

Open Banking, Open Finance and Open Data

Point of view and lessons learned from global initiatives



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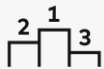
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The Open Banking transformation around the globe is regulatory or industry driven



INNOVATION



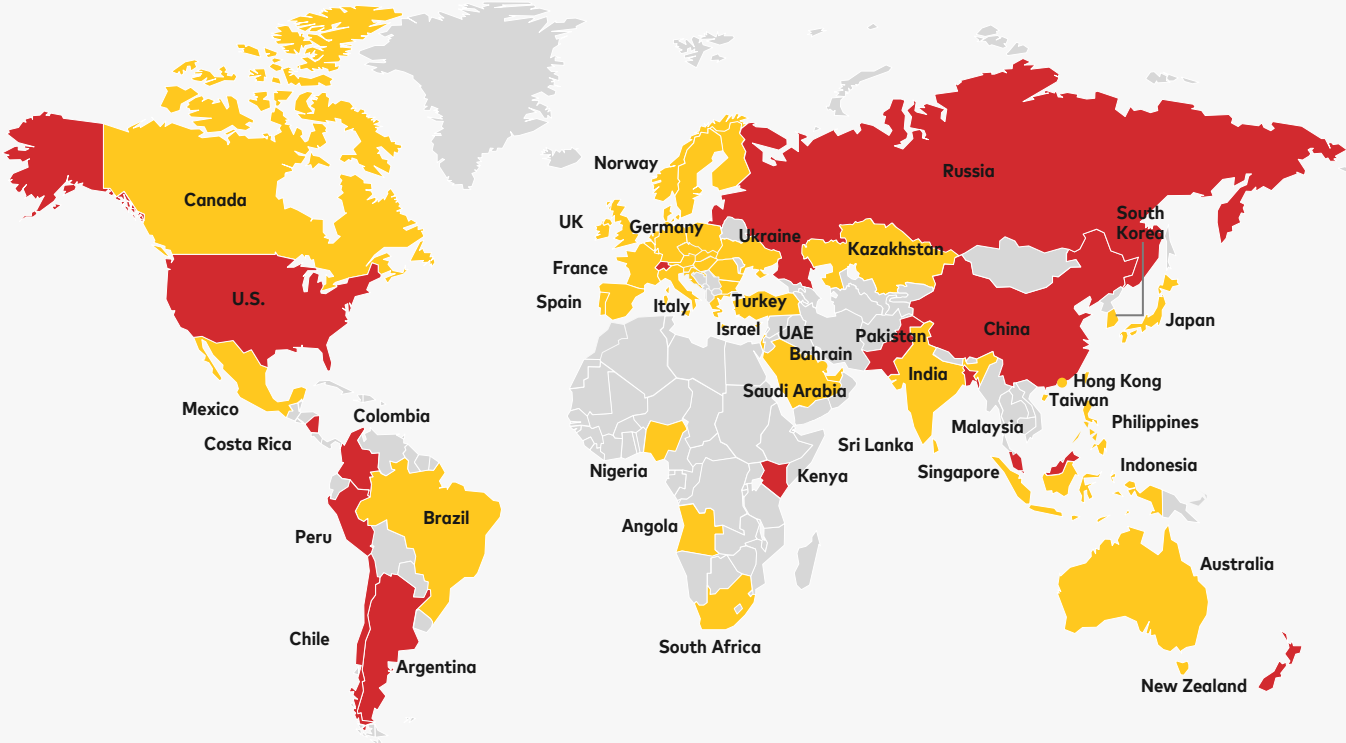
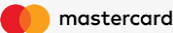
COMPETITION



FINANCIAL INCLUSION



CUSTOMER EXPERIENCE



Regulatory driven

Open Banking through regulator-endorsed standards, e.g. for account information and/or payment initiation

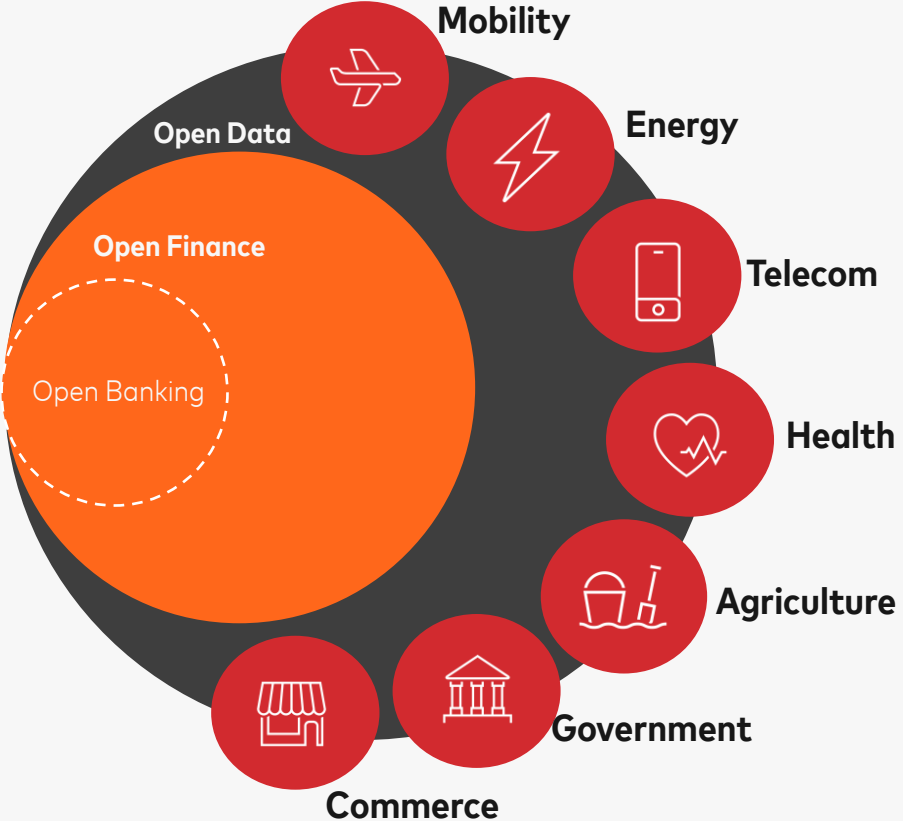
Industry driven

Open Banking through bilateral and/or voluntary industry associations and standards for competitive differentiation

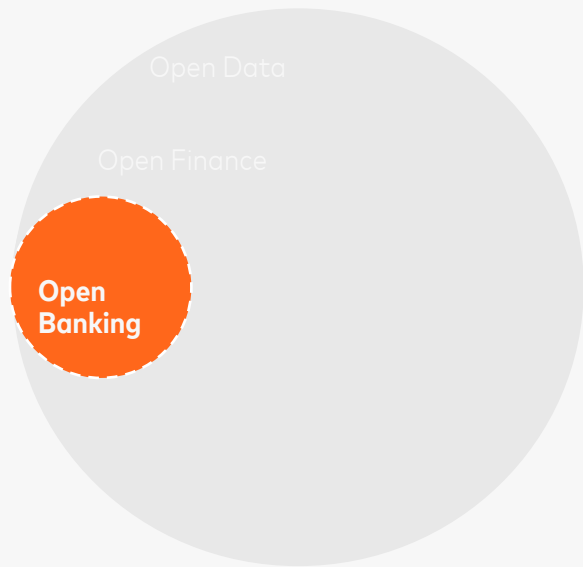
In some countries the Open Banking product scope encompasses primarily payment accounts, whereas in other countries a wider range of products is in scope

	Open Payments / Banking	Open Finance	FINA Open Data AL
	Main focus on payment accounts	Product scope beyond payment accounts, e.g. loans, mortgages, credit cards, investment funds	Product scope beyond financial products, e.g. telco, utilities
REGULATORY DRIVEN	<ul style="list-style-type: none"> EU Open Finance Framework by 2022 Open Finance Framework in development Japan² Bahrain 	<ul style="list-style-type: none"> Brazil Mexico Hong Kong³ India 	<ul style="list-style-type: none"> Australia
INDUSTRY DRIVEN	<ul style="list-style-type: none"> Switzerland 	<ul style="list-style-type: none"> USA 	<ul style="list-style-type: none"> China

The evolution from Open Banking, to Open Finance and Open Data



Open Banking is the standard global approach for openness in banking...



Roles

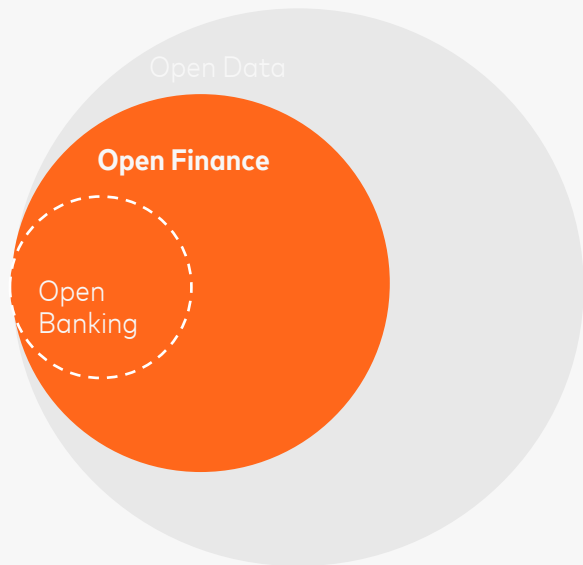
TPPs e.g. AISP, PISP (banks, fintechs, other PSPs)

Use Cases

- **Personal finance manager** (PFM, standard retail customer)
- **Business finance manager** (BFM, liquidity management, automated accounting and bookkeeping for small businesses)
- **Credit scoring** for loan application or credit cards
- **Payment initiation on bank accounts** (A2A payments to e.g. pay credit card bills, insurance premiums and donate and in some cases ecommerce checkout)



... followed by Open Finance as the new gold standard ...



Roles

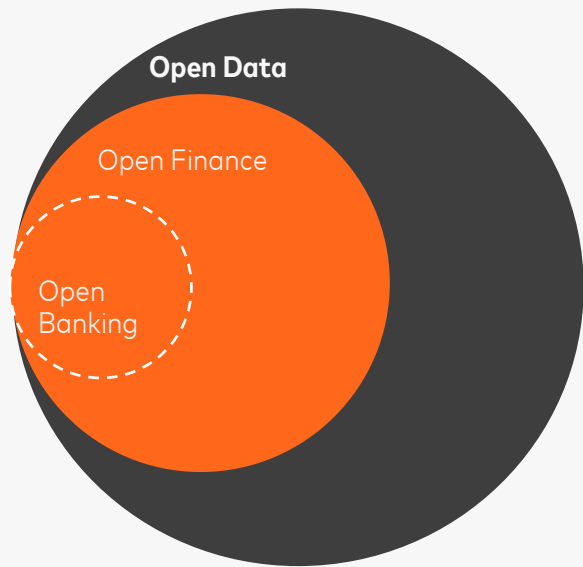
OB + TPPs e.g. insurances, telcos, wealthtechs, insurtechs, devices (Machine-to-Machine, IoT)

Use Cases

- **Enhanced PFM/BFM considering all asset classes** (accounts, stocks, investments, insurances...)
- **Transaction initiation beyond current account** (e.g. buy and sell stocks, buy or terminate an insurance)
- **Compare product features and pricing, and switch finance products** (such as mortgages, loans, savings accounts, insurances and pensions)
- **Automated Sweeping to move money between customer's accounts and optimise liquidity** and make smart adjustments
- **Enhanced credit scoring for BNPL, instant loan at POS**
- **Personalised insurance based on real-time financial situation**
- **Instant on-demand insurance for specific ad-hoc events**
- **Machine-to-machine real-time A2A micro-payments** triggered by customers and devices
- **Variable recurring payments** to allow e.g. a streaming service to automatically initiate recurring payments for a subscription



... with a full unliashing its potential in an Open Data ecosystem



Roles

OF + any other industry player e.g. real-estate, energy, health, logistics, big tech, greentech

Use Cases

- **Open Finance as a core infrastructure for Open Data**
- **All industry players open up product and pricing** (e.g. energy and telco products and prices), **transaction history** (e.g. energy consumption data)
- **Transaction initiation beyond banking** (e.g. apply to open up a new telco or energy plan)
- **Compare products and pricing, and switch products**
- **Sustainability perspective:** e.g. analyse consumption data or real-estates, offer **optimised financing products to buy environmental friendly cooling and heating systems**



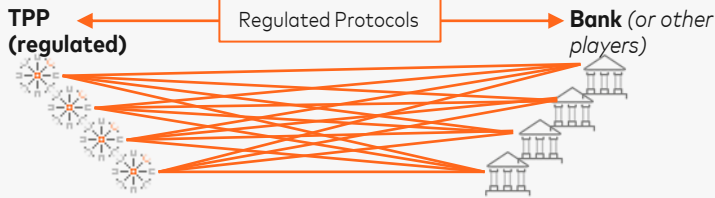
Underlying infrastructure can evolve in a number of ways as we have seen across markets globally

Regulated: EU, Bahrain Model

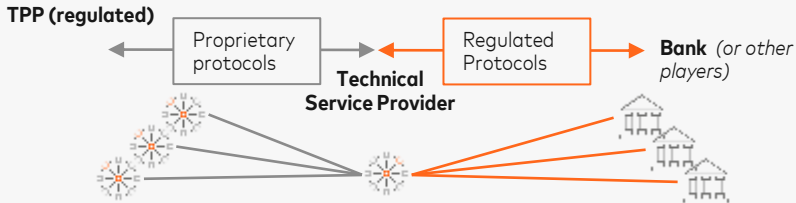


General rules set in law; standards worked out by the industry

Model 1: TPP connects directly to the banks



Model 2: TPP uses an unregulated intermediary to connect

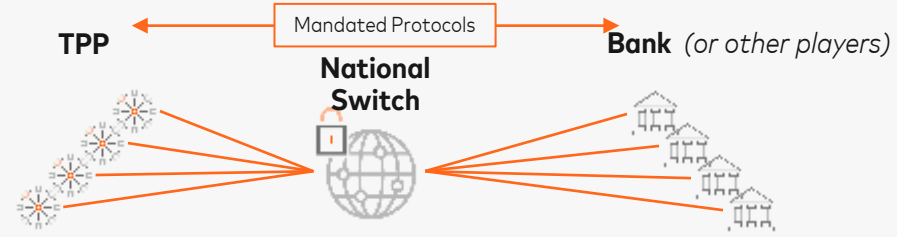


Single Operator: India Model



Dependence on National Switch by all ecosystem participants

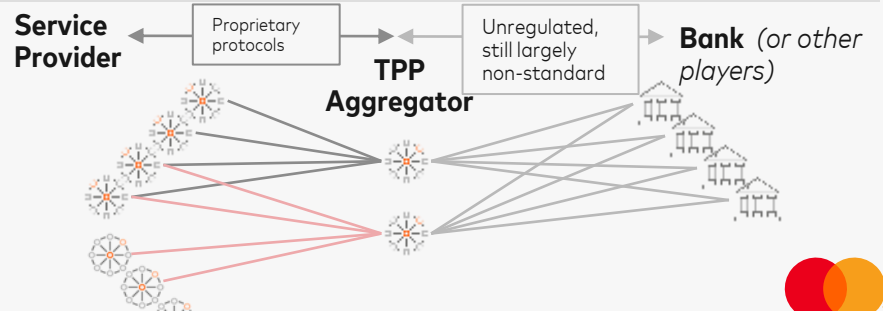
Model 1: TPP is the service provider



Open- Industry driven: US Model



Complete dependence on market forces; Bank-side APIs slowly being standardized (FDX) but remain largely non-standard today



What do the different models mean... (1/2)



Policy Dimension	Description	Open – Industry Driven e.g. USA	Regulated For e.g. EU, Bahrain	Single Operator For e.g. India
1 API Standards	Define the specific connectivity standards	Individual institutions establish own standards, some industry-wide standard bodies (e.g. FDX).	Certain standard mandated (e.g. main UK banks) or left to industry to define (e.g. PSD2 across Europe – standards set by Berlin Group, Polish API, ...).	Designates a national ecosystem player like the national switch to decide and operate the standards
2 Intermediary API switches/ aggregators	Build and provide APIs to banks and TPPs for connectivity	Multiple switches/aggregators present to facilitate connections between TPPs and banks. In many markets, direct connections also established by some players		Single operator sits in the middle of the ecosystem
3 TPP registration / verification	Party responsible to verify, permit or license a TPP to operate in market	No formal process.	Regulator/central bank/other central entity responsible for verifying and giving out licenses	Regulator/central bank/other central entity responsible for verifying and giving licenses. Central Operator validates that the TPP has valid license.

Take-aways and learnings

- Convergence around a **set standard helps drive industry adoption**, but standard design is important
- API design requires **collaboration across the industry** on an ongoing basis (not just one-off) and not prescriptive
- Single operator model may be costly and slows adoption of new use cases
- **Aggregators play an important role** and should be allowed to operate
- Essential to have a clear and transparent process for banks to verify the identity of the TPP
- Any regulatory licensing process needs to balance speed/adaptability with rigour



What do the different models mean... (2/2)



Policy Dimension	Description	Open – Industry Driven e.g. USA	Regulated For e.g. EU, Bahrain	Single Operator For e.g. India
4 Commercial Model	What is the commercial model between TPP, banks, and customers?	TPP/aggregator sometimes pays the bank for access. Intermediaries/aggregators operate on commercial basis.	Usually regulated, extent varies. In EU, no payment needed between requestor and bank. Customer can be charged but rules require transparency before txn	Both requestor and bank pay fees to central operator
5 Transaction Security Model	Framework to ensure security of a transaction	For API-based connections, driven by the respective API standards, typically involving tokenization, secure authentication, modern data encryption at transit and rest etc. Very variable for other, typically legacy access methods.		As decided by single operator. Requestors and banks might be able to set additional controls
6 Disputes and Exception Handling	Ongoing dealing with issues that arise	Based on bilateral agreements	Typically, broad framework but TPPs have to determine the exact solutions	Potentially operated centrally, or left to the industry to figure out

Take-aways and learnings

- Data providers being paid for access is desirable, as it **creates incentives for e.g, the banks to keep improving access**
- Free market is best placed to arrive at sustainable pricing

- Security is key for successful, scalable opening up
- Fully expect conversion to **increased levels of security**, and requirements being set by **standard bodies or individual institutions** – harmonization at industry level encouraged

- Due to the need to handle issues (data sharing and transactions) at scale, we would **expect dispute rules to be most effectively handled centrally across the entire industry**

Principles and considerations when going beyond Open Banking/Payments



New Entrants

In Open Banking, roles are usually defined for banks, fintechs, PSPs as AISP, PISP and ASPSP

However **appropriate standards, guidelines, systems and controls** similar to Open Banking are to be defined in the **Open Finance and Open Data space** – including operational **resilience requirements and security architecture**



Liability Framework

Define rules to avoid and tackle cases of **inaccurate data, misuse of data, stolen identity**

Ensure the establishment of a **complaints/dispute resolution system** for data access (read) and transaction initiations (write)

Customer experience: **Unified liability framework and avoid a patchwork of regulated and unregulated activities** across industries



Consent & Identity

Consent management platform: framework of data rights around granting and withdrawing of consent including the appropriate duration **across industries**. User controls right to share data securely

Identity service across industries: enhance existing or build an interoperable identify service that works the same way for any use case



Principles over Prescriptions

Balancing regulatory definitions with market considerations will permit a focus on measures that can accelerate implementation and adoption

Real success will come from **regulators being active participants in working groups to support the innovation** process and adjusting their regulations to accommodate as appropriate.



Principles and considerations when going beyond Open Banking/Payments



Phased Implementation

Open banking remains a transformational, long-term, structural undertaking.

A gradual expansion of functionality will ensure all stakeholders have sufficient time to address local market and technological challenges.



Customer Data Rights

In sync with privacy regulations

Countries exploring new privacy regulations **might consider automatically embedding open finance/data regulations**

Global security standards are often considered a basic requirement for all data sharing regardless of specific privacy regulations



API Standards

Standards for APIs, data processing and storing, and cybersecurity will ideally emerge naturally from a flexible regulatory framework

Collaboration between stakeholders across different industries will help **extend interoperability**



Level Playing Field

All stakeholders have **sufficient commercial and economic incentives** to support open banking.

Revenue models around a **personalized investment product to a few high earners as it will come from assisting underbanked consumers**

Avoid restrictions for fintechs and banks being expected to carry the financial burden and reputational damage

