share the key insights from the conference. It was apparent that COVID-19 has accelerated the move to digital payments, and tokenisation is here to stay. Above all, there was a clear focus on what you can do right now to make your customer's life easier.

I'd almost forgotten what it was like to attend an on-site conference. It was so nice to see so many familiar faces and to meet new people, to chat about our daily work and exchange different perspectives on payments! There was a palpable buzz and nearly everyone stayed for the networking drinks at the end of the day.

COVID-19 accelerated the move to digital payments

One of the key questions during the conference was whether the pandemic has really changed the way people pay. There seemed to be a general consensus that while COVID-19 has accelerated the move to digital payments, the trend was actually already underway beforehand. However, the pandemic did cause a shift in buying behaviour, according to a keynote speaker from Mastercard, with consumers spending more money on things like pets, family photo albums and 'drinking from home'. Based on the self-conscious chuckles from the audience, we can assume the latter was definitely true!

All the payment players that spoke during the conference provided solid evidence of the growth in digital transactions, successively trumping each other with examples of innovative solutions, extensive reach and impressively high numbers of transactions. For example, iDEAL expects to hit the 1 billion transaction mark this year and is offered by 200,000 merchants across the globe. The speaker stated that 85% of transactions are now finalised via mobile and – fuelled by this consumer behaviour – iDEAL 2.0 is centred around simplifying the check-out process. Ultimately, the Dutch Central bank topped them all, presenting itself as the backbone of all retail transactions with an average daily value of €250bn.

Tokenisation is here to stay

One thing that became clear across all presentations, whether by iDEAL, ING, Mastercard or Google, is that tokenisation is here to stay. Although the concept is far from new and has been on the agenda for quite some time, the real-life examples showed that tokenisation is now making payments more secure and seamless. In Mastercard's case, it is collaborating with Picnic and Rabobank to tokenise the debit card and enable one-click payment. Meanwhile, the iDEAL user token pushes the preferred bank towards the online merchant, which reduces the number of times the consumer needs to click. It's all about making the customer's life easier.

The option of one-click or two-click pay depends on whether or not the customer is known. This is where digital identity comes in, which is at the core of payments. The speakers discussed the proliferation of digital identities, and fragmentation of the market is seen as a challenge. Did you know you are likely to have approximately 200 logins and passwords? It is not yet clear who should solve this and become the primary identity issuer. Banks? Fintechs? Governments? Everyone agreed that waiting for regulation would take too long, and that it would help if the government would mandate collaboration amongst market parties. Interested in a scheme, anyone?!

One benefit of digital identity in payments is that knowing the customer makes it easier to store their tokens and hence make the payment process even more seamless – and you can offer the customer much more. Google revealed how it plans to integrate different data-driven and AI-driven services (beyond payments) in the Google Wallet, such as transit, ticketing and loyalty. Although such services won't all become available in the Netherlands this year, this is yet another sign of Big Techs strengthening their position in the payment landscape and is therefore definitely something to keep an eye on.

While this is an interesting development for some, it's a concern for others. Like many other central banks, the Dutch Central Bank is exploring the topic of Central Bank Digital Currencies ('Digital Euro'), whereby the customer holds an account directly with a central bank. This avoids reliance on non-European parties who may be hard to regulate and oversee. It was surprising to hear that research by the Dutch Central Bank showed that 50% of respondents were positive about the Digital Euro development, despite it receiving little press coverage. The Dutch Central Bank will not decide how to pursue this issue for another two years, but described it as "realistic that the Digital Euro will be introduced".

Future concerns and opportunities

Another area of concern is the increase in fraud. Annual non-bank fraud damages reach EUR 40 million this year. In this type of fraud, the customer is misled by fraudsters to initiate the transaction themselves. So seamless is great, but it also has negative side effects – especially for those who are less digital-savvy, according to the Dutch Central Bank. And at 15% of the Dutch workforce, this is a relatively large group, so it makes sense to develop new solutions for them. Fortunately, besides airing its concerns, the Dutch Central Bank also complimented all the various parties present at the conference by saying that the Dutch public generally seem to have significant trust in payment transactions.

All those various parties – banks, fintechs, payment providers and the like – each play an important role in the industry, and many of them mentioned collaboration as the key to success. They all see that the ecosystem is growing, with new and niche parties entering the market and becoming integrated in the payment value chain. Third Parties under PSD2 are one example of such new entrants. PSD2 is just the beginning of what is expected to turn into a broader data play. Although it has not yet reached its full potential, Open Banking is no longer just a theory. Concrete use cases were presented, and the discussion evolved towards the potential of Open Finance and the wider open data economy. As highlighted by our own Luc van Oorschot, payments lead at INNOPAY, banks and other payment players can turn this into an opportunity, building on their trusted position on the one hand and on their current capabilities on the other. By acting as a data custodian, not only for payment transactions but also for all kinds of transactions (e.g., digital identity, data sharing) the established players can develop new propositions and revenue models and safeguard their position in the market.

Sustainability and inclusion

It was also great to see that sustainability and inclusion were on the agenda. VISA highlighted the rise of the 'conscious consumer' who is seeking to connect with purposeful brands. According to one study, 75% of millennials are estimated to

be willing to change their consumption habits to reduce the environmental impact. And sustainability goes beyond just environmental issues; it extends all the way to Digital Corporate Social Responsibility, whereby organisations proactively strive for good business conduct such as by giving their customers control over their own data.

The Dutch Central Bank stressed that payments should be inclusive and available to all. Mastercard shared details of its inspiring initiative that allows customers to choose how their name is shown on their card. This can help transgender people to feel more included, for example. A small change with big impact – we need more of that!

What particularly struck me at my first real-life event since the pandemic was that the tone of the event and of the speakers differed slightly from before. There was less focus on future innovation possibilities or regulatory constraints in the domain of digital transactions, and more focus on today: what can you do right now to make your customer's life easier?

While we have discovered over the past 18 months that virtual presentations and events are perfectly functional, nothing beats seeing each other in person, chatting and exchanging thoughts with fellow industry professionals and finding new inspiration from one another. If you would like to discuss the exciting world of payments in more detail, please don't hesitate to reach out to us. We're still buzzing from the conference and are excited to share all our new insights with you!

Author
Josje Fiolet

ORIGINAL BLOG

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BLOG

Are you ready for Data Sovereignty and GAIA-X?

27 September 2021

Mariane ter Veen

Petteri Heino (Intel)

Europe wants to lead the way in a data-driven world. This goal is supported by the European Data Strategy, which aims to create a single European data market – one in which data can be shared seamlessly within and between countries and industries. The strategy is centred on a completely new approach to data sharing – data sovereignty – which is expected to have a significant impact on the way everyone shares data and does business… including you. This shift offers huge potential to those organisations that are well prepared. So, are you ready for the changes?

Europe is strongly focused on the protection of personal data and has taken the lead by introducing the General Data Protection Regulation (GDPR). This has had global impact, not only because non-European companies are required to comply with GDPR, but also because governments around the world have been inspired to develop similar legislation.

The EU is now clearly keen to take the next step to become a thriving people-centric data economy in which the benefits of data use are shared out fairly. The framework for that next step is created by the European Data Strategy, which shifts the focus from the protection of personal data to the use of data – addressing both misuse and missed opportunities for its use. Needless to say, it is important to prevent data from falling into the wrong hands, or from being used without the knowledge or consent of the people or organisations who generated it. Meanwhile, it would sometimes be beneficial if the data could be used elsewhere, but only if and when the right conditions and safeguards are put in place to protect it.

In order to create a single European data market, it is necessary to take a completely new approach to dealing with data. Therefore, the EU is committed to the development of so-called 'Data Spaces' in which citizens as well as public-sector and private-sector organisations have full control over their data, not only in a legal sense, but also functionally. This is called 'data sovereignty'.

Data sovereinty within decentralised data ecosystems (data spaces)

Data Spaces are decentralised data ecosystems within a particular sector or domain. The ecosystems are made up of organisations that want to create new business, innovate or improve their services by exchanging data with each other. All members of the relevant Data Space conform to the same agreements about data sharing.

The agreements about data sharing guarantee that the people and organisations within each Data Space will have access to the necessary data in a reliable, safe, simple and controlled manner. They also have control over the data they generate. Moreover, they know who else has access to their data, and under what conditions they may process or use that data in other contexts.

At INNOPAY and Intel, we regard the agreements about access to data as 'soft infrastructure' – 'soft' because it is not visible or tangible, and 'infrastructure' because the agreements are the foundation on which different parties can share data with each other. Citizens, companies and organisations that comply with the agreements on data access – i.e. that make use of the soft infrastructure – can share data with one another effortlessly.

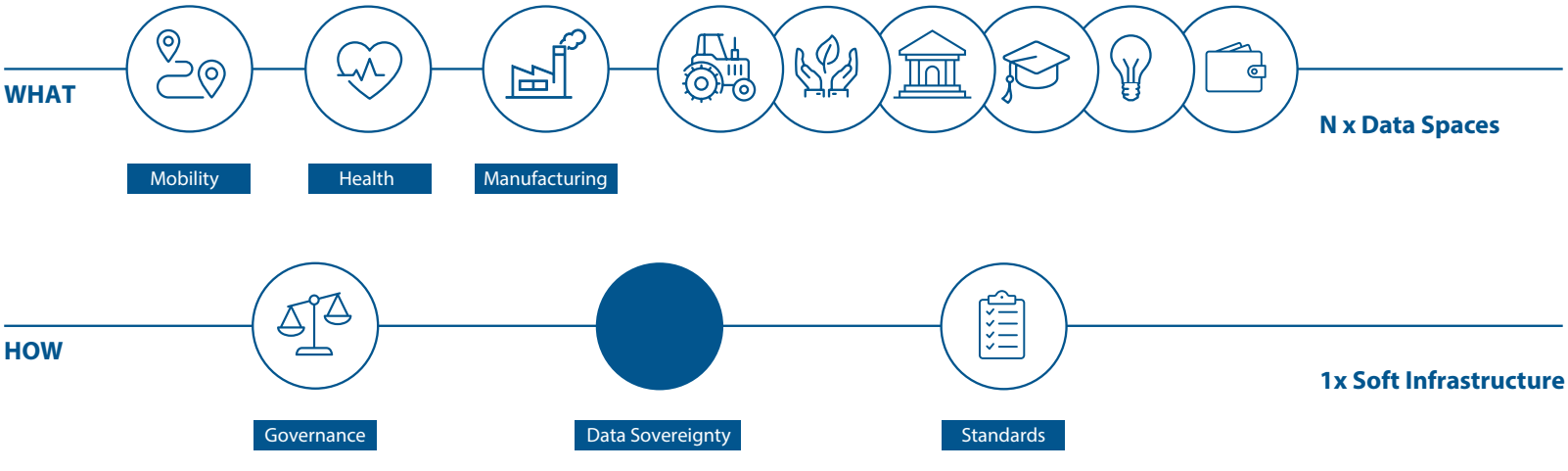
Data sovereignty is already considered completely normal in the world of mobile telecommunications, for instance. Nowadays, people take it for granted that they can keep their existing phone number when they change mobile providers, or that they can also call people who are with a different provider. This is only possible because agreements were made in the past (called the Global System for Mobile Communication/ GSM). It is now time to make similar agreements about how to regulate access to each other's data in domains in which data sharing plays an important role. This would enable people to take their friends, reviews, likes and comments with them when switching social media channels, for example, or to take their search profiles with them when switching search engines. There are already several real-life examples of soft infrastructures for data sharing. INNOPAY has long-standing experience in developing Data Spaces, such as eHerkenning for the Dutch government, iDEAL for e-commerce and iSHARE for the logistics sector.

Trust matters most

Currently, the benefits of using all this data are mainly enjoyed by the platforms themselves. Their business models are based on leveraging users' data, for instance to generate revenue through highly targeted advertisements. The European Data Strategy aims to even out the balance of power and ensure that users gain their fair share of the benefits.

However, data sovereignty is not just a topic that concerns the platforms; it is actually an issue that affects all organisations. Data sovereignty is increasingly important to your customers and partners, and they are likely to start asking you questions about it. How will you respond to their needs?

The soft infrastructure supports all Data Spaces



It all comes down to trust. Without that, people and organisations will not be willing to share their data with you. Ultimately, your approach to data right now will determine how easily you will be able to access the data you need to innovate and deliver new or improved products and services in the future.

Call to action: Start by developing a digital CSR policy

We believe that the power over data should be in the hands of the citizens and companies that generate it. This will inevitably lead to a more decentralised data paradigm. We believe that it is time to collectively decide on new governance models that not only protect data, but also distribute its benefits more equitably.

What roles can governments, businesses and individual citizens play in this regard? We all share part of the responsibility to create a healthier digital world. Your organisation has an opportunity to demonstrate leadership on this issue by stepping up and shouldering your responsibility right now – by showing that you care about digital sustainability. And that starts with drawing up a Digital CSR policy based on data sovereignty.

To get you started on your Digital CSR journey, INNOPAY has developed a 7-step approach that will help you to put your customers' interests at the heart of your organisation.

GAIA-X and EU Cloud

GAIA-X is a European initiative to develop a federated decentralised data and cloud infrastructure in Europe. The GAIA-X architecture aims to put businesses in control of their data and give them the technical tools to unlock data from different Data Spaces, easily and securely.

Author

Mariane ter Veen and Petteri Heino (Intel)

ORIGINAL BLOG

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BLOG

Set for success: a compliant-by-design operating model helps Scale Ups to secure future growth

7 October 2021

Willem Mosterd

Josje Fiolet

All Scale Ups eventually face the same challenges as they outgrow their Start Up status. How to continue acting nimbly and doing what they do best, whilst simultaneously retaining their growth curve and building trusted positions in their ecosystem? According to INNOPAY's Willem Mosterd and Josje Fiolet, becoming and remaining a successful Scale Up relies on implementing a 'compliant-by-design' operating model that can manage constant change requirements in a sustainable way. Using their unique operating model (re)design methodology – Crosslinx ® – INNOPAY helps Scale Ups to avoid costly point solutions, and enables them to build capabilities to deal with change on a continuous basis by improving coherence between strategy and daily operations.

Growing from start to scale up involves a range of challenges

Life is relatively uncomplicated for young dynamic Start Ups. They focus on building innovative products and services, the team is relatively small and everyone knows each other, and the ecosystem cuts them some slack as 'new kids on the block'. But once they outgrow their Start Up status, companies are confronted with a set of new and unfamiliar challenges.

Josje picks up the story: "For an organisation to successfully acclimatise to their Scale Up status, they need to figure out the answers to some tough questions:

- How to sustain their growth curve, and increase their relevance by maximising current value pockets?
- How to create a trusted position in their ecosystem, by being able to respond to new expectations and requirements from regulators, customers, partners and investors?

"Scaling fintechs will be particularly impacted by new regulations, such as the EU's Digital Finance Strategy which places the same regulatory burdens on all companies, regardless of scale and maturity."

Willem adds: "To really secure a growth position in the market, companies need to have trusted relations with their customers, clients, partners, the regulator and so on. And to meet the requirements of their ecosystem, they must continuously improve their organisation and the way they do business.
This often impacts Scale Ups disproportionately for two main reasons:

- First, they have grown organically and tend not to have clearly defined structures within their organisations. As they increase in size, they need to overcome the loss of social coherence by implementing a sustainable operating model.
- Second, they need to grow into their new position in the ecosystem. Now they are expected to perform just as reliably as their established competitors, with a mature organisation and stable execution of performance."

Josje summarises: "Ultimately – if Scale Ups are not able to live up to the expectations of their ecosystem – this is about diminishing shareholder value. In response to each new demand, we typically see organisations implementing point solutions and putting in more people to resolve issues. This creates a higher cost/revenue ratio which isn't sustainable. And it creates complexity which makes previously very flexible companies begin to lose their competitive edge. Their ways of working now become an impediment, and this leads to diminishing shareholder value."

The right operating model is the best compass to navigate these new challenges

INNOPAY believes that the answer lies in designing a 'compliant-by-design' operating model which enables Scale Ups to respond to a wide variety of challenges on a continuous basis.
A 'compliant-by-design' company is organised in such a way that it can implement new compliance requirements efficiently and effectively, without losing its ability to scale and execute its strategy. It requires them to move from perceiving compliance as a cost driver only, towards seeing it as a value driver.
Josje explains: "For example, when working with fintechs and scaling organisations we see that they often make compliance the responsibility of a single staff function. However, when you want to embed compliance as a value driver in your modus operandi, this means it must be fully embedded in the culture, tools and processes, governance and ways of working. Only by addressing all the elements in the operating model can you build a sustainable compliance capability that allows you to manage requirements and convince the ecosystem that you're committed and able to deliver on expectations".
Willem adds: "Organisations need to be proactive and show that they have an operating model which enables them to comply with new regulations and respond to partner requests and customer demands."

To help Scale Ups to achieve this, INNOPAY has developed a simple and effective methodology for operating model (re)design called Crosslinx. Crosslinx has proven its value to a wide range of client organisations, including Scale Ups which want to achieve scalable growth and need to acquire licences and regulatory approvals.

Crosslinx: a simple yet highly impactful methodology for operating model design

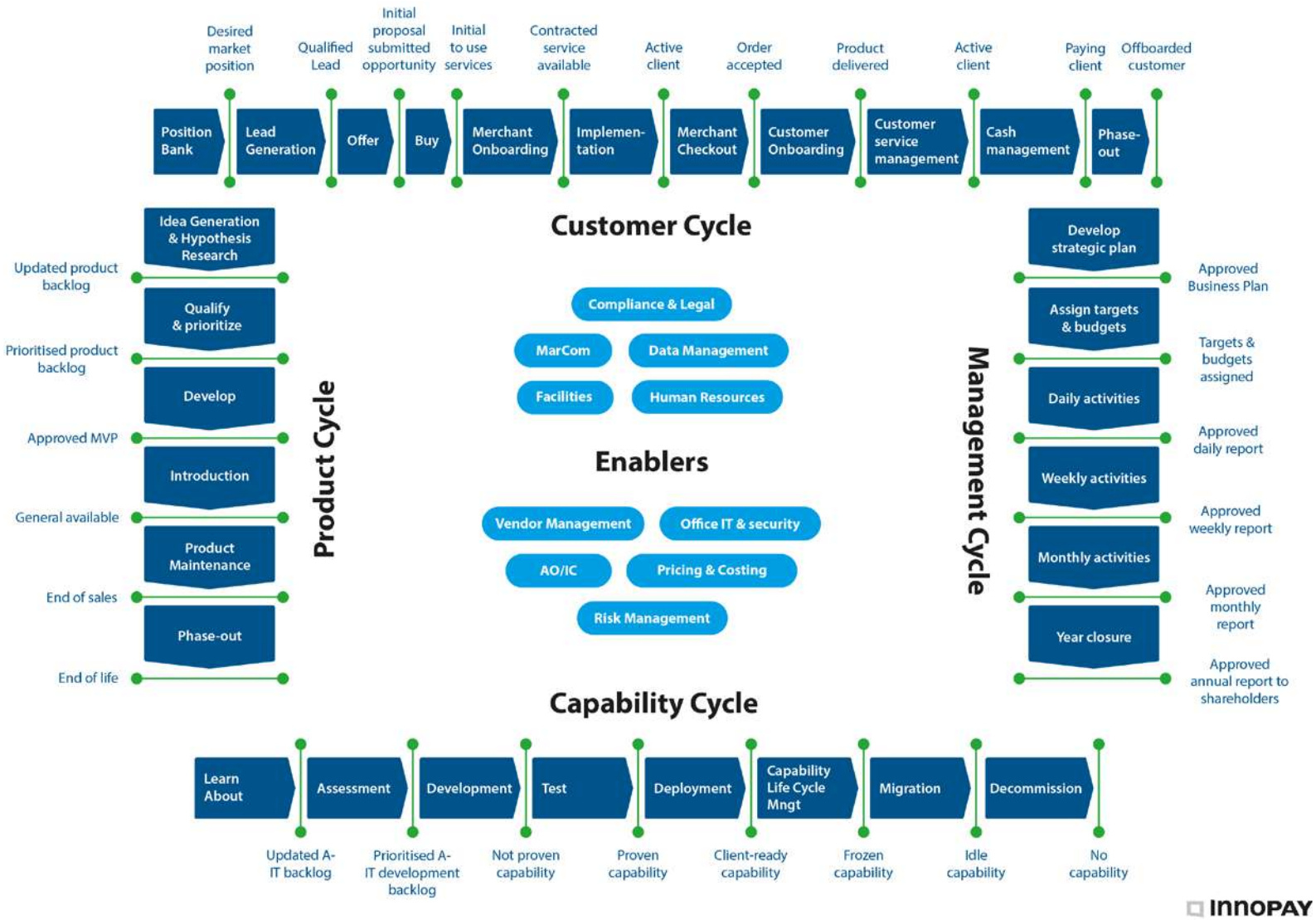
The Crosslinx methodology provides companies with a new way to look at their organisation: an holistic, activity-based approach that helps them to quickly develop a 'picture' of how all the components of their organisation interlink at both strategic level and operational level. This picture is the optimal basis for designing an effective operating model.

Josje explains: "When we help Scale Ups to (re)design their operating model, we begin by ensuring that they develop an agreed, holistic and structured view of the whole organisation. This begins with mapping all the activities within the organisation, and looking at how these contribute to value creation within four different cycles. Once each activity is clearly mapped and its relationship to other activities is understood, organisations can understand a) areas which are currently hindering their growth and how changing the operating model can help, and b) how complying with new regulations and requirements will impact all the connecting elements of their business. This enables them to manage changes proactively by ensuring that all the activities are balanced to optimise the results."

Crosslinx reduces the complexity of operating model design

Crosslinx has been specifically designed to work for organisations of different sizes and maturity levels. For Scale Ups, it focuses on helping them to accelerate what they do very well, whilst supporting them to grow and meet expectations at the same time.

"A couple of workshops is sufficient to trigger the conversation on how companies look at their organisation," says Josje, "and this immediately leads to tangible results as they rapidly



Example of how Crosslinx creates a strategic view of the organisation by mapping key value adding activities along four cycles

develop a shared understanding of how the organisation is creating value and the role of each person involved in that process."

"Crosslinx fits seamlessly with the best practices that organisations are already applying. We don't try to replace those processes. Companies don't need new tools and technologies. Crosslinx complements and increases the value derived from their existing best practices. So they quickly get a tangible deliverable that they can start running with, rather than a lengthy exercise."

Willem adds that Crosslinx works particularly well for Scale Ups that need to acquire a licence: "First, it demonstrates to the regulator that you have a sound and controlled business, and you can provide them with a full overview of all your activities and control points. Second, you can show how you are embedding these compliance activities into your day-to-day operations. We know this is an approach which regulators really appreciate because we've done it many times with Scale Ups needing to acquire e-money licences, payment institution licences and credit licences".

Your strategic execution can be improved by rethinking your operating model

Josje and Willem summarise: "Scale Ups need to stop viewing compliance as a cost driver, and start seeing it as a potential value driver. It is essential to develop a 'compliant-by-design' operating model which is a) scalable, sustainable and will keep costs bearable, and b) will facilitate both future growth and the development of trust in their ecosystem. If they don't have a clear view of what their operating model is – and how the many components work together – they will continue to rely on point solutions. They need a pragmatic, future proof solution that can grow with them and keep all their stakeholders happy.
Only by doing this can they be successful in the long-term."

Authors
Willem Mosterd and Josje Fiolet

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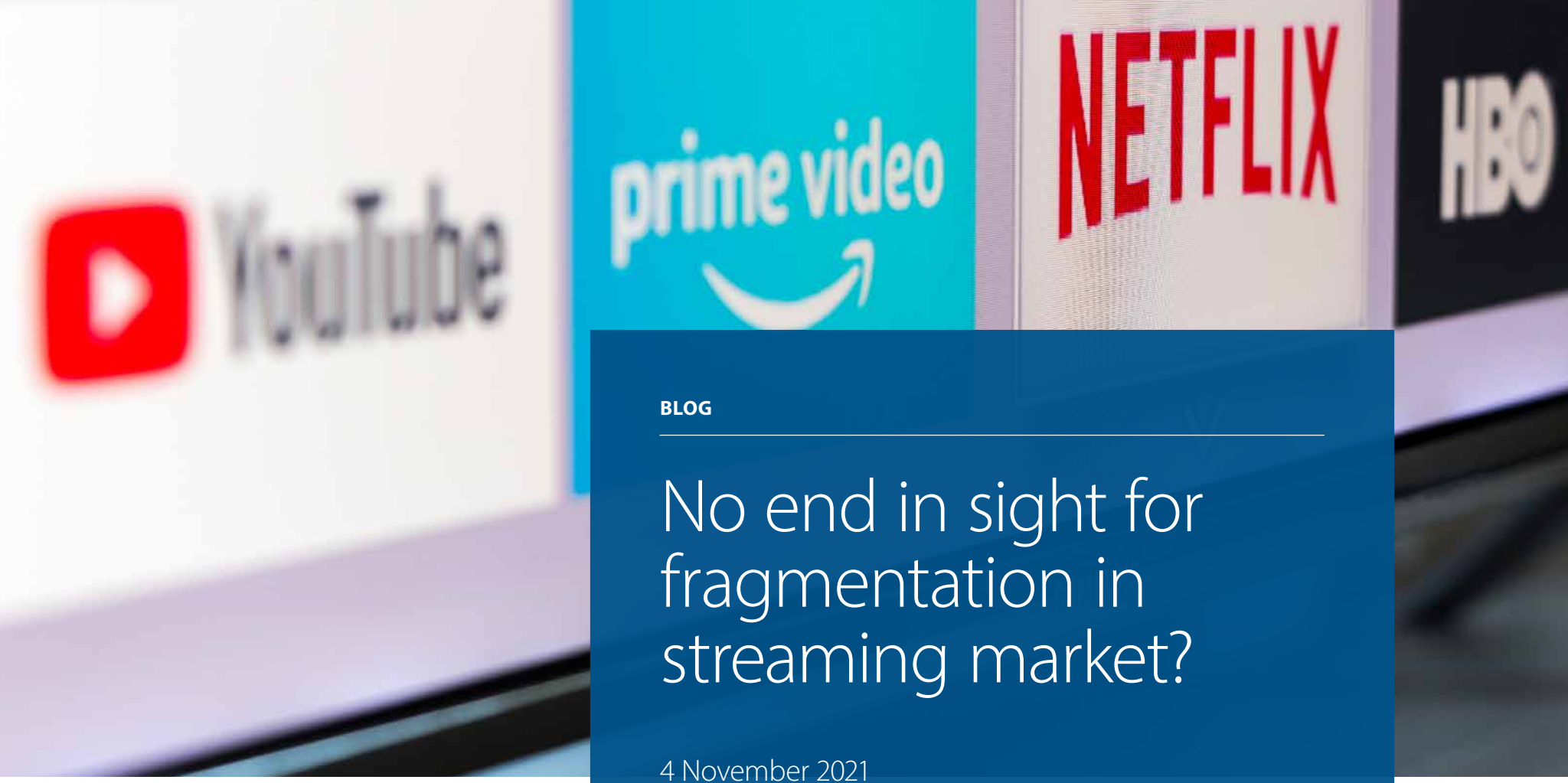

BLOG

No end in sight for fragmentation in streaming market?

4 November 2021

Lex Franken

At first glance, the streaming market for films and series seems to be a two-sided market in which a lot of INNOPAY thinking on collaboration could be applied. So could the market benefit from a data-sharing scheme to enable providers to optimise their customer service? The INNOPAY team took a deep dive into the market, and this is what they concluded.

As the streaming market has evolved over recent years, it has become increasingly fragmented. Above all, this is having a negative impact on customer. After all, depending on their personal situation, most people are only prepared to subscribe to a couple of streaming services, and three seems to be the absolute max. This leaves them feeling frustrated when content that they want to watch is only available through other services, plus intensifies their sense of satisfaction at paying their chosen service for lots of other content that they are not interested in. This development is particularly ironic, given the fact that streaming services originally seemed to solve the problem of fragmentation in the cable TV market by providing a single platform putting users in control of what they want to watch and when.

A collaborative scheme for sharing data effortlessly and securely would enable all streaming services to be provided to all customers, and could therefore provide a solution to the market fragmentation from a customer perspective. However, regardless of how the issue of fragmentation could be solved, the question remains whether there is any reason for providers to want to solve it.

In general, schemes create a solution for the collaborative domain and organisations can then build their own competitive propositions on top. In the streaming market, the common infrastructure that is required for providers to offer their services is already in place (everybody has a streaming device, payments for subscriptions are easy, onboarding can be done in just a few minutes). Therefore, there appears to be little need for an initiative focusing on this collaborative part of the streaming market.

Furthermore, although the streaming services market at first glance seems like a two-sided market, this is not necessarily the case. Today's streaming services are the end service to the customer, which puts them in the competitive domain. This is being intensified by the fact that the streaming services are moving towards producing their own content, making it less of a two-sided market and more like a regular customer/supplier relationship. As a result, it is highly unlikely that providers would be inclined to collaborate with one another within a scheme. Instead, they are increasingly working with other partners – as illustrated by Netflix's deal with telecoms provider KPN to offer its internet customers 12 months' free access – in order to strengthen their competitive position.

Opportunity to increase everyone's piece of the pie

Nevertheless, a scheme could present an opportunity for the streaming services market to increase everyone's piece of the pie by offering customers a better proposition. For one thing, the current market fragmentation encourages 'provider hopping' among customers, whereby they sign up for free or low-cost trial subscriptions (usually for one month each time) purely to watch the content they are specifically interested in. For service providers, this leads to loss of revenue and makes it difficult to build loyalty. In a similar vein, there are signs that the fragmentation of the streaming market is leading to renewed growth in video piracy, which is likewise costing the industry money.

Secondly, a scheme could enable the individual streaming services to securely share their own data about viewing behaviour and history, interests and preferences with other providers, thus forming the basis for broader industry-wide analytics in the interests of customers. Taking this a step further, a shift from aggregating based on content (competitive) to a single identity (i.e. the customer can log in to any service using one and the same account) and perhaps even single payment (which would then be shared among the service providers) would make life easier for customers.

This would generate much more data about the viewing behaviour of individuals and/or households, which in turn would enable the streaming services to tailor their content more effectively for their particular customers. In fact, this would bring the providers full circle: back to offering specific, targeted content that is aligned with individual customer preferences, without requiring each customer to pay for the entire offering – which is precisely the reason why people became dissatisfied with the cable TV market offering in the first place.

Despite the fact that collaboration in the streaming market offers obvious advantages for both customers and providers, it will be quite difficult to get a scheme off the ground as long as providers continue to focus on the threats – such as a weaker competitive position and lower barriers to entry for new players – rather than on the opportunities for growth and improved customer satisfaction. This probably means that the streaming market is not ready for a scheme at the moment.

However, the market dynamics are shifting all the time and there may come a time when providers adjust their strategy, either to combat loss of revenue or – on a more positive note – based on ecosystem thinking to increase everyone's share of the pie. Needless to say, the INNOPAY team will continue to monitor the developments closely. To discuss any of the issues raised here, feel free to get in touch with us.

Author
Lex Franken

ORIGINAL BLOG

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BLOG

Decentralised Finance is facilitating successful innovation by enabling ‘more for less’

7 december 2021

Douwe Lycklama

Shikko Nijland

Blockchain, Bitcoin and Decentralised Finance (DeFi) are all relatively new terms in today’s commercial vocabulary. Although their impact on the future of business is not yet entirely clear, at INNOPAY we believe that the genie is out of the bottle. The shift from institutional (centralised) to infrastructural (decentralised) trust is now unstoppable, and it marks a turning point in the history of finance. Decentralised technologies are set to revolutionise the global financial system and its institutions. This article explains more about how infrastructural trust works and explores the opportunities of DeFi for the financial sector.

In a recent article, the Harvard Business Review predicted that the current economic situation caused by the COVID-19 pandemic will “hasten the progress to more decentralised value chains”. Indeed, the current focus on decentralised technologies such as blockchain and Bitcoin is part of a general global tendency towards decentralisation of technology, functionality and business models which can be seen in several domains, including energy, social media, music and broadcasting. Meanwhile, in the finance sector, cryptocurrencies such as Bitcoin and the underlying blockchain protocols are driving the shift to Decentralised Finance.

Bitcoin: The first introduction to infrastructural trust

Decentralised Finance (DeFi) is a permissionless infrastructure, fully secured by encryption, that enables people and businesses to perform transactions directly with each other, without needing institutions to act as intermediaries. The roots of DeFi can be found in the 2008 Bitcoin whitepaper that set out a new system for digital cash. Bitcoin made it possible to transfer value between two 'peers', through open-source software and without a sign-up process (i.e. permissionless), by building trust into the technology and the governance behind it. This was the world's first introduction to cryptocurrency and the concept of infrastructural trust.

This infrastructural trust is based on a number of concepts:

1. Digital scarcity

The concepts of digital 'scarcity', digital 'uniqueness' and digital 'ledger' are foundational for Bitcoin and many other blockchain-based cryptocurrencies such as Ethereum, Binance Coin, Solana and Stellar. In the past, nothing digital could be 'scarce' because digital things could easily be copied or altered. As a result, it was impossible to trust anything digital, since it could be a fake.

Digital scarcity was pioneered by Bitcoin. It proved that digital assets can be owned and transferred simply by controlling the cryptographic keys of an address. In the case of Bitcoin, a network of verifiers ('miners') produce an update of the decentralised ledger approximately every 10 minutes, in order to secure the ledger.

Together with the smartly designed incentive structure (by the competitive and energy committing consensus), Bitcoin has clearly proved its scarcity, as underlined by recent spectacular increases in its price (up to US$60,000 as of October 2021). This scarcity allows digital representations of value, data and physical objects to be controlled by end-users through the possession of digital keys. Other cryptocurrencies and blockchains have emerged since Bitcoin, all with different design choices, levels of adoption and success. Ethereum is currently the second largest after Bitcoin, followed by Binance and Solana.

Intermediaries such as specialised and regulated service providers (e.g. Coinbase, Kraken, Binance and Gemini, to name but a few) can be used at the end-user's discretion in order to make it easier to manage and operate blockchain accounts. This can be beneficial since the security features make them cumbersome to use and error-prone, which in turn can lead to loss of funds. In a way, this is similar to how money is dealt with today; users can hold cash themselves, but also have the option to enlist a bank's help to hold and manage cash for them.

2. Layer 1 and 2 protocols

In a decentralised ecosystem, there are two types of protocols. A Layer 1 protocol refers to a blockchain, and a Layer 2 protocol refers to a third-party integration that can be used in conjunction with a Layer 1 blockchain.

It is important to understand this distinction. Layer 1 protocols are the base security layers of cryptocurrencies such as Bitcoin, Ethereum and the newer offerings by Binance and Solana. However, as the number of users grows, the transactional capacity of the underlying blockchain fills up. This leads to higher transaction fees and lower throughput. The goal of the Layer 2 protocol is to improve the transaction speed at lower fees, thus allowing scalability, at the expense of a reduction in centralisation and security.

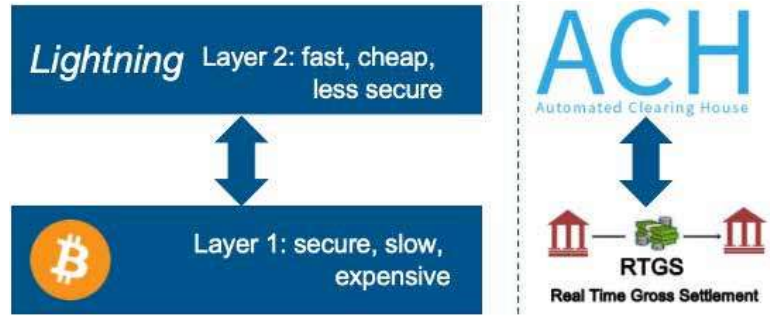

Figure 1 – Layer 1 and 2 protocols in DeFi and its analogy in the current financial system.

The Layer 2 protocol for Bitcoin is called the Lightning protocol. Ethereum has various scaling options and combinations, including Plasma, Flexa and xDAI. In the case of payments, these protocols are for users to transact, by netting transactions across various 'nodes'. Nodes receive a small fee for backing full or partial transactions with Layer 1 assets (e.g. Bitcoin and Ethereum). Layer 2 solutions are live, but are in continuous development while in use (as is almost everything in the blockchain realm). As Bitcoin usage continues to grow over time, more value is being entrusted to the Lightning network (approx. US$200 million in October 2021 in order to secure faster value exchange. The Ethereum Layer 2 ecosystem is approximately a thousand times bigger (US$200 billion in October), mainly because these Layer 2 protocols primarily relate to services other than payments.
The natural trade-off of these two protocol layers is security, adding to the infrastructural trust. This can be likened to Real Time Gross Settlement (RTGS) systems and the Automated Clearing House (ACH) set-up in the traditional payments world. ACHs aggregate payment balances between banking participants (netting) and input the resulting value transfer to the RTGS system for final settlement (see Figure 1).

3. Governance of blockchains

Governance of a blockchain is a key determinant for

infrastructural trust – for its security, robustness and level of decentralisation. A community decides on technical, procedural and legal matters in order to create, maintain and advance the blockchain. The governance process is essential. Agreement must be reached on topics such as:
Who can decide on what? Who appoints whom? And who can initiate discussions? In many blockchains, this process is rather opaque since in practice a small group of people may influence the course of the blockchain. Due to its extreme decentralisation, Bitcoin seems to have the greatest lack of governance, making it very slow to change. Some regard this as a bug, others as a feature.

In order to improve on transparency of governance, several projects (such as Aave, Compound, Uniswap and Sovryn) have introduced 'governance tokens' as a way for community members to participate. Governance tokens allow holders to have control by being able to vote on changes to the protocol and thus to contribute to decisions about the future of the protocol and improving the infrastructural trust.

4. Smart contracts

Smart contracts have been pioneered by Ethereum, which was launched in 2014. A smart contract is a computer program or a transaction protocol which is intended to automatically execute, control or document legally relevant events and actions according to the terms of a contract or an agreement. Smart contracts cannot be deleted or stopped, and transactions cannot be reversed. Ethereum can therefore be regarded as a 'decentralised computer'.

Smart contracts deliver the DeFi functionality. In the past four years, various base finance functions – such as exchange, lending and borrowing – have been implemented by smart contracts. Computer code has been launched on the Ethereum network, and holders of tokens can participate in transactions directly through a digital wallet (e.g. Metamask, Argent and Trezor). This has led to the emergence of fully automated lending, borrowing and trading markets. The smart contracts merely provide functionality and can operate as 'Lego blocks', allowing innovations to be built on top of one another, just like the internet itself is built upon various protocols (TCP, IP, SSL, http, smtp, www, pop, etc). Another similarity with the internet is that there is no entity, so there is no CEO or support desk to contact when things do not work as they should. Despite the fact that it is still early days in this industry and the risks are high, DeFi is achieving tremendous growth.

Regulators are pondering what to do with DeFi. Similar risks apply to DeFi as with traditional finance (TradFi), such as insider trading, cartel-like behaviour and market manipulation.
It is not easy to regulate a piece of computer code without a legal entity. Additionally, the permissionless nature of blockchain is a major concern to regulators; people can participate without opening an account for KYC/AML.

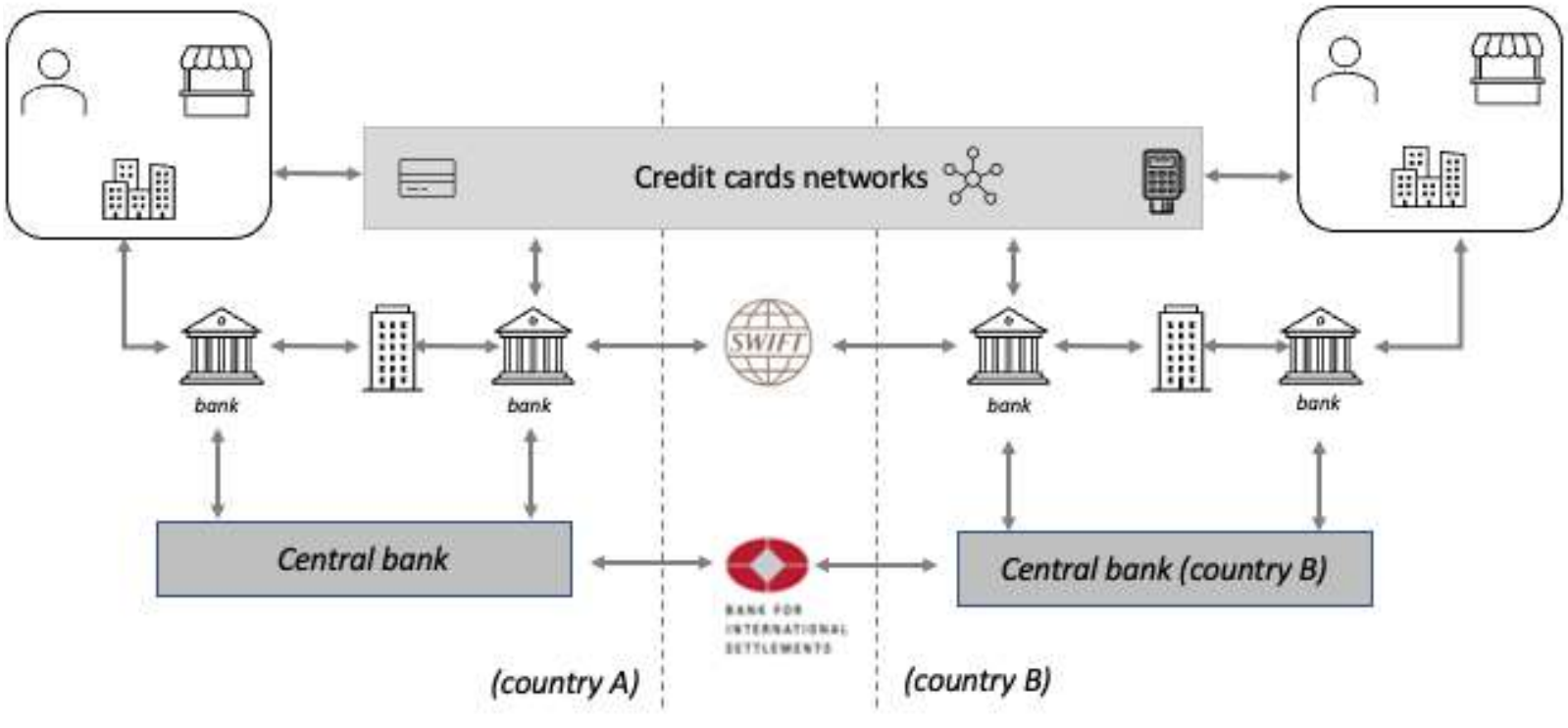

Figure 2 – Simplified representation of the complex and dynamic payments ecosystem.

How DeFi presents opportunities for the financial industry

Over the past decades, the financial ecosystem has evolved into a global maze of payment services, systems and rules involving numerous players, including regulatory and supervisory bodies. How can DeFi be expected to impact on this ecosystem? Today's payments ecosystem can be simplified into the following high-level processes and actors (see Figure 2).

Cryptocurrencies differ greatly in the way their governance is organised and thus in their level of decentralisation, security and performance. Decentralisation of secure transactions is slow because it requires more coordination between various actors, which is costly and slow.
In contrast, centralisation limits the number of actors involved, but requires more trust to be placed in fewer parties.

Bitcoin is at one end of the spectrum (very decentralised: slow, costly but extremely secure), while the company Binance is towards the other end of the spectrum (centralised: fast, cheap and sufficiently secure). Ethereum is somewhere in the middle; experience has shown that it is much easier for a relatively small group of actors to implement changes5 in Ethereum than in Bitcoin, plus more computing resources are needed per node to run Ethereum than Bitcoin, making Ethereum harder to decentralise.

Figure 2 shows the 'bank-to-bank' chain of payments for individuals and businesses. The credit card networks are built 'on top' of the banking systems so that digital transactions can be performed in any place and at any time, in brick-and-mortar stores and online. DeFi technology has the potential to bypass major parts of this traditional infrastructure. After all, there is a uniform crypto address space all the way down to the individual user, as well as a low threshold for technical and legal participation in the network, which is based on the very latest internet technologies. Figure 3 shows how the payments ecosystem could look in a DeFi world.

This shows that once an asset exists on a blockchain, the user has full ownership and control. Additionally, digital assets can be moved around, irrespective of borders and jurisdictions, and Layer 2 solutions are making this even faster and cheaper.

Moreover, as mentioned above, users can choose to use a service provider to manage keys and access to the various blockchains. However, these service providers have so far tended to be new market entrants. This represents a clear opportunity for the financial sector. A handful of traditional players are now embarking on buying and holding crypto assets (e.g. PayPal in 2020). Moreover, in 2020, the US regulator (Office of the Comptroller) allowed banks to start offering custody services, which opens new avenues for existing players.

More for less

DeFi offers interesting potential to reduce costs and increase speed in payments by eliminating friction in terms of technology, contracting and the coordination between multiple parties. This is expected to impact on many functions

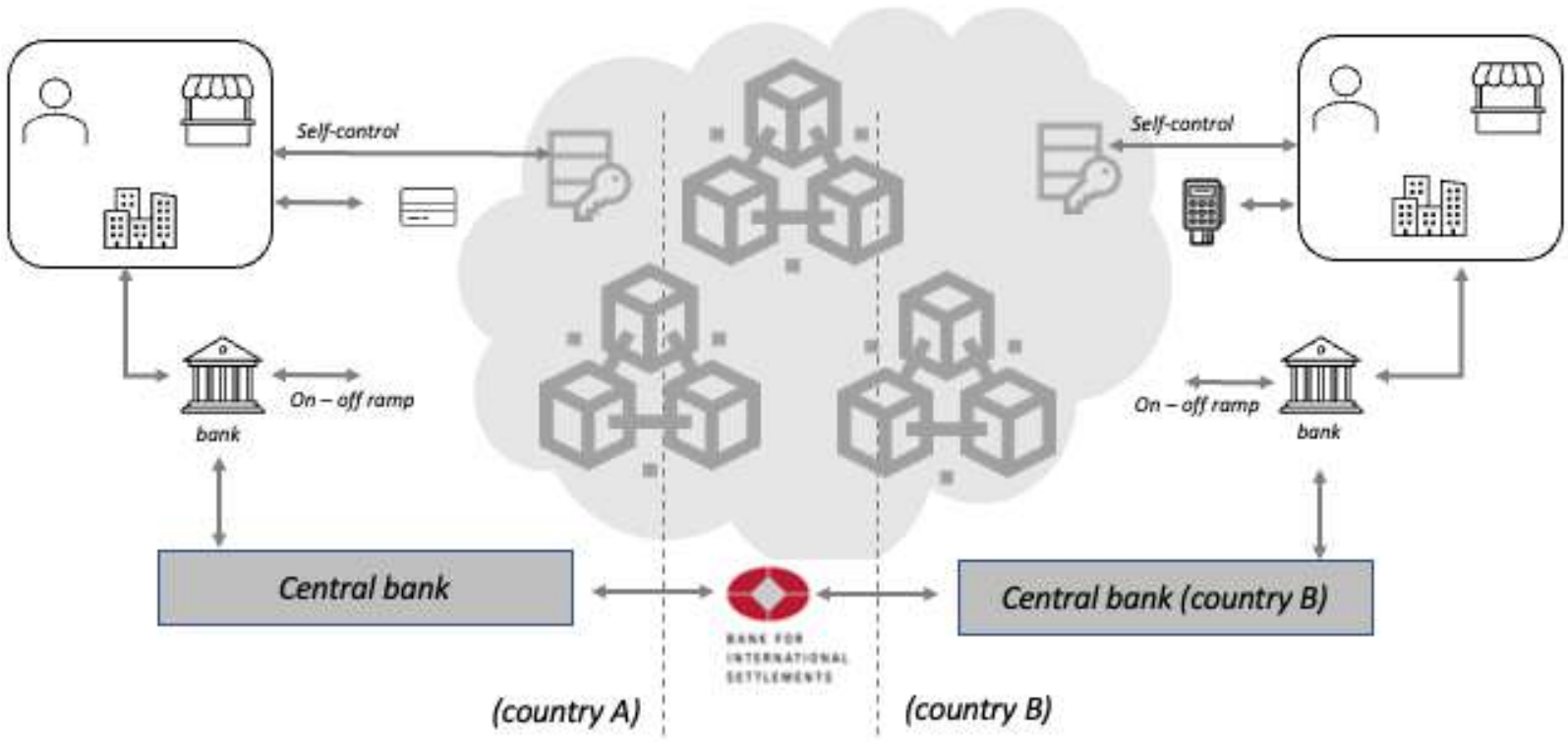

Figure 3 – The simplified payments ecosystem in a DeFi world.

of today's payment and securities market infrastructures, such as clearing houses, RTGS, secure messaging, custody, exchanges and FX services.

Digital assets enable companies to make their idle cash work for them. It is also possible to obtain yield by depositing into decentralised lending pools such as Aave and Compound. The yield is coming from borrowers who take loans against (crypto) collateral. If the value of the collateral drops under a certain threshold, the collateral is automatically liquidated, and the loan is repaid – with no human intervention due to the use of smart contracts.

DeFi holds the promise of faster, better and cheaper payments, yet a number of hurdles need to be overcome, including the regulatory, commercial and technical adoption of this nascent infrastructure.

Nevertheless, this shift offers opportunities for incumbent financial institutions as they already have services and customers in place and seek lower costs and higher quality. An infrastructural change 'behind the scenes' does not necessarily have to change the basic user experience, as was demonstrated by voice over IP (VoIP) a couple of decades ago; it just makes the service better by improving quality and reducing the costs. DeFi 'behind the scenes' could achieve a similar outcome, with today's market infrastructure slowly but surely migrating to this more decentralised technology stack.

1. Countrywide payment systems and remittance

In September 2021, El Salvador government launched a Bitcoin and Lightning-based payment network8 for handling both inbound remittance payments as well as point-of-sale payments.
In a matter of months, the service was set up by various independent service providers and banks to provide wallet apps (such as Chivo and Strike) and gateways to the Bitcoin and Lightning network, all based on open-source components.

This initiative has three drivers:

1. Cheaper remittances. About 25% of El Salvador's GDP comes from abroad (mainly from the USA). This usually entails a 5-10% fee being paid to the traditional banking system.
2. Financial inclusion. Even the poorest people have been included in this move from cash to digital payments.
3. Making Bitcoin legal tender. El Salvador is the first country in the world to do this.

Merchants in El Salvador have updated their cash register software. Users can now choose to hold their wallet balance in US dollars or in Bitcoin and can easily switch between the two, in order to limit exposure to volatility. The liquidity is provided through a government fund.

2. Merchant acceptance

Bitpay is one of the first crypto payment acceptance services for merchants. At the moment of a fiat check-out, buyers can choose crypto as their payment method. The Bitpay services calculates the corresponding amount in crypto in real time and displays this to the user. The user pays (e.g. by scanning a QR-code with a wallet app) and confirms the transaction to the merchant. Typically, the merchant receives the amount in fiat from Bitpay.

In November 2021, Regal Group (operator of 500 cinemas across the USA) announced the acceptance of digital tokens for buying movie tickets, popcorn and drinks9. By making use of the Layer 2 Flexa network, Regal allows users to directly spend a wide range of cryptocurrencies, stablecoins and digital tokens (including Bitcoin, Ethereum, Dogecoin, Litecoin, GeminiDollar, DAI, Link, Atom and BAT) from their wallet apps. Users pay by scanning a bar code displayed at the cash register and the transaction is settled instantly. Regal gets paid out in fiat dollar through the regulated part of Flexa.

3. B2B payments

DeFi offers innovative treasurers ample opportunities. Through a growing number of regulated exchanges, they can use, hold and transfer stable coin values more quickly and cheaply. No negative interest rates apply. More adventurous treasurers are going all in with non-fiat crypto, such as the listed company MicroStrategy led by Michael Saylor. In the summer of 2020, MicroStrategy converted all its excess cash into Bitcoin, which was a major event in the crypto and DeFi community. Since then, more companies have followed suit10, including Tesla and Square.

Authors

Douwe Lycklama and Shikko Nijland

ORIGINAL BLOG

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BLOG

Sneak preview Open Banking Monitor update Q4'21: Banks are stepping up their game

21 December 2021

Mounaim Cortet

Jorgos Tsjovilis

We are thrilled to publish a new update of the INNOPAY Open Banking Monitor (OBM)! Since our previous publication many things have changed, so the time has come to update the rankings and to take a closer look at some of the key developments.
This sneak preview provides a snapshot of the efforts banks have made in expanding their API product offering and in developing a more comprehensive Developer Experience. Besides various incremental improvements we see more players stepping up and providing interesting open banking product propositions. In addition, we would like to welcome the following newcomers to the OBM: BCI, Kontist Bank, MediciBank, Stark Bank, Swedbank and VakifBank!

3 Key findings from the 2021 update of the open banking monitor

1. APIs per bank have shown a 17% increase, showing an expansion of API product propositions.

Compared to last year's results of the OBM, on average, banks are offering more APIs, as shown by a 17% increase in APIs offered per bank. This increase implies that the APIs offered by banks now cover a broader variety of common banking functionalities. Top of the list are still account information (for various account types) and payment initiation (for various payment instruments) & payment management (for various user-initiated actions around the payment). These are followed by Customer information APIs (enabling the controlled sharing of selected data attributes), which have increased considerably.

Similarly, a variety of Corporate APIs have hit the market further driving efficiencies and improved customer experience in transaction banking operations (e.g. Trade Finance guarantees, electronic bank account management (eBAM) and realtime cash pooling capabilities).

2. Average Developer Experience increased with 11%, raising the bar to remain on par with peers

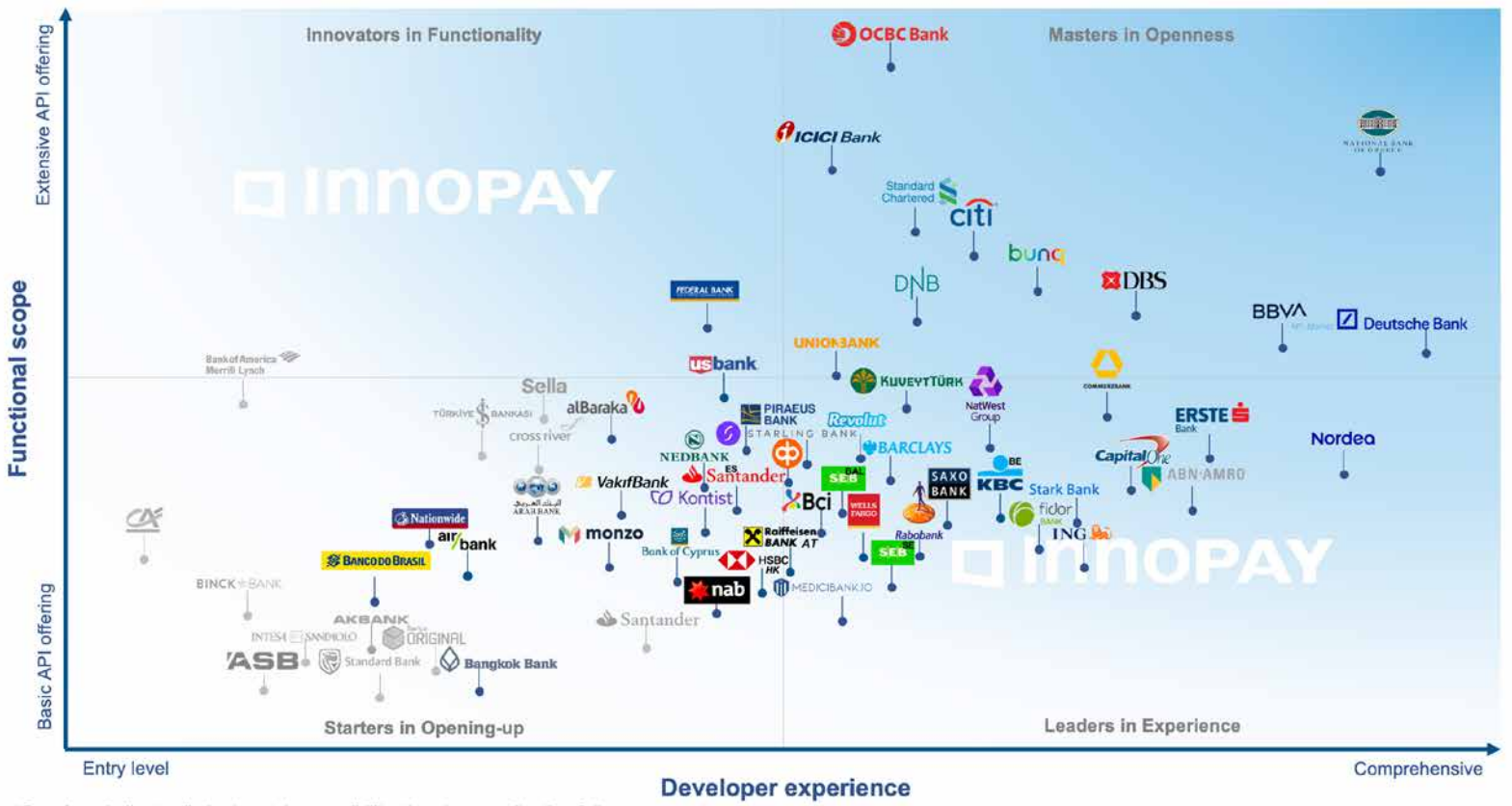
Overall Developer Experience performance score increased by 11%, mainly driven by:

- Community Development: 22% increase of banks actively investing in community development efforts through news articles, blogs, events, or partnership programs.
  This indicates that banks are picking up on the importance of establishing an Open Banking Community to drive innovation, as also highlighted in our previous publication.
- Developer Usability: 21% increase through additional, or optimised, development tools such as dynamic sandbox functionalities, detailed 'getting started'-guides, or more comprehensive application & credential management features - providing for a better development experience by easing the life of API consumers.
- API Documentation: 3% increase in features such as information on API business context, API versioning & changelogs, and conciseness of the API specifications improving overall readability of the API documentation and related content.

3. Banks in the Middle East are stepping up their game

Over the past two years, multiple banks located in the Middle East have managed to secure a position in our Open Banking Monitor. AKBank, Arab Bank, IsBank, KuveytTürk, Albaraka, and now VakifBank have rapidly launched and evolved their Open Banking propositions. Especially in Turkey Open Banking is becoming an increasingly popular topic with now also an Open Banking Turkey Monitor being available with some interesting insights!

We will further explore these findings in a report scheduled for early 2022. If you want immediate access once the publication will be available, sign up via the button below.
INNOPAY's experience and service portfolio can help financial institutions to design, launch and scale their Open Banking initiatives. If you want to know more, reach out to discuss the opportunities for your organisation.



*Grey logo indicates limited portal accessibility, thereby complicating full assessment.
**Banks with an Open Banking offering limited to regulatory requirements (e.g. PSD2 required services) are not included in this assessment.

INNOPAY *Open Banking Monitor (OBM) – Developer Portal benchmark (update Q4 2021)*

INNOPAY

Authors

Mounaim Cortet and Jorgos Tjovilis

ORIGINAL BLOG

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BLOG

Size doesn't matter when it comes to collaboration

24 December 2021

Lex Franken

Strategic partnerships are an emerging trend in today's digital era. Organisations are increasingly seeking each other out in order to stay relevant and secure their future success. It can pay off to start small, because getting the best out of any collaborative initiative actually depends less on the size of the partnership and more on the clarity of your own intentions.

While several key platform players have attracted particular attention in recent years due to their notable individual success, there has also been significant growth in the number of collaborative initiatives and their relevance. This is because more and more organisations are choosing to collaborate in response to the increasing complexity of digital transactions.

Transactional evolution

Collaborative initiatives have played a fundamental role in the digital economy for decades, but they are now becoming even more important in the open data economy. Around 1990, key developments such as the rise of the internet and telecommunication infrastructure provided the foundation for today's transactional economy. Examples of collaborative initiatives in this period include card schemes that enable digital payments irrespective of the bank used by payers and payees. Towards the turn of the millennium, the internet's rising popularity required a new set of services. Local digital payment and digital identity solutions (such as iDEAL in the Netherlands and BankID in Sweden) enabled trusted transactions on the internet.

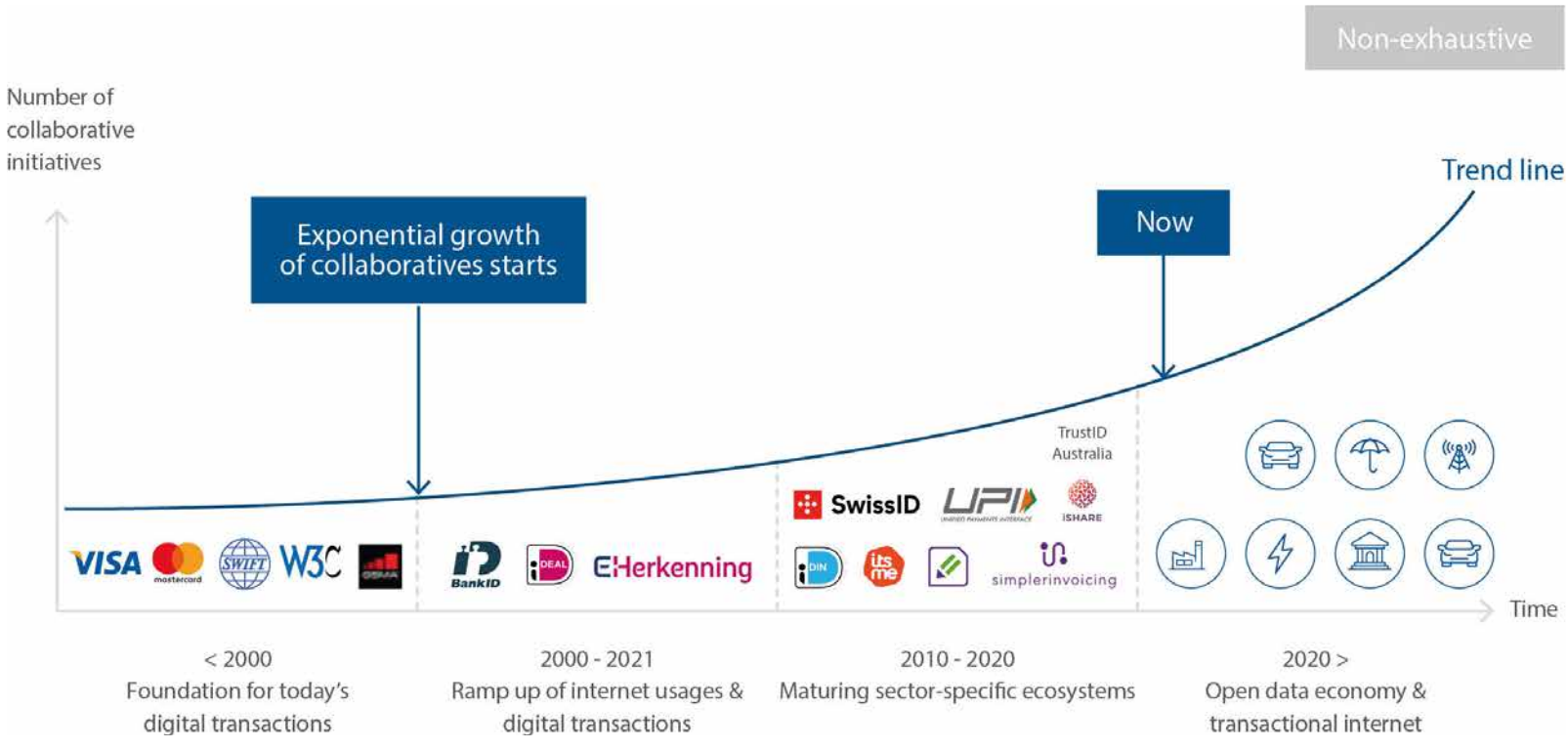

Figure 1: Transactional evolution

In the past decade, local initiatives have extended their borders and the need for cross-border and cross-market collaboration has become pivotal. In addition to payments and identity, data transactions have become more dominant. The number of collaborative initiatives has grown exponentially. Nowadays, markets increasingly require cross-sector collaboration with a focus on interoperability to enable the open data economy; if we want to achieve true interoperability, collaboration should not experience any boundaries in terms of sectors, countries or markets.

What you want to achieve

To get the best out of any collaborative initiative, you need a clear view of what your organisation wishes to achieve individually and an understanding of how exactly you hope to benefit from collaboration – e.g. to increase innovation by exchanging knowledge and best practices, to combine different perspectives and expertise on markets, customers and services, or to increase the reach of your services by combining your organisations' customer base with those of other organisations.

This helps you to shape the discussion and the results within the collaborative environment, not least because the specialists acting on behalf of your organisation have a stronger mandate and results-oriented focus. Moreover, you can use the knowledge and expertise available in the collaborative setting to gain a competitive advantage, such as to shorten your time to market.

Choosing the right scale

Collaboration can be executed in either a small, closed setting or in a wider set-up. Collaboration in small, closed settings with a limited number of participants facilitates a fast and agile process to achieve the common goals. This type of collaboration allows each participant to have significant influence and a large share of the profit. It also gives you the opportunity to develop your collaborative capabilities.
Collaboration in large, open settings with an ever-growing number of participants generates wider support of the common goal. This type of collaboration results in a broad roll-out and larger footprint, as well as a strong brand.
One example of this is the development of iSHARE, in which a coalition of 15 organisations in the transportation and logistics value chain collaborated for two years to develop Identification, Authentication and Authorisation standards for data sharing.

	Small, closed collaborative setting	Large, open collaborative setting
Characteristics	• On average 2-4 participants • Faster, more agile • Less coordination and faster decision cycles • More influence per participant • Larger profit share per participant	• 5+ participants • Wider support • Broader roll-out and larger footprint • Larger momentum • More brand power
Example Case	iDEAL	iSHARE
Goal & Focus area	• Set up online payments' solution with large reach and low cost	• Uniformise data sharing standards for transportation & logistics sector
Number of participants	• Coalistion of 3 dutch banks	• Coalition of the willin of 15 major organisations in transportation & logistics value chain
Track time (in months)	• ± 3 months	• ± 12-24 months

Figure 2: Different collaborative settings

Developing collaborative capabilities takes time

Effective collaboration is not a given. It starts with clear ambitions and requires considerable effort and careful consideration. However, it can pay off to start small because it will give you the opportunity to develop the necessary collaborative capabilities to take the next step in your digital transformation. Size doesn't matter; having the right strategy does. Are you interested in exploring the opportunities for collaboration and are you wondering where and how to start? At INNOPAY, based on our 20-plus years of experience of supporting, guiding and facilitating collaborative projects, we offer various options to help you start building your collaborative capabilities, such as co-creation training, readiness assessments and even try-out pilot settings. Get in touch to discuss these and other opportunities.

Figure 3: How to get started with collaboration © INNOPAY. All rights reserved.

Author
Lex Franken

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INTERVIEW

EU's Digital Identity Wallet must learn the lessons of the flawed COVID Certificate

14 June 2021

"If we don't learn the lessons from the shortcomings of the EU's Digital COVID Certificate, the proposed European Digital Identity Wallet will fail to achieve its full potential. We must involve the private sector to help to deliver a better balanced design – with regards to privacy, security, interoperability and usability – that works for all ecosystem players." This is the stark warning from INNOPAY's Vincent Jansen and Eefje van der Harst.

The COVID certificate solves an immediate problem, but we need to learn important lessons

On 01 July the EU will make available the Digital COVID Certificate to all Member States. The system is designed to facilitate safe free movement of citizens during the COVID-19 pandemic. It will do this by providing a centralised gateway which interoperates with national certification systems across the EU, enabling users to prove via a smartphone app or on paper if they have been vaccinated, received a negative test result or recovered from the virus.

Given the speed of its development – driven in part by the urgency of tourism-reliant Member States to open up holiday travel this summer – the COVID Certificate should be applauded. However with speed comes added risk, and Vincent believes, "Hasty decisions were made due to the understandable time pressure, and there are significant weaknesses in the COVID Certificate system with regards to privacy, security and usability. It has been a good exercise and one that solves an urgent need to enable safe travel, but it reveals many things that should be addressed in the development and rollout of the Digital Identity Wallet."

The European Digital Identity Wallet is the EU's ambitious initiative to build on the existing eIDAS Regulation by developing a framework through which citizens' national identities and credentials can be seamlessly shared across all Member States via a 'digital wallet', whilst crucially remaining under the control of the individual user. This will facilitate a wide range of activities outside a user's home country such as enrolling in a university or renting a car.

Eefje explains, "We see the COVID Certificate as a very specific use case. It is really only a credential for a specific purpose, and the user also needs to present it alongside their passport

to prove that the COVID records belong to them. The Digital Identity Wallet will need to enable a multitude of different use cases and types of transactions. To enable trusted digital transactions at scale we will need a strict binding between an individual's identity and the data about them. This will allow their data to be verified during the transaction against a trusted source by the verifier. But we must certainly use the learnings from the COVID Certificate to guide the design and implementation of the much wider and broader Digital Identity Wallet."

A deeper dive into the flaws in the COVID certificate

The challenges faced by the COVID Certificate include issues around privacy, security, usability, interoperability, transparency and expectation management.

"One of the main privacy criticisms of the COVID Certificate is the lack of selective disclosure regarding what data is exposed in different situations," explains Vincent. "So for example, why do we need to show which type of vaccine was administered to get on a plane? This has triggered a debate about which details should be shown on the Certificate, particularly on the paper version where it's not possible to tailor which data is displayed." "There is also a lot of concern around usability and inclusivity," adds Eefje, "which has sparked the conversation about whether some groups are discriminated against by the COVID Certificate. Whilst it's true that having the paper version does provide an option for people without a smartphone, I'm not convinced that the current implementation fully takes into account the needs and challenges of groups like the elderly, those with reading difficulties and so on."

Questions have also been raised about the transparency of decision-making during the system's development, and whether a sufficiently broad range of experts have contributed to its design. The technological and regulatory choices underpinning the system have been somewhat opaque throughout much of the process, causing unease amongst privacy and security experts sitting outside the tent. There are also lessons to be learned about communications to the public. "There has been a mixed reaction. People see it as a necessary evil to allow them to travel. But there is a lot of discomfort about how long this will last, and also around potential scope creep. Will it only be for travel or will it be extended to going to festivals and entering offices? People's concerns have not really been allayed".

Which lessons must be learned for the digital identity wallet?

The EU Commission has recently invited Member States to establish a common toolbox for the technical architecture, standards and best practice guidelines for the Digital Identity Wallet by September 2022. This makes it imperative that the lessons of the COVID Certificate are quickly taken on board. Vincent and Eefje are strong advocates of opening up the process. "Our concern is that the process will take a very public-led and centralised approach, and will not take into account the needs and also the capabilities of the private sector. It is essential to fully involve the private sector in the development of the Digital Identity Wallet, particularly in the design of the standards and protocols. There are many solution providers which already have the technology and the capabilities to bring significant innovation to the process, for instance focusing on improved usability and inclusion. The EU and Member States would benefit from involving these parties in further detailing the current plans."

Eefje continues, "The eIDAS Regulation already enables public sector services to digitally verify citizens' identities in many countries. There is now a real opportunity to extend this to the private sector. Enabling digital identity verification across borders for private sector services would provide greater convenience for citizens. It would also be very attractive to private service providers by removing much of the friction currently involved in customer identification for compliance reasons and for risk management."

Turning to the privacy issue, the EU appears keen to enable selective disclosure of data, meaning that only the data which is necessary for a specific service or transaction will be surfaced by the Digital Identity Wallet. But there is also an opportunity to introduce an accreditation process for specific types of verifiers (e.g. travel companies will be able to request access to only data related to travel). This is already established locally in some Member States, but it is not yet clear if this will be extended to the Digital Identity Wallet.

Communications also need to be carefully planned, and it would seem sensible to position the Digital Identity Wallet as a value-add which sits on top of each Member State's national ID programs, rather than a centralised 'big brother' system. The EU intends to develop a solution which is decentralised, privacy-friendly and secure, and it will be important that this message gets across to a sometimes sceptical public. And the EU will need to fully address the concerns of those sections of society which are not yet ready for a wholesale migration to a digital identity solution.

Calling on the EU to involve the private sector

Taking into account the speed of its development, the Covid Certificate is a laudable effort which will hopefully play a significant role in opening up travel across Member States this summer. However its weaknesses must be taken

into account and used as 'lessons learned' during the design and implementation of the planned European Digital Identity Wallet.

The key takeaway from Vincent and Eefje is that the private sector needs to be embraced in this process. "If we fully involve the private sector solution providers – who can bring their technologies and innovative capabilities – then we can make better choices, and deliver a solution that will not only help the end user but also provide significant opportunities and benefits for private service providers."

To discuss the challenges and opportunities discussed in this article, feel free to contact Vincent Jansen and Eefje van der Harst.

ORIGINAL INTERVIEW

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INTERVIEW

Europe's unique chance to wrestle back control of our personal data from the Big Techs

11 July 2021

Shikko Nijland – CEO of INNOPAY – believes the EU is drinking in the 'last chance saloon' when it comes to taking back control of our personal data from the Big Techs. Only by accelerating the implementation of trust infrastructure solutions on a European-wide level will we avoid becoming spectators at the demise of our own data sovereignty.

In a world where everything's a transaction, trust is essential

As the prevalence of the internet and digital technology continues to grow, more and more interactions are becoming digital. And digital interactions are predicated on the exchange of data. In recent years it has become clear that whilst personal data has grown in value, the benefits are rarely being felt by the providers of the data. Instead, a small group of commercial companies are increasingly able to control and monetise our data.

Shikko explains, "We believe that every digital interaction should become a transaction where you provide your personal data and get something in return. But there is clearly a 'data benefits imbalance' where we as individuals are not accruing a fair share of the benefits from supplying our data. And as awareness of this imbalance grows, we see that trust begins to erode. Consumers recognise that they are losing control over how their personal data is used. And this decline in trust will make it much harder to grow a sustainable digital economy because it signals a worsening relationship between businesses and their customers. Less data will be shared, and less data leads to less relevance, fewer customers and diminished business success. The question now is what we do about this."

Digital sustainability will ensure a fair 'data' future for everyone

Central to INNOPAY's belief system is the ambitious concept of Digital Sustainability: the idea that we should focus more attention on combating the unintended negative effects of the explosion of data transactions, and making sure we do not create a digital world which is every bit as 'polluted' as the physical one.

Much like environmental sustainability in the physical world, Digital Sustainability is a broad concept which covers how we should

respond to a range of different threats. Data becomes 'polluted' – leaking, fragmented, sometimes inaccurate and, most importantly, outside the control of the people and organisations which create it and who are the subjects.

Shikko continues, "Whereas it took over 100 years to reach a crisis in the physical world, we are approaching the tipping point much faster in the digital sphere. One of the key tenets of Digital Sustainability is to ensure that we promote 'data sovereignty'. This is all about having a much more democratic approach to data, to ensure that people have the choice about how their data is shared, who has access to it, and how they can use it. Now we must jointly decide on new governance models that will not only protect this data, but also rebalance the data benefits in a fairer way. Not unimportant: we also need to educate people about data, just as we educate them for traffic, payment and social media behaviour."

"We need to find business and public 'heroes' who are unafraid to take the initiative and embrace the need for Digital Sustainability. I believe this will happen because visionary leaders will see that not only is this the right thing to do, it's also smart because it offers companies a first mover advantage. There is currently an opportunity to turn Digital Sustainability into a USP. For example, an organisation can take the first step by developing a Digital CSR policy which openly demonstrates that they provide data sovereignty for their employees, partners and customers. In practical terms this means offering functionality for viewing, managing and sharing each stakeholder's data."

"If there is no trust," explains Shikko, "then data will begin to turn from an asset into a liability. We will see a growth in additional security and compliance measures which will increase the cost per transaction. And it will also become more difficult to innovate and disrupt. Take the example of the insurance industry. If you want to create a disruptive type of car insurance, you will need to use data you already hold from existing customers. But what if you could also access data directly from car manufacturers, with the consent of the driver? This would really change the game because you could base product development decisions on a much wider array of data. But then the questions become 'how are you going to responsibly manage all that data?' and 'how are you going to support effective data sovereignty for all your stakeholders?'."

Shikko believes the answer lies in the implementation of effective 'trust (or soft) infrastructures'. The internet is currently well-suited to supporting transactions at very large scale. However, it is less well-equipped to provide trust, hence today we see large and growing (private) institutions turning data into trust for brokering social and commercial transactions. We need to move from 'institutional' trust to 'infrastructural' trust. The trust infrastructure is like a layer which sits on top of the internet; a type of 'glue' which supports the development of a decentralised ecosystem of data sovereignty environments. If you want to travel by train, you need physical (hard) infrastructure such as railways and stations. In the digital realm, if you want to enable the movement and reuse of data in a secure and manageable way, the trust infrastructure enables this through decentralised standardised ways of working together in functional, legal, technical and operational terms.

INNOPAY has practical experience of facilitating these trust infrastructures through its work with organisations like the Data Sharing Coalition and iSHARE.

"First we find organisations which are willing to form coalitions to find collaborative solutions to solve data sharing use cases. We don't believe in pushing big solutions and hoping the market will accept them. Instead we look for pioneers at national or sector level, and focus on how different solutions can be harmonised and made interoperable to protect and govern data in the right way. We look for 'heroes' who believe it is important to create a better digital world, whilst also seeing clear business advantages."

Data sovereignty makes good business sense if implemented correctly

Data sovereignty is a key component of ensuring that we create a digitally sustainable world. In Shikko's words, it is 'the right of people and companies to have control over data which concerns them'. And not only is this an altruistic desire but it also makes hard business sense. If customers become more reluctant to share their data, companies will lose out.

Is the European digital identity wallet a good step towards data sovereignty?

Private sector organisations will play a crucial role in ensuring the development of data sovereignty. But they cannot achieve this alone, and the role of national governments and the European Union will be important in driving progress. As the EU Commission continues to implement its Digital Agenda for Europe – and specifically the RFP (Request for Proposal) for the European Digital Identity Wallet which is

due later this year – INNOPAY is looking for dynamism and openness from the EU.

"I think the EU Wallet – as a type of trust infrastructure that empowers people to control parts of their personal data – will be a good step in the right direction. It must be designed and implemented effectively, and this means taking a decentralised approach rather than a one-size-fits-all solution. Harmonisation and convergence of existing solutions and practices is the key. Also it's essential that we don't limit ourselves to personal data only, because data sovereignty is equally important for industrial and business data. The market is already offering lots of different bespoke solutions, and local companies may be better-equipped to create appropriate components for the wallet. There is also a concern that geo-politics may play a part and we might end up with only those parts which everyone can agree on.

"The Wallet will also be useful if it creates a move in the market and encourages people to think about these types of sharing networks. Hopefully it will spark a new type of innovative thinking. And this should result in private companies introducing their own (interoperable) wallets into the marketplace. This could set up a new paradigm by developing the commercial market which we need if companies are going to invest in developing these types of products. But speed is of the essence … we need to move fast."

The EU needs to move fast and hard as it rolls out the digital agenda

Shikko believes Europe is now drinking in the 'last chance saloon' in terms of wrestling back control of our data from the Big Techs.
"We are losing the war for control over our data. Just look at how Apple and Google were able to dictate who was able to use their APIs (Application Programming Interfaces) for the COVID-19 tracing apps. The telecom sector is now effectively controlled by Chinese companies. This is not a data democracy but instead an autocracy by a handful of companies. The EU needs to act fast and take on the role of 'hero' as it rolls out the Digital Agenda. This really is our last chance to take control of our data. Just as GSM was created as a decentralised telecom paradigm, we now have a similar opportunity for decentralised data sharing. If we fail, we will be nothing more than spectators on data sovereignty."

So what should the EU Commission do in practical terms?
"We need to fight the battle on many fronts, not just the regulatory part. The EU needs to spark the market by giving clear direction on decentralisation, harmonisation and standardisation.
The challenge is not really about technology; it's more about the effective coordination of private and public actors. Policies should focus on enabling all parties to work together. The recent Gaia-X initiative is an example of this. Let's see more investment in universities and education strategies about data sovereignty. Let's see incubation subsidies for start-ups working on trust infrastructures.

"We need to make sure the private sector is fully involved. Building these infrastructures will only work when public and private organisations are working hand-in-hand. We need to see a much more market-oriented plan where public and private organisations come together to create the building blocks for the trust infrastructures which will help take back control from the Big Techs.
"And we need to focus on enabling companies to access the whole European market, not just local markets. We already showed this is possible with SEPA and eIDAS. Our competitors have access to huge markets like the US, China and India. As long as we are only competing for a fragmented marketplace in Europe, we will never win."

"Finally, we need to move faster, and we need to deliver solutions which are demonstrably better, cheaper and easier to use than our competitors. That's the challenge. As the saying goes, 'Winning isn't everything; it's the only thing'. There will be no second place in the battle for data sovereignty."

To discuss the challenges and opportunities discussed in this article, feel free to contact Shikko Nijland.

ORIGINAL INTERVIEW

GET IN TOUCH

INTERVIEW

How to secure the value promise of the digital transformation

28 September 2021

To secure future relevance and growth, organisations are digitally transforming – an ongoing journey of applying technology and data to support value creation. As they make this transformation, business leaders find themselves juggling many competing demands. They need to simultaneously digitise their core business to increase efficiency and improve overall competitiveness, whilst also developing profitable new digital business models and products. According to INNOPAY's Willem Mosterd and Josje Fiolet, the success of an organisation's digital transformation is dependent on its ability to execute its strategy efficiently. This relies on creating coherence between strategy and daily operations. Underpinning this coherence is an organisation-wide view of a company's key value adding activities and their underlying operating model elements. Using their unique methodology – Crosslinx ® – INNOPAY guides organisations to successfully create this overview, avoid costly point solutions, and build internal capabilities to deal with change on a continuous basis throughout the digital transformation and beyond.

Organisations need to rethink how they respond to demands from their ecosystem during their digital transformation

Set against the backdrop of their ongoing digital transformation, business leaders currently find themselves in the clutches of a 'perfect storm' of dynamic challenges, demands and expectations from their ecosystems. Customer expectations are rising, particularly around how their data is used and how the benefits are distributed. Regulatory demands are growing, and technology continues to open new opportunities which need to be converted into business benefits. Many organisations are struggling to navigate through this sea of dynamic challenges and changes whilst running and transforming their business at the same time.

Responding to this stream of new requirements implies that organisations must constantly a) iterate their strategies and b) ensure that their day-to-day operations can support the realisation of business objectives. Research shows that companies lose 40% of their strategy's potential value through breakdowns in execution, and that over 50% of companies are experiencing gaps between their strategic development and its practical implementation.

"For an organisation to be successful in this highly dynamic environment, it needs to establish and maintain effective and efficient coherence between strategy and execution," says Josje. "One of the

biggest pain points for our clients in their digital transformation is a slow time to market, high cost of change, and disappointing success rates. This is not a result of poor strategies, but mostly due to poor strategy execution."

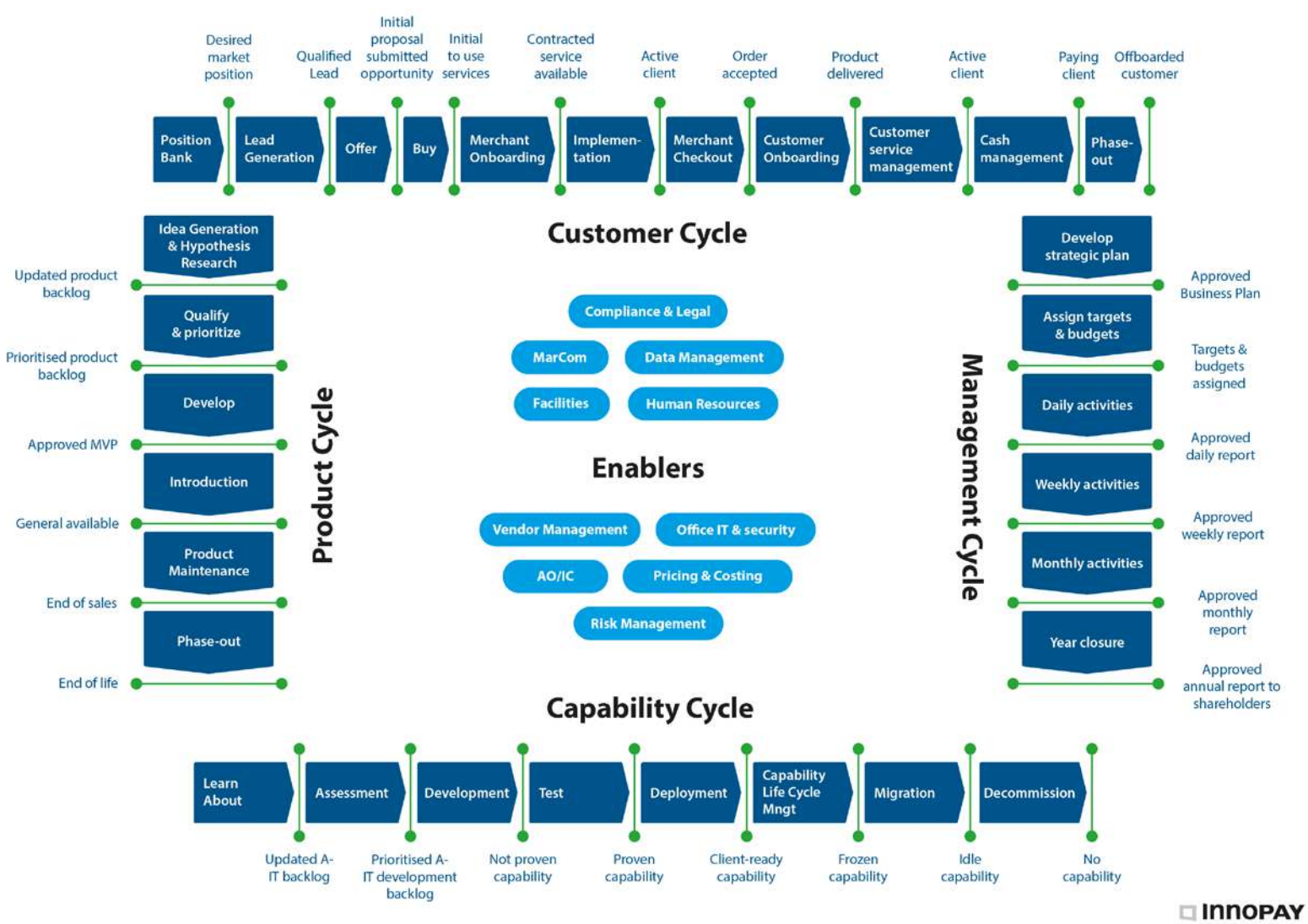
Willem explains: "Many of our clients try to execute their digital strategies via programs and projects. This only works when these programs and projects are linked to the holistic organisation-wide perspective. If they are not linked, then we see these digitisation programs and projects fail in the longer-term because the new digital strategy, capabilities and ways of working are not embedded in the organisation's daily activities in a sustainable way. You can't just run programs to respond to each new issue. You need to develop an agile organisation that can handle multiple different changes and embed the outcomes of the change programs in the organisation."

Josje continues: "This is where the operating model comes into play. A company's operating model details how it is internally organised to deliver the agreed strategy and envisioned value. It is the representation of all the relevant structures that constitute an organisation and contribute to its success. When organisations have an holistic view and understanding of all operating model elements and how they interrelate, they can turn them into concrete levers to digitally transform and run their business.

"Let's take Open Banking as an example: this is a strategic priority many of our clients are dealing with. They are in the midst of executing their strategies and run into all kinds of challenges. For example, we see that Open Banking usually stays a relatively standalone domain within the bank. It typically remains a centre of excellence located in the functional area where it started, such as the technology group or digital office. Banks are now starting to recognise that for Open Banking to be successful, they need to embed the Open Banking activities into the overall activities of the bank. This requires them to examine all the bank's operating model elements, such as roles and responsibilities, governance and ways of working. There will be differences in these elements between new Open Banking activities and the bank's current modus operandi. If you don't integrate them from an holistic perspective, it will lead to costly change programs, fragmented point solutions and a slow time to market."

Crosslinx: a highly impactful methodology for understanding how your daily operations should support strategy execution

To help companies make the transition towards a more holistic understanding of their activities and related operating model elements, INNOPAY has developed a methodology called Crosslinx. Crosslinx provides a new way to look at an organisation: an holistic, activity-based approach that helps clients to quickly develop a



'picture' of how all the elements of their company interlink at both strategic level and operational level. This picture is the optimal basis for (re)designing an effective operating model.

Josje explains: "When we help our customers with realising the promised value of digital transformation, we begin by ensuring that they develop an agreed and structured view of what the organisation actually does to create value. It moves away from a typical functional approach where departments and teams can easily end up blaming each other for their failings. The process begins with mapping and grouping all the activities within the organisation across four cycles plus a set of enablers, and looking at how these contribute to value creation. Once the activities are clearly mapped and the relationships to other activities are understood, organisations can see the impact of any new requirements across the connecting elements of their business. This enables them to manage changes proactively by ensuring that all the activities are balanced to optimise the results. Following this process helps companies to make a really positive impact across the entire scope of strategy execution."

Crosslinx quickly delivers actionable outcomes for large and small organisations

Crosslinx has been specifically designed to work for organisations of different sizes and maturity levels.

"We believe that every organisation can start to create the holistic perspective that is vital for successful digital transformation," says Josje. "A couple of workshops is sufficient to trigger the conversation on how companies look at their organisation, and this immediately leads to tangible results. They rapidly develop a shared understanding of how the organisation is creating value and the role of each person involved in that overall picture."

Willem adds that Crosslinx fits seamlessly with the best practices that organisations are already applying: "We don't try to replace those processes. Companies don't need new tools and technologies. Crosslinx complements and increases the value derived from their existing best practices. So they quickly get a tangible deliverable that they can start running with, rather than a lengthy exercise."

Crosslinx delivers tangible business benefits

When organisations create an holistic understanding of how all their operating model elements interrelate, they can turn them into concrete levers to ensure their strategy is delivered:

- Supporting successful digital transformation
- Securing market position leading to long-term growth
- Enabling a smooth transfer of strategy into line operations
- Pinpointing where changes will impact the operation and enabling more proactive responses
- Supporting a learning capability that will constantly improve both strategy and execution
- Encouraging a 'first time right' approach
- Positively impacting employee engagement and staff retention through greater empowerment
- Moving away from siloed 'blame culture' to an approach where everyone shares responsibility

Crosslinx has already proved its value to a wide range of client organisations, including a global bank that needed to streamline its front office, a fintech scale up looking to improve its agile way of working, and a global payment company wanting to roll out its product across multiple countries.

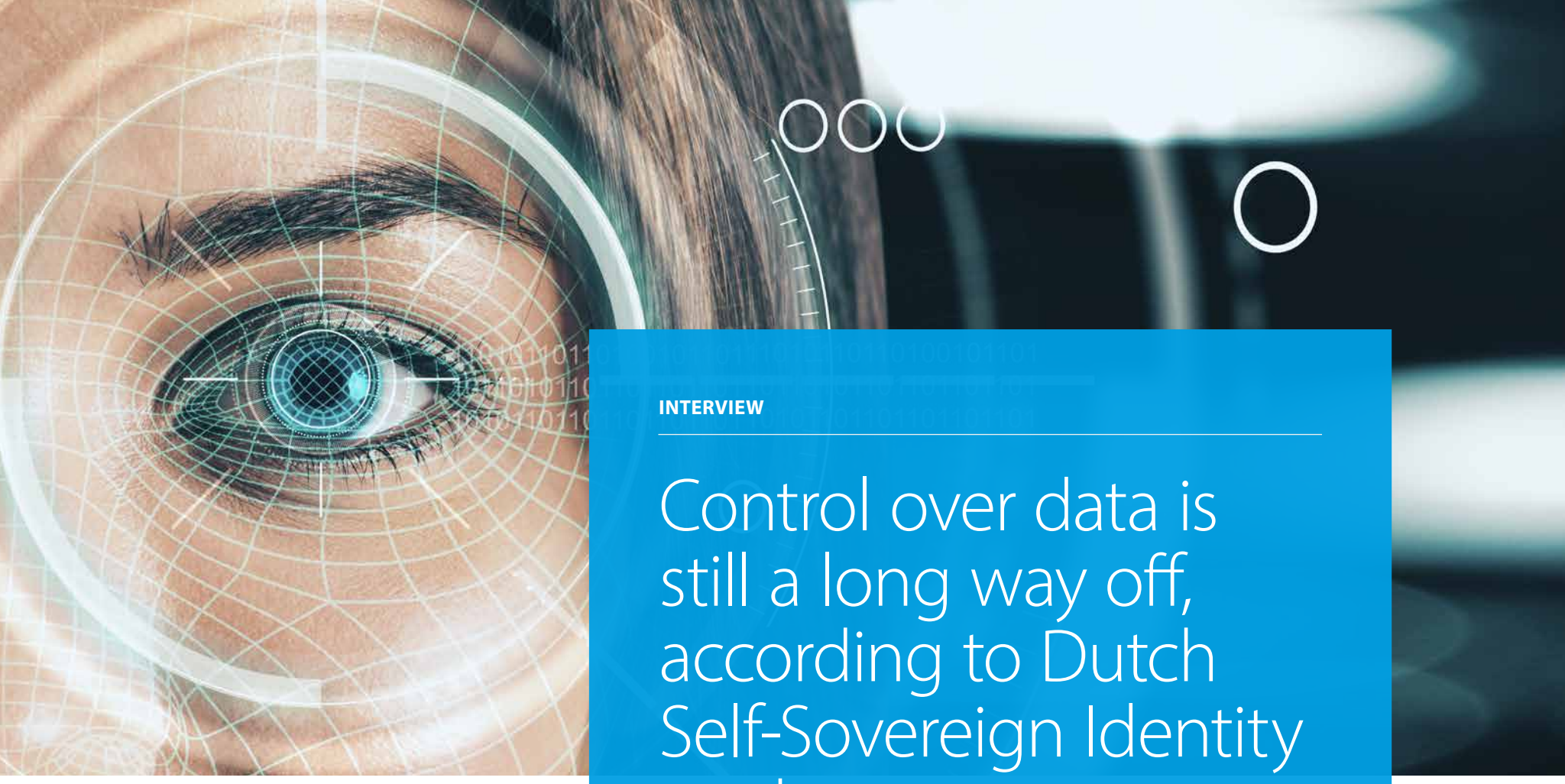
Your strategy execution will be improved by rethinking your operating model

Successful organisations possess the capability to execute their strategy during their digital transformation within a dynamic business environment. That capability can be directly attributed to a) having an holistic and shared view of their key value adding activities, and) subsequently taking control over their operating model.

Josje and Willem conclude with a question for business leaders: "How successfully is your organisation's strategy being executed? If you have concerns, the problem might be the absence of an holistic view of your organisation and its key value activities. Successful strategic execution is underpinned by a clear understanding of how your strategy and daily operations are aligned. If this clarity is currently missing, the Crosslinx methodology can quickly and effectively paint an accurate picture from which you can optimise your digital transformation."

ORIGINAL INTERVIEW

GET IN TOUCH



INTERVIEW

Control over data is still a long way off, according to Dutch Self-Sovereign Identity study

31 October 2021

Research into Self-Sovereign Identity (SSI) in the Netherlands by INNOPAY and TNO has revealed that the SSI landscape is very fragmented, which is making it difficult for relevant parties to achieve critical mass. Nevertheless, the Dutch ecosystem has sufficient partners to be able to play a role in shaping SSI at the European – and perhaps even global – level. Researchers Eefje van der Harst (INNOPAY) and Sterre den Breeijen (TNO) call on the Dutch government to clarify the legislative framework and to agree on standards with the private sector. They also urge the government to bring an end to the 'chicken-and-egg' situation in the ecosystem by making source data available.

Over the past few years, a new way of thinking about digital identity has emerged: Self-Sovereign Identity (SSI). SSI is based on the principle of putting users in control of their digital identity and the related data. This has the potential to offer several advantages, such as process optimisation (especially in terms of administrative processes), data quality improvements and data minimisation, as well as more privacy, more autonomy and more transparency in the digital domain. As a result, the topic of SSI is attracting significant attention and investment.

In the Netherlands, various SSI initiatives, products and standards are currently being developed by the government, the private sector and academia. This has prompted the Dutch Ministry of the Interior and Kingdom Relations to commission INNOPAY and TNO to conduct a study of the SSI landscape.

Ministry spokesperson Wouter Welling explains: "As the policymakers for the Dutch digital identity infrastructure, we believe that the government should play an active role in creating trust in the digital world among citizens and businesses. A reliable source identity is crucial for this. We've noticed that the market has a growing need for clarity: what's the link between the vision on Digital Identity and the relatively new idea of Self-Sovereign Identity? That's why we asked INNOPAY and TNO to investigate the status and development of the Dutch SSI landscape. Their findings will help us to define our own position on SSI more effectively and to clarify the policy."

Overview of the SSI landscape in the Netherlands (July 2021)

The survey of the SSI landscape confirmed the suspicion that numerous different parties are experimenting with SSI principles, architectures, infrastructures and technologies. Each party – sometimes in a cluster with other parties – uses SSI to facilitate digital data exchange within their own domain. Examples of this include the Blauwe Knop ('Blue Button') initiative of the Association of Netherlands Municipalities (VNG) to help citizens stay in control of their finances, as well as various initiatives supporting access to job references, diplomas and certificates during the recruitment process. To a certain extent, the Corona Check App can also be seen as an example. While all these initiatives clearly illustrate the potential of SSI, there is still a lack of collaboration and cohesion between them. Sterre den Breeijen: "The landscape is fragmented in both the public and private sectors. One key reason is the lack of a clear-cut definition of what SSI actually is. The various parties also disagree on the benefit and necessity of SSI: is it aimed at improving privacy, or reducing the administrative burden? And isn't there another way to achieve those benefits instead? Besides that, there are conflicting views on the best technological approach to SSI: with or without blockchain, should it be open source or not, and which standards should be used? At the same time, there are still limitations on the extent to which data sources like government base registers can be accessed and used outside of the source domain. That's another barrier to stimulating the necessary network effects in order to create value."

The need for clear rules of play

Numerous national and international developments and initiatives are influencing the Dutch SSI landscape, such as the Parliamentary Letter providing a progress report on the domain access and the Regie op Gegevens ('Control of Data') policy outline. Additionally, the impact of the proposed revision of the eIDAS Regulation in June 2021 should not be underestimated; in line with SSI thinking, it will give all citizens and businesses in the EU the right to an EU Digital Identity Wallet. Eefje van der Harst: "Market players are unclear on how the various national and international laws and regulations are interrelated. They indicate that this is one of the biggest barriers to using SSI to create societal value. They find it difficult to ascertain how future-proof implementation choices are. As a result, they are delaying their investment decisions and deliberately prolonging the exploratory phase."

In the meantime, Big Techs such as Apple, Google and Microsoft are rapidly launching, rolling out and scaling up their own SSI-like wallet initiatives. Many of the respondents regard Big Tech players as a serious threat, particularly Apple and Google who – through their app stores – ultimately 'control' how mobile phones are used. Past experience has shown that it's more difficult to curb existing products or services than it is to establish an appropriate framework beforehand.

Regardless of how the SSI landscape will look in the future, the government will be keen to strengthen the positive

effects on public values and mitigate any negative effects. The study reveals that a somewhat more consolidated SSI landscape will generally be more positive for everyone involved in digital data exchange: citizens, businesses and the government. However, Self-Sovereign Identity and a cohesive SSI landscape is not an end in itself. The decision about whether to facilitate decentralised digital data exchange by making citizens fully sovereign or through the use of a more 'traditional' digital identity depends entirely on the context and the trade-off between the various public values (which sometimes conflict)… but that's a societal decision rather than a technological one.

Governmental role

The researchers from INNOPAY and TNO conclude that, in view of the societal value of digital data exchange, the Dutch government would be wise to actively stimulate the further consolidation of the SSI landscape. A first step should be to provide clarity on the relationship between the Wet Digitale Overheid (national Digital Government Act) and the EU Digital Identity Wallet. The government can also play a role in creating a more harmonised and interoperable landscape by bringing together the 90-plus public and private parties that are experimenting with SSI so that they can share their knowledge and expertise.

These best practices should also be made available to the bodies across Europe who are currently working on the details of the EU Digital Identity Wallet. Moreover, the government is urged to accelerate its activities to make source data available through digital agents and/or data-straight-from-source interaction models. The government itself can also use this source data, both for validation purposes and to optimise its own processes. This will help the Dutch economy to start benefiting from the societal value of digital data exchange.

ORIGINAL INTERVIEW

GET IN TOUCH

INTERVIEW

‘The biggest hurdle in digital transformation is the mismatch between the strategy and operations’

15 November 2021

Opening a new bank account in a banking app, applying for a digital Certificate of Good Conduct from the Ministry of Justice and Security, or checking real-time energy consumption armed with just your smartphone – these are just three examples of how companies’ and public institutions’ use of smart technologies and data to offer new products and services has become an integral part of everyday life. Behind the scenes, however, this digital shift is creating new challenges. “The biggest hurdle in digital transformations is the mismatch between the strategy and operations,” says INNOPAY’s Josje Fiolet.

As a senior manager at INNOPAY, Josje Fiolet helps businesses and public institutions to digitally transform. “All organisations are aware of the need to use technology and data to support value creation. But a digital transformation doesn’t have a clear beginning or end. Instead, it’s a continuous journey that affects every aspect of your organisation. The aim is to innovate your current business to increase your efficiency and competitiveness. At the same time, you need to create new value by developing different business models and propositions in order to remain relevant and achieve further growth. Organisations often underestimate just how much effort it requires to do both at the same time, and forget to take a holistic view of the whole process. They develop new digital products or services without thinking carefully about how they will fit into the overall day-to-day operation. That’s the root of the problem in most digital transformations.”

Strategic and operational mismatch

Despite all the energy that organisations invest into digital transformation processes and programmes, the output is often disappointing. In fact, the costs frequently turn out to be higher than expected, the results are below par and the lead time is longer than planned. “These are all down to gaps and miscommunication within the organisation,” explains Fiolet. “Often, large-scale programmes are set up which then start conducting their development work relatively independently of the organisation. When the new product or service is finally ready, it has to be integrated into the existing organisation.

But the two sides often aren't aligned: there's a mismatch between the strategy and operations."

HOLISTIC OPERATING MODEL

In her role as senior manager, Fiolet is an expert on strategy execution and she has unrivalled knowledge of the hurdles. "When companies come to us for help, we first look at the organisation as a whole and the company's operating context. Our goal is to clearly understand their reason or motivation for digitally transforming. Are they aiming to save costs, comply with new legislation, or safeguard and strengthen their market position? Those starting points influence which changes could and should be made. We use the operating model to analyse the relevant links and elements of the internal organisation. We assess whether – and, if so, where – the new strategy will impact on the organisation and which activities are already presenting challenges. In effect, the operating model gives us a cross-section of the organisation in which we can connect all its elements to discover the organisation's modus operandi. We need clear insight into that before we can bring the strategy and operations together."

In charge of the mixing desk

The operating model is made up of eight elements, including the decision-making, the organisational culture and the processes. "We investigate the influence of the different elements of the operating model in the context of the challenges or the expected impact," continues Fiolet. "For example, in which layers of the organisation are decisions made? What kind of data is being used? Which people are involved, and which skills and knowledge do they need? All these are examples of elements that are essential for a successful digital transformation. You could compare it to a mixing desk with knobs you can twiddle to fine-tune your process. Take the decision-making element; if your organisation wants to be able to respond to new developments quickly, you will sometimes have to give decision-making responsibility to people lower down in the organisation.

If you notice that programmes and processes are taking far too long, then you can twiddle this knob. But if you prefer to stay in control yourself, then this is one knob that you should definitely leave alone. In a nutshell, we help to put organisations back in charge of the mixing desk."

Crosslinx

To help customers both understand and operate the mixing desk better, INNOPAY has developed the Crosslinx® methodology. Fiolet: "Crosslinx enables us to create a common language within the organisation to prevent miscommunication. Crosslinx is like a holistic lens that helps everyone within the organisation to learn to view the organisation's value-creation activities differently. Because it takes value creation rather than the organisational structure as the starting point, Crosslinx complements existing standards and methodologies such as agile or lean – but instead of replacing them, it focuses on how you can increase their value. Additionally, Crosslinx highlights the interrelationships between the underlying elements within the company at both the strategic level and the operational level. As a result, Crosslinx enables you to maintain a helicopter view. You can see the impact of digital developments on your day-to-day activities and you can make adjustments along the way. Which challenges are you expecting, and how can you set priorities? Which knobs do you need to twiddle and how can you give people the necessary level of responsibility? It's ultimately about the big picture, and then you can zoom in on the details. That's what makes Crosslinx suitable for any type of company or organisation during a digital transformation. It helps them to stay within their budget, achieve a faster time to market and deliver better results."

Leveraging momentum

"There's nothing wrong with embarking on digital transformation projects and programmes," emphasises Fiolet. "But it's important to make sure that there's an efficient and effective connection between strategy and execution. You first need to have visibility into all the elements within your organisation and understand how they relate to each other. Only then can you leverage their momentum in order to digitally transform your company successfully."

As a senior manager at INNOPAY, Josje Fiolet has helped numerous organisations worldwide to implement strategies related to data sharing, digital identity and payments. Please feel free to contact her to discuss any of the challenges or opportunities covered in this article.
If you would like to learn more about Crosslinx, please visit www.innopay.com/crosslinx

ORIGINAL INTERVIEW

GET IN TOUCH

PODCAST

INNOPAY participates in a podcast on diversity

15 February 2021

Mariane ter Veen

In a new podcast series on 'Inspiring high-profile women working in IT', Sonja Poortman, director of Ir Olav's Globetrotters – a platform for highly skilled IT professionals – talks to INNOPAY's Mariane ter Veen about the importance of diversity for business. Mariane reflects on her own experiences as a woman working in a male-dominated industry and provides an insight into her personal drive.

You can find the podcast episode here.

ORIGINAL PODCAST

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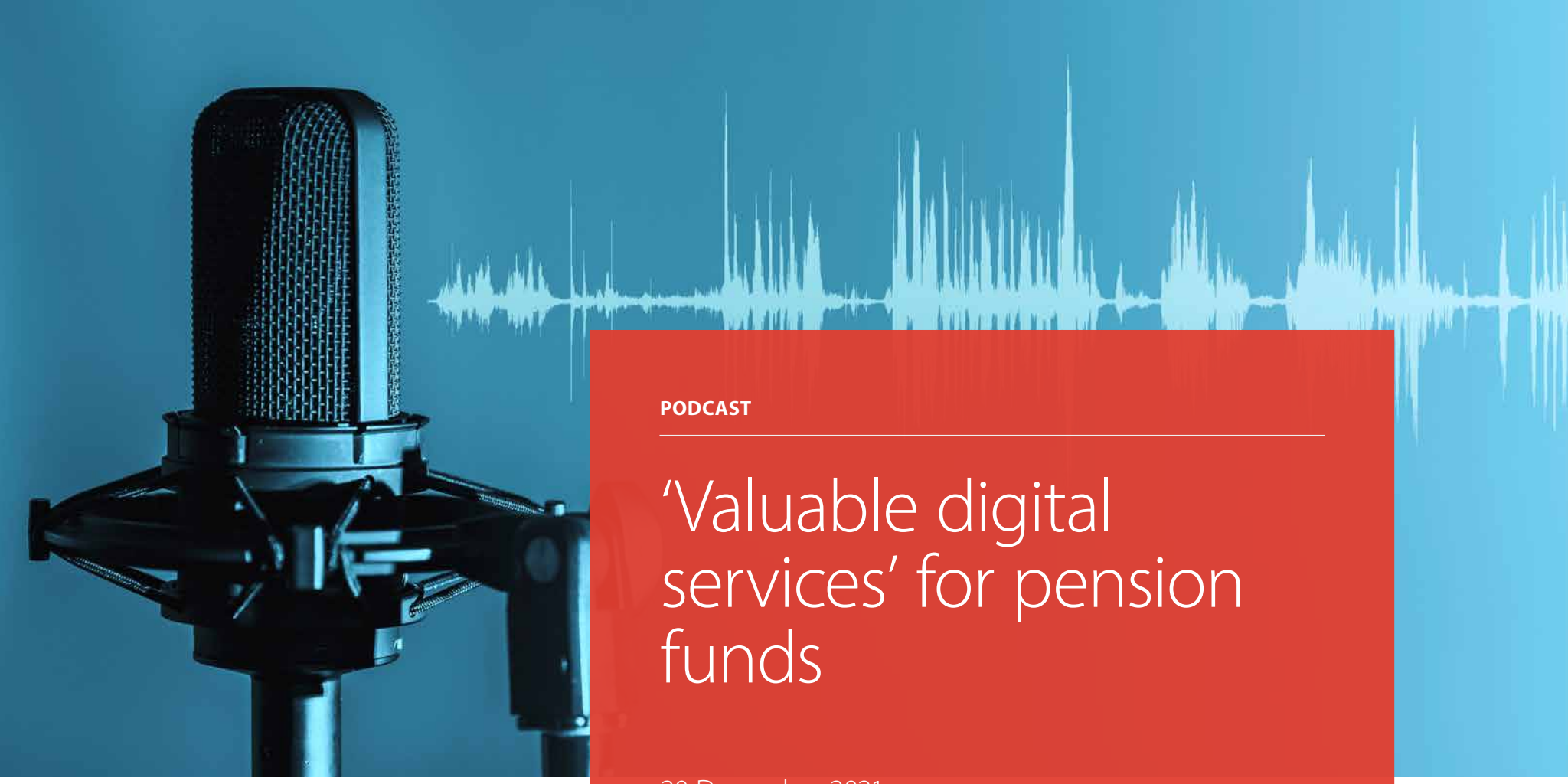

PODCAST

‘Valuable digital services’ for pension funds

20 December 2021

Maarten Bakker

The Federation of the Dutch Pension Funds (Pensioenfederatie) launches a series of podcasts on ‘Valuable digital services’ for pension funds. In the first episode, journalist Tom Jessen discusses the latest technological trends with INNOPAY’s Maarten Bakker and Irene Blanken, product owner for Mobile Banking at Rabobank. Maarten talks about the importance of collaboration in this digital era, and the growing awareness for data sovereignty, control over data.

You can find the podcast episode here.

ORIGINAL PODCAST

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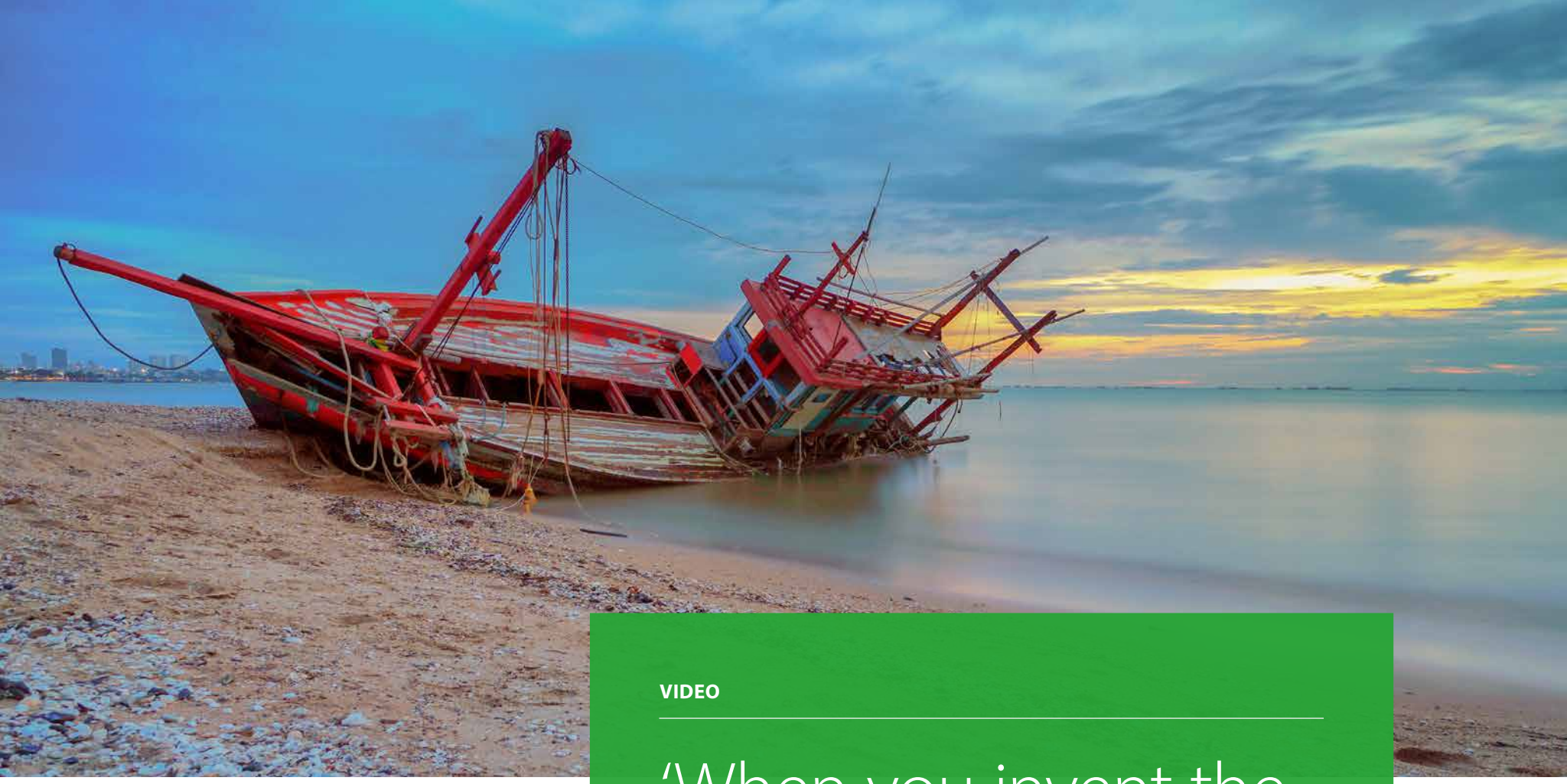

VIDEO

‘When you invent the ship, you invent the shipwreck’

18 January 2021

Mariane ter Veen

Katryna Dow

In this edition of the Data Sharing Journal, INNOPAY’s Mariane ter Veen discusses data sovereignty with Katryna Dow, founder and CEO of Meeco.

Katryna is quoting French cultural theorist Paul Virilio (1932-2018) ‘When you invent the ship, you invent the shipwreck’ to illustrate that it is vital for the future of the internet that people and organisations obtain control of their data. This concept is called ‘data sovereignty’, but achieving that means rethinking the digital infrastructure the current internet is built upon. She calls for a soft infrastructure that consists of agreements between public and private-sector parties about the access to data.

Meeco is a member of the Data Sovereignty Now community, as is INNOPAY.

INNOPAY supports the Data Sovereignty Now campaign which underlines the importance of self-control over data (‘data sovereignty’) by organisations and individuals

ORIGINAL VIDEO

GET IN TOUCH

VIDEO

‘Digitalisation and the energy transition will have a huge impact on one another’

8 August 2020

In this third edition of the INNOPAY/De Nieuwe Wereld broadcasts on digital sustainability, journalist and philosopher Ad Verbrugge hosts a roundtable discussion about digitilisation and the energy transition. Verbrugge talks to Ben Voorhorst (operational director at TenneT), Maarten Bakker (partner at INNOPAY) and Mark van Stiphout (deputy head of the Research and Innovation unit at the European Commission’s energy department, DG ENER).

ORIGINAL VIDEO

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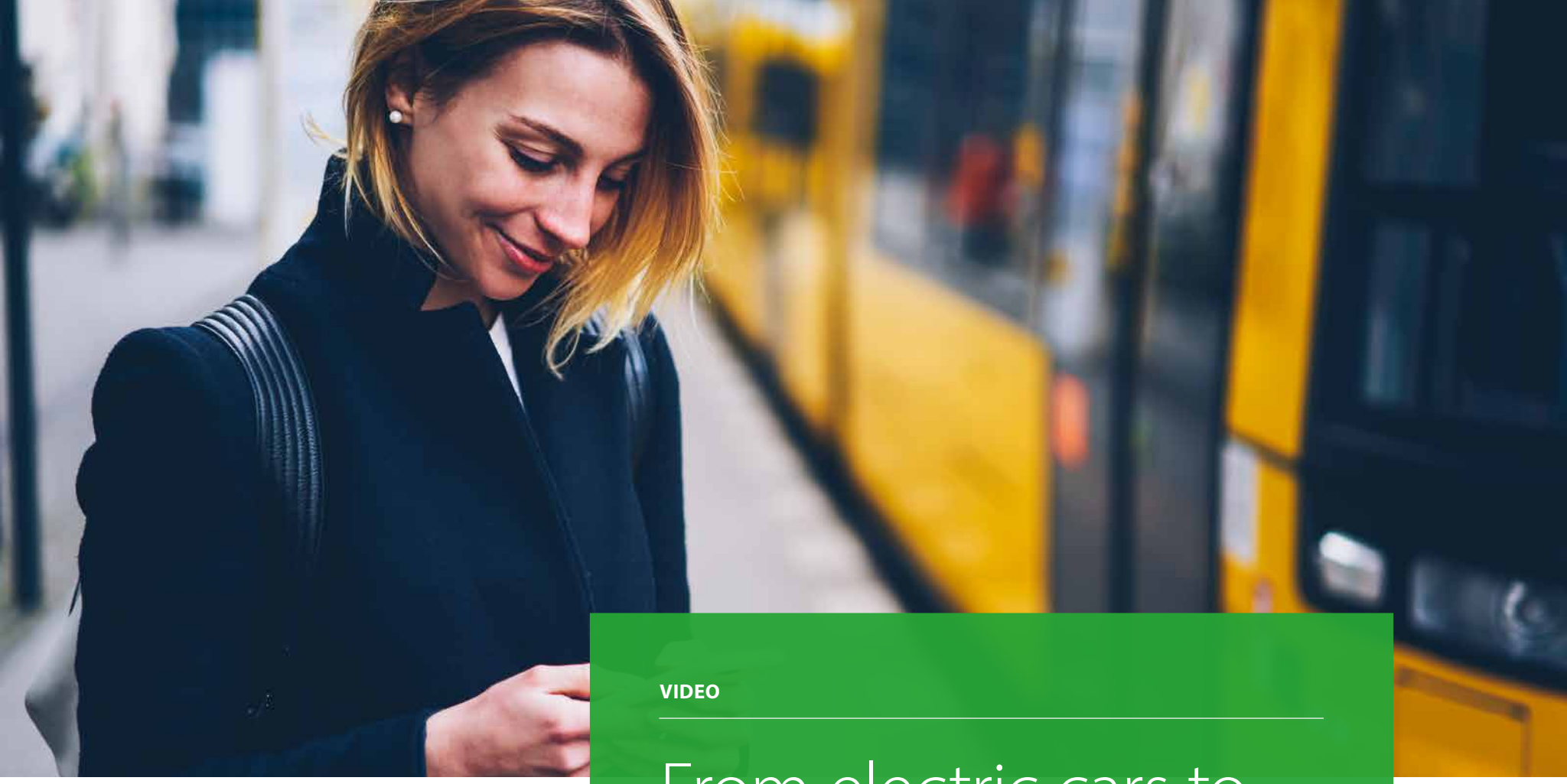

VIDEO

From electric cars to public transport: how can consumers stay in charge of their data?

26 February 2021

Digitalisation offers the mobility sector an excellent chance to optimise customer service, but the responsible use of data remains a key challenge. One of the most crucial aspects for the future of mobility will be the ability to protect the privacy of consumers and businesses. These are the key findings from research into digital sustainability and mobility conducted by De Nieuwe Wereld and consultancy INNOPAY. In a special broadcast uploaded to De Nieuwe Wereld's YouTube channel today, journalist and philosopher Ad Verbrugge discusses the trends and opportunities with a number of experts.

How will further digitalisation benefit the mobility sector? And how can consumers retain control over their data? In this broadcast, Verbrugge talks to Bas van Weele (programme director of public transport payments at the Dutch Cooperation of Public Transport Operators),

Hans Bresser (director of strategy and innovation at Bovag, the Dutch industry association for mobility professionals), and Freek Bos (director of Rover, the association representing passengers' interests in the Netherlands).

This broadcast on digitalisation and mobility is part of a series on Digital Sustainability organised by De Nieuwe Wereld and INNOPAY.

ORIGINAL VIDEO

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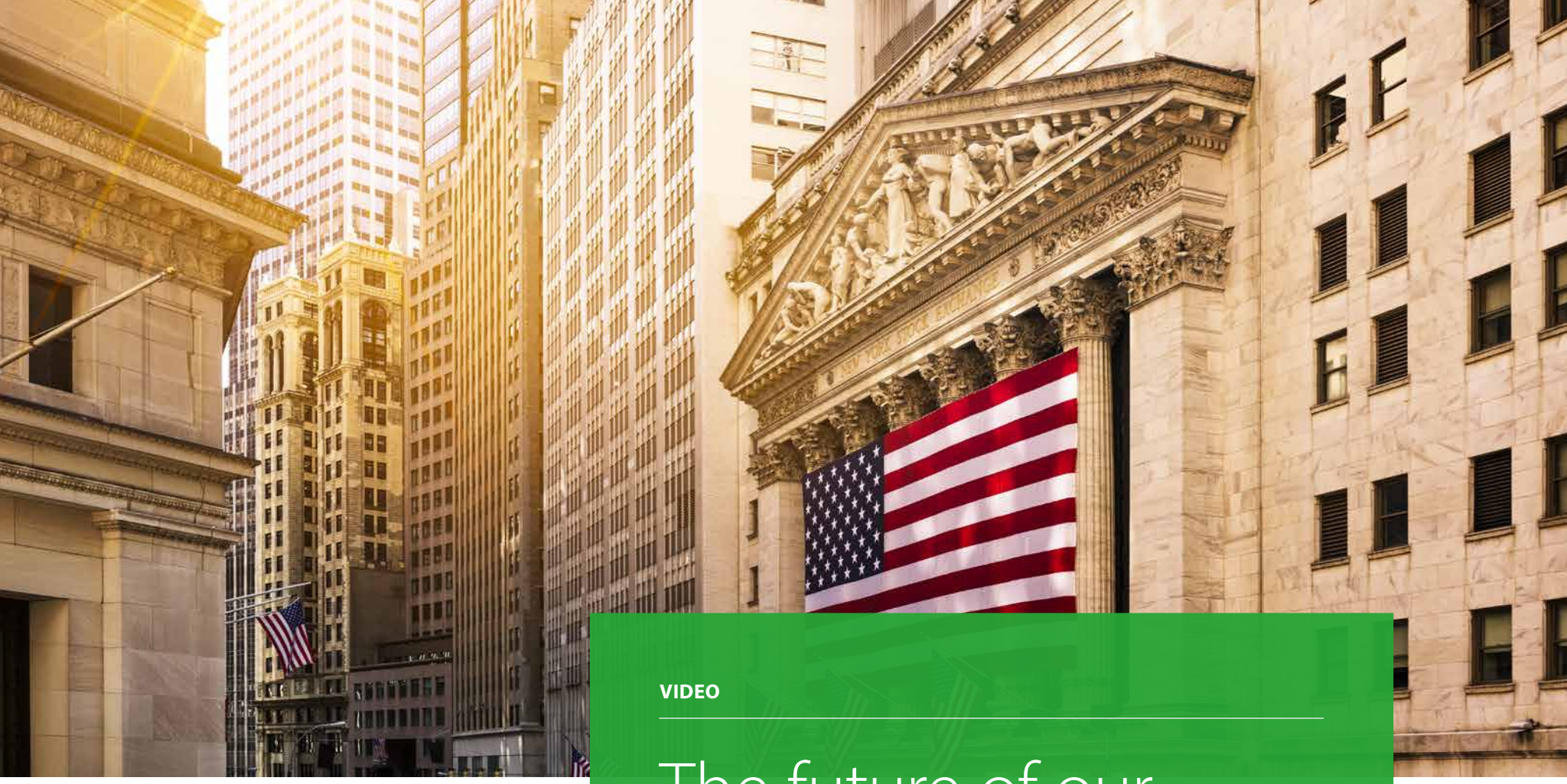

VIDEO

The future of our financial system: threats and opportunities

25 March 2021

Staying relevant for the future is one of the most important challenges facing banks today. Thankfully, they already have a number of things in their favour. If they can succeed in taking a sustainable approach to their customers' data, banks can further build on the trust that those customers have already placed in them. That is one of the findings from the ongoing research into digital sustainability conducted by De Nieuwe Wereld and consultancy firm INNOPAY. In a special broadcast that has been uploaded to De Nieuwe Wereld's YouTube channel today, journalist and philosopher Ad Verbrugge discusses this topic with a number of experts.

The featured guests in this episode are Nico Strauss (Tribe Lead B2B Services at Rabobank), Coen ter Wal (Policy Advisor at De Nederlandsche Bank) and Mounaim

Cortet (Director Strategy at INNOPAY), who all share their views on the future of banks. What is changing and why, what will be the impact on the service offering, and which role can banks assume in the new data economy?

This episode on the changing role of banks is part of a series of broadcasts organised by De Nieuwe Wereld and INNOPAY on the topic of digital sustainability.

ORIGINAL VIDEO

GET IN TOUCH

VIDEO

Will Bitcoin become the cornerstone of a new financial system?

1 May 2021

The current financial system will undergo fundamental change over the coming decade. According to the members of the research panel set up by De Nieuwe Wereld and consultancy firm INNOPAY, there is no doubt that cryptocurrencies will contribute to a more stable monetary system. In a special broadcast of De Nieuwe Wereld's YouTube channel, journalist and philosopher Ad Verbrugge discusses this topic with Bert Slagter and Willem Middelkoop.

Bert Slagter is a researcher, writer and speaker for the knowledge platform called Lekker Cryptisch. Willem Middelkoop is a publicist, entrepreneur and former financial commentator for Dutch business news channel RTL Z. In this YouTube broadcast, Slagter and Middelkoop provide a clear explanation of what cryptocurrencies are, why they are becoming more popular, their advantages and disadvantages, and their societal impact. Additionally, they discuss several future scenarios for cryptocurrencies.

This is a must-see broadcast if you would like to gain a better understanding of what exactly cryptocurrencies are and what they mean for you.

This broadcast on cryptocurrencies is part of a series organised by De Nieuwe Wereld and INNOPAY on the topic of digital sustainability.

ORIGINAL VIDEO

GET IN TOUCH

VIDEO

Is the Corona passport a good idea?

29 May 2021

The EU Member States and the European Parliament have reached agreement on a 'COVID passport' aimed at opening up travel again within the European Union. As of 1 July, travellers will be able to provide a QR-code as proof that they have either been vaccinated against COVID-19, have tested negative or have recently been infected with the virus and are therefore immune. The upcoming YouTube broadcast by De Nieuwe Wereld and INNOPAY on digital sustainability will talk to supporters and opponents of the COVID passport, which will receive the official name of 'digital COVID-19 certificate'.

In a special broadcast of the YouTube channel De Nieuwe Wereld, journalist and philosopher Ad Verbrugge talks to Frank Oostdam (director of ANVR, the Dutch association of travel agents and tour operators), Bibi van den Berg (professor of Cybersecurity Governance at Leiden University) and Vincent Jansen (partner at INNOPAY).

This broadcast on the Corona passport is part of a series organised by De Nieuwe Wereld and INNOPAY on the topic of digital sustainability.

ORIGINAL VIDEO

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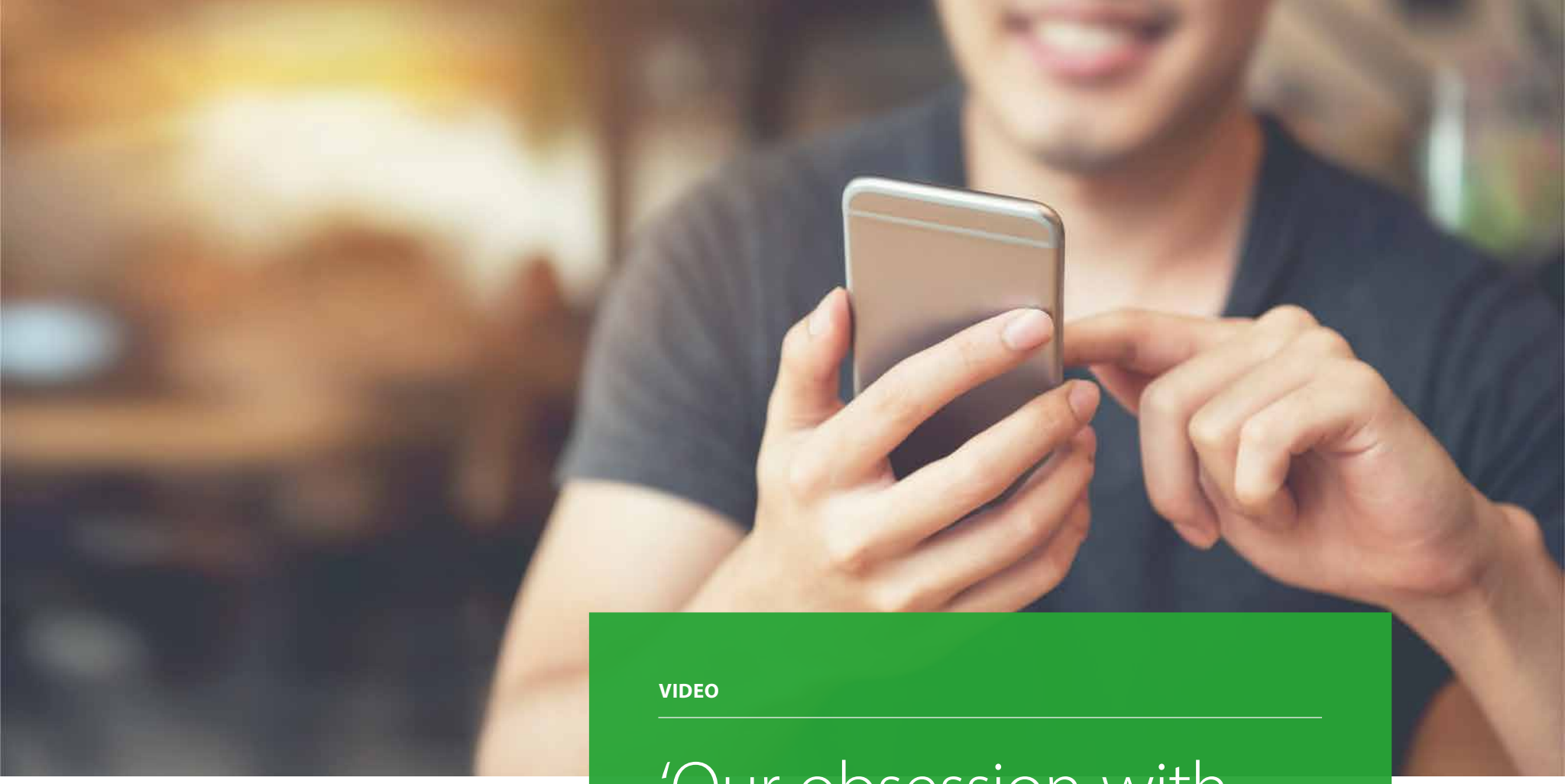

VIDEO

‘Our obsession with data is harming society’

29 May 2021

We are increasingly becoming the product of our information – from our social media profile to data about our health, wealth and spending. Big Techs in particular are using our data to develop ever-more targeted services. The next YouTube broadcast by De Nieuwe Wereld and INNOPAY on digital sustainability focuses on the social impact of that we are becoming our data.

In this broadcast of the YouTube channel De Nieuwe Wereld, journalist and philosopher Ad Verbrugge talks to Julia Janssen (artist and designer who creates awareness for the impact of digitalisation on society), Siri Beerends (cultural sociologist, writer and researcher) and José van Dijk (professor in media and digital society at Utrecht University, new media author).

This broadcast on ‘you are your data’ is part of a series organised by De Nieuwe Wereld and INNOPAY on the topic of digital sustainability.

ORIGINAL VIDEO

GET IN TOUCH

VIDEO

‘Data availability in healthcare may not lead to exclusion’

30 July 2021

Inclusion is crucial for a digitally sustainable healthcare sector. Everyone should be able to manage their own medical record and have control over their data. The availability of data may not lead to exclusion. Those are the key findings from a survey on digitalisation in the Dutch healthcare sector conducted by De Nieuwe Wereld and INNOPAY. In a special broadcast on De Nieuwe Wereld’s YouTube channel, journalist and philosopher Ad Verbrugge discusses this topic with a number of experts.

In the broadcast, Verbrugge talks to Jeroen Tas (Strategic Business Development at Philips and former Chief Innovation & Strategy Officer) and Bert-Arjen Millenaar (founder and CEO of NLC). The issues they discuss include how digitalisation can support the transformation of healthcare systems in the Netherlands and elsewhere, how the sharing of patients’ medical records can be made more inclusive, and the role of parties such as hospitals, governments, insurers, medical technology suppliers and the industry?

This episode on digital sustainability in the healthcare sector is part of a series organised by De Nieuwe Wereld and INNOPAY on the topic of digital sustainability.

ORIGINAL VIDEO

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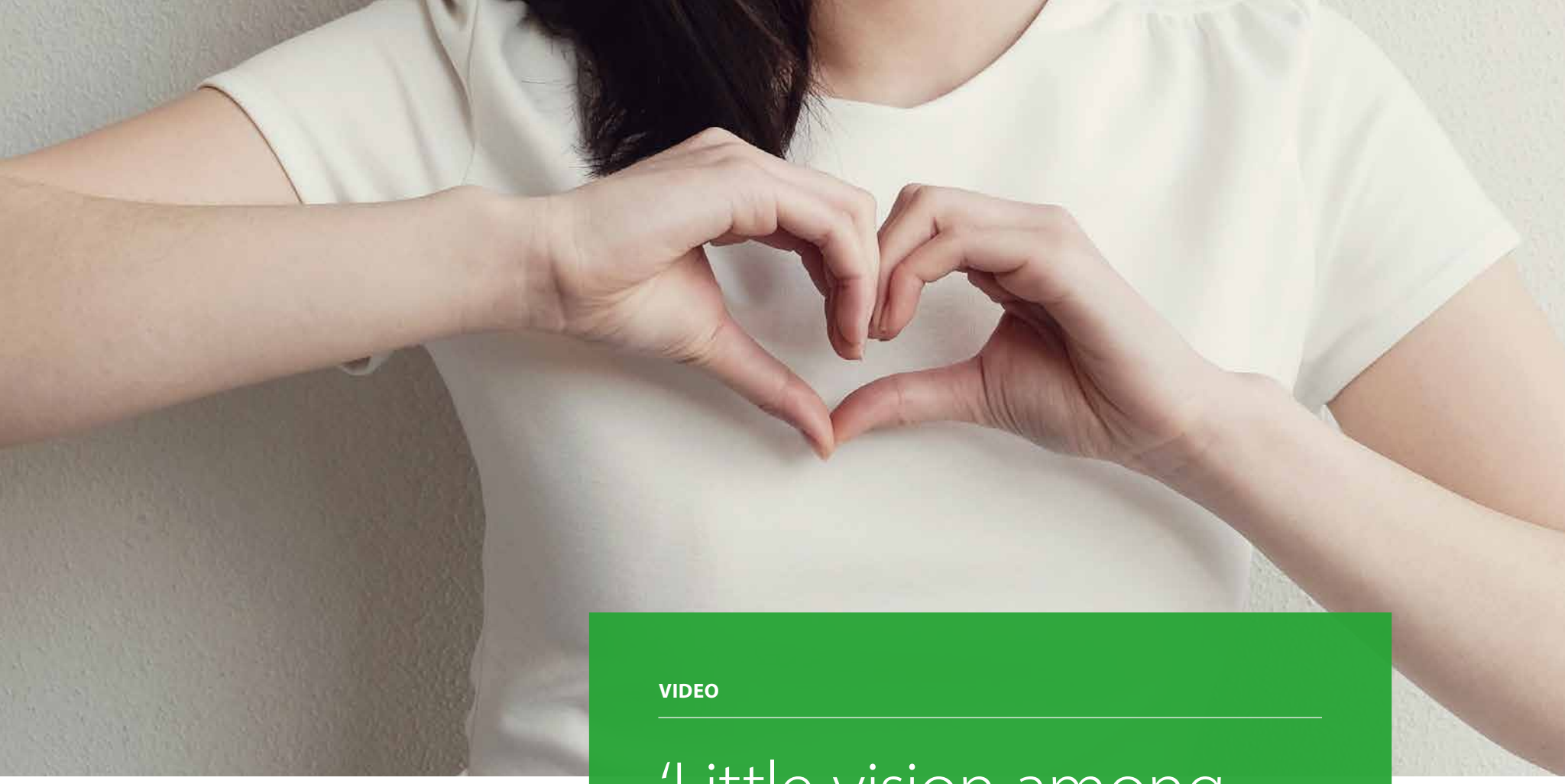

VIDEO

‘Little vision among policymakers on the role of digitisation in sustainability’

25 September 2021

New digital technologies can play an important role in the transition to sustainability. However, in order to deploy these technologies, all parties - government, citizens and the business community - need to pull together. What are the advantages and disadvantages of using digitisation in the climate crisis, and how do we organise a society in which every citizen can decide for themselves what happens to their data?

In this broadcast of the YouTube channel De Nieuwe Wereld, journalist and philosopher Ad Verbrugge discusses these questions and more with three specialists in the field of digitalisation and sustainability: Ruud Koornstra (entrepreneur in sustainability), Noor Cloo (managing director Airmiles - Loyalty Management Netherlands), and Douwe Lycklama (founding partner at INNOPAY). “We need to focus on the goals; not the sector.”

This broadcast on ‘Little vision among policymakers on the role of digitisation in sustainability’ is part of a series organised by De Nieuwe Wereld and INNOPAY on the topic of digital sustainability.

ORIGINAL VIDEO

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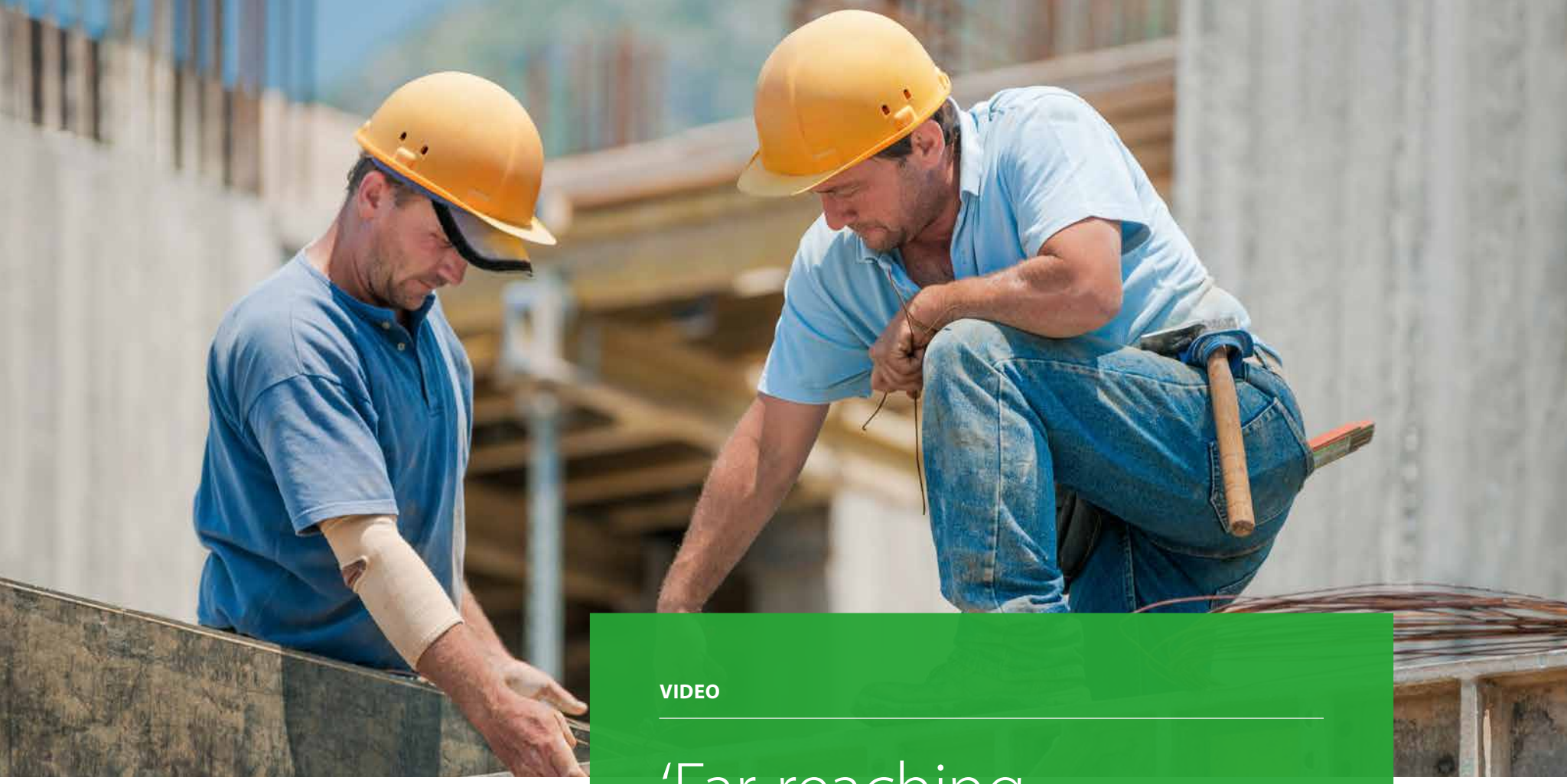

VIDEO

‘Far-reaching digitalisation is essential if the construction industry is to survive’

28 October 2021

Digitalisation has an important role to play in solving the challenges of the construction and infrastructure sector. In fact, the industry needs to significantly speed up the digital transformation and make major changes. That is one of the conclusions from a talk show on the topic of sustainable digitalisation in the construction industry, which is now available to watch online.

The construction and infrastructure sector is facing a number of major challenges. By 2030, millions of new homes must be built across Europe and many existing ones must be made more sustainable, but the sector is currently lagging behind in terms of

the infrastructure goals. In the Netherlands, for example, between 30,000 and 50,000 homes should have been made more energy-efficient by now, yet the current figure stands at just over 8,000. Digitalisation can play a key role in realising these ambitions.

In this latest broadcast available through De Nieuwe Wereld's YouTube channel, journalist and philosopher Ad Verbrugge discusses the challenges the sector faces with two experts: Titia Siertsema (chair of the Dutch association of construction industry suppliers, NVTB) and Ron Saraber (partner at Contakt).

This broadcast on sustainable digitalisation in construction is part of a series organised by De Nieuwe Wereld and INNOPAY on the topic of digital sustainability.

ORIGINAL VIDEO

GET IN TOUCH

VIDEO

DeFi: who will be in charge of the financial infrastructure of the future?

28 October 2021

We live in an era of change. Decentralised finance (DeFi) could be one of the most impactful developments in the emerging digital economy. In this special edition of our series of broadcasts on Digital Sustainability, philosopher Ad Verbrugge talks to a number of experts about the changes that DeFi entails. What is it and what impact will it have, both on institutions and on ordinary citizens? The panel includes Bert Slagter (crypto expert), Simon Lelieveldt (expert on payment transactions), Johan van den Neste (chairman of the board of Univé Schade and Univé Her), Teunis Brosens (head economist for digital finance and regulation at ING) and Douwe Lycklama (founder of INNOPAY).

The panel discussion is divided into three parts:

1. What exactly is Decentralised Finance? Key questions in this part include what is the best way to transfer digital property, and what might be the social side effects of such technology? On this topic, Simon Lelieveldt states: “In a context in which greed outweighs solidarity, a democratising technology also becomes a technology of power.”
2. The impact on the financial sector: How does a decentralised money system influence existing institutions such as banks? And does more information always lead to better management? “Whatever happens, the services we offer must be accessible to everyone,” says Teunis Brosens.
3. The impact on daily life: How can citizens get involved? Digital freedom and independence are a nice idea in theory, but is everyone keen and/or able to benefit? Are ordinary people being listened to sufficiently in this transition? Douwe Lycklama regards it as a positive development: “DeFi allows us to involve people in a global way.
   These kinds of issues affect people in their personal lives. We need social consensus on this.”

This talkshow about DeFi is part of a series organised by De Nieuwe Wereld and INNOPAY on the topic of digital sustainability.

ORIGINAL VIDEO

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