

Embracing Open Banking

A strategic transformation with the power of agility and API-first





Table of Contents

Executive Summary

I	Open Banking – New Opportunity Ahead	2
II	Framework for Transformation Management	3
III	Key Levers for Transformation to Open Banking	4
	a. Key Lever “Enterprise Agility”	6
	b. Key Lever “Advanced API Management”	7
IV	Recommendations for Decision-Makers	9



Executive Summary

Think big, start small: An enterprise transformational journey towards open banking

In the banking and financial space, the concept of open banking is a practice that provides third-party financial service providers open access to consumer banking, transaction, and other financial data from banks and non-bank financial institutions using so called APIs (Application Programming Interfaces).

For established banks and financial service organizations, it's presented itself as the perfect opportunity to drive revenue by service as well as business model innovation. However, it demands embarking on an enterprise transformational journey towards open banking in a comprehensive manner. Simultaneously, the journey must relate to technological enablement, strategy, and business model development as well as corporate culture transformation materializing in people behavior, processes, and guidelines.

To succeed here while mastering immense complexity, we suggest thinking big and starting small but fast with so-called "Proof of Value" (abbreviated as "PoV"). The key levers in this context are the enforcement of advanced API management and enterprise agility. They reinforce each other – while enterprise agility fosters a mindset of collaboration fueling advanced API management, the latter improves the availability of data for the benefit of the first one.





I. Open Banking – New Opportunity Ahead

The global market size for open banking accounted for \$7,295 million in 2018 and is expected to reach \$43,152 million by 2026, registering a CAGR of 24.4% from 2019 to 2026, according to Allied Market Research.¹

The market growth is driven by service and business model innovation – often based on collaboration between various parties – resulting in differentiating customer experiences. Open banking is becoming a significant source of innovation poised to reshape the banking industry. However, many established banks and financial service organizations are required to share control of its customer account data. While some fear a potential loss in revenue, many others also see new opportunities for service and business model innovation by embracing the concept of open banking. The latter one is a banking practice that provides third-party financial service providers open access to consumer banking, transaction and other financial data from banks and non-bank financial institutions using application programming

interfaces (so called APIs). **Take Mastercard, for instance, who expanded its services beyond payments by adding complementary offers such as offer consent management, data governance and security services based on new partnerships. Iconic brands such as Apple and Goldman Sachs collaborated to launch Apple Card integrated into the Apple Pay mobile wallet. Apple Pay is already acceptable to more than 70% of US merchants. According to Forbes, Apple will have the second-highest market share among young millennials behind Capital One.²**

The concept of open banking understands the ability of a user to pass their financial data to some third-party providers (TPPs) and hence stands for a high(er) level of customer-centricity, openness, and cooperation, as Figure 1 suggests. Established banks and financial service organizations must leap business model redefinition to unleash the value potential and go from today's legacy to open banking.

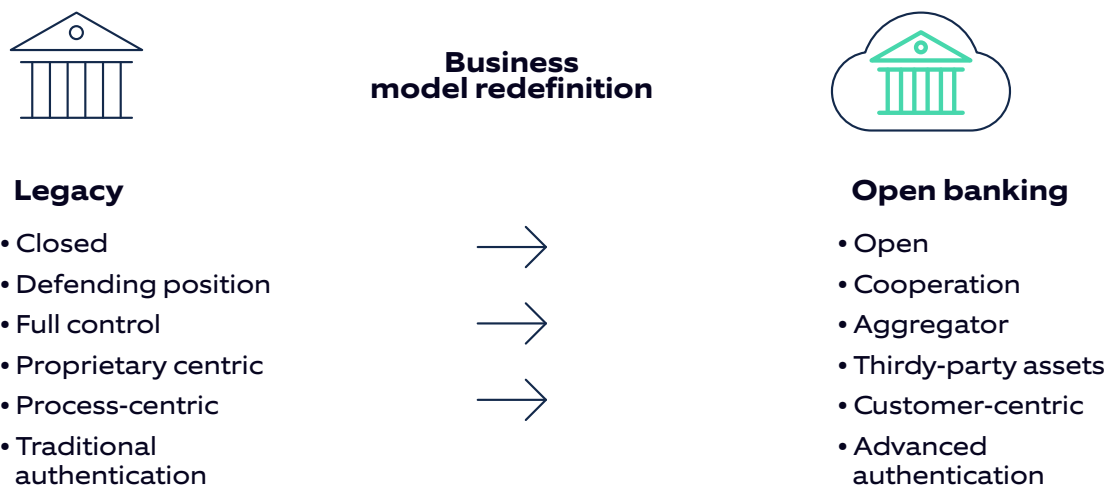


Figure 1: Transition from Legacy to Open Banking

¹Source: <https://www.alliedmarketresearch.com/>

²Source: <https://www.forbes.com/>



II. Framework for Transformation Management

The transformation from legacy to open banking is comprehensive and impacts multiple dimensions simultaneously. First and foremost, we see a need for transformation on the technological layer. Especially for banks, this urgency for change gained more traction thanks to the rapidly upcoming “tech forward” movements for instance, the development of the cloud or before the advent of the “smartphone” and apps that produce faster and better possibilities to connect with the customer directly.

Considering the substantial rise of new fintech businesses in the last few years, established banking and financial institutions are confronted with a new breed of competition. State-of-the-art Fintechs bring a new skillset to the financial market. This skillset stems from a deep-rooted understanding of the technological domain and a sound understanding of the latest technologies that they can leverage to offer their services to the customer. The combination of these skillsets – materializing in business model design and strategies as well as processes – allows them to quickly adapt and respond to the changing customer demands through organizational agility and putting customer experience at the center of their company’s mission and philosophy.

Over the past decades, established banks and financial service organizations relied on solid structures and processes, and this expertise still is to be seen as their core strength. With the rapid change in technologies towards Open Banking, successful transformation needs to consider these three key areas:

- **Technology:** Applying new and suitable technologies to minimize complexities
- **Strategy:** Putting the customer experience to the front via adaptive strategies
- **Culture:** Evolving an open corporate culture to attract and retain talent

Based on our experience in helping business owners achieve outstanding results, we came to understand the driving factors behind such transformation. Setting up a deliberate framework of transformation is essential. It is the foundation of sustainable change. A framework that needs to account for three essential dimensions of transformation to establish the agile values and mindset (Figure 2):



Figure 2: Framework for Transformation

1. Corporate culture: Working on the organizational identity, vision, and values sets direction for collective and individual behavior. A change in this dimension is required to anchor change of organization, strategy, and tactics in newly established behaviors.

2. Strategy and outcomes: Traditional ways of defining market strategy, business goals and budgets are too rigid. Hence, they need to be refined to incorporate a customer-centric view and an inherent adaptability. Shifting the ways of thinking about strategy is critical to become adaptive in the first place.

3. Operational tactics: The way of working within a company needs to incorporate efficient communication and suitable processes that allow for the intended responsiveness.



Instead of bureaucratic processes human-driven work practices that allow change of (strategic) priorities while keeping business excellence high are called for. Cultural and strategic intents are void without the ability to efficiently execute the required actions.

Each dimension is the foundation for the next one. Once established a change in one dimension has an impact on the other. Hence, these dimensions of sustainable transformation are intertwined. As a result, it is mandated that a framework for transformation not only accounts for according to action on all layers but is carefully designed for that.

To achieve these transformational shifts, you need to deliberately design all initiatives of changes based on the dimensions. Furthermore, such a framework needs to incorporate a driver of change.

Driver of change

To succeed instead of letting a transformation initiative run dry, establishing a driving force within the organization to bring forward all initiatives of change and must be considered on top-level agendas within the company.





III. Key Levers for Open Banking Transformation

Embracing the concept of open banking to secure and drive revenue by service as well as business model innovation is a multi-faceted and multi-layered challenge. At the core of this transformative journey, it's about making a shift towards agile value and working culture to successfully embrace API-enabled open banking. Beyond corporate cultural, this journey substantially impacts business model and strategy as well as operational tactics materializing in governance, processes, and IT (technology).

This white paper discusses those aspects by focusing on advanced API management and enterprise agility as two of key levers for the bespoke transformative journey required to embrace the concept of open banking. Figure 3 provides an overview on the above-mentioned major elements.



Figure 3: Embracing Open Banking - an overview



III.a. Key Lever “Enterprise Agility”

Enterprise agility focuses on the unification of the business aspects and IT technologies that have different paces in their evolution (especially the technological developments in the last few years making huge leaps). It connects Business Agility and Agility in IT, it provides both with the necessary foundation to enable people and value streams. Figure 4 illustrates the Nagarro view on Enterprise Agility and its interplay with Business Agility and Agility in IT.

The foundation, on this level, must be to focus on the customer and focus on common value streams while providing the people with the necessary toolkit for long lasting change.

We recommend three aspects established banks and financial service organizations must focus on in this context:

- **Align the company with a vision and to enable and empower people.**
- **Focus and analyze the customer needs and market trends.**
- **Build an adaptive and learning organization to keep up to the everchanging customer needs.**

Keeping these three aspects in mind, banks can maintain their core strength for instance a strong customer base and play a leading role in the field with their stable capabilities simultaneously evolve as a company to stay relevant in the market for their customers as well as employees. When enterprise agility is taken seriously, the result is a holistic change that guarantees many benefits needed to secure a foundation for future transformations that include:

- **Being an attractive employer to attract and retain new potential talent in the company and to keep up with the new way of working**
- **Driving stable and long-lasting change with leaders that act as role models for value-driven working**
- **Fast and efficient adaptations for market and customer changes**

While we have this 3-level approach for a holistic change in companies, in majority cases the necessity to change on the enterprise level (or how many times people like to call it management level) is mostly downplayed by the companies themselves.



Figure 4: Enterprise Agility connects Business Agility and IT Agility



III.b. Key Lever “Advanced API Management”

Next to enterprise agility, the enterprise-wide enforcement of advanced API management is another major lever to drive strategic transformation into the future of banking. Both aspects are comprehensive in nature as well as affect several fields of action as shown in Figure 5. However, both aspects reinforces each other – enterprise agility fosters a mindset of collaboration fueling advanced API management, the latter improves the availability of data for the benefit of the first one.

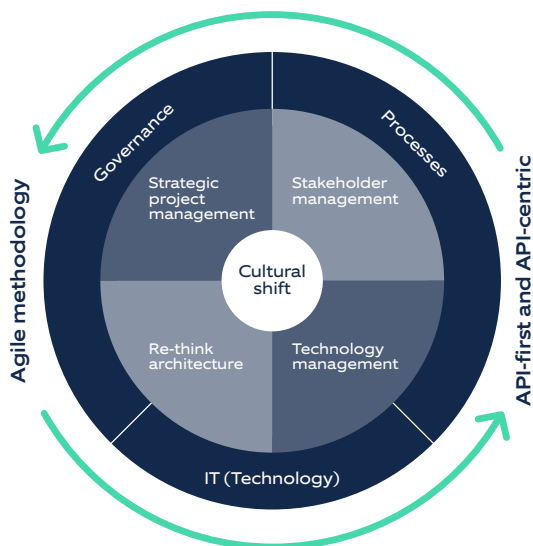


Figure 5: Framework on API-Enabled Transformation

At Nagarro, we understand advanced API management as the deliberate management of APIs throughout its lifecycle to maximize value for external and internal stakeholders, predominantly API consumers and API producers. In this context, APIs are marketable B2B products, not just enablers for data exchange or application integration.

The nucleus of advanced API management is a platform as technical foundation. However, this

lever is so much more than just an IT topic. The notion of “API-first” also shapes the business strategy and underlying business model design by embracing strong(er) ecosystem interaction so that end customers can benefit from a broader, better tailored or even mass customized choice of offers and engagement types.

A strategy that typically requires a shift in corporate culture. The key elements of a new culture like this are open product design and development, streamlined processes for intra-organizational and inter-organizational collaboration, an enterprise-wide alignment on governance and clear ownership regarding data as well as APIs.

Typically, today’s banks and financial service organizations already use a noteworthy number of APIs predominantly within and increasingly beyond organizational boundaries. Among other, the latter is driven by the upcoming of open banking as an ecosystem-centric business strategy complemented by regulatory standards for the secure exchange of the consumer’s financial information.

There is no single unified standard but only a few well-recognized ones such as PSD2. The revised “Payment Services Directive” (abbreviated as PSD2) is a European regulation that requires banks and financial service organizations to create mechanisms to enable third-party providers to work securely, reliably, and rapidly with the bank’s services and data on the behalf and with the consent of their customers.³

Although PSD2 does not explicitly require established banks and financial service organizations to use APIs to meet their regulatory obligations, most believe this is the best way forward.



An enterprise-wide platform approach to manage APIs

Often, we see that an approach to manage APIs is not in place often due to lack of commitment and hesitancy to change. We recommend an enterprise-wide platform approach to manage APIs throughout the lifecycle in an efficient and compliant manner by leveraging advanced functionality on API governance and policy enforcement, security, provisioning, analytics, and monetization.

Once banks and financial service organizations are ready to address this gap, we suggest starting a platform initiative with a narrowly defined scope on functional domain or use cases and incrementally expand this scope into enterprise-wide coverage as a technical foundation for seamless and real-time data exchange. A data exchange that promotes interoperability fluid in the context of open banking, from institution-driven interoperability to customer-driven interoperability. Thus customers can directly retrieve their banking data via APIs from a bank or financial service organization and then share this banking data directly with organizations even outside the financial services industry.

Embracing API-first

Beyond the selection, design, and implementation of a platform as technical foundation for advanced API management, we strongly suggest embracing “API-first” as the guiding principle particularly in product development and management. An “API-first” approach involves developing APIs that are consistent and reusable that can be accomplished by using an API description language to establish a contract for how the API is supposed to behave.

Establishing a contract in this context entails brainstorming about the design of an API, it typically involves additional planning and collaboration with relevant stakeholders. Against

this background, banks and financial service organizations can leverage APIs to develop applications and maintain them efficiently for all devices, platforms, and operating systems as they allow to break down capabilities into individual, autonomous services – microservices – that help ensure a good user experience (UX) on all devices.

Beyond an improved customer experience, an “API-first” approach to building products provides several benefits. Some include:⁴

- **Development teams can work in parallel**
- **Optimize app development costs**
- **Boost in speed to market**
- **Ensure good developer experiences**
- **Reduce failure risks**

Finally, an “API-first” approach also fosters modular product architectures so that various teams and organizations can overcome traditional barriers in collaboration and team up in the context of new product development. Different suppliers can contribute individual components to overall products based on modular product architectures that create superior customer experiences. The superiority of these products results from the ability to accomplish much better mass customization and bring forward unique product configurations, respectively.

To take complete advantage of an “API-first” approach in the context of digital transformation as discussed before, we’ve developed a “full stack” view and positioning regarding the most relevant layers in advanced API management. Figure 6 provides a high-level description of these layers:



1. API strategy, governance, and organizational development <ul style="list-style-type: none">• "Business enabling" API strategy, value metrics and platform selection• Enterprise-wide API governance and stakeholder mobilization• Set-up and empowerment of a central API CoE/unit	2. API product and developer portal/marketplace development <ul style="list-style-type: none">• "API as a product" mindset, moving from project to product mindset• Developer portal concepts with focus on products, stakeholders• Transition towards more open, advanced API marketplace	3. API management platform design and implementation <ul style="list-style-type: none">• Translation of business API strategy into design requirements• Best practice design and implementation of API management platforms• Flanking implementation by testing, training, and incubation	4. API operations and life-cycle management including managed services <ul style="list-style-type: none">• Insight-driven API life-cycle management on the basis of API monitoring• Integration of 3rd party services to drive customization and automation• Flanking of APIM platform-centric solution by smart DevOps practices	5. API-enabled enterprise integration and architecture design <ul style="list-style-type: none">• Analysis of the current IT landscape and anticipated change needs• Embracing API-first and microservices principles in architecture• Definition and implementation of value-based, incremental migration plan
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Figure 6: Framework on "Full Stack" API Management

To unleash the value potential of open banking-centric product and business model development, we suggest to holistically think about it from API strategy down to the API-enabled architecture. The different layers are – at least to some extent – interrelated and influence each other. The success in advanced API management hereby drives enterprise agility and vice versa as they reinforce each other.



IV. Recommendations for Decision-Makers

Embracing the concept of open banking is an opportunity for established banks and financial service organizations to drive revenue by service as well as business model innovation as concrete examples such as Mastercard.

So here is what we recommend considering while taking this transformative journey:

- **It's a multi-facetted and multi-layered challenge to embark on.**
- **A cultural change is required from a traditional, vertically integrated, and static setup to a more dynamic environment, where APIs offer ubiquitous and straightforward connectivity.**
- **Data and APIs are the new building blocks of an open approach enabling customer-driven rather than product-driven innovation, found at the intersection of multiple offerings, and often goes beyond banking.**
- **Identify, evaluate, and select suitable use cases to unleash the value potential of open banking by running a so-called proof-of-value, abbreviated as "PoV"**
- **When moving to project stage, we strongly recommend to holistically think about open banking regarding technological enablement, strategy, and business model development as well as corporate culture transformation materializing in people behavior, processes, and guidelines.**

The "PoV" allows not only for indicative value quantification and requirement as well as platform validation but also for change management initialization. These change management initiatives are typically required to enforce an enterprise-wide mandate to centrally establish and manage such an API management platform including governance and policies, to define and implement an internal collaboration model and related processes as well as to foster people's behavior towards an 'owning and sharing data' mindset and respective management approach.

The "PoV" phase is important to gather learnings that might require iterations to build up sufficient confidence to set the stage for a dedicated project on open banking. The potential output is the launch of a complementary offering based on data sharing within the partner ecosystem. With further projects, a portfolio of complementary offering ends up strengthening the traditional positioning of an established bank and financial service organization, respectively.

When it comes to open banking, Nagarro believes in thinking big and fast but starting small. The technical foundation in this context is an API management platform that needs to meet company-specific requirements and to fit to the overall IT strategy.



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